

1861

1861

1861



Document Control

Document Title : Ergovision 1080 LR Service Manual

Issue Number: 001

Issued By: Dick Menhinick

Date of Issue: 01/10/94

Revisions:

1234

1. CATEGORY COLOR LANDSCAPE
2. CRT SIZE: 20"
 PHOSPHOR: P22 MEDIUM SHORT
 DEFLECTION ANGLE: 90°
 DOT PITCH 0.28 mm
 X' MISSION RATE: 53.5%
3. f-SYNC. MULTI-SYNC
 f-H: 31 -- 82 KHZ f-V: 50 -- 110HZ
4. RESOLUTION

MODE NO	Hf KHz	Vf Hz	DOT x LINE
01	79.976	75.02	1280 x 1024
02	74.645	70.02	1280 x 1024
03	59.880	74.85	1024 x 768
04	58.230	72.245	1024 x 768
05	56.476	70.07	1024 x 768
06	48.044	72.14	800 x 600
07	46.968	75.15	800 x 600
08	37.736	72.57	640 x 480
09	37.383	74.77	640 x 480
10	31.47	70.08	640 x 350
11	31.47	70.08	640 x 400
12	31.47	59.94	640 x 480

5. POWER SUPPLY :
 - * A/C LINE VOITAGE RANGE: 88 VAC - 132 VAC , 180 VAC - 264 VAC
 - * A/C LINE FREQUENCY RANGE: 50+-3 HZ, 60+-3 HZ
 - * POWER CONSUMPTION : < 180 W
 - * DEGAUSS: AUTOMATIC AND MANUAL
 - * POWER MANAGEMENT:

APM STATE	POWER SAVINGS	AUTOMATIC RECOVERY TIME
ON	NONE	NOT APPLICABLE
STAND-BY	MINIMAL<25W	SHORT RECOVERY
SUSPEND	SUBSTANTIAL<25W	LONGERRECOVERY ALLOWED
OFF	MAXIMUM<5W	SYSTEM DEPENDENT

NOTE: THE POWER INDICATOR LED COLOR IS GREEN IN THE ON STATE, ORANGE IN STAND-BY, SUSPEND AND IN THE OFF STATE.
6. EXTERNAL CONTROL POWER SWITCH ADVANCED DIGITAL CONTROLS
7. MAGNETIC FIELD H=0.01 V=0.45 GAUSS

INDEX

=====

1. SAFETY NOTICE -----	P 1
2. ALIGNMENT PROCEDURE -----	P 2-9
3. BILL OF MATERIAL -----	P 10-27
4. SCHEMATIC DIAGRAM -----	P 28-30
5. PCB LAYOUT DRAWING -----	P 31-35
6. PCB WIRE CONNECTION DRAWING -----	P 36
7. MECH EXPLODED VIEW -----	P 37

SAFETY NOTICE

=====

This service manual is prepared to assist engineers or technicians of repair centers who are in charge of servicing the monitors in the field. The service manual, therefore, is not for users but for those technically oriented service engineers from repair centers who are capable of servicing the unit.

This service manual explains the monitor's outline, detailed features, functions and basic construction of the individual unit or circuit, alignment procedure and the detailed TROUBLE-SHOOTING procedures.

The contents should be read and completely understood before attempting service.

- 1) Make sure the power cord is disconnected before opening the BACK-COVER of the monitor and replacing any parts in the unit.
- 2) While the monitor is in operation, do not attempt to connect or disconnect any wire.
- 3) When the power is on, do not attempt to short any portion of the circuit. This shorting may cause damage to the transistors, ic's or other parts in the unit.
- 4) Operation of the monitor with the cabinet or the BACK-COVER removed involves a shock hazard. The repair or service work on these models should only be performed by those who are thoroughly familiar with the precautions necessary when working on high voltage equipment.
- 5) Do not install, remove, or handle the picture tube in any manner unless shatterproof goggles are worn. People not so equipped should be kept away while picture tubes are handled. Keep the picture tube away from the body while handling, & donot lift the picture tube by the neck.
- 6) When replacing a chassis in the monitor, all the protective devices must be put back in place, such as, barriers, NON-METALLIC KNOBS, adjustment and compartment shields, and isolation RESISTOR-CAPACITOR, ETC.
- 7) When service is required, observe the original lead dress. extra precaution should be taken to ensure correct lead dress in the high voltage circuitry area.
- 8) Always use the manufacturer's replacement parts. Especially critical parts as indicated on the circuit diagram should not be replaced by other manufacturer's. parts furthermore, where a short circuit has occurred, also replace those parts that indicate evidence of overheating.
- 9) Before returning a serviced monitor to the customer, the service technician must thoughtly test the unit to be sure that it is completely safe to operate without danger of electrical shock, and must ensure that no protective device built into the monitor by the manufacturer has become defective, or inadvertently defeated during servicing. Especially, the resistance of the connection between the protective earthing terminal and the parts required to be earth shall not exceed 0.1 ohm.

FINAL ALIGNMENT PROCEDURE
=====

THIS ALIGNMENT PROCEDURE IS USED TO ADJUST / TEST THE PICTURE PERFORMANCE IN ORDER TO OBTAIN OPTIMUM CONDITIONS THE FOLLOWING SEQUENCE MUST BE FOLLOWED.

- * WARM UP FOR 30 MINUTES BEFORE PERFORMING EVERY TEST AND ALIGNMENT, CRT FACES TO EAST, ROOM BRIGHTNESS IS TO BE AT 500 LUX. MAKE SURE THE ANALOG SIGNAL LEVEL IS AT 0.7 Vp-p AND THEN INPUT THE SIGNAL.
- * THE FOLLOWING IS THE INITIAL SET UP BEFORE THE AUTO ALIGNMENT.

(a) PRE-CHECK AND ADJUSTMENT

1. ADJUSTMENT OF THE HIGH VOLTAGE :
 - a. INPUT 79KHZ/77KHZ 1280x1024 CROSS HATCH PATTERN, PRESS "6500" BUTTON OF THE FRONT CONTROL MEMBRANE SWITCH ONCE.
 - b. SET BOTH CONTRAST AND BRIGHTNESS LEVEL TO MAXIMUM. VERIFY IF THE HIGH VOLTAGE READS 27KV +/- 0.2KV, OTHERWISE ADJUST VR1.
2. G1 VOLTAGE SET-UP :
 - a. INPUT 59KHZ 1024x768 CROSS HATCH PATTERN.
 - b. SET BOTH CONTRAST AND BRIGHTNESS LEVEL TO MAXIMUM. VERIFY IF THE G1 VOLTAGE READS -45V +/- 0.5V, OTHERWISE ADJUST VR305.
3. X-RAY CHECK:
 - a. INPUT 59KHZ 1024x768 CROSS HATCH PATTERN.
 - b. PARALLEL ON 27KR RESISTOR TO R325. THE SCREEN DISPLAY SHALL BE DISAPPEAR.
 - c. POWER OFF THE U.U.T AND REMOVE 27KR RESISTOR.
 - d. POWER ON THE U.U.T AGAIN. THE U.U.T SCREEN SHALL BE DISPLAY.
4. A.C.L. CIRCUIT SET-UP :
 - a. INPUT 59KHZ 1024x768 FULL WHITE PATTERN.
 - b. ADJUST VR304, THE SCREEN DISPLAY SHALL BE CHANGED. THEN TURNING VR304 COUNTERCLOCKWISE UNTIL IT REACHES THE END.
5. HORIZONTAL AND VERTICAL SIZE PRE-ALIGNMENT:
 - a. INPUT 79.976KHZ FOR CAM-6001 AND 77.172KHZ FOR CAM-6002 (1280*1024) FULL WHITE PATTERN.
 - b. PRESS THE "HORIZONTAL" SIZE KEY, ADJUST PICTURE SIZE TO MAXIMUM. THEN ADJUST VR306 GET THE HORIZONTAL SIZE EQUAL TO FULL SCREEN (380mm).
 - c. INPUT 31.47KHZ (640*350) FULL WHITE PATTERN.
 - d. PRESS THE "VERTICAL" SIZE KEY, ADJUST PICTURE SIZE TO MAXIMUM. THEN ADJUST VR201 GET THE VERTICAL SIZE EQUAL TO FULL SCREEN (280mm).
6. POWER SAVING VERIFICATION:
 - a. INPUT 59KHZ 1024*768 TIMING.
 - b. SWITCH OFF H-SYNC SIGNAL FROM THE SIGNAL INTERFACE BOX. THE POWER INDICATOR LED SHALL CHANGE THE EMITTING COLOR FROM GREEN TO ORANGE. SWITCH ON THE H-SYNC SIGNAL AGAIN.
 - c. SWITCH OFF V-SYNC SIGNAL. THE LED SHALL CHANGE THE EMITTING COLOR FROM GREEN TO ORANGE. SWITCH ON THE V-SYNC SIGNAL AGAIN.
 - d. SWITCH OFF BOTH H AND V SYNC SIGNALS. THE LED SHALL CHANGE THE EMITTING COLOR FROM GREEN TO ORANGE. SWITCH ON BOTH H AND V SYNC SIGNALS AGAIN.
9. SELF TEST CHECK:
 - a. PULL OUT THE I/O CABLE, THEN PUSH THE SELF TEST SWITCH TO ON. THE PICTURE SHALL BE DISPLAY ON C.R.T. (FULL WHITE)
 - b. PRESS "EXT-CONTRAST" KEY THE FULL WHITE BRIGHTNESS MUST BE CHANGE.

- c. THE SELF TEST CHECKED IS OK, THEN TURN BACK THE SELF TEST SWITCH TO OFF.
- (b) WHITE BALANCE AND BRIGHTNESS ADJUSTMENT: (FOR WHITE BALANCE MANUAL ADJUST USE ONLY)
 1. CONNECT SIGNAL I/O CABLE FROM U.U.T TO SIGNAL INTERFACE BOX. POWER ON THE U.U.T.
 2. CONNECT I2C BUS CABLE FROM PC-COMPUTER TO I2C CONNECTOR P809 ON THE D.M.C DAUGHTER BOARD OF THE U.U.T.
 3. FIRMWARE DOWNLOAD: (FOR FIRMWARE UPDATE ONLY)
 - a. PRESS "F2" COMMAND KEY FROM THE KEYBOARD ONCE AND WAIT UNTIL THE "LOADING" DECAL DISAPPEARS FROM THE SCREEN.
 - b. PRESS "ENTER" KEY TWICE AND WAIT UNTIL THE MAIN ALIGNMENT MENU POPS UP ON THE SYSTEM SCREEN.
 - c. RECYCLE THE POWER ON/OFF SWITCH OF THE U.U.T TO WRITE DATA TO EEPROM.
 4. RASTER CENTERING ADJUSTMENT: (FOR RASTER IS NOT IN THE CENTER OF THE BEZEL ONLY)
 - a. PRESS "CTRL" AND "F1" COMMAND KEYS SIMULTANEOUSLY. IF THE FIRMWARE REVISION OF THE U.U.T IS CORRECT, VDY4 WAVEFORM WILL POP UP ON THE SYSTEM SCREEN. OTHERWISE, A "WRONG FIRMWARE" DECAL WILL POP UP INSTEAD.
 - b. UTILIZE "INSERT" (+1), "DELETE" (-1), "HOME" (+5), AND "END" (-5) KEYS TO ALIGN THE RASTER IN THE HORIZONTAL DIRECTION.
 - c. PRESS "F8" COMMAND KEY ONCE TO SAVE THE CHANGE.
 - d. PRESS "8" NUMERICAL KEY ONCE AND REPEAT THE ABOVE STEPS TO ALIGN THE RASTER IN THE VERTICAL DIRECTION.
 - e. PRESS "F8" COMMAND KEY ONCE TO SAVE THE CHANGE.
 - f. PRESS "ESC" COMMAND KEY ONCE TO RETURN TO THE MAIN MENU.
 5. USE DEGAUSSING COIL TO DEMAGNETIZE THE C.R.T FACE OF THE U.U.T.
 6. VST1--VST8 SET-UP :
VST7,8 VOLTAGE HI (FF), VST4,5,6 VOLTAGE IS 1V (MEANS R,G,B DC VALUE SET UP); VST 1,2,3 VOLTAGE IS 2V (MEANS R,G,B GAIN SET UP)
 7. B GUN CATHODE AMPLITUDE
INPUT 59KHZ 1024x768 , COLOR GREY LEVEL PATTERN.
ADJUST THE EXT. BRI. KEY TO MIN.; THEN ADJUST THE EXT. CONTRAST KEY TO MAX.
ADJUST VR303 UNTIL THE AMPLITUDE IS AT 38 Vp-p.
 8. BRIGHTNESS OF RASTER SET-UP :
ADJUST THE EXT. BRI. KEY TO MAX.; AND ADJUST THE SCREEN VR UNTIL GET THE RASTER BRIGHTNESS IS APP. 1FL.
 9. 6500 k WHITE BALANCE ADJUSTMENT:
HIGH/LOW BRIGHTNESS COLOR TEMPERATURE ALIGNMENT :
 - a. LOAD VST1--6 VALUE.
 - b. INPUT 59KHZ 1024x768, 2" SQUARE PATTERN.
ADJUST VST7 UNTIL THE RASTER BRIGHTNESS IS APP. 0.08 FL.
ADJUST VST8 UNTIL 2" SQUARE BRIGHTNESS IS AT 2 FL.
ADJUST VST4,5 UNTIL $x = 0.313 \pm 0.01$, $y = 0.329 \pm 0.01$.
 - c. ADJUST VST7 UNTIL THE RASTER BRIGHTNESS IS AT 0.08 FL.
ADJUST VST8 TO MAX.
ADJUST VST1,2 UNTIL $x = 0.313 \pm 0.01$, $y = 0.329 \pm 0.01$.
 - d. REPEAT THE ALIGNMENT ACCORDING TO b & c PROCEDURE, UNTIL THE PICTURE BRIGHTNESS $x = 0.313 \pm 0.01$, $y = 0.329 \pm 0.01$.
 10. 9300k WHITE BALANCE ADJUSTMENT:
HIGH/LOW BRIGHTNESS COLOR TEMPERATURE ALIGNMENT :
 - a. LOAD VST1--6 VALUE.

- b. INPUT 59KHZ 1024x768, 2" SQUARE PATTERN.
ADJUST VST7 UNTIL THE RASTER BRIGHTNESS IS APP. 0.08 FL.
ADJUST VST8 UNTIL 2" SQUARE BRIGHTNESS IS AT 2 FL.
ADJUST VST4,6 UNTIL $x = 0.281 \pm 0.01$, $y = 0.311 \pm 0.01$.
 - c. ADJUST VST7 UNTIL THE RASTER BRIGHTNESS IS AT 0.08 FL.
ADJUST VST8 TO MAX.
ADJUST VST1,3 UNTIL $x = 0.283 \pm 0.01$, $y = 0.298 \pm 0.01$.
 - d. REPEAT THE ALIGNMENT ACCORDING TO b & c PROCEDURE, UNTIL THE PICTURE BRIGHTNESS $x = 0.283 \pm 0.01$, $y = 0.298 \pm 0.01$.
11. MAIN TIMING (59KHZ 1024x768) PERFORMANCE ALIGNMENT.
- a. RASTER CENTERING: ADJUST VDY4(H-DC), VDY8(V-DC), UNTIL THE RASTER IS AT THE CENTER OF THE BEZEL.
 - b. V-PHASE: PLACE THE VERTICAL PICTURE IN THE CENTER OF THE RASTER.
 - c. V-SIZE: MAKE THE VERTICAL HEIGHT APP. 270mm.
 - d. PINCUSHION GAIN: MAKE THE PICTURE TO BE A STRAIGHT LINE.
 - e. H-PHASE: CENTER THE PICTURE ON THE BEZEL, $|L-R| \leq 2 \text{ mm}$.
 - f. H-SIZE: MAKE THE HORIZONTAL WIDTH $360 \pm 3 \text{ mm}$.
 - g. PINCUSHION PHASE/BALANCE/WAVEFORM: PINCUSHION DISTORTION, MAKE THE PICTURE, $H \leq 1.5 \text{ mm}$.
 - h. V-LINEARITY: ADJUST VDY1 UNTIL THE VERTICAL LINE IS LESS THAN 7.5%
 - i. V-SIZE: MAKE THE VERTICAL HEIGHT $270 \pm 3 \text{ mm}$.
12. BRIGHTNESS ADJUSTMENT:
- a. INPUT 59KHZ 1024x768, NO VIDEO INPUT.
 - b. PRESS "6500" BUTTON OF THE CONTROL MEMBRANE SWITCH ONCE
 - c. ADJUST THE EXT. "BRIGHTNESS" KEY AND "CONTRAST" KEY TO MAX. THEN ADJUST THE SCREEN VR ON THE FBT OF THE U.U.T TO MAKE THE ANALYZER READS BETWEEN 0.9-1.5 FL.
 - d. ADJUST THE EXT. "BRIGHTNESS" KEY UNTIL, SET-UP THE RASTER BRIGHTNESS IS 0.08 FL.
 - e. INPUT FULL WHITE PATTERN, ADJUST EXT. "CONTRAST" KEY TO MAX. THEN ADJUST VR303 UNTIL TO MAKE THE DISPLAY CENTER BRIGHTNESS IS $32 \text{ FL} \pm 1 \text{ FL}$.
 - f. INPUT FULL WHITE PATTERN, ADJUST EXT. "CONTRAST & BRIGHTNESS" KEY TO MAX. THEN ADJUST VR304 UNTIL TO MAKE THE DISPLAY CENTER BRIGHTNESS IS $35 \text{ FL} \pm 1 \text{ FL}$.
- (c) WHITE BALANCE AND BRIGHTNESS ADJUSTMENT: (FOR WHITE BALANCE AUTO-ADJUST USE ONLY)
1. CONNECT SIGNAL I/O CABLE FROM U.U.T TO SIGNAL INTERFACE BOX. POWER ON THE U.U.T.
 2. CONNECT I2C BUS CABLE FROM PC-COMPUTER TO I2C CONNECTOR P809 ON THE D.M.C DAUGHTER BOARD OF THE U.U.T.
 3. FIRMWARE DOWNLOAD: (FOR FIRMWARE UPDATE ONLY)
 - a. PRESS "F2" COMMAND KEY FROM THE KEYBOARD ONCE AND WAIT UNTIL THE "LOADING" DECAL DISAPPEARS FROM THE SCREEN.
 - b. PRESS "ENTER" KEY TWICE AND WAIT UNTIL THE MAIN ALIGNMENT MENU POPS UP ON THE SYSTEM SCREEN.
 - c. RECYCLE THE POWER ON/OFF SWITCH OF THE U.U.T TO WRITE DATA TO EEPROM.
 4. RASTER CENTERING ADJUSTMENT: (FOR RASTER IS NOT IN THE CENTER OF THE BEZEL ONLY)
 - a. PRESS "CTRL" AND "F1" COMMAND KEYS SIMULTANEOUSLY. IF THE FIRMWARE REVISION OF THE U.U.T IS CORRECT, VDY4 WAVEFORM WILL POP UP ON THE SYSTEM SCREEN. OTHERWISE, A "WRONG FIRMWARE" DECAL WILL POP UP INSTEAD.
 - b. UTILIZE "INSERT" (+1), "DELETE" (-1), "HOME" (+5), AND "END" (-5) KEYS TO

ALIGN THE RASTER IN THE HORIZONTAL DIRECTION.

- c. PRESS "F8" COMMAND KEY ONCE TO SAVE THE CHANGE.
 - d. PRESS "8" NUMERICAL KEY ONCE AND REPEAT THE ABOVE STEPS TO ALIGN THE RASTER IN THE VERTICAL DIRECTION.
 - e. PRESS "F8" COMMAND KEY ONCE TO SAVE THE CHANGE.
 - f. PRESS "ESC" COMMAND KEY ONCE TO RETURN TO THE MAIN MENU.
5. USE DEGAUSSING COIL TO DEMAGNETIZE THE C.R.T FACE OF THE U.U.T.
6. WHITE BALANCE ADJUSTMENT:
- a. HOOK MINOLTA COLOR ANALYZER'S PROBE ON TO THE U.U.T DISPLAY CENTER AND PRESS "F6" COMMAND KEY ONCE TO EXECUTE THE ALIGNMENT PROGRAM.
 - b. A SUB-MENU WILL SHOW UP ON THE SCREEN. SELECT "OK" ICON UNDER ITEM "1", THEN ADJUST THE SCREEN VR ON THE F.B.T OF THE U.U.T TO MAKE THE ANALYZER READS BETWEEN 1.5-2.5 FL. PRESS "ENTER" KEY ONCE.
 - c. A "PRE-COLOR BALANCE ADJUST OK" WORDING WILL POP OUT ON THE SCREEN. ADJUST THE SCREEN VR ON THE F.B.T OF THE U.U.T TO MAKE THE ANALYZER READS BETWEEN 0.9-1.5 FL. PRESS "ENTER" KEY ONCE, SO THE WORDING WILL DISAPPEAR.
 - d. SELECT "OK" ICON UNDER ITEM "2" (WHITE BALANCE ADJUST). PRESS "ENTER" KEY ONCE TO START THE "6500 K" WHITE BALANCE ADJUSTMENT.
 - e. A "COLOR BALANCE ADJUSTMENT OK" WORDING WILL POP OUT ON THE SCREEN. PRESS "ENTER" KEY ONCE TO FINISH THE "6500 K" WHITE BALANCE ADJUSTMENT.
 - f. SELECT "OK" ICON UNDER ITEM "3" (SECOND WHITE BALANCE ADJUST). PRESS "ENTER" KEY ONCE TO START THE "9300 K" WHITE BALANCE ADJUSTMENT.
 - g. A "COLOR BALANCE ADJUSTMENT OK" WORDING WILL POP OUT ON THE SCREEN. PRESS "ENTER" KEY ONCE TO FINISH THE "9300 K" WHITE BALANCE ADJUSTMENT.
 - h. A "COLOR BALANCE ADJUSTMENT OK & WRITE EPROM" WORDING WILL POP OUT ON THE SCREEN. PRESS "ENTER" AND "ESC" KEY CONTIGUOUSLY TO EXIT THE PROGRAM.
 - i. RECYCLE THE POWER ON/OFF SWITCH OF THE U.U.T TO WRITE DATA INTO EEPROM.
7. DATA DISPLAY SIZE SET UP:
USE FRONT CONTROL MEMBRANCE SWITCH TO SET THE DISPLAY SIZE TO 360MM*270 MM, VERTICAL AND HORIZONTAL RESPECTIVELY. DON'T PRESS "RECALL" BUTTON AT THIS MOMENT.
8. 6500 K BRIGHTNESS SET UP AND 6500 K/9300 K WHITE BALANCE VERIFICATION:
- a. PRESS 6500 K BUTTON ON THE FRONT CONTROL MEMBRANCE SWITCH.
 - b. SELECT "OK" ICON UNDER ITEM "4" (RASTER/2" PATTERN/WHITE PATTERN). PRESS "ENTER" KEY ONCE. THE FOLLOWING CHART IS TO BE USED TO VERIFY THE SETTING AND THE ADJUSTMENT.

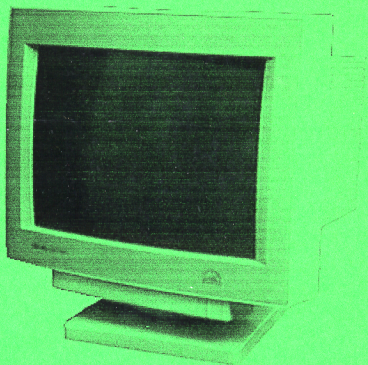
ITEM	ADJUST NAME	PATTERN	BRI.*	CONT.	ADJUST	SPEC
1	RASTER BRI.	RASTER	MAX.	MAX.	SCREEN VR	0.9FL-1.5FL
2	RASTER BRI.	RASTER	-	-	EXT-BRI.*	0.08FL
3	FULL WHITE BRI.	FULL WHITE	-	MAX.	VR303	32FL ± 1FL
4	FULL WHITE BRI.	FULL WHITE	MAX.	MAX.	VR304	35FL ± 1FL
5	W/B CHECK(6500 K)	2" SQUARE	-	-	EXT-CONT.	2FL X:313±10 Y:329±10
6	W/B CHECK(6500 K)	2" SQUARE	-	-	EXT-CONT.	MAX.X:313±10 Y:329±10
7	W/B CHECK(9300 K)	2" SQUARE	-	-	EXT-CONT.	2FL X:283±10 Y:298±10
8	W/B CHECK(9300 K)	2" SQUARE	-	-	EXT-CONT.	MAX X:283±10 Y:298±10
9	29FL SET-UP	FULL WHITE	-	-	EXT-CONT.	29FL ± 1FL

.(d) MISCONVERGENCE AND FOCUS AND TILT ADJUSTMENT:

NOTE:

* WARM UP U.U.T WITH BLACK BOX FOR AT LEAST 30 MINUTES.

TAXAN



Service Manual

For the Ergovision 1080 LR
20" Power Saving Colour Monitor

- * C.R.T NECK FACES EARTH WEST.
- * MAGNETIC FIELD CHECK.

1. CONNECT SIGNAL I/O CABLE FROM U.U.T TO SIGNAL INTERFACE BOX. POWER ON THE U.U.T.
 2. FOCUS VERIFICATION:
 - a. INPUT 79KHZ/77KHZ(1280*1024) OF THE TIMING, SELECT FULL WHITE PATTERN.
 - b. PRESS "EXT-BRI." BUTTON OF THE FRONT CONTROL MEMBRANCE SWITCH TO ADJUST THE RASTER DISAPPEARS.
 - c. PRESS "EXT-CONTRAST" BUTTON OF THE FRONT CONTROL MEMBRANCE SWITCH TO ADJUST THE BRIGHTNESS IS 29 FL.
 - d. SELECT "@" CHARACTER REVERSE PATTERN. IF FOCUS IS NOT GOOD, ADJUST FOCUS VR.
 3. TILT ADJUSTMENT:
 - a. INPUT 79KHZ/77KHZ(1280*1024) OF THE TIMING, SELECT CROSS HATCH PATTERN.
 - b. PRESS "TILT" BUTTON OF THE FRONT CONTROL MEMBRANCE SWITCH ONCE. PRESS "+" OR "-" BUTTON WHILE THE LED IS STILL LID TO ADJUST THE TILT TO LESS THAN 1mm.
 4. MISCONVERGENCE ADJUSTMENT:
 - a. INPUT 79KHZ/77KHZ(1280*1024) OF THE TIMING, SELECT FULL WHITE PATTERN.
 - b. ADJUST THE EXT-BRI. KEY UNTIL THE RASTER DISAPPEARS. THEN ADJUST THE EXT-CONTRAST KEY UNTIL THE BRIGHTNESS IS 27 FL.
 - c. CHANGE THE PATTERN TO CROSS HATCH PATTERN.
 - d. USE KLEIN GAUGE TO VERIFY THE MISCONVERGENCE BETWEEN R/G, R/B, AND G/B IS IN THE SPEC. (A AREA $\leq$ 0.3mm, B AREA $\leq$ 0.4mm)
 - e. CORRECT THE MISCONVERGENCE BY USING A SMALL MAGNETIC STRIP OR BY ADJUSTING MAGNETIC 4 POLES ON THE YOKE.
 5. EACH OF THE FOCUS VR, SCREEN VR, AND 4 POLES AND VR OF THE YOKE NEEDS TO PUT A WHITE DOT PAINT. EACH SMALL MAGNETIC STRIP AND MAGNETIC METAL NEEDS TO PUT A YELLOW BOND.
- (e) PER-CHECK FOR C.A.S ALIGNMENT BEFOR:
1. CONFIRMATION OF IMAGE PERFORMANCE :
INPUT EACH A/C's TIMING (HxV = 10x8 CROSS HATCH PATTERN).
CONFIRM ITEM BY ITEM AS FOLLOWS:
 - a. HORIZONTAL LINEARITY: $H \leq 10 \%$.
CALCULATION: $\left| \frac{\text{max.} - \text{min.}}{\text{max.}} \right| \times 100\% \leq 10 \%$
 - b. CONFIRM THE FUNTION OF THE RECALL BUTTON:
ADJUST THE H/V PHASE AND THE H/V SIZE TO ANY POSITION, PRESS THE RECALL BUTTON, THEN CHECK THAT THE IMAGE PERFORMANCE IS IN ACCORDANCE WITH THE SPEC. IF YES, THIS MEANS THE RECALL BUTTON IS O.K.
 2. BRIGHTNESS UNIFORMITY CONFIRMATION:
 - a. INPUT 59KHZ 1024x768 OF TIMING. SELECT 2" SQUARE PATTERN.
 - b. ADJUST THE EXT. BRI. KEY TO MAX.
 - c. ADJUST THE EXT. CONTRAST KEY UNTIL THE CENTER BRIGHTNESS IS 40 FL, THE BRIGHTNESS OF ANY POSITION OF CRT MUST NOT BE LESS THAN 65% OF THE CENTER BRIGHTNESS.
 3. STABILITY OF THE DISPLAY SIZE CONFIRMATION:
 - a. INPUT 59KHZ 1024x768 OF TIMING. SELECT FULL WHITE PATTERN.
 - b. ADJUST THE EXT-BRI. KEY TO 5FL AND THEN 29FL. THIS MUST NOT CAUSE A DIFFERENCE GREATER THAN 1.5 mm.
 4. PURITY CONFIRMATION:
 - a. INPUT 59KHZ 1024x768 OF THE TIMING. SELECT FULL WHITE PATTERN.
 - b. ADJUST THE EXT-BRI. KEY UNTIL THE RASTER DISAPPEARS. THEN ADJUST THE EXT-CONTRAST KEY UNTIL THE BRIGHTNESS IS 25 FL. USE VISUAL

INSPECTION TO CONFIRM THE PURITY OF EACH R.G.B. AS FOLLOWS:

- a. WHEN ONLY INPUTING R, MUST NOT APPEAR G.B.
- b. WHEN ONLY INPUTING G, MUST NOT APPEAR R.B.
- c. WHEN ONLY INPUTING B, MUST NOT APPEAR R.G.

5. VIDEO NOISE CONFIRMATION:
INPUT 59KHZ 1024x768 OF THE TIMING. SELECT CROSS HATCH PATTERN OR FULL WHITE PATTERN, CHECK BY VISUAL INSPECTION FROM A DISTANCE OF 19 INCHS, WHETHER THE PICTURE HAS VIDEO NOISE OR NOT.
 6. CHECK ALL INTERFACE CABLES ARE WELL CONNECTED AMONG THE PALLET, I2C INTERFACE CARD, AND THE U.U.T DMC I2C CONNECTOR.
 7. CLEAN THE C.R.T FACE OF THE U.U.T.
 8. PUT THE U.U.T IN THE MARKED AREA ON THE TOP OF THE PALLET.
 9. ALIGN THE U.U.T TO PARALLEL WITH THE PALLET.
 10. POWER ON THE U.U.T AND BANG THE U.U.T TO FIND OUT IF THE SHOCK NOISE EXISTS.
- (f) FOR C.A.S ALIGNMENT:
AFTER PER-CHECK ALL UNIT IS OK, THEN THE UNIT TO AUTO-STATION FOR C.A.S ADJUSTMENT AS BE LOW.
- a. ADJUST H/V-RASTER CENTER.
 - b. ADJUST H/V-PHASE POSITION. $|L-R| \leq 2 \text{ mm}$, $|T-B| \leq 2 \text{ mm}$.
 - c. ADJUST H/V-SIZE. MAIN TIMING(59KHZ 1024*768) OF THE H/V-SIZE IS 360mm*270mm $\pm 3\text{mm}$ OTHER TIMINGS OF THE H/V-SIZE IS 360mm*270mm $\pm 3\text{mm}$. AND 337mm*270mm $\pm 3\text{mm}$ FOR 1280*1024 MODE.
 - d. ADJUST GEOMETIRIC OF THE PICTURE IS LESS THAN 2.0mm.
 - e. ADJUST VERTICAL LINEARITY OF PICTURE IS LESS THAN 7.5%.
$$\frac{| \text{max.} - \text{min.} |}{\text{max.}} \times 100\% \leq 7.5\%$$
- F. HELMHOLTZ CHAMBER SET UP:
SET UP THE LOCATIONS ACCORDING TO THE CUSTOMER'S REQUIREMENT.

TIMING CHART

FACTORY MODE SETTINGS							
PARAMETER	MODE						
	1	2	3	4	5	6	
HORIZONTAL TIMING							
fH SYNC KHZ	79.976	74.645	59.880	58.230	56.476	48.044	
A H-TOTAL μ S	12.503	13.397	16.700	17.173	17.706	20.815	
B H-SYNC μ S	1.067	0.889	1.200	1.813	1.813	2.383	
C H-BP μ S	1.837	1.714	2.500	1.387	1.920	1.430	
D H-ACTIVE μ S	9.481	10.159	12.800	13.653	13.653	15.889	
E H-FP μ S	0.119	0.635	0.200	0.320	0.320	1.112	
VERTICAL TIMING							
fV SYNC HZ	75.020	70.020	74.850	72.245	70.070	72.140	
O V-TOTAL mS	13.329	14.281	13.360	13.842	14.272	13.863	
P V-SYNC mS	0.038	0.067	0.050	0.103	0.106	0.125	
Q V-BP mS	0.475	0.482	0.468	0.498	0.513	0.479	
R V-ACTIVE mS	12.804	13.718	12.826	13.189	13.599	12.489	
S V-FP mS	0.013	0.013	0.017	0.052	0.053	0.770	
H/V SYNC POLARITY	+ / +	+ / +	+ / +	- / -	- / -	+ / +	
DISPLAY SIZE HOR. unit : mm VER.	337.5 270	337.5 270	360 270	360 270	360 270	360 270	
RESOLUTION DOT LINE	1280 1024	1280 1024	1024 768	1024 768	1024 768	800 600	
fPIXEL - - MHZ	135.00	126.00	80.00	75.00	75.00	50.35	
TEST MODE							

FACTORY MODE SETTINGS							
PARAMETER	MODE						
	7	8	9	10	11	12	
HORIZONTAL TIMING							
fH SYNC KHZ	46.968	37.736	37.383	31.470	31.470	31.470	
A H-TOTAL μS	21.290	26.500	26.750	31.777	31.777	31.777	
B H-SYNC μS	1.589	1.250	2.000	3.813	3.813	3.813	
C H-BP μS	3.496	4.500	4.250	1.907	1.907	1.907	
D H-ACTIVE μS	15.889	20.000	20.000	25.417	25.417	25.417	
E H-FP μS	0.318	0.750	0.500	0.635	0.635	0.635	
VERTICAL TIMING							
fV SYNC HZ	75.150	72.570	74.770	70.08	70.08	59.940	
O V-TOTAL mS	13.307	13.780	13.375	14.268	14.268	16.683	
P V-SYNC mS	0.064	0.080	0.080	0.0636	0.0636	0.0636	
Q V-BP mS	0.447	0.742	0.428	1.907	1.112	1.049	
R V-ACTIVE mS	12.775	12.720	12.840	11.122	12.711	15.253	
S V-FP mS	0.021	0.239	0.027	1.176	0.381	0.318	
H/V SYNC POLARITY	+ / +	- / -	- / -	+ / -	- / +	- / -	
DISPLAY SIZE HOR. unit : mm VER.	360 270	360 270	360 270	360 270	360 270	360 275	
RESOLUTION DOT LINE	800 600	640 480	640 480	640 350	640 400	640 480	
fPIXEL - MHZ	50.35	32.00	32.00	25.180	25.180	25.180	
TEST MODE							

=====

SPARE	Item Number	DRAWING INDEX	Description	COMMENT
	1004096321	1	CONTROL DOOR	
	4410501147	2	MEMBRANE SWITCH CAM6001	
	1004096000	3	POWER KNOB	
	2003099000	4	ANODE COVER	
	8026113006	5	SCREW BIND(+) TAPPING TRI ANGL	FOR CRT FINGER & CRT FRAME X12
	2008099000	6	CONTACT FINGER C	
	1001096001	7	BEZEL	
	9009096001	8	NAME PLATE	FOR BEZEL
	2007099000	9	CONTACT FINGER B	
	C460633010	10	TILT RING WIRE ASS'Y	FOR CRT
	7010023520	11	CRT M48KFH 180X15(U)	
	3021114020	12	NUT ZINC 1/4"-20	CRT & CRT FRAME X4
	3211600000	13	SPRING WASHER	CRT & CRT FRAME X4
	C001139000	14	BRAID WIRE ASS'Y	FOR CRT BRAID WIRE
	2001199000	15	CRT FRAME	
	8135115025	16	SCREW CAP HI-LOW TAPPING M5X25	BEZEL & CRT FRAME
	7020196000	17	DEGAUSSING COIL W/CORE	
	2008296000	18	CHASSIS (L)	
	8127113006	19	SCREW PAN(+)/HD CAP TAPPING M3	CRT FRAME & CHAS TOP X2, CHAS BTM & CRT FRAME X2, CHAS TOP & CHAS R X3, CRT FRAME & STAND X4, CHAS TOP & CHAS L X3, CHAS REAR & CHAS TOP X2, I/O CABLE & CHAS REAR X1, CHAS REAR & CHAS BOTTOM X3, CHAS REAR & CHAS R X3, CHAS REAR & CHAS L X3
		19		
		19		
		19		
		19		
	9006099000	20	ANODE INSULATOR	
	5530307005	21	SUPPORT PCB C55-2K	
	2002091229	22	CLIP CABLE	FOR I/O CABLE X2, POWER WIRE X1
	8026113010	23	SCREW BIND(+) TAPPING 1/8" M3X10	
	2004694251	24	CHASSIS TOP	
	8504113006	25	SCREW BID(+) M3X6 MACH W/DISK	FOR FOCUS BKT & CHAS (L)X2
	2009096000	26	CHASSIS (BTM)	
	3060040060	27	RIVET NYLON 4.0X6.0	FOR PCB & CHAS (L)
	8026113008	28	SCREW BID(+) ZINC M3X3 TAPPING	FOR FOCUS & FOCUS SKT (A)
	5530200102	29	CORD CRAMPER TH-A	FOR CHAS TO TOP
	2017096330	30	FOCUS BKT A	
	1013094180	31	REVLTL#3	FOR I2C BUS PCB
	AM60000944-V	32	H-PRO DAUGHTER PCB ASS'Y	
	9008096001	33	DECO SHEET	
	1006096330	34	SNAP BUSHINGS (N81722)	STAND X1, CHAS BTM X1
	1006096330	34	SNAP BUSHINGS (N81722)	FOR STAND X1
	C710633010	35	I/O CABLE ASS'Y	
	9004096000	36	COVER I2C	
	8002113012	37	SCREW FLATE HD(+) M3X12	FOR AC SOCKET
	7064700129	38	LINE FILTER IA5-S33	
	9005096001	39	DECO PLATE (5BNC)	
	3211300000	40	WASHER SPRING M3 5.2xX3.2xX0.8	FOR AC SOCKET
	3011100030	41	NUT ISO HEX M3 ZINC	FOR AC SOCKET
	2007096000	42	REAR COVER SUPPORT	
	8504113006	43	SCREW BID(+) M3X6 MACH W/DISK	STUD & CHAS R X4, VIDEO & STUD X4, POWER SAVING X1
	8037114016	44	SCREW BIND(+) HI-LOW M4X16	
	1007096001	45	COVER (L)	FOR REAR COVER
	8418114014	46	SCREW BID(+) M4X14 TAPPING TRI	TILT BALL & LATCH
	1009094251	47	LATCH	
	1006094251	48	RETAINER	
	1008096001	49	TILT BALL	
	1019094230	50	FOOT	
	1008294251	51	BASE	
	8081111530	52	SCREW BIND/HD MACH 1/4"-20X30	
	1006096001	53	COVER (R)	FOR REAR COVER
	AM60015044-V	54	MAIN PCB ASS'Y	
	8037115035	55	SCREW BID(+) HI-LO M5X35	FOR BEZEL & BUCKET
	1012196000	56	REAR COVER ASS'Y	
	2002094660	57	CHASSIS (R)	
	AM60000744-V	58	SUB NECK PCB ASS'Y	
	2016094230	59	STUD M3X12	VIDEO BOARD X4
	5530311005	60	SUPPORT PCB	FOR POWER SAVING
	AM60000244-V	61	NECK PCB ASS'Y	
	1001094290	62	BUMPER	
	2022194660	63	VIDEO COVER	
	2014096330	64	VIDEO SHIELD	
	2010096000	65	STAND (5BNC)	
	SS60010430-404	66	VIDEO IC PCB ASS'Y	

2010096340	67	CHASSIS REAR	
AM60000544-V	68	POWER SAVING PCB ASS'Y	
2016094230	69	STUD M3X12	
2013096000	70	NECK SHIELD	FOR SUB NECK
3111602016	71	WASHER FLAT M6X1.6	CRT & CRT FRAME X4
8504113008	72	SCREW BIND(+) M3X8 MACH W/DISK	CONTROL BOX & UPPER BKT X4, MAIN PCB & CHAS BTM X6
8121114008	73	SCREW CAP BID(+) M4X8 TAPPING"	FOR I/O CABLE & CHAS BTM & POWER WIRE
-----	74	I2C PCB ASS'Y	
2013096320	75	FINGER (S)	CRT FRAME & CHAS (R)
SS60010930-404	76	LOGIC PCB ASS'Y	
-----	77	TRS PCB ASS'Y	
SS60000920-404	78	CONTROL PCB WIRE ASS'Y	
AM60010442-V	79	DC-DC DAUGHTER PCB	
5530200102	80	CORD CRAMPER TH-A	FOR SPS WIRE ASS'Y
5530200101	81	CORD CRAMP TH-C	
8282112006	82	SCREW PAN(+) W/SPRING WASHER M	FOR SELF TEST SW
1004099000-231	83	SNAP BUSHING(N3-1216)	
2027094660	84	CONDUCTOR	
SS60010820-404	85	POWER SWITCH & VR ASS'Y	
SS60010720-404	86	LED & WIRE ASS'Y	

101509433P	DOOR LOCK	
463110001N	AC POWER CORD PC VDE GRY 5FT W	
8504113006	SCREW BIND(+) M3X6 MACH W/DISK	CHAS REAR & CHAS TOP X1
3060040060	RIVET NYLON 4.0X6.0	FOR H.PCB
9012096001	MANUAL	
2004094660	HEAT SINK HOLDER	FOR D304
410024290A	TRS. 2SC4290A TO-3PL	Q307
4100310180	TRS. 2SD1018 W/MOUNTING KIT	Q320
4101511010	TRS. MOSFET 2SK1101 SC-67	Q314
4130400260	DIODE FMGQ26S TO-220	D306
4130600032	DIODE DTV32-1500B	D304
8026113010	SCREW BIND(+) TAPPING M3X10 TR	FOR Q307, 314, 320, D306 & CHAS (L)
8026113012	SCREW BIND(+) ZN3C M3X12 SELF	FOR D304 & HEAT SINK HOLDER & CHASSIS (L)
C488100011	CONN. 10P & WIRE ASS'Y	FOR CONN BNC TO VIDEO BOARD I/R, I/Q, I/S
4410103000	SLIDE SWITCH SSL751207-00000	FOR SELF TEST
4490100208	CONN. BNC 180 DEGREE BNS-001	FOR INPUT
C459423L10	GND WIRE ASS'Y	FOR AC SOCKET GND
C488031188	CONN. 3P & WIRE ASS'Y	FOR AC SOCKET TO PCS SW VR
4070247455	RES-MF 1/2W J 470K -AT-	R99
5290003000	TUBE-SHRINK ID=3c	FOR RES
5290005000	TUBE-SHRINK ID=5c	FOR AC INPUT SOCKET
7066330129	NOISE FILTER ID-0343-S	
5324201501	WIRE 1007 #24 BLK 140-5-5	
5530215001	CORD CRAMPER-15c	FOR CHAS (L)
5530310009	PCB SUPPORT PS-03GA	PCB & STAND
5541025095	CABLE TIE 2.5X90	FOR WIRE ASS'Y
5541025160	CABLE TIE-BINDING 2.5X160	FOR CORE & STAND X3
5541025160	CABLE TIE-BINDING 2.5X160	FOR STAND & CORD X1

----- END -----

SPARE	Item Number	Description	COMMENT
	SS60000920-404	CONTROL PCB & WIRE ASS'Y	
	C488040084	CONN. 4P & WIRE ASS'Y	
	4141107300	P.C.B. CONNECTOR	
	4490400207	CONN. 4P WAFER ROUND PIN	
		END	

SPARE	Item Number	Description	COMMENT
	SS60010720-404	LED & WIRE ASS'Y	
	C488031192	CONN. 3P & WIRE ASS'Y W/CORE	
	4120694000	LED LT9463-23 Y/G	LED1
	4141104900	P.C.B. LED	
		END	

SPARE	Item Number	Description	COMMENT
	SS60010820-404	POWER SWITCH & VR ASS'Y	
	C488030190	CONN. 3P & WIRE ASS'Y	FOR PCB SW VR TO POWER BOARD SK1
	C488080064	CONN. 8P & WIRE ASS'Y W/CORE	
	4141104602	P.C.B. SW VR (76.2X43)	
	4410204005	SWITCH POWER SS-160-3	SW1
	4490310193	CONN. 3P WAFER 2 OPEN RIGHT	
	4490700130	CONN. 7P WAFER P221 8-XH-A	P801A
	4490800130	CONN. 8P 888-XH-A	P802A
	4491400230	14P WAFER 52045-1410	P803A
		END	

SPARE	Item Number	Description	COMMENT
	AM60000244-V	NECK PCB ASS'Y (SUB-2)	
	1001094290	BUMPER	NECK SHIELD
	2014096330	VIDEO SHIELD	
	2022194660	VIDEO COVER	
	2043394330	HEAT SINK	FOR Q401,421,441
	3011100030	NUT ISO HEX M3 Z1NC	
	41061262A0	TRS. BFQ262A TO-126	FOR Q401,421,441
	5520542001	INSULATOR CERAMIC TO-126	FOR Q401,421,441
	8504113012	SCREW BIND(+) M3X12 MACH W/DIS	FOR Q401,421,441
	C488020156	CONN. 2P & WIRE ASS'Y W/CORE	FOR R.G.B
	4106116200	TRS. BFQ162 TO-126	Q402,422,442
	41061235A0	TRS. BFQ235A TO-220	Q403,423,443
	41061255A0	TRS. BFQ255A TO-220	Q404,424,444
	4173010253	RES-MOF 3W J 1K -SF-	R417,437,457
	4173012253	RES-MOF 3W J 1.2K -SF-	R409,410,429,430,449,450
	4490200300	BASE 2P 2.54MM SX8-XH-A	P405
	4490400300	CONN. 4P SX8-XH	P401
	4490600300	CONN. 6P SX8-XH-A	P404
	4491000300	BASE 10P 2.54MM SX8-XH-A	P403
	4491100320	WAFER 11P 2.0mm 173979 R/A	P420
	5074104101	CAP-MEF 0.1UFK 100V -SF-	C449,480,481
	5074224102	CAP-MEF 0.22UFK 250V -SF-	C407,427,447
	515E470S01	CAP-ECE 47UFM 100V -SF-	C477
	515M470S01	CAP-ECM 47UFM 100V 10X20 -SF-	C476
	515X470T25	CAP-ECX 47UFM 25V -RT-	C483
	411020945P	TRS. 25C945P TO-92 -RT-	Q461,462,463
	4110219210	TRS. 25C1921 TO-92M -RT-	Q405,425,445
	5116103111	CAP-MC 0.01UFK 100V -RT-	C492
	5128101552	CAP-CCSL 100PFJ 50V -RT-	C485
	5128121552	CAP-CCSL 120PFJ 50V -RT-	C479
	5128221552	CAP-CCSL 220PFJ 50V -RT-	C409,429
	5128331552	CAP-CCSL 330PFJ 50V -RT-	C484
	5128390552	CAP-CCSL 39PFJ 50V -RT-	C426
	5128820552	CAP-CCSL 82PFJ 50V -RT-	C446
	5134104452	CAP-SCF 0.1UFZ 50V -RT-	C405,425,445,466
	515E221T16	CAP-ECE 220UFM 16V 10X12.5 -RT	C490
	515X470T16	CAP-ECX 47UFM 16V -RT-	C428
	5156470T16	CAP-EC6 47UFM 16V -RT-	C491
	5171476T16	CAP-TC 47UFM 16V -RT-	C408,448,482
	4050115255	RES-CF 1/2W J 1.5K -AT- SMALL	R413,433,453
	4050224055	RES-CF 1/2W J 24R -AT-	R407,427,447
	4050233955	RES-CF 1/2W J 3.3R -AT-	R461
	4050410055	RES-CF 1/4W J 10R -AT-	R403,405,423,425,443,445
	4050410155	RES-CF 1/4W J 100R -AT-	R408,428,448,485
	4050410255	RES-CF 1/4W J 1K -AT-	R473,481,486
	4050410355	RES-CF 1/4W J 10K -AT-	R474,475,483,484
	4050410555	RES-CF 1/4W J 1M -AT-	R416,436,456
	4050412155	RES-CF 1/4W J 120R -AT-	R415,435,455
	4050420055	RES-CF 1/4W J 20R -AT-	R401,411,412,421,431,432,451,452
	4050427155	RES-CF 1/4W J 270R -AT-	R414,434,454
	4050430255	RES-CF 1/4W J 3K -AT-	R482
	4050439155	RES-CF 1/4W J 390R -AT-	R418,458
	4050443055	RES-CF 1/4W J 43R -AT-	R406,426,446
	4050443155	RES-CF 1/4W J 430R -AT-	R472
	4050451355	RES-CF 1/4W J 51K -AT-	R402,422,442
	4050539155	RES-CF 1/4W J 390R -AT- SMALL	R438
	4120141480	DIODE 1N4148 (SI) -AT-	D403-406,408,409,423-426,428,429,443-446,448,449, D462,464 D463
	4120500561	DIODE ZENER RD5.1EB2 1/2W -AT-	
	4141090704	P.C.B. NECK	
	4321828006	COIL PEAKING 0.82UH -AT-	L401,421,441
	4322309006	FERRITE BEAD 3UH -AT-	L461,462
	5406100000-000	JUMP WIRE 0.6t	J401,402,404-414,417-421,L404,405,424,425,444,445, R201

END



Document Control

Document Title : Ergovision 1080 LR Service Manual

Issue Number: 001

Issued By: Dick Menhinick

Date of Issue: 01/10/94

Revisions:

1234

SPARE	Item Number	Description	COMMENT
	SS60010430-404	VIDEO IC PCB ASS'Y	
	4010800052	RES-CHIP 1/8W J 0R 1206	JD1,2
	4010810052	RES-CHIP 1/8W J 10R 1206	RE5
	4010810352	RES-CHIP 1/8W J 10K 1206	RD1
	4010811252	RES-CHIP 1/8W J 1.1K 1206	RD4
	4010839152	RES-CHIP 1/8W J 390R 1206	RA3,RB3,RC3
	4010839252	RES-CHIP 1/8W J 3.9K 1206	RD7
	4010847452	RES-CHIP 1/8W J 470K 1206	RD5
	4010856152	RES-CHIP 1/8W J 560R 1206	RE2
	4010875052	RES-CHIP 1/8W J 75R 1206	RA1,RB1,RC1
	4010882252	RES-CHIP 1/8W J 8.2K 1206	RD3
	4010891052	RES-CHIP 1/8W J 91R 1206	RA2,RB2,RC2,RD2,RE1
	4010891152	RES-CHIP 1/8W J 910R 1206	RE3,RE4
	412014148T	DIODE 1N4148 (BAS32L) MLF SMD	DA1,2,DB1,2,DC1,2
	4120500561	DIODE ZENER RD5.1EB2 1/2W -AT-	ZD1
	4141093504	P.C.B. DAUGHTER (57.1X50.2)	
	4159120500	IC LM1205N 28PIN	ICD1
	4159188100	IC LM1881N 8PIN	ICD2
	5156100T50	CAP-EC6 10UFM 50V -RT-	CD1,CD3,CE5
	5156470T16	CAP-EC6 47UFM 16V -RT-	CD9
	5171105L35	CAP-TC 1UFK 35V RT PITCH:5MM	CA2,CB2,CC2
	5171106L16	CAP-TC 10UFK 16V RT PITCH:5MM	CA1,CB1,CC1
	5324150700	WIRE 1007 #24 GRN 60-K-K	FOR SMT TO NECK
	7146223456	CAP-Y5V 0.022UFZ 50V CHIP G805	CD8
	7147104456	CAP-CC +80%-20% 0.1UF/50V CHIP	CA3,CB3,CC3,CC4,CD2,CD4,CD5,CD7,CE1-CE4
		END	

SPARE	Item Number	Description	COMMENT
	AM60000544-V	POWER SAVING PCB ASS'Y (SU8-2)	
	2016094230	STUD M3X12	
	8504113006	SCREW B10(+) M3X6 MACH W/DISK	FOR POWER SAVING
	C488060034	CONN. 6P & WIRE ASS'Y	FOR SK903
	4152740510	IC 74LS51 14PIN	IC902
	4155741230	IC 74HC123	IC904
	4159140130	IC MC14013 BCP	IC905
	4159140600	IC MC140608 16PIN	IC901
	4159339000	IC LM339 16PIN	IC903
	4159393000	IC LM 393 14PIN	IC906
	415978L05A	IC MC78L05ACZ 3PIN	IC907
	4172020256	RES-MOF 2W J 2K -AT-	R950
	4490300130	CONN. 3P WAFER 2.5MM (838-XH-A	SK902
	4490300260	WAFER 3P 2.0MM 173981-3	SK904
	4490800130	CONN. 8P B88-XH-A	SK901
	4110105610	TRS. 2S8561 TO-92 -RT-	Q904
	411020945P	TRS. 2SC945P TO-92 -RT-	Q901-903
	411030667A	TRS. 2SD667A TO-92M -RT-	Q905
	5101471152	CAP-CCB 470PFK 50V -RT-	C903
	5116102111	CAP-MC 0.001UFK 100V -RT-	C909,910
	5116103111	CAP-MC 0.01UFK 100V -RT-	C907,913,914
	5116104111	CAP-MC 0.1UFK 100V -RT-	C902,912
	5116222111	CAP-MC 0.0022UFK 100V -RT-	C906,911
	5121180552	CAP-CCCH 18PFJ 50V -RT-	C901
	5129101552	CAP-CCSL 100PFJ 50V -RT-	C920
	515X100T50	CAP-ECX 10UFM 50V -RT-	C904,908,916,917
	515X221T10	CAP-ECX 220UFM 10V -RT-	C915
	4050215355	RES-CF 1/2W J 15K -AT-	R949
	4050410155	RES-CF 1/4W J 100R -AT-	R912-914,916,918-920
	4050410255	RES-CF 1/4W J 1K -AT-	R904,906,915,917,923,942,948
	4050410355	RES-CF 1/4W J 10K -AT-	R924,929,933,936
	4050410655	RES-CF 1/4W J 10M -AT-	R901,902
	4050415355	RES-CF 1/4W J 15K -AT-	R911
	4050420255	RES-CF 1/4W J 2K -AT-	R926,955,956
	4050422355	RES-CF 1/4W J 22K -AT-	R927,928,930,931,944
	4050422355	RES-CF 1/4W J 22K -AT-	R935 (FOR HITACHI/TOSHIBA IC 74HC123)
	4050439155	RES-CF 1/4W J 390R -AT-	R947
	4050443355	RES-CF 1/4W J 43K -AT-	R934
	4050443455	RES-CF 1/4W J 430K -AT-	R938 (FOR HITACHI/TOSHIBA IC 74HC123)
	4050447255	RES-CF 1/4W J 4.7K -AT-	R907,908,925,946
	4050447355	RES-CF 1/4W J 47K -AT-	R909,910,922,939-941,943
	4050468155	RES-CF 1/4W J 680R -AT-	R903,905
	4050468255	RES-CF 1/4W J 6.8K -AT-	R932
	4050468455	RES-CF 1/4W J 680K -AT-	R945
	4050475455	RES-CF 1/4W J 750K -AT-	R937
	4120146060	DIODE 1N4606 (SI) -AT-	D903-919
	4120500561	DIODE ZENER RD5.1EB2 1/2W -AT-	D902
	4120512A30	DIODE ZENER 12V HZ12A3 -AT-	ZD901
	4141103202	P.C.B. POWER SAVING 130X73	
	4321102006	COIL PEAKING 1MH -AT-	L901
	5406100000-000	JUMP WIRE 0.6c	J901-920

----- END -----

SPARE	Item Number	Description	COMMENT
	AM60000744-V	SUB NECK PCB ASS'Y (SUB-2)	
	4100226880	TRS. 2SC2688 TO-126	Q102
	410024106M	TRS. 2SC4106M W/MORNTING KIT	Q104
	410030600K	TRS. 2SD600KF TO-126	Q103
	4177310053	RES-MCF 3W J 10R -SF- SMALL	R121
	4490200130	CONN. 2P WAFER 2.5MM	P101-103
	4490500130	CONN. 5P WAFER 2.5MM	P104
	457030423H	SOCKET CRT HPS0380-01-110	
	5074103104	CAP-MEF 0.01UFK 400V -SF-	C111
	5103102293	CAP-CCE 1000PFM 3KV -SF-	C101,102
	5113224150	CAP-MC 0.22UFK 50V -SF-	C109
	5190104543	CAP-MPP 0.1UFJ 400V -SF-	C107
	5190683543	CAP-MPP 0.068UFJ 400V -SF-	C132
	705051433L	FOCUS TRANSFORMER W/SHIELD	T101
	411020945P	TRS. 2SC945P TO-92 -RT-	C101
	5116104111	CAP-MC 0.1UFK 100V -RT-	C113,114,131
	5134104452	CAP-SCF 0.1UFZ 50V -RT-	C112
	5164229T50	CAP-SP 2.2UFM 50V RT 105C	C108
	4050220455	RES-CF 1/2W J 200K -AT-	R115
	4050247055	RES-CF 1/2W J 47R -AT-	R131
	4050410255	RES-CF 1/4W J 1K -AT-	R130,132
	4050418455	RES-CF 1/4W J 180K -AT-	R122
	4050420155	RES-CF 1/4W J 200R -AT-	R117
	4050420355	RES-CF 1/4W J 20K -AT-	R114
	4050420455	RES-CF 1/4W J 200K -AT-	R113
	4050422355	RES-CF 1/4W J 22K -AT-	R120
	4050443255	RES-CF 1/4W J 4.3K -AT-	R116
	4050451255	RES-CF 1/4W J 5.1K -AT-	R119
	4050462455	RES-CF 1/4W J 620K -AT-	R118
	4050468455	RES-CF 1/4W J 680K -AT-	R123
	4050491255	RES-CF 1/4W J 9.1K -AT-	R112
	4060210115	RES-CC 1/2W K 100R -AT-	R101-104
	4060210315	RES-CC 1/2W K 10K -AT-	R105
	4120141480	DIODE 1N4148 (SI) -AT-	D103
	413010010J	DIODE RGP10J-5390 1A 600V -AT-	D130-132
	4141103802	P.C.B SUB-NECK 98X109MM	
	4321158006	COIL PEAKING 0.15UH -AT-	L101-103
	4321229006	COIL PEAKING 2.2UH -AT-	L104
	4705415001	SURGE PROTECTOR 200V 52M -AT-	NE101-103

END

SPARE	Item Number	Description	COMMENT
	AM60015044-V	MAIN PCB ASS'Y (SUB-2)	
AM60000144-V		DEF PCB ASS'Y (SUB-2)	
	2013096000	NECK SHIELD	FOR SUB NECK
	2035094660	FOCUS BKT	
	5541025095	CABLE TIE 2.5X90	FOR WIRE ASS'Y
	5560080003	CORE-FE 2643665802	CORE FOCUS PAKE WIRES
	7124471230	FOCUS PACK ASS'Y	
	8026113006	SCREW BIND(+) TAPPING TRI ANGL	
	8504113008	SCREW BIND(+) M3X8 MACH W/DISK	FOR Q329
	2046294000	HEAT SINK F	FOR IC201
	4159317001	IC LM317T W/MOUNTING KIT TO-22	IC201
	8504113010	SCREW BIND(+) M3X10 MACH W/DIS	FOR IC201
	2023094660	HEAT SINK	FOR IC202
	41591675A0	IC TDA1675A 15PIN	IC202
	8504113008	SCREW BIND(+) M3X8 MACH W/DISK	FOR IC202
	2046294000	HEAT SINK F	FOR Q317
	4105845528	TRS. BUK 455-2008 TO-220	Q317
	8504113008	SCREW BIND(+) M3X8 MACH W/DISK	Q317.
	C488020155	CONN. 2P & WIRE ASS'Y 550MM	FOR P405
	C488030172	CONN. 3P & WIRE ASS'Y	FOR P201 (H.V.SYNC)
	C488040056	CONN. 4P & WIRE ASS'Y	P301
	C488040068	CONN. 4P & WIRE ASS'Y	P205
	C488040074	CONN. 4P & WIRE ASS'Y	FOR P306
	C488040078	CONN. 4P & WIRE ASS'Y	
	C488052066	CONN. 5P & WIRE ASS'Y	FOR P302
	C488060040	CONN. 6P & WIRE ASS'Y	FOR P307
	C488110013	CONN. 11P & WIRE ASS'Y	FOR P202
	1005083030	STAND TO-220 -SF-	IC201,301,Q304,315,317
	3052000300	EYELET	FOR DEF PCS & DAUGHTER PCS
	4052043355	RES-CF 2W J 43K -AT-	R349
	4100226880	TRS. 2SC2688 TO-125	Q329
	410030669A	TRS. 2SD669A TO-126	Q318
	4103200122	TRS. TIP 122	Q332
	4103200127	TRS. TIP127 TO-220	Q331
	4105845528	TRS. BUK 455-2008 TO-220	Q315
	4105906200	TRS. MOSFET IRF620 TO-220	Q304
	4105906400	TRS. IRF640 TO-220	Q315
	4159173580	IC HA17358 8PIN	IC203,204
	4171075856	RES-MOF 1W J 0.75R -AT-	R241
	4172010156	RES-MOF 2W J 100R -AT-	R247
	4172010356	RES-MOF 2W J 10K -AT-	R329,331
	4172020156	RES-MOF 2W J 200R -AT-	R338
	4172047856	RES-MOF 2W J 0.47R -AT-	R242
	4177310153	RES-MOF 3W J 100R -SF- SMALL	R335,336
	4177312153	RES-MOF 3W J 120R -SF- SMALL	R373,391
	4177320353	RES-MOF 3W J 20K -SF- SMALL	R322,323
	4256041202	RES-PR MF 1/4W F 12K -AT-	R325 (FOR MASUSHITA FBT)
	4256041602	RES-PR MF 1/4W F 16K -AT-	R325(FOR SAMPO FBT)
	4323500003	COIL CHOKE 50UH -SF-	L307
	4323600003	COIL CHOKE 60UH -SF-	L306
	4325101003	COIL CHOKE 100UH -SF-	L304
	4325339003	COIL CHOKE 3.3MH -SF-	L305
	4420412002	RELAY 12V	RL102
	4490400207	CONN. 4P WAFER ROUND PIN	P305 (FOR YOKE)
	4490400207	CONN. 4P WAFER ROUND PIN	P309
	4490400260	CONN. 4PIN WAFER 2.0MM 173981-	FOR P203,204
	5074103102	CAP-MEF 0.01UFK 250V -SF-	C225
	5074224102	CAP-MEF 0.22UFK 250V -SF-	C354
	5074335102	CAP-MEF 3.3UFK 250V -SF-	C334
	5074475101	CAP-MEF 4.7UFK 100V -SF-	C325
	5084104510	CAP-MPC 0.1UFJ 100V -SF-	C209,210
	5103103452	CAP-CCE 0.01UFZ 50V -RT-	C699
	5104104443	CAP-CCF +80%-20% 0.1UF/500V -S	C340
	5113154150	CAP-MC 0.15UFK 50V -SF-	C211
	5113224550	CAP-MC 0.22UFJ 50V -SF-	C208
	515F471S35	CAP-ECF 470UFM 35V -SF-	C335,336
	515X101S03	CAP-ECX 100UFM 250V -SF-	C333
	515X221S35	CAP-ECX 220UFM 35V -SF-	C220
	515X221S50	CAP-ECX 220UFM 50V SF-	C342
	515X471S16	CAP-ECX 470UFM 16V -SF-	C212
	5156100S03	CAP-EC6 10UFM 250V -SF-	C338
	5156102S35	CAP-EC6 1000UFM 35V -SF-	C216
	5156222S16	CAP-EC6 2200UFM 16V -SF-	C213
	5190155583	CAP-MPP 1.5UFJ 250V -SF-	C315
	5190224543	CAP-MPP 0.22UFJ 400V -SF-	C314

5190684543	CAP-MPP 0.68UFJ 400V -SF-	C316
5195434543	CAP-PMA 0.43UFJ 400V -SF-	C313
5221110400	POT(CERMET) 0.3W 100K 6± STAND	VR304
5221125450	POT(CERMET) 0.5W 250K 8± STAND	VR305
5225110310	POT(CERMET) 0.3W 10K 6± LAY-DO	VR303,306
5228150310	POT(CARBON) 0.1W 50K 6± LAY-DO	VR201
5322113000	WIRE UL1007 #22 BRN 290-K-K	FOR VS-VS'
5322181500	WIRE UL1007 #22 GRY 140-K-K	FOR N-N'
5322214014	WIRE UL1015 #22 BRN 390-TERM	FOR HCS1
5322234514	WIRE UL1015 #22 ORG 440-TERM 1	FOR 300V
5322243814	WIRE UL1015 #22 YEL 370-TERM	FOR HCS2
5324140500	WIRE UL1007 #24 YEL 40-K-K	FOR L-LCH3
5324151500	WIRE 1007 #24 GRN 140-K-K	FOR R-R'
5324161600	WIRE UL1007 #24 BLU 150-K-K	FOR FB'-P
5324171500	WIRE UL1007 #24 VIO 140-K-K	FOR FB-Q
5324190700	WIRE 1007 #24 WHT 65-K-K	FOR A-A'
5324191800	WIRE 1007 #24 WHT 170-K-K	FOR DF-DF'
5324221101	WIRE 1007 #24 RED 100-5-5	
7050306340	F.B.T	T302
7050904660	O/P TRANSFORMER	T303
708S206000	COIL HOR LINEARITY -SF-	L303
4110007330	TRS. 2SA733 TO-92M -RT-	Q305,327,333
4110013710	TRS. 2SA1371E TO-92	Q330
411010647A	TRS. 2SB647A(C) -RT-	Q204,207,309,319
4110113630	TRS. 2SB1363 TO-92 -RT-	Q330
411020945P	TRS. 2SC945P TO-92 -RT-	Q206,306
4110226550	TRS. 2SC2655 TO-92M -RT-	Q301
411030667A	TRS. 2SD667A TO-92M -RT-	Q203,205
4116610010	TRS. RN1001 -RT-	Q324-326,337
4116612030	TRS. RN1203 -RT-	Q312,316,321,322,323,328,336
5101471132	CAP-CCB 470PFK 1KV -RT-	C324
5101681132	CAP-CCB 680PFK 1KV -RT-	C310,311
5116103111	CAP-MC 0.01UFK 100V -RT-	C218,301,3A4,358,359
5116104111	CAP-MC 0.1UFK 100V -RT-	C206,302,318,320,323
5116222111	CAP-MC 0.0022UFK 100V -RT-	C3A2
5116563150	CAP-MC 0.056UFK 50V -RT-	C207
5134104452	CAP-SCF 0.1UFZ 50V -RT-	C215,222,329,341
515A101T16	CAP-EC +-20% 100UF/16V -RT-	C303,330
515X101T16	CAP-ECX 100UFM 16V -RT-	C303,330
515X101T50	CAP-ECX 100UFM 50V -RT-	C321
515X109T50	CAP-ECX 1UFM 50V -RT-	C326,327,328
515X229T50	CAP-ECX 2.2UFM 50V -RT-	C360
5156100S02	CAP-EC6 10UFM 160V -SF-	C337
5156101T10	CAP-EC6 100UFM 10V -RT-	C221
5156101T16	CAP-EC6 100UFM 16V -RT-	C331
5156109T50	CAP-EC6 1UFM 50V -RT-	C214,304,355
5156221T16	CAP-EC6 220UFM 16V -RT-	C332
5156229T50	CAP-EC6 2.2UFM 50V -RT-	C217,339
5156339T50	CAP-EC6 3.3UFM 50V -RT-	C224,226
5156470T35	CAP-EC6 47UFM 35V -RT-	C219
4050147155	RES-CF 1/2W J 470R -AT- SMALL	R260
4050212155	RES-CF 1/2W J 120R -AT-	R321
4050218155	RES-CF 1/2W J 180R -AT-	R240
4050247255	RES-CF 1/2W J 4.7KR -AT-	R343
4050282155	RES-CF 1/2W J 820R -AT-	R355-357,397
4050410155	RES-CF 1/4W J 100R -AT-	R211,212
4050410255	RES-CF 1/4W J 1K -AT-	R222,244,249,251,306-308,374
4050410355	RES-CF 1/4W J 10K -AT-	R226,310,3A3,3A4
4050410555	RES-CF 1/4W J 1M -AT-	R394,382
4050413355	RES-CF 1/4W J 13K -AT-	R366
4050415355	RES-CF 1/4W J 15K -AT-	R266,365
4050415455	RES-CF 1/4W J 150K -AT-	R392
4050418155	RES-CF 1/4W J 180R -AT-	R238
4050418255	RES-CF 1/4W J 1.8K -AT-	R245,3A2
4050418355	RES-CF 1/4W J 18K -AT-	R246,278
4050418455	RES-CF 1/4W J 180K -AT-	R395
4050420255	RES-CF 1/4W J 2K -AT-	R248,313,350
4050420355	RES-CF 1/4W J 20K -AT-	R363
4050422055	RES-CF 1/4W J 22R -AT-	R311
4050422155	RES-CF 1/4W J 220R -AT-	R253
4050422255	RES-CF 1/4W J 2.2K -AT-	R237,371
4050422455	RES-CF 1/4W J 220K -AT-	R370
4050422555	RES-CF 1/4W J 2.2M -AT-	R367,382
4050424255	RES-CF 1/4W J 2.4K -AT-	R252
4050424355	RES-CF 1/4W J 24K -AT-	R364
4050427355	RES-CF 1/4W J 27K -AT-	R358
4050430255	RES-CF 1/4W J 3K -AT-	R361
4050433155	RES-CF 1/4W J 330R -AT-	R228
4050433355	RES-CF 1/4W J 33K -AT-	R231
4050433455	RES-CF 1/4W J 330K -AT-	R393

4050433955	RES-CF 1/4W J 3.3R -AT-	R236
4050436355	RES-CF 1/4W J 36K -AT-	R359
4050439255	RES-CF 1/4W J 3.9K -AT-	R3A6
4050439355	RES-CF 1/4W J 39K -AT-	R277,381
4050443255	RES-CF 1/4W J 4.3K -AT-	R239
4050447255	RES-CF 1/4W J 4.7K -AT-	R213-218,229,342,3A1
4050447255	RES-CF 1/4W J 4.7K -AT-	R250 (FOR HITACHI CRT)
4050451255	RES-CF 1/4W J 5.1K -AT-	R360
4050451355	RES-CF 1/4W J 51K -AT-	R3A5
4050456255	RES-CF 1/4W J 5.6K -AT-	R230,301
4050456455	RES-CF 1/4W J 560K -AT-	R332,334
4050468155	RES-CF 1/4W J 680R -AT-	R309
4050468255	RES-CF 1/4W J 6.8K -AT-	R369
4050468355	RES-CF 1/4W J 68K -AT-	R232
4050482255	RES-CF 1/4W J 8.2K -AT-	R243
4050491355	RES-CF 1/4W J 91K -AT-	R368
4070410555	RES-MF 1/4W J 1M -AT-	R300
4077833955	RES-MF 1/2W J 3.3R SMALL -AT-	R3A8
4120104002	DIODE 1N4002 -AT-	D212
4120141480	DIODE 1N4148 (SI) -AT-	D205-208,213,215,310,327,330-332,335,340,342-344
4120500152	DIODE ZENER 14.5-15.1V -AT-	D321,322,325,326
41205004A2	DIODE ZENER HZ4A2 -AT-	D211,214,312
4120500561	DIODE ZENER RD5.1E82 1/2W -AT-	D220
41205009C1	DIODE ZENER HZ9C1 -AT-	D301
412055279U	DIODE ZENER 1N5279BRL -AT-	D333
4130100100	DIODE RGP100-5302 -AT- 1A	D311
413010010J	DIODE RGP10J-5390 1A 600V -AT-	D308,309,315,334,341
413010010M	DIODE RGP10M-5311 -AT-	D316
4130100218	DIODE RGP02-18E-5300 -AT-	D317,318
413020120C	DIODE EGP20C-5390 -AT-	D313,314
4141095500	P.C.B. 12C	
4141101007	P.C.B MAIN 300X300	
4171030156	RES-MOF 1W J 300R -AT-	R324
4171033056	RES-MOF 1W J 33R -AT-	R320
4171033256	RES-MOF 1W J 3.3K -AT-	R327
4171033956	RES-MOF 1W J 3.3R -AT-	R3A9
4256041001	RES-PR MF 1/4W F 1K -AT-	R221
4256041002	RES-PR MF 1/4W F 10K -AT-	R225,326,346
4256041003	RES-PR MF 1/4W F 100K -AT-	R219,224
4256041302	RES-PR MF 1/4W F 13K -AT-	R315,347
4256041362	RES-PR MF 1/4 F 13.6K -AT-	R352
4256041742	RES-PR MF 1/4W F 17.4K -AT-	R351
4256042201	RES-PR MF 1/4W F 2.2K -AT-	R312
4256042801	RES-PR MF 1/4W F 2.8K -AT-	R259
4256043903	RES-PR MF 1/4W F 390K -AT-	R234 (FOR HITACHI CRT)
4256044301	RES-PR MF 1/4W F 4.3K -AT-	R348
4256045622	RES-PR MF 1/4W F 56.2K -AT-	R223
4256046802	RES-PR MF 1/4W F 68K -AT-	R235 (FOR HITACHI CRT)
4256047502	RES-PR MF 1/4W F 75K -AT-	R220
4256048251	RES-PR MF 1/4W F 8.25K -AT-	R353
4256049530	RES-PR MF 1/4W F 953R -AT-	R258
5406100000-000	JUMP WIRE 0.6e	J201-209,211-215,217,218,220-222,224-231,233-256, J260-268,270,272-274,276-281,283-290,292-294,297, D328

AM60000344-V	SPS PCB ASS'Y (SUB-2)	R75
4050447355	RES-CF 1/4W J 47K -AT-	R17
4050491355	RES-CF 1/4W J 91K -AT-	Q11
2001291780	HEAT SINK	FOR Q11
3011100030	NUT ISO HEX M3 Z1NC	Q11
4101509470	TRS. MOSFET 2SK947 TO-220	FOR Q11
8504113010	SCREW BIND(+) M3X10 MACH W/DIS	FOR Q7
2046294000	HEAT SINK F	FOR Q7
4101164050	TRS. 2N6405 TO-220 16A/800V SC	FOR Q7
8504113008	SCREW BIND(+) M3X8 MACH W/DISK	FOR Q1
2004191630	HEAT SINK HOLDER	FOR Q1
2008094660	HEAT SINK	Q1
4101515730	TRS. MOSFET 2SK1573 TO-3P	FOR Q1
5510135280	TUBE SI-RUBBER 13.5eX28MM	FOR Q1
8283113015	SCREW BIND(+) M3X15 MACH W/SPR	FOR Q1
2007094660	HEAT SINK	FOR D30
41303031F4	DIODE 3A/400V 35NS 310F4 -AT-	D30
2001291780	HEAT SINK	D21
3011100030	NUT ISO HEX M3 Z1NC	FOR D21
410584551A	TRS. MOSFET BUK455-100A TO-22	Q15
4130505400	DIODE F5KF40	D21
8504113012	SCREW BIND(+) M3X12 MACH W/DIS	FOR D21
2007891030	HEAT SINK	FOR IC6
3011100030	NUT ISO HEX M3 Z1NC	FOR IC6

4159317001	IC LM317T W/MOUNTING KIT TO-22	IC6
8504113008	SCREW BIND(+) M3X8 MACH W/DISK	FOR IC6
2013094660	HEAT SINK	FOR DB1
413050S860	DIODE 05S860 5A/600V	DB1
8504113008	SCREW BIND(+) M3X8 MACH W/DISK	FOR DB1
C488080023	CONN. 8P & WIRE ASS'Y	FOR SK901
1005083030	STAND TO-220 -SF-	FOR Q7
4072033853	RES-MF 2W J 0.33R -AT-	R6
4095022158	RES-WW 5W J 220R SQY	R5
4095027358	RES-WW 5W J 27K SQY	R43
4095030254	RES-WW 5W J 3K SQM-NORMAL	R44
4097010354	RES-WW 7W J 10K SQM-NORMAL	R7
4097015051	RES-WW 7W J 15R SQM-SF	R2
410030669A	TRS. 2S0669A TO-126	Q2
41303031F2	DIODE 3A/200V 310F2	D22,23
41303031F4	DIODE 3A/400V 35NS 310F4 -AT-	D20
4130304311	DIODE 310F1 -AT-	D24
4159384200	IC UC3842A 8PIN	IC1
4159435002	POTO COUPLER X'ISTER 4N35 W=10	PH1
4159523800	IC M5238AP	IC4
4320361003	COIL CHOKE 360UH -SF-	L1
4420512004	RELAY DC12V	RELAY
4490200207	CONN. 2P WAFER ROUND PIN 10MM	SK3
4490300190	CONN. 3.96 3P W/O PIN 2 -SF-	SK1
4692300001	CLIP-FUSE 5MM	FOR F1
5061103440	CAP-CCS 0.01UFM 400V -SF-	C5,6
5065105425	CAP-MPR 1UFM 250V -SF-	C1
5065474425	CAP-MPR 0.47UFM 250V -SF-	C2
5074104104	CAP-MEF 0.1UFK 400V -SF-	C22
5074224101	CAP-MEF 0.22UFK 100V -SF-	C48,49
5092103565	CAP-PP 0.01UFJ 630V -SF-	C43
5101471193	CAP-CCS 470PFK 3KV -SF-	C9
515A331S50	CAP-EC +-20% 330UF/50V -SF-	C32
515A470S02	CAP-EC +-20% 47UF/160V -SF-	C30
515A471S35	CAP-EC +-20% 470UF/35V -SF-	C8
515F101S01	CAP-ECF 100UFM 100V -SF-	C91
515F331S01	CAP-ECF 330UFM 100V -SF-	C31
515F471S25	CAP-ECF 470UFM 25V -SF-	C33,34
515L331S04	CAP-ECL 330UFM 400V -SF-	C7
515X221S07	CAP-ECX 220UFM 200V -SF-	C47
515X331S50	CAP-ECX 330UFM 50V -SF-	C32
515X471S35	CAP-ECX 470UFM 35V -SF-	C8
5225150210	POT(CERMET) 0.3W 5K 6% LAY-DOW	VR1
5268400052	FUSE 4A/250VAC	F1
7021134091	PTCR PTH451C262BF140M270	PTCR1
7050106700	POWER TRANSFORMER	T2
7066000193	CHOKE COMMON MODE AM6000	T1
7110680018	VARIATOR	VDR1
410112907A	TRS. 2N2907A	Q18
4110105610	TRS. 2S8561 TO-92 -RT-	Q3,6
411022120Y	TRS. 2SC2120Y TO-92 -RT-	Q5,20
4114422220	TRS. PH2222 TO-92 -RT-	Q17
411442907A	TRS. PH2907A TO-92 -RT-	Q18
4114501006	TRS. MCR100-6 TO-92 -RT-	Q4
4114510080	TRS. SCR MCR100-8 TO-92 -RT-	Q19
415943100A	IC TL431 REGULATOR TO-92 -RT-	IC3
5074472505	CAP-MEF 0.0047UFJ 50V -SF-	C13
5101102132	CAP-CCB 1000PFK 1KV -RT-	C38
5101102152	CAP-CCB 1000PFK 50V -RT-	C17
5101121152	CAP-CCB 120PFK 50V -RT-	C10,14
5101331152	CAP-CCB 330PFK 50V -RT-	C50
5101681152	CAP-CCB 680PFK 50V -RT-	C51
5112102550	CAP-PEN 0.001UFJ 50V -RT-	C46
5116472111	CAP-MC 0.0047UFK 100V -RT-	C15
5134104452	CAP-SCF 0.1UFZ 50V -RT-	C37
515A100T01	CAP-EC +-20% 10UF/100V -RT-	C20
515A100T25	CAP-EC +-20% 10UF/25V -RT-	C45
515A101T10	CAP-EC +-20% 100UF/10V -RT-	C16
515A220T25	CAP-EC +-20% 22UF/25V -RT-	C21
515A339T50	CAP-EC +-20% 3.3UF/50V -RT-	C3
515A470T10	CAP-EC +-20% 47UF/10V -RT-	C12
515X100T01	CAP-ECX 10UFM 100V -RT-	C20
515X100T25	CAP-ECX 10UFM 25V -RT-	C45
515X100T50	CAP-ECX 10UFM 50V -RT-	C19
515X101T10	CAP-ECX 100UFM 10V -RT-	C16
515X220T25	CAP-ECX 22UFM 25V -RT-	C21
515X339T50	CAP-ECX 3.3UFM 50V -RT-	C3
515X339T50	CAP-ECX 3.3UFM 50V -RT-	C53
515X470T10	CAP-ECX 47UFM 10V -RT-	C12
5156479T50	CAP-EC6 4.7UFM 50V -RT-	C18

4050247455	RES-CF 1/2W J 470K -AT-	R1
4050410155	RES-CF 1/4W J 100R -AT-	R21,25,35,37,38
4050410255	RES-CF 1/4W J 1K -AT-	R20,48,57,66,70,78
4050410355	RES-CF 1/4W J 10K -AT-	R27,31,85
4050410455	RES-CF 1/4W J 100K -AT-	R36
4050410555	RES-CF 1/4W J 1M -AT-	R65,97
4050412155	RES-CF 1/4W J 120R -AT-	R24
4050415355	RES-CF 1/4W J 15K -AT-	R26,29,46
4050418055	RES-CF 1/4W J 18R -AT-	R9
4050420155	RES-CF 1/4W J 200R -AT-	R23,79
4050420255	RES-CF 1/4W J 2K -AT-	R10,33
4050420355	RES-CF 1/4W J 20K -AT-	R15
4050422255	RES-CF 1/4W J 2.2K -AT-	R68
4050424355	RES-CF 1/4W J 24K -AT-	R45,76
4050427255	RES-CF 1/4W J 2.7K -AT-	R13
4050430055	RES-CF 1/4W J 30R -AT-	R8
4050430255	RES-CF 1/4W J 3K -AT-	R30,34,69,71,96
4050430355	RES-CF 1/4W J 30K -AT-	R62
4050433455	RES-CF 1/4W J 330K -AT-	R84
4050436355	RES-CF 1/4W J 36K -AT-	R95
4050439355	RES-CF 1/4W J 39K -AT-	R92
4050447055	RES-CF 1/4W J 47R -AT-	R47
4050447155	RES-CF 1/4W J 470R -AT-	R77
4050447255	RES-CF 1/4W J 4.7K -AT-	R67
4050451055	RES-CF 1/4W J 51R -AT-	R11
4050451255	RES-CF 1/4W J 5.1K -AT-	R18,19,32
4050456455	RES-CF 1/4W J 560K -AT-	R39,40
4050462155	RES-CF 1/4W J 620R -AT-	R49
4050462955	RES-CF 1/4W J 6.2R -AT-	R12
4050475155	RES-CF 1/4W J 750R -AT-	R41
4050482255	RES-CF 1/4W J 8.2K -AT-	R28
4050482455	RES-CF 1/4W J 820K -AT-	R32
4051047455	RES-CF 1W J 470K -AT-	R4
4071022855	RES-MF 1W J 0.22R -AT-	R3,56
4120104001	DIODE 1N4001 -AT-	D4,29
4120146060	DIODE 1N4606 (SI) -AT-	D5-9,11-13,16,17,19,31
4120500162	DIODE ZENER 16V HZ-16-2 -AT-	Z1,5
4120500563	DIODE ZENER RD5.6E81 -AT-	Z6
4120501802	DIODE ZENER HZ18-2 V -AT-	Z2,3
412055279U	DIODE ZENER 1N5279BRL -AT-	Z4
4120559558	DIODE ZENER 1N5955B 180V +-5%	Z4
4130100018	DIODE FE1B-5390 1A 100V -AT-	D15
4130100010	DIODE FE1D-5390	D2,3,34
413010426C	DIODE BYV26C KINK FORMING -AT-	D25
413010426D	DIODE 1A/800V BYV26D	D1,28
4130201100	DIODE EGP10D -AT-	D2,3,34
4160447555	RES-MG 1/4W J 4.7M -AT-	R14
4171010056	RES-MOF 1W J 10R -AT-	R81
4171013956	RES-MOF 1W J 1.3R -AT-	R87(FOR HITACHI CRT)
4256041002	RES-PR MF 1/4W F 10K -AT-	R16
4256041101	RES-PR MF 1/4W F 1.1K -AT-	R94
4256041603	RES-PR MF 1/4W F 160K -AT-	R72
4256043301	RES-PR MF 1/4W F 3.3K -AT-	R74
4256044322	RES-PR MF 1/4W F 43.2K -AT-	R73
4256049091	RES-PR MF 1/4W F 9.09K -AT-	R86
4321150006	COIL PEAKING 15UH -AT-	L3
4322209046	FERRITE BEAD 2UH -AT-	L2
5406100000-000	JUMP WIRE 0.6¢	J1-22,24,25,27-36,38,40

AM60000642-V	TRS. PCB ASS'Y (SUB-1)	
1003090000	NYLON BUSHING	FOR DTV32-1500B
2007891030	HEAT SINK	
3011100030	NUT ISO HEX M3 Z1NC	
4130600032	DIODE DTV32-1500B	D303
5520010004	INSULATOR SI-RUBBER TO-220	(FOR DTV32-1500B
8504113008	SCREW BIND(+) M3X8 MACH W/DISK	
3052000300	EYELET	
4130052A2U	DIODE RG2A2 1300V/0.5A -AT-	D336,337
4172010356	RES-MOF 2W J 10K -AT-	R328
4172024156	RES-MOF 2W J 240R -AT-	R314
4177310953	RES-MOF 3W J 1R -SF- SMALL	R316
4177322953	RES-MOF 3W J 2.2R -SF- SMALL	R319,390
4323529003	COIL CHOKE 5.2UH -SF-	L302
4490600034	CONN. 6P 5273-06 OR 3060-06	P307
5113224150	CAP-MC 0.22UFK 50V -SF-	C305
5190333553	CAP-MPP 0.033UFJ 1500V -SF-	C308
51905625A3	CAP-MPP 0.0056UFJ 2KV -SF-	C309
5195822573	CAP-PMHA 8200PFJ 1.6KV -SF-	C307
5290025000	TUBE-SHRINK ID=25¢	FOR C307

7050206330	DRIVER TRANSFORMER	T301
5116103111	CAP-MC 0.01UFK 100V -RT-	C306,317
4050412155	RES-CF 1/4W J 120R -AT-	R381
4050447055	RES-CF 1/4W J 47R -AT-	R318
4120500152	DIODE ZENER 14.5-15.1V -AT-	D319,320
413010010J	DIODE RGP10J-5390 1A 600V -AT-	D307
413020120A	DIODE EGP-20A -AT-	D302
5406100000-000	JUMP WIRE 0.6±	J301,303,304,R317

----- END -----

SPARE	Item Number	Description	COMMENT
	SS60010930-404	LOGIC PCB ASS'Y	
	4010110152	RES-CHIP 1/10W J 100R 0805	R822
	4010110252	RES-CHIP 1/10W J 1K 0805	R852
	4010120252	RES-CHIP 1/10W J 2K 0805	R840
	4010120352	RES-CHIP 1/10W J 20K 0805	R801-808
	4010122952	RES-CHIP 1/10W J 2.2R 0805	R853,854
	4010124252	RES-CHIP 1/10W J 2.4K 0805	R824
	4010127252	RES-CHIP 1/10W J 2.7K 0805	R830
	4010139252	RES-CHIP 1/10W J 3.9K 0805	R820,831
	4010147252	RES-CHIP 1/10W J 4.7K 0805	R809-816
	4010147452	RES-CHIP 1/10W J 470K 0805	R827
	4050216055	RES-CF 1/2W J 16R -AT-	R855
	4050400055	RES-CF 1/4W J OR -AT-	L801,R821
	411010647C	TRS. 2S8647C TO-92M -RT-	Q854
	411030667C	TRS. 2S0667C TO-92M -RT-	Q853
	412014148T	DIODE 1N4148 (BAS32L) MUF SMD	D810-814
	4141101504	P.C.B. DMC1000	
	415574574T	IC 74HC574 SMD CHIP 20PIN	IC810
	4159100001	IC DMC 1000 PLCC REV:G	IC801
	415924116T	IC 24LC168SN (SOIC) 8PIN	IC802
	4159241640	IC X24164 (SOIC) 8PIN	IC803
	4159358000	IC LM358 8PIN	IC811
	4159600012	FIRMWARE CAM6000 G11	
	419A110022	RES-CHIP 1/10W F 10K 0805 -AT-	R826,843,850,851
	419A120022	RES-CHIP 1/10W F 20K 0805 -AT-	R8-2
	419A124912	RES-CHIP 1/10W F 2.49K 0805 -A	R8-5
	419A140222	RES-CHIP 1/10W F 40.2K 0805 -A	R8-1
	419A149912	RES-CHIP 1/10W F 4.99K 0805 -A	R8-4
	4321109006	COIL PEAKING 1UH -AT-	L803
	4490200130	CONN. 2P WAFER 2.5MM	P812
	4490200291	CONN. 2P BASE 2.5MM (87156)	P804
	4490400130	CONN. 4P WAFER (BX6-XH-A) P221	P813
	4490700130	CONN. 7P WAFER P221 6-XH-A	CNP801
	4490800130	CONN. 8P 666-XH-A	CNP802
	5121101552	CAP-CCCH 100PFJ 50V -RT-	C819
	5156101110	CAP-EC6 100UFM 10V -RT-	C816
	5156470116	CAP-EC6 47UFM 16V -RT-	C815
	5176229L16	CAP-TC 2.2UFK 16V CHIP 3528	C801
	7145102456	CAP-X7R 0.001UFZ 50V CHIP 1206	C809
	7145333156	CAP-X7R 0.033UFK 50V CHIP 1206	C804
	7147104456	CAP-CC +80%-20% 0.1UF/50V CHIP	C803,805-807,850,851
	7154000000	CRYSTAL 4.00MHZ	RC801
	7185101116	CAP-CC +-10%-100PF/100 CHIP	C808,813,814

END

1. CATEGORY COLOR LANDSCAPE
2. CRT SIZE: 20"
 PHOSPHOR: P22 MEDIUM SHORT
 DEFLECTION ANGLE: 90°
 DOT PITCH 0.28 mm
 X'MISSION RATE: 53.5%
3. f-SYNC. MULTI-SYNC
 f-H: 31 -- 82 KHZ f-V: 50 -- 110HZ
4. RESOLUTION

MODE NO	Hf KHz	Vf Hz	DOT x LINE
01	79.976	75.02	1280 x 1024
02	74.645	70.02	1280 x 1024
03	59.880	74.85	1024 x 768
04	58.230	72.245	1024 x 768
05	56.476	70.07	1024 x 768
06	48.044	72.14	800 x 600
07	46.968	75.15	800 x 600
08	37.736	72.57	640 x 480
09	37.383	74.77	640 x 480
10	31.47	70.08	640 x 350
11	31.47	70.08	640 x 400
12	31.47	59.94	640 x 480

5. POWER SUPPLY :
 - * A/C LINE VOITAGE RANGE: 88 VAC - 132 VAC , 180 VAC - 264 VAC
 - * A/C LINE FREQUENCY RANGE: 50+-3 HZ, 60+-3 HZ
 - * POWER CONSUMPTION : < 180 W
 - * DEGAUSS: AUTOMATIC AND MANUAL
 - * POWER MANAGEMENT:

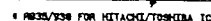
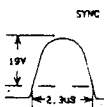
APM STATE	POWER SAVINGS	AUTOMATIC RECOVERY TIME
ON	NONE	NOT APPLICABLE
STAND-BY	MINIMAL<25W	SHORT RECOVERY
SUSPEND	SUBSTANTIAL<25W	LONGERRECOVERY ALLOWED
OFF	MAXIMUM<5W	SYSTEM DEPENDENT

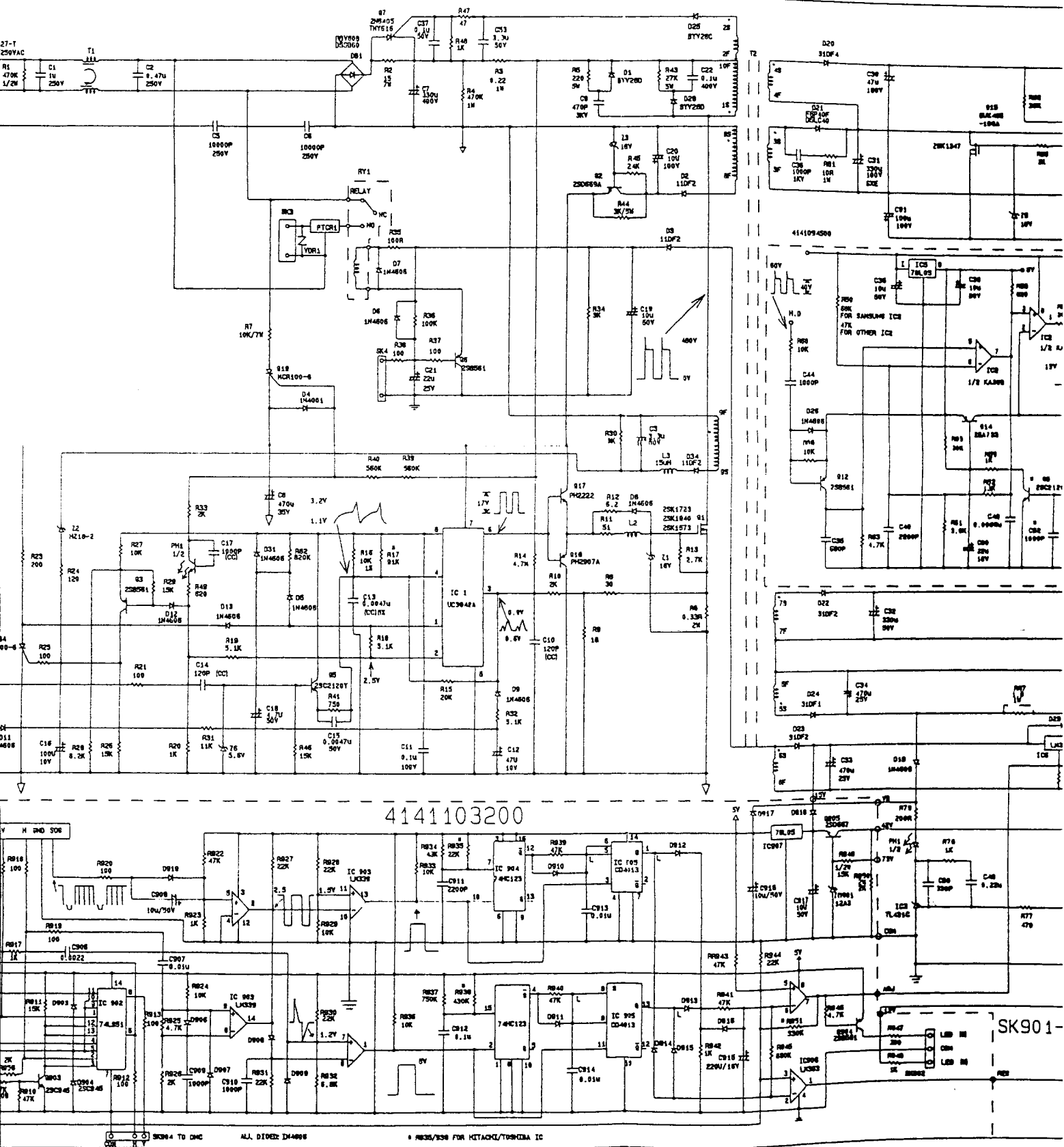
NOTE: THE POWER INDICATOR LED COLOR IS GREEN IN THE ON STATE, ORANGE IN STAND-BY, SUSPEND AND IN THE OFF STATE.
6. EXTERNAL CONTROL POWER SWITCH ADVANCED DIGITAL CONTROLS
7. MAGNETIC FIELD H=0.01 V=0.45 GAUSS

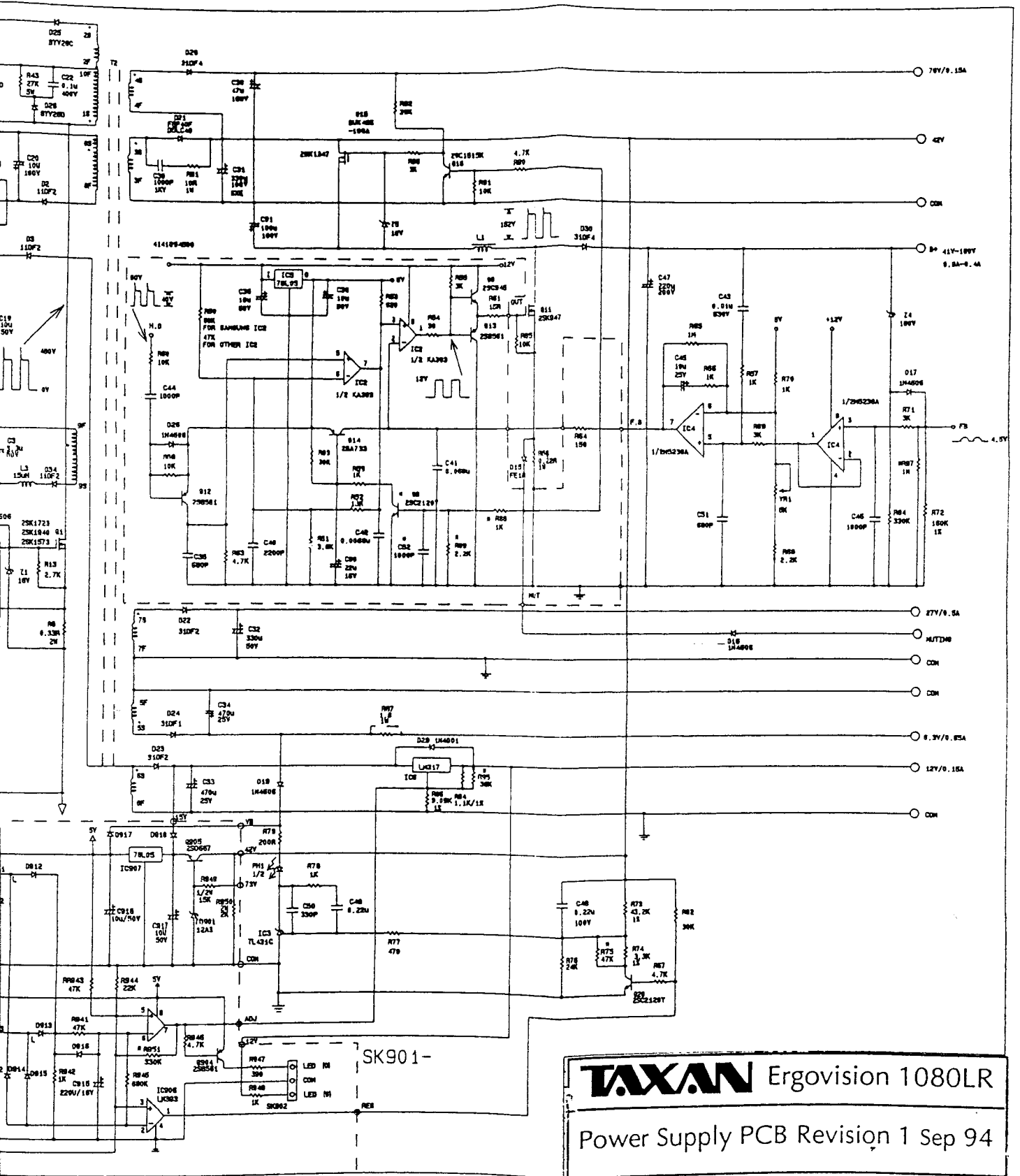
SPARE	Item Number	Description	COMMENT
	AM60000944-V	H-PRO DAUGHTER PCB ASS'Y (SUB-	
	4490500203	CONN. 5P R/A WAFER H802051	
	411020945P	TRS. 2SC945P TO-92 -RT-	Q335
	5156101T16	CAP-EC6 100UFM 16V -RT-	C352
	4050415155	RES-CF 1/4W J 150R -AT-	R388
	4050422255	RES-CF 1/4W J 2.2K -AT-	R379
	4050447255	RES-CF 1/4W J 4.7K -AT-	R387
	4120141480	DIODE 1N4148 (SI) -AT-	D338,339,347
	41205009C1	DIODE ZENER HZ9C1 -AT-	D346
	4141103100	P.C.B DELAY 26X27	
		END	

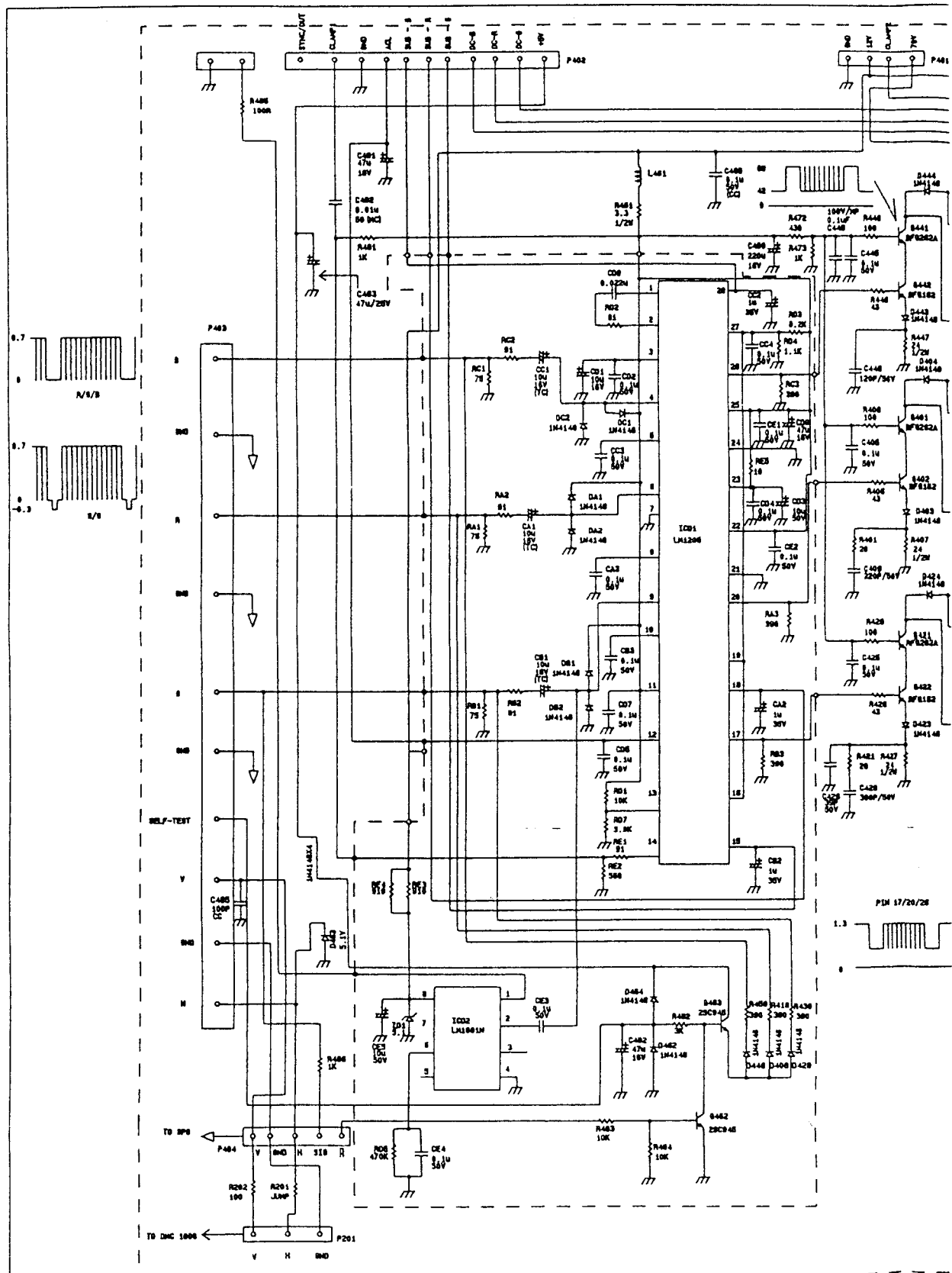
SPARE	Item Number	Description	COMMENT
	AM60010442-V	DC-DC DAUGHTER PCB ASS'Y (SUB-	
	4050447355	RES-CF 1/4W J 47K -AT-	R50
	4050468355	RES-CF 1/4W J 68K -AT-	R50 (FOR SAMSUNG IC2)
	411021515K	TRS. 2SC1515K TO-92 -RT-	Q16
	4159393000	IC LM 393 14PIN	IC2
	4491500203	CONN. 15P H802151 R/A	SK5
	5290005000	TUBE-SHRINK 10=54	FOR C36,39
	4110007330	TRS. 2SA733 TO-92M -RT-	Q14
	4110105610	TRS. 2SB561 TO-92 -RT-	Q12,13
	411020945P	TRS. KSC945CG TO-92 -RT-	Q8
	411022120Y	TRS. 2SC2120Y TO-92 -RT-	Q9
	415978L05A	IC MC78L05ACZ 3PIN	IC5
	5101102152	CAP-CCB 1000PFK 50V -RT-	C52
	5101681152	CAP-CCB 680PFK 50V -RT-	C35
	5116102111	CAP-MC 0.001UFK 100V -RT-	C44
	5116222111	CAP-MC 0.0022UFK 100V -RT-	C40
	5116682111	CAP-MC 6800PFK 100V -RT-	C42
	5116683150	CAP-MC 0.068UFK 50V -RT-	C41
	515X100150	CAP-ECX 10UFM 50V -RT-	C36,39
	5156220125	CAP-EC6 22UFM 25V -RT-	C90
	4050410255	RES-CF 1/4W J 1K -AT-	R59,88
	4050410355	RES-CF 1/4W J 10K -AT-	R58,60,91
	4050413355	RES-CF 1/4W J 13K -AT-	R52
	4050415055	RES-CF 1/4W J 15R -AT-	R61
	4050415155	RES-CF 1/4W J 150R -AT-	R64
	4050422255	RES-CF 1/4W J 2.2K -AT-	R89
	4050430055	RES-CF 1/4W J 30R -AT-	R54
	4050430255	RES-CF 1/4W J 3K -AT-	R55
	4050430355	RES-CF 1/4W J 30K -AT-	R93
	4050436255	RES-CF 1/4W J 3.6K -AT-	R51
	4050447255	RES-CF 1/4W J 4.7K -AT-	R63,90
	4050462155	RES-CF 1/4W J 620R -AT-	R53
	4120146060	DIODE 1N4606 (SI) -AT-	D26
	4141094501	P.C.B. DC-DC CONVERTER	
-----			END

85Yac-264Yac

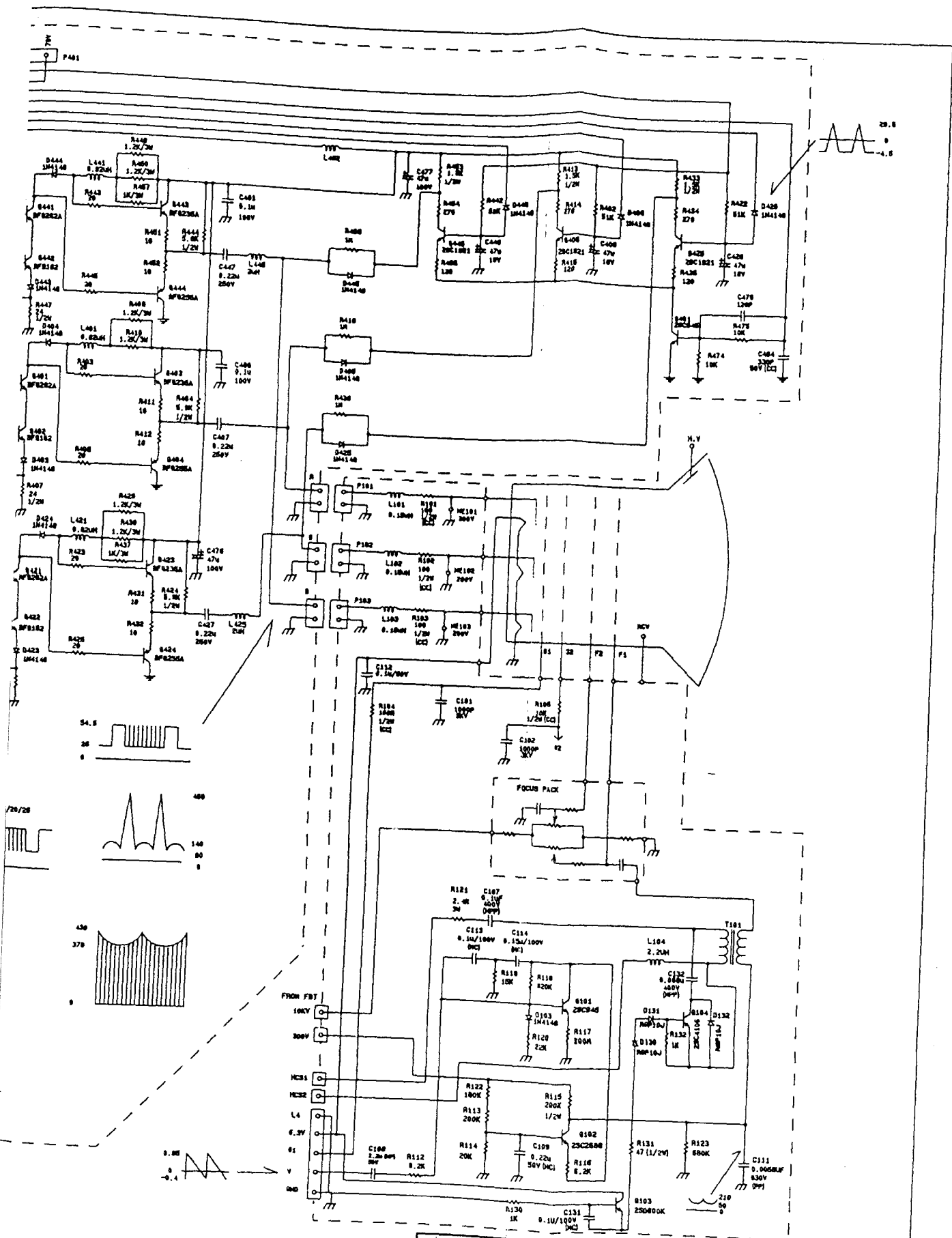






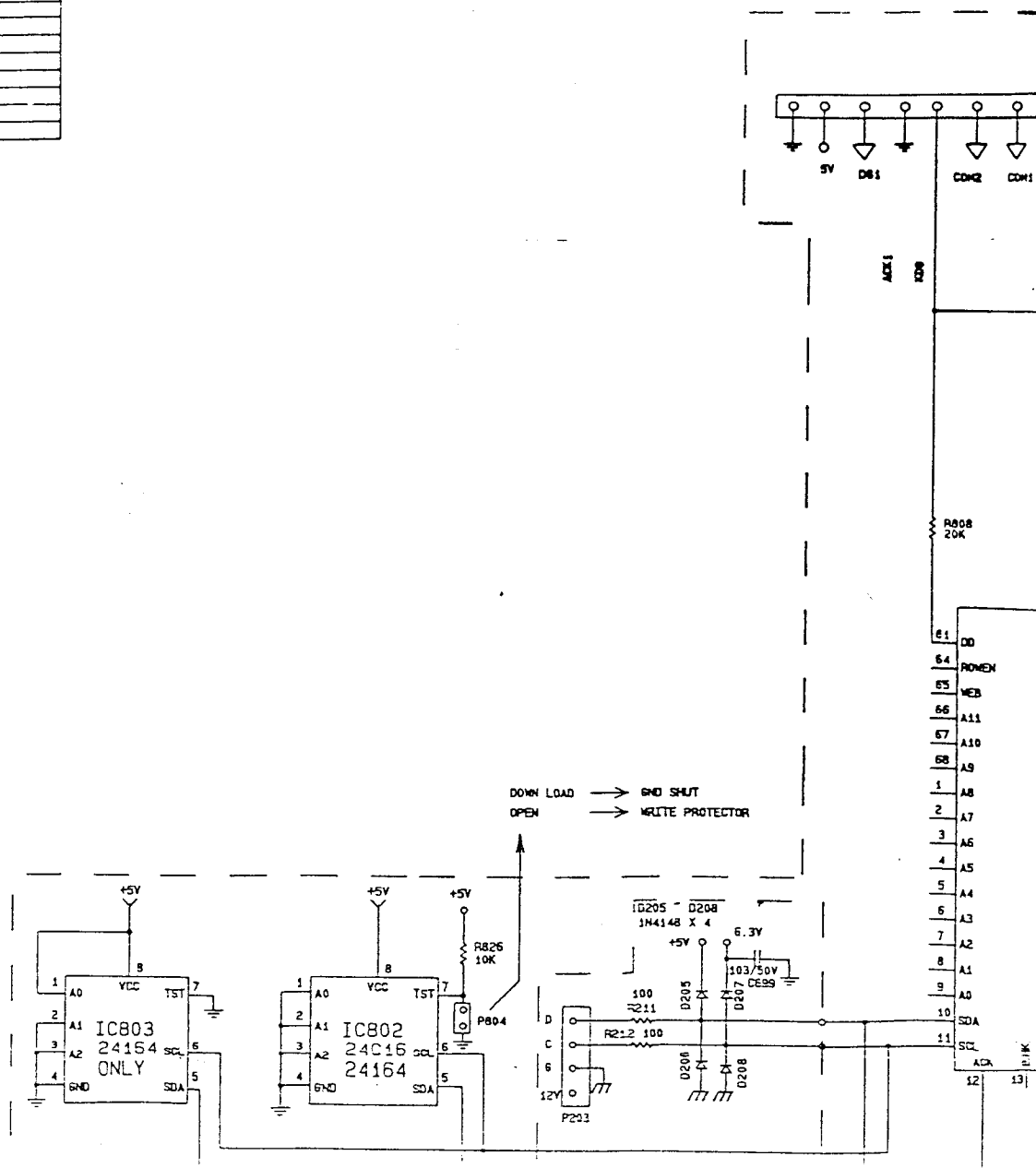


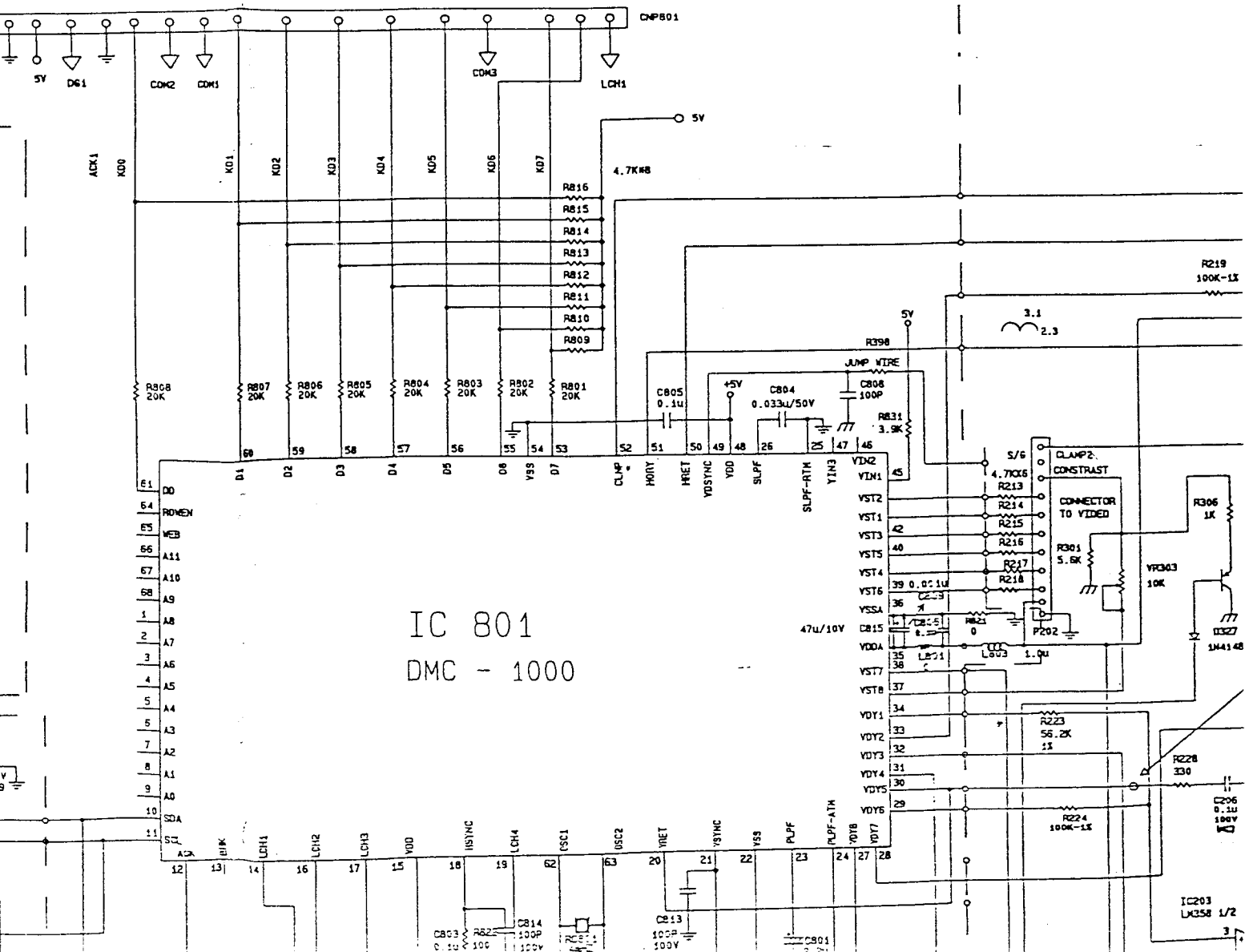




TAXAN Ergovision 1080LR

CRT Neck PCB Revision 1 Sep 94

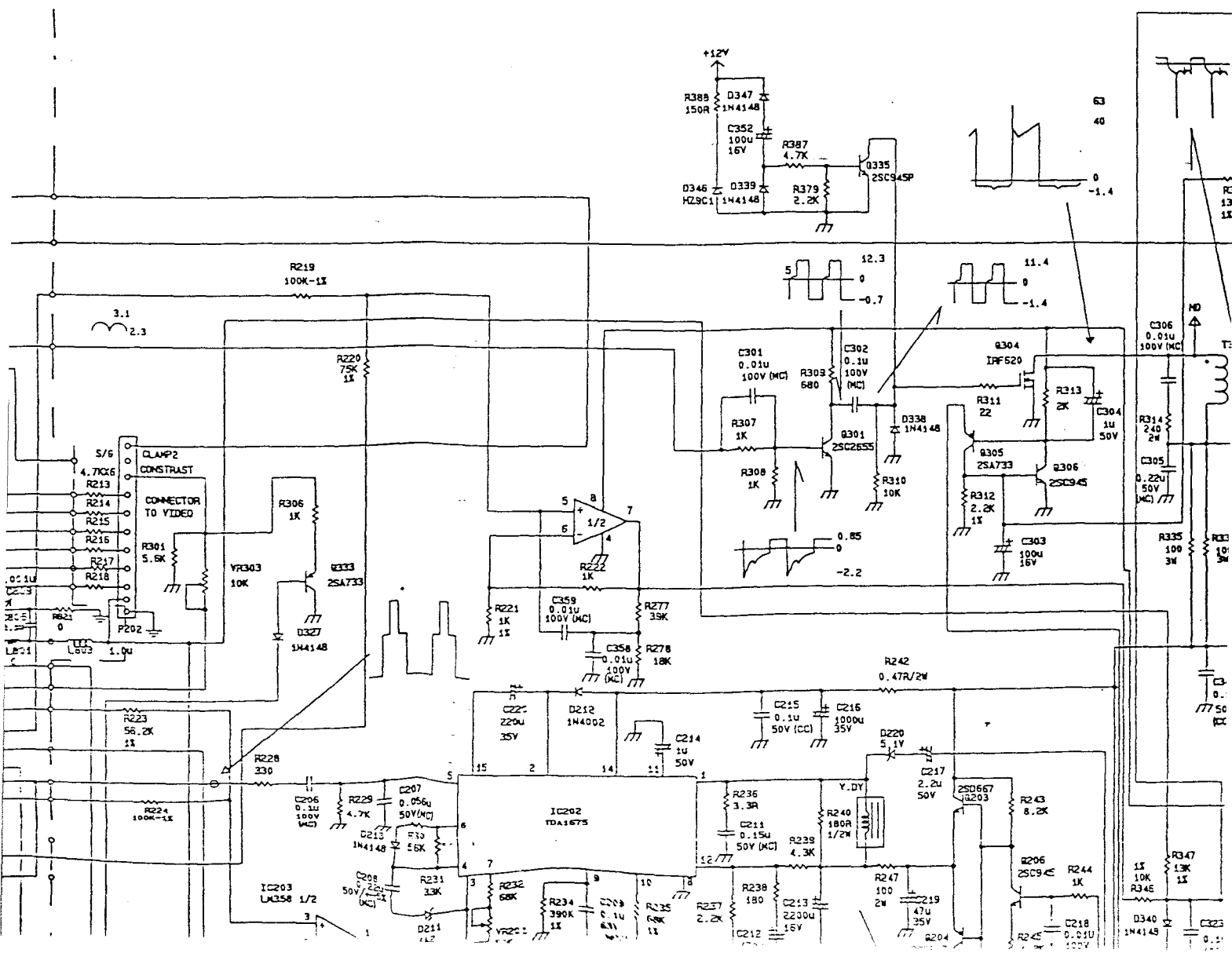
[illegible]

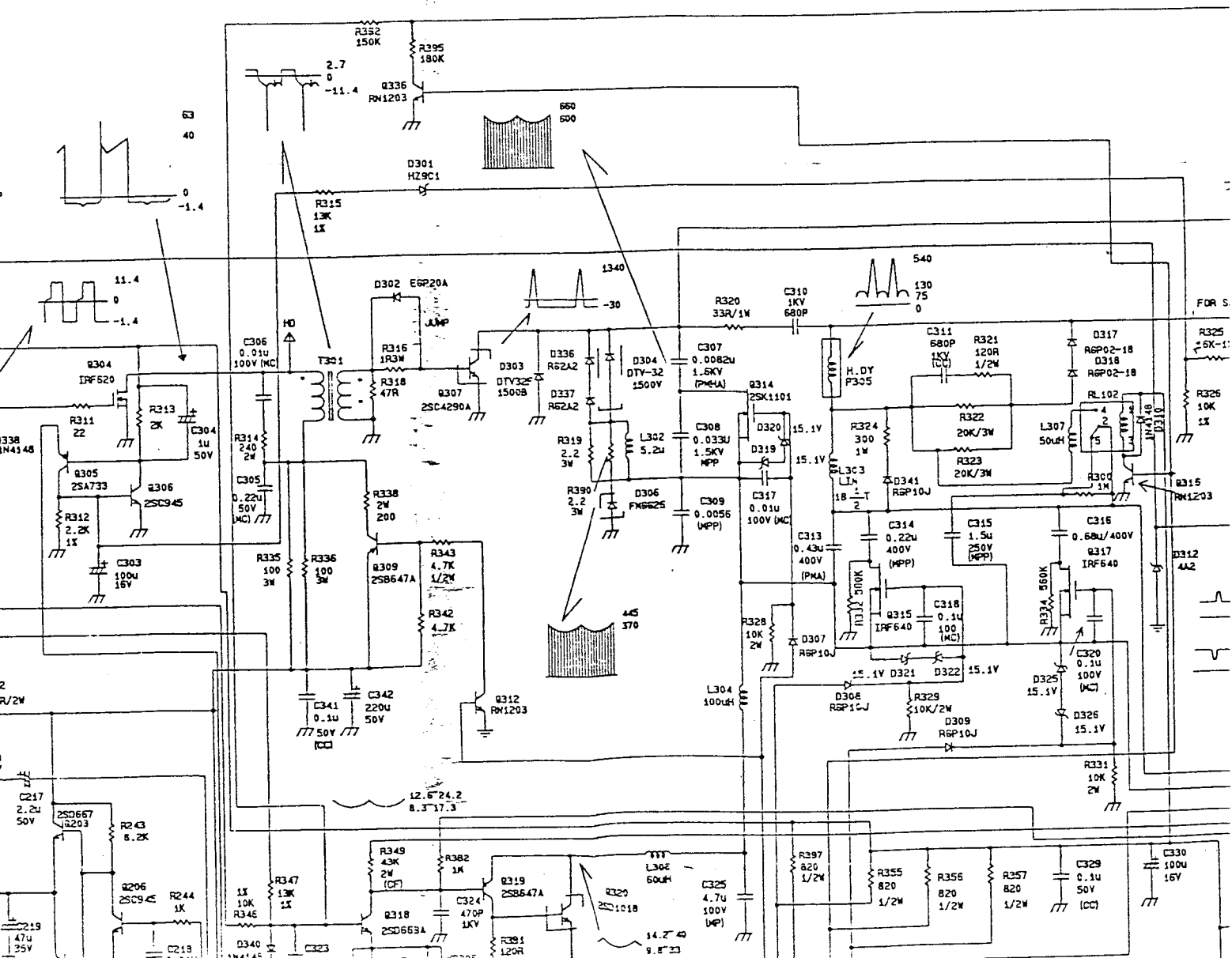


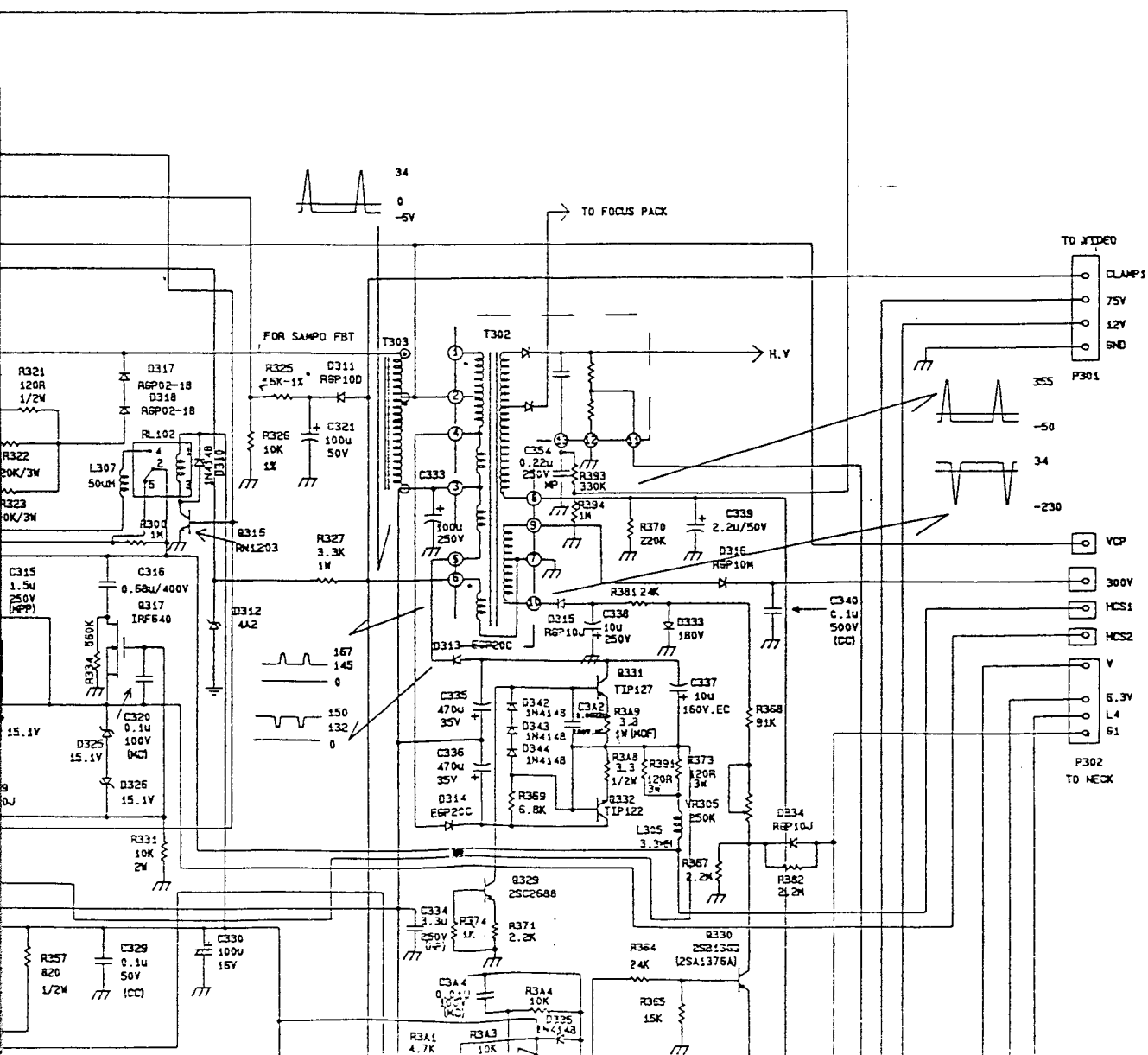
INDEX

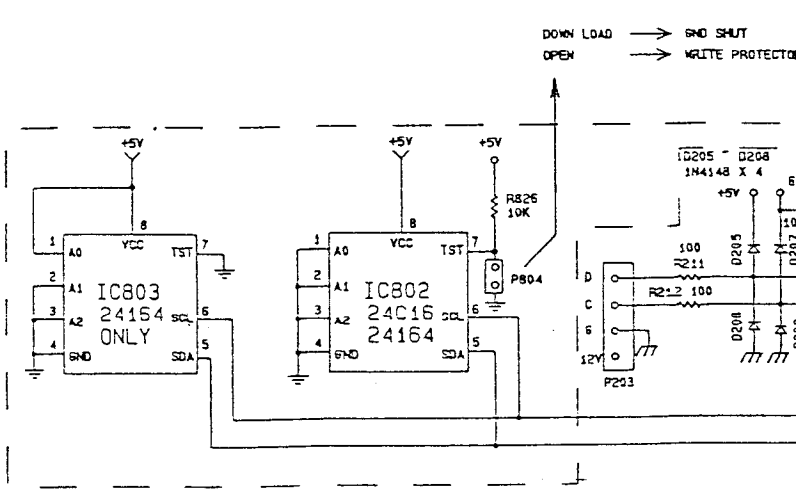
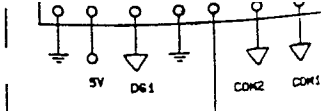
=====

1. SAFETY NOTICE -----	P 1
2. ALIGNMENT PROCEDURE -----	P 2-9
3. BILL OF MATERIAL -----	P 10-27
4. SCHEMATIC DIAGRAM -----	P 28-30
5. PCB LAYOUT DRAWING -----	P 31-35
6. PCB WIRE CONNECTION DRAWING -----	P 36
7. MECH EXPLODED VIEW -----	P 37

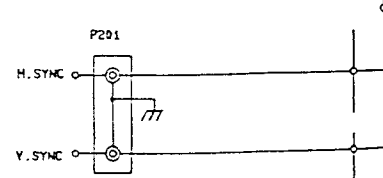
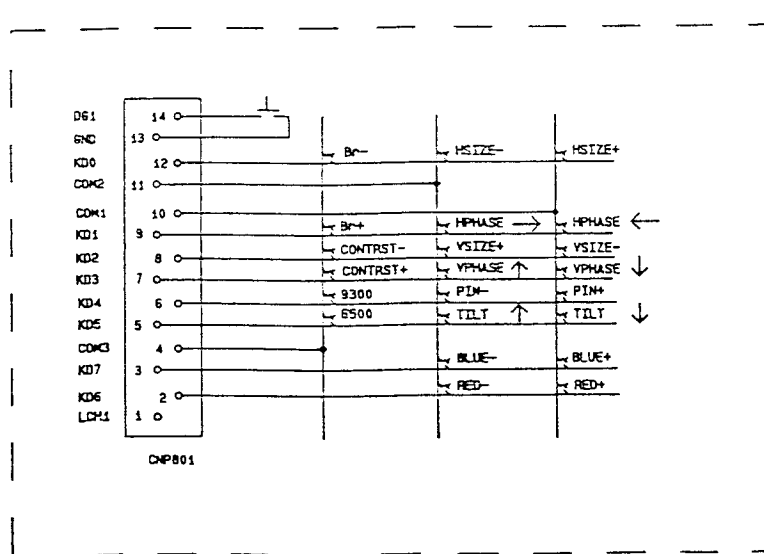




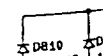


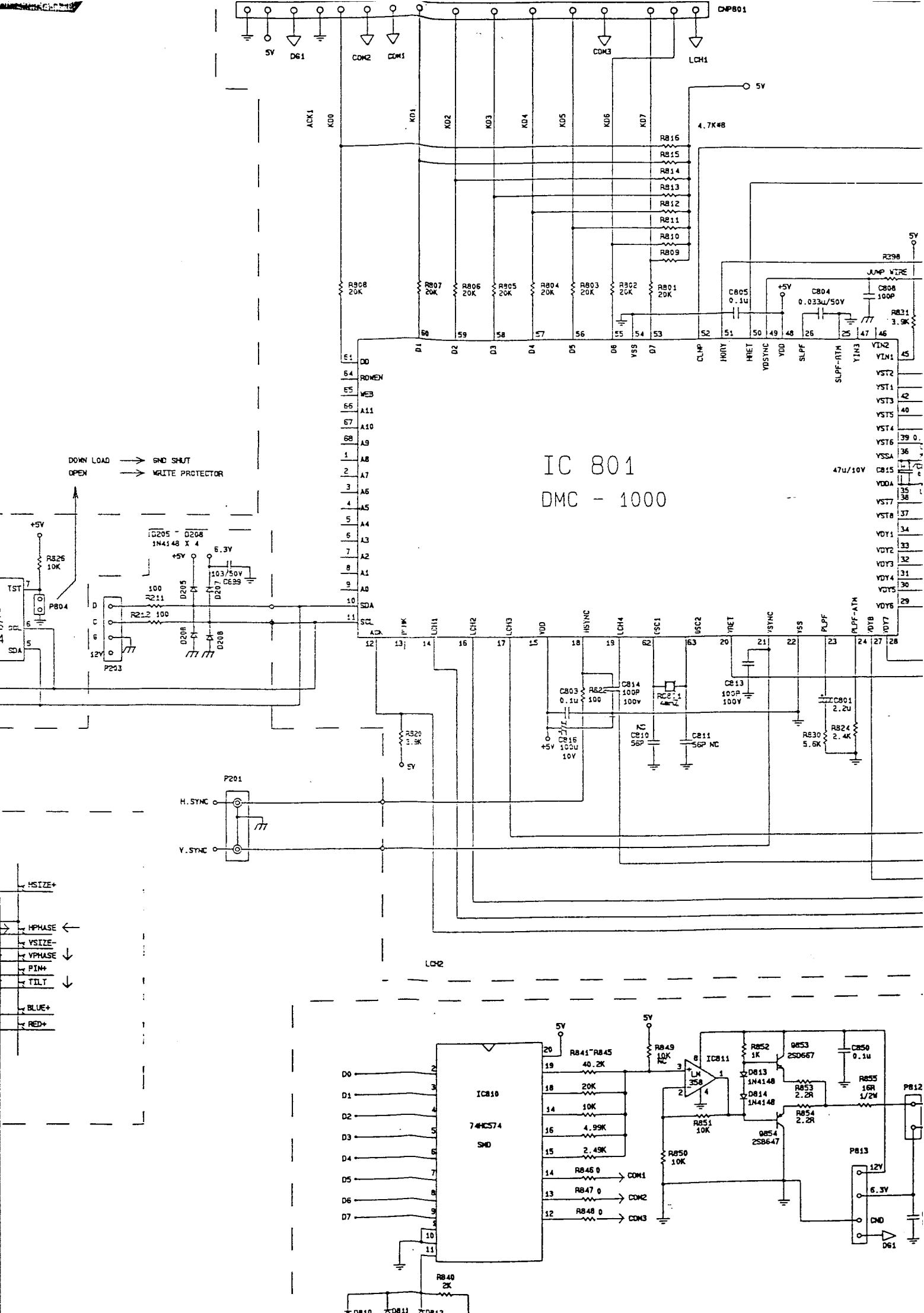


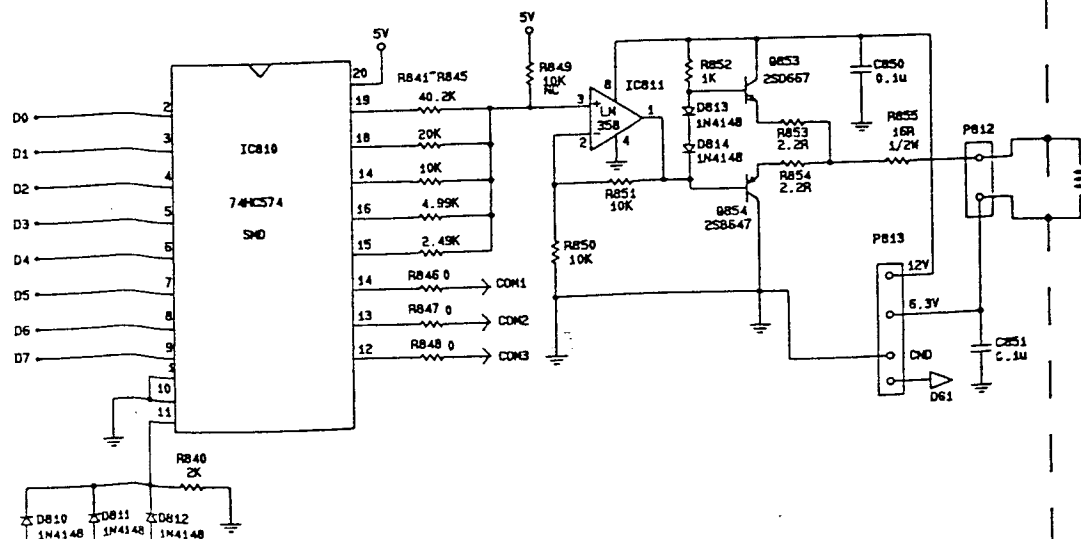
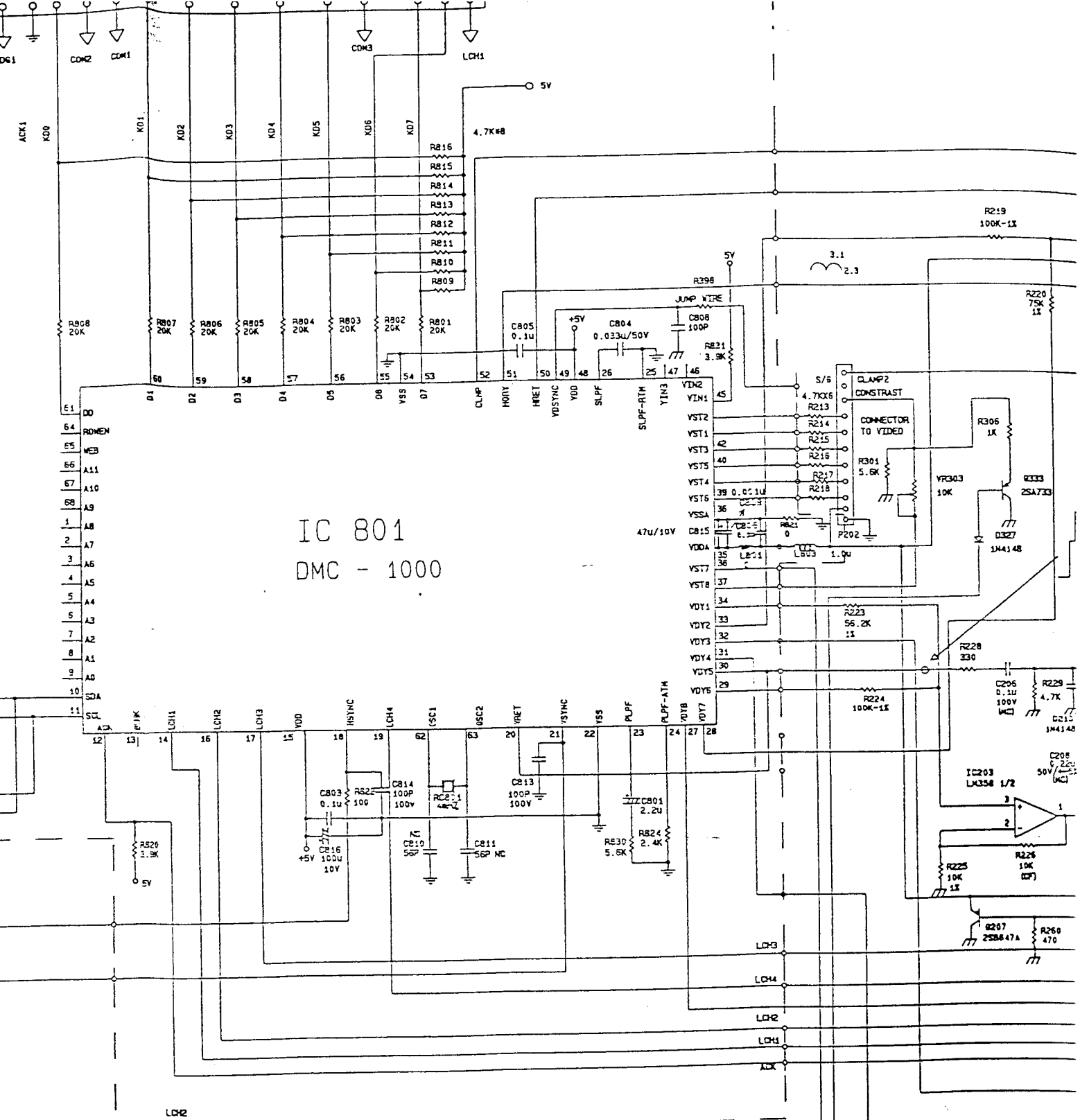
- 61 DO
- 64 ROMEN
- 65 WEB
- 66 A11
- 67 A10
- 68 A9
- 1 A8
- 2 A7
- 3 A6
- 4 A5
- 5 A4
- 6 A3
- 7 A2
- 8 A1
- 9 A0
- 10 SDA
- 11 SCL
- 12 ACK
- 13



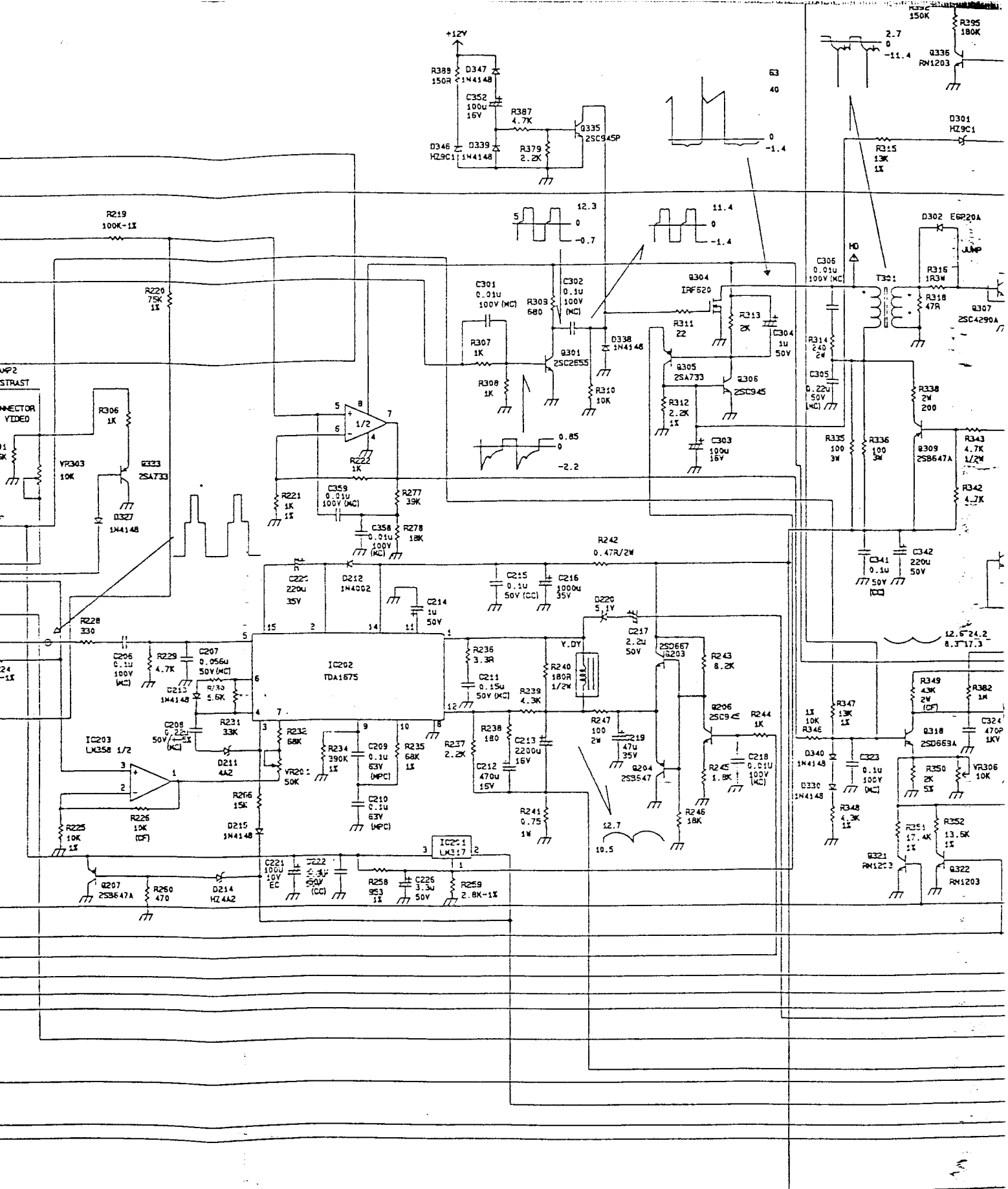
- D0
- D1
- D2
- D3
- D4
- D5
- D6
- D7



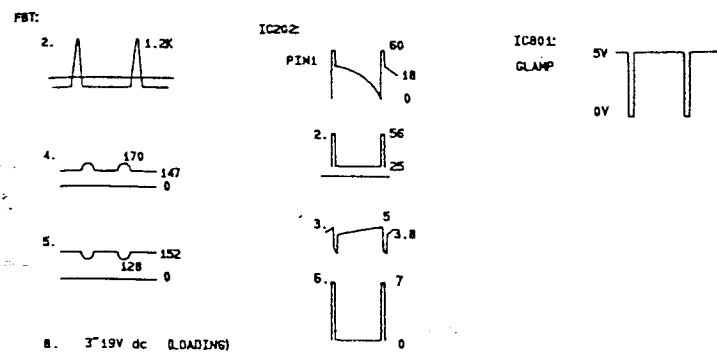


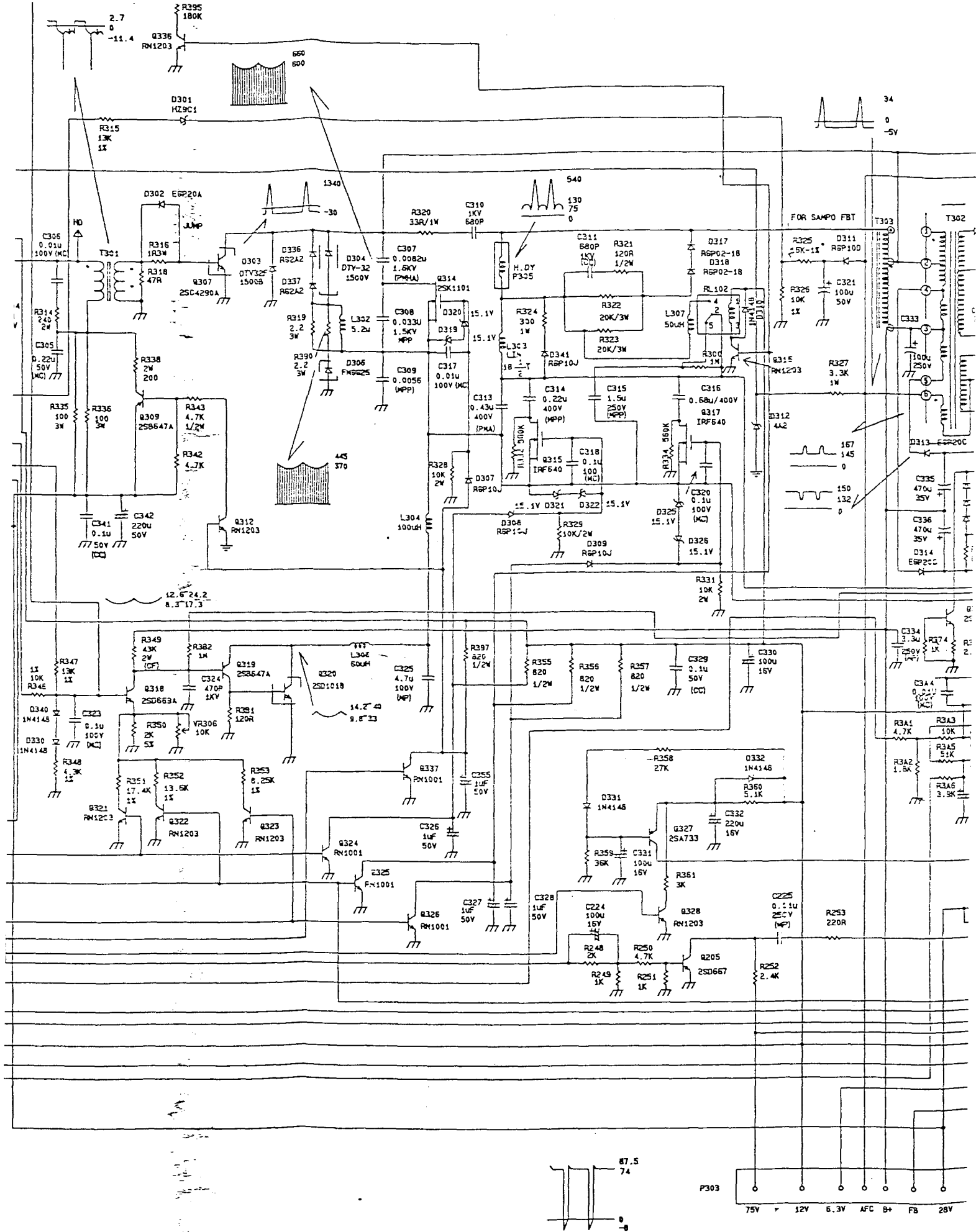


H: 77KHZ
B+: 147Vdc
31KHZ: 59V
35KHZ: 64V
37KHZ: 71V
49KHZ: 92V
56KHZ: 99V

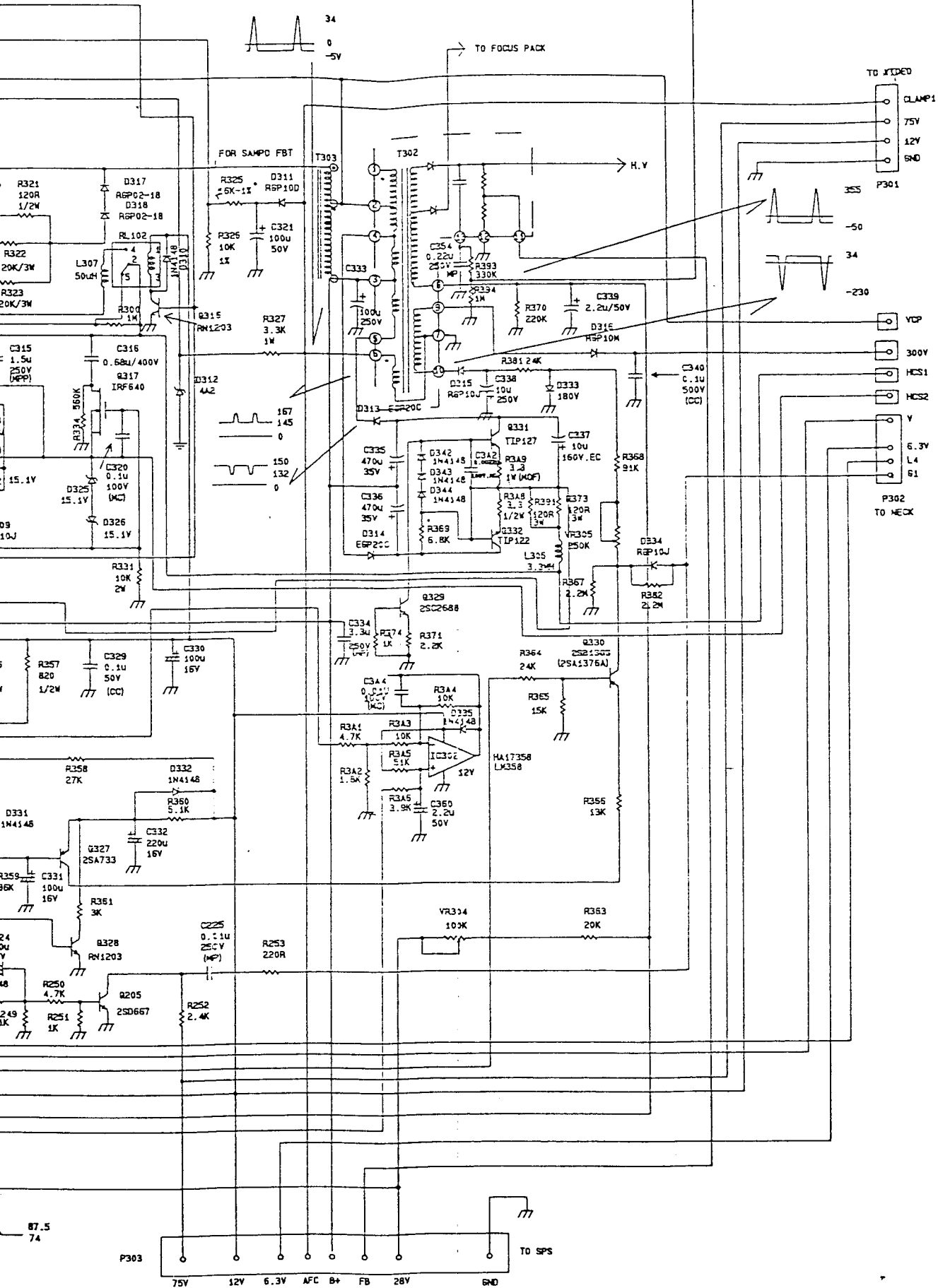


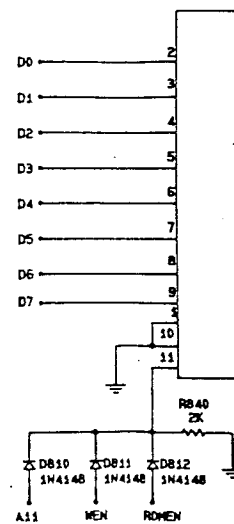
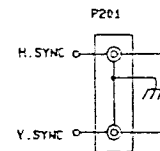
H: 77KHZ
 B+: 147Vdc
 31KHZ: 59V
 35KHZ: 64V
 37KHZ: 71V
 40KHZ: 82V





FH	32~66 KHZ	66~53 KHZ	51~42 KHZ	42~36.6 KHZ	36.6~23 KHZ
LCH1	H	H	L	L	L
LCH2	H	H	L	H	L
LCH3	H	L	H	L	L





SAFETY NOTICE

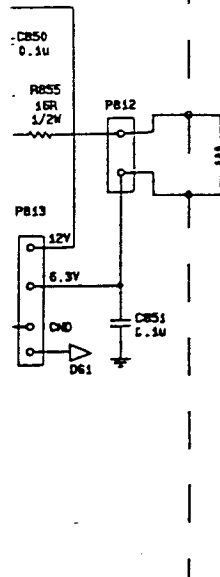
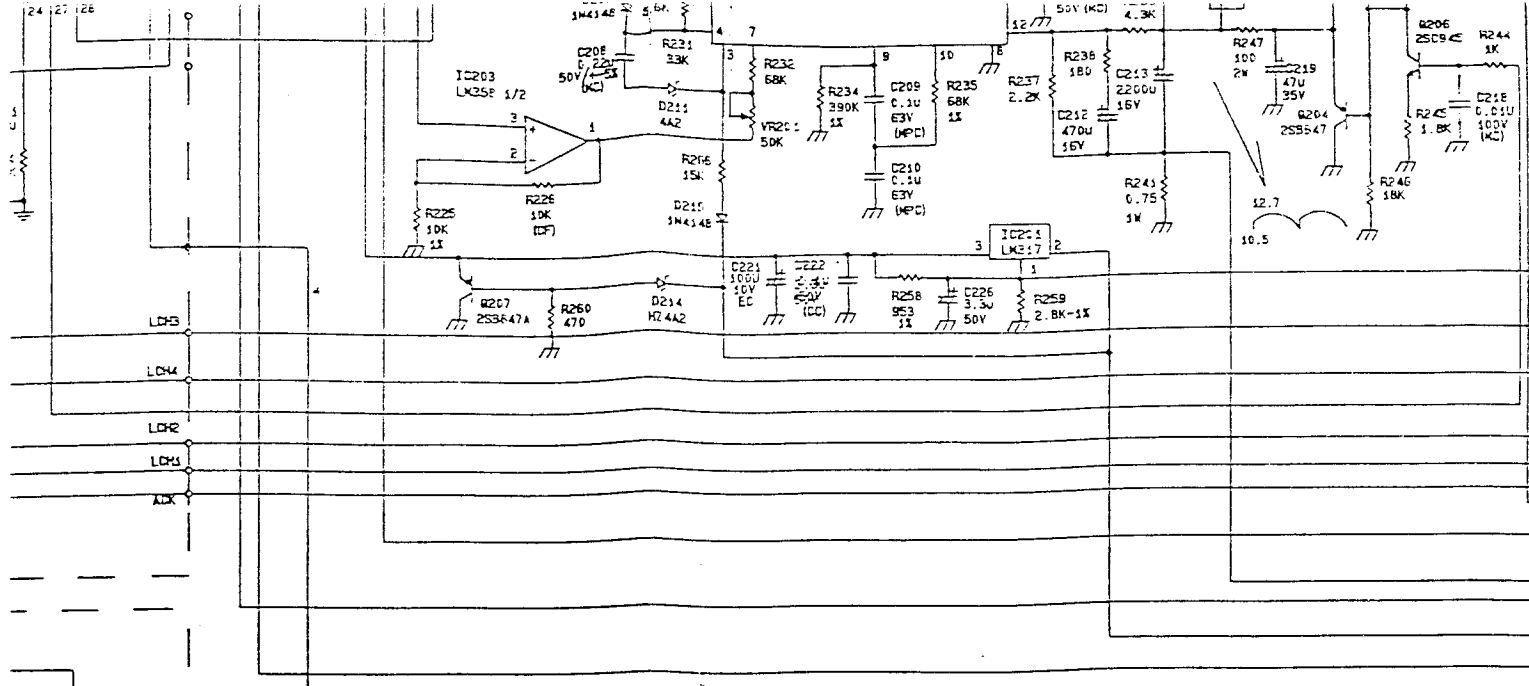
=====

This service manual is prepared to assist engineers or technicians of repair centers who are in charge of servicing the monitors in the field. The service manual, therefore, is not for users but for those technically oriented service engineers from repair centers who are capable of servicing the unit.

This service manual explains the monitor's outline, detailed features, functions and basic construction of the individual unit or circuit, alignment procedure and the detailed TROUBLE-SHOOTING procedures.

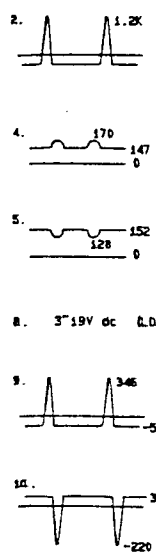
The contents should be read and completely understood before attempting service.

- 1) Make sure the power cord is disconnected before opening the BACK-COVER of the monitor and replacing any parts in the unit.
- 2) While the monitor is in operation, do not attempt to connect or disconnect any wire.
- 3) When the power is on, do not attempt to short any portion of the circuit. This shorting may cause damage to the transistors, ic's or other parts in the unit.
- 4) Operation of the monitor with the cabinet or the BACK-COVER removed involves a shock hazard. The repair or service work on these models should only be performed by those who are thoroughly familiar with the precautions necessary when working on high voltage equipment.
- 5) Do not install, remove, or handle the picture tube in any manner unless shatterproof goggles are worn. People not so equipped should be kept away while picture tubes are handled. Keep the picture tube away from the body while handling, & donot lift the picture tube by the neck.
- 6) When replacing a chassis in the monitor, all the protective devices must be put back in place, such as, barriers, NON-METALLIC KNOBS, adjustment and compartment shields, and isolation RESISTOR-CAPACITOR, ETC.
- 7) When service is required, observe the original lead dress. extra precaution should be taken to ensure correct lead dress in the high voltage circuitry area.
- 8) Always use the manufacturer's replacement parts. Especially critical parts as indicated on the circuit diagram should not be replaced by other manufacturer's. parts furthermore, where a short circuit has occurred, also replace those parts that indicate evidence of overheating.
- 9) Before returning a serviced monitor to the customer, the service technician must thoughtly test the unit to be sure that it is completely safe to operate without danger of electrical shock, and must ensure that no protective device built into the monitor by the manufacturer has become defective, or inadvertently defeated during servicing. Especially, the resistance of the connection between the protective earthing terminal and the parts required to be earth shall not exceed 0.1 ohm.

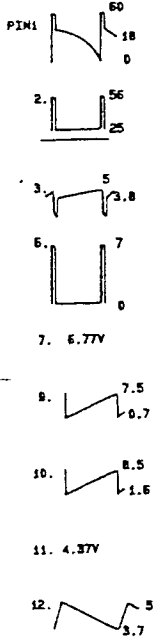


H: 77KHZ
 B+: 147Vdc
 31KHZ: 59V
 35KHZ: 64V
 37KHZ: 71V
 49KHZ: 92V
 56KHZ: 99V

FBT:

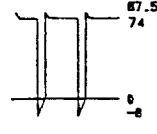
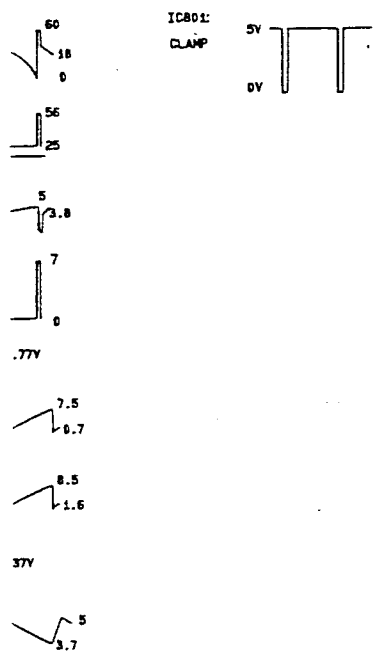
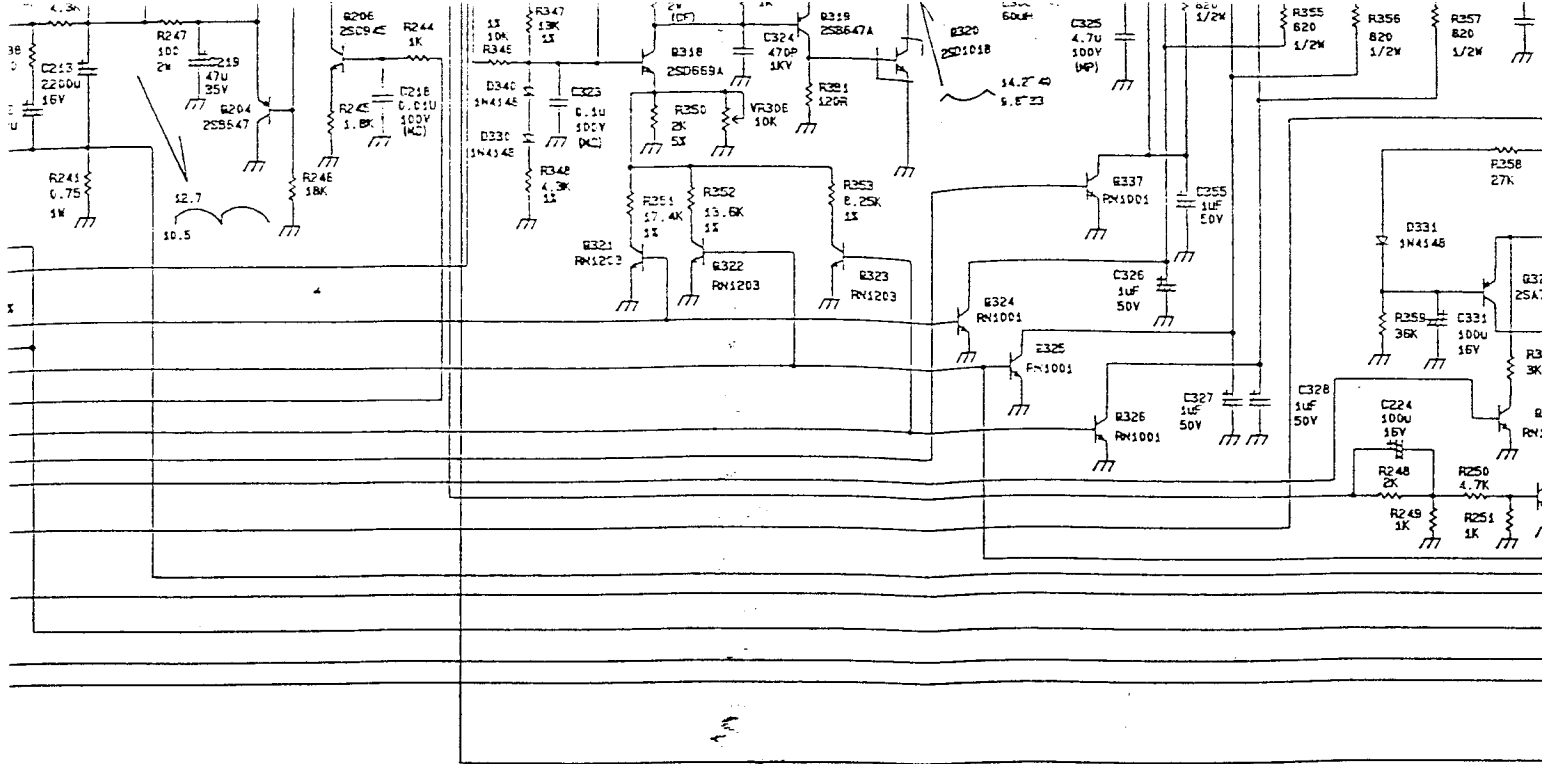


IC202



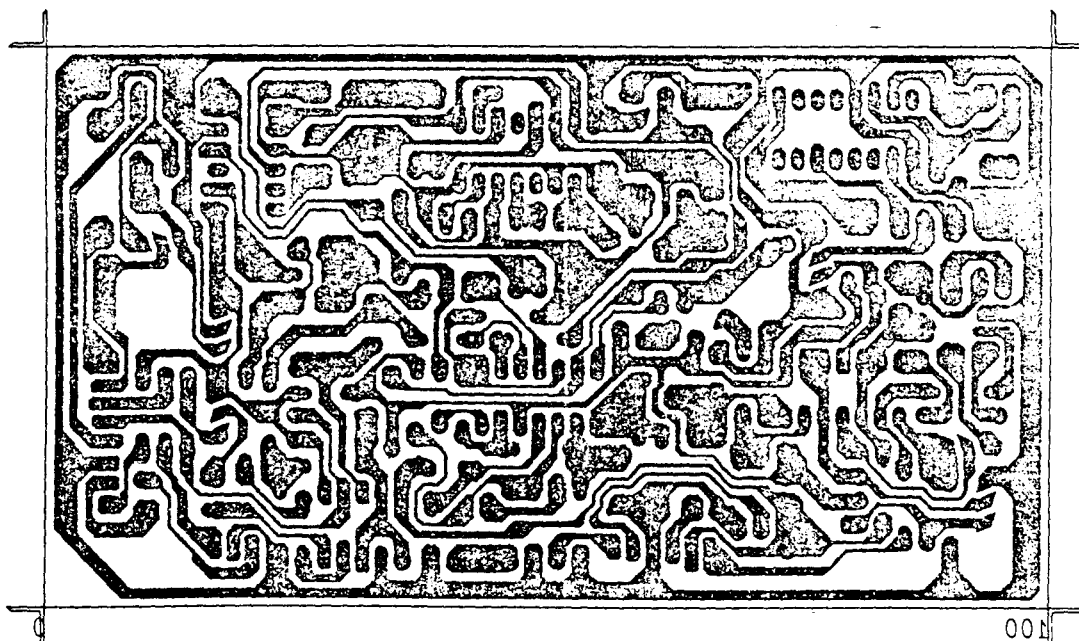
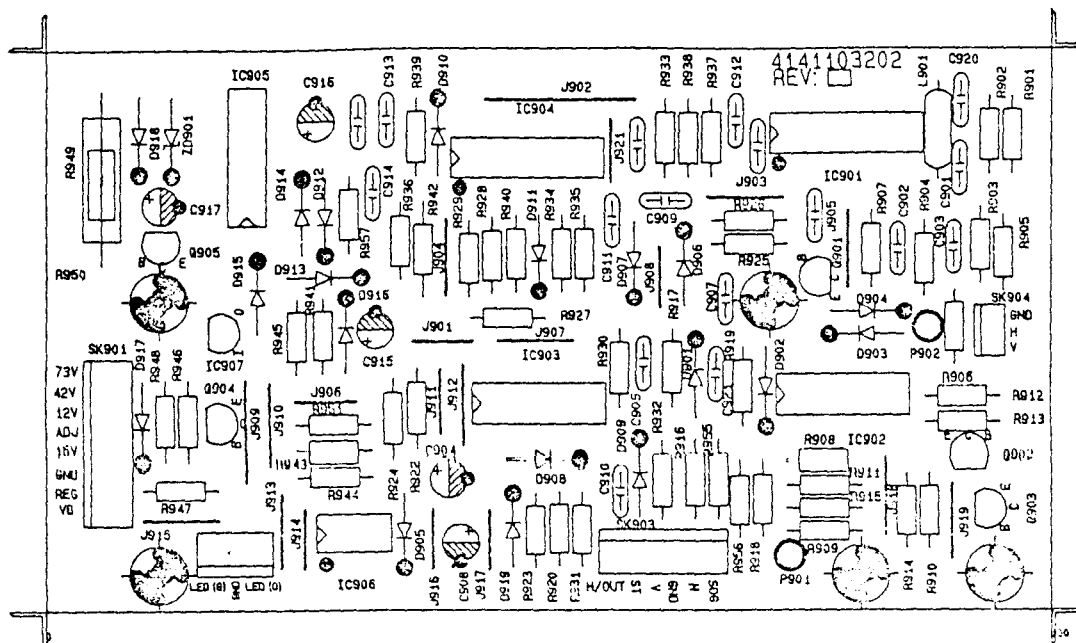
IC801: CLAMP

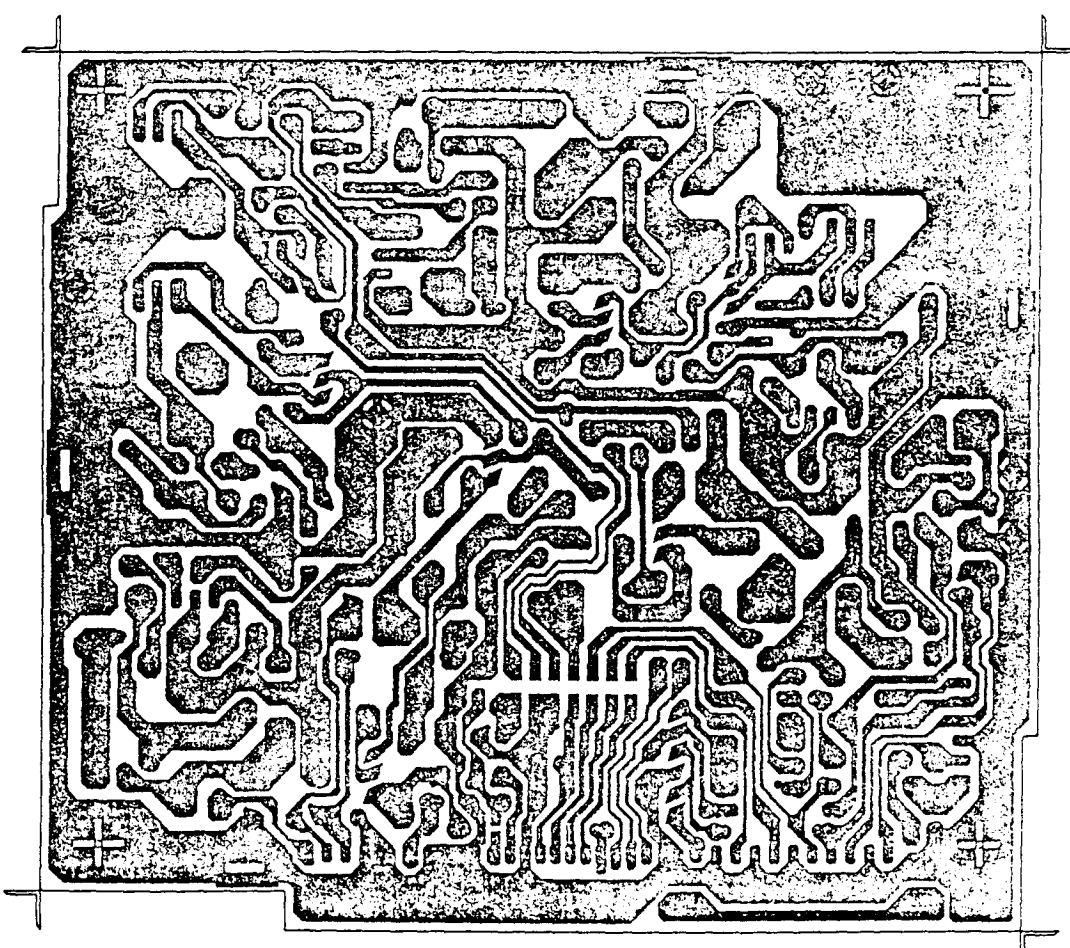
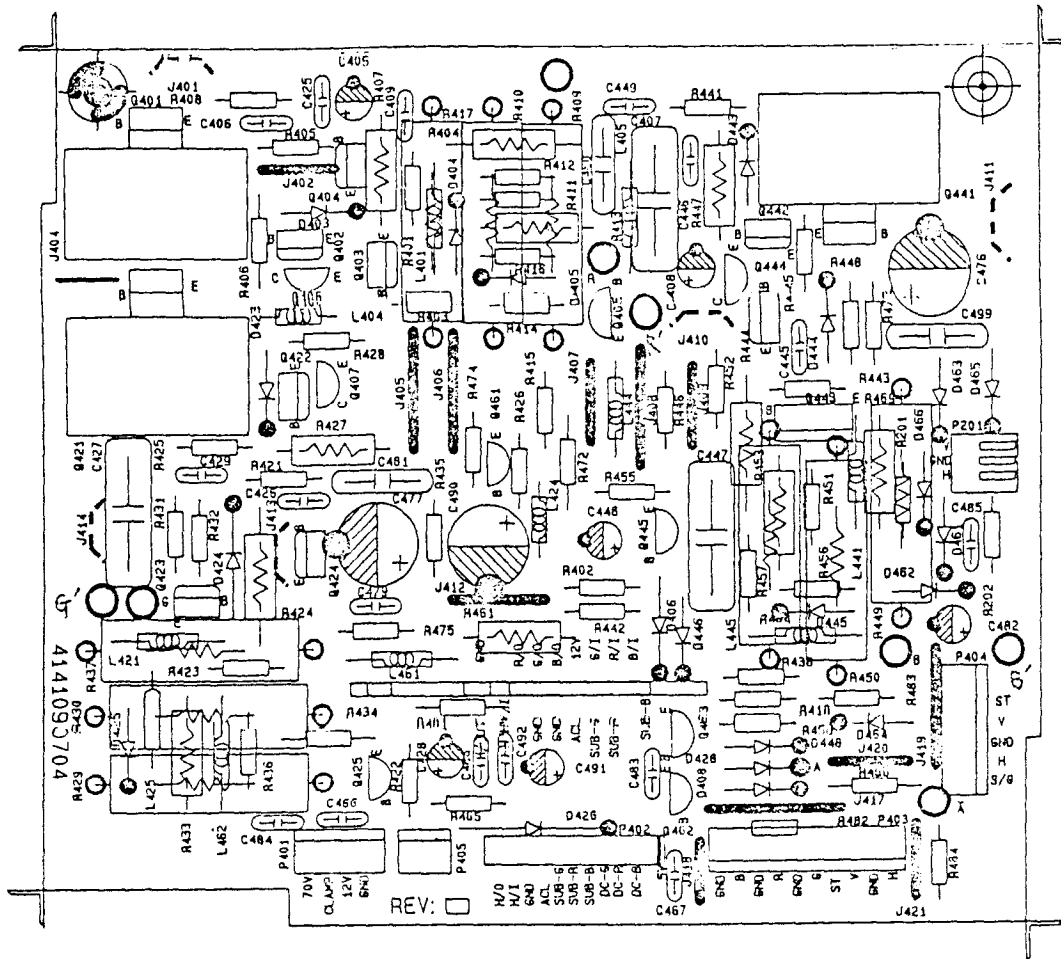




FH	32.66 KHZ	66.53 KHZ	51.42 KHZ	42.36.6 KHZ	36.6.23 KHZ
LCH1	H	H	L	L	L
LCH2	H	H	L	H	L
LCH3	H	L	H	L	L
LCH4	H	H	H	L	L



[illegible]

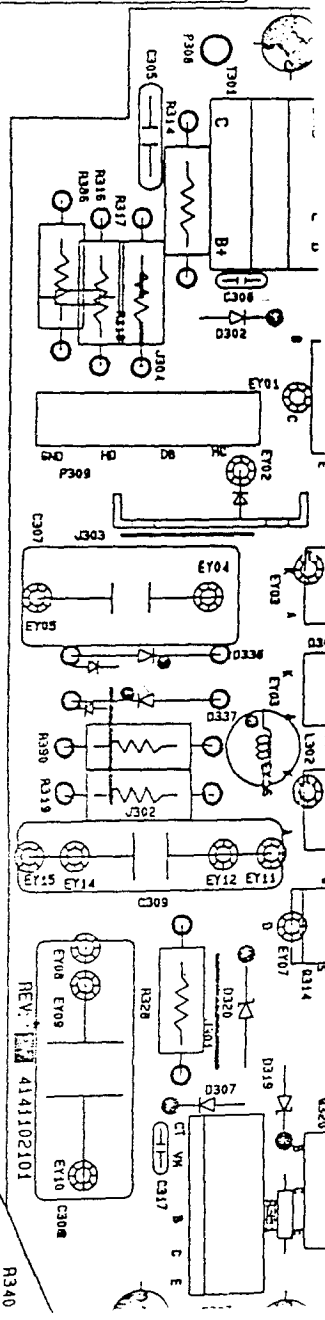
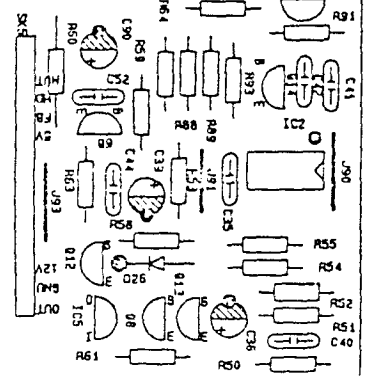


WARNING: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD
REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE

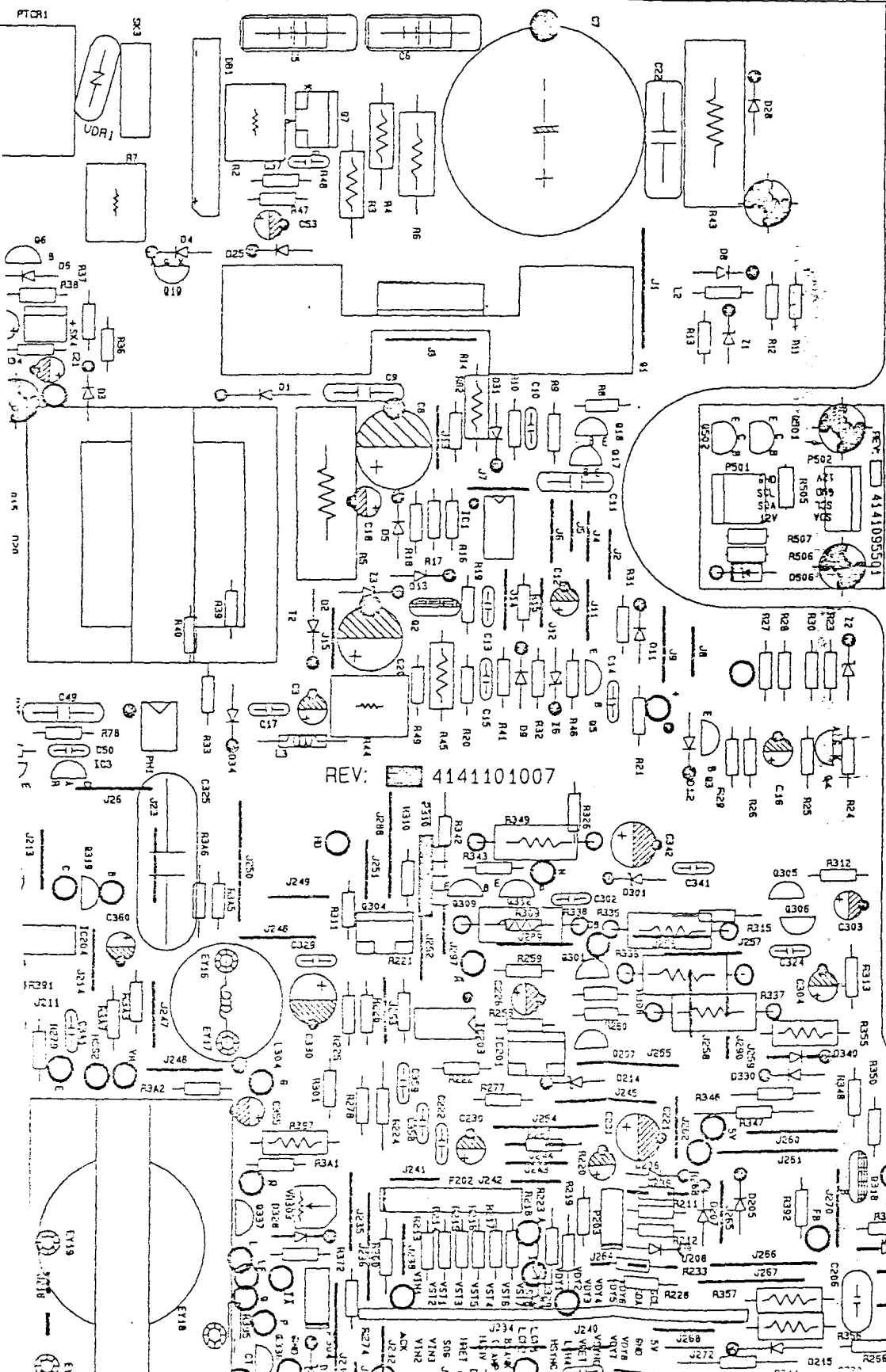
PTCR1

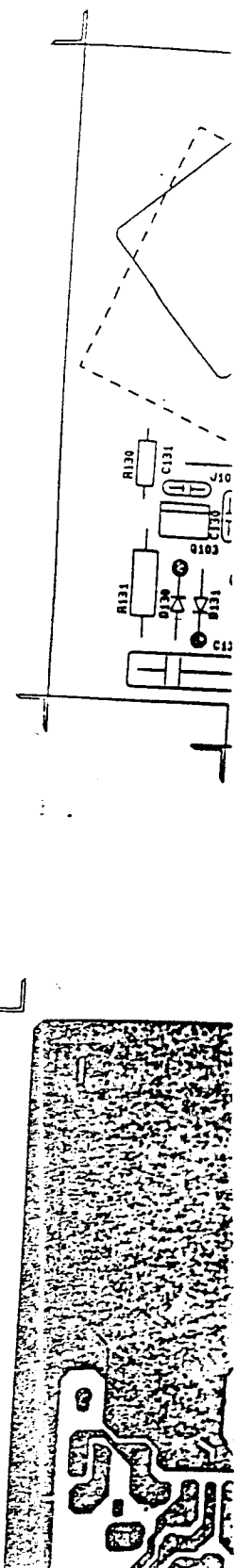
REV: 4141101007

4141094501



REV: 4141101007





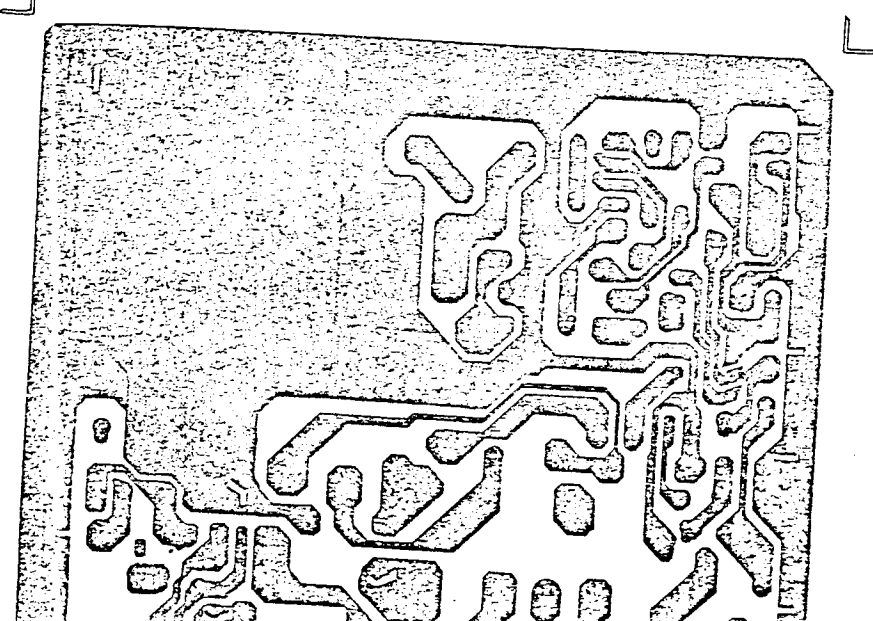
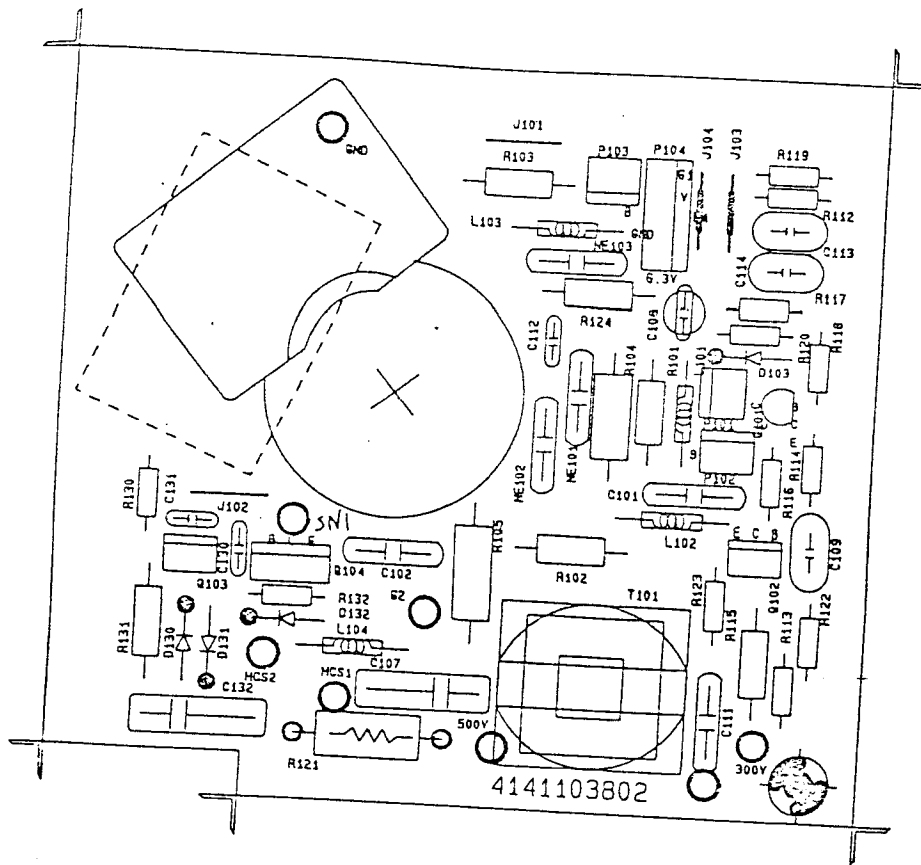
FINAL ALIGNMENT PROCEDURE
=====

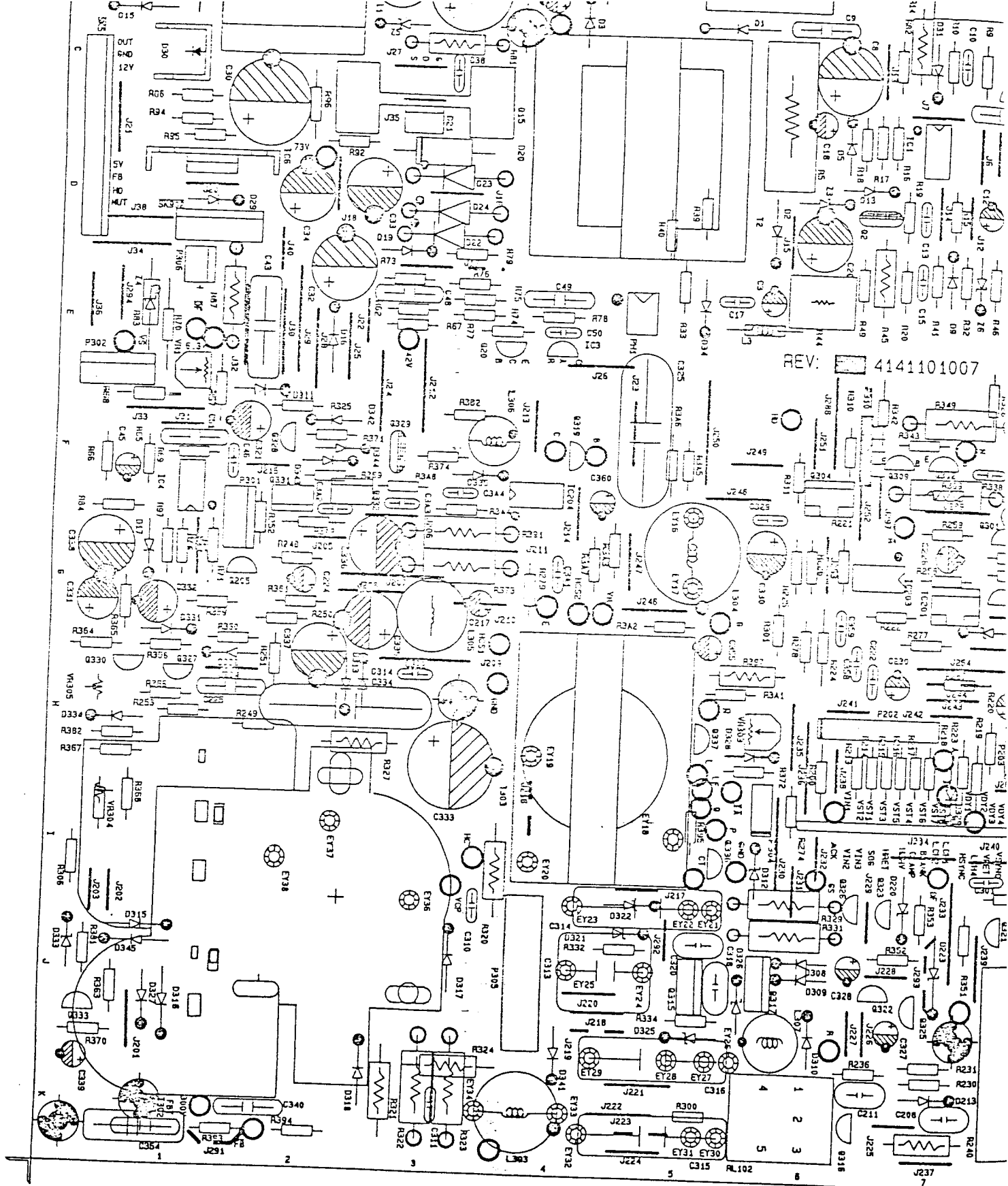
THIS ALIGNMENT PROCEDURE IS USED TO ADJUST / TEST THE PICTURE PERFORMANCE IN ORDER TO OBTAIN OPTIMUM CONDITIONS THE FOLLOWING SEQUENCE MUST BE FOLLOWED.

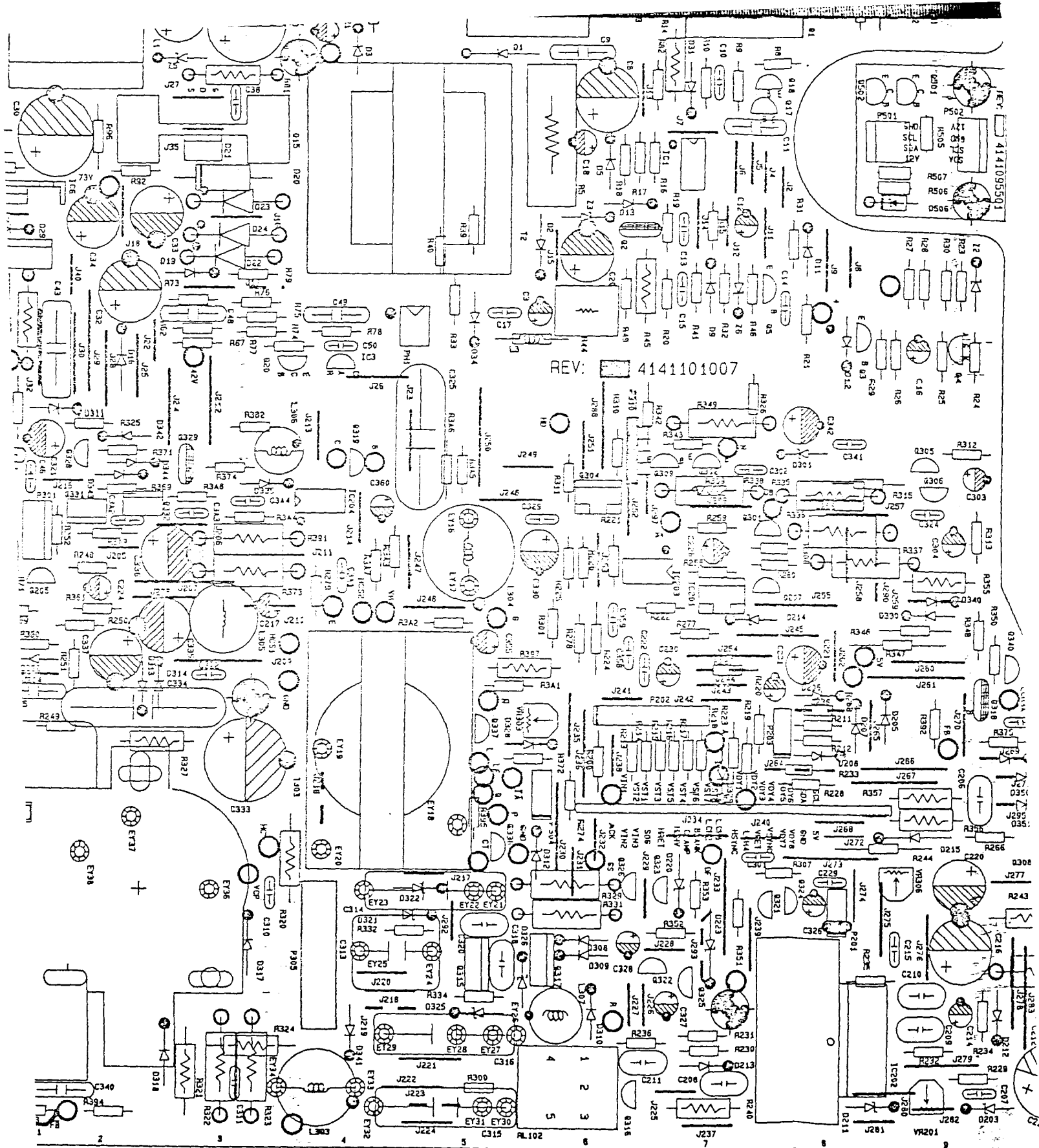
- * WARM UP FOR 30 MINUTES BEFORE PERFORMING EVERY TEST AND ALIGNMENT, CRT FACES TO EAST, ROOM BRIGHTNESS IS TO BE AT 500 LUX. MAKE SURE THE ANALOG SIGNAL LEVEL IS AT 0.7 Vp-p AND THEN INPUT THE SIGNAL.
- * THE FOLLOWING IS THE INITIAL SET UP BEFORE THE AUTO ALIGNMENT.

(a) PRE-CHECK AND ADJUSTMENT

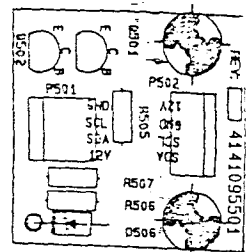
1. ADJUSTMENT OF THE HIGH VOLTAGE :
 - a. INPUT 79KHZ/77KHZ 1280x1024 CROSS HATCH PATTERN, PRESS "6500" BUTTON OF THE FRONT CONTROL MEMBRANE SWITCH ONCE.
 - b. SET BOTH CONTRAST AND BRIGHTNESS LEVEL TO MAXIMUM. VERIFY IF THE HIGH VOLTAGE READS 27KV +/- 0.2KV, OTHERWISE ADJUST VR1.
2. G1 VOLTAGE SET-UP :
 - a. INPUT 59KHZ 1024x768 CROSS HATCH PATTERN.
 - b. SET BOTH CONTRAST AND BRIGHTNESS LEVEL TO MAXIMUM. VERIFY IF THE G1 VOLTAGE READS -45V +/- 0.5V, OTHERWISE ADJUST VR305.
3. X-RAY CHECK:
 - a. INPUT 59KHZ 1024x768 CROSS HATCH PATTERN.
 - b. PARALLEL ON 27KR RESISTOR TO R325. THE SCREEN DISPLAY SHALL BE DISAPPEAR.
 - c. POWER OFF THE U.U.T AND REMOVE 27KR RESISTOR.
 - d. POWER ON THE U.U.T AGAIN. THE U.U.T SCREEN SHALL BE DISPLAY.
4. A.C.L. CIRCUIT SET-UP :
 - a. INPUT 59KHZ 1024x768 FULL WHITE PATTERN.
 - b. ADJUST VR304, THE SCREEN DISPLAY SHALL BE CHANGED. THEN TURNING VR304 COUNTERCLOCKWISE UNTIL IT REACHES THE END.
5. HORIZONTAL AND VERTICAL SIZE PRE-ALIGNMENT:
 - a. INPUT 79.976KHZ FOR CAM-6001 AND 77.172KHZ FOR CAM-6002 (1280*1024) FULL WHITE PATTERN.
 - b. PRESS THE "HORIZONTAL" SIZE KEY, ADJUST PICTURE SIZE TO MAXIMUM. THEN ADJUST VR306 GET THE HORIZONTAL SIZE EQUAL TO FULL SCREEN (380mm).
 - c. INPUT 31.47KHZ (640*350) FULL WHITE PATTERN.
 - d. PRESS THE "VERTICAL" SIZE KEY, ADJUST PICTURE SIZE TO MAXIMUM. THEN ADJUST VR201 GET THE VERTICAL SIZE EQUAL TO FULL SCREEN (280mm).
6. POWER SAVING VERIFICATION:
 - a. INPUT 59KHZ 1024*768 TIMING.
 - b. SWITCH OFF H-SYNC SIGNAL FROM THE SIGNAL INTERFACE BOX. THE POWER INDICATOR LED SHALL CHANGE THE EMITTING COLOR FROM GREEN TO ORANGE. SWITCH ON THE H-SYNC SIGNAL AGAIN.
 - c. SWITCH OFF V-SYNC SIGNAL. THE LED SHALL CHANGE THE EMITTING COLOR FROM GREEN TO ORANGE. SWITCH ON THE V-SYNC SIGNAL AGAIN.
 - d. SWITCH OFF BOTH H AND V SYNC SIGNALS. THE LED SHALL CHANGE THE EMITTING COLOR FROM GREEN TO ORANGE. SWITCH ON BOTH H AND V SYNC SIGNALS AGAIN.
9. SELF TEST CHECK:
 - a. PULL OUT THE I/O CABLE, THEN PUSH THE SELF TEST SWITCH TO ON. THE PICTURE SHALL BE DISPLAY ON C.R.T. (FULL WHITE)
 - b. PRESS "EXT-CONTRAST" KEY THE FULL WHITE BRIGHTNESS MUST BE CHANGE.

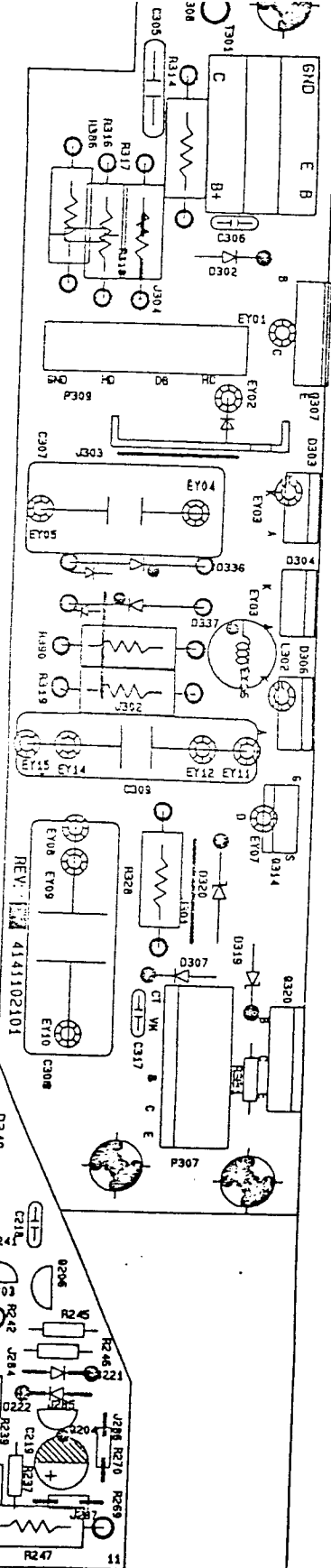
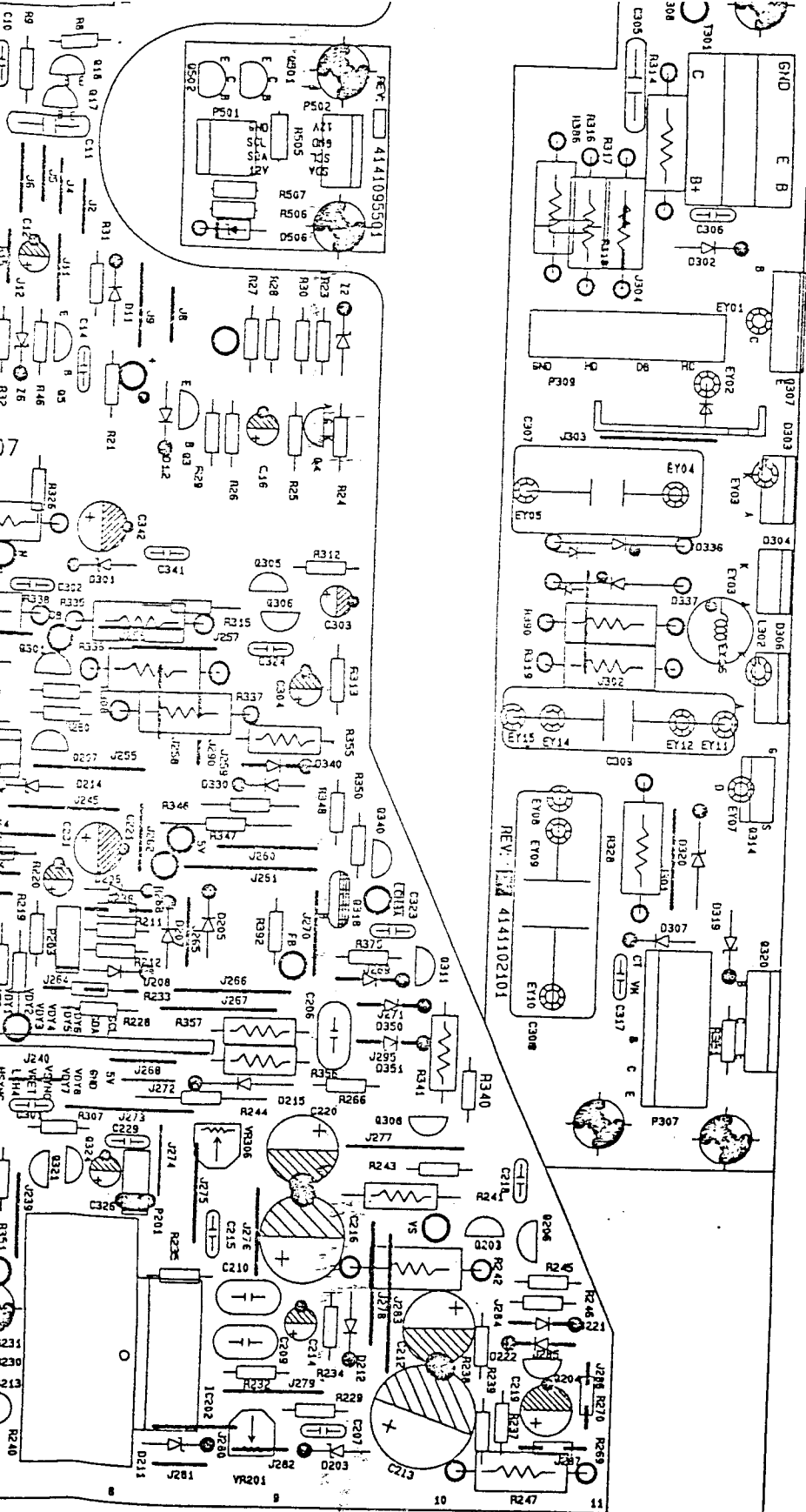


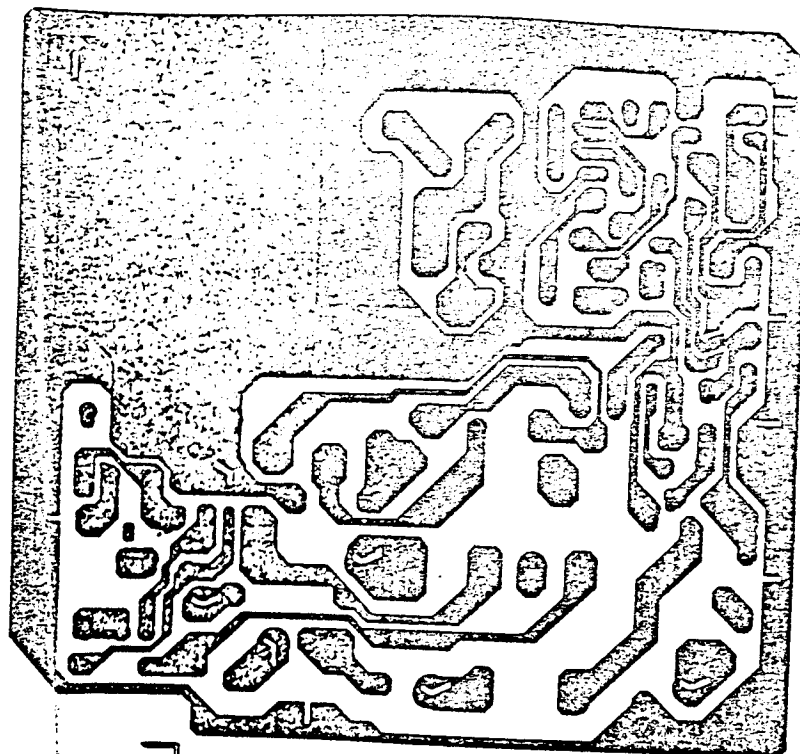
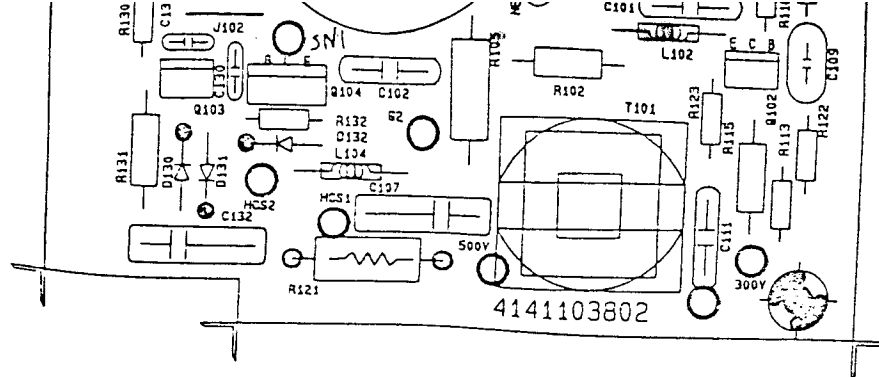


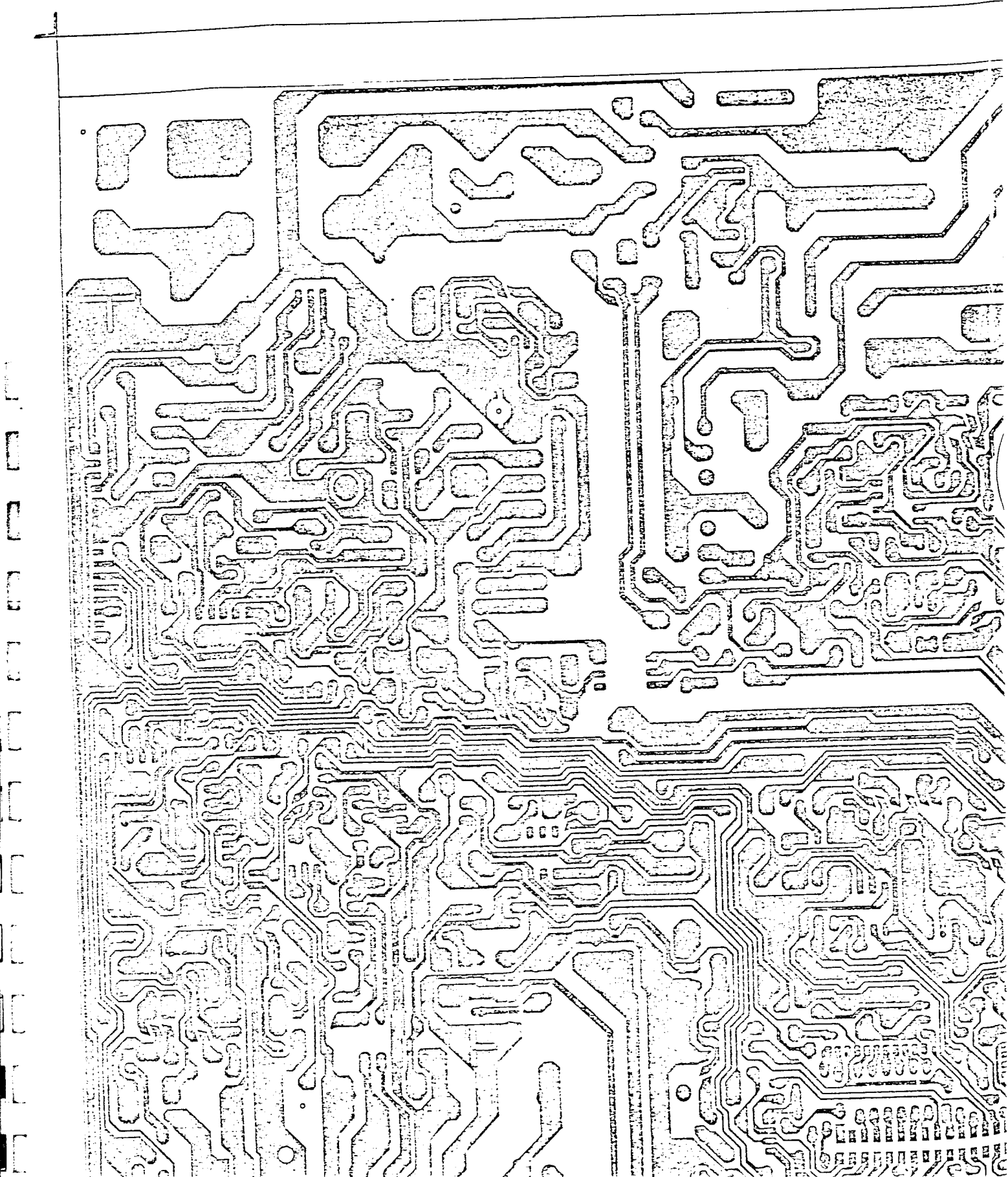


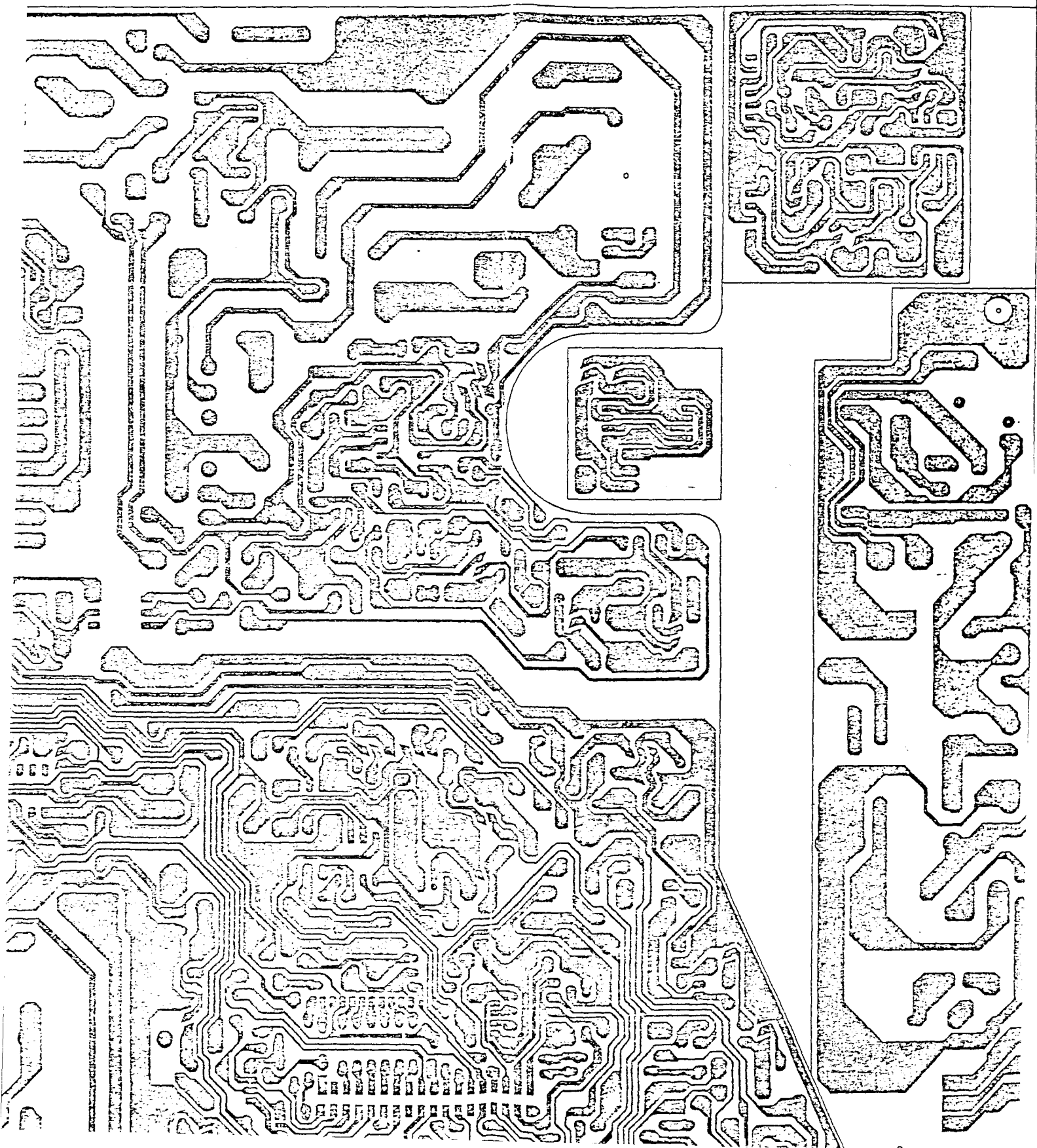
REV: 4141101007

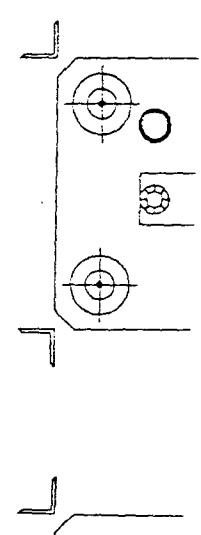
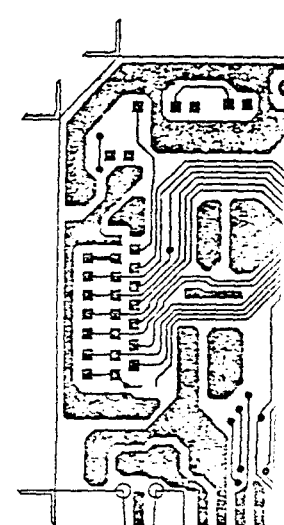
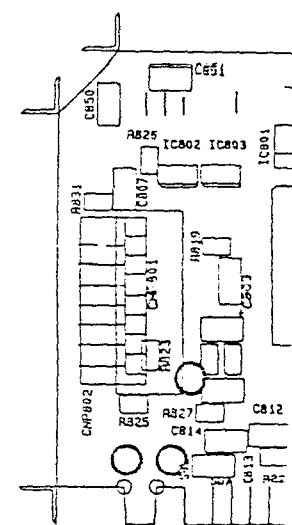
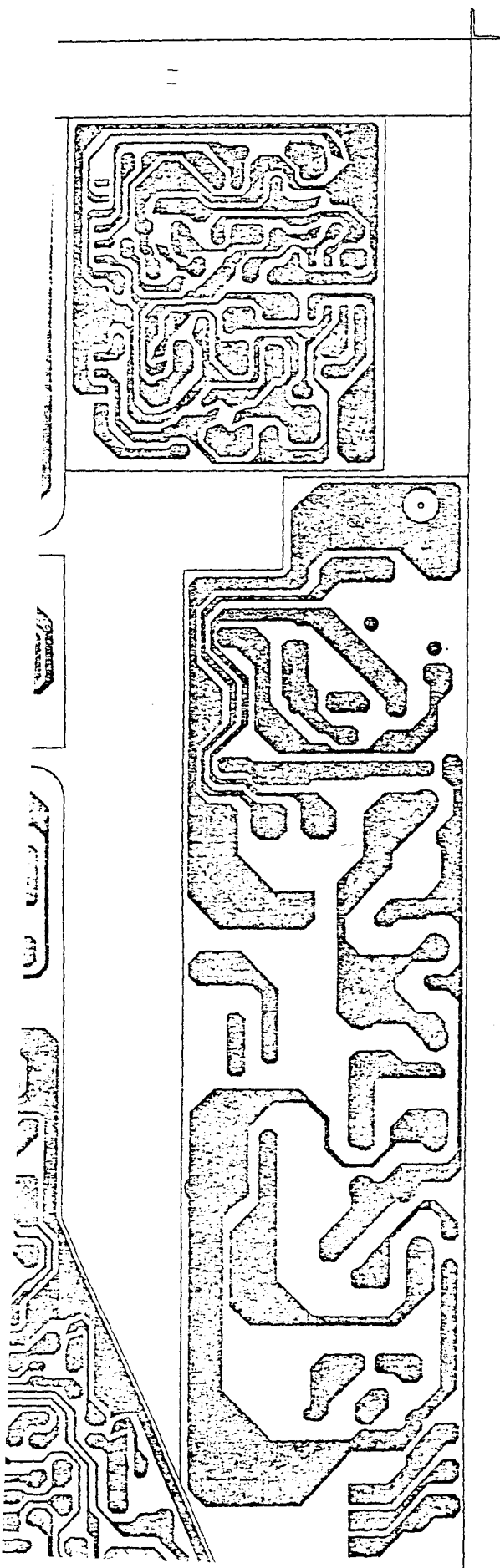


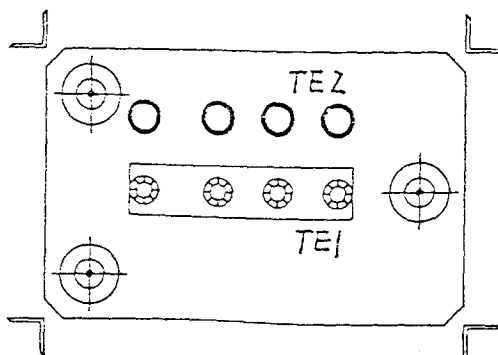
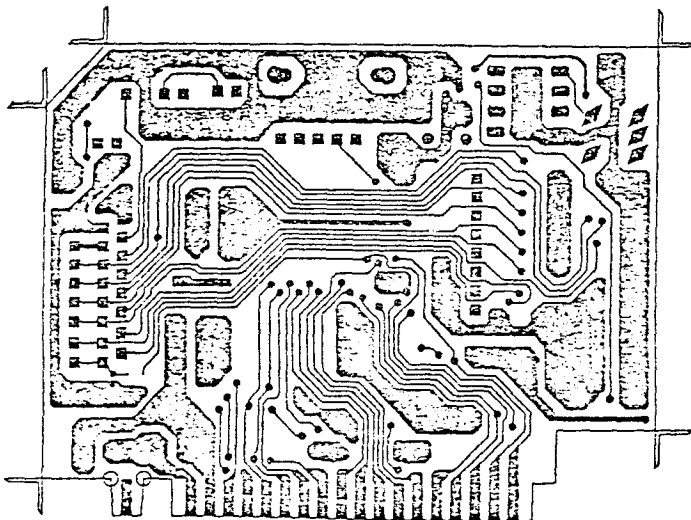
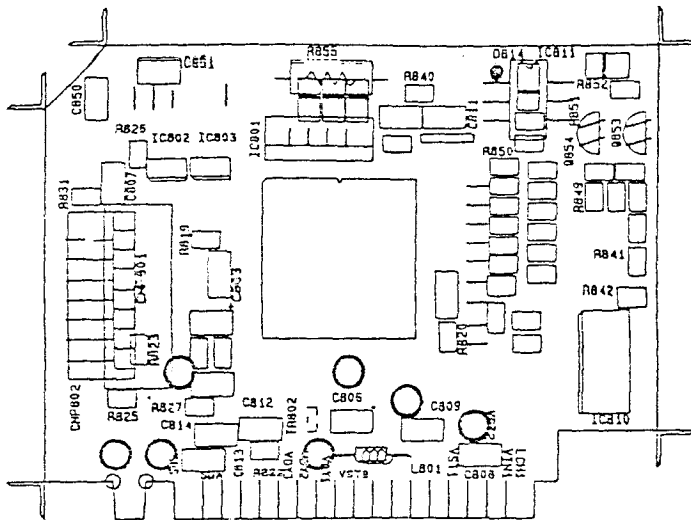


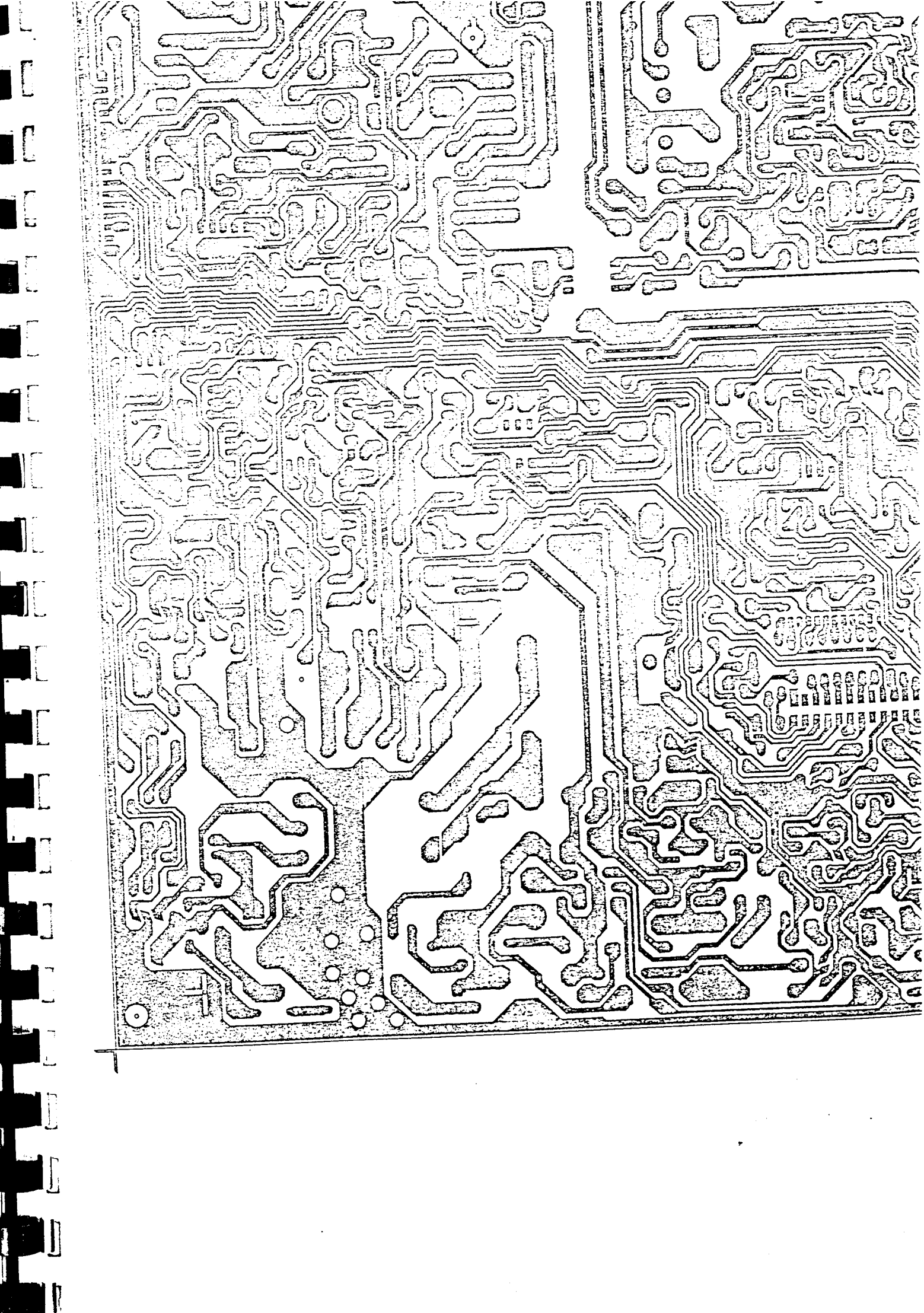




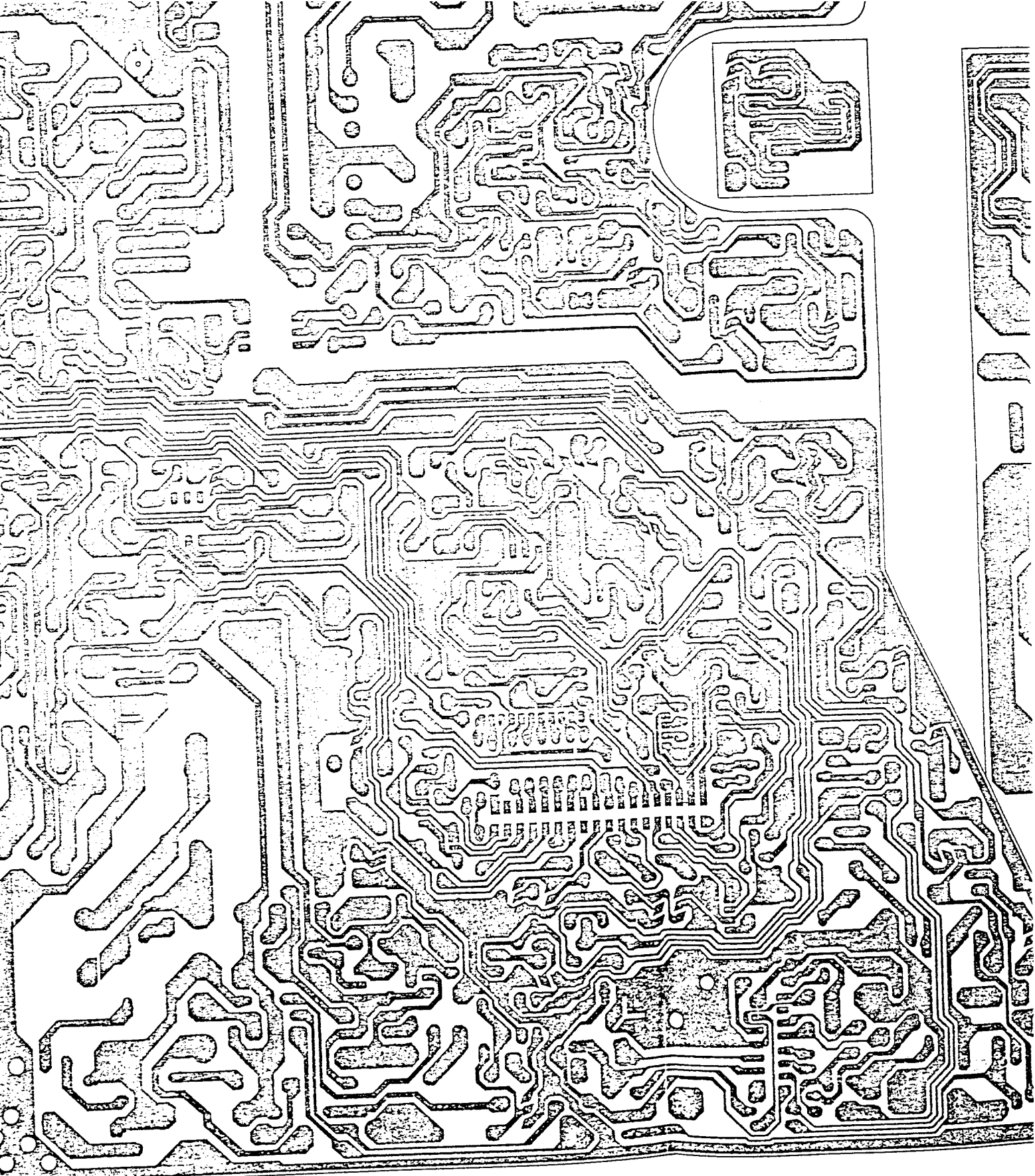


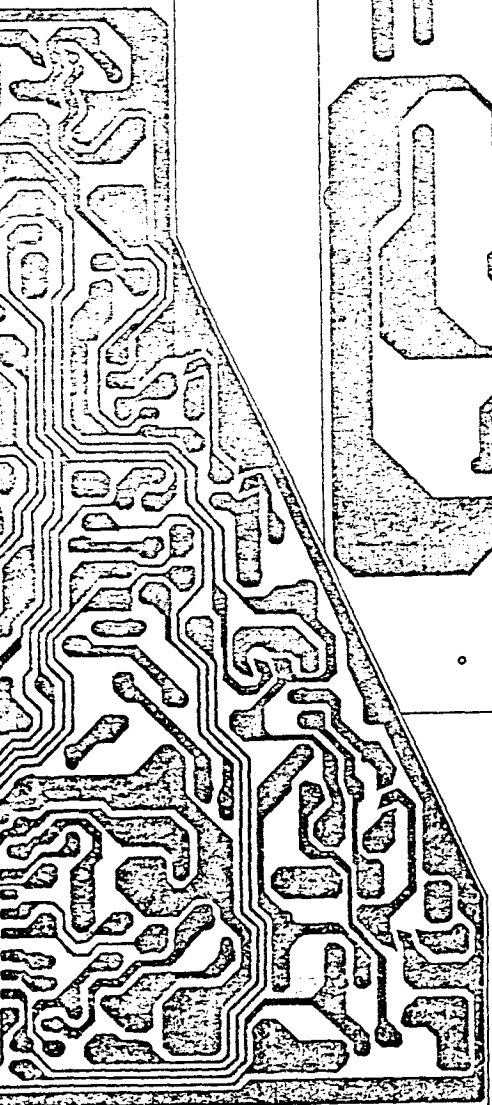
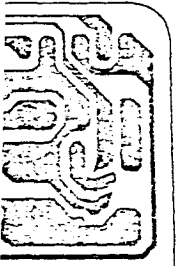
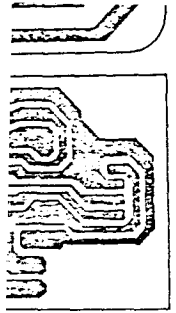
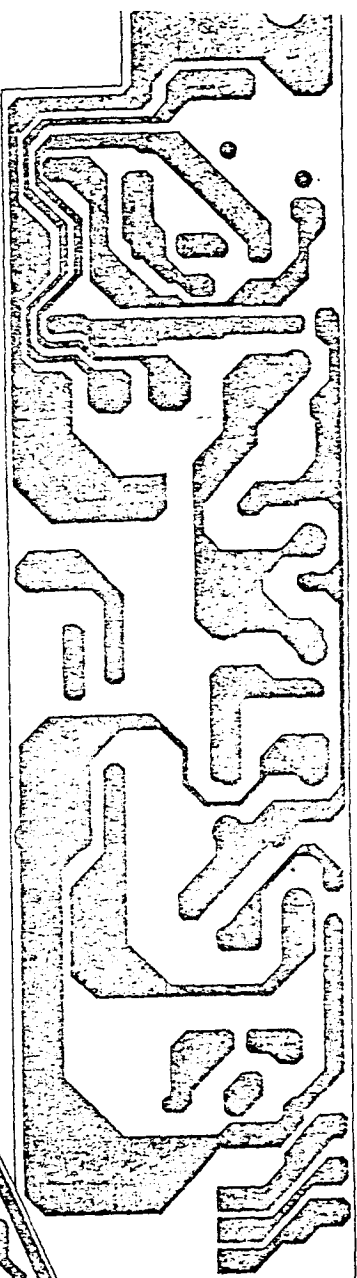
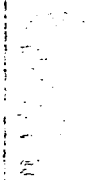
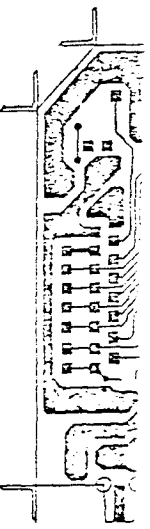


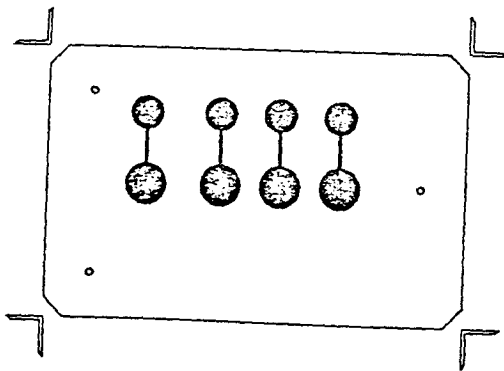
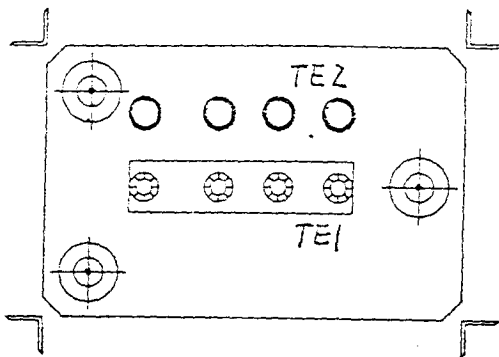
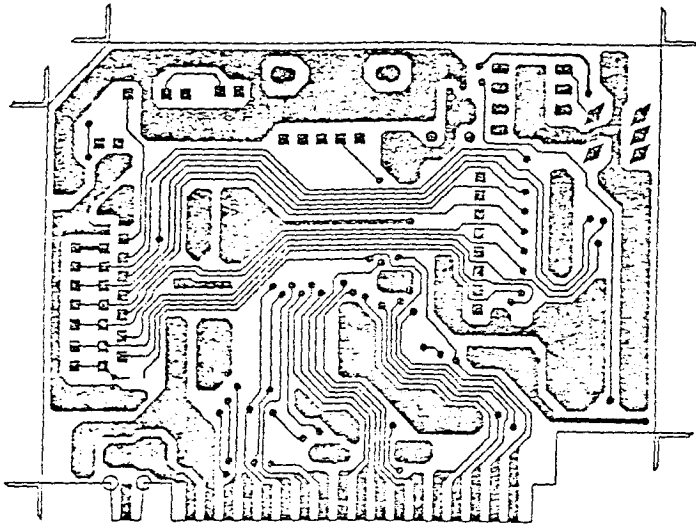




- c. THE SELF TEST CHECKED IS OK, THEN TURN BACK THE SELF TEST SWITCH TO OFF.
- (b) WHITE BALANCE AND BRIGHTNESS ADJUSTMENT: (FOR WHITE BALANCE MANUAL ADJUST USE ONLY)
 1. CONNECT SIGNAL I/O CABLE FROM U.U.T TO SIGNAL INTERFACE BOX. POWER ON THE U.U.T.
 2. CONNECT I2C BUS CABLE FROM PC-COMPUTER TO I2C CONNECTOR P809 ON THE D.M.C DAUGHTER BOARD OF THE U.U.T.
 3. FIRMWARE DOWNLOAD: (FOR FIRMWARE UPDATE ONLY)
 - a. PRESS "F2" COMMAND KEY FROM THE KEYBOARD ONCE AND WAIT UNTIL THE "LOADING" DECAL DISAPPEARS FROM THE SCREEN.
 - b. PRESS "ENTER" KEY TWICE AND WAIT UNTIL THE MAIN ALIGNMENT MENU POPS UP ON THE SYSTEM SCREEN.
 - c. RECYCLE THE POWER ON/OFF SWITCH OF THE U.U.T TO WRITE DATA TO EEPROM.
 4. RASTER CENTERING ADJUSTMENT: (FOR RASTER IS NOT IN THE CENTER OF THE BEZEL ONLY)
 - a. PRESS "CTRL" AND "F1" COMMAND KEYS SIMULTANEOUSLY. IF THE FIRMWARE REVISION OF THE U.U.T IS CORRECT, VDY4 WAVEFORM WILL POP UP ON THE SYSTEM SCREEN. OTHERWISE, A "WRONG FIRMWARE" DECAL WILL POP UP INSTEAD.
 - b. UTILIZE "INSERT" (+1), "DELETE" (-1), "HOME" (+5), AND "END" (-5) KEYS TO ALIGN THE RASTER IN THE HORIZONTAL DIRECTION.
 - c. PRESS "F8" COMMAND KEY ONCE TO SAVE THE CHANGE.
 - d. PRESS "8" NUMERICAL KEY ONCE AND REPEAT THE ABOVE STEPS TO ALIGN THE RASTER IN THE VERTICAL DIRECTION.
 - e. PRESS "F8" COMMAND KEY ONCE TO SAVE THE CHANGE.
 - f. PRESS "ESC" COMMAND KEY ONCE TO RETURN TO THE MAIN MENU.
 5. USE DEGAUSSING COIL TO DEMAGNETIZE THE C.R.T FACE OF THE U.U.T.
 6. VST1--VST8 SET-UP :
VST7,8 VOLTAGE HI (FF), VST4,5,6 VOLTAGE IS 1V (MEANS R,G,B DC VALUE SET UP); VST 1,2,3 VOLTAGE IS 2V (MEANS R,G,B GAIN SET UP)
 7. B GUN CATHODE AMPLITUDE
INPUT 59KHZ 1024x768 , COLOR GREY LEVEL PATTERN.
ADJUST THE EXT. BRI. KEY TO MIN.; THEN ADJUST THE EXT. CONTRAST KEY TO MAX.
ADJUST VR303 UNTIL THE AMPLITUDE IS AT 38 Vp-p.
 8. BRIGHTNESS OF RASTER SET-UP :
ADJUST THE EXT. BRI. KEY TO MAX.; AND ADJUST THE SCREEN VR UNTIL GET THE RASTER BRIGHTNESS IS APP. 1FL.
 9. 6500 k WHITE BALANCE ADJUSTMENT:
HIGH/LOW BRIGHTNESS COLOR TEMPERATURE ALIGNMENT :
 - a. LOAD VST1--6 VALUE.
 - b. INPUT 59KHZ 1024x768, 2" SQUARE PATTERN.
ADJUST VST7 UNTIL THE RASTER BRIGHTNESS IS APP. 0.08 FL.
ADJUST VST8 UNTIL 2" SQUARE BRIGHTNESS IS AT 2 FL.
ADJUST VST4,5 UNTIL $x = 0.313 \pm 0.01$, $y = 0.329 \pm 0.01$.
 - c. ADJUST VST7 UNTIL THE RASTER BRIGHTNESS IS AT 0.08 FL.
ADJUST VST8 TO MAX.
ADJUST VST1,2 UNTIL $x = 0.313 \pm 0.01$, $y = 0.329 \pm 0.01$.
 - d. REPEAT THE ALIGNMENT ACCORDING TO b & c PROCEDURE, UNTIL THE PICTURE BRIGHTNESS $x = 0.313 \pm 0.01$, $y = 0.329 \pm 0.01$.
 10. 9300k WHITE BALANCE ADJUSTMENT:
HIGH/LOW BRIGHTNESS COLOR TEMPERATURE ALIGNMENT :
 - a. LOAD VST1--6 VALUE.







CHECKED BY: 陸家媛 94



SPARE	Item Number	DRAWING INDEX	Description	COMMENT
	1004095321	1	CONTROL DOOR	
	4410501147	2	MEMBRANE SWITCH CAM5001	
	1004095000	3	POWER KNOB	
	2003095000	4	ANODE COVER	
	8026115006	5	SCREW BIND(+) TAPPING TRI ANGL	FDR CRT FINGER & CRT FRAME X12
	2009095000	6	CONTACT FINGER C	
	1001095001	7	BEZEL	
	9009095001	8	NAME PLATE	FDR BEZEL
	2007095000	9	CONTACT FINGER B	
	6460633010	10	TILT RING WIRE ASS'Y	FDR CRT
	7010023520	11	CRT M43KPH 150X15(U)	
	3021114020	12	NUT ZINC 1/4"-20	CRT & CRT FRAME X4
	3211600000	13	SPRING WASHER	CRT & CRT FRAME X4
	0001135000	14	BRAID WIRE ASS'Y	FDR CRT BRAID WIRE
	2001155000	15	CRT FRAME	
	8135115025	16	SCREW CAP HI-LOW TAPPING M5X25	BEZEL & CRT FRAME
	7020155000	17	DEGAUSSING COIL W/CORE	
	2008255000	18	CHASSIS (L)	
	8127115006	19	SCREW PAN(+)/HD CAP TAPPING M3	CRT FRAME & CHAS TOP X2, CHAS BTM & AS TOP & CHAS R X3, CRT FRAME & STA CHAS L X3, CHAS REAR & CHAS TOP X2, REAR X1, CHAS REAR & CHAS BOTTOM X1, AS R X3, CHAS REAR & CHAS L X3
		19		
		19		
		19		
		19		
	9006095000	20	ANODE INSULATOR	
	5530307005	21	SUPPORT PCB CSS-SK	
	2002095229	22	CLIP CABLE	FDR I/O CABLE X2, POWER WIRE X1
	8026115010	23	SCREW BIND(+) TAPPING 8' M3X10	
	2004595251	24	CHASSIS TOP	
	8504115006	25	SCREW BIND(+) M3X6 MACH W/DISK	FDR FOCUS SKT & CHAS (L) X2
	2009095000	26	CHASSIS (BTM)	
	3060010060	27	RIVET NYLON 4.0X6.0	FDR PCB & CHAS (L)
	8026115008	28	SCREW BIND(+) ZINC M3X8 TAPPING	FDR FOCUS & FOCUS SKT (A)
	5530203102	29	CORD CRAMPER TH-A	FDR CHAS TO TOP
	2017095330	30	FOCUS SKT A	
	1013095180	31	REVOLTING	FDR I2C BUS PCB
	AM60005944-V	32	H-PRO DAUGHTER PCB ASS'Y	
	9008095001	33	DECO SHEET	
	1006095330	34	SNAP BUSHINGS (N81722)	STAND X1, CHAS BTM X1
	1006095330	34	SNAP BUSHINGS (N81722)	FDR STAND X1
	6710633010	35	I/O CABLE ASS'Y	
	9004095000	36	COVER I2C	
	8002115012	37	SCREW FLATE HD(+) M3X12	FDR AC SOCKET
	7064700129	38	LINE FILTER IA5-S33	
	9005095001	39	DECO PLATE (5BNC)	FDR AC SOCKET
	3211300000	40	WASHER SPRING M3 5.2x3.2x0.8	FDR AC SOCKET
	3011100030	41	NUT ISO HEX M3 ZINC	FDR AC SOCKET
	2007095000	42	FEAR COVER SUPPORT	
	8504115006	43	SCREW BIND(+) M3X6 MACH W/DISK	STUD & CHAS R X4, VIDEO & STUD X4,
	8037115016	44	SCREW BIND(+) HI-LOW M4X16	
	1007095001	45	COVER (L)	FDR REAR COVER
	8418115014	46	SCREW BIND(+) M4X14 TAPPING TRI	TILT BALL & LATCH
	1009095251	47	LATCH	
	1006095251	48	RETAINER	
	1008095001	49	TILT BALL	
	1019095230	50	FOOT	
	1008295251	51	BASE	
	8081115530	52	SCREW BIND/HD MACH 1/4"-20X30	FDR REAR COVER
	1006095001	53	COVER (R)	
	AM60015044-V	54	MAIN PCB ASS'Y	FDR BEZEL & BUCKET
	8037115035	55	SCREW BIND(+) HI-LO M5X35	
	1012155000	56	FEAR COVER ASS'Y	
	2002095660	57	CHASSIS (R)	
	AM60005744-V	58	SUB NECK PCB ASS'Y	
	2016095230	59	STUD M3X12	VIDEO BOARD X4
	5530315005	60	SUPPORT PCB	FDR POWER SAVING
	AM60005244-V	61	NECK PCB ASS'Y	
	1001095290	62	JUMPER	
	2022155660	63	VIDEO COVER	
	2014095330	64	VIDEO SHIELD	
	2010095000	65	STAND (5BNC)	
	5530015030-404	66	VIDEO IC PCB ASS'Y	
	2010095340	67	CHASSIS REAR	

INMENT

OR CRT FINGER & CRT FRAME X12

OR BEZEL

OR CRT

RT & CRT FRAME X4

RT & CRT FRAME X4

OR CRT BRAID WIRE

BEZEL & CRT FRAME

RT FRAME & CHAS TOP X2, CHAS BTM & CRT FRAME X2, CH
S TOP & CHAS R X3, CRT FRAME & STAND X4, CHAS TOP &
HAS L X3, CHAS REAR & CHAS TOP X2, I/O CABLE & CHAS
REAR X1, CHAS REAR & CHAS BOTTOM X3, CHAS REAR & CH
E R X3, CHAS REAR & CHAS L X3

OR I/O CABLE X2, POWER WIRE X1

OR FOCUS BKT & CHAS (L) X2

OR PCS & CHAS (L)

OR FOCUS & FOCUS BKT (A)

OR CHAS TO TOP

OR I2C BUS PCB

STAND X1, CHAS BTM X1

OR STAND X1

OR AC SOCKET

OR AC SOCKET

OR AC SOCKET

STUD & CHAS R X4, VIDEO & STUD X4, POWER SAVING X1

OR REAR COVER

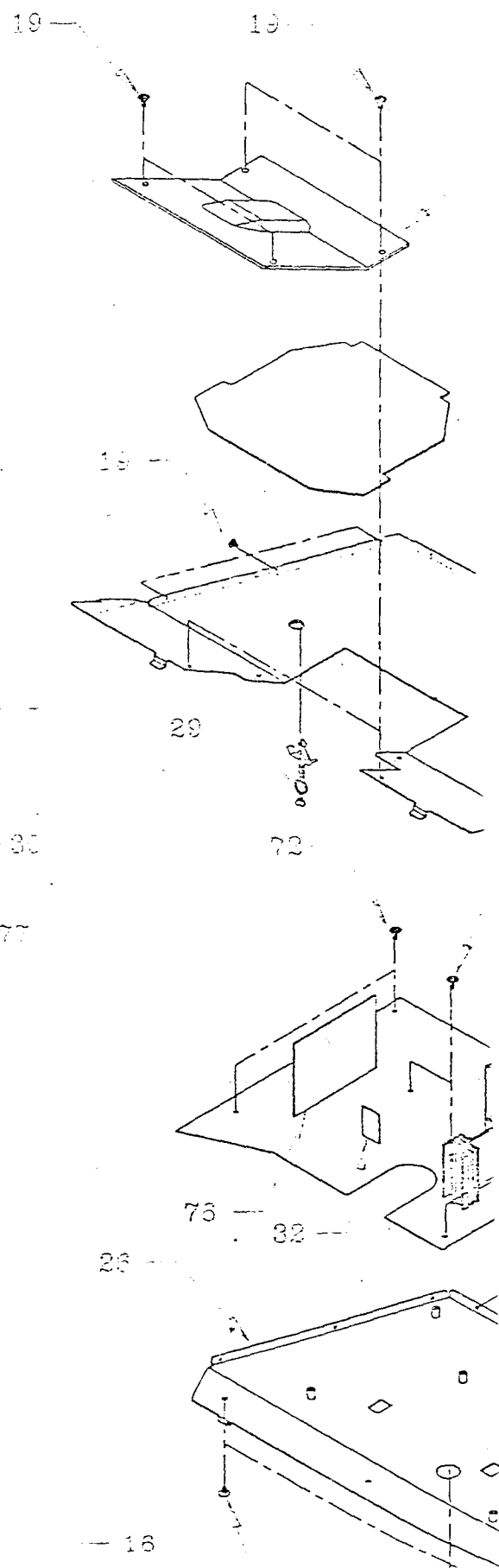
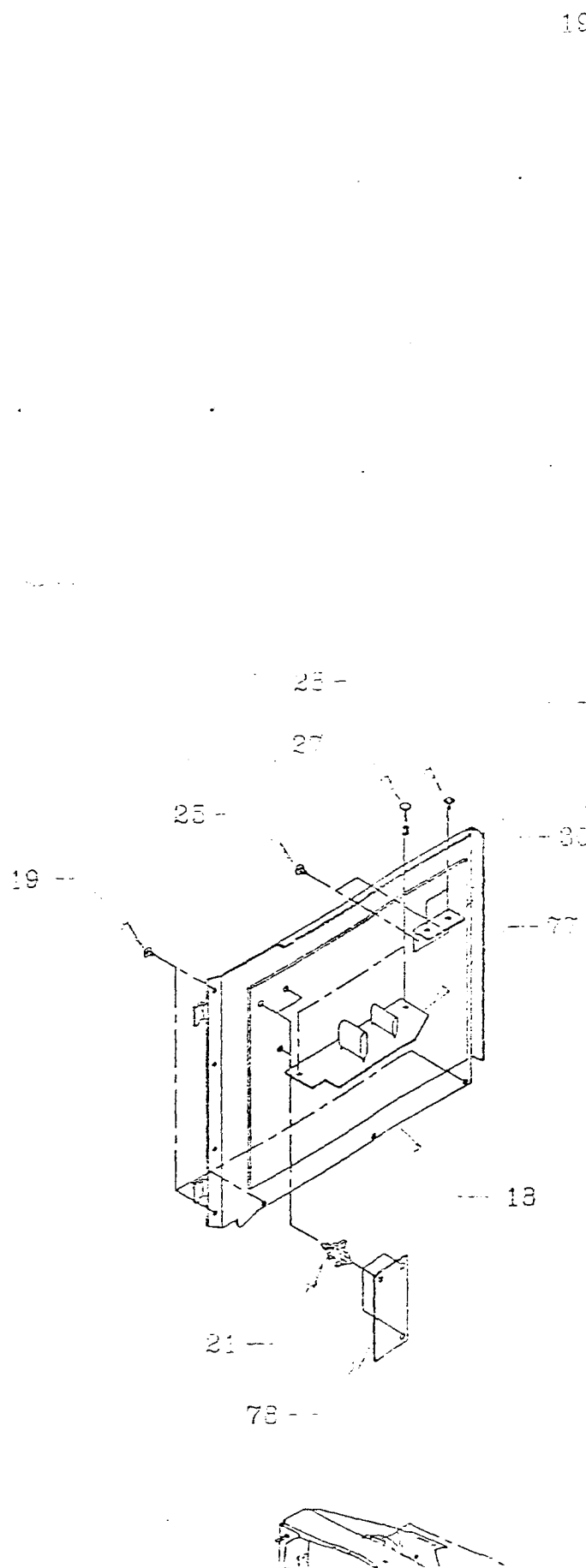
WILT BALL & LATCH

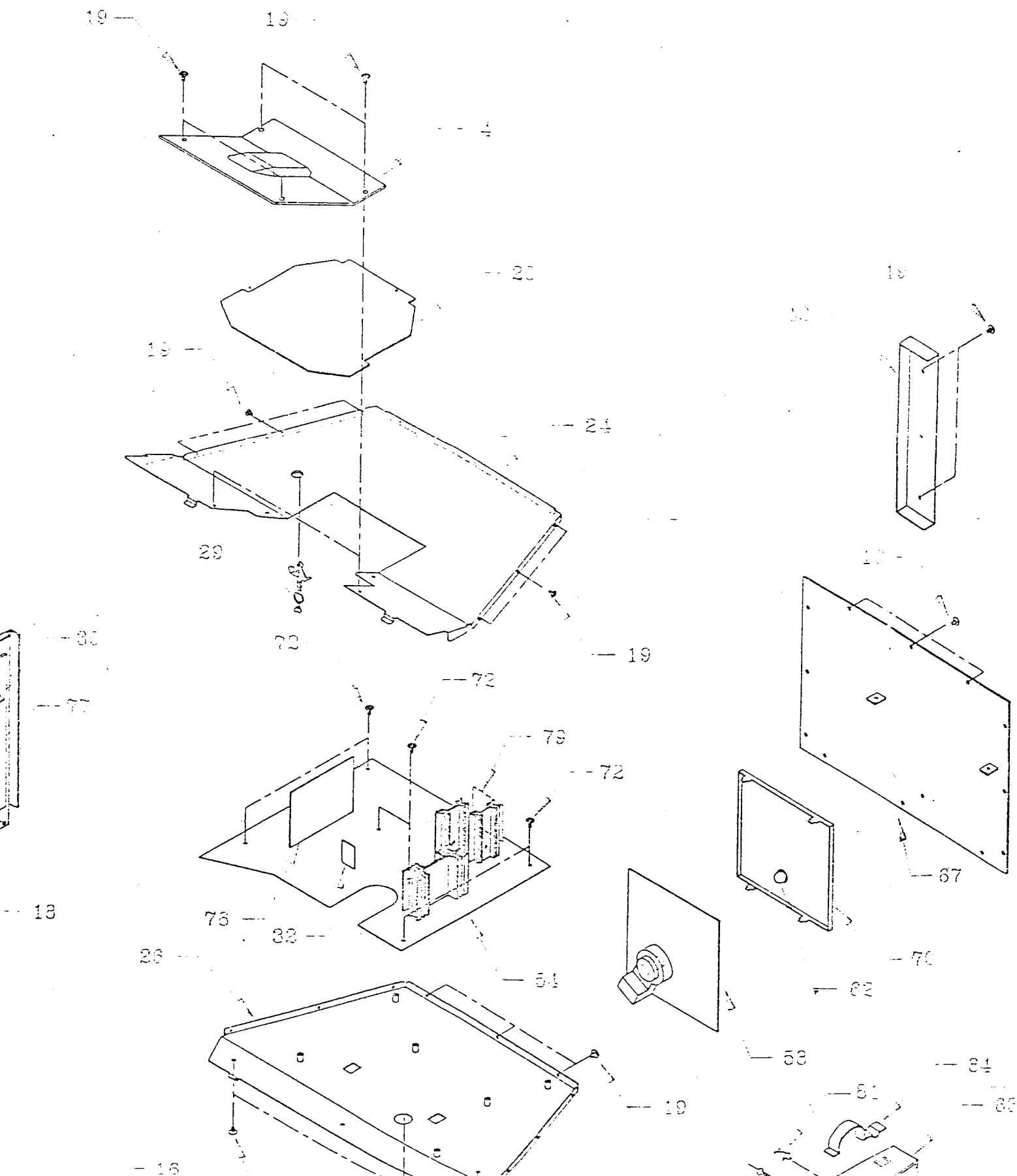
OR REAR COVER

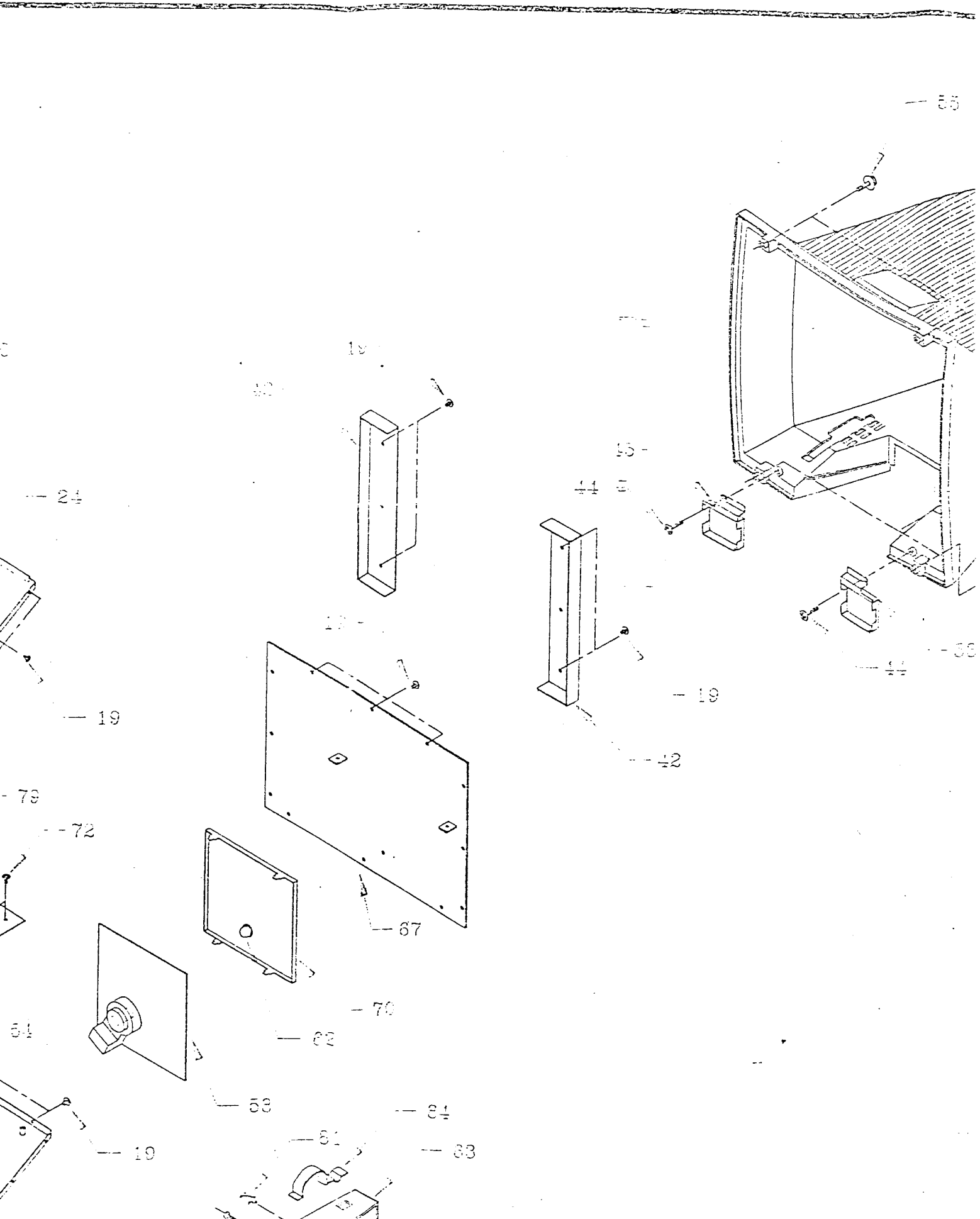
OR BEZEL & SCKET

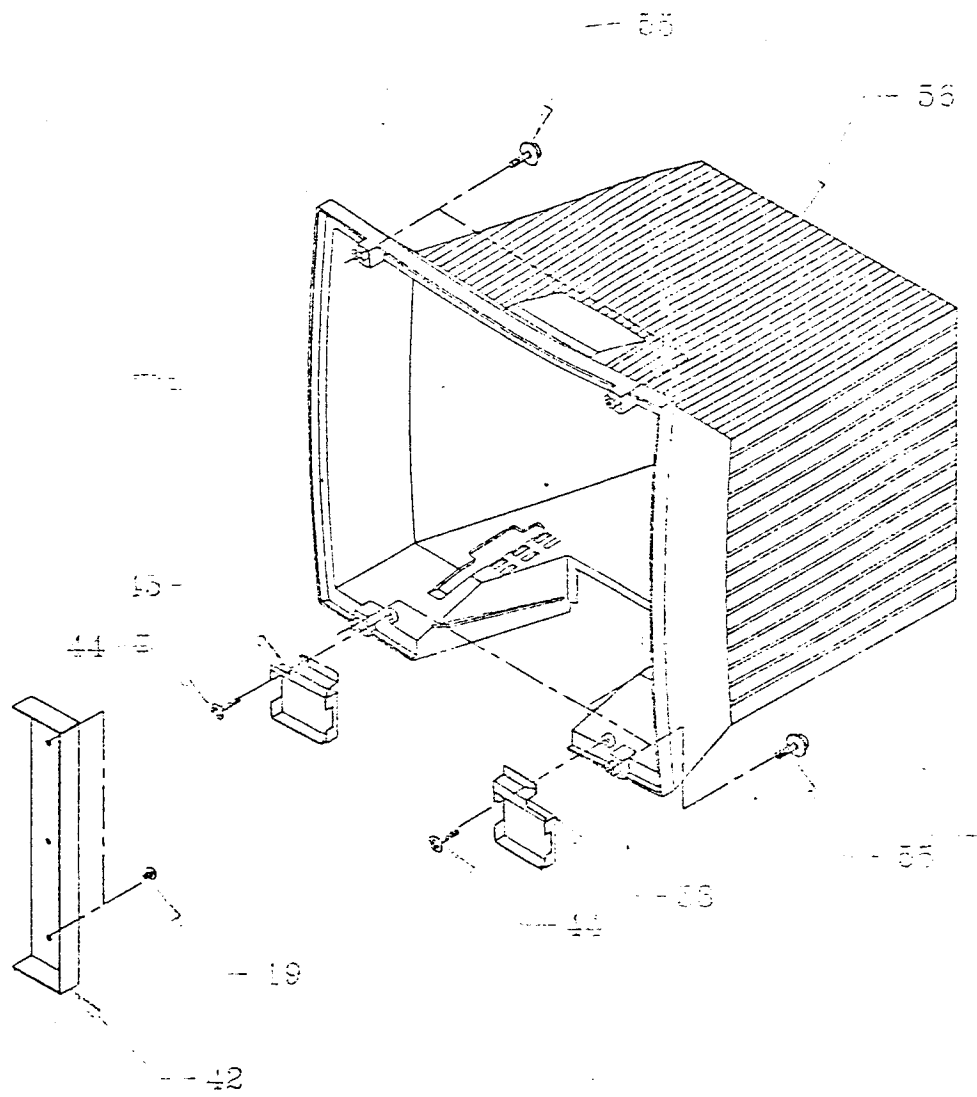
VIDEO BOARD X4

OR POWER SAVING









- b. INPUT 59KHZ 1024x768, 2" SQUARE PATTERN.
ADJUST VST7 UNTIL THE RASTER BRIGHTNESS IS APP. 0.08 FL.
ADJUST VST8 UNTIL 2" SQUARE BRIGHTNESS IS AT 2 FL.
ADJUST VST4,6 UNTIL $x = 0.281 \pm 0.01$, $y = 0.311 \pm 0.01$.
 - c. ADJUST VST7 UNTIL THE RASTER BRIGHTNESS IS AT 0.08 FL.
ADJUST VST8 TO MAX.
ADJUST VST1,3 UNTIL $x = 0.283 \pm 0.01$, $y = 0.298 \pm 0.01$.
 - d. REPEAT THE ALIGNMENT ACCORDING TO b & c PROCEDURE, UNTIL THE PICTURE BRIGHTNESS $x = 0.283 \pm 0.01$, $y = 0.298 \pm 0.01$.
11. MAIN TIMING (59KHZ 1024x768) PERFORMANCE ALIGNMENT.
- a. RASTER CENTERING: ADJUST VDY4(H-DC), VDY8(V-DC), UNTIL THE RASTER IS AT THE CENTER OF THE BEZEL.
 - b. V-PHASE: PLACE THE VERTICAL PICTURE IN THE CENTER OF THE RASTER.
 - c. V-SIZE: MAKE THE VERTICAL HEIGHT APP. 270mm.
 - d. PINCUSHION GAIN: MAKE THE PICTURE TO BE A STRAIGHT LINE.
 - e. H-PHASE: CENTER THE PICTURE ON THE BEZEL, $|L-R| \leq 2 \text{ mm}$.
 - f. H-SIZE: MAKE THE HORIZONTAL WIDTH $360 \pm 3 \text{ mm}$.
 - g. PINCUSHION PHASE/BALANCE/WAVEFORM: PINCUSHION DISTORTION, MAKE THE PICTURE, $H \leq 1.5 \text{ mm}$.
 - h. V-LINEARITY: ADJUST VDY1 UNTIL THE VERTICAL LINE IS LESS THAN 7.5%
 - i. V-SIZE: MAKE THE VERTICAL HEIGHT $270 \pm 3 \text{ mm}$.
12. BRIGHTNESS ADJUSTMENT:
- a. INPUT 59KHZ 1024x768, NO VIDEO INPUT.
 - b. PRESS "6500" BUTTON OF THE CONTROL MEMBRANE SWITCH ONCE
 - c. ADJUST THE EXT. "BRIGHTNESS" KEY AND "CONTRAST" KEY TO MAX. THEN ADJUST THE SCREEN VR ON THE FBT OF THE U.U.T TO MAKE THE ANALYZER READS BETWEEN 0.9-1.5 FL.
 - d. ADJUST THE EXT. "BRIGHTNESS" KEY UNTIL, SET-UP THE RASTER BRIGHTNESS IS 0.08 FL.
 - e. INPUT FULL WHITE PATTERN, ADJUST EXT. "CONTRAST" KEY TO MAX. THEN ADJUST VR303 UNTIL TO MAKE THE DISPLAY CENTER BRIGHTNESS IS $32 \text{ FL} \pm 1 \text{ FL}$.
 - f. INPUT FULL WHITE PATTERN, ADJUST EXT. "CONTRAST & BRIGHTNESS" KEY TO MAX. THEN ADJUST VR304 UNTIL TO MAKE THE DISPLAY CENTER BRIGHTNESS IS $35 \text{ FL} \pm 1 \text{ FL}$.
- (c) WHITE BALANCE AND BRIGHTNESS ADJUSTMENT: (FOR WHITE BALANCE AUTO-ADJUST USE ONLY)
1. CONNECT SIGNAL I/O CABLE FROM U.U.T TO SIGNAL INTERFACE BOX. POWER ON THE U.U.T.
 2. CONNECT I2C BUS CABLE FROM PC-COMPUTER TO I2C CONNECTOR P809 ON THE D.M.C DAUGHTER BOARD OF THE U.U.T.
 3. FIRMWARE DOWNLOAD: (FOR FIRMWARE UPDATE ONLY)
 - a. PRESS "F2" COMMAND KEY FROM THE KEYBOARD ONCE AND WAIT UNTIL THE "LOADING" DECAL DISAPPEARS FROM THE SCREEN.
 - b. PRESS "ENTER" KEY TWICE AND WAIT UNTIL THE MAIN ALIGNMENT MENU POPS UP ON THE SYSTEM SCREEN.
 - c. RECYCLE THE POWER ON/OFF SWITCH OF THE U.U.T TO WRITE DATA TO EEPROM.
 4. RASTER CENTERING ADJUSTMENT: (FOR RASTER IS NOT IN THE CENTER OF THE BEZEL ONLY)
 - a. PRESS "CTRL" AND "F1" COMMAND KEYS SIMULTANEOUSLY. IF THE FIRMWARE REVISION OF THE U.U.T IS CORRECT, VDY4 WAVEFORM WILL POP UP ON THE SYSTEM SCREEN. OTHERWISE, A "WRONG FIRMWARE" DECAL WILL POP UP INSTEAD.
 - b. UTILIZE "INSERT" (+1), "DELETE" (-1), "HOME" (+5), AND "END" (-5) KEYS TO

2009095000	25	CHASSIS (BIM)	FOR PCB & CHAS (L)
3060041060	27	RIVET NYLON 4.0X6.0	FOR FOCUS & FOCUS SKT (A)
8026113008	28	SCREW BID(+) ZINC M3X3 TAPPING	FOR CHAS TO TOP
5530200102	29	DORD CRAMPER TH-A	
2017095330	30	FOCUS SKT A	
1015094180	31	REVLTIES	FOR 120 BUS PCB
AM60000944-V	32	4-PRO DAUGHTER PCB ASS'Y	
9000095001	33	DECO SHEET	
1006095330	34	SNAP BUSHINGS (NB1722)	STAND X1, CHAS STM X1
1006095330	34	SNAP BUSHINGS (NB1722)	FOR STAND X1
0710633010	35	I/O CABLE ASS'Y	
9004095000	36	COVER 120	
8002113012	37	SCREW FLATE HD(+) M3X12	FOR AC SOCKET
7064700129	38	LINE FILTER 1A5-S33	
9005095001	39	DECO PLATE (53NC)	
3211300000	40	WASHER SPRING M3 5.2x3.2x0.8	FOR AC SOCKET
3011100030	41	NUT ISO HEX M3 ZINC	FOR AC SOCKET
2007095000	42	REAR COVER SUPPORT	
8504113006	43	SCREW BID(-) M3X6 MACH W/DISK	STUD & CHAS R X4, VIDEO & STUD X4,
8037114016	44	SCREW BIND(+) HI-LOW M4X16	
1007095001	45	COVER (L)	FOR REAR COVER
8418114014	46	SCREW BID(+) M4X14 TAPPING TRI	TILT BALL & LATCH
1009094251	47	LATCH	
1006094251	48	RETAINER	
1008095001	49	TILT BALL	
1019094230	50	FOOT	
1008294251	51	BASE	
8081111530	52	SCREW BIND/HD MACH 1/4"-20X30	
1006095001	53	COVER (R)	FOR REAR COVER
AM60015044-V	54	MAIN PCB ASS'Y	
8037115035	55	SCREW BID(+) HI-LO M5X35	FOR BEZEL & BUCKET
1012195000	56	REAR COVER ASS'Y	
2002094560	57	CHASSIS (R)	
AM60000744-V	58	SUB NECK PCB ASS'Y	
2016094230	59	STUD M3X12	VIDEO BOARD X4
5530311005	60	SUPPORT PCB	FOR POWER SAVING
AM60000244-V	61	NECK PCB ASS'Y	
1001094290	62	JUMPER	
2022194560	63	VIDEO COVER	
2014095330	64	VIDEO SHIELD	
2010095000	65	STAND (53NC)	
5560010430-404	66	VIDEO IC PCB ASS'Y	
2010095340	67	CHASSIS REAR	
AM60000544-V	68	POWER SAVING PCB ASS'Y	
2016094230	69	STUD M3X12	FOR SUB NECK
2013095000	70	NECK SHIELD	CRT & CRT FRAME X4
3111502016	71	WASHER FLAT M6X1.6	CONTROL SOX & UPPER SKT X4, MAIN PCB
8504113008	72	SCREW BIND(+) M3X6 MACH W/DISK	FOR I/O CABLE & CHAS STM & POWER W
8121114005	73	SCREW CAP BID(+) M4X8 TAPPING	
-----	74	120 PCB ASS'Y	
2013095320	75	FINGER (S)	CRT FRAME & CHAS (R)
5560011930-404	76	LOGIC PCB ASS'Y	
-----	77	TRS PCB ASS'Y	
5560001920-404	78	CONTROL PCB WIRE ASS'Y	
AM60010442-V	79	DC-DC DAUGHTER PCB	FOR SPS WIRE ASS'Y
5530200102	80	DORD CRAMPER TH-A	
5530200101	81	DORD CRAMP TH-C	
8282112006	82	SCREW PAN(+) W/SPRING WASHER M	FOR SELF TEST SW
1004099000-231	83	SNAP BUSHING(NB-1216)	
2027094560	84	CONDUCTOR	
5560010320-404	85	POWER SWITCH & VR ASS'Y	
5560010720-404	86	LED & WIRE ASS'Y	

71 ---

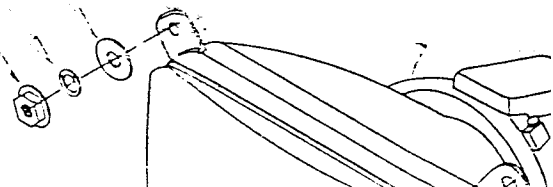
13 ---

12 ---

23 ---

88 ---

10



PING

FOR PCB & CHAS (L)
FOR FOCUS & FOCUS SKT (A)
FOR CHAS TO TOP

FOR 120 BUS PCB

STAND X1, CHAS STM X1
FOR STAND X1

FOR AC SOCKET

X0.8

FOR AC SOCKET
FOR AC SOCKET

ISK

STUD & CHAS R X4, VIDEO & STUD X4, POWER SAVING X1

TRI

FOR REAR COVER
TILT BALL & LATCH

X30

FOR REAR COVER
FOR BEZEL & BUCKET

VIDEO BOARD X4
FOR POWER SAVING

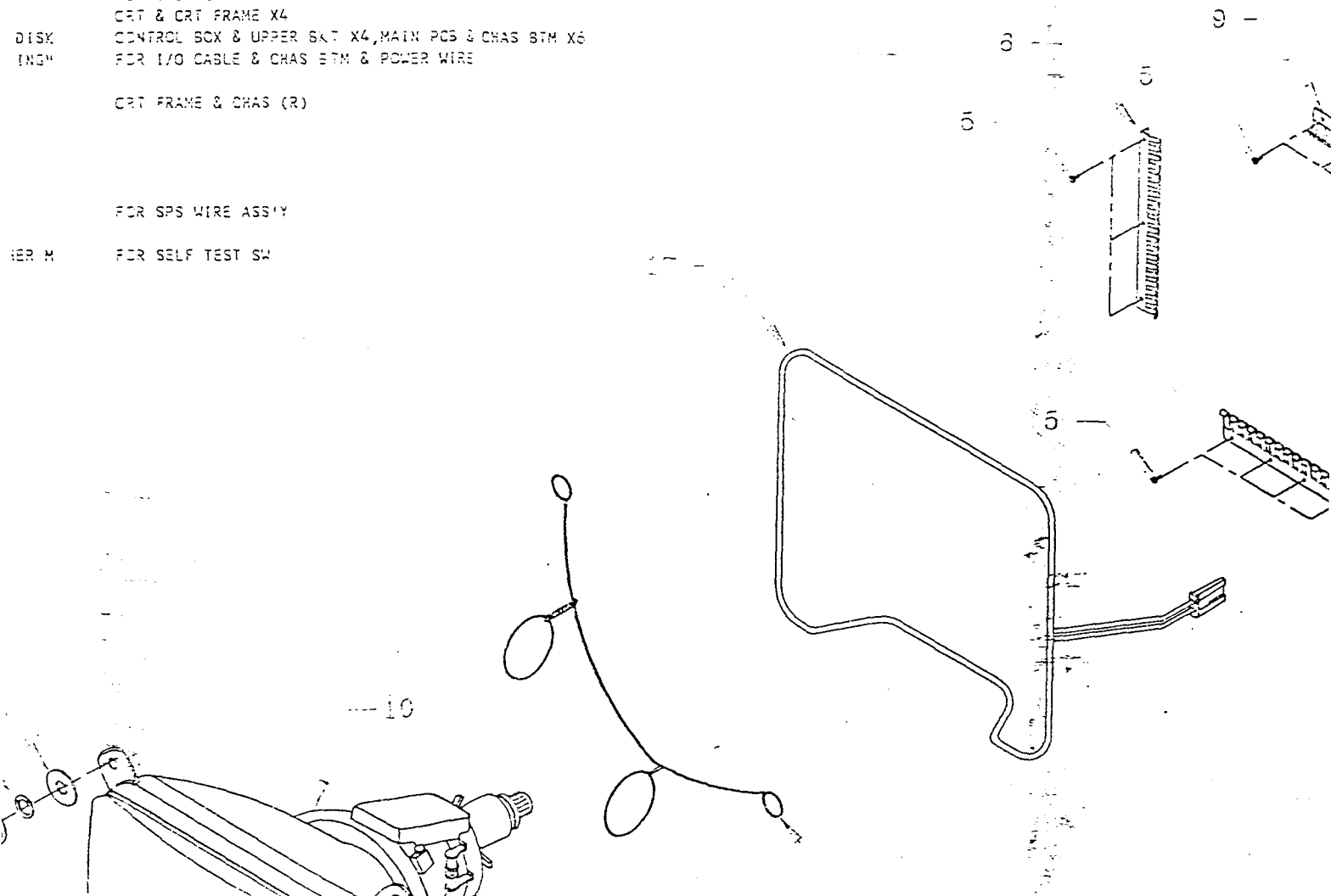
FOR SUB NECK
CRT & CRT FRAME X4
CONTROL BOX & UPPER SKT X4, MAIN PCB & CHAS STM X6
FOR I/O CABLE & CHAS STM & POWER WIRE

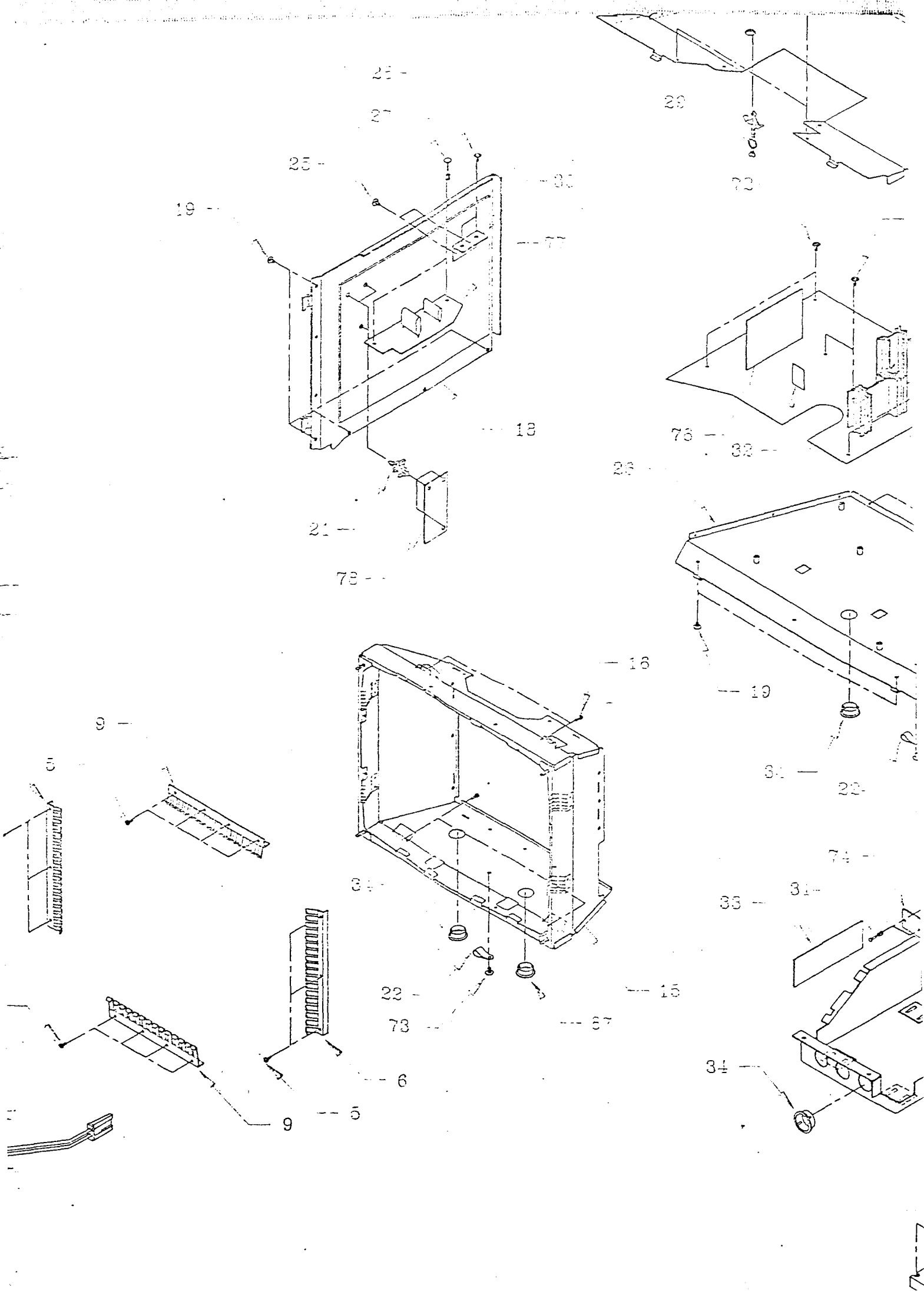
CRT FRAME & CHAS (R)

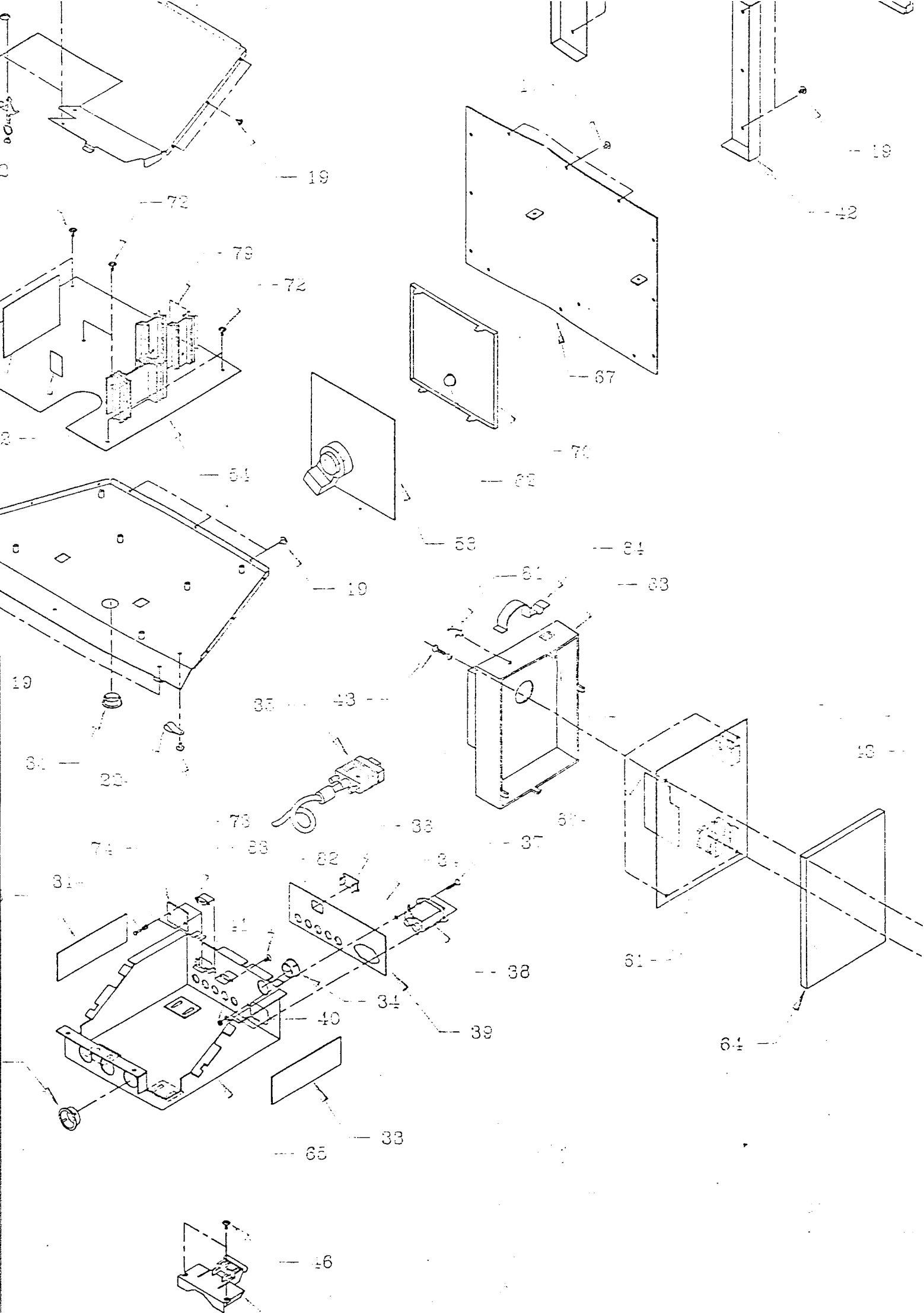
FOR SPS WIRE ASSY

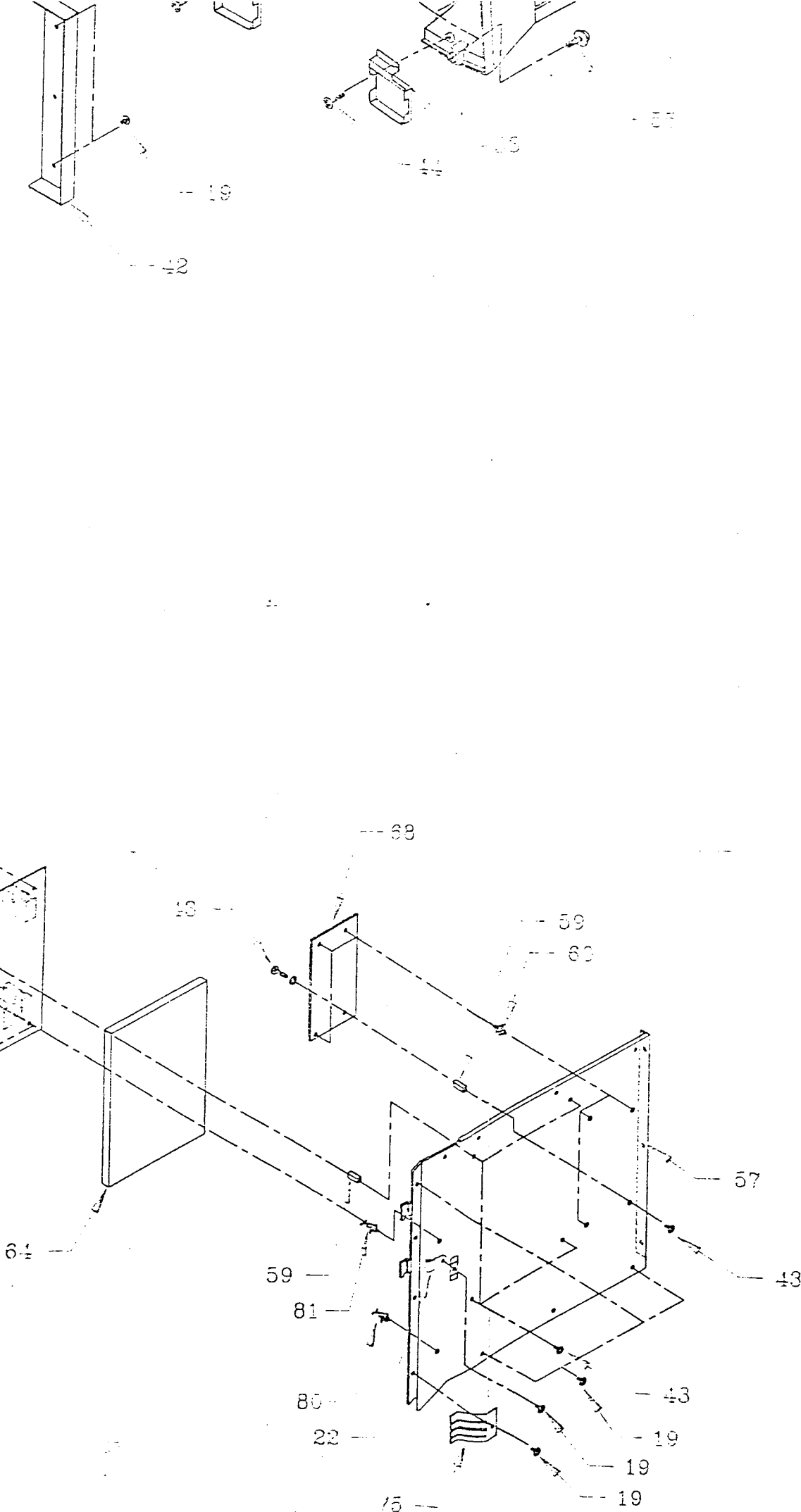
HER M

FOR SELF TEST SW









AM6001044-V
 201609-230
 201309-000
 3111602016
 8504113008
 812111-003

 201309-520
 SS60010930-404

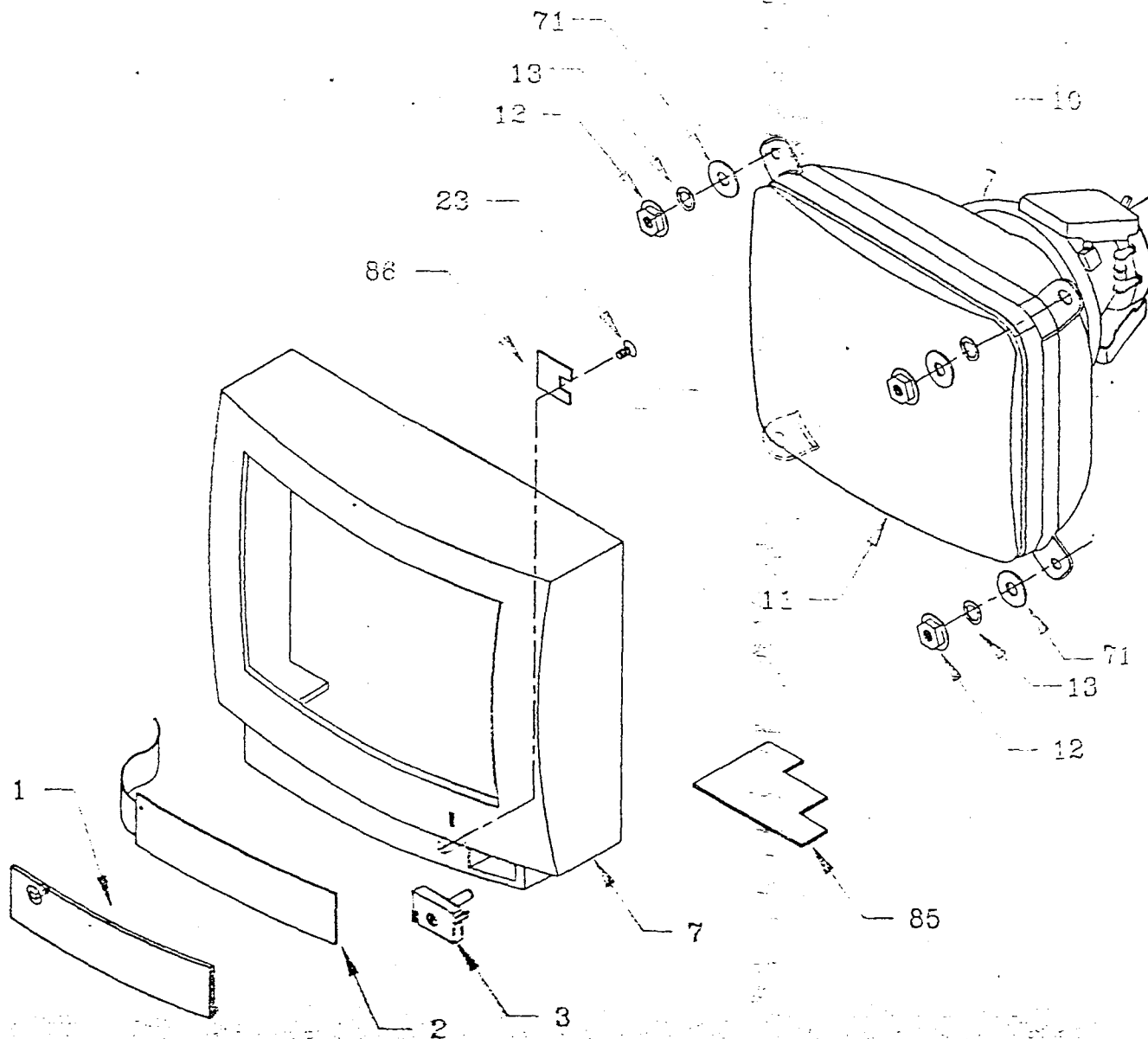
 SS60010920-404
 AM60010442-V
 5530200102
 5530200101
 8282112006
 1004099000-231
 202709-660
 SS60010920-404
 SS60010720-404

69 STUD M3X12
 70 BECK SHIELD
 71 WASHER FLAT M6X1.6
 72 SCREW BIND(+) M3X3 MACH W/DISK
 73 SCREW CAP BID(+) M4X8 TAPPING
 74 120 PCB ASS'Y
 75 FINGER (S)
 76 LOGIC PCB ASS'Y
 77 TRS PCB ASS'Y
 78 CONTROL PCB WIRE ASS'Y
 79 DC-DC DAUGHTER PCB
 80 DORD CRAMPER TH-A
 81 DORD CRAMP TH-C
 82 SCREW PAN(+) W/SPRING WASHER M
 83 SNAP BUSHING(M3-1216)
 84 CONDUCTOR
 85 POWER SWITCH & VR ASS'Y
 86 LED & WIRE ASS'Y

FOR SUB NECK
 CRT & CRT FRAME X4
 CONTROL BOX & UPPER BAT X4, MAIN PCB & CH
 FOR I/O CABLE & CHAS ETM & POWER WIRE
 CRT FRAME & CHAS (R)

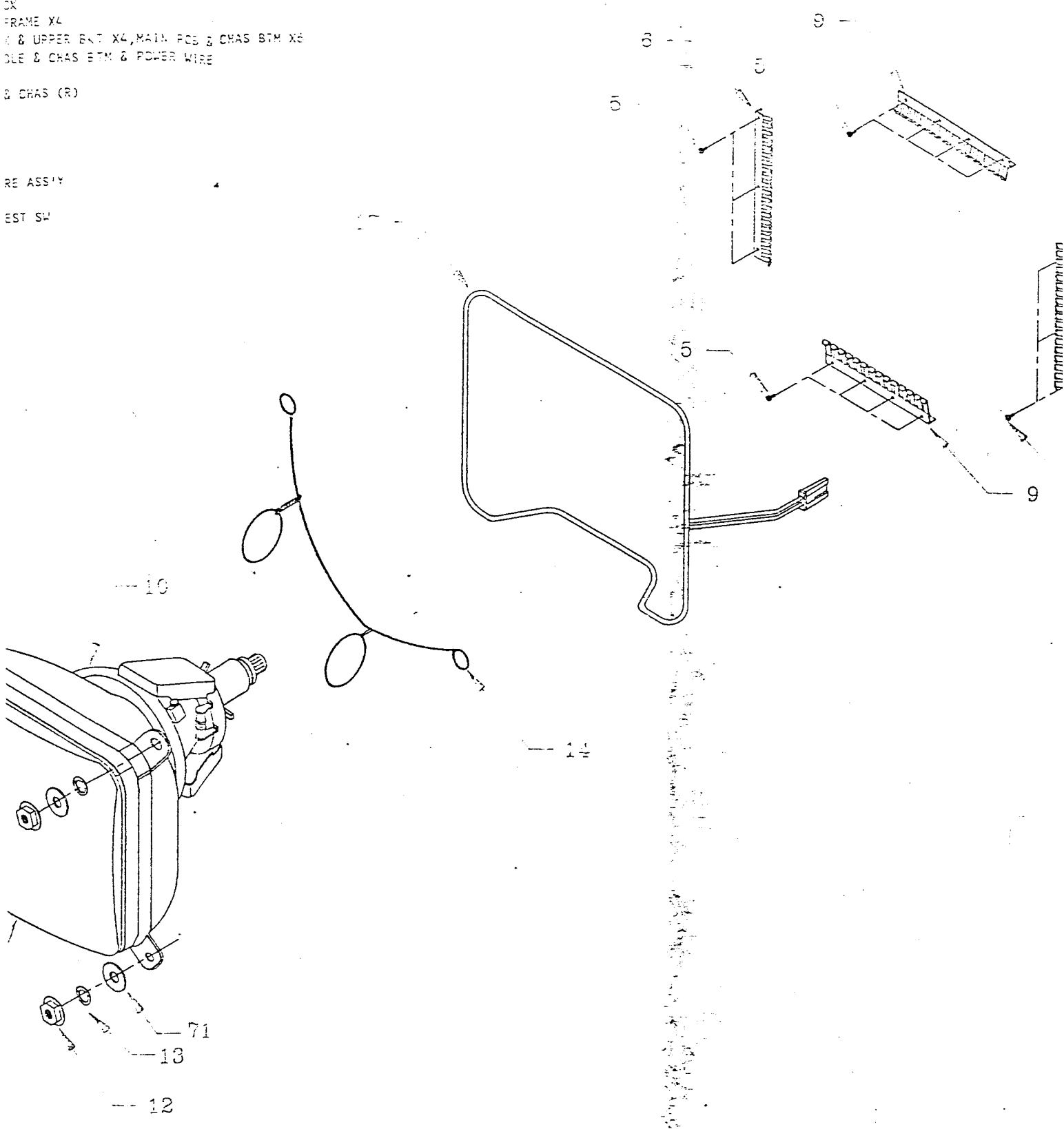
FOR SPS WIRE ASS'Y

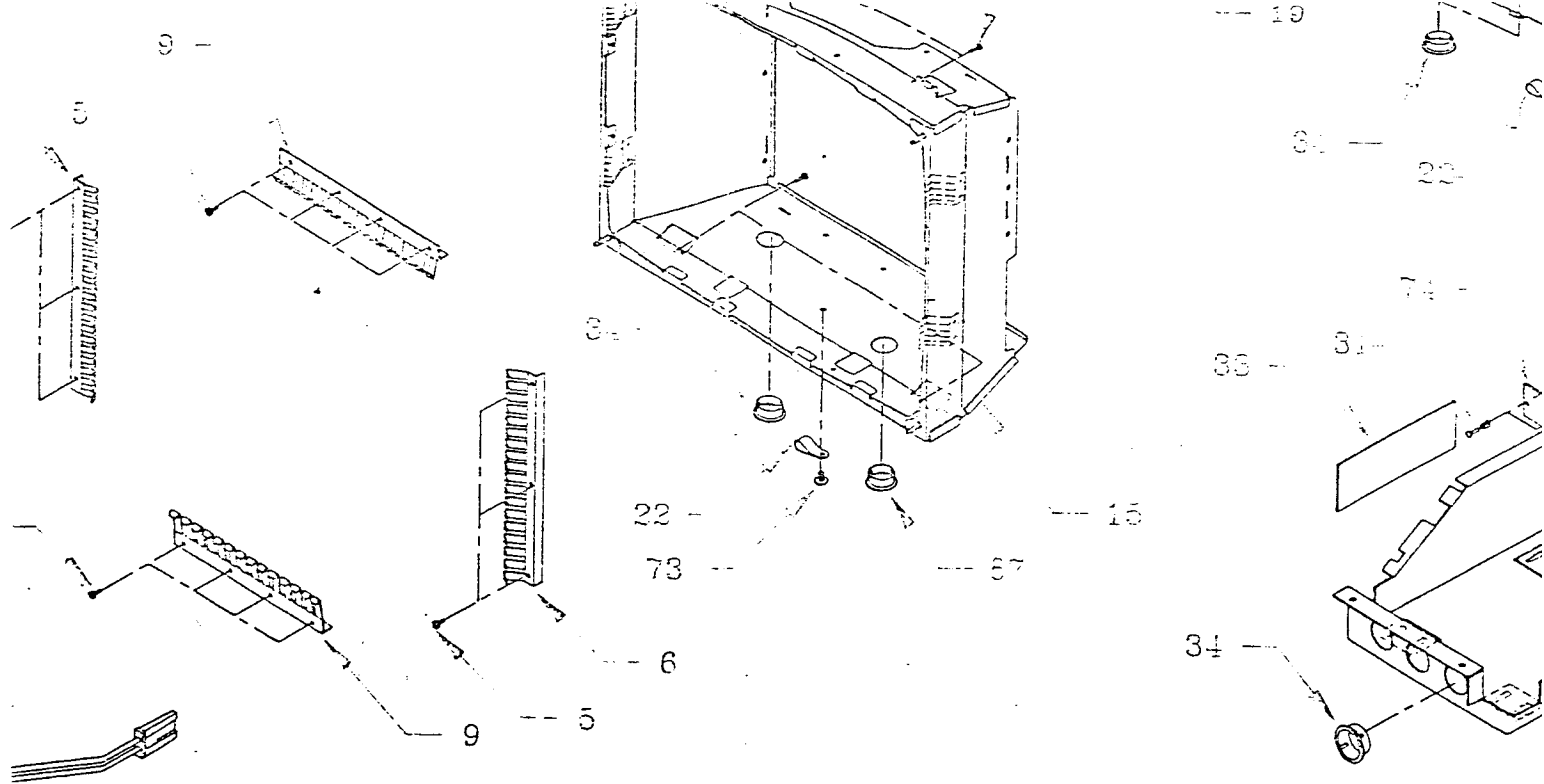
FOR SELF TEST SW

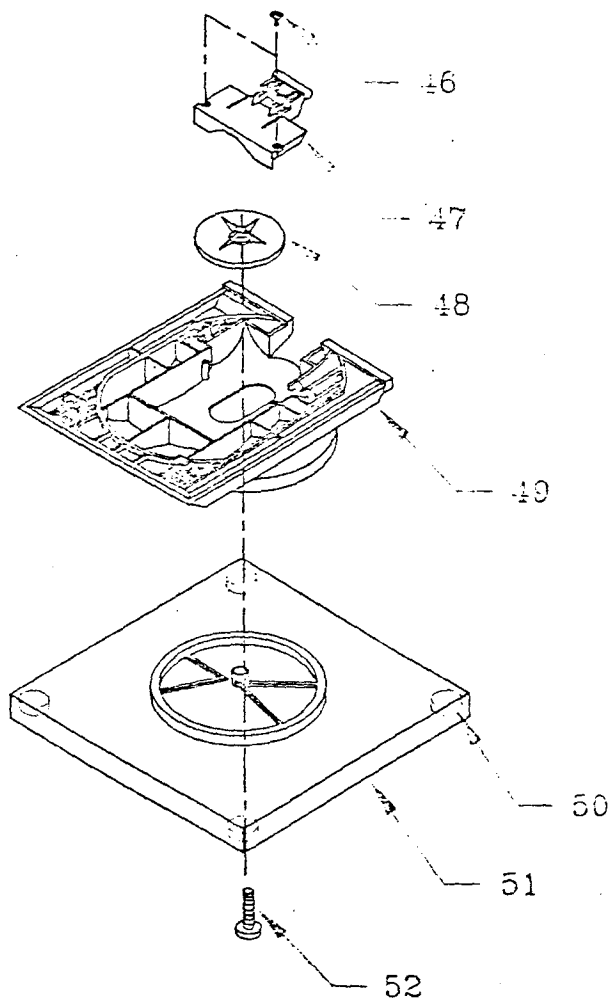
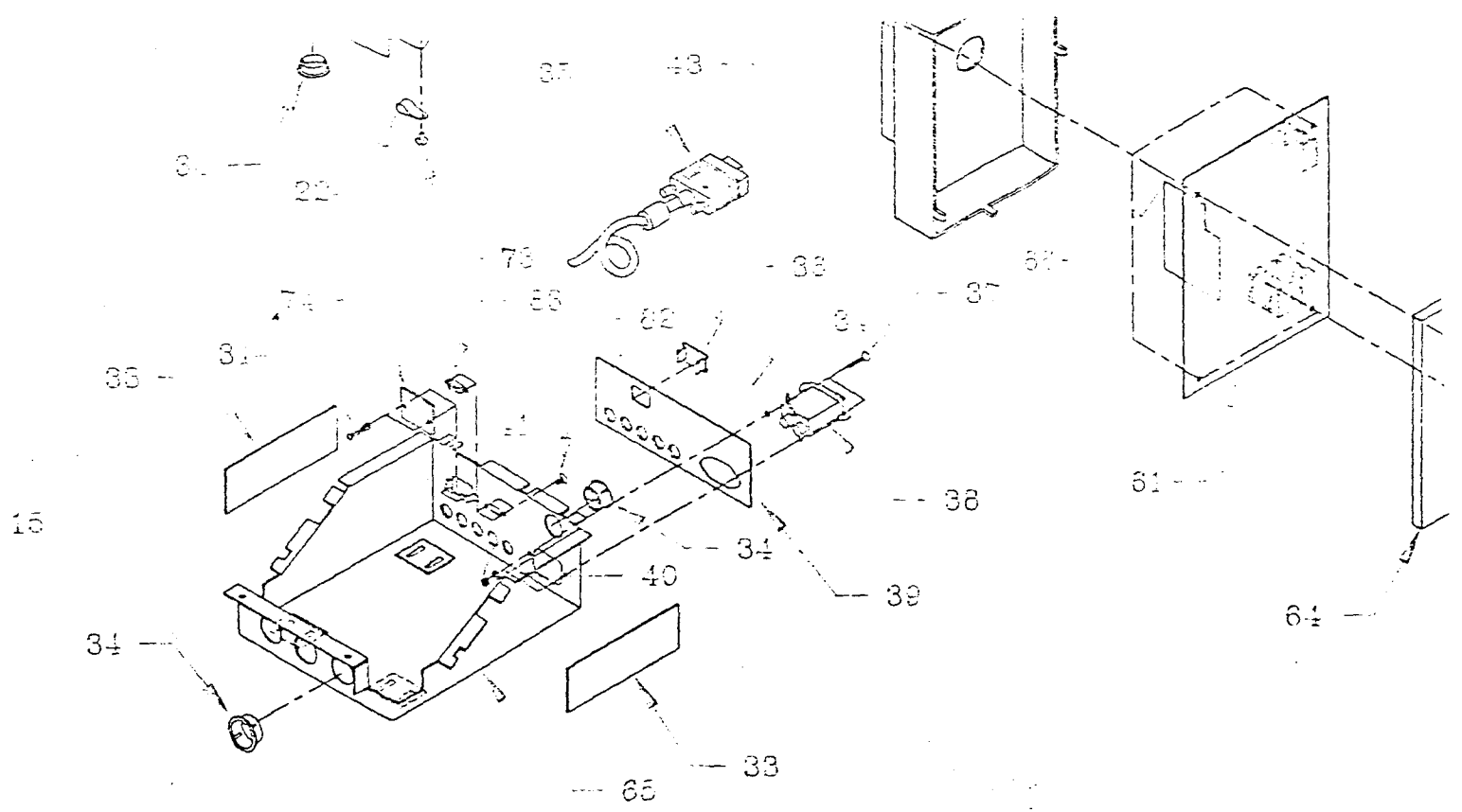


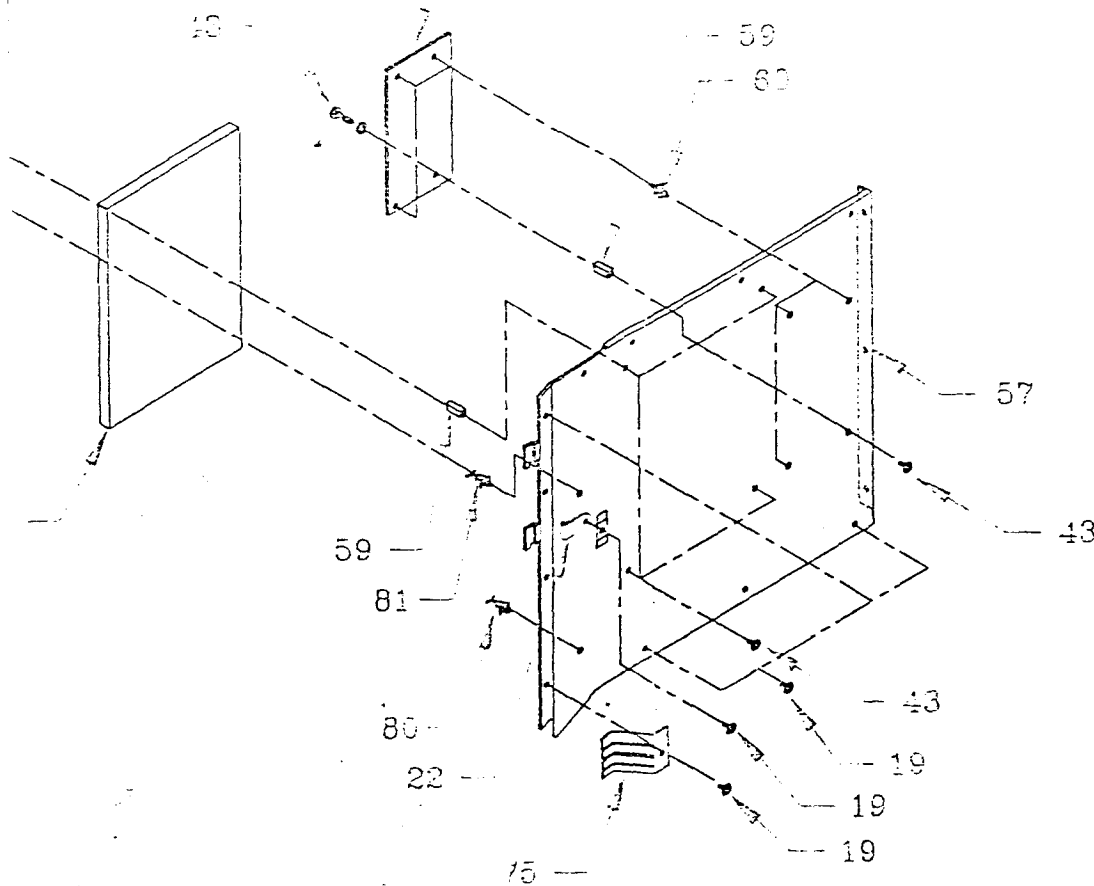
CK
FRAME X4
A & UPPER EXT X4, MAIN PCB & CHAS BTM X6
OLE & CHAS BTM & POWER WIRE
B CHAS (R)

RE ASS'Y
EST SW









TAXAN Ergovision 1080LR

Mechanical
Exploded View

Revision 1 Sep 94

ALIGN THE RASTER IN THE HORIZONTAL DIRECTION.

- c. PRESS "F8" COMMAND KEY ONCE TO SAVE THE CHANGE.
 - d. PRESS "8" NUMERICAL KEY ONCE AND REPEAT THE ABOVE STEPS TO ALIGN THE RASTER IN THE VERTICAL DIRECTION.
 - e. PRESS "F8" COMMAND KEY ONCE TO SAVE THE CHANGE.
 - f. PRESS "ESC" COMMAND KEY ONCE TO RETURN TO THE MAIN MENU.
5. USE DEGAUSSING COIL TO DEMAGNETIZE THE C.R.T FACE OF THE U.U.T.
6. WHITE BALANCE ADJUSTMENT:
- a. HOOK MINOLTA COLOR ANALYZER'S PROBE ON TO THE U.U.T DISPLAY CENTER AND PRESS "F6" COMMAND KEY ONCE TO EXECUTE THE ALIGNMENT PROGRAM.
 - b. A SUB-MENU WILL SHOW UP ON THE SCREEN. SELECT "OK" ICON UNDER ITEM "1", THEN ADJUST THE SCREEN VR ON THE F.B.T OF THE U.U.T TO MAKE THE ANALYZER READS BETWEEN 1.5-2.5 FL. PRESS "ENTER" KEY ONCE.
 - c. A "PRE-COLOR BALANCE ADJUST OK" WORDING WILL POP OUT ON THE SCREEN. ADJUST THE SCREEN VR ON THE F.B.T OF THE U.U.T TO MAKE THE ANALYZER READS BETWEEN 0.9-1.5 FL. PRESS "ENTER" KEY ONCE, SO THE WORDING WILL DISAPPEAR.
 - d. SELECT "OK" ICON UNDER ITEM "2" (WHITE BALANCE ADJUST). PRESS "ENTER" KEY ONCE TO START THE "6500 K" WHITE BALANCE ADJUSTMENT.
 - e. A "COLOR BALANCE ADJUSTMENT OK" WORDING WILL POP OUT ON THE SCREEN. PRESS "ENTER" KEY ONCE TO FINISH THE "6500 K" WHITE BALANCE ADJUSTMENT.
 - f. SELECT "OK" ICON UNDER ITEM "3" (SECOND WHITE BALANCE ADJUST). PRESS "ENTER" KEY ONCE TO START THE "9300 K" WHITE BALANCE ADJUSTMENT.
 - g. A "COLOR BALANCE ADJUSTMENT OK" WORDING WILL POP OUT ON THE SCREEN. PRESS "ENTER" KEY ONCE TO FINISH THE "9300 K" WHITE BALANCE ADJUSTMENT.
 - h. A "COLOR BALANCE ADJUSTMENT OK & WRITE EPROM" WORDING WILL POP OUT ON THE SCREEN. PRESS "ENTER" AND "ESC" KEY CONTIGUOUSLY TO EXIT THE PROGRAM.
 - i. RECYCLE THE POWER ON/OFF SWITCH OF THE U.U.T TO WRITE DATA INTO EEPROM.
7. DATA DISPLAY SIZE SET UP:
USE FRONT CONTROL MEMBRANCE SWITCH TO SET THE DISPLAY SIZE TO 360MM*270 MM, VERTICAL AND HORIZONTAL RESPECTIVELY. DON'T PRESS "RECALL" BUTTON AT THIS MOMENT.
8. 6500 K BRIGHTNESS SET UP AND 6500 K/9300 K WHITE BALANCE VERIFICATION:
- a. PRESS 6500 K BUTTON ON THE FRONT CONTROL MEMBRANCE SWITCH.
 - b. SELECT "OK" ICON UNDER ITEM "4" (RASTER/2" PATTERN/WHITE PATTERN). PRESS "ENTER" KEY ONCE. THE FOLLOWING CHART IS TO BE USED TO VERIFY THE SETTING AND THE ADJUSTMENT.

ITEM	ADJUST NAME	PATTERN	BRI.*	CONT.	ADJUST	SPEC
1	RASTER BRI.	RASTER	MAX.	MAX.	SCREEN VR	0.9FL-1.5FL
2	RASTER BRI.	RASTER	-	-	EXT-BRI.*	0.08FL
3	FULL WHITE BRI.	FULL WHITE	-	MAX.	VR303	32FL ± 1FL
4	FULL WHITE BRI.	FULL WHITE	MAX.	MAX.	VR304	35FL ± 1FL
5	W/B CHECK(6500 K)	2" SQUARE	-	-	EXT-CONT.	2FL X:313±10 Y:329±10
6	W/B CHECK(6500 K)	2" SQUARE	-	-	EXT-CONT.	MAX.X:313±10 Y:329±10
7	W/B CHECK(9300 K)	2" SQUARE	-	-	EXT-CONT.	2FL X:283±10 Y:298±10
8	W/B CHECK(9300 K)	2" SQUARE	-	-	EXT-CONT.	MAX X:283±10 Y:298±10
9	29FL SET-UP	FULL WHITE	-	-	EXT-CONT.	29FL ± 1FL

.(d) MISCONVERGENCE AND FOCUS AND TILT ADJUSTMENT:

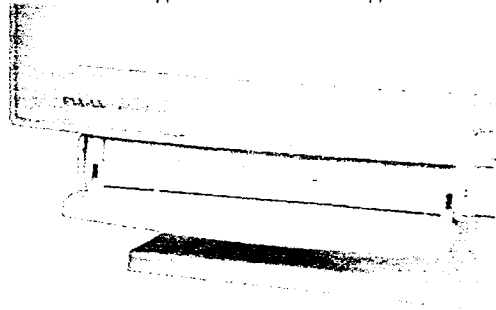
NOTE:

* WARM UP U.U.T WITH BLACK BOX FOR AT LEAST 30 MINUTES.

Ergovision 1080 Basic Disassembly

The Ergovision 1080 is a multi frequency high performance colour display with a 20 inch diagonal CRT.

Control of the picture geometry is achieved using a proprietary micro-controller with 15 factory preset signal timings. User programming of additional signal timings and all user functions is achieved using front mounted digital controls as illustrated below:



The cabinet is made up of three main plastic parts, the bezel, the rear cover and the tilt base which is detachable. The tilt base does not normally have to be removed for service access.

THE MAINS POWER LEAD SHOULD BE DISCONNECTED BEFORE ATTEMPTING TO DISASSEMBLE THE UNIT.

Removal of 4 self-binding screws (shown right) allows the removal of the rear cover and exposes the inner metal casing necessary for RFI screening.

Access to the electronic assemblies begins with the removal of the CRT anode cap shield plate (a). This is held in place with 4 self-tapping screws and two lugs along the top edge. Note that the inner insulating sheet which is attached to this plate is inserted under the surrounding metalwork when the plate is eventually replaced.

The top plate is removed by removing 13 securing screws as indicated.

This provides access to the CRT deflection yoke and anode cap where hazardous voltages are present when the unit is powered.

The right hand panel (viewed from behind) should be removed next by removing the 9 screws indicated. This panel is hinged along its forward edge by lugs which interlock with the CRT surround. To remove the plate once the screws have been removed, open the panel outwards and lift it gently off the lugs.

