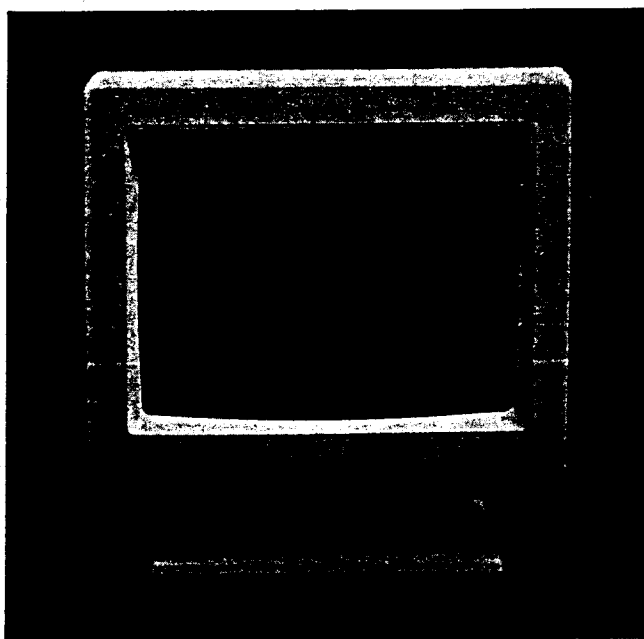


SAMTRON

14" SUPER VGA COLOR MONITOR

SERVICE MANUAL

SC-431VS/SC-428VS/SC-428VSL



SPECIFICATION

Picture tube	M34 KRJ 45X06 —SC-431VS M34 KRH 35X03 —SC-428VS M34 KUK 35X(SD) SC-428VSL M34 KNM 23 (TOSHIBA) 14 Inches diagonal 90 degree deflection, 0.31mm,0.28mm dot pitch, black matrix
Input signal	Video : 0.7Vp-p Analog level positive Sync : TTL level
Display	
-colors	Any Colors
Synchro	
-nization	Horizontal : 31.5KHz, 35.2KHz, 35.5KHz Vertical : 50~90Hz
Resolution	640 dots(H)X480 Lines 800 dots(H)X600 Lines 1024 dots(H)X768 Lines
Video band	
-width	40MHz(-3dB)
Display area	Horizontal : 240± 4mm Vertical : 180± 4mm
Ac input	
-voltage	AC90V to 264 (60/50Hz)
Power	
-consumption	70W(MAX.)
Dimension	354(W)X382(D)X365(H)mm
Weight	13.0kg (Approx.)

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1. GENERAL INFORMATION

(1) SAFETY PRECAUTION

WARNING: Service should not be attempted by anyone unfamiliar with the necessary precautions on this unit.
The following precautions are necessary during servicing.

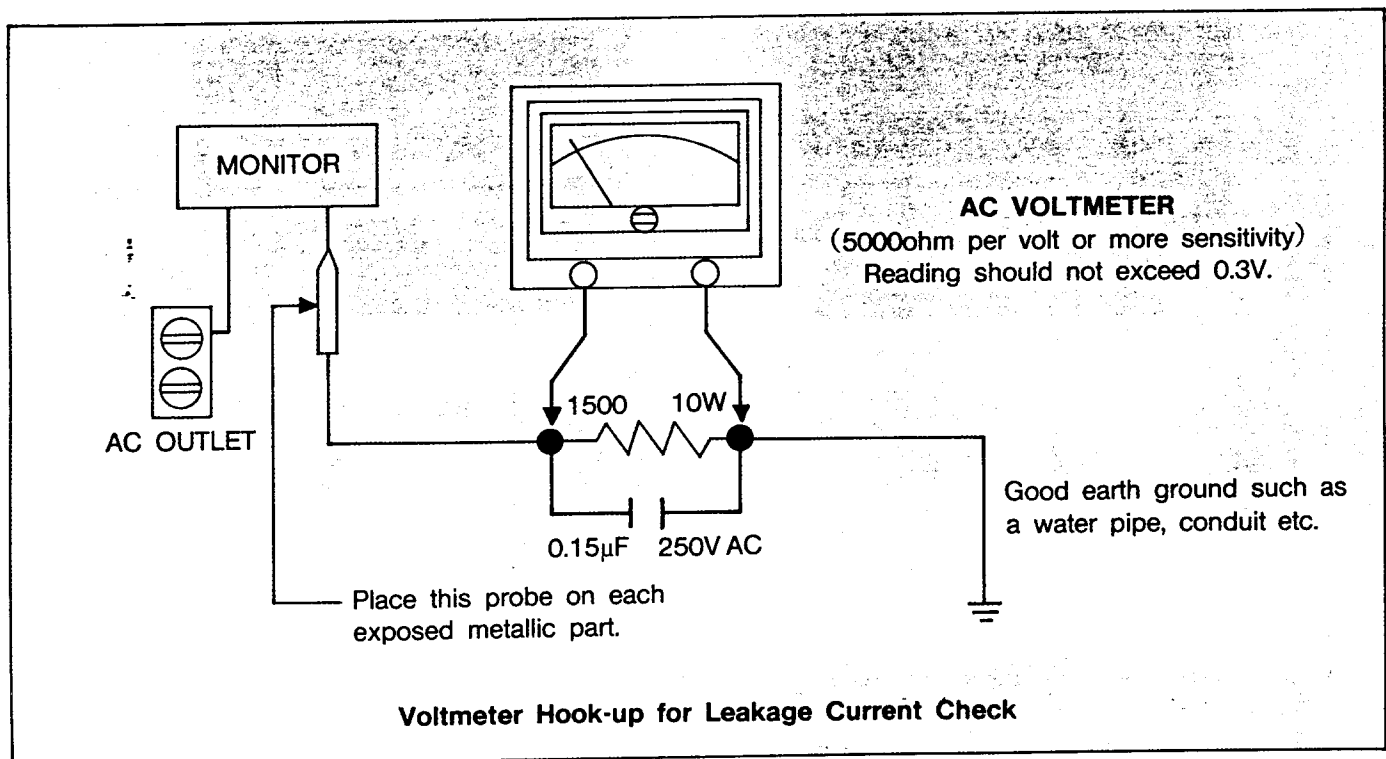
1. Some parts such as a picture tube in this unit have special safety-related characteristics for X-RAY RADIATION protection.
For continued safety, the parts replacement should be undertaken referring to item 2 below.
2. Many electrical mechanical parts in this unit have special safety-related characteristics for protection against shock hazard and others.
These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage wattage, etc.
Replacement parts which have these special characteristics are identified in the manual and supplements by shading on the schematic diagram and the parts list.
Before replacing of these components read the parts list in this manual, carefully.
3. When replacing chassis in the cabinet, always be certain that all the protective devices are installed properly, such as insulating covers, strain relief, etc.
4. Before replacing the back cover of the set, thoroughly inspect inside the cabinet to see that no stray parts or

tools have been left inside.

5. Before returning the set to the customer always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as terminal, screwheads, metal overlays, control shafts, etc. To be sure the set is safe to operate without danger of electrical shock. Plug the AC line cord directly into a 115V AC outlet (do not use a line isolation transformer during this check). Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner.

Connect a 1500 ohm, 10 watt resistor, paralleled by a 0.15mfd(μ F), 250V AC capacitor, between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time.

Measure the AC voltage across the combination of 1500 ohm resistor and 0.15 mfd(μ F) capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.3V RMS. This corresponds to 0.2mA AC any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



[2] DOCUMENT DESCRIPTION

This is technical specification for a SC-431VS/ SC-428VS SC-428VSL display monitor.

This document contains information on all technical details of the monitor.

[3] PRODUCT DESCRIPTION

This SC-431VS/ SC-428VS/ SC-428VSL Color display monitor to be operated in Analog Drive mode in put a highlight of these is provided below.

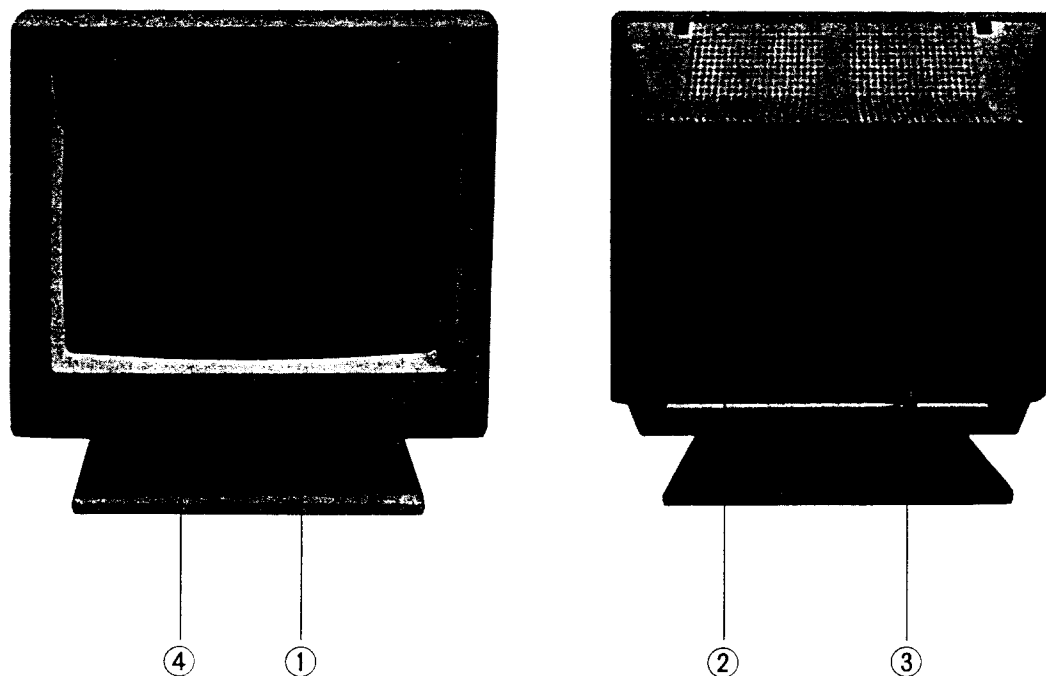
- Resolution : 640 Dots×480 Lines
800 Dots×600 Lines
1024 Dots×768 Lines
- Display capability : up to 2400 Characters
- Active display area : Horizontal : $240 \pm 4\text{mm}$
Vertical : $180 \pm 4\text{mm}$
- Horizontal frequency : 31.5KHz/ 35.2KHz/ 35.5KHz
- Vertical frequency : 50~90Hz.

USING COLOR DISPLAY MONITOR

Meting SC-431VS/ SC-428VS/ SC-428VSL Color display monitor.

Refer to the diagram below to be sure that your SC-431VS/ SC-428VS/ SC-428VSL package includes all the items in his picture.

Save the original box and packing materials in case you have to ship or transport.



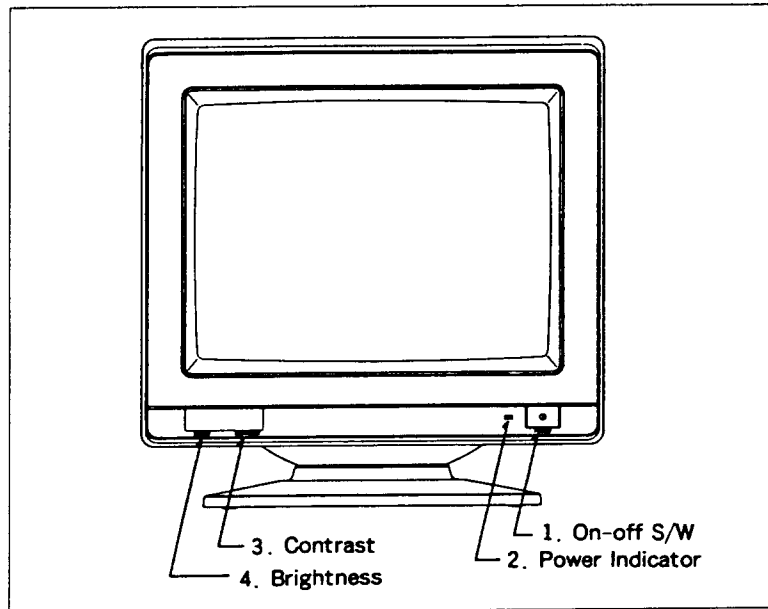
- ① Color display monitor(SC-431VS/ SC-428VS/ SC-428VSL)
- ② Power Input
- ③ Signal cable : Connects IBM PC or Compatibles
- ④ Swivel/ Tilt stand

[4] ADJUSTMENT

Apply power and Analog video signal to the data display

1. ADJUSTING THE FRONT CONTROLS

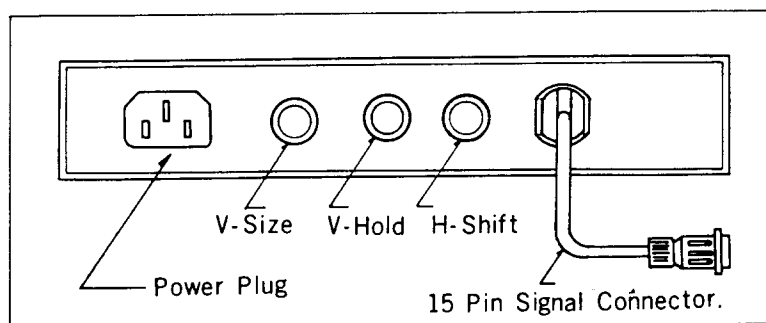
FRONT VIEW



- | | | | |
|----------------------|---|-------------------------|--|
| 1. The On-Off Switch | : The push-button on-off switch of Monitor is in the lower right-hand corner. To turn the Monitor on push the button forward. You will see the light of the power indicator. To turn the Monitor off press the switch again. The power indicator will go out. | 2. The Power Indicator | : Green light. |
| | | 3. The Contrast Control | : Rotating it increases or decreases the degree of difference between the lightest and darkest sections on the screen. |
| | | 4. Brightness Control | : Intensifies screen illumination. |

2. ADJUSTING THE REAR CONTROLS

REAR VIEW



2. CHARACTERISTICS

[1] GENERAL CHARACTERISTICS

NO	Description	Nominal	Remark
1	CDT(Color Display Tube)	M34 KRJ 45×06-0.31VS M34 KRH 35×03-0.28VS M34 KUK 35X 0.28VSL M34 KNM 23	Ref. CDT Spec.
2	CDT Phosphor	P 22 Dark Phosphor	
3	D.Y Deflection Angle	90°	Ref. CDT Spec.
4	Resolution	640×480, 800×600, 1024×768	Graphic Mode
5	Horizontal Frequency	31.5KHz/ 35.2KHz/ 35.5KHz	Ref. Timing Chart Fig 1.
6	50~90Hz		
7	Input Signal	R.G.B Analog	
8	Power Consumption	Normal : 60W, Max : 70W	
9	Display Color	Any Colors	
10	Display Zone	240±4mm×180±4mm	Ref. Fig.2
11	Display Character	up to 2400 Character	
12	Pitch	0.31mm/0.28mm Dot Pitch	
13	Weight	Approx. 13kg	

[2] Electrical Characteristics

2-1. Input Power

The display device shall maintain the specified performances in the range described below.

NO	Description	Nominal	Remark
1	Power Source	AC 90V~264V	Universal Power
2	Frequency	47~63Hz	
3	Power Consumption	MAX. 70W	

2-2. Input Signal

The input signals shall be applied to the display devices through a signal cable which must be intended as part of the monitor. (Ref. Fig 1 Timing chart)

Section	Description	Nominal	Remark
Video Signal Red Green Blue	Video Input	0.0 to 0.7V _{p-p} Analog	
	Polarity	Positive	
	Pixel Rate	25MHz to 40MHz	
	Rise/ Fall Time	Less than 8 nsec	
	Input impedance	75 ohms	
H-Sync.	Sync Input	$2.4V \leq \text{Level} \leq 5V$	
	Pulse Width	2uSec to 4uSec	
	Polarity	Positive or Negative	
	Frequency	31.5KHz/ 35.2KHz/ 35.5KHz	
	Front Porch	0.18uSec to 0.94 uSec	
	Back Porch	1.25uSec to 3.56 uSec	
V-Sync.	Sync Input	$2.4V \leq \text{Level} \leq 5V$	
	Pulse Width	0.06mSec to 0.11mSec	
	Polarity	Positive or Negative	
	Frequency	50~90Hz	
	Front Porch	0.014mSec to 0.41mSec	
	Back Porch	0.56mSec to 1.08mSec	

2-3. CRT Electrode voltage

NO	Description	Nominal	Remark
1	Heater	$6.3V \pm 0.5V$, $630mA \pm 30mA$	
2	Cathode(R.G.B)	$90V \pm 20V$	
3	Gride #1	$-10V \sim -40V$	
4	Gride #2	$500V \pm 50V$	Screen
5	Gride #3	$6.5KV \pm 0.5KV$	Focus
6	Anode Voltage	$24KV \pm 1KV$ @ OuA	

2-4. Timing Characteristic

The monitor shall be capable of displaying 5 different vertical resolution within the scan frequencies as well as the scanning mode.

No	Description		350 Lines	400 Lines	480 Lines	600 Lines	768 Lines	Remark
1	Horizontal	Frequency	31.5KHz	31.5KHz	31.5KHz	35.2KHz	35.5KHz	
		Line Time	31.8us	31.8us	31.8us	28.4us	28.2us	
		Active Time	25.4us	25.4us	25.4us	22.2us	22.8us	
		Blanking Time	6.4us	6.4us	6.4us	6.2us	5.4us	
		Front Porch	0.7us	0.7us	0.7us	0.67us	0.18us	
		Back Porch	1.9us	1.9us	1.9us	3.56us	1.25us	
2	Vertical	Frequency	70Hz	70Hz	60Hz	56Hz	87Hz	
		Line Time	14.29ms	14.27ms	16.68ms	17.78ms	11.5ms	
		Active Time	11.5ms	13.16ms	15.76ms	17.07ms	10.81ms	
		Blanking Time	2.76ms	1.11ms	0.92ms	0.69ms	0.69ms	
		Front Porch	0.99ms	0.16ms	0.06ms	0.03ms	0.014ms	
		Back Porch	1.72ms	0.89ms	0.79ms	0.6ms	0.56ms	

(3) MECHANICAL CHARACTERISTICS

3-1. Weight

The total weight shall be less than approximate 13.0Kg.

3-2. External Dimensions(mm)

	Without Stand	With Stand
Width	354	354
Height	315	365
Lenght	372	372

3-3. Tilt/Swivel

The inclination of the surface of the screen shall be adjustable at least -5deg. and $+14\text{deg.}$ With a min. 19deg. from the vertical. The swivel must be min. 180deg.

3-4. Tool Resin

Tool	Resin	Color
Front	Noryl, ABS	Beige
Rear	"	"
Stand	"	"

3. DISPLAY ADJUSTMENT.

1. +B VOLTAGE ADJUSTMENT.

- * Receive a white pattern signal of 640 × 480 mode.
- * Set contrast and brightness control at maximum position.
- * Make sure the AC Power supply voltage is at the specified value.
- * Adjust +B-ADJ.volume(VR101)on the display PCB for a 85v.

2. HORIZONTAL DEFLECTION CIRCUIT ADJUSTMENT.

2-1. Horizontal oscillation Frequency adjustment.(H-HOLD)

- * Disconnect the signal cable from signal source.
- * Short circuit R307 read and Q301 base.
- * Adjust horizontal frequency control volume (VR303) to 35.5 KHz.
- * Adjust horizontal frequency control volume (VR302) to 31.5 KHz.

2-2. Horizontal position adjustment.(H-SHIFT)

- * Receive a cross-hatch pattern signal.
- * H-SHIFT (VR301) controls that picture position of the CDT screen.
- * Users set this knob so that picture is positioned at almost center of the CDT screen.

2-3. Horizontal width adjustment. (H-WIDTH)

- * Set contrast and brightness controls at there maximum positions.
- * Receive a cross-hatch pattern signal. (640 X 480 Lines)
- * Adjust H-WIDTH control (VR702) so that a width becomes $240 \pm 4\text{mm}$.
- * Receive a crosshatch pattern signal. (800 X 600 or 1024 X 768 Lines)
- * Adjust H-WIDTH control (VR102) so that a width becomes $243 \pm 4\text{mm}$.

2-4. Interface adjustment

- * Receive a crosshatch pattern signal. (31.5 KHz).
- * Adjust F/ V convert volume(VR601) slowly until the pulse width of pin 7 of IC602 becomes 4in sec.

3. VERTICAL DEFLECTION CIRCUIT.

3-1. Vertical oscillation frequency alignment.(V-HOLD)

- * Disconnect the signal cable from signal source.
- * Adjust vertical frequency control volume (VR201) so that the frequency counter reads $46.0\text{Hz} \pm 4\text{Hz}$, 50Hz.

3-2. Vertical linearity adjustment.(V-LIN)

- * Receive a cross hatch pattern signal
- * Adjust the size volume so that the height becomes 80% of the display area of CDT.
- * Adjust V-LIN volume (VR203) to get optimum linearity.

3-3. Size adjustment.

- * Receive a cross hatch pattern signal. (640 X 480 Lines)
- * Adjust size volume (VR202) so that the height of the pattern becomes $180 \pm 4\text{mm}$.

3-4. Vertical position adjustment.(V-SHIFT)

- * Receive a cross hatch pattern signal
- * Set the V-SHIFT volume (VR204) at the appropriate position so that the raster is positioned at almost the center of the CDT screen.

4. VIDED CIRCUIT ADJUSTMENT.

4-1. Controls function.

- * Brightness volume.(VR801)
This knob controls mainly intended as a raster luminance adjusted.
- * Sub-Brightness volume.(VR802)
This control adjust the cut off point of the raster.
- * R.G.B gain volumes.(VR401, VR402, VR403)
This volume adjust the gain of RED, GREEN BLUE videl pre amplifier.

- * R.G.B bias volumes.(VR501R, VR501G, VR501B)

This volume controls the bias voltage of RED, GREEN, BLUE cathode of CDT.

- * Contrast volume.(VR404)

This knob shall vary the gain of the video amplifier thus adjusting the contrast of the displayed image, and not effect on the raster luminance.

- * Screen volum.(On the FBT)

This Volume controls the G2 voltage.

- * Focus volume (On the FBT)

This volume controls the focus of the picture.

4-2. White balance adjustment.

- * Before the power switch On RGB gain and bias volume set mechanical center.

- * Operate the set for 15 minutes to warm up.

- * Degauss the CDT face fully with the degaussing tool.

- * Adjust brightness volume at maximum position, sub-brightness volume at maximum position and screen volume at minimum position.

- * Adjust screen volume slowly so that the raster begin to shine.

- * Adjust bias volume of appearing R.G.B until the raster begins to cut off.

- * Increase the screen volume slowly to shine the raster.

And then adjust last two bias volumes so that white raster shines.

- * Now adjust the sub-brightness volume so that the raster begins to 0.3~2.0F/ L

- * Receive a white pattern signal.

- * Adjust R.G.B gain volume for specified white color.

Use the color analyser, if necessary.

- ※ Standard color coordinate.(@ 20F/ L,5F/ L)

$$X=0.281 \pm 0.03$$

$$Y=0.311 \pm 0.03$$

- ※ Maximum brightness.

MORE THAN 23 F/L

5. FLASHOVER PROTECTION.

Due to high voltage within this tube, internal flashover occur.

Protection must be provided using spark gap to prevent flashover from destroying the cathode or other internal circuit.

These spark gaps shall be connected with each electrode in socket assembly.

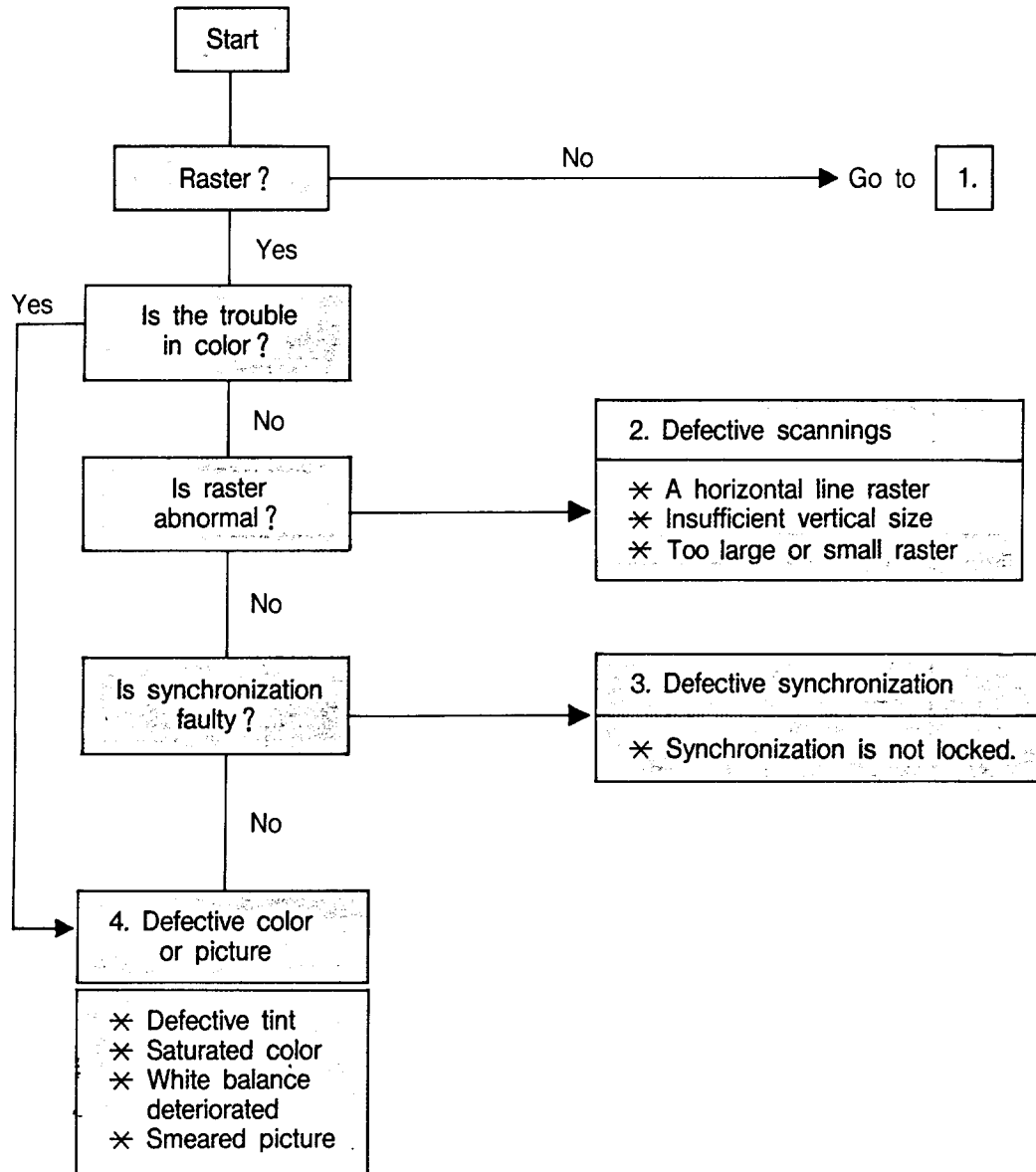
6. X-RADIATION CHARACTERISTIC.

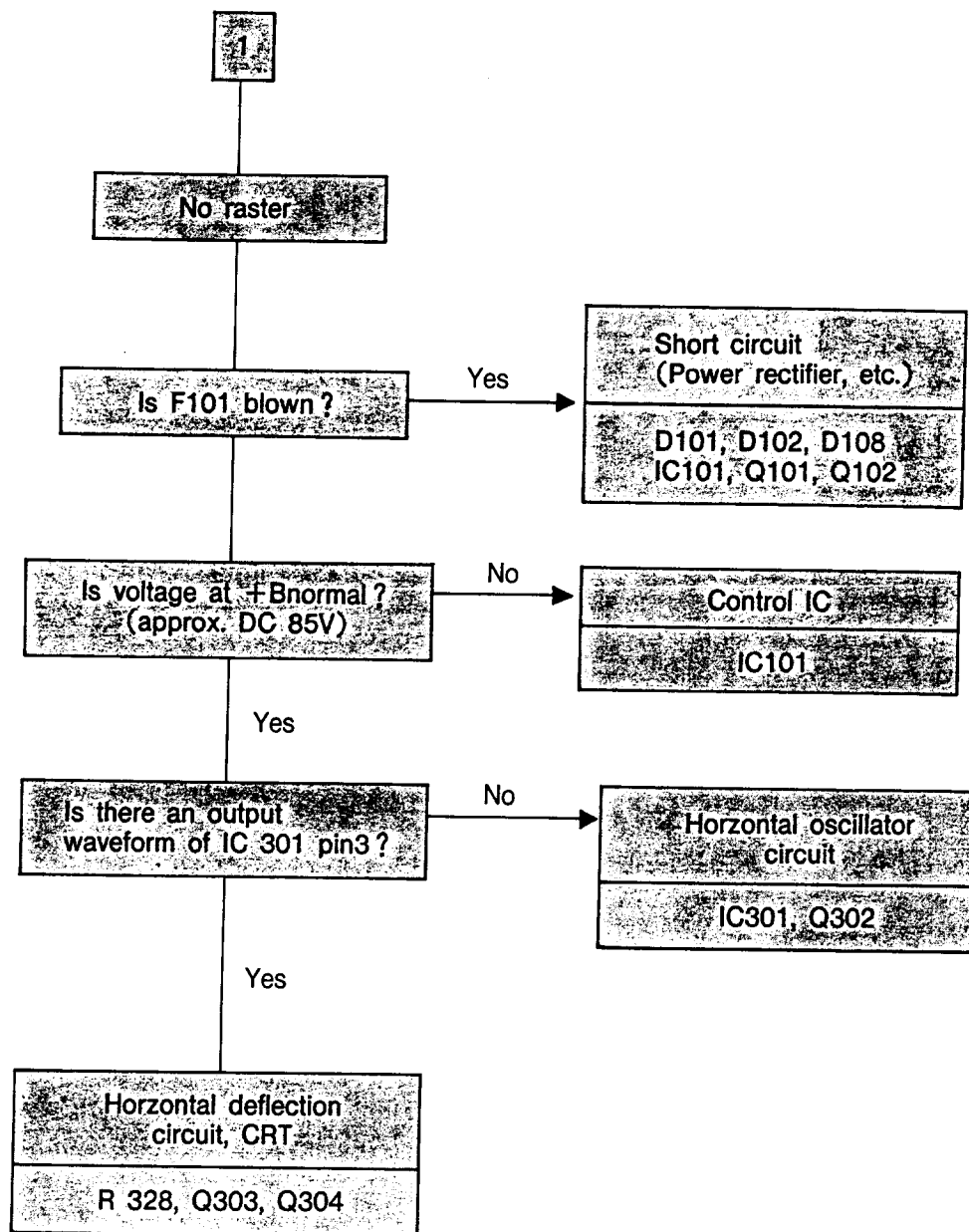
The X-radiation emitted from this picture tube will not exceed 0.5mR/h for anode current combination.

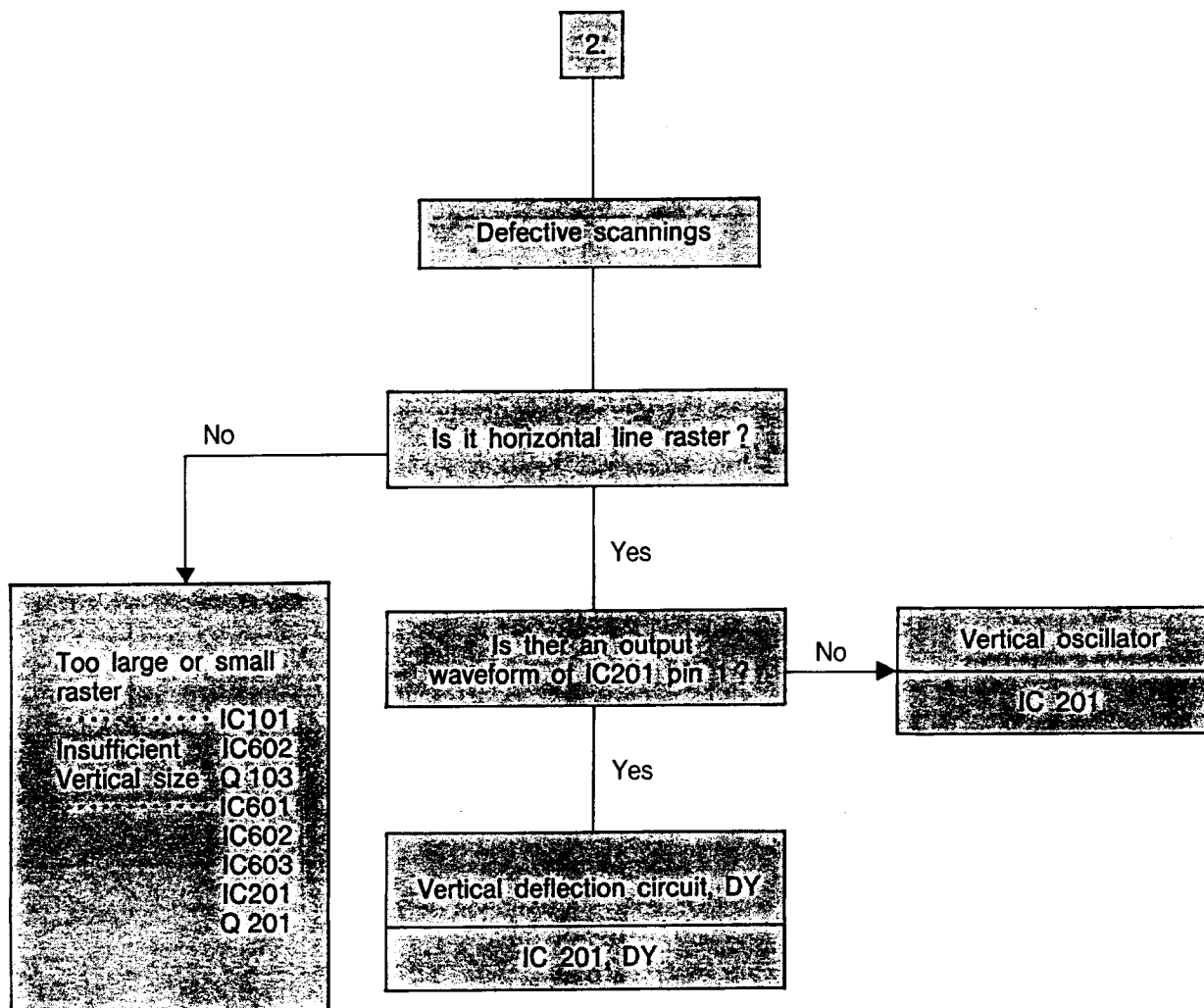
X-radiation at a constant anode voltage varies lineary with anode current.

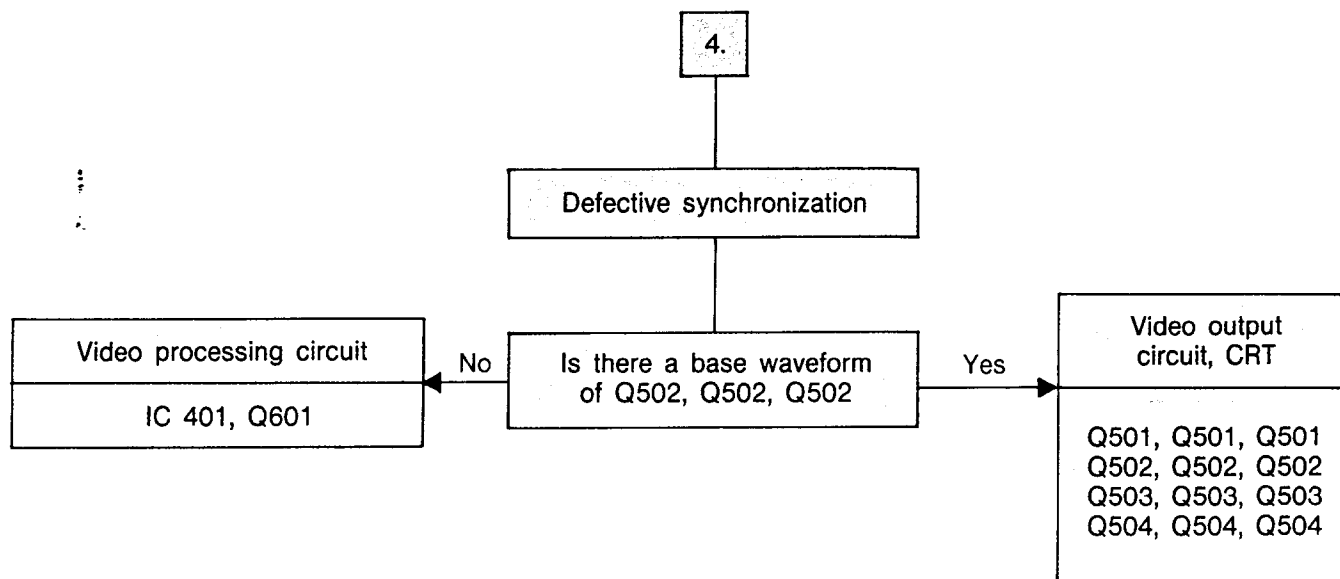
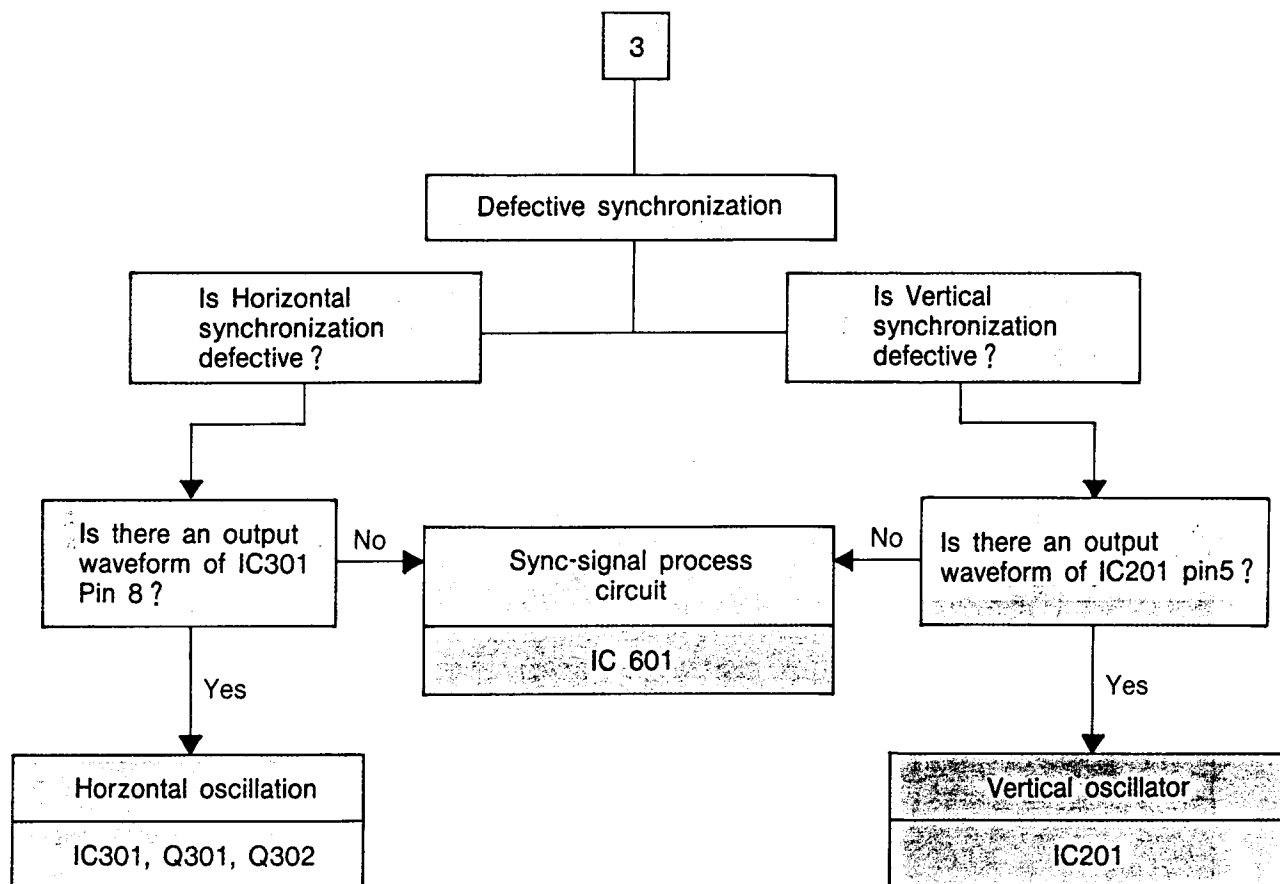
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4. TROUBLE SHOOTING









5. THEORY OF OPERATION.

[1] GENERAL.

This monitor contains four independent circuit.

One of them is power supply section, and the other is a interface, sweep video, CDT drive section.

[2] POWER SUPPLY CIRCUIT.

This power supply is switching regulator and universal power supply.

The chassis (secondary side) is insulated from the power source (primary side) by the transformer T101 for switching power source.

By the winding of the transformer T101 connected to the collector circuit of IC101 and the other winding connected to the control circuit, the IC101 is submitted to negative feed back and operate as blocking oscillator. Change in the power source voltage and load current are detected by the winding and the voltage is applied pin2 of IC101.

When the voltage applied to pin2 changes, the conducting time of IC101 changes to compensate for the change in the secondary output voltage of T101 and to stabilize the output voltage.

The operating frequency is determined in around 22KHz~70KHz.

[3] Interface circuit

This circuit is automatically mode control circuit

The each modes are controlled by the sync pulse polarity & frequency.

* Sync pulse polarity detect & compensate is performed by the IC601.

* After frequency detect, control voltage converting is performed by the IC602.

* Each mode switch function is performed by the IC603.

[4] VIDEO DRIVE CIRCUIT.

The R,G,B input signal with analog level is applied to the pre-amplifier LM1203.

This section amplifies the output signal of a generator to the level high enough to drive a video output circuit.

Video gain is controlled by DC voltage of pin12 and DC bias is controlled by feed back level of output circuit.

Clamping pulse is applied to the pin14 through transistor Q201.

[5] VIDEO OUTPUT CIRCUIT.

The R,G,B signal is applied to the base of cascode amplifier transistor Q502R, Q502G, Q502B.

The R,G,B signal is applied by output transistor Q501R, Q501G, Q501B.

Then the driven signals are applied to CDT cathode through an output complementary circuit.

Correct white balance is obtained by adjusting bias volume VR501R, VR501G, VR501B.

[6] VERTICAL DEFLECTION CIRCUIT.

We use vertical deflection monolithic IC.

This contains the function of oscillator, ramp generator and power amplifier.

The vertical sync.signal with positive polarity is applied to pin5 and pin6 of IC601.

Pin6 is connected to the vertical oscillator circuit and the frequency of the oscillator can be controlled by the voltage of pin4 which can be varied V-HOLD volume (VR201)

The vertical size controlled by voltage at pin7.

Linearity adjustment is done by intergrading the saw-tooth voltage.

Vertical position is determined by the amount of DC component flowing through the vertical deflection coil.

The amount can be varied by changing the position of V-SHIFT volume (VR204).

[7] HORIZONTAL DEFLECTION CIRCUIT.

The horizontal sync.signal with positive polarity is applied to pin8 of IC301 through IC601.

The saw-tooth wave of horizontal frequency is produced by intergrading the horizontal pulse from FBT(T302), and is fed to pin6 of IC301 for AFC.

The phase of horizontal saw-tooth wave is compared with that of fly back pulse and horizontal sync.signal from pin5 at AFC circuit inside the IC301.

H-PHASE control(VR301) determines the relative position of raster and picture.

The horizontal oscillation frequency can be controlled by H-HOLD volume(VR302,VR303) connected pin15.

The horizontal frequency oscillation is obtained from pin3 of IC301 and is fed to the next horizontal drive circuit.

The pulse switching mode of the driver and output stage is of reverse polarity type, that is, when the driver transistor is on, the output transistor is off.

The horizontal output circuit uses a resonant flyback system to drive the deflection yoke and generate the anode and focus voltages, as well as several secondary supplies.

A diode modulator circuit is used to achieve east/ west pincushion correction, and also to set horizontal size.

[8] SIDE PINCUSHION CORRECTOR.

This circuit compensated the east/ west pincushion distortion.

The signal processing for E/ W pincushion correction is done inside IC701.

The vertical ramp signal from the IC201 is AC coupled through C704 to the E/ W pincushion amplitude control, VR701.

The output section of IC701 is a class-D (pwm) power amplifier.

A positive horizontal flyback pulse from T302 is clipped by zener diode D704 and applied to pin 8 of IC701.

This creates a horizontal-rate ramp across C705, the amplitude of which is varied by the setting of VR702, the horizontal width control.

[9] HIGH VOLTAGE HOLD CIRCUIT.

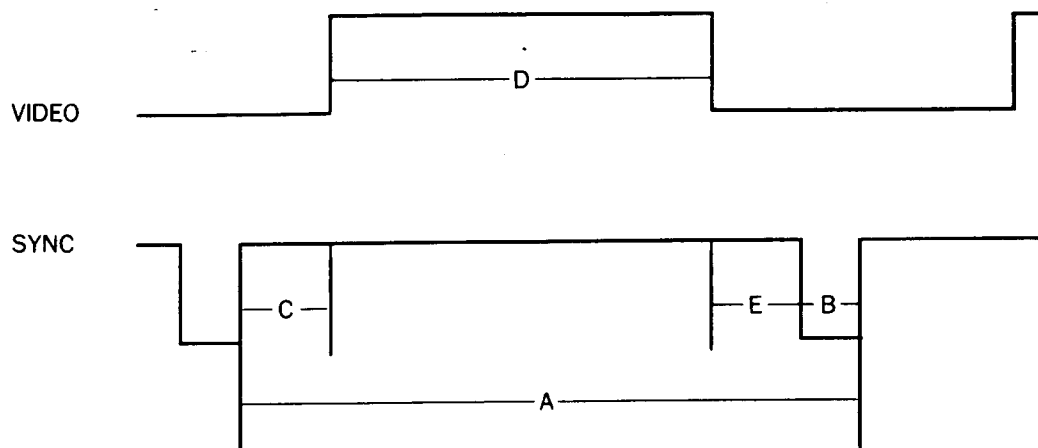
If the failure occurs which causes an increase in high voltage (such as opened sweep capacitor or failed power regulator), then the base voltage of Q302 will increase through FBT.(T302)

When this happens, the oscillator signal coming from IC301 through R320 can no longer driver Q304, turning off the high voltage.

Therefore to restart the oscillator and the high voltage, the monitor must be turned off and then turned on again.

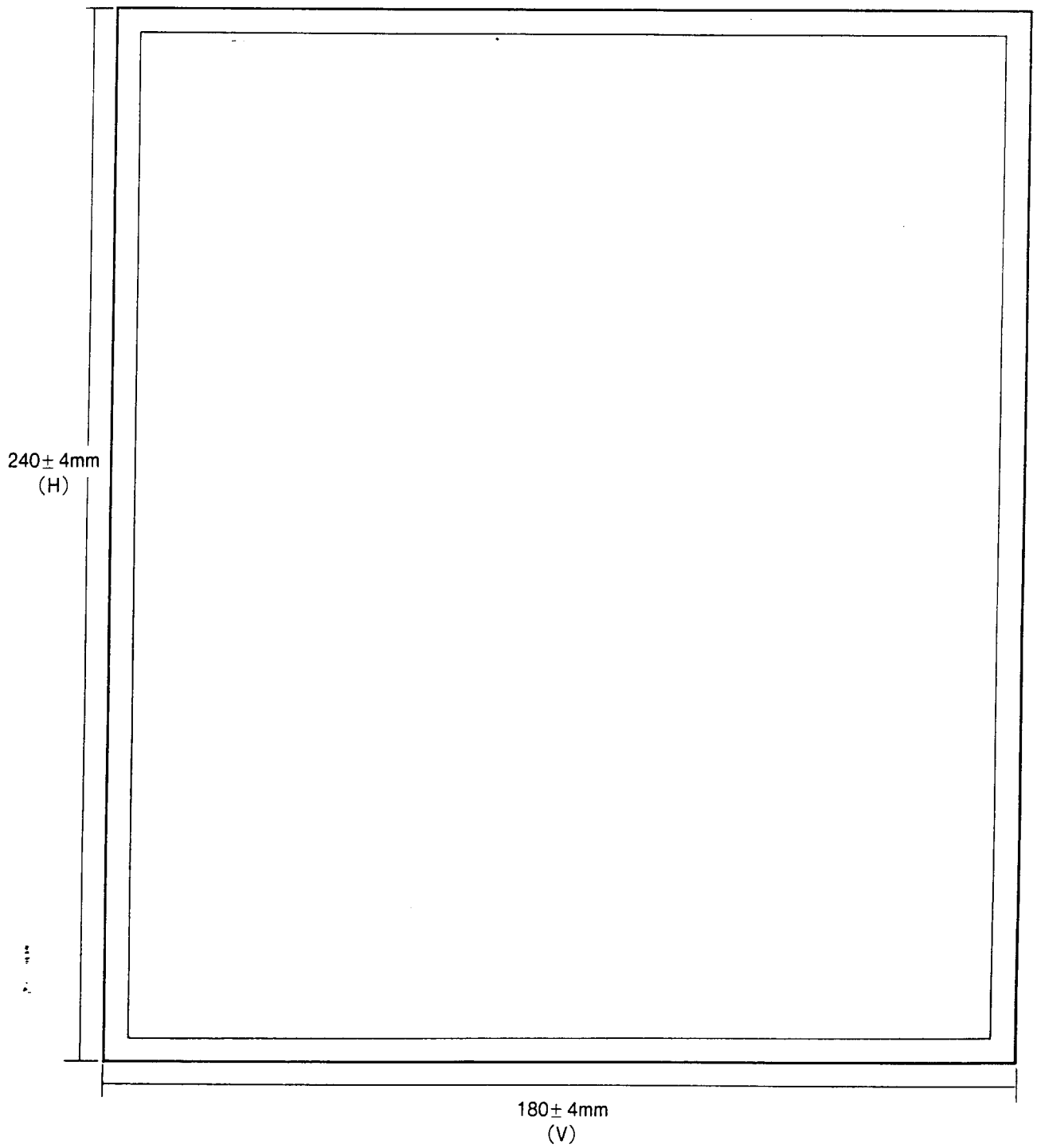
6. FIGURES

[1] Timing chart

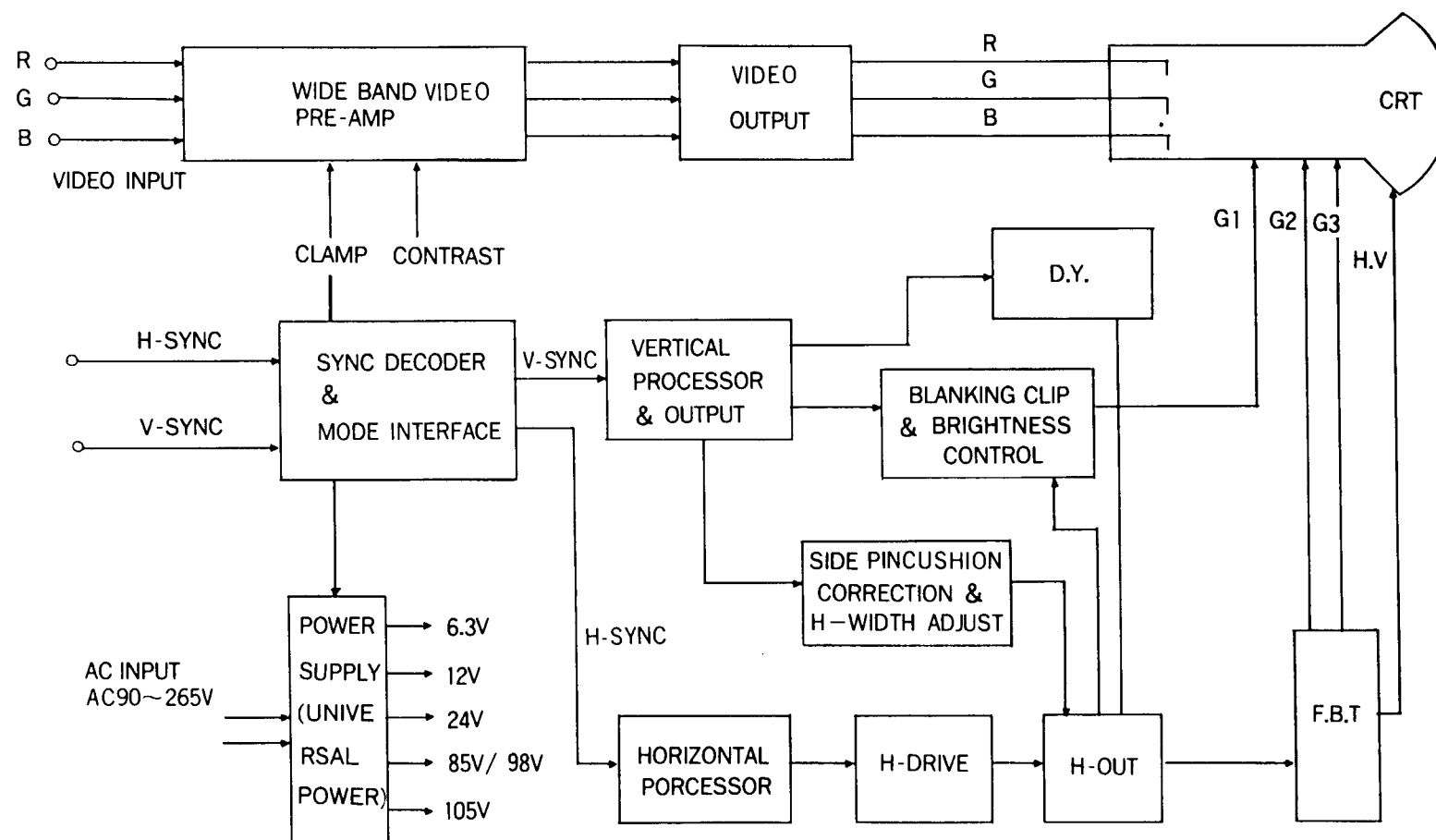


DESCRIPTION		MODE-1(480LINES)	MODE-2(400LINES)	MODE-3(350LINES)	MODE-4(800X600)	MODE-5(1024X768)
H	FH	31.5KHz	31.5KHz	31.5KHz	35.16KHz	35.52KHz
	A	31.8uS	31.8uS	31.8uS	28.44uS	28.15uS
	B	3.8uS	3.8uS	3.8uS	2uS	3.92uS
	C	1.9uS	1.9uS	1.9uS	3.56uS	1.25uS
	D	25.4uS	25.4uS	25.4uS	22.22uS	22.80uS
	E	0.7uS	0.7uS	0.7uS	0.67uS	0.18uS
	POL.	NEGATIVE	NEGATIVE	POSITIVE	POSITIVE OR NEGATIVE	POSITIVE
V _e	FV	60Hz	70Hz	70Hz	56Hz	87Hz
	A	16.683mS	14.268mS	14.286mS	17.78mS	11.5mS
	B	0.064mS	0.064mS	0.064mS	0.06mS	0.113mS
	C	0.793mS	0.890mS	1.716mS	0.6mS	0.563mS
	D	15.762mS	13.156mS	11.504mS	17.07mS	10.81mS
	E	0.064mS	0.159mS	0.985mS	0.03mS	0.014mS
	POL.	NEGATIVE	POSITIVE	NEGATIVE	POSITIVE OR NEGATIVE	POSITIVE
VIDEO		ANALOG	ANALOG	ANALOG	ANALOG	ANALOG

(2) Display zone

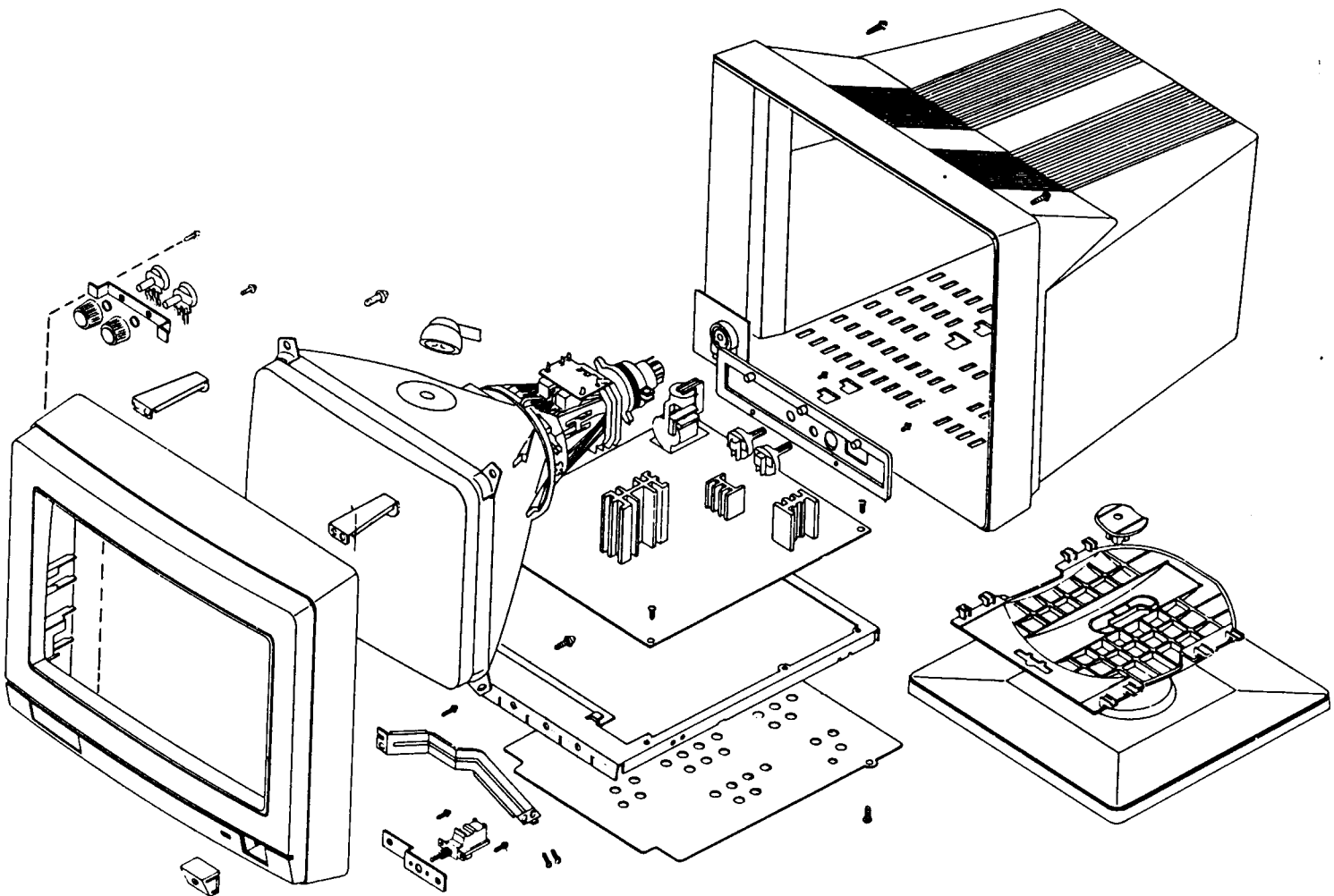


SC-431VS/ SC-428VS/ SC-428VSL BLOCK DIGRAM

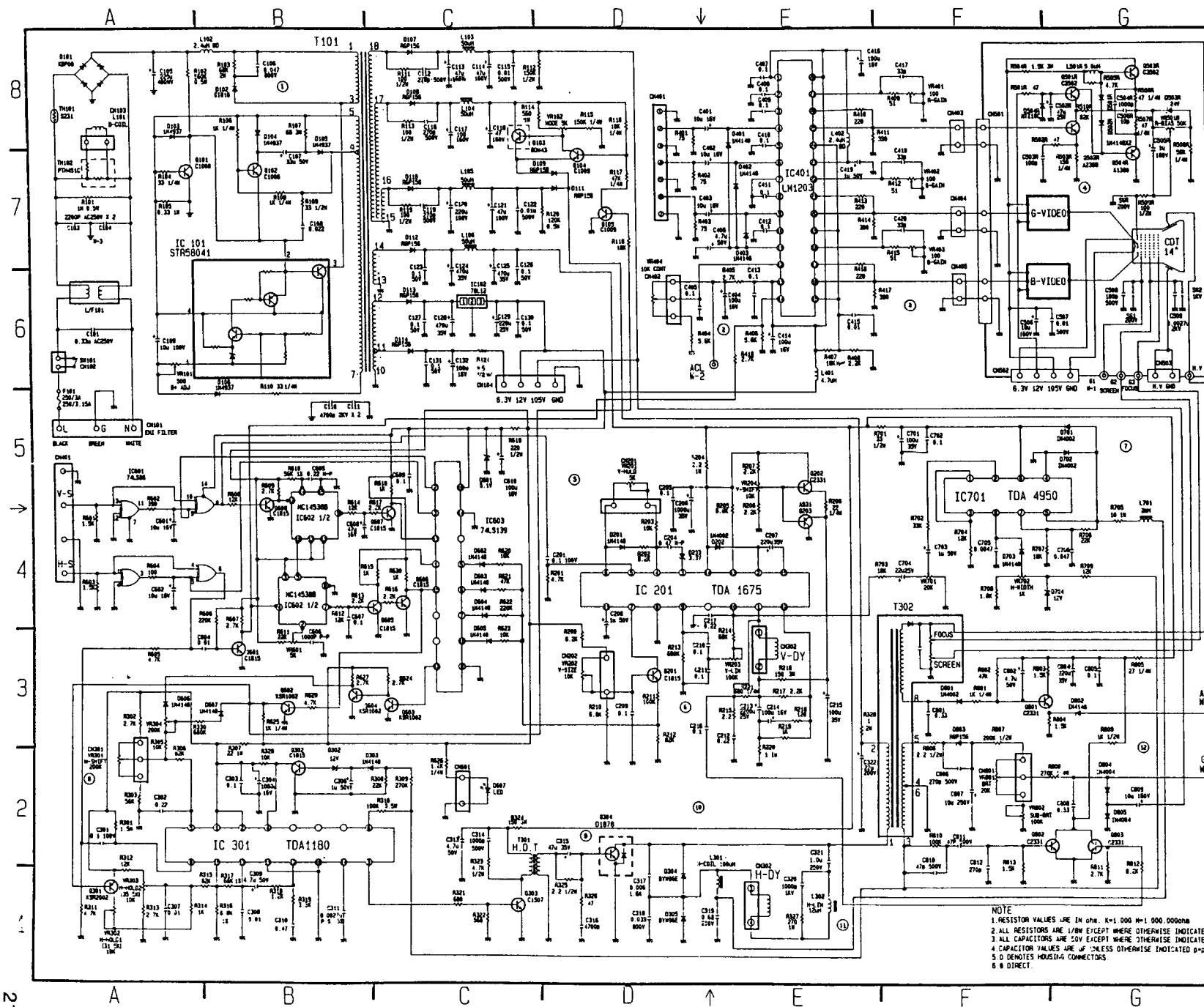


7. DRAWINGS

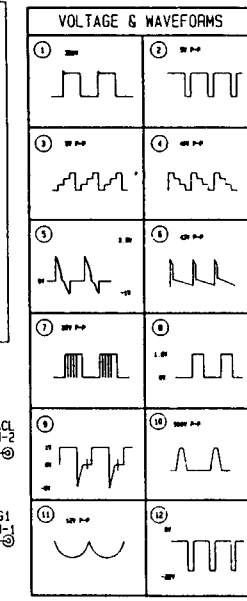
[1] Mechanical assembly drawings



[2] Circuit diagram

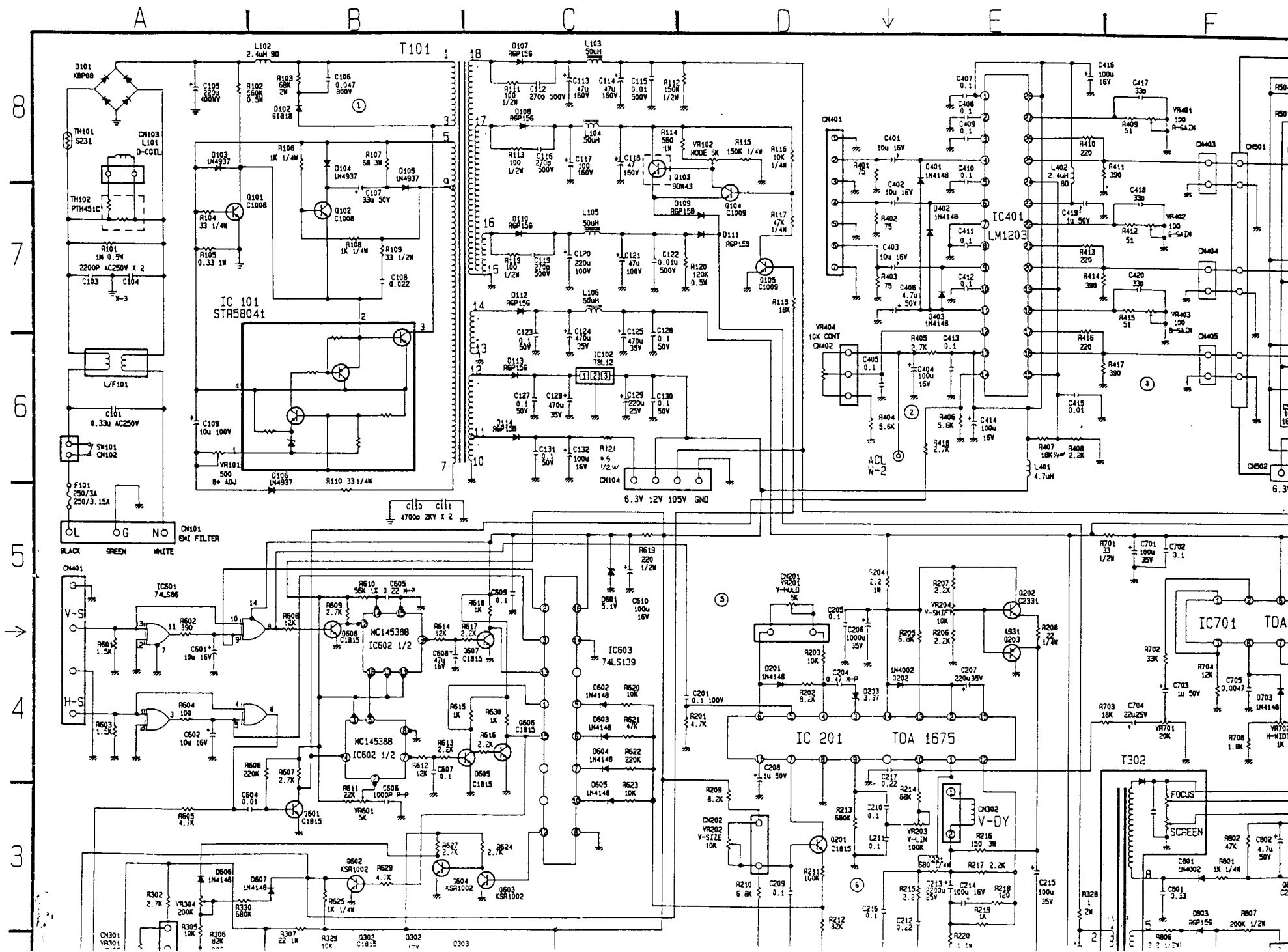


REV	DATE	DESCRIPTION	DESIGNED	APPROVED
1	01.12.84	INITIAL RELEASE	S.A. LIM	P.T. LIM
2	02.01.85	Revised to include changes from customer feedback	S.A. LIM	P.T. LIM

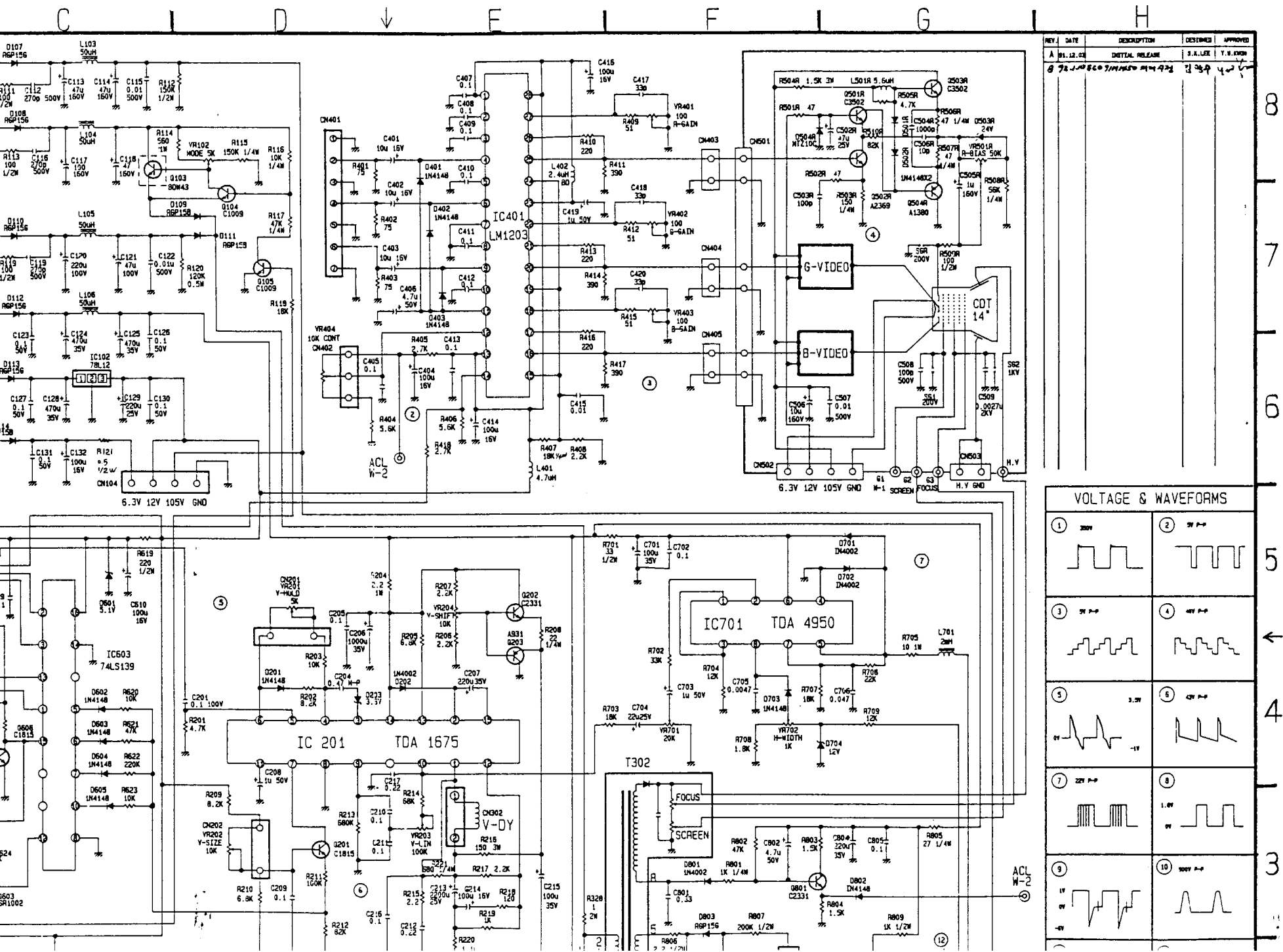


SAMSUNG ELECTRON DEVICES CO. LTD.			
TITLE: SCHEMATIC & WAVEFORMS OF SC-428VSL			
APPROVALS	DATE	PCB NAME	REV
DESIGNED	01.12.84	SC-428VSL	1
CHECKED	02.01.85	SC-428VSL	1
APPROVED	02.01.85	SC-428VSL	1
REV	DATE	PCB NAME	REV
1	01.12.84	SC-428VSL	1
2	02.01.85	SC-428VSL	1

NOTE
 1. RESISTOR VALUES ARE IN OHMS. K=1,000 M=1,000,000.
 2. ALL RESISTORS ARE 1/8W EXCEPT WHERE OTHERWISE INDICATED.
 3. ALL CAPACITORS ARE 50V EXCEPT WHERE OTHERWISE INDICATED.
 4. CAPACITOR VALUES ARE IN PICO FARADS UNLESS OTHERWISE INDICATED.
 5. 0 DENOTES HOUSING CONNECTORS.
 6. 0 DIRECT.

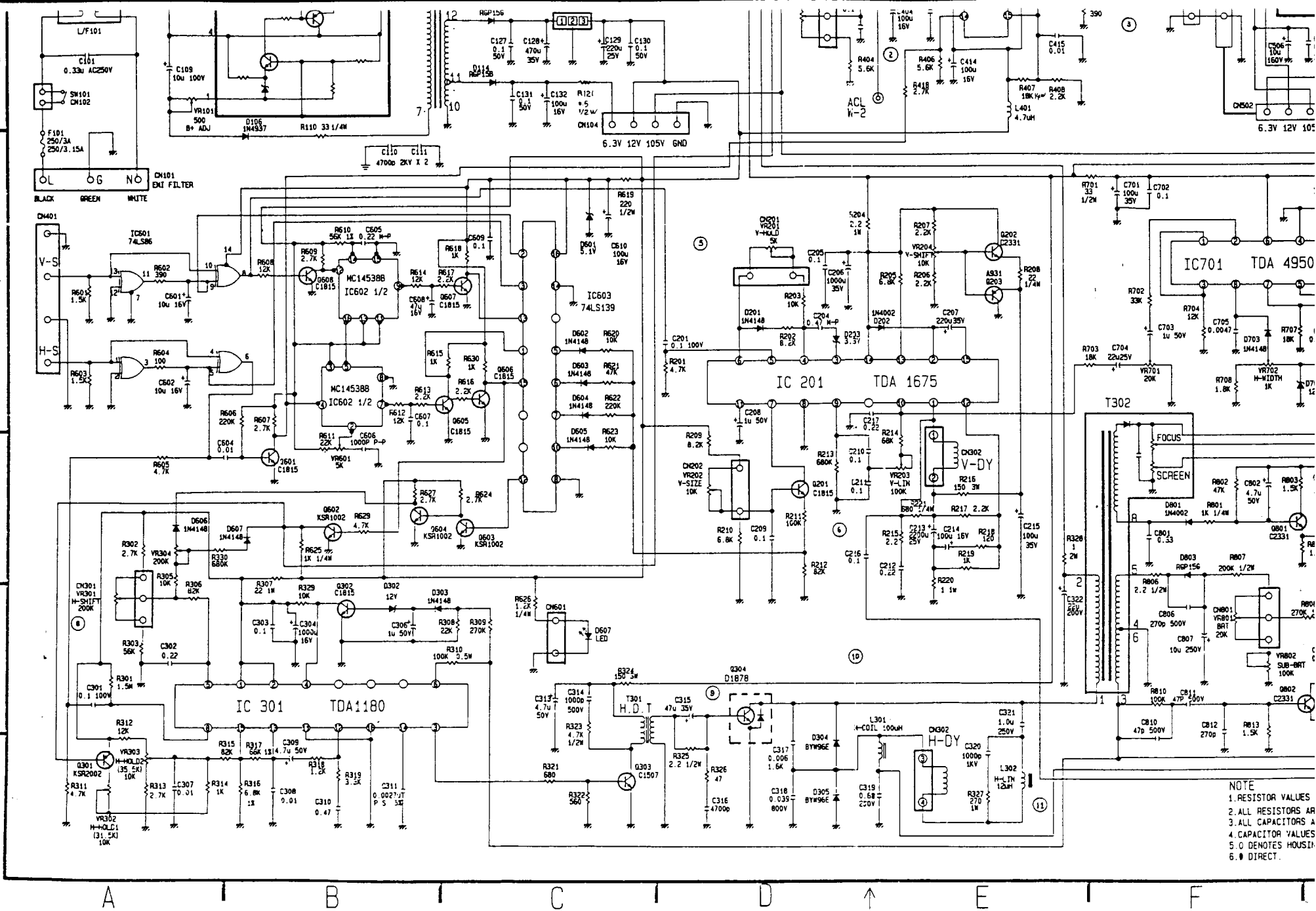


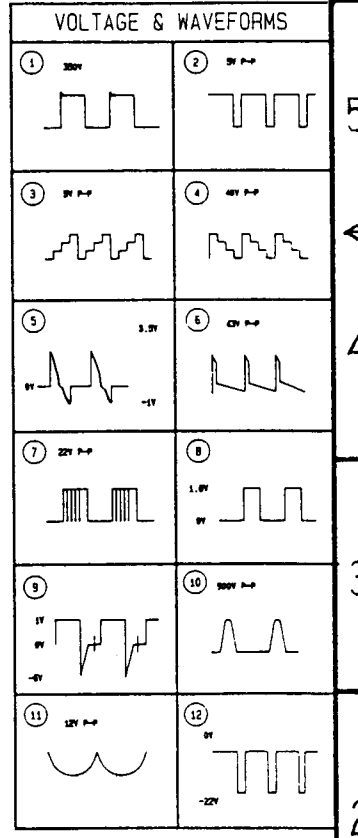
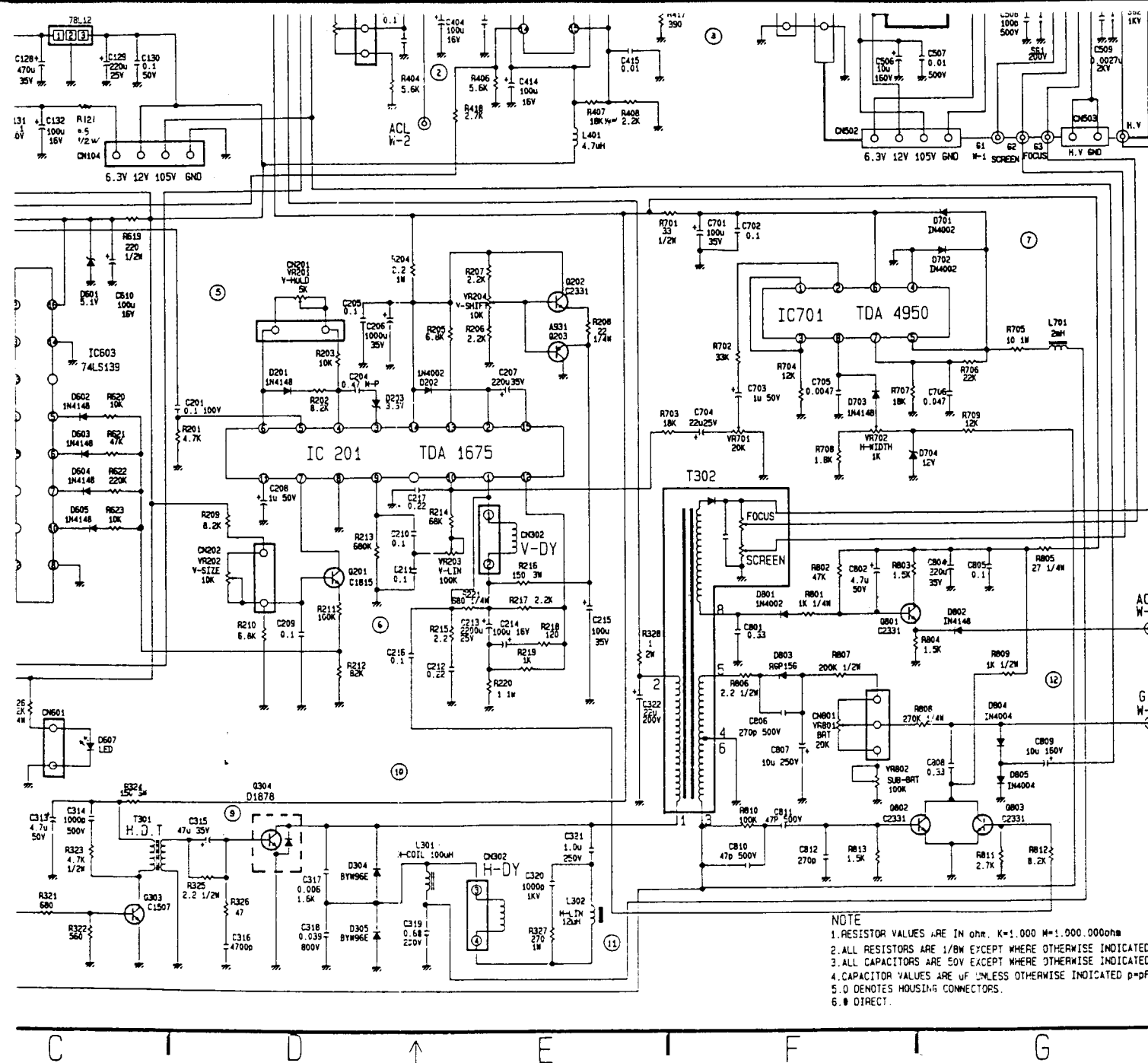
[2] Circuit diagram



REV.	DATE	DESCRIPTION	DESIGNED	APPROVED
A	01.12.02	DETAIL RELEASE	S.H. LEE	T.H. KIM
B	02.10.02	74LS139 74LS139 74LS139		

VOLTAGE & WAVEFORMS	
① 300V	② 2V P-P
③ 2V P-P	④ 4V P-P
⑤ 3.5V	⑥ 4V P-P
⑦ 22V P-P	⑧ 1.5V
⑨ 1V	⑩ 500V P-P

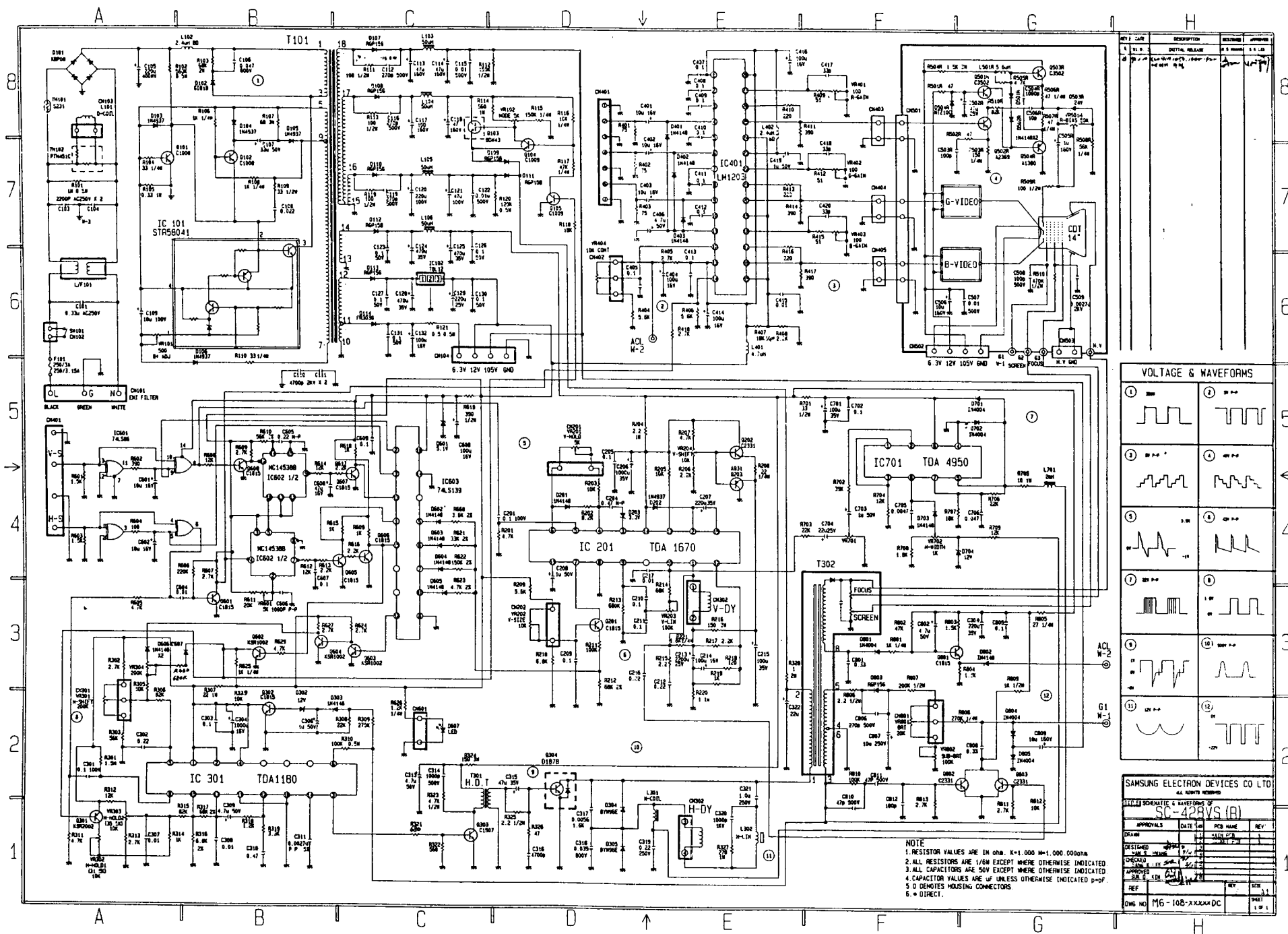


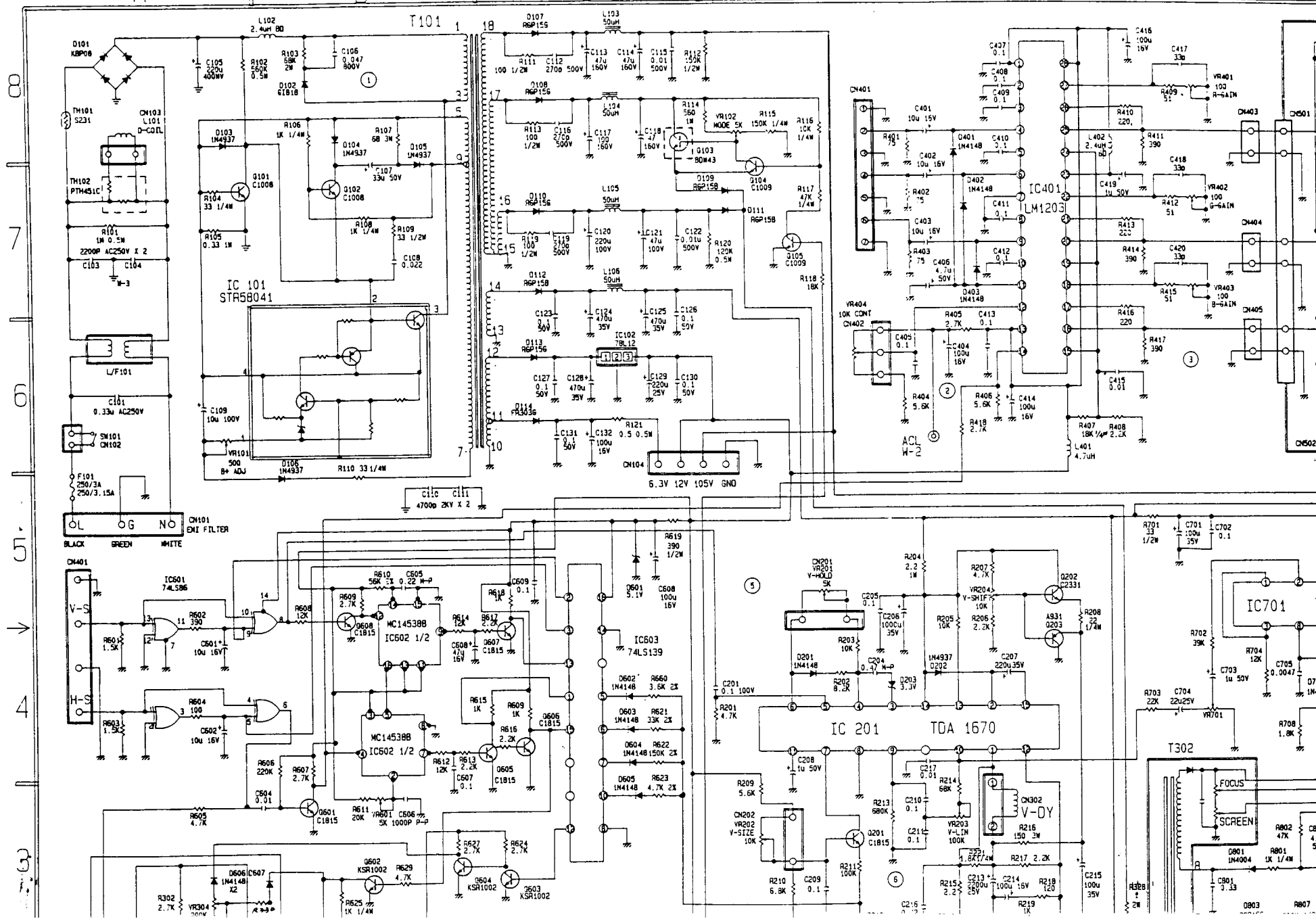


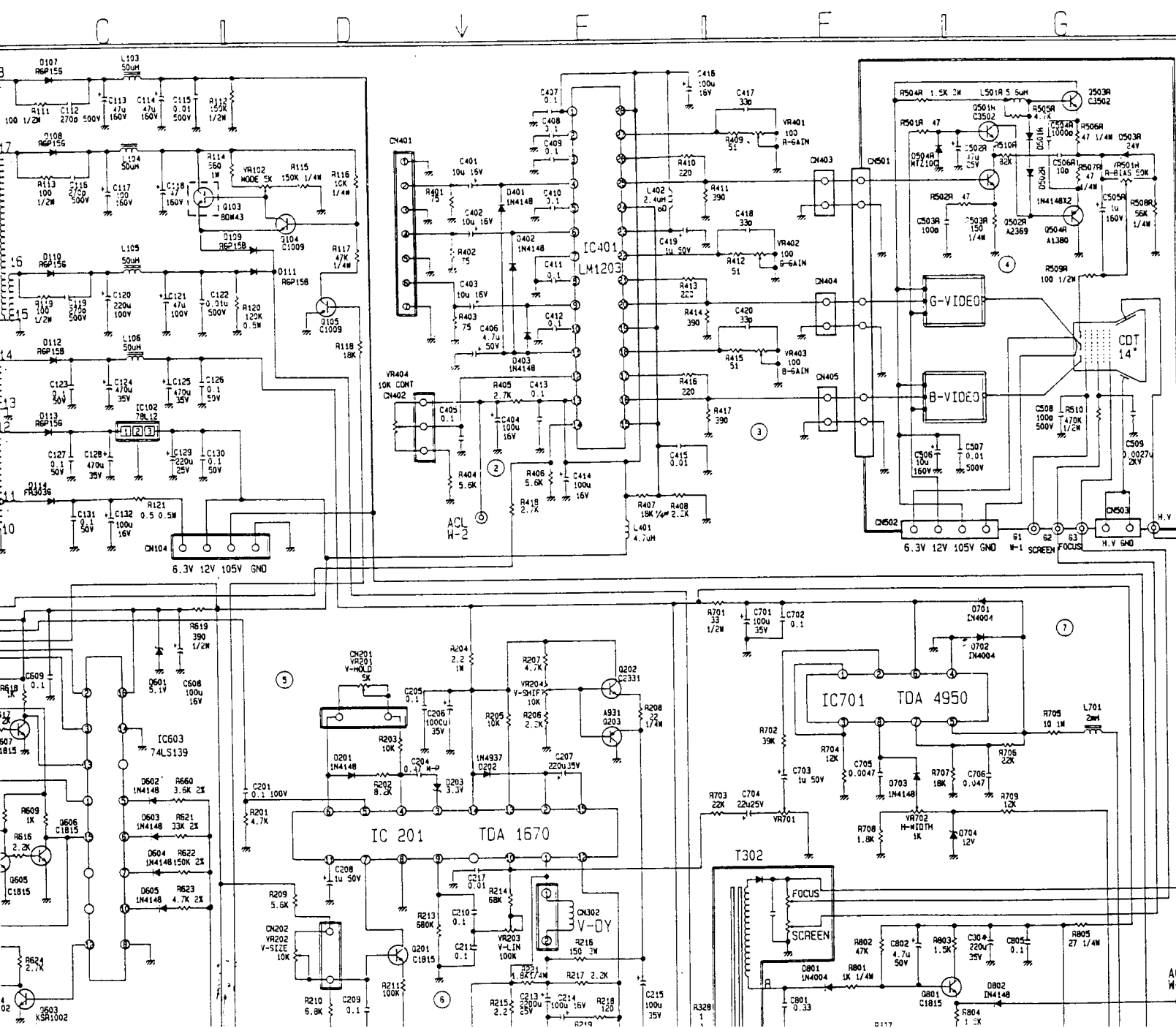
SAMSUNG ELECTRON DEVICES CO LTD			
ALL RIGHTS RESERVED			
TITLE SCHEMATIC & WAVEFORMS OF			
SC-428VSL			
APPROVALS	DATE	PCB NAME	REV.
DRAWN	1	MAIN PCB	1
DESIGNED	2	SECRET PCB	1
CHECKED	3		
APPROVED	4		
REF			REV. SIZE
DWG NO	MC-106-XXXXX DC		SHEET 1 OF 1

NOTE

1. RESISTOR VALUES ARE IN OHM. K=1,000 M=1,000,000 OHM
2. ALL RESISTORS ARE 1/8W EXCEPT WHERE OTHERWISE INDICATED.
3. ALL CAPACITORS ARE 50V EXCEPT WHERE OTHERWISE INDICATED.
4. CAPACITOR VALUES ARE OF UNLESS OTHERWISE INDICATED p=pF.
5. 0 DENOTES HOUSING CONNECTORS.
6. DIRECT.



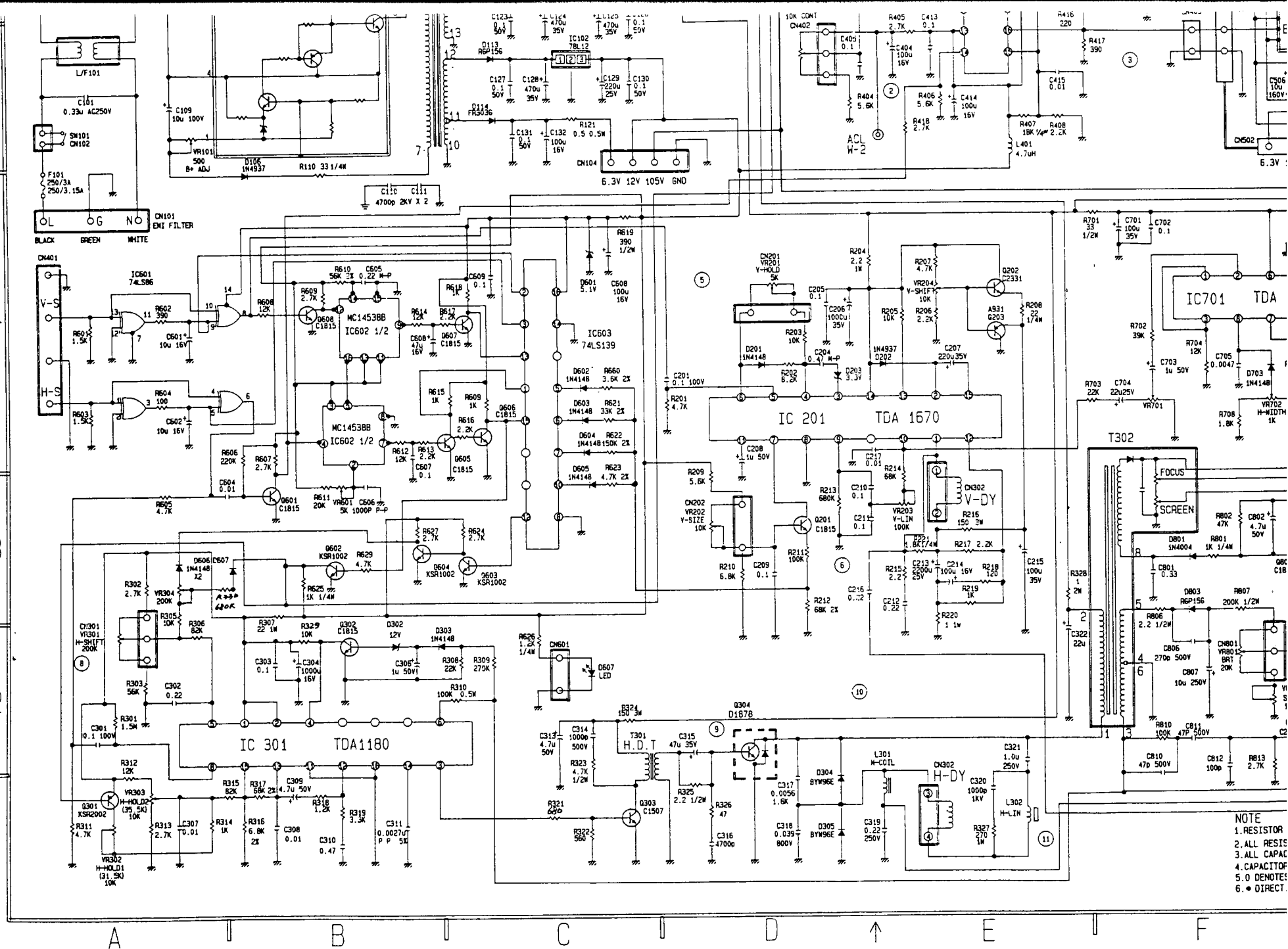


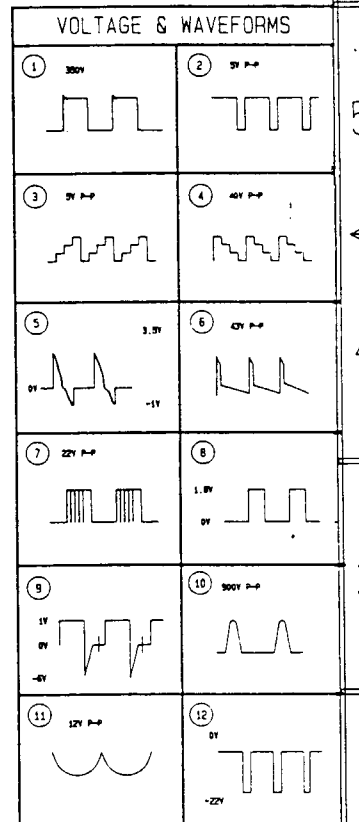
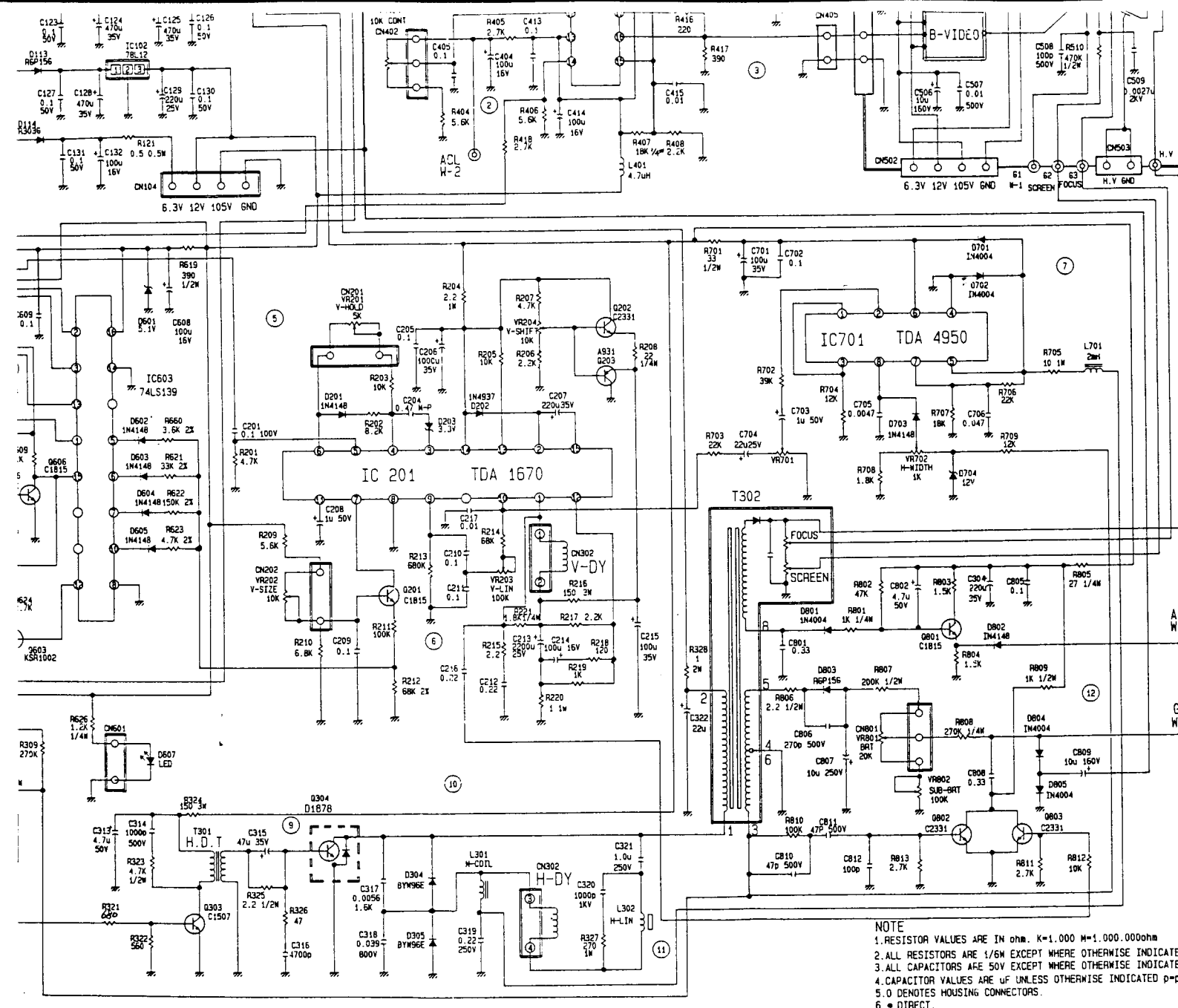


REV.	DATE	DESCRIPTION	DESIGNED	APPROVED
1	91.9.3	INITIAL RELEASE	R. S. HANNA	S. S. LEE

VOLTAGE & WAVEFORMS	
1	250V
2	5V P-P
3	5V P-P
4	40V P-P
5	3.3V
6	40V P-P
7	22V P-P
8	1.5V
9	1V
10	300V P-P

6
5
4
3
2
1

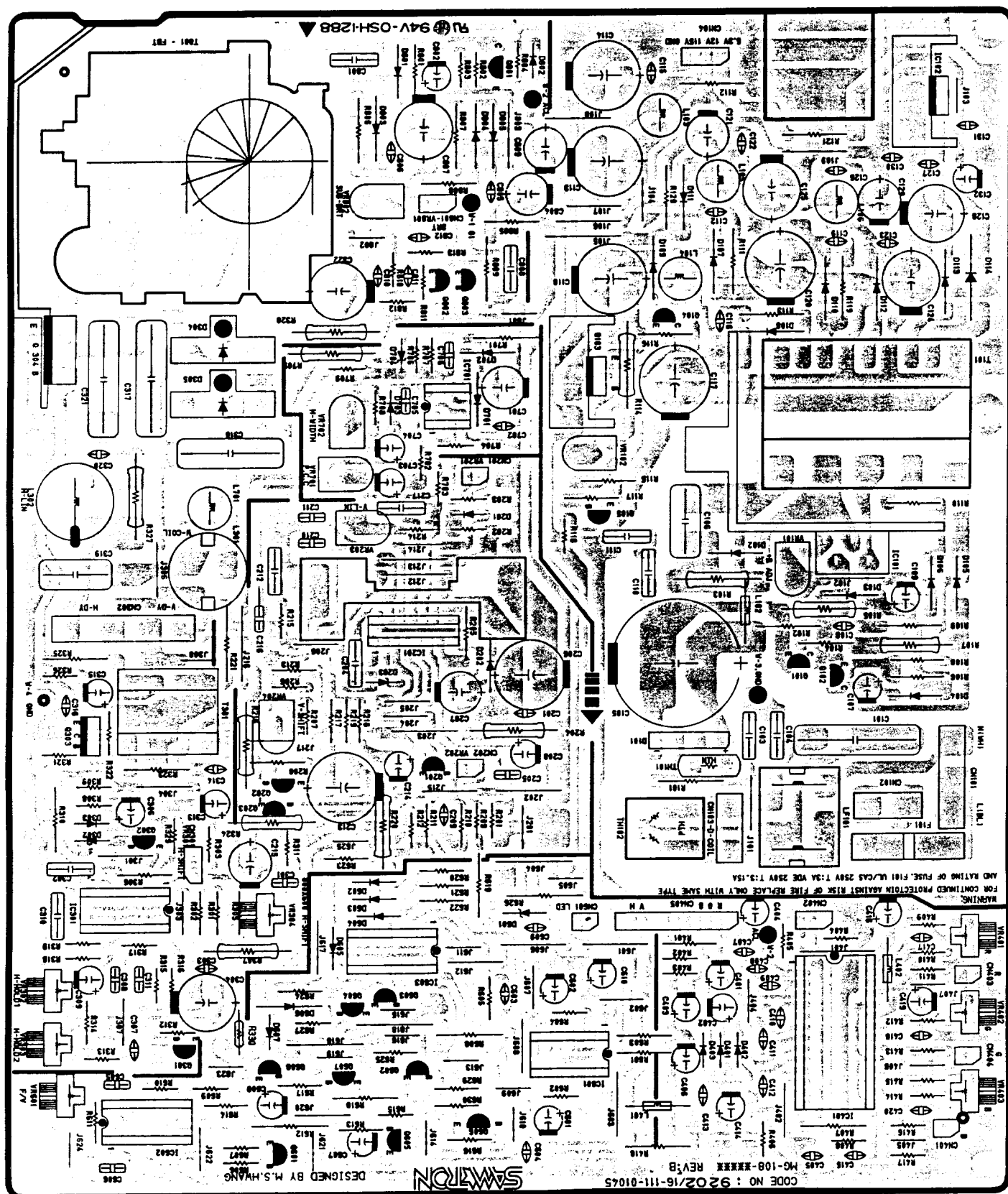




SAMSUNG ELECTRON DEVICES CO LTD				
ALL RIGHTS RESERVED				
TITLE: SCHEMATIC & WAVEFORMS OF				
SC-428VS (B)				
APPROVALS	DATE	NO	PCB NAME	REV
DESIGNED			MAIN PCB	1
CHECKED			WORK PCB	1
APPROVED				
REF			REV	SIZE
DWG NO	M6-108-xxxxx	DC		A1
				SHEET 1 OF 1

[3] PCB artwork drawings

3-1. Main P. C. board



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8. APPENDIX

(1) Part List

TABLE OF CONTENTS

SC-4* *VS 115V
SC-4* *VS 230V

NO	B.O.M STRUCTURE	ORIGINAL	REMARK
1-1	M6-108-01149	21EA	SC-428VS 115V
1-2	M6-108-01363	21EA	SC-428VS 230V
1-3	M6-109-00592	21EA	SC-431VS 115V
1-4	M6-109-01176	21EA	SC-431VS 230V
2-1	MJ-108-01309	55EA	SC-428VS 115V
2-2	MJ-108-01336	55EA	SC-428VS 230V
2-3	MJ-109-00541	55EA	SC-431VS 115V
2-4	MJ-109-00553	54EA	SC-431VS 230V
3	01-141-00208	6EA	SUB-ASS'Y, PUSH S/W
4	01-151-00342	7EA	SUB-ASS'Y, VOLUME
5	01-173-00936	19EA	SUB-ASS'Y, BACK PLATE
6	01-183-00099	3EA	SUB-ASS'Y, LED
7-1	MG-108-01125	112EA	SC-4* *VS 115V
7-2	MG-108-01149	112EA	SC-4* *VS 230V
8	MA-108-00713	288EA	
9	01-123-00155	33EA	SUB-ASS'Y, CPT SOCKET
10	01-161-00684	5EA	SUB-ASS'Y, HEAT SINK STR5841
11	01-161-00776	4EA	SUB-ASS'Y, HEAT SINK TDA1675
12	01-161-00788	3EA	SUB-ASS'Y, HEAT SINK MC7812CT
13	01-161-00963	4EA	SUB-ASS'Y, HEAT SINK 2SD1878
14	01-161-00975	3EA	SUB-ASS'Y, HEAT SINK BDW-43
15	01-161-00987	2EA	SUB-ASS'Y, HEAT SINK BYW96E
16	01-162-00012	2EA	SUB-ASS'Y, SAIELD COVER
17	MA-094-00696	57EA	
18	01-161-00999	3EA	SUB-ASS'Y, HEAT SINK KSC350E

ASS'Y NO		M6-108-01149			MODEL NO.	(SC-428VS 115V)
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	MJ-108-01309	COLOR SET CHASSIS ASS'Y	115V, ANALG, 0.28"	PCS	1.000	
2	02-121-00497	ASS'Y,STAND	SC-441V, AF303-11084	PCS	1.000	
3	02-141-00788	ASS'Y,MANUAL,USER'S	SC-431VS(NEW)/SC-428VS	PCS	1.000	
4	32-111-01574	PLA,EXT-H,REAR,SC-431VII/EII	313.4 * 294.5 * 352.8,ABS,AF303-11084	PCS	1.000	
5	33-191-00051	MS,SPL,PCN,W/P.W,ZPW	M4 * 12,SWRCH1018AK	PCS	4.000	
6	33-485-00012	TS+,OVAL,2,ZPW	M3 * 12,SWRCH1018AK	PCS	3.000	
7	33-612-00051	PS+,PAN,ZPW	M3.5 * 10,SWRCH1018AK	PCS	1.000	
8	34-111-01877	BOX,SC-428VS	440 * 457 * 440,240ST * 2-A200 * 2-K200 * KA2	PCS	1.000	
9	34-211-00274	S/FOAM,SC-431VII/EII,SET	251 * 428 * 95,EPS	PCS	1.000	
10	34-311-00473	VINYL BAG,SET	800 * 880,HDPE 0.02T	PCS	1.000	
11	34-311-00497	VINYL BAG,S/CABLE	110 * 200,HDPE 0.05T	PCS	1.000	
12	35-111-05571	LABEL,BOX	PRODUCT ID SHEET,115V	PCS	1.000	
13	35-111-06099	LABEL,PRODUCT,SC-428VS	100-240V,50/60HZ,70W,1-0.5A,UL/CSA	PCS	1.000	
14	35-211-01137	LOGO,SAMTRON	60.3 * 17.5 * 0.25T,PC,11084	PCS	1.000	
15	36-521-00179	CORD,POWER,NONMAL,DETACH	SVT,125V/7A,BE,6FT	PCS	1.000	

ASS'Y NO		M6-108-01363			MODEL NO.	(SC-428VS 230V)
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	MJ-108-01336	COLOR SET CHASSIS ASS'Y	230V, ANALOG, 0.28"	PCS	1.000	
2	02-121-00497	ASS'Y,STAND	SC-441V, AF303-11084	PCS	1.000	
3	32-111-01574	PLA,EXT-H,REAR,SC-431VII/EII	313.4 * 294.5 * 352.8,ABS,AF303-11084	PCS	1.000	
4	33-191-00051	MS,SPL,PCN,W/P.W,ZPW	M4 * 12,SWRCH1018AK	PCS	4.000	
5	33-485-00012	TS+,OVAL,2,ZPW	M3 * 12,SWRCH1018AK	PCS	3.000	
6	33-612-00051	PS+,PAN,ZPW	M3.5 * 10,SWRCH1018AK	PCS	1.000	
7	34-111-01877	BOX,SC-428VS	440 * 457 * 440,240ST * 2-A200 * 2-K200 * KA2	PCS	1.000	
8	34-211-00274	S/FOAM,SC-431VII/EII,SET	251 * 428 * 95,EPS	PCS	1.000	
9	34-311-00473	VINYL BAG,SET	800 * 880,HDPE 0.02T	PCS	1.000	
10	35-311-00497	VINYL BAG, S/CABLE	110 * 200,HDPE 0.05T	PCS	1.000	
11	35-111-05568	LABEL,BOX	PRODUCT ID SHEET,230V	PCS	1.000	
12	35-111-06104	LABEL,PRODUCT,SC-428VS	100-240V,50/60HZ,1-0.5A,ZZF/GS	PCS	1.000	
13	35-211-01137	LOGO,SAMTRON	60.3 * 17.5 * 0.25T,PC,11084	PCS	1.000	
14	35-311-01892	MANUAL, USER'S	SC-431VS(NEW)/SC-428VS	PCS	1.000	
15	36-521-90048	CORD,POWER,NORMAL,DETACH	H05VV-F,250V,BK,6FT	PCS	1.000	

ASS'Y NO		M6-109-00592			MODEL NO.	(SC-431VS 115V)
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	MJ-109-00541	COLOR SET CHASSIS ASS'Y	115V, ANALOG, 0.31",NORDT	PCS	1.000	
2	02-121-00497	ASS'Y,STAND	SC-441V, AF303-11084	PCS	1.000	
3	02-141-00788	ASS'Y,MANUAL,USER'S	SC-431VS(NEW)/SC-428VS	PCS	1.000	
4	19-172-00012	FERRITE SHEET	PST 10 * 90 (FS 200) 3M	PCS	1,500	
5	32-111-01574	PLA,EXT-H,REAR,SC-431VII/EII	313.4 * 294.5 * 352.8,ABS,AF303-11084	PCS	1.000	
6	33-191-00051	MS,SPL,PCN,W/P.W,ZPW	M4 * 12,SWRCH1018AK	PCS	4.000	
7	33-485-00012	ST+OVAL,2,ZPW	M3 * 12,SWRCH1018AK	PCS	3.000	
8	33-612-00051	PS+,PAN,ZPW	M3.5 * 10,SWRCH1018AK	PCS	1.000	
9	34-111-01865	BOX,SC-431VS	440 * 457 * 440,240ST * 2-A200 * 2-K200 * KA2	PCS	1.000	
10	34-211-00274	S/FOAM,SC-431VII/EII,SET	251 * 428 * 95,EPS	PCS	1.000	
11	34-311-00473	VINYL BAG,SET	800 * 880,HDPE 0.02T	PCS	1.000	
12	34-311-00497	VINYL BAG,S/CABLE	110 * 200,HDPE 0.05T	PCS	1.000	
13	35-111-05571	LABEL,BOX	PRODUCT ID SHEET,115V	PCS	1.000	
14	35-111-05595	LABEL,PRODUCT,SC-431VS	100V-240V-,50/60HZ,70W,UL/CSA	PCS	1.000	
15	35-211-01137	LOGO,SAMTRON	60.3 * 17.5 * 0.25,PC,11084	PCS	1.000	
16	36-521-00179	CORD,POWER,NORMAL,DETACH	SVT,125V/7A,BE,6FT	PCS	1.000	

ASS'Y NO		M6-109-01176		MODEL NO.		(SC-431VS 230V)
SEQ	P/N	DESCRIPTION	S P E C	UNIT	QTY	CKT NO.
1	MJ-109-00553	COLOR SET CHASSIS ASS'Y	230V,ANALOG,0.31",NORDT	PCS	1.000	
2	02-121-00497	ASS'Y,STAND	SC-441V, AF303-11084	PCS	1.000	
3	32-111-01574	PLA,EXT-H,REAR,SC-431VII/EII	313.4 * 294.5 * 352.8,ABS,AF303-11084	PCS	1.000	
4	13-191-00051	MS,SPL,PCN,W/P.W,ZPW	M4 * 12,SWRCH1018AK	PCS	4.000	
5	33-485-00012	TS+OVAL,2,ZPW	M3 * 12,SWRCH1018AK	PCS	3.000	
6	33-612-00051	PS+,PAN,ZPW	M3.5 * 10,SWRCH1018AK	PCS	1.000	
7	34-111-01865	BOX,SC-431VS	440 * 457 * 440,240ST * 2-A200 * 2-K200 * KA2	PCS	1.000	
8	34-211-00274	S/FOAM,SC-431VII/EII,SET	251 * 428 * 95,EPS	PCS	1.000	
9	34-311-00473	VINYL BAG,SET	800 * 880,HDPE 0.02T	PCS	1.000	
10	34-311-00497	VINYL BAG,S/CABLE	110 * 200,HDPE 0.05T	PCS	1.000	
11	35-111-05568	LABEL,BOX	PRODUCT 1D SHEET,230V	PCS	1.000	
12	35-111-05609	LABEL,PRODUCT,SC-431VS	100-240,-50/60HZ,1A-0.5A,GS,ZZF	PCS	1.000	
13	35-211-01137	LOGO,SAMTRON	60.3 * 17.5 * 0.25T,PC,11084	PCS	1.000	
14	35-311-01892	MANUAL,USER'S	SC-431VS(NEW)/SC-428VS	PCS	1.000	
15	36-521-90048	CORD,POWER,NORMAL,DETACH	H05VV-F,250V,BK,6FT	PCS	1.000	

ASS'Y NO		MJ-108-01309		MODEL NO.		(SC-428VS 115V)
SEQ	P/N	DESCRIPTION	S P E C	UNIT	QTY	CKT NO.
1	MG-108-01125	PCB ASS'Y	M.V.S,115V,ANALG	PCS	1.000	
2	01-141-00208	SUB ASS'Y,PUSH SW	SC-431VII/EII,POWER,2P,190MM	PCS	1.000	
3	01-151-00342	SUB ASS'Y,VOLUME	SC-431VS/428VS,20K OHM,ABS,OEM3	PCS	1.000	
4	11-173-00936	SUB ASS'Y,BACK PLATE W/CABLE	SC-4 * * (R),1720MM,ABS,OEM-3357	PCS	1.000	
5	01-183-00099	SUB ASS'Y,LED	SC-431EII/VII,GREEN,SLB25MG3.230MM	PCS	1.000	
6	01-211-00235	ASS'Y,CDT	37SGA24X-TC03,0.28",14",+380G,VGA	PCS	1.000	
7	17-224-00131	COIL,DEGAUSSING (91M1405)	120+ - 1T,0.3D,30.5 OHM,1040MM	PCS	1.000	
8	31-121-00131	SPRING,COMPRESSION,S/W,CGA	D11 * L17 * WD0.6,SPS	PCS	1.000	
9	31-211-00868	MET-I,PRS,SIG. GND CLIP,STD,FST	ET,0.3T	PCS	1.000	
10	31-211-01324	MET-I,PRS,BOTTOM CHASSIS,SC-431VII	285 * 238 * 0.8,EGI 0.8T	PCS	1.000	
11	31-211-01336	MET-I,PRS,TOP BRKT L/H,SC-431VII/E	54.5 * 12 * 20,EGI	PCS	1.000	
12	31-211-01348	MET-I,PRS,TOP BRKT R/H,SC-431VII/E	54.5 * 12 * 20,EGI	PCS	1.000	
13	31-211-01351	MET-I,PRS,BRACE L/H,SC-431VII/EII	52.5 * 149 * 70,EGI 1.2T	PCS	1.000	
14	31-211-01363	MET-I,PRS,BRACE R/H,SC-431VII/EII	52.5 * 149 * 70,EGI 1.2T	PCS	1.000	
15	32-111-01678	PLA,EXT-H,FRONT BEZEL,SC-441V	353.8 * 315.5 * 74.5,ABS,AF303-11084	PCS	1.000	
16	32-311-00012	CABLE TIE	L101.6 * W25 * T1	PCS	2.000	
17	32-611-02173	PLA,S/W CAP,SC-441V	24.5 * 16.1 * 2.6,ABS,AF303-11084	PCS	1.000	
18	33-168-00024	MS+,BND,W/T.L.W,ZPW	M4 * 8,SWRCH1018AK	PCS	1.000	
19	33-172-00012	MS+,C/S,ZPW	M3 * 8,SWRCH1018AK	PCS	2.000	
20	33-425-00012	TS+,BND,W/P.W,B,ZPW	M3 * 8,SWRCH1018AK	PCS	8.000	
21	33-612-00051	PS+,PAN,ZPW	M3.5 * 10,SWRCH1018AK	PCS	3.000	
22	33-612-00259	PS+,PAN,ZPW	M4.5 * 14,SWRCH1018AK	PCS	8.000	
23	33-642-00036	PS+,HEW,W/S.W,ZPW	M4.5 * 24,WD19,SWRCH1018AK	PCS	4.000	
24	33-732-00048	WHR,OUT,ZPW	4.3 * 8.5 * 0.45,SK5M	PCS	1.000	
25	33-852-00036	NUT,HEX,2,ZPW	M4 * 0.7P,S10C	PCS	1.000	
26	35-111-02782	LABEL,WARNING,DHHS	24KV	PCS	1.000	
27	36-437-00104	BRAID WIRE,TER/CONN	SHIELD,540MM,BK,245MM	PCS	1.000	
28	36-437-00131	BRAID WIRE,RING TER	D5,D5,190MM	PCS	2.000	
29	39-119-00116	RUBBER,WASHER,SC-431VII	D21 * 6.3,BK	PCS	4.000	

ASS'Y NO		MJ-108-01336 (SC-428VS 230V)		MODEL NO.		SC-428VS(R)
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	MG-108-01149	PCB ASS'Y	M.V.S,230V,ANALG	PCS	1.000	
2	01-141-00208	SUB ASS'Y,PUSH SW	SC-431V11/EII,POWER,2P,190MM	PCS	1.000	
3	01-151-00342	SUB ASS'Y,VOLUME	SC-431VS/428VS,20K OHM,ABS,OEM3	PCS	1.000	
4	01-173-00936	SUB ASS'Y,BACK PLATE W/CABLE	SC-4 * * VS(R),1720MM,ABS,OEM-3357	PCS	1.000	
5	01-183-00099	SUB ASS'Y,LED	SC-431EII/VII,GREEN,SLB25MG3.230MM	PCS	1.000	
6	01-211-00235	ASS'Y,CDT	37SGA24X-TC03,0.28",14",+380G,VGA	PCS	1.000	
7	17-224-00128	COIL,DEGAUSSING	120+ -1T,0.3D,30.5 OHM,1040MM	PCS	1.000	
8	31-121-00131	SPRING,COMPRESSION,S/W,CGA	D11 * L17 * WD0.6,SPS	PCS	1.000	
9	31-211-00868	MET-I,PRS,SIG. GND CLIP,STD,FST	ET,0.3T	PCS	1.000	
10	31-211-01324	MET-I,PRS,BOTTOM CHASSIS,SC-431VII	285 * 238 * 0.8,EGI 0.8T	PCS	1.000	
11	31-211-01336	MET-I,PRS,TOP BRKT L/H,SC-431VII/E	54.5 * 12 * 20,EGI	PCS	1.000	
12	31-211-01348	MET-I,PRS,TOP BRKT R/H,SC-431VII/E	54.5 * 12 * 20,EGI	PCS	1.000	
13	31-211-01351	MET-I,PRS,BRACE L/H,SC-431VII/EII	52.5 * 149 * 70,EGI 1.2T	PCS	1.000	
14	31-211-01363	MET-I,PRS,BRACE R/H,SC-431VII/EII	52.5 * 149 * 70,EGI 1.2T	PCS	1.000	
15	32-111-01678	PLA,EXT-H,FRONT BEZEL,SC-441V	353.8 * 315.5 * 74.5,ABS,AF303-11084	PCS	1.000	
16	32-311-00012	CABLE TIE	L101.6 * W25 * T1	PCS	3.000	
17	32-611-02173	PLA,S/W CAP,SC-441V	24.5 * 16.1 * 2.6,ABS,AF303-11084	PCS	1.000	
18	33-168-00024	MS+,BND,W/T,L,W,ZPW	M4 * 8,SWRCH1018AK	PCS	1.000	
19	33-172-00012	MS+,C/S,ZPW	M3 * 8,SWRCH1018AK	PCS	2.000	
20	33-425-00012	TS+,BND,W/P,W,B,ZPW	M3 * 8,SWRCH1018AK	PCS	8.000	
21	33-612-00051	PS+,PAN,ZPW	M3.5 * 10,SWRCH1018AK	PCS	3.000	
22	33-612-00259	PS+,PAN,ZPW	M4.5 * 14,SWRCH1018AK	PCS	8.000	
23	33-642-00036	PS+,HEX,W/S,ZPW	M4.5 * 24,WD19,SWRCH1018AK	PCS	4.000	
24	33-732-00048	WHR,OUT,ZPW	4.3 * 8.5 * 0.45,SK5M	PCS	1.000	
25	33-852-00036	NUT,HEX,2,ZPW	M4 * 0.7P,S10C	PCS	1.000	
26	36-437-00104	BRAID WIRE,TER/CONN	SHIELD,540MM,BK,245MM	PCS	1.000	
27	36-437-00131	BRAID WIRE,RING TER	D5,D5,190MM	PCS	1.000	
28	36-437-00247	BRAID WIRE,RING TER	D5,190MM,D5	PCS	1.000	
29	39-119-00116	RUBBER,WASHER,SC-431VII	D21 * 6.3,BK	PCS	4.000	

ASS'Y NO.		MJ-109-00541		MODEL NO.		(SC-431VS 115V)
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	MG-108-01125	PCB ASS'Y	M.V.S,115V,ANALG	PCS	1.000	
2	01-141-00208	SUB ASS'Y,PUSH SW	SC-431V.11/EII,POWER,2P,190MM	PCS	1.000	
3	01-151-00342	SUB ASS'Y,VOLUME	SC-431VS/428VS,20K OHM,ABS,OEM3	PCS	1.000	
4	01-173-00936	SUB ASS'Y,BACK PLATE W/CABLE	SC-4 * * VS(R),1720MM,ABS,OEM-3357	PCS	1.000	
5	01-183-00099	SUB ASS'Y,LED	SC-431EII/VII,GREEN,SLB25MG3,230MM	PCS	1.000	
6	01-211-00104	ASS'Y,CDT	3709B22-TC,0.31",14",+380G,VGA	PCS	1.000	
7	17-224-00131	COIL,DEGAUSSING	80+ - 1T,0.45D,9 HOM,995MM	PCS	1.000	
8	31-121-00131	SPRING,COMPRESSION,S/W,CGA	D11 * L17 * WD0.6,SPS	PCS	1.000	
9	31-211-00868	MET-I,PRS,SIG,GND CLIP,STD,FST	ET,0.3T	PCS	1.000	
10	31-211-01324	MET-I,PRS,BOTTOM CHASSIS,SC-431VII	285 * 238 * 0.8,EGI 0.8T	PCS	1.000	
11	31-211-01336	MET-I,PRS,TOP BRKT L/H,SC-431VII/E	54.5 * 12 * 20,EGI	PCS	1.000	
12	31-211-01348	MET-I,PRS,TOP BRKT R/H,SC-431VII/E	54.5 * 12 * 20,EGI	PCS	1.000	
13	31-211-01351	MET-I,PRS,BRACE L/H,SC-431VII/EII	52.5 * 149 * 70,EGI 1.2T	PCS	1.000	
14	31-211-01363	MET-I,PRS,BRACE R/H,SC-431VII/EII	52.5 * 149 * 70,EGI 1.2T	PCS	1.000	
15	32-111-01678	PLA,EXT-H,FRONT BEZEL,SC-441V	353.8 * 315.5 * 74.5,ABS,AF303-11084	PCS	1.000	
16	32-311-00012	CABLE TIE	L101.6 * W25 * T1	PCS	2.000	
17	32-611-02173	PLA,S/W CAP,SC-441V	24.5 * 16.1 * 2.6,ABS,AF303-11084	PCS	1.000	
18	33-168-00024	MS+,BND,W/T.L.W,ZPW	M4 * 8,SWRCH1018AK	PCS	1.000	
19	33-172-00012	MS+,C/S,ZPW	M3 * 8,SWRCH1018AK	PCS	2.000	
20	33-425-00012	TS+,BND,W/P.W,B,ZPW	M3 * 8,SWRCH1018AK	PCS	16.000	
21	33-612-00051	PS+,PAN,ZPW	M3.5 * 10,SWRCH1018AK	PCS	3.000	
22	33-612-00259	PS+,PAN,ZPW	M4.5 * 14,SWRCH1018AK	PCS	8.000	
23	33-642-00036	PS+,HEX,W/S,ZPW	M4.5 * 24,WD19,SWRCH1018AK	PCS	4.000	
24	35-111-02782	LABEL,WARNING,DHHS	24KV	PCS	1.000	
25	36-437-00104	BRAID WIRE,TER/CONN	SHIELD,540MM,BK,245MM	PCS	1.000	
26	36-437-00131	BRAID WIRE,RING TER	D5,D5,190MM	PCS	2.000	
27	36-437-00247	BRAID WIRE,RING TER	D5,190MM,D5	PCS	1.000	
28	39-119-00116	RUBBER,WASHER,SC-431VII	D21 * 6.3,BK	PCS	4.000	

ASSY NO		MJ-109-00553			MODEL NO.		(SC-431VS 230V)
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.	
1	MG-108-01149	PCB ASSY	M.V.S,230V,ANALG	PCS	1.000		
2	01-141-00208	SUB ASSY,PUSH SW	SC-431V11/EII,POWER,2P,190MM	PCS	1.000		
3	01-151-00342	SUB ASSY,VOLUME	SC-431VS/428VS,20K OHM,ABS,OEM3	PCS	1.000		
4	01-173-00936	SUB ASSY,BACK PLATE W/CABLE	SC-4 * * VS(R),1720MM,ABS,OEM-3357	PCS	1.000		
5	01-183-00099	SUB ASSY,LED	SC-431EII/VII,GREEN,SLB25MG3,230MM	PCS	1.000		
6	01-211-00104	ASSY,CDT	3709B22-TC,0.31",14",VGA	PCS	1.000		
7	17-224-00128	COIL,DEGAUSSING	120+ - 1T,0.3D,30.5 HOM,1040MM	PCS	1.000		
8	31-121-00131	SPRING,COMPRESSION,S/W,CGA	D11 * L17 * WD0.6,SPS	PCS	1.000		
9	31-211-00868	MET-I,PRS,BOTTOM SIG. GND CLIP,STD,FST	ET,0.3T	PCS	1.000		
10	31-211-01324	MET-I,PRS,BOTTOM CHASSIS,SC-431VII	285 * 238 * 0.8,EGI 0.8T	PCS	1.000		
11	31-211-01336	MET-I,PRS,TOP BRKT L/H,SC-431VII/E	54.5 * 12 * 20,EGI	PCS	1.000		
12	31-211-01348	MET-I,PRS,TOP BRKT R/H,SC-431VII/E	54.5 * 12 * 20,EGI	PCS	1.000		
13	31-211-01351	MET-I,PRS,BRACE L/H,SC-431VII/EII	52.5 * 149 * 70,EGI 1.2T	PCS	1.000		
14	31-211-01363	MET-I,PRS,BRACE R/H,SC-431VII/EII	52.5 * 149 * 70,EGI 1.2T	PCS	1.000		
15	32-111-01678	PLA,EXT-H,FRONT BEZEL,SC-441V	353.8 * 315.5 * 74.5,ABS,AF303-11084	PCS	2.000		
16	32-311-00012	CABLE TIE	L101.6 * W25 * T1	PCS	3.000		
17	32-611-02173	PLA,S/W CAP,SC-441V	24.5 * 16.1 * 2.6,ABS,AF303-11084	PCS	1.000		
18	33-168-00024	MS+,BND,W/T.L.W,ZPW	M4 * 8,SWRCH1018AK	PCS	1.000		
19	33-172-00012	MS+,C/S,ZPW	M3 * 8,SWRCH1018AK	PCS	2.000		
20	33-425-00012	TS+,BND,W/P.W,B,ZPW	M3 * 8,SWRCH1018AK	PCS	8.000		
21	33-612-00051	PS+,PAN,ZPW	M3.5 * 10,SWRCH1018AK	PCS	3.000		
22	33-612-00259	PS+,PAN,ZPW	M4.5 * 14,SWRCH1018AK	PCS	8.000		
23	33-642-00036	PS+,HEX,W/S,ZPW	M4.5 * 24,WD19,SWRCH1018AK	PCS	4.000		
24	33-732-00048	WHR,OUT,ZPW	4.3 * 8.5 * 0.45,SK5M	PCS	1.000		
25	33-852-00036	NUT,HEX,2,ZPW	M4 * 0.7P,S10C	PCS	1.000		
26	36-437-00104	BRAID WIRE,TER/CONN	SHIELD,540MM,BK,245MM	PCS	1.000		
27	36-437-00131	BRAID WIRE,RING TER	D5,D5,190MM	PCS	1.000		
28	36-437-00247	BRAID WIRE,RING TER	D5,190MM,D5	PCS	1.000		
29	39-119-00116	RUBBER,WASHER,SC-431VII	D21 * 6.3,BK	PCS	4.000		

ASSY NO		01-141-00208			MODEL NO.		
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.	
1	19-31-90048	PUSH SWITCH	SPST,4A/32A,250V,2P,J-U3065 #01	PCS	1.000		
2	31-211-00342	MET-I,PRS,PWR S/W BRKT,SC-431E	17 * 79 * 6,EGI	PCS	1.000		
3	33-162-00012	MS+,BND,ZPW	M3 * 6,SWRCH1018AK	PCS	2.000		
4	36-412-00407	WIRE,CONN/HOUSING	190MM,2P,GY,10,R,R,1672	PCS	1.000		
5	39-422-00024	TUBE-SHRINK,WHT	D4,POLY-OLEFIN	M	,030		

ASSY NO		01-151-00342			MODEL NO.		
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.	
1	15-441-00075	VAR,HANDLE,WIRE-SOLDER,H-TYPE	10K OHM,B,0.2W,V16L(8X5)N25F-B10K	PCS	1.000		
2	15-441-00087	VAR,HANDLE,WIRE-SOLDER,H-TYPE	20K OHM,B,0.2W,V16L4(8X5)N25F-B20K	PCS	1.000		
3	31-211-01375	MET-I,PRS,CONTRAST BRACKET,SC-431V	100 * 20 * 12,EGI	PCS	1.000		
4	32-611-01416	PLA,BRIGHTNESS KNOB,14"-VGA	D28 * 16.5,ABS,AF303-11084	PCS	2.000		
5	36-413-00538	WIRE,CONN/HOUSING	250MM,3P,W,2.54,W,O,Y	PCS	1.000		
6	36-414-00182	WIRE,CONN/HOUSING	350MM,3P,W,2.5,W,O,Y	PCS	1.000		

ASS'Y NO		01-173-00936			MODEL NO.	
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	15-352-00024	VAR,HANDLE,PCB-MOUNT,V-TYPE	10K OHM,B,0.05W	PCS	1.000	
2	15-352-00036	VAR,HANDLE,PCB-MOUNT,V-TYPE	200K OHM,B,0.05W	PCS	1.000	
3	15-352-00048	VAR,HANDLE,PCB-MONT,V-TYPE	5K OHM,B,0.05W	PCS	1.000	
4	16-111-01033	PCB,SC-431VS(R),VOLUME	FR-1,1.6T	PCS	1.000	
5	17-314-00063	FILTER,EMI SOCKET	250V/3A,473PF(X1),222PF,1.2MH,SEV	PCS	1.000	
6	32-211-01826	PLA,EXT-P,BACK PLATE,SC-4* * VS	210*50*2.6T,ABS,OEM-3357	PCS	1.000	
7	32-315-90024	CABLE BUSH	D15.9*14.6,1210(SR-6P-4)	PCS	1.000	
8	33-172-00024	MS+,C/S,ZPW	M3*SWRCH1018K	PCS	2.000	
9	33-852-00012	NUT,HEX,2,ZPW	M3*0.5P,S10C	PCS	2.000	
10	36-412-00446	WIRE,CONN/HOUSING	160MM,2P,W,2.5,W,O,1007	PCS	1.000	
11	36-413-00339	WIRE,CONN/HOUSING	265MM,2P,W,2.5,R,BK	PCS	1.000	
12	36-413-00538	WIRE,CONN/HOUSING	250MM,3P,W,2.54,W,O,Y	PCS	1.000	
13	36-541-00298	CABLE,SIGNAL,NON-DET	15P,1720MM,SC-431VS	PCS	1.000	
14	39-422-00024	TUBE-SHRINK,WHT	D4,PLOY-OLEFIN	M	2.000	

ASS'Y NO		01-183-00099			MODEL NO.	
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	22-152-00048	LED GREEN	25MA,75MW,SLB-25MG3,RECT	PCS	1.000	
2	36-413-00339	WIRE,CONN/HOUSING	265MM,2P,W,2.5,R,BX	PCS	1.000	

ASS'Y NO		MG-108-01125			MODEL NO.	(SC-428VS 115V)
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	MA-108-00713	A/S ASS'Y	MAIN/VIDEO/SMPS,FREE,ANALG	PCS	1.000	
2	01-123-00155	SUB ASS'Y,CPT SOCKET	ZIRCON I	PCS	1.000	
3	01-161-00684	SUB ASS'Y,HEAT SINK	SC-431VII/EII/VS,STR58041,90*57*60	PCS	1.000	IC101
4	01-161-00776	SUB ASS'Y,HEAT SINK	TDA1675,50*18*50	PCS	1.000	IC201
5	01-161-00788	SUB ASS'Y,HEAT SINK	MC7812CT,23.5*15*30,SC-431EII/VII	PCS	1.000	IC102
6	01-161-00963	SUB ASS'Y,HEAT SINK	2SD 1878,SC-431VS,96*32.3*89.6,AL 2	PCS	1.000	Q304
7	01-161-00975	SUB ASS'Y,HEAT SINK	BDW-43,SC-431VS,23.5*15*30	PCS	1.000	Q103
8	01-161-00987	SUB ASS'Y,HEAT SINK	BYW 96E,SC-431VS,32*22*1.2T	PCS	2.000	D304 D305
9	01-162-00012	SUB ASS'Y,SHIELD COVER	SC-428VS,TIN,WH,RING TER,124*204*43	PCS	1.000	
10	11-113-0108B	CAP,AL-ELECT,GP	1000UF,20%,16V,-40/85°C,RB,SMALL	PCS	1.000	C304
11	11-233-02277	CAP,AL-ELECT	220UF,20%,400V,-40/85°C,PT	PCS	1.000	C105
12	12-243-01021	CAP,DISC CERAMIC,CK	1000PF,10%,1KV,-25/85°C,EPOXY,RB	PCS	1.000	C302
13	12-287-04722	CAP,DISC CERAMIC,CK	4700 PF,20%,400VAC,EPOXY,RB	PCS	2.000	C110 C111
14	13-152-02241	CAP,METALZ-POLYESTER	0.22UF,10%,100V,RB,CF93MM,OEM	PCS	5.000	C212 C216 C217 C302 C605
15	13-152-03342	CAP,METALZ-POLYESTER	0.33UF,10%,100V,RB	PCS	2.000	C801 C808
16	13-154-04746	CAP,METALZ-POLYESTER	0.47 UF,10%,100V,RB	PCS	2.000	C204 C310
17	13-154-92226	CAP,METALZ-POLYESTER	2200PF,10%,250VAC,RB	PCS	2.000	C103 C104
18	13-154-93342	CAP,METALZ-POLYESTER	0.33UF,10%,115/250VAC,RB	PCS	1.000	C101
19	13-311-01021	CAP,PP	1000PF,5%,100V,RB	PCS	1.000	C606
20	13-314-03936	CAP,PP	0.039 UF,5%,800V,RB	PCS	1.000	C318
21	13-317-05624	CAP,PP,HIGH-VOL	5600 PF,5%,1.6KV,RB	PCS	1.000	C317
22	13-318-02728	CAP,PP	2700 PF,5%,50V,RB	PCS	1.000	C311
23	13-354-01057	CAP,METALZ-PP	1 UF,5%,250V,RB	PCS	1.000	C321
24	13-354-02241	CAP,METALZ-PP	0.22UF,5%,250V,RB	PCS	1.000	C319
25	13-355-04734	CAP,METALZ-PP,GP	0.047UF,5%,800V,RB,CF93MP,OEM	PCS	1.000	C106
26	14-336-01R01	RES,METAL OXIDE,MINI,AB	1 HOM,1W,5%,FORMING	PCS	1.000	R220
27	14-336-01006	RES,METAL OXIDE,MINI,AB	10 HOME,1W,5%,FORMING	PCS	1.000	R705
28	14-336-02R22	RES,METAL OXIDE,AT	2.2 HOM,1W,5%	PCS	1.000	R204
29	14-336-02202	RES,METAL OXIDE,AT	22 OHM,1W,5%	PCS	1.000	R307
30	14-336-02716	RES,METAL OXIDE,AT	270 OHM,1W,5%	PCS	1.000	R327
31	14-336-05612	RES,METAL OXIDE,AT	560 OHM,1W,5%	PCS	1.000	R114
32	14-342-01R01	RES,METAL OXIDE,AB	1 OHM,2W,5%,FORMING	PCS	1.000	R103
33	14-342-06832	RES,METAL OXIDE,AB	68K OHM,2W,5%,FORMING	PCS	1.000	R103
34	14-352-01511	RES,METAL OXIDE,AB	150 OHM,3W,5%,FORMING	PCS	2.000	R216 R324
35	14-352-06805	RES,METAL OXIDE,AB	68 OHM,3W,5%,FORMING	PCS	1.000	R107
36	14-641-OR336	RES,WIRE WOUND,AB	0.33 OHM,1W,5%	PCS	1.000	R105
37	15-221-00182	VAR,NO-HANDLE,CAP,H-TYPE	10K OHM,B,0.2W,CET118A-B10K	PCS	2.000	VR302 VR303
38	15-221-00194	VAR,NO-HANDLE,CAP,H-TYPE	5K OHM,B,0.2W,CET118-B5K	PCS	1.000	VR601
39	15-221-00298	VAR,NO-HANDLE,CAP,H-TYPE	200K OHM,B,0.2W,CET119A-B200K	PCS	1.000	VR304
40	15-221-00749	VAR,NO-HANDLE,CAP,H-TYPE	100 OHME,B,0.2W	PCS	3.000	VR401 VR402 VR403
41	15-222-00036	AVR,NO-HANDLE,CAP,V-TYPE	5K OHMB,0.2W,CET92A-B5K	PCS	1.000	VR102
42	15-222-00048	VAR,NO-HANDLE,CAT,V-TYPE	10K OHM,B,0.2W,CET92A-B10K	PCS	1.000	VR204
43	15-222-00051	VAR,NO-HANDLE,CAP,V-TYPE	100K OHM,B,0.2W,GET92A-H100H	PCS	2.000	VR203 VR802
44	15-222-00075	VAR,NO-HANDLE,CAP,V-TYPE	1K OHM,B,0.2W,CET92A-B1K	PCS	1.000	VR702

ASS'Y NO		MG-108-01125		MODEL NO.	(SC-428VS 115V)	
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
45	15-222-00087	VAR,NO-HANDLE,CAP,V-TYPE	20K OHM,B,0.2W,CET92A-B20K	PCS	1.000	VR701
46	15-222-00099	VAR,NO-HANDLE,CAP,V-TYPE	500 OHM,B,0W,GET92A-B500	PCS	1.000	VR101
47	15-621-90036	THERMISTOR,PTC	18 OHM,30%,220V,PTH451C262BG180N270	PCS	1.000	TH102
48	15-622-90024	THERMISTOR,NTC	5 OHM,3.4A,2.4W	PCS	1.000	TH101
49	17-116-00194	TRANS,POWER,SWITCHING	SC-428VS,115/230V,14PIN	PCS	1.000	T101
50	17-122-90063	FBT,COLOR	Y261741,35KHZ MAX,VGA	PCS	1.000	T302
51	17-132-00155	COIL,TRANS,H-DRIVE	10MH/70UH,15%,SC-431VII	PCS	1.000	T301
52	17-211-00155	COIL,MODULATION	LITZ,USTC,177UH/177UH/185UH,SC-431VS/428V	PCS	1.000	L301
53	17-222-00087	COIL,CHOKE	50UH + - 15%,SC-431EII/VII	PCS	4.000	L103 L104 L105 L106
54	17-222-00211	COIL,CHOKE	2MH,15%,SC-431VS	PCS	1.000	L701
55	17-226-00051	COIL,H-LIN,FIX	10UH,SC-431E	PCS	1.000	L302
56	17-311-00223	FILTER,LINE	20MH,SC-431EII/VII VE/VS	PCS	1.000	LF101
57	19-103-00063	FULSE TIMELAG WITHOUT LEAD	3A,250V,5.20,51S	PCS	1.000	F101
58	19-113-00012	FUSE CLIP	5.20 * 2.80MM,30A/300V,FC51A2	PCS	2.000	F101
59	21-117-00131	TR NPN TO-220	0.2A,300V,15W(TC),CR O/P,KSC1507Y	PCS	1.000	Q303
60	22-111-90366	RECTIFIER DIODE,FR	3A,200V,FR303G(S)	PCS	1.000	D114
61	22-113-90012	RECTIFIER DIODE BRIDGE	1.5A,800V,KBP08	PCS	1.000	D101
62	23-121-00868	IC,TTL,LS,DIP	74LS86	PCS	1.000	IC601
63	23-121-01399	IC,TTL,LS,DIP	74LS139	PCS	1.000	IC603
64	23-171-95384	IC,4000 SERIES,C-MOS,DIP	4538B,DUAL,MONO-MULTI VIBRATOR,14	PCS	1.000	IC602
65	23-321-90048	IC,LINEAR,DIP	1180,TV HORIZONTAL,16	PCS	1.000	IC301
66	23-321-90208	IC,LINEAR,DIP	1203,RGB VIDEO AMP,28	PCS	1.000	IC401
67	23-321-90211	IC,LINEAR,DIP	4950,PIN-CUSHION CORRECTION,8	PCS	1.000	IC701
68	31-211-01853	MET-I,PRS,MAIN CHASSIS,SC-431VII/E	240 * 17 * 310,EGI 1.0T	PCS	1.000	
69	31-211-01639	MET-I,PRS,PCB BRKT,SC-431VII/EII	13 * 13 * 20,SBHGI	PCS	1.000	
70	33-425-00012	TS + ,BND,W/P.W.ZPW	M3 * 8,SWRCH1018AK	PCS	9.000	
71	33-612-00247	PS + PAN,ZPW	M4 * 12,SWHCH1018AK	PCS	1.000	
72	35-111-06378	LABEL,BAR CODE	65 * 20	PCS	1.000	
73	36-211-00422	WIREFORM,UL1007-AWG22	TCST,1ST,17X0.16,PVC,BK,250MM,DT	PCS	1.000	W-2
74	36-431-00104	WIRE,RING TER,SINGLE	BK,D5,53MM	PCS	1.000	
75	36-431-00366	WIRE,RING TER,SINGLE	120MM,GN,D4.3	PCS	1.000	W-3
76	36-615-00012	CONNECTOR SHROUDED HEADER	2.5,ST,2P,5267-02A	PCS	6.000	CN201 CN202 CN403 CN404 CN405 CN601
77	36-615-00024	CONNECTOR SHROUDED HEADER	2.5,ST,3P,5267-03A	PCS	3.000	CN301 CN402,CN801
78	36-615-00036	CONNECTOR SHROUDED HEADER	2.5,ST,4P,5267-04A	PCS	1.000	CN104
79	36-615-00075	CONNECTOR SHROUDED HEADER	2.5,ST,11P,5267-11A	PCS	1.000	CN401

ASS'Y NO		MG-108-01149		MODEL NO.	(SC-428VS 230V)	
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	MA-108-00713	A/S ASS'Y	MAIN/VIDEO/SMPS,FREE,ANALG	PCS	1.000	
2	01-123-00155	SUB ASS'Y,CPT SOCKET	ZIRCON I	PCS	1.000	
3	01-161-00684	SUB ASS'Y,HEAT SINK	SC-431VII/EII/VS,STR58041,90 * 57 * 60	PCS	1.000	
4	01-161-00776	SUB ASS'Y,HEAT SINK	TDA1675,50 * 18 * 50	PCS	1.000	
5	01-161-00788	SUB ASS'Y,HEAT SINK	MC7812CT,23.5 * 15 * 30,SC-431EII/VII	PCS	1.000	IC102
6	01-161-00963	SUB ASS'Y,HEAT SINK	2SD 1878,SC-431VS,96 * 32.3 * 89.6,AL 2	PCS	1.000	Q304
7	01-161-00975	SUB ASS'Y,HEAT SINK	BDW-43,SC-431VS,23.5 * 15 * 30	PCS	1.000	Q103
8	01-161-00987	SUB ASS'Y,HEAT SINK	BYW 96E,SC-431VS,32 * 22 * 1.2T	PCS	2.000	D304 D305
9	01-162-00012	SUB ASS'Y,SHIELD COVER	SC-428VS,TIN,WH,RING TER,124 * 102 * 43	PCS	1.000	
10	11-113-0108B	CAP,AL-ELECT,GP	1000UF,20%,16V,-40/85'C,RB,SMALL	PCS	1.000	C304
11	11-233-02277	CAP,AL-ELECT	220UF,20%,400V,-40/85'C,PT	PCS	1.000	C105
12	12-243-01021	CAP,DISC CERAMIC,CK	1000PF,10%,1KV,-25/85'C,EPOXY,RB	PCS	1.000	C302
13	12-287-04722	CAP,DISC CERAMIC,CK	4700 PF,20%,400VAC,EPOXY,RB	PCS	2.000	C110 C111
14	13-152-02241	CAP,METALZ-POLYESTER	0.22,UF,10%,100V,RB,CF93MM,OEM	PCS	3.000	
15	13-152-03342	CAP,METALZ-POLYESTER	0.33UF,10%,100V,RB	PCS	2.000	C801 C808
16	13-154-04746	CAP,METALZ-POLYESTER	0.47 UF,10%,100V,RB	PCS	2.000	C204 C310
17	13-154-92226	CAP,METALZ-POLYESTER	2200PF,10%,250VAC,RB	PCS	2.000	
18	13-154-93342	CAP,METALZ-POLYESTER	0.33UF,10%,115/250VAC,RB	PCS	1.000	
19	13-314-03936	CAP,PP	0.039 UF,5%,800V,RB	PCS	1.000	
20	13-317-05624	CAP,PP,HIGH-VOL	5600 PF,5%,1.6KV,RB	PCS	1.000	
21	13-311-01021	CAP,PP	2700 PF,5%,50V,RB	PCS	1.000	
22	13-354-01057	CAP,METALZ-PP	1 UF,5%,250V,RB	PCS	2.000	
23	13-354-02241	CAP,METALZ-PP	0.22UF,5%,250V,RB	PCS	1.000	
24	13-355-04734	CAP,METALZ-PP,GP	0.047UF,5%,800V,RB,CF93MP,OEM	PCS	1.000	
25	14-336-01R01	RES,METAL OXIDE,MINI,AB	1 HOM,1W,5%,FORMING	PCS	1.000	
26	14-336-01006	RES,METAL OXIDE,MINI,AB	10 HOM,1W,5%,FORMING	PCS	1.000	
27	14-336-02R22	RES,METAL OXIDE,AT	2.2 HOM,1W,5%	PCS	1.000	
28	14-336-02202	RES,METAL OXIDE,AT	22 OHM,1W,5%	PCS	1.000	R307
29	14-336-02716	RES,METAL OXIDE,AT	270 OHM,1W,5%	PCS	1.000	R327
30	14-336-05612	RES,METAL OXIDE,AT	560 OHM,1W,5%	PCS	1.000	R114
31	14-342-01R01	RES,METAL OXIDE,AB	1 OHM,2W,5%,FORMING	PCS	1.000	R328
32	14-342-06832	RES,METAL OXIDE,AB	68K OHM,2W,5%,FORMING	PCS	1.000	R103
33	14-352-01511	RES,METAL OXIDE,AB	150 OHM,3W,5%,FORMING	PCS	2.000	R216 R324
34	14-352-06805	RES,METAL OXIDE,AB	68 OHM,3W,5%,FORMING	PCS	1.000	R107
35	14-641-OR336	RES,WIRE WOUND,AB	0.33 OHM,1W,5%	PCS	1.000	R105
36	15-221-00182	VAR,NO-HANDLE,CAP,H-TYPE	10K OHM,B,0.2W,CET118A-B10K	PCS	2.000	VR302 VR303
37	15-221-00298	VAR,NO-HANDLE,CAP,H-TYPE	200K OHM,B,0.2W,CET119A-B200K	PCS	1.000	VR304
38	15-221-00739	VAR,NO-HANDLE,CAP,H-TYPE	3K OHM,B,0.2W	PCS	1.000	
39	15-221-00749	VAR,NO-HANDLE,CAP,H-TYPE	100 OHM,B,0.2W	PCS	3.000	VR401 VR402 VR403
40	15-222-00036	AVR,NO-HANDLE,CAP,V-TYPE	5K OHM,B,0.2W,CET92A-B5K	PCS	1.000	VR102

ASS'Y NO		MG-108-01149		MODEL NO.		(SC-428VS 230V)
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
41	15-222-00048	VAR,NO-HANDLE,CAT,V-TYPE	10K OHM,B,0.2W,CET92A-B10K	PCS	1.000	VR204
42	15-222-00051	VAR,NO-HANDLE,CAP,V-TYPE	100K OHM,B,0.2W,GET92A-H100H	PCS	2.000	VR203 VR802
43	15-222-00075	VAR,NO-HANDLE,CAP,V-TYPE	1K OHM,B,0.2W,CET92A-B1K	PCS	1.000	VR702
44	15-222-00087	VAR,NO-HANDLE,CAP,V-TYPE	20K OHM,B,0.2W,CET92A-B20K	PCS	1.000	VR701
45	15-222-00099	VAR,NO-HANDLE,CAP,V-TYPE	500 OHM,B,0W,GET92A-B500	PCS	1.000	VR101
46	15-621-90036	THERMISTOR,PTC	18 OHM,30%,220V,PTH451C262BG180N270	PCS	1.000	TH102
47	15-622-90024	THERMISTOR,NTC	5 OHM,3.4A,2.4W	PCS	1.000	TH101
48	17-116-00194	TRANS,POWER,SWITCHING	SC-428VS,115/230V,14PIN	PCS	1.000	T101
49	17-122-90063	FBT,COLOR	Y261741,35KHZ MAX,VGA	PCS	1.000	T302
50	17-132-00155	COIL,TRANS,H-DRIVE	10MH/70UH,15%,SC-431VII	PCS	1.000	T301
51	17-211-00155	COIL,MODULATION	/LITZ,USTC,177UH/185UH,SC-431VS/428V	PCS	1.000	L301
52	17-222-00087	COIL,CHOKE	50UH+ - 15%,SC-431EII/VII	PCS	4.000	L103 L104 L105
						L106
53	17-222-00211	COIL,CHOKE	2MH,15%,SC-431VS	PCS	1.000	L701
54	17-226-00051	COIL,H-LIN,FIX	10UH,SC-431E	PCS	1.000	L302
55	17-311-00223	FILTER,LINE	20MH,SC-431EII/VII VE/VS	PCS	1.000	LF101
56	19-103-90087	FULSE TIMELAG WITHOUT LEAD	3.15A,250V,COLOR BAND	PCS	1.000	F101
57	19-113-00012	FUSE CLIP	5.20 * 2.80MM,30A/300V,FC51A2	PCS	2.000	F101
58	21-117-00131	TR NPN TO-220	0.2A,300V,15W(TC),CR O/P,KSC1507Y	PCS	1.000	Q303
59	22-111-90366	RECTIFIER DIODE,FR	1.5A,100V,RGP15B/FF1504	PCS	1.000	
60	22-113-90012	RECTIFIER DIODE BRIDGE	1.5A,800V,KBP08	PCS	1.000	D101
61	23-121-00868	IC,TTL,LS,DIP	74LS86	PCS	1.000	IC601
62	23-121-01399	IC,TTL,LS,DIP	74LS139	PCS	1.000	IC603
63	23-171-95384	IC,4000 SERIES,C-MOS,DIP	4538B,DUAL,MONO-MULTI VIBRATOR,14	PCS	1.000	IC602
64	23-321-90048	IC,LINEAR,DIP	1180,TV HORIZONTAL,16	PCS	1.000	IC301
65	23-321-90208	IC,LINEAR,DIP	1203,RGB VIDEO AMP,28	PCS	1.000	IC401
66	23-321-90211	IC,LINEAR,DIP	4950,PIN-CUSHION CORRECTION,8	PCS	1.000	IC701
67	31-211-01853	MET-I,PRS,MAIN CHASSIS,SC-431VII/E	240 * 17 * 310,EGI 1.0T	PCS	1.000	
68	31-211-01639	MET-I,PRS,PCB BRKT,SC-431VII/EII	13 * 13 * 20,SBHGI	PCS	1.000	
69	33-425-00012	TS+,BND,W/P.W.ZPW	M3 * 8,SWRCH1018AK	PCS	9.000	
70	33-612-00247	PS+PAN,ZPW	M4 * 12,SWHCH1018AK	PCS	1.000	
71	35-111-06378	LABEL,BAR CODE	65 * 20	PCS	1.000	
72	36-241-00422	WIREFORM;UL1007-AWG22	TCST,1ST,17X0.16,PVC,BK,250MM,DT	PCS	1.000	W-2
73	36-431-00104	WIRE,RING TER,SINGLE	BK,D5,53MM	PCS	1.000	
74	36-431-00366	WIRE,RING TER,SINGLE	120MM,GN,D4.3	PCS	1.000	W-3
75	36-615-00012	CONNECTOR SHROUDED HEADER	2.5,ST,2P,5267-02A	PCS	6.000	CN201 CN202 CN403
						CN404 CN405 CN601
76	36-615-00024	CONNECTOR SHROUDED HEADER	2.5,ST,3P,5267-03A	PCS	3.000	CN301 CN402 CN801
77	36-615-00036	CONNECTOR SHROUDED HEADER	2.5,ST,4P,5267-04A	PCS	1.000	CN104
78	36-615-00075	CONNECTOR SHROUDED HEADER	2.5,ST,11P,5267-11A	PCS	1.000	CN401

ASSY NO		MG-108-0713		MODEL NO		
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	11-137-02277	CAP,AL-ELECT,GP	220UF,20%,100V,-40/85°C,RT	PCS	1,000	
2	11-192-0106B	CAP,AL-ELECT,GP	10UF,20%,16V,-40/85°C,RT	PCS	5,000	C401 C402 C403 C601 C602
3	11-192-0107B	CAP,AL-ELECT,GP	100UF,20%,16V,-40/85°C,RT,SMALL	PCS	6,000	C132 C214 C404 C414 C416 C610
4	11-192-0476B	CAP,AL-ELECT,GP	47UF,20%,16V,-40/85°C,RT	PCS	1,000	C608
5	11-193-0226B	CAP,AL-ELECT,GP	22UF,20%,25V,-40/85°C,RT	PCS	1,000	C704
6	11-193-02277	CAP,AL-ELECT,GP	220UF,20%,25V,-40/85°C,RT	PCS	1,000	C129
7	11-109-02289	CAP,AL-ELECT,GP	2200UF,20%,25V,-40/85°C,RT	PCS	1,000	C213
8	11-194-01072	CAP,AL-ELECT,GP	100UF,20%,35V,-40/85°C,RT	PCS	2,000	C25 C701
9	11-194-01084	CAP,AL-ELECT,GP	1000UF,20%,35V,-40/85°C,RT	PCS	1,000	C206
10	11-194-02277	CAP,AL-ELECT,GP	220UF,20%,35V,-40/85°C,RT	PCS	2,000	C207 C804
11	11-194-0476B	CAP,AL-ELECT,GP	47UF,20%,35V,-40/85°C,RT,SMALL	PCS	1,000	C315
12	11-194-0477B	CAP,AL-ELECT,GP	470UF,20%,35V,-40/85°C,RT	PCS	3,000	C124 C125 C128
13	11-195-0105B	CAP,AL-ELECT,GP	1UF,20%,50V,-40/85°C,RT	PCS	4,000	C208 C306 C419 C703
14	11-195-0336B	CAP,AL-ELECT,GP	33UF,20%,50V,-40/85°C,RT,SMALL	PCS	1,000	C107
15	11-195-0475B	CAP,AL-ELECT,GP	4.7UF,20%,50V,-40/85°C,RT	PCS	4,000	C309 C313 C406 C802
16	11-196-0106B	CAP,AL-ELECT,GP	10UF,20%,100V,-40/85°C,RT,SMALL	PCS	1,000	C109
17	11-196-04761	CAP,AL-ELECT,GP	47UF,20%,100V,-40/85°C,RT	PCS	1,000	C121
18	11-197-01069	CAP,AL-ELECT,GP	10UF,20%,160V,-40/85°C,RT	PCS	1,000	C809
19	11-197-01072	CAP,AL-ELECT,GP	100UF,20%,160V,-40/85°C,RT	PCS	1,000	C117
20	11-197-04761	CAP,AL-ELECT,GP	47UF,20%,160V,-40/85°C,RT	PCS	3,000	C113 C114 C118
21	11-198-01069	CAP,AL-ELECT,GP	10UF,20%,250V,-40/85°C,RT	PCS	1,000	C807
22	11-199-02265	CAP,AL-ELECT,GP	22UF,20%,200V,-40/85°C,RT	PCS	1,000	C322
23	12-182-03303	CAP,DISC CERAMIC,CC45	33PF,5%,50V,-25/85°C,RT,TC	PCS	3,000	C417 C418 C420
24	12-191-01018	CAP,DISC CERAMIC,CC45	100PF,10%,50V,-25/85°C,RT,TC	PCS	2,000	C812
25	12-193-04707	CAP,DISC CERAMIC,CC	47PF,5%,500V,-25/85°C,RT	PCS	2,000	C810 C811
26	12-331-04722	CAP,DISC CERAMIC,CK	4700PF,10%,50V,-25/85°C,RT	PCS	1,000	C316
27	12-334-01021	CAP,DISC CERAMIC,CK45	1000PF,10%,500V,-25/85°C,RT,HDC	PCS	1,000	C314
28	12-334-02716	CAP,DISC CERAMIC,CK-45	270PF,10%,500V,-25/85°C,RT	PCS	4,000	C112 C116 C119 C806
29	12-335-01033	CAP,DISC CERAMIC,CK	0.01UF,-20/80%,500V,-25/85°C,RT	PCS	2,000	C115 C122
30	12-371-01033	CAP,DISC CERAMIC,CK	0.01UF,-20/80%,50V,-25/85°C,RT	PCS	2,000	C415 C604
31	12-371-01045	CAP,DISC CERAMIC,CK-45	0.1UF,-20/80%,50V,-25/85°C,RT	PCS	19,000	C123 C126 C127 C130 C131 C205 C209 C405 C407 C408 C409 C410 C411 C412 C413 C607 C609 C702 C805
32	12-371-02238	CAP,DISC CERAMIC,CK45	0.022UF,-20/80%,50V,-25/85°C,RT,HDC	PCS	1,000	C108
33	13-126-01033	CAP,IND-POLYESTER	0.01UF,10%,100V,RT,CQ92MT	PCS	2,000	C307 C308
34	13-126-01045	CAP,IND-POLYESTER	0.1UF,10%,100V,RT,CQ92MT	PCS	5,000	C201 C210 C211 C301 C303
35	13-126-04722	CAP,IND-POLYESTER	0.0047UF,10%,100V,RT	PCS	1,000	C705
36	13-126-04734	CAP,IND-POLYESTER	0.047UF,10%,100V,-,RT	PCS	1,000	C706
37	14-121-01081	RES,CARBON,AT	100 OHM,1/6W,5%	PCS	1,000	R604
38	14-121-01021	RES,CARBON,AT	1K OHM,1/6W,5%	PCS	4,000	R219 R314 R615 R630

SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
39	14-121-01033	RES,CARBON,AT	10K OHM,1/6W,5%	PCS	3.000	R329 R812 R203 R305
40	14-121-01045	RES,CARBON,AT	100K OHM,1/6W,5%	PCS	2.000	R211 R810
41	14-121-01217	RES,CARBON,AT	120 OHM,1/6W,5%	PCS	1.000	R218
42	14-121-01229	RES,CARBON,AT	1.2K OHM,1/6W,5%	PCS	1.000	R318
43	14-121-01232	RES,CARBON,AT	12K OHM,1/6W,5%	PCS	6.000	R312 R608 R612 R614 R704 R709
44	14-121-01523	RES,CARBON,AT	1.5K OHM,1/6W,5%	PCS	4.000	R601 R603 R803 R804
45	14-121-01559	RES,CARBON,AT	1.5M OHM,1/6W,5%	PCS	1.000	R301
46	14-121-01826	RES,CARBON,AT	1.8K OHM,1/6W,5%	PCS	1.000	R708
47	14-121-01838	RES,CARBON,AT	18K OHM,1/6W,5%	PCS	3.000	R118 R707
48	14-121-02R22	RES,CARBON,AT	2.2 OHM,1/6W,5%	PCS	1.000	R215
49	14-1221-02214	RES,CARBON,AT	220 OHM,1/6W,5%	PCS	3.000	R410 R413 R416
50	14-121-02226	RES,CARBON,AT	2.2K OHM,1/6W,5%	PCS	6.000	R206 R217 R408 R613 R616 R617
51	14-121-02238	RES,CARBON,AT	22K OHM,1/6W,5%	PCS	4.000	R308 R703 R706 R611
52	14-121-02241	RES,CARBON,AT	220K OHM,1/6W,5%	PCS	1.000	R606
53	14-121-02728	RES,CARBON,AT	2.7K OHM,1/6W,5%	PCS	10.000	R302 R313 R405 R418 R607 R609 R624 R627 R811 R813
54	14-134-01838	RES,CARBON,AT	8K Ω ,41/4W,5%	PCS	1.000	R407
55	14-121-02743	RES,CARBON,AT	270K OHM,1/6W,5%	PCS	1.000	R309
56	14-121-03327	RES,CARBON,AT	3.3K OHM,1/6W,5%	PCS	1.000	R319
57	14-121-03912	RES,CARBON,AT	390 OHM,1/6W,5%	PCS	4.000	R411 R414 R417 R602
58	14-121-03936	RES,CARBON,AT	39K OHM,1/6W,5%	PCS	1.000	R702
59	14-121-04707	RES,CARBON,AT	47 OHM,1/6W,5%	PCS	1.000	R326
60	14-121-04722	RES,CARBON,AT	4.7 OHM,1/6W,5%	PCS	5.000	R201 R207 R311 R605 R629
61	14-121-04734	RES,CARBON,AT	47K OHM,1/6W,5%	PCS	1.000	R802
62	14-121-05107	RES,CARBON,AT	51 OHM,1/6W,5%	PCS	3.000	R409 R412 R415
63	14-121-05612	RES,CARBON,AT	560 OHM,1/6W,5%	PCS	1.000	R322
64	14-121-05624	RES,CARBON,AT	5.6K OHM,1/6W,5%	PCS	3.000	R209 R404 R406
65	14-121-06817	RES,CARBON,AT	680 OHM,1/6W,5%	PCS	1.000	R321
66	14-121-06844	RES,CARBON,AT	680K OHM,1/6W,5%	PCS	2.000	R213 R330
67	14-121-07508	RES,CARBON,AT	75 OHM,1/6W,5%	PCS	3.000	R401 R402 R403
68	14-121-08226	RES,CARBON,AT	8.2K OHM,1/6W,5%	PCS	1.000	R202
69	14-121-08238	RES,CARBON,AT	82K OHM,1/6W,5%	PCS	2.000	R306 R315
70	14-122-01547	REC,CARBON,AT	150K OHM,1/6W,2%	PCS	1.000	R622
71	14-122-03339	RES,CARBON,AT	33K OHM,1/6W,2%	PCS	1.000	R621
72	14-122-03621	RES,CARBON,AT	3.6K OHM,1/6W,2%	PCS	1.000	R620
73	14-122-04722	RES,CARBON,AT	4.7K OHM,1/6W,2%	PCS	1.000	R623
74	14-122-05636	RES,CARBON,AT	56K OHM,1/6W,2%	PCS	2.000	R303 R610
75	14-122-06829	RES,CARBON,AT	6.8K OHM,1/6W,2%	PCS	2.000	R210 R316
76	14-122-06832	RES,CARBON,AT	68K OHM,1/6W,2%	PCS	3.000	R212 R214 R317
77	14-134-01018	RES,CARBON,AT	100 OHM,1/4W,5%	PCS	3.000	R111 R113 R119

ASS'Y NO		MG-108-0713		MODEL NO.		
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
78	14-134-01021	RES,CARBON,AT	1K OHM,1/4W,5%	PCS	5.000	R106 R108 R618 R625 R801
79	14-134-01033	RES,CARBON,AT	10K OHM,1/4W,5%	PCS	1.000	R116
80	14-134-01226	RES,CARBON,AT	1.2K OHM,1/4W,5%	PCS	1.000	R626
81	14-134-01547	RES,CARBON,AT	150K OHM,1/4W,5%	PCS	1.000	R115
82	14-142-04719	RES,CARBON,AT	1.8K OHM,1/4W,5%	PCS	1.000	R221
83	14-134-02202	RES,CARBON,AT	22 OHM,1/4W,5%	PCS	1.000	R208
84	14-134-02704	RES,CARBON,AT	27 OHM,1/4W,5%	PCS	1.000	R805
85	14-134-02743	RES,CARBON,AT	270K OHM,1/4W,5%	PCS	1.000	R808
86	14-134-03303	RES,CARBON,AT	33 OHM,1/4W,5%	PCS	2.000	R104 R110
87	14-134-04734	RES,CARBON,AT	47K OHM,1/4W,5%	PCS	1.000	R117
88	14-134-06829	RES,CARBON,AT	6.8K OHM,1/4W,5%	PCS	1.000	R206
89	14-142-OR508	RES,CARBON,AT	0.5 OHM,1/2W,5%	PCS	1.000	R121
90	14-142-01021	RES,CARBON,AT	1K OHM,1/2W,5%	PCS	1.000	R809
91	14-142-01045	RES,CARBON,AT	100K OHM,1/2W,5%	PCS	1.000	R310
92	14-142-01057	RES,CARBON,AT	1M OHM,1/2W,5%	PCS	1.000	R101
93	14-142-01244	RES,CARBON,AT	120K OHM,1/2W,5%	PCS	1.000	R120
94	14-142-01547	RES,CARBON,AT	150K OHM,1/2W,5%	PCS	1.000	R112
95	14-142-02R22	RES,CARBON,AT	2.2 OHM,1/2W,5%	PCS	2.000	R325 R806
96	14-142-02042	RES,CARBON,AT	200K OHM,1/2W,5%	PCS	1.000	R807
97	14-142-02214	RES,CARBON,AT	220 OHM,1/2W,5%	PCS	1.000	R619
98	14-142-03303	RES,CARBON,AT	33 OHM,1/2W,5%	PCS	2.000	R109 R701
99	14-142-04722	RES,CARBON,AT	4.7K OHM,1/2W,5%	PCS	1.000	R323
100	14-142-05648	RES,CARBON,AT	560K OHM,1/2W,5%	PCS	1.000	R102
101	16-111-01045	PCB,SC-431VS(R),MAIN	FR-1,1.6T	PCS	1.000	
102	17-223-00104	COIL,INDUCTOR	4.7UH+ -10%,AT	PCS	1.000	L401
103	17-313-00063	FILTER,CORE	2.4UH,5.6MM,BEAD,0.032 OHM,CGA/VII	PCS	2.000	L102 L402
104	21-114-00036	TR NPN TO-92	0.7A,80V,800MA,LF AMP, KSC1008Y	PCS	2.000	Q101 Q102
105	21-114-00048	TR NPN TO-92	0.15A,60V,0.4W,LF AMP,KTC3198GR/181	PCS	8.000	Q201 Q302 Q601 Q605 Q606 Q607 Q608 Q801
106	21-114-00104	TR NPN TO-92	700MA,160V,800MW,HV AMP,KSC1009	PCS	2.000	Q104 Q106
107	21-114-00116	TR NPN TO-92	700MA,80V,0W,LF AMP,KSC2331	PCS	3.000	Q202 Q802 Q803
108	21-114-00223	TR NPN TO-92	100MA,50V,SW,KSR1002,BR	PCS	3.000	Q602 Q603 Q604
109	21-124-00048	TR PNP TO-92	100MA,50V,300MW,SW,KSR2002,BR	PCS	1.000	Q301
110	21-124-00155	TR PNP TP-92	0.7A,80V,1W,LF AMP,KSA931.1	PCS	1.000	Q203
111	22-111-90012	RECTIFIER DIODE FR	1A,1000V,MR818/GI818	PCS	1.000	D102
112	22-111-90087	RECTIFIER DIODE FR	1A,600V,1N4937	PCS	4.000	D103 D104 D105 D106
113	22-111-90167	RECTIFIER DIODE FR	1.5A,400V,RGP15G/FF1504	PCS	8.000	D107 D108 D109 D110 D11 D112 D113 D802
114	22-112-90048	RECTIFIER DIODE GP	1A,400V,1N4004	PCS	6.000	D202 D701 D702 D801 D804 D805
115	22-121-00036	ZENER DIODE	0.5W,3.3V,UZ3.3B	PCS	1.000	D203
116	22-121-00051	ZENER DIODE	0.5W,5.1V,UZ5.1B	PCS	1.000	D601
117	22-121-00116	ZENER DIODE	0.5W,12V,UZ12B	PCS	2.000	D302 D704

ASS'Y NO		MG-108-0713			MODEL NO.	
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
118	22-132-00048	SWITCHING DIODE	100MA,75V,1N4148	PCS	13.000	D201 D303 D401 D402 D403 D602 D603 D604 D605 D606 D607 D703 D802
119	31-131-00012	BEAD PIN	D2.36 * 14.1,BRASS,SN	PCS	12.000	
120	36-181-00012	WIRE,BARE	CU+SN+PB,1ST,1X0.6,SAD	KG	.056	

ASS'Y NO		01-123-00155			MODEL NO.	
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	MA-094-00696	A/S ASS'Y	SOCKET	PCS	1.000	Q501R Q501G Q501B
2	01-161-00999	SUB ASS'Y,HEAT SINK	SC-431VS,2SCC3502E,BK,23.5 * 15 * 15	PCS	3.000	
3	11-197-01069	CAP,AL-ELECT,GP	10UF,20%,160V,-40/85'C,RT	PCS	1.000	
4	12-246-02728	CAP,DISC CERAMIC,CK-45	2700PF,10%,2KV,-25/85'C,RB	PCS	1.000	C509
5	12-336-01033	CAP,DISC,CERAMIC,CK	0.01UF,-20/80%,500V,-25/85'C,RT	PCS	1.000	C507
6	13-911-00024	CAP,SPARK,GAP	1KV,S-23	PCS	1.000	SG501
7	14-352-01523	RES,METAL OXIDE,AB	1.5K OHM,3W,5%,FORMING	PCS	3.000	R504R R504G R504B
8	15-221-00752	VAR,NO-HANDLE,CAP,H-TYPE	50K OHM,B,0.2W	PCS	3.000	VR501R VR501G VR501B
9	17-220-00024	COIL,PEAKING	5.6UH+ - 10%,RT	PCS	3.000	L501R L501G L501B
10	21-112-90024	TR NPN TO-18	200MA,40V,360MW,SW,2N2369A	PCS	2.000	Q502R Q502G Q502B
11	21-115-00063	TR NPN TO-126	100MA,200V,5W(TC),V/D OUT,KSC3502E	PCS	3.000	Q503R Q503G Q503B
12	21-125-00012	TR PNP TO-126	100MA,300V,7W(TC),V/D OUT,KSA1381	PCS	3.000	Q504R Q504G Q504B
13	36-211-00354	WIREFORM,UL1007-AWG22	TCST,1ST,7X0.26,PVC,R,190MM,DT	PCS	1.000	G1
14	36-412-00606	WIRE,CONN/HOUSING	160MM,49,W,2.5,R,Y,W,BK	PCS	1.000	CN104
15	36-414-00315	WIRE,CONN/HOUSING	380MM,6P,W,2.5,R,G,B	PCS	1.000	CDT GND
16	36-613-00208	CONNECTOR,OPEN HEADER	10,ST,2P,BW-502L	PCS	1.000	CN503
17	36-615-00036	CONNECTOR SHROUDED HEADER	2.5,ST,4P,5267-04A	PCS	1.000	CN502
18	36-615-00298	CONNECTOR SHROUDED HEADER	2.5,ST,6P,5267-06A2	PCS	1.000	CN501
19	36-633-90063	CRT SOCKET	29DIA.12P,HPS0176-01,010	PCS	1.000	

ASS'Y NO		01-161-00684			MODEL NO.	
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	23-322-00104	IC,LINEAR,SIP-5	STR58041	PCS	1.000	
2	31-144-00327	JEAT SINK-N,SC-431EII/VII	90 * 60 * 57,AL 2.0T	PCS	1.000	
3	33-142-00036	MS+,PAN,W/P.W,ZPW	M3 * 12.5,SWRCH1018AK	PCS	1.000	
4	33-852-00012	UNT,HEX,2,ZPW	M3 * 0.5P,S10C	PCS	1.000	
5	35-111-05081	LABEL,WARNING,SC-431EII/VII	HIGH VOLTAGE	PCS	1.000	

ASS'Y NO		01-161-00776			MODEL NO.	
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	23-329-90075	IC,LINEAR,SPECIAL	TDA1670/1675,VERT-DEFLECTION,15	PCS	1.000	IC201
2	31-114-00393	HEAT SINK-N,SC-431VII/EII	50 * 18 * 50,AL,W/SOLDER PIN	PCS	1.000	
3	33-142-00012	MS+,PAN,W/P.W,ZPW	M3 * 8,SWRCH1018AK	PCS	1.000	
4	33-852-00012	NUT,HEX,2,ZPW	M3 * 0.5P,S10C	PCS	1.000	

ASSY NO		01-161-00788			MODEL NO.	
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	23-312-00048	IC,REGULATOR,TO-220	7812C,1.5A,12V	PCS	1.000	
2	31-114-00381	HEAT SINK-N,SC-431VII/EII	30*15-23.5,AL,W/SOLDER PIN	PCS	1.000	
3	33-142-00012	MS+,PAN,W/P.W,ZPW	M3*8,SWRCH1018AK	PCS	1.000	

ASSY NO		01-161-00963			MODEL NO.	
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	21-117-90145	TR NPN TP-220	5A,1500V,60W(TC),VER DEF,2SD1878	PCS	1.000	Q304
2	31-114-00485	HEAT SINK-N,SC-431VS	96*32.3*89.6,AL 2.0T	PCS	1.000	
3	33-142-00024	MS+,PAN,W/P.W,ZPW	M3*10,SWRCH1018AK	PCS	1.000	
4	33-852-00012	NUT,HEX,2,ZPW	M3*0.5P,S10C	PCS	1.000	

ASSY NO		01-161-00975			MODEL NO.	
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	21-117-90099	TR NPN TO-220	15A,120V,85W(TC),PW,BW43,COM	PCS	1.000	Q103
2	31-114-00381	HEAT SINK-N,SC-431VII/EII	30*15-23.5,AL,W/SOLDER PIN	PCS	1.000	
3	33-142-00012	MS+,PAN,W/P.W,ZPW	M3*8,SWRCH1018AK	PCS	1.000	

ASSY NO		01-161-00987			MODEL NO.	
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	22-111-90048	RECTIFIER DIODE FR	3A,1000V,BYW96E/BYT78,SC-431VS	PCS	1.000	D304
2	31-114-00167	HEAT SINK-N,TERMINAL	22*5.7*32,CU,ZPW	PCS	1.000	

ASSY NO		01-162-00012			MODEL NO.	
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	31-129-00366	SHIELD COVER,SOCKET,SC-431VS	124*102*43,TINO,3T	PCS	1.000	
2	36-437-00194	BRAID WIRE,RING,W/TUBE	D5*120MM	PCS	1.000	

ASS'Y NO		01-094-00696		MODEL NO.		
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	11-193-0476B	CAP,AL-ELECT,GP	47UF,20%,25V,-40/85°C,RT,SMALL	PCS	3.000	C502R C502G C502B
2	11-197-01057	CAP,AL-ELECT,GP	1UF,20%,160V,-40/85°C,RT	PCS	3.000	C505R C505G C505B
3	12-182-01018	CAP,DISC CERAMIC,CC	100PF,5%,50V,-25/85°C,RT	PCS	3.000	C503R C503G C503B
4	12-331-01021	CAP,DISC CERAMIC,CK	1000PF,10%,50V,-25/85°C,RT	PCS	3.000	C504R C504G C504B
5	12-334-01018	CAP,DISC CERAMIC,CK45	100PF,10%,500V,-25/85°C,RT,HDC	PCS	1.000	C508
6	12-381-01006	CAP,DISC CERAMIC,CC	10PF,0.5PF,50V,-25/85°C,RT	PCS	3.000	C506R C506G C506B
7	14-134-01511	RES,CARBON,AT	150 OHM,1/4W,5%	PCS	3.000	R503R R503G R503B
8	14-134-04707	RES,CARBON,AT	47 OHM,1/4W,5%	PCS	6.000	R506R R506G R506B R507R R507G R507B
9	14-134-05636	RES,CARBON,AT	56K OHM,1/4W,5%	PCS	3.000	R508R R508G R508B
10	14-142-01018	RES,CARBON,AT	100 OHM,1/2W,5%	PCS	3.000	R509R R509G R509B
11	14-412-01018	RES,METAL,AT	100 OHM,1/8W,5%	PCS	3.000	R501R R501G R501B
12	14-412-04707	RES,METAL,AT	47 OHM,1/8W,5%	PCS	3.000	R502R R502G R502B
13	14-412-04722	RES,METAL,AT	4.7K OHM,1/8W,5%	PCS	3.000	R505R R505G R505B
14	14-412-08238	RES,METAL,AT	82K OHM,1/8W,5%	PCS	3.000	R510R R510G R510B
15	16-111-00963	PCB,FR-1,1.6T	SOCKET,ZIRCON-1/2	PCS	1.000	
16	22-111-90087	RECTIFIER DIODE FR	1A,600V,1N4937	PCS	1.000	D505
17	22-121-00167	ZENER DIODE	0.5W,24V,UZ24B	PCB	3.000	D503R D503G D503B
18	22-121-00366	ZENER DIODE	0.5W,10V,MTX 10C	PCS	3.000	D504R D504G D504B
19	22-132-00048	SWITCHING DIODE	100MA,75V,1N4148	PCS	6.000	D501R D501G D501B D502R D502G D502B
20	36-181-00012	WIRE,BARE	CU+SN+PB,1ST,1X0.6,SAD	KG		

ASS'Y NO		01-161-00999		MODEL NO.		
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	21-115-00063	TR NPN TO-126	100MA,200V,5W(TC),V/D OUT,KSC3502E	PCS	1.000	
2	31-114-00339	HEAT SINK-N,SC-431VII/EII	23.5*15*15,AL	PCS	1.000	
3	33-142-00012	MS+,PAN,W/P.W,ZPW	MS*8,SWRCH1018AK	PCS	1.000	

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SC-428VSL 230V

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1-2	M6-106-02396	21EA	SC-428VSL 230V
2	MJ-106-01996	53EA	
3	01-141-00208	6EA	SUB-ASS'Y, PUSH S/W
4	01-151-00342	7EA	SUB-ASS'Y, VOLUME
5	01-173-00936	17EA	SUB-ASS'Y, BACK PLATE
6	01-183-00099	3EA	SUB-ASS'Y, LED
7	MG-106-00805	97EA	
8	01-123-00155	34EA	SUB-ASS'Y, CPT SOCKET
9	MA-094-00696	57EA	
10	01-161-00684	5EA	SUB-ASS'Y, HEAT SINK STR 58041
11	01-161-00776	4EA	SUB-ASS'Y, HEAT SINK TDA 1675
12	01-161-00788	3EA	SUB-ASS'Y, HEAT SINK MC7812CT
13	01-161-00963	4EA	SUB-ASS'Y, HEAT SINK 2SD 1878
14	01-161-00975	3EA	SUB-ASS'Y, HEAT SINK BDW-43
15	01-161-00987	2EA	SUB-ASS'Y, HEAT SINK BYW 96E
16	01-162-00012	2EA	SUB-ASS'Y, SHIELD COVER
17	MA-106-00713	291EA	
		EA	
		EA	
		EA	
		EA	
		EA	
		EA	

ASS'Y NO		M6-106-02384		MODEL NO.	SC-428VSL 115V	
SEQ	P/N	DESCRIPTION	S P E C	UNIT	QTY	CKT NO.
1	MJ-106-01996	COLOR SET CHASSIS ASS'Y	FREE,ANALG,0.28V	PCS	1.000	
2	02-121-00497	ASS'Y,STAND	SC-441V,AF303-11084	PCS	1.000	
3	02-141-01096	ASS'Y,MANUAL, USER'S,SC-431VSL/428V	SED	PCS	1.000	
4	19-172-00012	FERRITE SHEET	PST 10*90(FS200)3M	PCS	1,500	
5	32-111-01574	PLA,EXT-H,REAR,SC-431VII/EII	313.4*294.5*352.8,ABS,AF303-11084	PCS	1.000	
6	33-191-00051	MS,SPL,PCN,W/P.W,ZPW	M4*12,SWRCH1018AK	PCS	4.000	
7	33-485-00012	TS+,OVAL,2,ZPW	M3*12,SWRCH1018AK	PCS	3.000	
8	33-612-00051	PS+PAN,ZPW	M3.5*10,SWRCH1018AK	PCS	1.000	
9	34-111-02306	BOX,SC-428VSL,SED	440*457*440,240ST,A200*K200*A200*KA	PCS	1.000	
10	34-211-00274	S/FOAM,SC-431VII/EII,SET	251*428*95,EPS	PCS	1.000	
11	34-311-00473	VINYL BAG,SET	800*880,HDPE 0.02T	PCS	1.000	
12	34-311-00497	VINYL BAG,S/CABLE	110*200,HDPE 0.05T	PCS	1.000	
13	35-111-05571	LABEL,BOX	PRODUCT ID SHEET,115V	PCS	1.000	
14	35-111-07244	LABEL,PRODUCT,SED,SC-428VSL	99.8*49.8,UL/CSA/TUV,GS,OEM-3357	PCS	1.000	
15	35-211-01137	LOGO,SAMTRON	60.3*17.5*0.25T,PC,11084	PCS	1.000	
16	36-521-00179	CORD,POWER,NONMAL,DETACH	SVT,125V/7A,BE,6FT	PCS	1.000	

ASS'Y NO		M6-106-02396		MODEL NO.	(SC-428VSL 230V)	
SEQ	P/N	DESCRIPTION	S P E C	UNIT	QTY	CKT NO.
1	MJ-106-01996	COLOR SET SHASSIS ASS'Y	FREE,ANALG,0.28V	PCS	1.000	
2	02-121-00479	ASS'Y,STAND	SC-441V,AF303-11084	PCS	1.000	
3	02-141-01096	ASS'Y,MANUAL,USER'S,SC-431VSL/428V	SED	PCS	1.000	
4	19-172-00012	FERRITE SHEET	PST 10*90(FS200)3M	PCS	1,500	
5	32-111-01574	PLA,EXT-H,REAR,SC-431VII/EII	313.4*294.5*352.8,ABS,AF303-11084	PCS	1.000	
6	33-191-00051	MS,SPL,PCN,W/P.W,ZPW	M4*12,SWRCH1018AK	PCS	4.000	
7	33-485-00012	TS+,OVAL,2,ZPW	M3*12,SWRCH1018AK	PCS	3.000	
8	33-612-00051	PS+PAN,ZPW	M3.5*10,SWRCH1018AK	PCS	1.000	
9	34-111-02306	BOX,SC-428VSL,SED	444*400*440,240ST*A200*K200*A200*KA	PCS	1.000	
10	34-211-00274	S/FOAM,SC-431VII/EII,SET	251*428*95,EPS	PCS	1.000	
11	34-311-00473	VINYL BAG,SET	800*880,HDPE 0.02T	PCS	1.000	
12	34-311-00497	VINYL BAG,S/CABLE	110*200,HDPE 0.05T	PCS	1.000	
13	35-111-05568	LABEL,BOX	PRODUCT 1D SHEET,230V	PCS	1.000	
14	35-111-07244	LABEL,PRODUCT,SED,SC-428VSL	99.8*49.8,UL/CSA/TUV,GS,OEM-3357	PCS	1.000	
15	35-211-01137	LOGO,SAMTRON	60.3*17.5,0.25T,PC,11084	PCS	1.000	
16	36-521-90048	CORD,POWER,NORMAL,DETACH	H05VV-F,250V,BK,6FT	PCS	1.000	

ASS'Y NO		MJ-106-01996			MODEL NO.	
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	MG-106-00805	PCB ASS'Y	FREE,ANALG,M,V,S	PCS	1.000	
2	01-141-00208	SUB ASS'Y,PUSH SW	SC-431VII/EII,POWER,2P,190MM	PCS	1.000	
3	01-151-00342	SUB ASS'Y,VOLUME	SC-431VS/428VS,10K/20K OHM,ABS,OEM3	PCS	1.000	
4	01-173-00936	SUB ASS'Y,BACK PLATE W/CABLE	SC-4 * * VS(R),1720MM,ABS,OEM-3357	PCS	1.000	
5	01-183-00099	SUB ASS'Y,LED	SC-431EII/VII,GREEN,SLB25MG3,220MM	PCS	1.000	
6	01-211-90458	ASS'Y,CDT	M34KNM23 * * 08,0.28P,14",VLMF,350MG	PCS	1.000	
7	17-224-00128	COIL,DEGAUSSING	120+ - 1T,0.3D,30.5 OHM,1040MM	PCS	1.000	
8	31-121-00131	SPRING,COMPRESSION,S/W,CGA	D11 * L17 * WD0.6,SPS	PCS	1.000	
9	31-211-00868	MET-I,PRS,SIG. GND CLIP,STD,FST	ET,0.3T	PCS	1.000	
10	31-211-01324	MET-I,PRS,BOTTOM CHASSIS,SC-431VII	285 * 238 * 0.8,EGI 0.8T	PCS	1.000	
11	31-211-01336	MET-I,PRS,TOP BRKT L/H,SC-431VII/E	54.5 * 12 * 20,EGI	PCS	1.000	
12	31-211-01348	MET-I,PRS,TOP BRKT R/H,SC-431VII/E	54.5 * 12 * 20,EGI	PCS	1.000	
13	31-211-01351	MET-I,PRS,BRACE L/H,SC-431VII/EII	52.5 * 149 * 70,EGI 1.2T	PCS	1.000	
14	31-211-01363	MET-I,PRS,BRACE R/H,SC-431VII/EII	52.5 * 149 * 70,EGI 1.2T	PCS	1.000	
15	32-111-01678	PLA,EXT-H,FRONT BEZEL,SC-441V	353.8 * 315 * 74.5,ABS,AF303-11084	PCS	1.000	
16	32-311-00012	CABLE TIE	L101.6 * W25 * T1	PCS	2.000	
17	32-611-02173	PLA,S/W CAP,SC-441V	24.5 * 16.1 * 2.6,ABS,AF303-11084	PCS	1.000	
18	33-168-00024	MS+,BND,W/T,L,W,ZPW	M4 * 8,SWRCH1018AK	PCS	1.000	
19	33-172-00012	MS+,C/S,ZPW	M3 * 8,SWRCH1018AK	PCS	2.000	
20	33-425-00012	TS+,BND,W/P,W,B,ZPW	M3 * 8,SWRCH1018AK	PCS	8.000	
21	33-612-00051	PS+,PAN,ZPW	M3.5 * 10,SWRCH1018AK	PCS	3.000	
22	33-612-00259	PS+,PAN,ZPW	M4.5 * 14,SWRCH1018AK	PCS	8.000	
23	33-642-00036	PS+,HEX,W/S,W,ZPW	M4.5 * 24,WD19,SWRCH1018AK	PCS	4.000	
24	35-111-02782	LABEL,WARNING,DHHS	24KV	PCS	1.000	
25	36-437-00104	BRAID WIRE,TER/CONN	SHIELD,540MM,BK,245MM	PCS	1.000	
26	36-437-00131	BRAID WIRE,RING TER	D5,D5,190MM	PCS	2.000	
27	39-119-00116	REBBER,WASHER,SC-431VII	D21 * 6.3,BK	PCS	4.000	
28	39-411-00143	FOIL SHEET,ZIRCON-II	85 * 100,PEST 0.3T	PCS	1.000	

ASS'Y NO		01-141-00208			MODEL NO.	
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	19-31-90048	PUSH SWITCH	SPST,4A/32A,250V,2P,J-U3065 #01	PCS	1.000	
2	31-211-00342	MET-I,PRS,PWR S/W BRKT,SC-431E	17 * 79 * 6,EGI	PCS	1.000	
3	33-162-00012	MS+BND,ZPW	M3 * 6,SWRCH1018AK	PCS	2.000	
4	36-412-00407	WIRE,CONN/HOUSING	190MM,2P,GY,10,R,R,1672	PCS	1.000	
5	39-422-00024	TUBE-SHRINK,WHT	D4,POLY-OLEFIN	M	.030	

ASS'Y NO		01-151-00342			MODEL NO.	
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	15-441-00075	VAR,HANDLE,WIRE-SOLDER,H-TYPE	10K OHM,B,0.2W,V16L(8X5)N25F-B10K	PCS	1.000	
2	15-441-00087	VAR,HANDLE,WIRE-SOLDER,H-TYPE	20K OHM,B,0.2W,V16L4(8X5)N25F-B20K	PCS	1.000	
3	31-211-01375	MET-I,PRS,CONTRAST BRACKET,SC-431V	100 * 12,EGI	PCS	1.000	
4	32-611-01416	PLA,BRIGHTNESS KNOB,14"-VGA	D28 * 16.5,ABS,AF303-11084	PCS	2.000	
5	36-413-00538	WIRE,CONN/HOUSING	250MM,3P,W,2.54,W,O,Y	PCS	1.000	
6	36-414-00182	WIRE,CONN/HOUSING	350MM,3P,W,2.5,W,O,Y	PCS	1.000	

ASSY NO		01-173-00936		MODEL NO.		
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	15-352-00024	VAR,HANDLE,PCB-MOUNT,V-TYPE	10K OHM,B,0,05W	PCS	1.000	
2	15-352-00036	VAR,HANDLE,PCB,MOUNT,V-TYPE	200K OHM,B,0,05W	PCS	1.000	
3	15-352-00048	VAR,HANDLE,PCB,MOUNT,V-TYPE	5K OHM,B,0,05W	PCS	1.000	
4	16-111-01033	PCB,SC-431VS(R),VOLUME	FR-1,1.6T	PCS	1.000	
5	17-314-00063	FILTER,EMI SOCKET	250V/3A,473PF(X1),222PF,1.2MH,SEV	PCS	1.000	
6	32-211-01826	PLA,EXT-P,BACK PLATE,SC-4 * * VS	210 * 50 * 2.6T,ABS,OEM-3357	PCS	1.000	
7	32-315-90024	CABLE BUSH	D15.9 * 14.6,1210(SR-6P-4)	PCS	1.000	
8	33-172-00024	MS+,C/S,ZPW	M3 * 10,SWRCH1018AK	PCS	2.000	
9	33-852-00012	NUT,HEX,2,ZPW	M3 * 0.5P,S10C	PCS	2.000	
10	36-412-00446	WIRE,CONN/HOUSING	160MM,2P,W,2.5,W,0,1007	PCS	1.000	
11	36-413-00339	WIRE,CONN/HOUSING	265MM,2P,W,2.5,R,BK	PCS	1.000	
12	36-413-00538	WIRE,CONN/HOUSING	250MM,3P,W,2.54,W,O,Y	PCS	1.000	
13	36-541-00298	CABLE,SIGNAL,NON-DET	15P,1720MM,SC-431VS	PCS	1.000	
14	39-422-00024	TUBE-SHRINK,WHT	D4,POLY-OLEFIN	M	2.000	

ASSY NO		01-183-00099		MODEL NO.		
SEQ	P/N	DESCRIPTION	S P E C	UNIT	Q'TY	CKT NO.
1	16-111-01084	PCB,LED,SC-428VR	FR-1,1.6T,25 * 10	PCS	1.000	
2	22-152-00048	LED GREEN	25MA,75MW,LSB-25MG3,RECT	PCS	1.000	
3	36-413-00339	WIRE,CONN/HOUSING	265MM,2P,W,2.5,R,BK	PCS	1.000	

ASSY NO		MG-106-00805		MODEL NO.		SC-4* *VSL
SEQ	P/N	DESCRIPTION	SPEC	UNIT	Q'TY	CKT NO.
1	MA-106-00713	A/S ASS'Y	FREE,ANALG,M.V.S	PCS	1.000	
2	01-123-00155	SUB ASS'Y,CPT SOCKET	ZIRCON I	PCS	1.000	
3	01-161-00684	SUB ASS'Y,HEAT SINK	SC-431VII E II VS,STR58041,90*57*60	PCS	1.000	IC101
4	01-161-00776	SUB ASS'Y,HEAT SINK	TDA1675,50*18*50	PCS	1.000	IC201
5	01-161-00788	SUB ASS'Y,HEAT SINK	MC7812CT,23.5*15*30,SC-431EII/VII	PCS	1.000	IC102
6	01-161-00963	SUB ASS'Y,HEAT SINK	2SD 1878,SC-431VS,96*32.3*89.6,AL 2	PCS	1.000	Q304
7	01-161-00975	SUB ASS'Y,HEAT SINK	BDW-43,SC-431VS,23.5*15*30	PCS	1.000	Q103
8	01-161-00987	SUB ASS'Y,HEAT SINK	BYW 96E,SC-431VS,32*22*1.2T	PCS	2.000	D304 D305
9	01-162-00012	SUB ASS'Y,SHIELD COVER	SC-428VS,TIN,WH,RING TER,124*102*43	PCS	1.000	
10	11-113-0108B	CAP,AL-ELECT,GP	1000UF,20%,16V,-40/85'C,RB,SMALL	PCS	1.000	C304
11	11-233-02277	CAP,AL-ELECT	220UF,20%,400V,-40/85'C,PT	PCS	1.000	C105
12	12-243-01021	CAP,DISC CERAMIC,CK	1000PF,10%,1KV,-25/85'C,EPOXY,RB	PCS	1.000	C320
13	12-287-04722	CAP,DISC CERAMIC,CK	4700 PF,20%,400VAC,EPOXY,RB	PCS	2.000	C110 C111
14	13-152-03342	CAP,METALZ-POLYESTER	0.33UF,10%,100V,RB	PCS	1.000	C808
15	13-154-92226	CAP,METALZ-POLYESTER	2200PF,10%,250VAC,RB	PCS	2.000	C103 C104
16	13-154-93342	CAP,METALZ-POLYESTER	0.33UF,10%,115/250VAC,RB	PCS	1.000	C101
17	13-311-01021	CAP,PP	1000PF,5%,100V,RB	PCS	1.000	C606
18	13-314-03936	CAP,PP	0.039UF,5%800V,RB	PCS	1.000	C318
19	13-137-06024	CAP,PP,HIGH-VOL	6000PF,1.6KV,5%,-25/85'C,RB	PCS	1.000	C317
20	13-318-02728	CAP,PP	2700 PF,5%,50V,RB	PCS	1.000	C311
21	13-354-01057	CAP,METALZ-PP	1 UF,5%,250V,RB	PCS	1.000	C321
22	13-354-06844	CAP,METALZ-PP,GP	0.68UF,5%,250V,RB	PCS	1.000	C319
23	13-355-04734	CAP,METALZ-PP,GP	0.047UF,5%,800V,RB,CF93MP,OEM	PCS	1.000	C106
24	14-336-01R01	RES,METAL OXIDE,MINI,AB	1 OHM,1W,5%,FORMING	PCS	1.000	R220
25	14-336-01006	RES,METAL OXIDE,MINI,AB	10 OHM,1W,5%,FORMING	PCS	1.000	R705
26	14-336-02R22	RES,METAL OXIDE,AT	2.2 OHM,1W,5%	PCS	1.000	R204
27	14-336-02202	RES,METAT OXIED,AT	22 OHM,1W,5%	PCS	1.000	R307
28	14-336-02716	RES,METAL OXIDE,AT	270 OHM,1W,5%	PCS	1.000	R327
29	14-336-05612	RES,METAL OXIDE AT	560 OHM,1W,5%	PCS	1.000	R114
30	14-342-01R01	RES,METAL OXIDE,AB	1 OHM,2W,5%,FORMING	PCS	1.000	R328
31	14-342-06832	RES,METAL OXIDE,AB	68K OHM,2W,5%,FORMING	PCS	1.000	R103
32	14-352-01511	RES,METAL OXIDE,AB	150 OHM,3W,5%,FORMING	PCS	2.000	R216 R324
33	14-352-06805	RES,METAL OXIDE,AB	68 OHM,3W,5%,FORMING	PCS	1.000	R107
34	14-641-0R336	RES,WIRE WOUND,AB	0.33 OHM,1W,5%	PCS	1.000	R105
35	15-221-00182	VAR,NO-HANDLE,CAP,H-TYPE	10K OHM,B,0.2W,CET118A-B10K	PCS	2.000	VR302 VR303
36	15-221-00194	VAR,NO-HANDLE,CAP,H-TYPE	5K OHM,B,0.2W,CET118-B5K	PCS	1.000	VR601
37	15-221-00298	VAR,NO-HANDLE,CAP,H-TYPE	200K OHM,B,0.2W,CET119A-B200K	PCS	1.000	VR304
38	15-211-00749	VAR,NO-HANDLE,CAP,H-TYPE	100 OHM,B,0.2W	PCS	3.000	VR401 VR402 VR403
39	15-222-00036	VAR,NO-HANDLE,CAP,V-TYPE	5K OHM,B,0.2W,CET92A-B5K	PCS	1.000	VR102
40	15-222-00048	VAR,NO-HANDLE,CAP,V-TYPE	10K OHM,B,0.2W,CET92A-B10K	PCS	1.000	VR204
41	15-222-00051	VAR,NO-HANDLE,CAP,V-TYPE	100K OHM,B,0.2W,CET92A-B100K	PCS	2.000	VR203 VR802
42	15-222-00075	VAR,NO-HANDLE,CAP,V-TYPE	1K OHM,B,0.2W,CET92A-B1K	PCS	1.000	VR702
43	15-222-00087	VAR,NO-HANDLE,CAP,V-TYPE	20K OHM,B,0.2W,CET92A-B20K	PCS	1.000	VR701
44	15-222-00099	VAR,NO-HANDLE,CAP,V-TYPE	500 OHM,B,0.2W,CET92A-B500	PCS	1.000	VR101

ASSY NO		MG-106-00805			MODEL NO.	SC-4 * * VSL
SEQ	P/N	DESCRIPTION	S P E C	UNIT	QTY	CKT NO.
45	15-621-90036	THERMISTOR,PTC	18 OHM,30%,220V,PTH451C262BG180N270	PCS	1.000	TH102
46	15-622-90024	THERMISTOR,NTC	5 OHM,3.4A,2.4W	PCS	1.000	TH101
47	17-116-00167	TRANS,POWER,SWITCHING	SC-431VS,115/230V	PCS	1.000	T101
48	17-122-00155	FBT,COLOR	FTO-14A019,SC-428A	PCS	1.000	T302
49	17-132-00155	COIL,TRANS,H-DRIVE	10MH/70UH,15%,SC-431VII	PCS	1.000	T301
50	17-211-00208	COIL,MODULATION	LITZ,USTC,93UH-107UH,SC-428VSL	PCS	1.000	L301
51	17-222-00087	COIL,CHOKE	50UH+ - 15%,SC-431EII/VII	PCS	4.000	L103 L104 L105 L106
52	17-222-00211	COIL,CHOKE	2MH,15%,SC-431VS	PCS	1.000	L701
53	17-226-00104	COIL,H-LIN,FIX	12UH+ - 20%VII	PCS	1.000	L302
54	17-311-00223	FILTER,LINE	20MH,SC-431EII/VII/VII VE/VS	PCS	1.000	LF101
55	19-103-00063	FUSE TIMELAG WITHOUT LEAD	3A,250V,5.20 * 20,51S	PCS	1.000	F101
56	19-113-00012	FUSE CLIP	5.20 * 2.80MM,30A/300V, FC51A2	PCS	2.000	F101
57	21-117-00131	TR NPN TO-220	0.2A,300V,15W(TC),CR O/P,KSC1507Y	PCS	1.000	Q303
58	22-111-90366	RECTIFIER DIODE,FR	3A,200V,FR303G(S)	PCS	1.000	D114
59	22-113-90012	RECTIFIER DIODE BRIDGE	1.5A,800V,KBP08	PCS	1.000	D101
60	23-121-00868	IC,TTL,LS,DIP	74LS86	PCS	1.000	IC601
61	23-121-01399	IC,TTL,LS,DIP	74LS139	PCS	1.000	IC603
62	23-171-95384	IC,4000 SERIES,C-MOS,DIP	453B,DUAL MONO-MULTI VIBRATOR,14	PCS	1.000	IC602
63	23-321-90048	IC,LINEAR,DIP	1180,TV HORIZONTAL,16	PCS	1.000	IC301
64	23-321-90208	IC,LINEAR,DIP	1203,RGB VIDEO AMP,28	PCS	1.000	IC401
65	23-321-90211	IC,LINEAR,DIP	4950,PIN-CUSHION CORRECTION,8	PCS	1.000	IC701
66	31-211-01853	MET-I,PRS,MAIN CHASSIS,SC-431VII/E	240 * 17 * 310,EGI 1.0T	PCS	1.000	
67	31-211-01639	MET-I,PRS,PCB BRKT,SC-431VII/EII	13 * 13 * 20,SBHGI	PCS	1.000	
68	33-425-00012	TS+,BND,W/P.W,B,ZPW	M3 * 8,SWRCH1018AK	PCS	9.000	
69	33-612-00247	PS+,PAN,ZPW	M4 * 12,SWRCH1018AK	PCS	1.000	
70	35-111-06378	LABEL,BAR CODE	65 * 20	PCS	1.000	
71	35-211-00422	WIREFORM,UL1007-AWG22	TCST,1ST,17X0.16,PVC,BK,250MM,DT	PCS	1.000	W-2
72	36-431-00099	WIRE,RING TER,SINGLE	BK,D5,133MM	PCS	1.000	W-4
73	36-431-00366	WIRE,RING TER,SINGLE	120MM,GN,D4.3	PCS	1.000	W-3
74	36-615-00012	CONNECTOR SHROUDED HEADER	2.5,ST,2P,5267-02A	PCS	6.000	CN201 CN202 CN403 NC404 CN405 C601
75	36-615-00024	CONNECTOR SHROUDED HEADER	2.5,ST,3P,5267-03A	PCS	3.000	CN301 CN402 CN801
76	36-615-00036	CONNECTOR SHROUDED HEADER	2.5,ST,4P,5267-04A	PCS	1.000	CN404
77	36-615-00075	CONNECTOR SHROUDED HEADER	2.5,ST,11P,5267-11A	PCS	1.000	CN401
78	39-411-00143	FOIL SHEET,ZIRCON-II	85 * 100,REST 0.3T	PCS	1.000	

ASSY NO		01-123-00155			MODEL NO.	
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	MA-094-00696	A/S ASSY	SOCKET	PCS	1.000	
2	01-161-00999	SUB ASSY,HEAT SINK	SC-431VS,2SC3502E,BK,23.5*15*15	PCS	3.000	Q501R Q501G Q501B
3	11-197-01069	CAP,AL-ELECT,GP	10UF,20%,160V,-40/85°C,RT	PCS	1.000	C506
4	12-246-02728	CAP,DISC CERAMIC,CK-45	2700PF,10%,2KV,-25/85°C,RB	PCS	1.000	C509
5	12-335-01033	CAP,DISC CERAMIC,CK	0.01UF,-20/80%,500V,-25/85°C,RT	PCS	1.000	C507
6	13-911-00024	CAP,SPARK-GAP	1KV,S-23	PCS	2.000	SG501 SG502
7	14-352-01523	RES,METAL OXIDE,AB	1.5K OHM,32,5%,FORMING	PCS	3.000	R504R R504G R504B
8	15-221-00752	VAR,NO-HANDLE,CAP,H-TYPE	50K OHM,B,0.2W	PCS	3.000	VR501R VR501G VR501B
9	17-220-00024	COIL,PEAKING	5.6UH+ - 10%,RT	PCS	3.000	L501R L501G L501B
10	21-112-90024	TR NPN TO-18	200MA,40V,360MW,SW,2N2369A	PCS	3.000	Q502R Q502G Q502B
11	21-115-00063	TR NPN TO-126	100MA,200V,5W(TC),V/D OUT,KSC3502E	PCS	3.000	Q503R Q503G Q503B
12	21-125-00012	TR PNP TO 126	100MA,300V,7W(TC),V/D OUT,KSA1381	PCS	3.000	Q504R Q504G Q504B
13	36-211-00354	WIREFORM,UL1007-AWG22	TCST,1ST,7X0.26,PVC,R,190MM,DT	PCS	1.000	G1
14	36-412-00606	WIRE,CONN/HOUSING	160MM,49,W,2.5,R,Y,W,BK	PCS	1.000	CN104
15	36-414-00315	WIRE,CONN/HOUSING	380MM,6P,W,2.5,R,G,B	PCS	1.000	CDT GND
16	36-613-00208	CONNECTOR,OPEN HEADER	10,ST,2P,BW-502L	PCS	1.000	CN503
17	36-615-00036	CONNECTOR SHROUDED HEADER	2.5,ST,4P,5367-04A	PCS	1.000	CN502
18	36-615-00298	CONNECTOR SHROUDED HEADER	2.5,ST,6P,5267-06A	PCS	1.000	CN501
19	36-633-90063	CRT SOCKET	29DIA,12P,HPS0176-01-010	PCS	1.000	

ASSY NO		MA-094-00696			MODEL NO.	ZIRCON I
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	11-193-0476B	CAP,AL-ELECT,GP	47UF,20%,25V,-40/85°C,RT,SMALL	PCS	3.000	C502R C502G C502B
2	11-197-01057	CAP,AL,ELECT,GP	1UF,20%,160V,-40/85°C,RT	PCS	3.000	C505R C505G C505B
3	12-182-01018	CAP,DISC CERAMIC,CC	100PF,5%,50V,-25/85°C,RT	PCS	3.000	C503R C503G C503B
4	12-331-01021	CAP,DISC CERAMIC,CK	1000PF,10%,50V,-25/85°C,RT	PCS	3.000	C504R C504G C504B
5	12-334-01018	CAP,DISC CERAMIC,CK45	100PF,10%,500V,-25/85°C,RT,HDC	PCS	1.000	C508
6	12-381-01006	CAP,DISC CERAMIC,CC	10PF,0.5PF,50V,-25/85°C,RT	PCS	3.000	C506R C506G C506B
7	14-134-01511	RES,CARBON,AT	150 OHM,1/4W,5%	PCS	3.000	R503R R503G R503B
8	14-134-04707	RES,CARBON,AT	47 OHM,1/4W,5%	PCS	6.000	R506R R506G R506B R507R R507G R507B
9	14-134-05636	RES,CARBON,AT	56K OHM,1/4W,5%	PCS	3.000	R508R R508G R508B
10	14-142-01018	RES,CARBON,AT	100 OHM,1/2W,5%	PCS	3.000	R509R R509G R509B
11	14-412-01018	RES,METAL,AT	100 OHM,1/8W,5%	PCS	3.000	R501R R501G R501B
12	14-412-04707	RES,METAL,AT	47 OHM,1/8W,5%	PCS	3.000	R502R R502G R502B
13	14-412-04722	RES,METAL,AT	4.7K OHM,1/8W,5%	PCS	3.000	R505R R505G R505B
14	14-412-08238	RES,METAL,AT	82K OHM,1/8W,5%	PCS	3.000	R510R R510G R510B
15	16-111-00963	PCB,FR-1,1.6T	SOCKET,ZIRCON-1/2	PCS	1.000	
16	22-111-90087	RECTIFIER DIODE FR	1A,600V,1N4937	PCS	1.000	D505
17	22-121-00167	ZENER DIODE	0.5W,24V,UZ24B	PCS	3.000	D503R D503G D503B
18	22-121-00366	ZENER DIODE	0.5W,10V,MTZ 10C	PCS	3.000	D504R D504G D504B
19	22-132-00048	SWITCHING DIODE	100MA,75V,1N4148	PCS	6.000	D501R D501G D501B D502R D502G D502B
20	36-181-00012	WIRE,BARE	CU+SN+PB,1ST,1X0.6,SAD	KG		

ASSY NO		01-161-00684		MODEL NO.		
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	23-322-00104	IC,LINEAR,SIP-5	STR58041	PCS	1.000	
2	31-114-00327	HEAT SINK-N,SC-431EII/VII	90*60*57,AL 2.0T	PCS	1.000	
3	33-142-00036	MS+,PAN,W/P.W,ZPW	M3*12,SWRCH1018AK	PCS	1.000	
4	33-852-00012	NUT,HEX,2,ZPW	M3*0.5P,S10C	PCS	1.000	
5	35-111-05081	LABEL,WARNING,SC-431EII/VII	HIGH VOLTAGE	PCS	1.000	

ASSY NO		01-161-00776		MODEL NO.		
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	23-329-90075	IC,LINEAR,SPECIAL	TDA1670/1675,VERT-DEFLECTION,15	PCS	1.000	IC201
2	31-114-00393	HEAT SINK-N,SC-431VII/EII	50*18*50,AL,W/SOLDER PIN	PCS	1.000	
3	33-142-00012	MS+,PAN,W/P.W,ZPW	M3*8,SWRCH1018AK	PCS	1.000	
4	33-852-00012	NUT,HEX,2,ZPW	M3*0.5,S10C	PCS	1.000	

ASSY NO		01-161-00788		MODEL NO.		
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	23-312-00048	IC,REGULATOR,TO-220	7812C,1.5A,12V	PCS	1.000	
2	31-114-00381	HEAT SINK-N,SC-431VII/EII	30*15-23.5,AL,W/SOLDER PIN	PCS	1.000	
3	33-142-00012	MS+,PAN,W/P.W,ZPW	M3*8,SWRCH1018AK	PCS	1.000	

ASSY NO		01-161-00963		MODEL NO.		
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	21-117-90143	TR NPN TO-220	5A,1500V,60W(TC),VER DEF,2SD1878	PCS	1.000	Q304
2	31-114-00485	HEAT SINK-N,SC431VS	96*32.3*89.6,AL 2.0T	PCS	1.000	
3	33-142-00024	MS+,PAN,W/P.W,ZPW	M3*10,SWRCH1018AK	PCS	1.000	
4	33-852-00012	NUT,HEX,2,ZPW	M3*0.5P,S10C	PCS	1.000	

ASSY NO		01-161-00975		MODEL NO.		
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	21-117-90099	TR NPN TO-220	15A,120V,85W(TC),PW,BW43,COM	PCS	1.000	Q103
2	31-114-00381	HEAT SINK-N,SC-431VII/EII	30*15-23.5,AL,W/SOLDER PIN	PCS	1.000	
3	33-142-00012	MS+,PAN,W/P.W,ZPW	M3*8,SWRCH1018AK	PCS	1.000	

ASSY NO		01-161-00987		MODEL NO.		
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	22-11-90048	RECTIFIER DIODE FR	3A,1000V,BYW96E/BYT78,SC-431VS	PCS	1.000	D304
2	31-114-00167	HEAT SINK-N,TERMINAL	22*5.7*32,CU,ZPW	PCS	1.000	

ASS'Y NO		01-162-00012			MODEL NO.	
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	31-129-00366	SHIELD COVER, SOCKET, SC-431VS	124 * 102 * 43, TIN0.3T	PCS	1.000	
2	36-43700194	BRAID WIRE, RING, W/TUBE	D5 * 120MM	PCS	1.000	

ASS'Y NO		MA-106-00713			MODEL NO.	SC-4 * *VSL
SEQ	P/N	DESCRIPTION	SPEC	UNIT	QTY	CKT NO.
1	11-137-02277	CAP, AL-ELECT, GP	220UF, 20%, 100V, -40/85'C, RT	PCS	1.000	C120
2	11-192-0106B	CAP, AL-ELECT, GP	10UF, 20%, 16V, -40/85'C, RT	PCS	5.000	C401 C402 C403 C601 C602
3	11-192-0107B	CAP, AL-ELECT, GP	100UF, 20%, 16V, -40/85'C, RT, SMALL	PCS	6.000	C132 C214 C404 C414 C416 C610
4	11-192-0476B	CAP, AL-ELECT, GP	47UF, 20%, 16V, -40/85'C, RT	PCS	1.000	C608
5	11-193-0226B	CAP, AL-ELECT, GP	22UF, 20%, 25V, -40/85'C, RT	PCS	1.000	C704
6	11-193-02277	CAP, AL-ELECT, GP	220UF, 20%, 25V, -40/85'C, RT	PCS	1.000	C129
7	11-193-02289	CAP, AL-ELECT, GP	2200UF, 20%, 25V, -40/85'C, RT	PCS	1.000	C213
8	11-194-01072	CAP, AL-ELECT, GP	100UF, 20%, 35V, -40/85'C, RT	PCS	2.000	C215 C701
9	11-194-01084	CAP, AL-ELECT, GP	1000UF, 20%, 35V, -40/85'C, RT	PCS	1.000	C206
10	11-194-02277	CAP, AL-ELECT, GP	220UF, 20%, 35V, -40/85'C, RT	PCS	2.000	C207 C804
11	11-194-0476B	CAP, AL-ELECT, GP	47UF, 20%, 35V, -40/85'C, RT, SMALL	PCS	1.000	C315
12	11-194-0477B	CAP, AL-ELECT, GP	470UF, 20%, 35V, -40/85'C, RT	PCS	3.000	C124 C125 C128
13	11-195-0105B	CAP, AL-ELECT, GP	1UF, 20%, 50V, -40/85'C, RT	PCS	4.000	C208 C306 C419 C703
14	11-195-0336B	CAP, AL-ELECT, GP	33UF, 20%, 50V, -40/85'C, RT, SMALL	PCS	1.000	C107
15	11-195-0475B	CAP, AL-ELECT, GP	4.7UF, 20%, 50V, -40/85'C, RT	PCS	4.000	C309 C313 C406 C802
16	11-196-0106B	CAP, AL-ELECT, GP	10UF, 20%, 100V, -40/85'C, RT, SMALL	PCS	1.000	C109
17	11-196-04761	CAP, AL-ELECT, GP	47UF, 20%, 100V, -40/85'C, RT	PCS	1.000	C121
18	11-197-01069	CAP, AL-ELECT, GP	10UF, 20%, 160V, -40/85'C, RT	PCS	1.000	C809
19	11-197-01072	CAP, AL-ELECT, GP	100UF, 20%, 160V, -40/85'C, RT	PCS	1.000	C117
20	11-197-04761	CAP, AL-ELECT, GP	47UF, 20X, 160V, -40/85'C, RT	PCS	3.000	C113 C114 C118
21	11-198-01069	CAP, AL-ELECT, GP	10UF, 20%, 250V, -40/85'C, RT	PCS	1.000	C807
22	11-199-02265	CAP, AL-ELECT, GP	22UF, 20%, 200V, -40/85'C, RT	PCS	1.000	C322
23	12-182-03303	CAP, DISC CERAMIC, CC45	33PF, 5%, 50V, -25/85'C, RT, TC	PCS	3.000	C417 C418 C420
24	12-193-04707	CAP, DISC CERAMIC, CC	47PF, 5%, 500V, -25/85'C, RT	PCS	2.000	C810 C811
25	12-331-04722	CAP, DISC CERAMIC, CK	4700PF, 10%, 50V, -25/85'C, RT	PCS	1.000	C316
26	12-334-01021	CAP, DISC CERAMIC, CK45	1000PF, 10%, 500V, -25/85'C, RT, HDC	PCS	1.000	C314
27	12-334-02716	CAP, DISC CERAMIC, CK-45	270PF, 10%, 500V, -25/85'C, RT	PCS	5.000	C112 C116 C119 C806 C812
28	12-335-01033	CAP, DISC, CERAMIC, CK	0.01UF, -20/80%, 500V, -25/85'C, RT	PCS	2.000	C115 C122

ASSY NO		MA-106-00713		MODEL NO.		SC-4 * * VSL
SEQ	P/N	DESCRIPTION	SPEC	UNIT	Q'TY	CKT NO.
29	12-371-01033	CAP,DISC CERAMIC,CK	0.01UF,-20/80%,50V,-25.85°C,RT	PCS	2.000	C415 C604
30	12-371-01045	CAP,DISC CERAMIC,CK-45	0.1UF,-20/80%,50V,-25/85°C,RT	PCS	19.000	C123 C126 C127 C130 C131 C205 C209 C405 C407 C408 C409 C410 C411 C412 C413 C607 C609 C702 C805
31	12-371-02238	CAP,DISC CERAMIC,CK45	0.022UF,-20/80%,50V,-25/85°C,RT,HDC	PCS	1.000	C108
32	13-126-01033	CAP,IND-POLYESTER	0.01UF,10%,100V,RT,CQ92MT	PCS	2.000	C307 C308
33	13-126-01045	CAP,IND-POLYESTER	0.1UF,10%100V,RT,CQ92MT	PCS	6.000	C201 C210 C211 C301 C303 C216
34	13-126-04722	CAP,IND-POLYESTER	0.0047UF,10%,100V,RT	PCS	1.000	C705
35	13-126-04734	CAP,IND-POLYESTER	0.047UF,10%,100V,-,RT	PCS	1.000	C706
36	13-150-02241	CAP,METALZ-POLYESTER,MULTI-LAYER	0.22UF,10%,63V,RT	PCS	4.000	C212 C217 C302 C605
37	13-150-03342	CAP,METALZ-POLYESTER,MULTI-LAYER	0.33UF,10%,63V,RT	PCS	1.000	C801
38	13-150-04746	CAP,METALZ-POLYESTER,MULTI-LAYER	0.47UF,10%,63V,RT	PCS	2.000	C204 C310
39	14-121-01018	RES,CARBON,AT	100 OHM,1/6W,5%	PCS	1.000	R604
40	14-121-01021	RES,CARBON,AT	1K OHM,1/6W,5%	PCS	4.000	R219 R314 R615 R630
41	14-121-01033	RES,CARBON,AT	10K,OHM,1/6W,5%	PCS	5.000	R203 R305 R39 620 R623
42	14-121-01045	RES,CARBON,AT	100K OHM,1/6W,5%	PCS	2.000	R211 R810
43	14-121-01217	RES,CARBON,AT	120 OHM,1/6W,5%	PCS	1.000	R218
44	14-121-01229	RES,CARBON,AT	1.2K OHM,1.6W,5%	PCS	1.000	R318
45	14-121-01232	RES,CARBON,AT	12K OHM,1/6W,5%	PCS	6.000	R312 R608 R612 R614 R704 R709
46	14-121-01523	RES,CARBON,AT	1.5K OHM,1/6W,5%	PCS	5.000	R601 R603 R803 R804 R813
47	14-121-01559	RES,CARBON,AT	1.5M OHM,1/6W,5%	PCS	1.000	R301
48	14-121-01826	RES,CARBON,AT	1.8K OHM,1/6W,5%	PCS	1.000	R708
49	14-121-01838	RES,CARBON,AT	18K OHM,1/6W,5%	PCS	3.000	R118 R703 R707
50	14-121-02R22	RES,CARBON,AT	2.2 OHM,1/6W,5%	PCS	1.000	R215
51	14-121-02214	RES,CARBON,AT	220 OHM,1/6W,5%	PCS	3.000	R410 R413 R416
52	14-121-02226	RES,CABON,AT	2.2K OHM,1/6W,5%	PCS	7.000	R206 R217 R408 R613 R616 R617 R207
53	14-121-02238	RES,CARBON,AT	22K OHM,1/6W,5%	PCS	2.000	R308 R706
54	14-121-02241	RES,CARBON,AT	220K OHM,1/6W,5%	PCS	2.000	R606 R622
55	14-121-02728	RES,CARBON,AT	2.7K OHM,1/6W,5%	PCS	9.000	R302 R313 R405 R418 R607 R609 R624 R627 R811
56	14-121-02743	RES,CARBON,AT	270K OHM,1/6W,5%	PCS	1.000	R309
57	14-121-03327	RES,CARBON,AT	3.3K OHM,1/6W,5X	PCS	1.000	R319
58	14-121-03339	RES,CARBON,AT	33K OHM,1/6W,5%	PCS	1.000	R702
59	14-121-03912	RES,CARBON,AT	390 OHM,1/6W,5%	PCS	4.000	R411 R414 R417 R602
60	14-121-04707	RES,CARBON,AT	47 OHM,1/6W,5%	PCS	1.000	R326
61	14-121-04722	RES,CARBON,AT	4.7K OHM,1/6W,5%	PCS	4.000	R201 R311 R605 R629
62	14-121-04734	RES,CARBON,AT	47K OHM,1/6W,5%	PCS	2.000	R802 R621

ASS'Y NO		MA-106-00713			MODEL NO.	SC-4* *VSL
SEQ	P/N	DESCRIPTION	S P E C	UNIT	QTY	CKT NO.
63	14-121-05107	RES,CARBON,AT	51 OHM,1/6W,5%	PCS	3.000	R409 R412 R415
64	14-121-05612	RES,CARBON,AT	560 OHM,1/6W,5%	PCS	1.000	R322
65	14-121-05624	RES,CARBON,AT	5.6K OHM,1/6W,5%	PCS	2.000	R404,R406
66	14-121-06817	RES,CARBON,AT	680 OHM,1/6W,5%	PCS	1.000	R321
67	14-121-06844	RES,CARBON,AT	680K OHM,1/6W,5%	PCS	2.000	R213 R330
68	14-121-07508	RES,CARBON,AT	75 OHM,1/6W,5%	PCS	3.000	R401 R402 R403
69	14-121-08226	RES,CARBON,AT	8.2K OHM,1/6W,5%	PCS	3.000	R202 R209 R812
70	14-121-08238	RES,CARBON,AT	82K OHM,1/6W,5%	PCS	3.000	R306 R315 R212
71	14-122-05636	RES,CARBON,AT	56K OHM,1/6W,2%	PCS	2.000	R303 R610
72	14-122-06829	RES,CARBON,AT	6.8K OHM,1/6W,2%	PCS	1.000	R210
73	14-122-06832	RES,CARBON,AT	68K OHM,1/6W,2%	PCS	1.000	R214
74	14-134-01021	RES,CARBON,AT	1K OHM,1/4W,5%	PCS	5.000	R106 R108 R618 R625 R801
75	14-134-01033	RES,CARBON,AT	10K OHM,1/4W,5X	PCS	1.000	R116
76	14-134-01229	RES,CARBON,AT	1.2K OHM,1/4W,5%	PCS	1.000	R626
77	14-134-01547	RES,CARBON,AT	150K OHM,1/4W,5%	PCS	1.000	R115
78	14-134-01838	RES,CARBON,AT	18K OHM,1/42,5%	PCS	1.000	R407
79	14-134-02202	RES,CARBON,AT	22 OHM,1/4W,5%	PCS	1.000	R208
80	14-134-02704	RES,CARBON,AT	27 OHM,1/4W,5%	PCS	1.000	R805
81	14-134-02743	RES,CARBON,AT	270K OHM,1/4W,5%	PCS	1.000	R808
82	14-134-03303	RES,CARBON,AT	33 OHM,1/4W,5%	PCS	2.000	R104 R110
83	14-134-04734	RES,CARBON,AT	47K OHM,1/4W,5%	PCS	1.000	R117
84	14-134-06817	RES,CARBON,AT	680 OHM,1/4W,5%	PCS	1.000	R221
85	14-134-06829	RES,CARBON,AT	6.8K OHM,1/4W,5%	PCS	1.000	R205
86	14-142-0R508	RES,CARBON,AT	0.5 OHM,1/2W,5%	PCS	1.000	R121
87	14-142-01018	RES,CARBON,AT	100 OHM,1/2W,5%	PCS	3.000	R111 R113 R119
88	14-142-01021	RES,CARBON,AT	1K OHM,1/2W,5%	PCS	1.000	R809
89	14-142-01045	RES,CARBON,AT	100K OHM,1/2W,5%	PCS	1.000	R310
90	14-142-01057	RES,CARBON,AT	1M OHM,1/2W,5%	PCS	1.000	R101
91	14-142-01244	RES,CARBON,AT	120K OHM,1/2W,5%	PCS	1.000	R120
92	14-142-01547	RES,CARBON,AT	150K OHM,1/2W,5%	PCS	1.000	R112
93	14-142-02R22	RES,CARBON,AT	2.2 OHM,1/2,5%	PCS	2.000	R325 R806
94	14-142-02042	RES,CARBON,AT	200K OHM,1/2W,5%	PCS	1.000	R807
95	14-142-02214	RES,CARBON,AT	220 OHM,1/2W,5%	PCS	1.000	R619
96	14-142-03303	RES,CARBON,AT	33 OHM,1/2W,5%	PCS	2.000	R109 R701
97	14-142-04722	RES,CARBON,AT	4.7K OHM,1/2W,5%	PCS	1.000	R323
98	14-142-05648	RES,CARBON,AT	560K OHM,1/2W,5%	PCS	1.000	R102
99	14-412-02238	RES,METAL,AT	22K OHM,1/8W,5%	PCS	1.000	R611
100	14-413-06829	RES,METAL,AT	6.8K OHM,1/8W,1%	PCS	1.000	R316
101	14-413-06832	RES,METAL,AT	68K OHM,1/8W,1%	PCS	1.000	R317
102	16-111-01045	PCB,SC-431VS(R),MAIN	FR-1,1.6T	PCS	1.000	
103	17-223-00104	COIL,INDUCTOR	4.7UH + - 10%,AT	PCS	1.000	L401
104	17-313-00063	FILTER,CORE	2.4UH,5.5MM,BEAD,0.032 OHM,CGA/VII,	PCS	2.000	L102 L402
105	21-114-00036	TR NPN TO-92	0.7A,80V,800MA,LF AMP,KSC1008Y	PCS	2.000	Q101 Q102

ASSY NO		M1-106-00713		MODEL NO.	SC-4* *VSL	
SEQ	P/N	DESCRIPTION	S P E C	UNIT	QTY	CKT NO.
106	21-114-00048	TR NPN TO-92	0.15A,60V,0.4W,LF AMP,KTC3198Y/1815	PCS	7.000	Q201 Q302 Q601 Q605 Q606 Q607 Q608
107	21-114-00104	TR NPN TO-92	700MA,160V,800MW,HV,AMP,KSC1009	PCS	2.000	Q104 Q105
108	21-114-00116	TR NPN TO-92	700MA,80V,1.0W,LF AMP,KSC2331	PCS	4.000	Q202 Q801 Q802 Q803
109	21-114-00223	TR NPN TO-92	100MA,50V,300MW,SW,KSR1002,BR	PCS	3.000	Q602 Q603 Q604
110	21-124-00048	TR PNP TO-92	100MA,50V,300MW,SW,KSR2002,BR	PCS	1.000	Q301
111	21-124-00155	TR PNP TO-92	0.7A,80V,1W,LF AMP,KSA931.0	PCS	1.000	Q203
112	22-111-90012	RECTIFIER DIODE FR	1A,1000V,MR818/GI818	PCS	1.000	D102
113	22-111-90087	RECTIFIER DIODE FR	1A,600V,1N4937	PCS	4.000	D103 D104 D105 D106
114	22-111-90167	RECTIFIER DIODE FR	1.5A,400V,RGP15G/FF1504	PCS	8.000	D107 D108 D109 D110 D111 D112 D113 D803
115	22-112-90048	RECTIFIER DIODE GP	1A,400V,1N4004	PCS	6.000	D202 D701 D702 D801 D804 D805
116	22-121-00036	ZENER DIODE	0.5W,3.3V,UZ3.3B	PCS	1.000	D203
117	22-121-00051	ZENER DIODE	0.5W,5.1V,UZ5.1B	PCS	1.000	D601
118	22-121-00116	ZENER DIODE	0.5W,12V,UZ12B	PCS	2.000	D302 D704
119	22-132-00048	SWITCHING DIODE	100MA,75V,1N148	PCS	13.000	D201 D303 D401 D402 D403 D602 D603 D604 D605 D606 D607 D703 D802
120	31-131-00012	BEAD PIN	D2.36 * 14.1,BRASS,SN	PCS	12.000	CN101 CN102 CN103 CN302
121	36-181-00012	WIRE,BARE	CU+SN+PB,1ST,1X0.6,SAD	KG	.056	

(2) Reliabilities

2-1. Long life. (MTBF)

The monitor shall have a 20,000hrs MTBF when operated under any combination of conditions as detailed specification.

2-2. Environmental Testing.

operating environment is the environment in which the monitor must operate without degradation or damage.

These are test that SED will perform on the monitor prior to its release.

The monitor is required to satisfactorily pass these tests prior to mass production.

These tests are detailed in SED environment specification.

The monitor in the case shall operate within specification when subjected to the following environmental conditions.

2-3. Temperature.

- * Operating : 0°C To 45°C

- * Storage : -40°C To +70°C

2-4. Humidity

- * Operating : 15°C To 80°C (Non condensing)

- * Storage : Maximum 95%

2-5. Vibration

The level specified for vibration apply to three mutually perpendicular directions (principle monitor axis) with packing and non operation,

- * Frequency : 5~200 Hz

- * Amplitude : 0~4 mm

- * Sweep Time : 30Min.

- * Waveform : Sinewave

- * Direction : Up/Down

- * Time : 1 Hour

2-6. Altitude

- * Operating : 12000 ft at +20

- 7000 ft at +40

- * Non Operating : Max 50,000 ft

2-7. Safety and approvals

2-7-1. Electromagnetic interference.

The system will be certified according to following international radiation standards.

1) Radiated emission.

- FCC rules : Part 15, Class B.

- CISPR rules : VDE 0871B/DPB1115(Class B)

2) Conducted emission.

The monitor electronics shall not be customer accesable.

2-7-2. Safety regulations.

The system will be certified according to following international safety standards.

- UL 1950

- CSA C22.2 NO.220

- TUV-EN60950

2-7-3. Ergonomics.

The complete assembly shall be certified as complying with the rule and regulations of the German Ergonomics Standards(formerly GS)

2-7-4. Ionogenic Radiation

The display device must be certified as complying with the U.S

Department of Health and human Service(D.H.H.S), rule 21 CRF, subchapter J and ANSI C95-1.

2-7-5. Low-Radiation(SC-428VSL)

SWEDAC MPR II August 10, 1990

[3] Signal cable pin connection

* SIGNAL CABLE PIN CONNECTION(15PIN D-SUB SIGNAL CONNECTOR WITH CABLE)

NO	RGB/ANALOG SIGNA	SIGNAL	WIRE COLOR	REMARKS
1	RED	PIN # 1	RED	
2	GREEN	PIN # 2	GREEN	
3	BLUE	PIN # 3	BLUE	
4	GROUND	PIN # 4	BLACK	
5	SELF TEST	PIN # 5	BLACK	
6	RED GROUND	PIN # 6	SHIELD	
7	GREEN GROUND	PIN # 7	SHIELD	
8	GLUE GROUND	PIN # 8	SHIELD	
9	N.C	PIN # 9		
10	GROUND	PIN # 10	BLACK	
11	SYNC GROUND	PIN # 11	BLACK	
12	N.C	PIN # 12		
13	H-SYNC	PIN # 13	WHITE	
14	V-SYNC	PIN # 14	YELLOW	
15	N.C	PIN # 15		