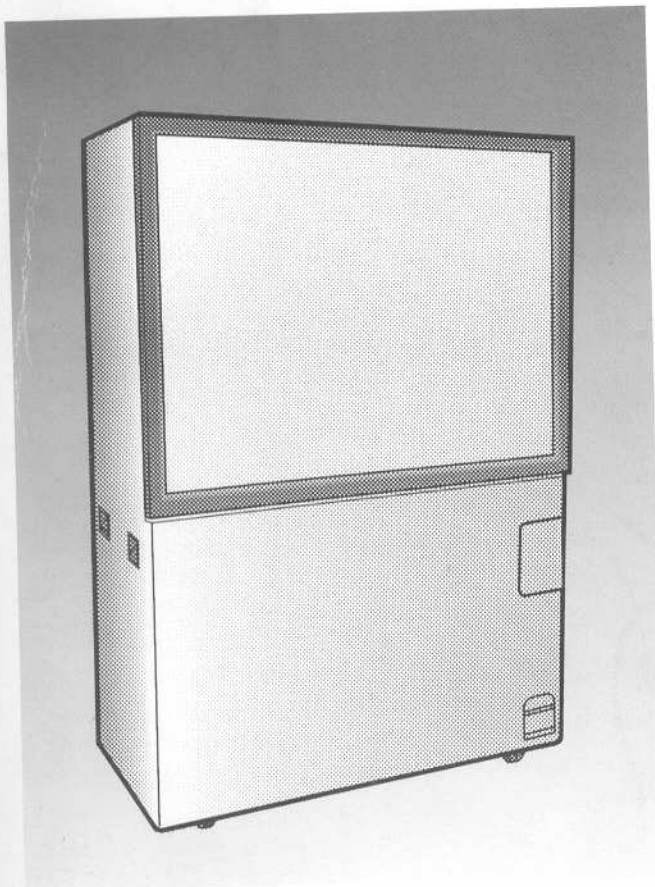


# Progressive Projection Monitor

Chassis : P52A  
Model : GPM-51A

# **SERVICE** Manual

Progressive Projection Monitor



## CONTENTS

1. Precautions
2. Specifications
3. Alignment and Adjustments
4. Troubleshooting
5. Exploded View and Parts List
6. Electric Parts List
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8. Wiring Diagram
9. Schematic Diagrams

# 1. Precautions

Follow these safety, servicing and ESD precautions to prevent damage and protect against potential hazards such as electrical shock and X-rays.

## 1-1 Safety Precautions

1. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.
2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including: nonmetallic control knobs and compartment covers.
3. Make sure that there are no cabinet openings through which people—particularly children—might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.

If the measured resistance is less than 1.0 megohm or greater than 5.2 megohms, an abnormality exists that must be corrected before the unit is returned to the customer.

4. **Leakage Current Hot Check (Figure 1-1):**  
Warning: Do not use an isolation transformer during this test. Use a leakage-current tester or a metering system that complies with American National Standards Institute (ANIS C101.1, Leakage Current for Appliances), and Underwriters Laboratories (UL Publication ULI410, 59.7).
5. With the unit completely reassembled, plug the AC line cord directly into the power outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: antennas, handle brackets, metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

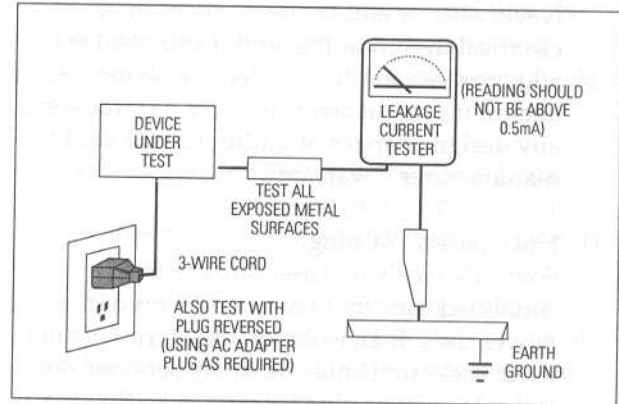




Fig. 1-1 AC Leakage Test

6. **Antenna Cold Check:**  
With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. Connect one lead of the ohmmeter to an AC prong. Connect the other lead to the coaxial connector.
7. **X-ray Limits:**  
The picture tube is especially designed to prohibit X-ray emissions. To ensure continued X-ray protection, replace the picture tube only with one that is the same type as the original. Carefully reinstall the picture tube shields and mounting hardware; these also provide X-ray protection.
8. **High Voltage Limits:**  
High voltage must be measured each time servicing is done on the B+, horizontal deflection or high voltage circuits. Correct operation of the X-ray protection circuits must be reconfirmed whenever they are serviced. (X-ray protection circuits also may be called "horizontal disable" or "hold-down".)

Heed the high voltage limits. These include the X-ray Protection Specifications Label, and the Product Safety and X-ray Warning Note on the service data schematic.

## 1-1 Safety Precautions (Continued)

9. High voltage is maintained within specified limits by close-tolerance, safety-related components and adjustments. If the high voltage exceeds the specified limits, check each of the special components.
10. Design Alteration Warning:  
Never alter or add to the mechanical or electrical design of this unit. Example: Do not add auxiliary audio or video connectors. Such alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.
11. Hot Chassis Warning:  
Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord. If an isolation transformer is not used, these units may be safely serviced only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC source.  
  
To confirm that the AC power plug is inserted correctly, do the following: Using an AC voltmeter, measure the voltage between the chassis and a known earth ground. If the reading is greater than 1.0V, remove the AC power plug, reverse its polarity and reinsert. Re-measure the voltage between the chassis and ground.
12. Some TV chassis are designed to operate with 85 volts AC between chassis and ground, regardless of the AC plug polarity. These units can be safely serviced only if an isolation transformer inserted between the receiver and the power source.
13. Some TV chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulating material that must not be defeated or altered.
14. Components, parts and wiring that appear to have overheated or that are otherwise damaged should be replaced with parts that meet the original specifications. Always determine the cause of damage or overheating, and correct any potential hazards.
15. Observe the original lead dress, especially near the following areas: Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.
16. Picture Tube Implosion Warning:  
The picture tube in this receiver employs "integral implosion" protection. To ensure continued implosion protection, make sure that the replacement picture tube is the same as the original.
17. Do not remove, install or handle the picture tube without first putting on shatterproof goggles equipped with side shields. Never handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; do not try to remove such "permanently attached" yokes from the picture tube.
18. Product Safety Notice:  
Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original—even if the replacement is rated for higher voltage, wattage, etc.  
  
Components that are critical for safety are indicated in the circuit diagram by shading, () or ().  
Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications.  
A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

## 1-2 Servicing Precautions

**Warning 1 :** First read the "Safety Precautions" section of this manual. If some unforeseen circumstance creates a conflict between the servicing and safety precautions, always follow the safety precautions.

**Warning 2 :** An electrolytic capacitor installed with the wrong polarity might explode.

1. Servicing precautions are printed on the cabinet. Follow them.
2. Always unplug the unit's AC power cord from the AC power source before attempting to: (a) Remove or reinstall any component or assembly, (b) Disconnect an electrical plug or connector, (c) Connect a test component in parallel with an electrolytic capacitor.
3. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
4. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the portion around the serviced part has not been damaged.
5. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).
6. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500V) to the blades of the AC plug.  
  
The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
7. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.
8. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.
9. When some parts inside the optical engine (except lamp) are damaged, replace the whole optical engine.



### 1-3 Precautions for Electrostatically Sensitive Devices (ESDs)

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1. Some semiconductor ("solid state") devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.
2. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. (Be sure to remove it prior to applying power—this is an electric shock precaution.)
3. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of electrostatic charge.
4. Do not use freon-propelled chemicals. These can generate electrical charges that damage ESDs.
5. Use only a grounded-tip soldering iron when soldering or unsoldering ESDs.
6. Use only an anti-static solder removal device. Many solder removal devices are not rated as "anti-static"; these can accumulate sufficient electrical charge to damage ESDs.
7. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
8. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.
9. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an ESD.

## 2. Specifications

Model Name	GPM-51A	
Power Consumption	220W	
Screen Size	130 cm (diagonal)	
Dimensions (W x D x H)	SET	1,133 x 595 x 1,653 (mm)
	Remote Control	66 x 35.5 x 212.5 (mm)
Weight (kg)	SET	121.5kg
	Remote Control	168g (including batteries)
Picture Tube	High Contrast, Instant Receive Type	
Input Signal	R, G, B C-Sync (H/V)	
Input impedance	High/ 75 W	
Input Signal Level	3.3V/0.7V	
Input Format	CGA (640 x 200) H : 15.7kHz V : 60 Hz	
	EGA (640 x 350) H : 24.83kHz V : 60 Hz	
	VGA (640 x 480) H : 31.5kHz V : 60 Hz	
Display Format	VGA (640 x 480) H : 31.5kHz V : 60 Hz	
Power Requirements	Set : AC 110 ~ 220V, 60Hz	
	Remote Control : DC 1.5V (AAA size) x 2	
Amplification Type	Insulation Switch	

Specifications are subject to change without notice.

## 2-1 IC Line Up

### 2-1-1 MAIN

No.	Name	Location	Description
1	SI-3090C	IC01	VOLTAGE REGULATOR
2	SI-3050C	IC02,IC03	POSI.ADJUST REGULATOR
3	CXP853P40S-1	IC901	MICOM
4	AT24C02-10PC	IC902	EEPROM
5	KA7533Z	IC903	VOLTAGE COMPARATOR
6	KIA7042P	IC904	VOLTAGE DETECTOR

### 2-1-2 POWER

No.	Name	Location	Description
1	STR-S6709	IC801,802	SMPS CONTROL S/W
2	SE012N	IC803	POWER SUPERVISORY IC
3	SE110N	IC804	POWER SUPERVISORY IC
4	PS2561-1-P	IC805,806	PHOTO COUPLER
5	SI-3050C	IC807	POSI.ADJUST REGULATOR
6	KA7906	IC808	NEGA.FIXED REGULATOR
7	KA7806	IC809	POSI.FIXED REGULATOR

### 2-1-3 CONV. AMP

No.	Name	Location	Description
1	STK392-040	ICZ103,104	VIDEO AMP

### 2-1-4 DEFLECTION

No.	Name	Location	Description
1	LA7845	IC301	VERTICAL AMP
2	KA78R12	IC421	VOLTAGE REGULATOR
3	MC4558C	IC431	OP AMP
4	TL494CN	IC471	PWM CONTROL IC
5	KA431LZ	IC481	VOLTAGE REGULATOR
6	TC74HC123AP	IC491	CMOS LOGIC

**2-1-5 UP/DOWN SCALER**

No.	Name	Location	Description
1	74F14D	ICA01	INVERTER
2	74F125	ICA02	BUFFER
3	74ABT125	ICA04	BUFFER
4	TDA8752H/8	ICA05	A/D CONVERTER
5	TL431	ICA06	POSI.ADJUST REGULATOR
6	P89C51RD+1N	ICC01	μ-PROCESSOR
7	AT24C16-10PC	ICC02	EEPROM
8	MC141544DWR2	ICC03	OSD PROCESSOR
9	KIA7442	ICC04	RESET IC
10	KM416S1020BT-G/F10	ICF01,02,03	DRAM
11	MM88282FC	ICM01	LCD CONTROLLER
12	LA931CDT33	ICM02	VOLTAGE REGULATOR
13	TDA8772H/8	ICU01	D/A CONVERTER

**2-1-6 MATRIX**

No.	Name	Location	Description
1	SDA9361	ICY01	HORI/VER. PROCESSOR
2	CXA2011Q	ICY05	VIDEO SWITCH
3	CXA1839Q	ICY06	CHROMA
4	74HCT221	ICY07	MULTIVIBRATOR

**2-1-7 CONTROL**

No.	Name	Location	Description
1	74HCT86	IC001	OR GATE
2	EL4583CN	IC002	SYNC SEPARATOR

## 3. Alignment and Adjustments

### 3-1 I<sup>2</sup>C Bus Data Adjustment

1. Select Cg Mode.
2. Press R/D →C-MUTE →G (Cg.SEL) →D-DEFAULT→POWER to enter the Service Mode.

#### 3-1-1 The following will appear on screen:

SDA 9361		
11	V SHIFT	128

SDA9361 : Adjustment IC  
 11 : Adjustment Item Number  
 V SHIFT : Adjustment Item  
 128 : Adjustment Data

#### 3-1-2 Service Mode Controls

1. When replacing IC902 EEPROM, keep power ON for 4 to 5 minutes (writing time for EEPROM initial data) after plugging in the EEPROM.
2. After replacing IC902 EEPROM, enter the Service Mode and input standard data for all items before adjusting GEOMETRIC, WHITE BALANCE, SUB-CONTRAST, and SUB-BRIGHTNESS.



## 3-2 Micom

NO	ITEM	RANGE	INITIAL VALUE	IC	NO	ITEM	RANGE	INITIAL VALUE	IC
11	V SHIFT	0 ~ 255	128	SDA9361	43	SWITCHS	0 ~ 15	5	CAX2011Q
12	V SIZE	0 ~ 255	65		44	D COLOR	0 ~ 1	1	
13	V LINEARITY	0 ~ 255	116		45	SYSTEM	0 ~ 3	3	
14	V S CORRECTION	0 ~ 255	104		46	POL SW	0 ~ 1	0	
15	V EHT	0 ~ 255	0		47	SHP LIM	0 ~ 1	0	
16	H SIZE	0 ~ 255	126		48	D ABL	0 ~ 1	0	
17	PIN PHASE	0 ~ 255	95		49	YSYM SW	0 ~ 1	0	
18	PIN AMP	0 ~ 255	112		50	AGING 1	0 ~ 1	0	
19	UPPER CORNER	0 ~ 255	128		51	AGING 2	0 ~ 1	0	
20	LOW CORNER	0 ~ 255	128		52	SUB HUE	0 ~ 15	8	
21	H EHT	0 ~ 255	0		53	SUB BRIGHT	0 ~ 15	7	
22	H SHIFT	0 ~ 255	120		54	RY R	0 ~ 15	5	
23	V ANGLE	0 ~ 255	128		55	RY B	0 ~ 15	11	
24	V BOW	0 ~ 255	128		56	GY R	0 ~ 15	9	
25	H SYNC PHASE	0 ~ 255	138		57	GY B	0 ~ 15	3	
26	DRIVE LEVEL	0 ~ 63	45		58	SUB CONT 1	0 ~ 15	8	CXA1839Q
27	SUB BRIGHT	0 ~ 63	18		59	SUB COLOR 1	0 ~ 15	8	
28	R DRIVE	0 ~ 63	32		60	SUB CONT 2	0 ~ 15	9	
29	G DRIVE	0 ~ 63	32		61	SUB COLOR 2	0 ~ 15	14	
30	B DRIVE	0 ~ 63	32		62	RGB 1 LEVEL	0 ~ 15	8	
31	R CUT OFF	0 ~ 15	8		63	RGB 2 LEVEL	0 ~ 15	8	
32	G CUT OFF	0 ~ 15	8		64	SUB SHP	0 ~ 3	3	
33	B CUT OFF	0 ~ 15	8		65	SHP FO	0 ~ 3	0	
34	SIG SEL	0 ~ 3	0		66	PRE OVER	0 ~ 3	3	
35	SYNC SEL	0 ~ 3	3		67	NR LEVEL	0 ~ 1	0	
36	SYNC SW	0 ~ 3	0	68	DC TRAN	0 ~ 3	2		
37	ABL SW	0 ~ 1	1	69	DYNAMIC PIC	0 ~ 3	3		
38	AKB T	0 ~ 1	1	70	CEC LEVEL	0 ~ 3	3		
39	HD SYNC	0 ~ 1	0	71	VM LEVEL	0 ~ 3	2		
40	GAMMA LEVEL	0 ~ 15	8	72	ABL LEVEL	0 ~ 3	0		
41	P ABL LEVEL	0 ~ 15	13	73	PAT GEN H	0 ~ 255	3	VPC3215	
42	RGB OFF	0 ~ 15	15	74	PAT GEN L	0 ~ 255	92		

NO	ITEM	RANGE	INITIAL VALUE	IC	NO	ITEM	RANGE	INITIAL VALUE	IC
75	INP SEL H	0 ~ 255	33	VPV3215	106	CLOCK	0 ~ 1	0	
76	INP SEL L	0 ~ 255	33		107	VCR MODE	0 ~ 1	0	
77	COMB UC H	0 ~ 255	0		108	SLICE LEVEL	0 ~ 1	0	
78	COMB UC L	0 ~ 255	1		109	15kHz	0 ~ 1	0	
79	V PEAKING	0 ~ 255	13						
80	NOT USED	0 ~ 255	48						
81	K EACTOR 32	0 ~ 255	104	SDA9272					
82	K EACTOR 10	0 ~ 255	33						
83	Y TH 0	0 ~ 255	16						
84	Y TH 1	0 ~ 255	48						
85	Y TH 2	0 ~ 255	80						
86	TTP TPS PEL	0 ~ 255	158						
87	SFNR SFVF HF	0 ~ 255	109						
88	VS DLY	0 ~ 255	54						
89	AL	0 ~ 255	249						
90	NAL P64 IP	0 ~ 255	151						
91	NAP30 HS DLY	0 ~ 255	2						
92	NAL INTL42	0 ~ 255	8						
93	NAP INTL10	0 ~ 255	68						
94	ZOOM	0 ~ 255	129						
95	PAN	0 ~ 255	0						
96	DCTIC	0 ~ 255	12	SDA9280					
97	LFC	0 ~ 255	7						
98	LPC LOWPASS	0 ~ 255	72						
99	LPC HIGHPASS	0 ~ 255	68						
100	AUTO ON	0 ~ 1	1	OPTION					
101	PC INPUT	0 ~ 1	1						
102	FORMAT INPUT	0 ~ 1	0						
103	SDA9361	0 ~ 1	1						
104	KA22688	0 ~ 1	0						
105	UPD6488	0 ~ 1	0						

## 3-3 Video Adjustment

### 3-3-1 Screen Adjustment

1. Power on and select Monitor Mode.
2. Warm up the TV for at least 30 minutes.
3. Connect to the Signal generator (MSPG 3240 Video signal generator) for input signal.
4. Turn off the R,G,B signal. (Use a signal generator.)
5. Connect an oscilloscope to RK,GK,BK.
6. Adjust the VR(VR501,VR531,VR561) screen so that RK,GK,BK pulse is 20Vp-p each. (Turn the R,G,B VR screen fully counterclockwise in the area of each flyback line.)

### 3-3-2 High Voltage (31KV) Adjustment

1. Input a 100% white pattern.
2. Warm up the Monitor for at least 10 minutes.
3. Connect the (+) terminal of the 1000 : 1 probe to the high voltage distributor and the (-) terminal to GND (located on the deflection board).
4. Adjust VR471(located on the deflection board) so that the digital meter indicates  $DC31KV \pm 0.1KV$ .

### 3-3-3 F.S. (Fail Safe) Circuit Check

NOTE : The F.S. Circuit check must be performed after servicing.

1. Turn on the Monitor.
2. Short GT18, GT17 (located on the Convergence PCB). The picture will disappear.  
(Note : Even if the shorted terminals are removed, the picture will not reappear. This proves the F.S. circuit is working.)
3. To restore picture, turn off the Monitor and reset it after 30 seconds.

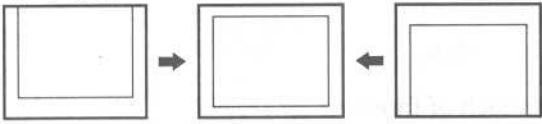
## 3-4 Picture Size Adjustment

### 3-4-1 Deflection Picture Adjustment.

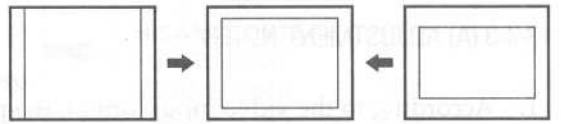
1. Input a 31.5K crosshatch pattern.
2. Turn off the TV.
3. Cover the Red and Blue lenses.
4. Enter the Monitor Adjustment mode by pressing the remote control keys in the following sequence: R/D → C-MUTE → G(Cg SEL) → D-DEFAULT → POWER.
5. Warm up the TV for at least 10 minutes.
6. Select V-LINEARITY (13) using the MENU-/SEL+ key. Adjust so that the top and bottom of the screen can be symmetrical (Use the R/D or Center key).  
Note : The R/D key decreases the data value. The Center key increases the data value.
7. After the V-LINEARITY adjustments are completed, select V-SIZE (12) using the MENU/SEL key. At this time, adjust so that the picture size becomes maximum.
8. After the V-SIZE adjustments are completed, select H-SIZE and adjust so that the picture size becomes maximum.
9. Press the Add key to save the data.

### 3-4-2 Screen Change (When adjusting I<sup>2</sup>C Bus Geometric items)

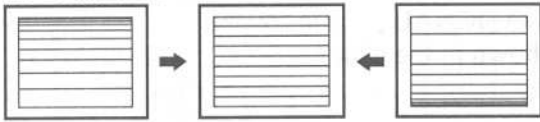
11 V SHIFT



12 V SIZE



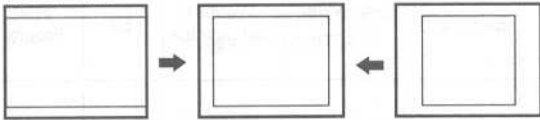
13 V LINEARITY



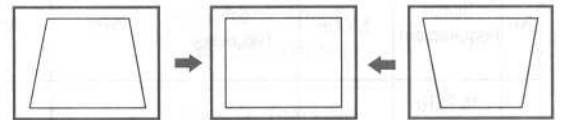
14 V - S - CORRECTION



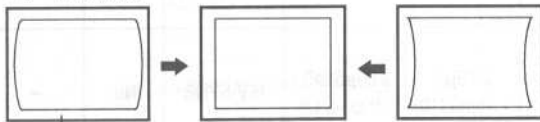
16 H SIZE



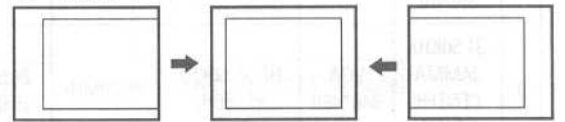
17 PIN PHASE



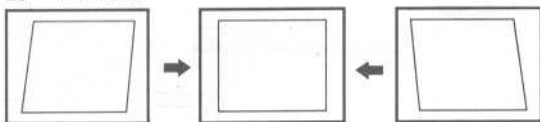
18 PIN AMP



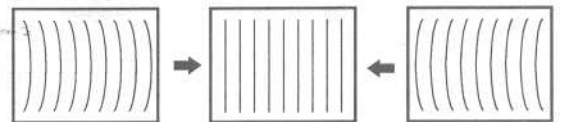
22 H SHIFT



23 V ANGLE



24 V BOW



### 3-4-3 Picture Adjustment (Via the Mode Adjustment)

Note : According to the JAMMA Standard, adjust the picture size (depending on the signal characteristic for each frequency).

#### 3-4-3 (A) ADJUSTMENT NOTES

1. According to the video input format, the picture size meets each of three signal requirements (CGA,EGA,VGA) when the monitor is shipped.
2. As the picture size (by JAMMA Standard) does not always conforms to the signal (output from the game player), be sure to do the picture size adjustments according to the signal characteristic of each game player.
3. On the basis of the signal generated by "MSPG 3240 VIDEO SIGNAL GENERATOR," the video input format is established as shown in the table below.

No	Signal Requirement	MODE	Sync Frequency	Pixel	Active	Front-porch (H/V fp)	Back- porch	Sync Width (H/V sw)	Sync Configuration	EQ	Sync Polarity
1	15.7KHz JAMMA CENTER SIGNAL	CGA 640*200	Hf :15.7KHz Vf : 59.920Hz	12.56MHz	46.54μS 13.49mS	3.41μS(43) 0.92mS (10)	7.24μS 0.18mS (10)	6.50μS(82) 0.38mS (6)	C-SYNC	No	-
2	24.83KHz JAMMA CENTER SIGNAL	EGA 640*350	Hf :24.83KHz Vf : 59.980Hz	19.86MHz	30.36μS 14.83mS	2.01μS(40) 0.44mS (11)	4.40μS 1.14mS (10)	3.50μS(70) 0.24mS (6)	C-SYNC	No	-
3	31.50KHz JAMMA CENTER SIGNAL	VGA 640*480	Hf :31.50KHz Vf : 60Hz	25.20MHz	24.50μS 15.05mS	0.99μS(25) 0.38mS (12)	2.75μS 1.15mS (10)	3.50μS(88) 0.095mS (3)	H.V-SYNC	No	-

#### 3-4-4 Defining the Picture Adjustment



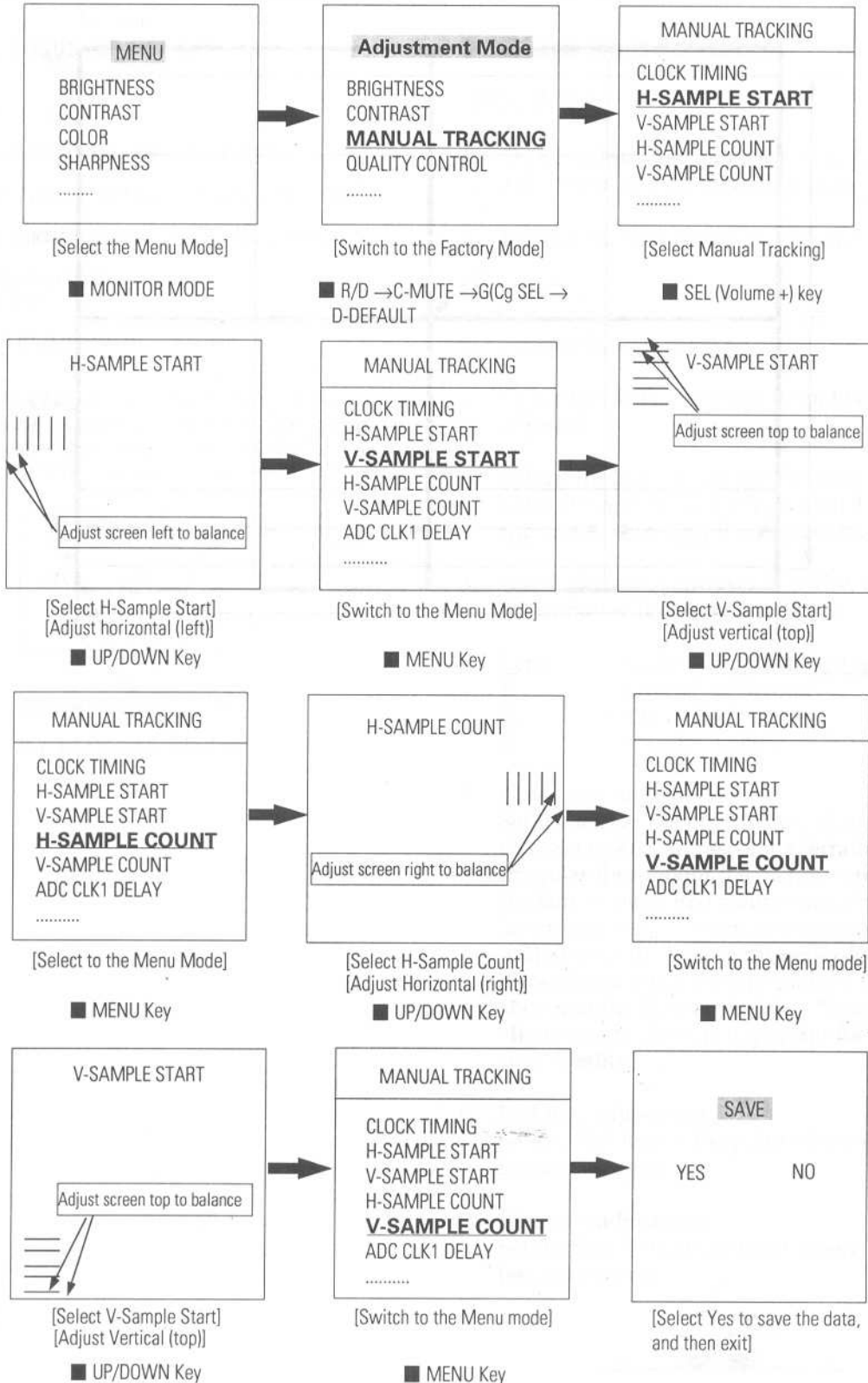
Enter the Monitor Adjustment  
pressing the remote control  
in the following sequence:

1. [M] → [D-DEFAULT]

2. [M] → [D-DEFAULT]



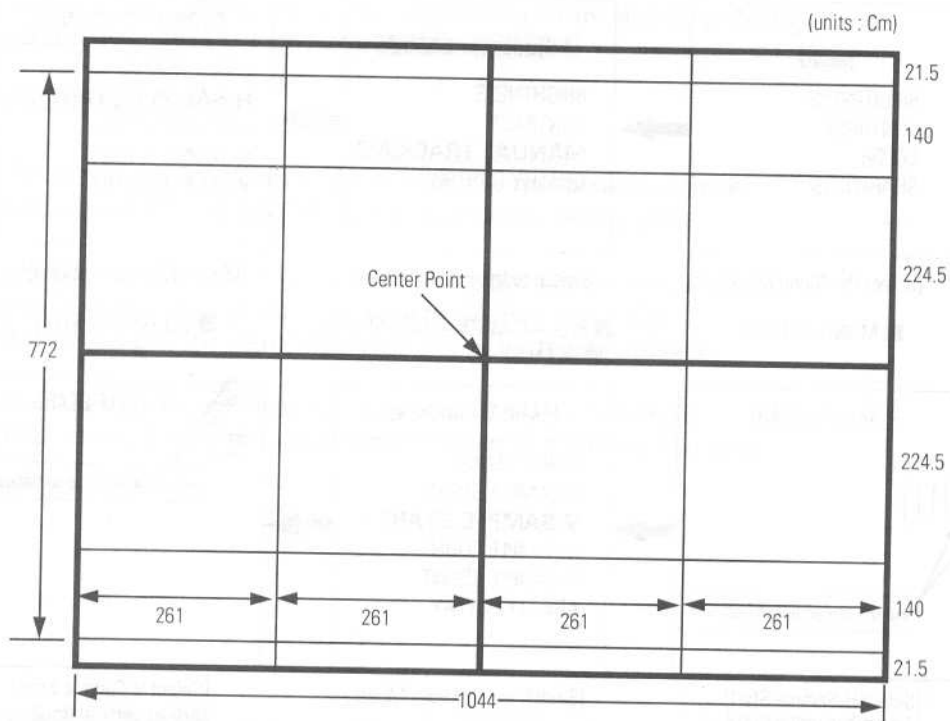
### 3-4-4 Picture Size Adjustment Mode



**Note :**

1. Adjustment three different modes : CGA (15.75KHz), EGA (24.83KHz), VGA (31.5KHz) Same adjustment mode/procedure as above
2. Be sure to save the adjustment data for each mode.

### 3-4-5 Convergence Screen-Jig



## 3-5 Other Adjustment

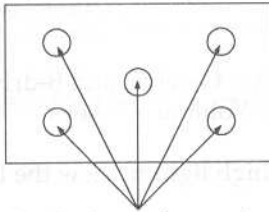
### 3-5-1 Static Focus Adjustment

#### PRECAUTION

1. Input a crosshatch pattern (31KHz).
2. Cover the lenses that are not being adjusted.
3. Connect a convergence jig and read data.
4. Adjust the lens for best focus.  
(See Fig. 3-1)

#### STATIC FOCUS (CONTINUED)

Vary the focus pack VR (Red, Blue) on the front cabinet. Adjust the TV for best possible focus around the center of the crosshatch pattern, without losing overall screen balance.



Examine these points together

Fig. 3-1 Crosshatch Pattern.

### 3-5-2 Lens Focus Adjustment

#### PRECAUTIONS

1. Do this adjustment after the static focus adjustment and the tilt adjustment.
3. Input a crosshatch pattern (31KHz).

#### ADJUSTMENT

1. Loosen the lens screws.
2. Cover the two lenses that are not being adjusted.
3. Adjust the lens, observing the color aberration vertically and horizontally within 3 blocks of the center of the crosshatch pattern.
4. When the lens is turned clockwise, the color aberration will change as follows:

Lens	Color Aberration Change
R	Orange - Crimson
G	Blue - Red
B	Purple - Green

5. Green lens adjustment:  
Set the lens at the point where Blue just changes to Red. If the color aberration is irregular throughout the picture screen, adjust the lens to show Red color aberration (approximately 1~3 mm area) within a 3-block grid around the horizontal center-line. If the color aberration is irregular, adjust the lens as shown in the diagram below. (Accurate alignment of Green is important for overall color quality.)
6. Red lens adjustment  
Set the Red lens at the point where Orange becomes Crimson.
7. Blue lens adjustment  
Set the Blue lens at the point where Purple becomes Green.

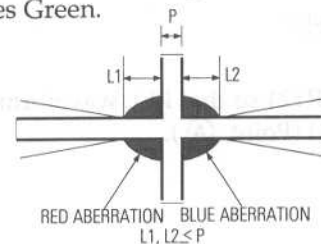


Fig. 3-2 Color Aberration

### 3-5-3 Horizontal Dynamic Focus Adjustment

#### SETUP

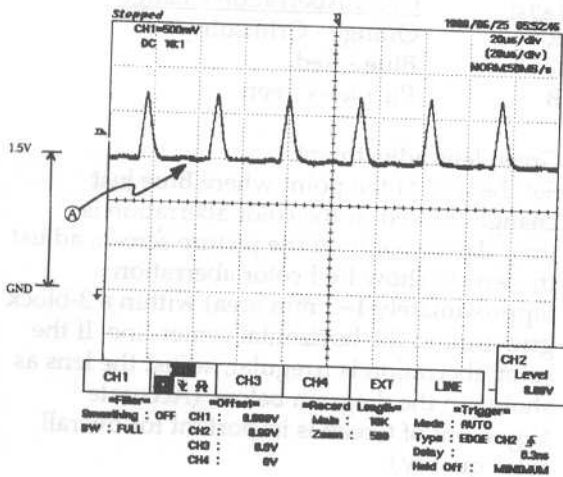
1. Input a crosshatch pattern (31kHz).
2. Warm up the TV for at least 10 minutes.

#### ADJUSTMENT

1. Cover the Red and Blue lenses.
2. Adjust VR491 (located on the deflection PCB, H-Parabola).
3. Balance the left and right sides of the dynamic focus lines.

### 3-5-4 Convergence Module Adjustment

#### IFT ADJUSTMENT



1. Connect T2 Point to an oscilloscope.
2. Adjust IFT (L100) so that PLL waveform becomes DC 1.5V.

#### VR ADJUSTMENT

1. Adjust VR124 so that PLL waveform becomes horizontal (Point A).

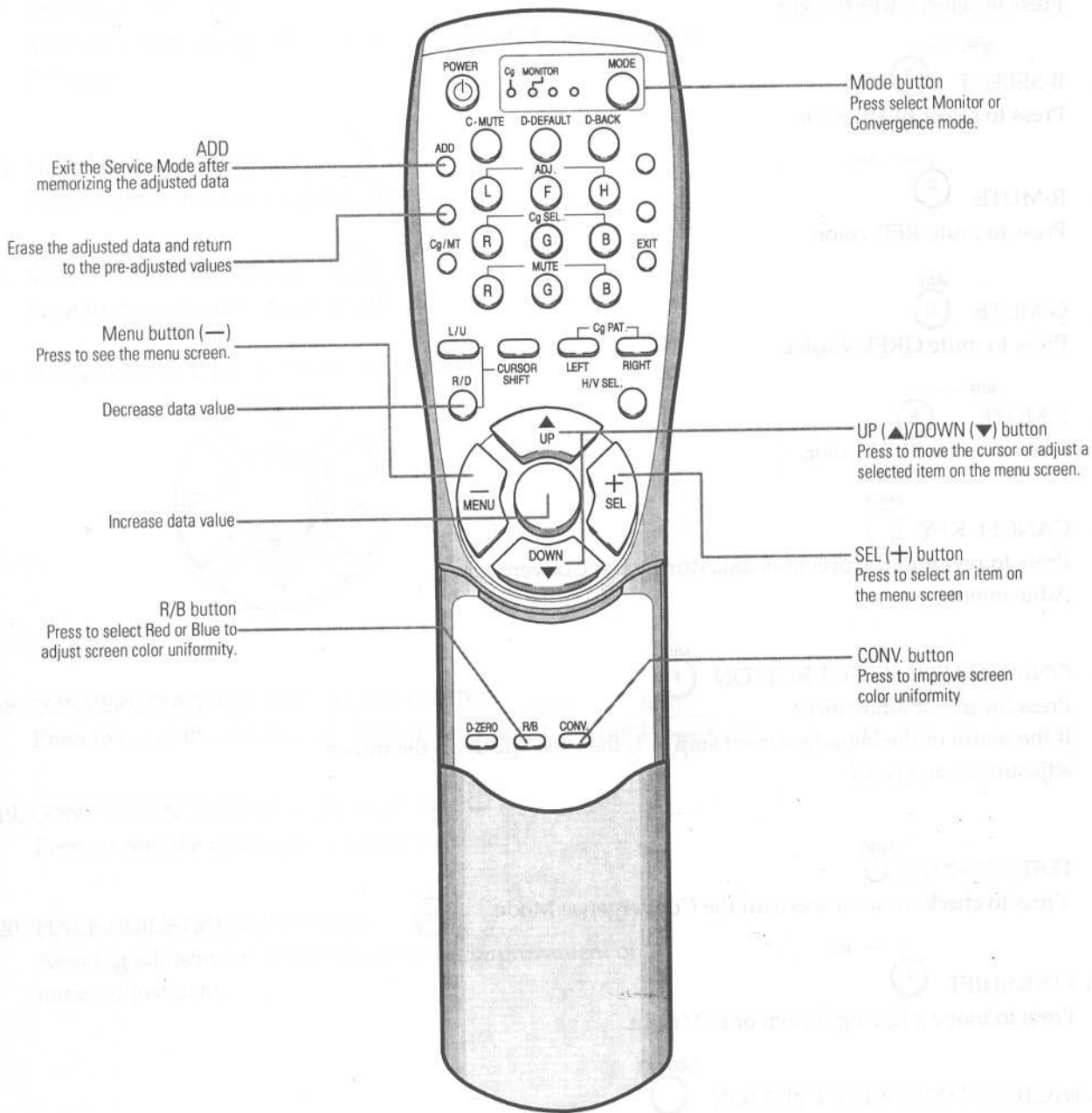
### 3-5-5 White Balance Adjustment

1. Select the "Monitor" video mode.
2. Input an 100% white pattern (Use a signal generator).
3. Enter the adjustment mode by pressing the remote-control keys in the following sequence:

R/D → C-MUTE → G (Cg.SEL) → D-DEFAULT → POWER.












4. Warm up the TV for at least 30 minutes.
5. Input a 10-step signal.
6. R-cut off, B-cut off, and G-cut off by pressing the MENU -/SEL + key.
7. Adjust the low light to view the dark side of the screen.
8. Select R-drive, G-drive, and B-drive by pressing the Volume +/- keys.
9. Adjust the high light to view the light side of the screen.
10. If necessary, redo adjustments 6~9.
11. Press the Menu key to exit.

### 3-6 Remote Control for Servicing (Convergence Mode)







### 3-6-1 KEY Function


1. R-SELECT  Cg SEL.  
Press to select RED color.
2. G-SELECT  Cg SEL.  
Press to select GREEN color.
3. B-SELECT  Cg SEL.  
Press to select BLUE color.
4. R-MUTE  MUTE  
Press to mute RED color.
5. G-MUTE  MUTE  
Press to mute GREEN color.
6. B-MUTE  MUTE  
Press to mute BLUE color.
7. CANCEL KEY  D-BACK  
Press to revert to the previous data during the Convergence Adjustment.
8. FINE/COARSE SELECT BUTTON  ADJ. F  
Press for minor adjustment.  
If the width of the big-adjustment step is 1, then the width of the minor adjustment step is 0.5.
9. TEST/NORMAL  Cg/MT  
Press to check Monitor mode in the Convergence Mode.
10. LINE SHIFT  ADJ. L  
Press to move a line up/down or left/right.
11. FACTORY DATA SELECT BUTTON  D-DEFAULT  
Press to call the factory default values.

12. H/V DIRECTION SELECT BUTTON    
 Press to switch the cursor direction horizontally or vertically.

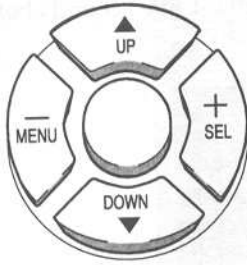
13. SAVE BUTTON    
 After the Convergence Adjustments are completed, press to save data.



14. EXIT BUTTON    
 After the Convergence adjustments are completed, press to exit to TV mode.


15. MOVE CURSOR FORWARD    
 Press to move the cursor right or down.


16. MOVE CURSOR REVERSE    
 Press to move the cursor left or up.

17. CONVERGENCE PICTURE MOVE BUTTON



18. CONVERGENCE PATTERN MOVE BUTTON   
 Press to move the convergence pattern left (  ) or right (  ).

19. CONVERGENCE DATA ZERO BUTTON    
 Press to zero the convergence correction data.

20. HALF ADJUSTMENT BUTTON    
 After big adjustments are made, press for improvement of minor adjustment.

### 3-7 Convergence Adjustment

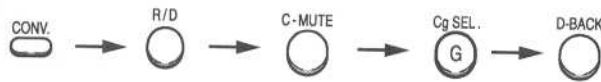
1. Warm up the TV for at least 30 minutes.
2. Input a Game Signal (Use a signal connection cable).




Make sure that both deflection and convergence yokes are properly adjusted so that the center of Green, Red, Blue pattern is aligned on the center of screen jig.

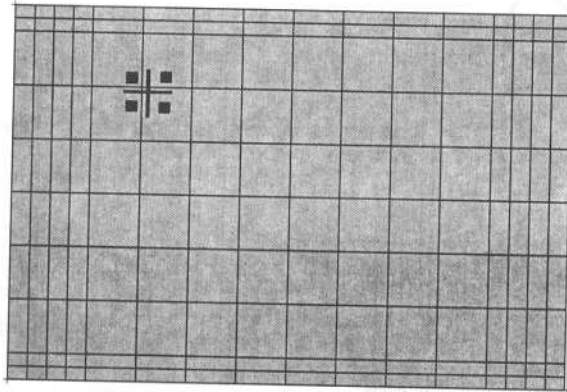
Select Cg by pressing the Mode button

3. Enter the Convergence Mode by pressing the remote control keys in the following sequence:

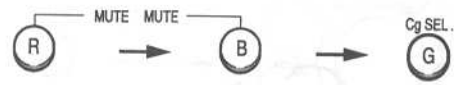


If OSD is displayed as shown in figure below, press the  key to exit. Then, redo step 3 to enter the Convergence Mode.

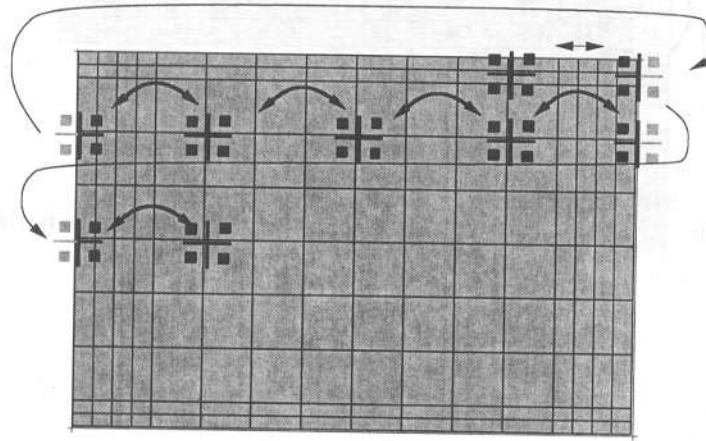
After entering the Convergence Mode, Stand by for about five seconds before doing the adjustments.




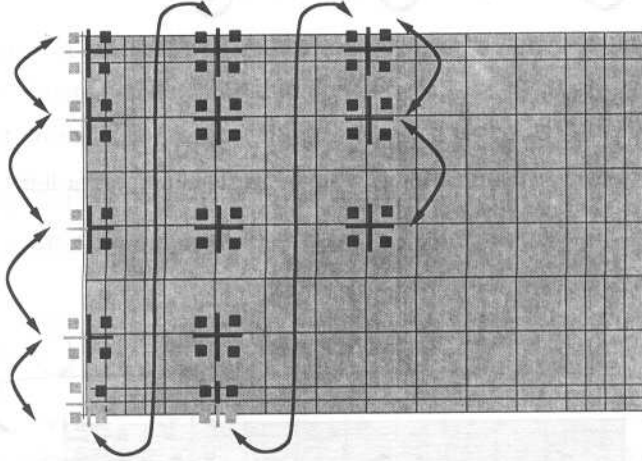
4. To adjust GREEN, first press the **R** and the **B** keys, and then press the **G** key.




5. The **LEFT** key moves the cursor right, and the **RIGHT** key moves the cursor left.




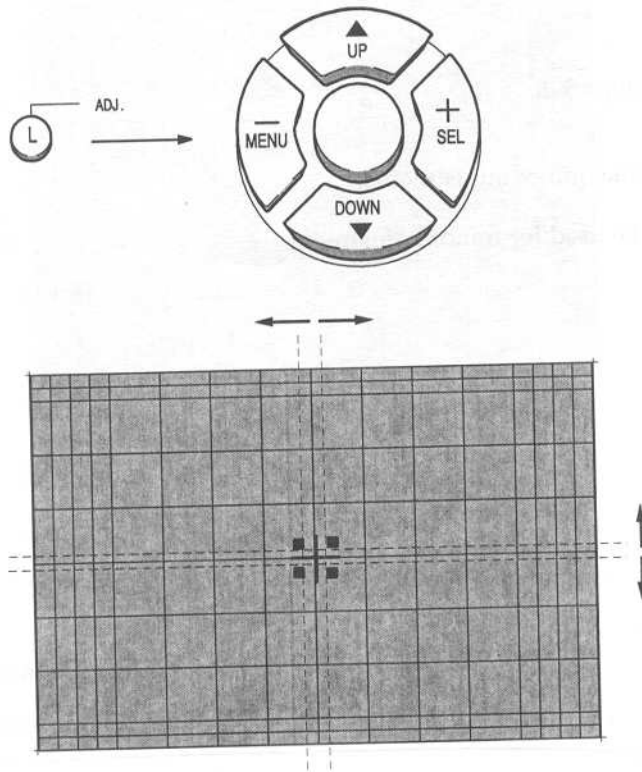
6. The <sup>H/V SEL.</sup>  key moves the cursor horizontally or vertically.





When the <sup>H/V SEL.</sup>  key is pressed once again, the cursor moves horizontally.



7. Use the  key for overall balance.

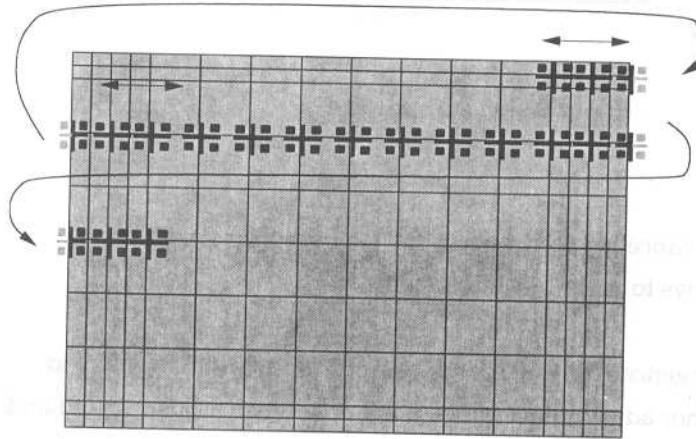
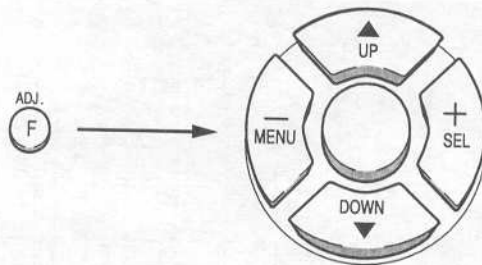


8. After the Line Shift is cancelled by pressing the  key, use the Channel and -MENU/+SEL keys to make big adjustments.
9. After the green convergence adjustments are completed, press the  key to save the data (The minor adjustments can be done only when adjusting Red and Blue).

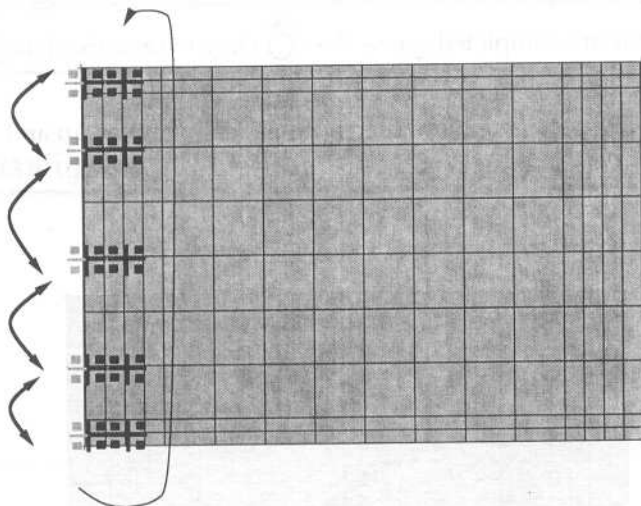
10. Superimpose the Red and Green colors by pressing the <sup>MUTE</sup> **R** and the <sup>Cg SEL.</sup> **R** keys.


11. To adjust RED, redo steps 5~8.




12. Use the <sup>ADJ.</sup> **F** key to make minor adjustments.  
(Or the <sup>ADJ.</sup> **H** key can be used for minor adjustment.)



Cursor Movement (when making minor adjustments)



When the cursor moves vertically 

13. To superimpose the blue and green colors, press (1) the  key for R-Mute, (2) the  key to cancel the B-Mute, and (3) the  key for B-select.

14. To adjust BLUE, redo steps 5 ~ 8, 12.

15. If any color is not properly adjusted when displaying the red, blue and green colors, readjust the color.

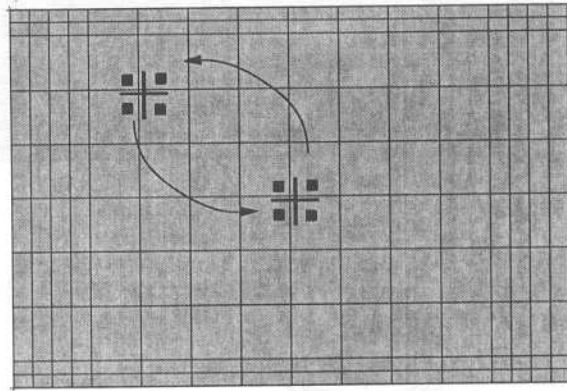


When readjusting a color, enter the minor adjustment mode. Otherwise, the existing adjustment data might be distorted.

16. After the color adjustments are completed, press the (  $\text{\textcircled{O}}$  ) key to save the data.



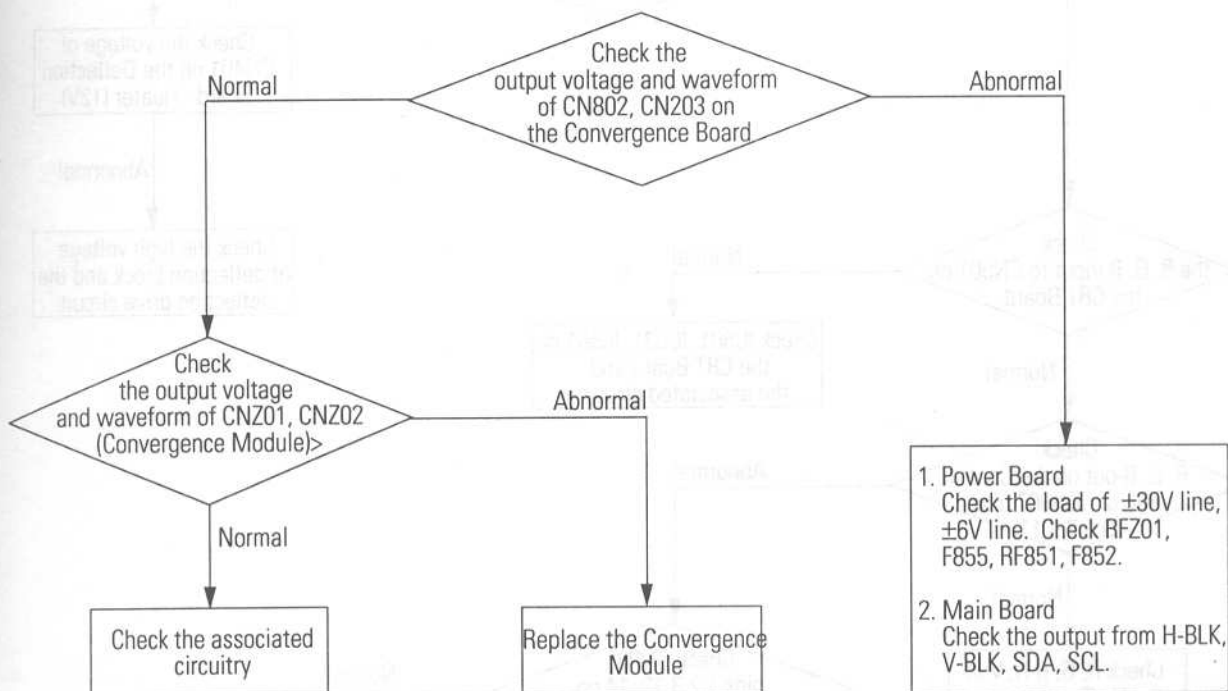
The cursor moves to center, and then automatically moves up and to the left about five seconds later.



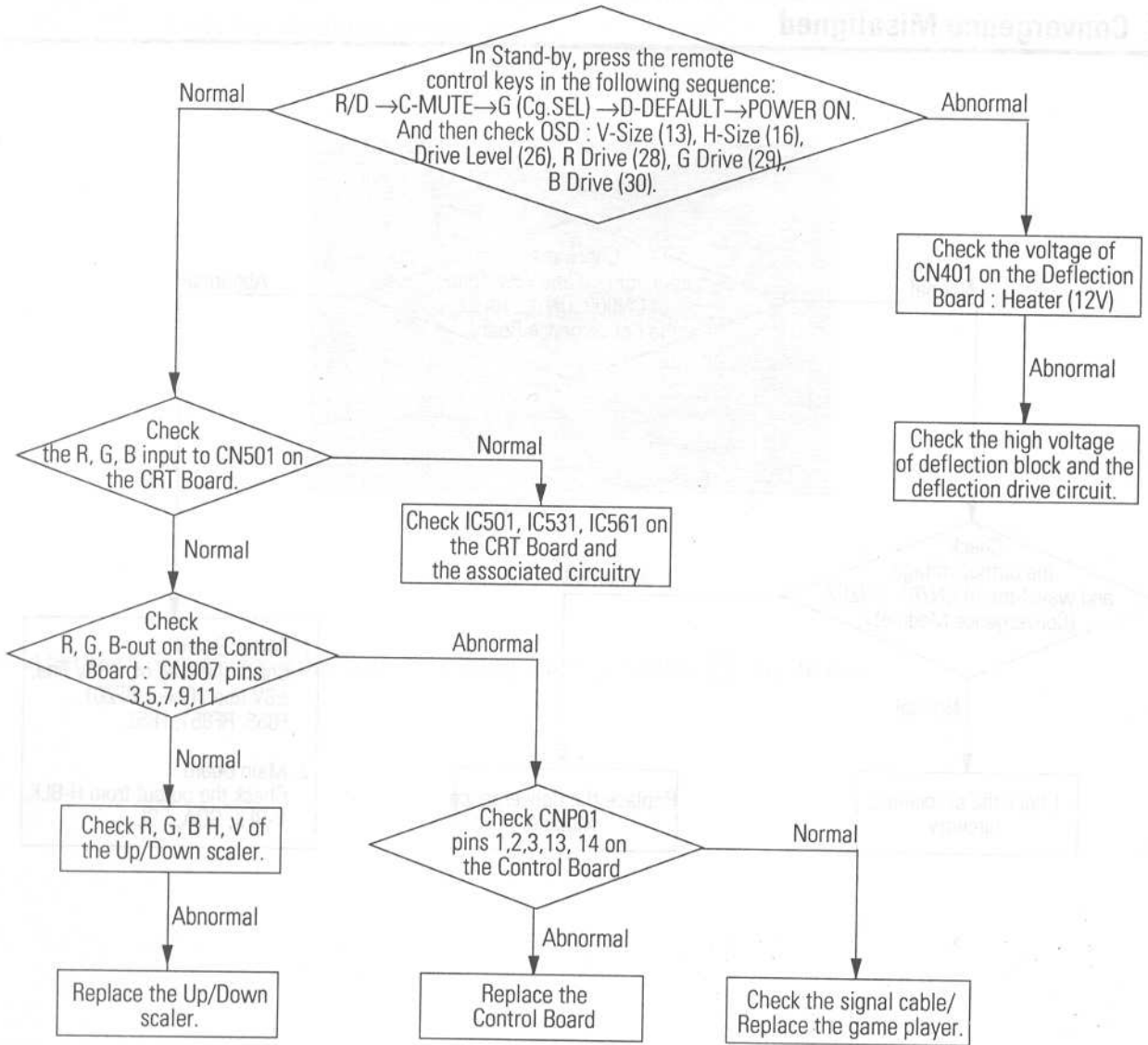
17. After the Convergence Adjustments are completed, press the (  $\text{\textcircled{O}}$  ) key to exit.

## 4. Troubleshooting

### 4-1 Convergence Misaligned

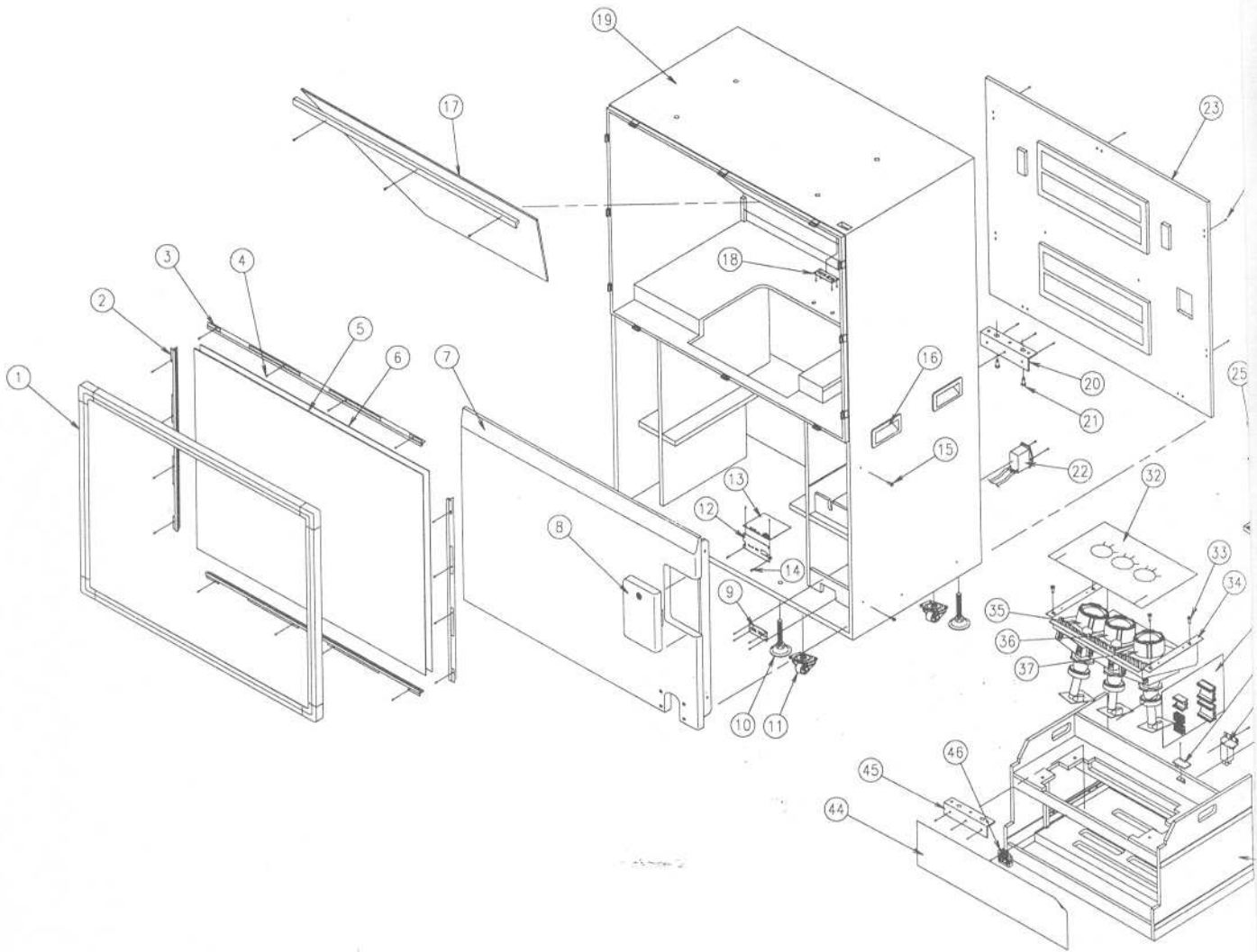


## 4-2 No Picture

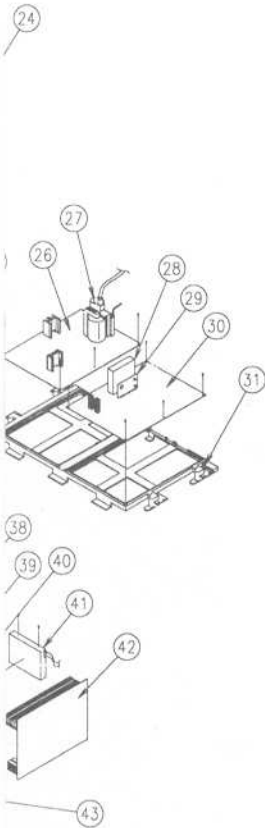


# 5. Exploded View & Parts List

## 5-1 GPM-51A



No.	DESCRIPTION	CODE - NO	SPECIFICATION	Q'TY
1	ASSY-CABINET,MASK	AA91-00081A	ABS HB BLK	1
2	HOLDER-SCREEN	AA61-00024D	L730	1
3	HOLDER-SCREEN	AA61-00024C	L1002	1
5	SUN-SCREEN	AA67-70048A	T2.0	1
6	SCREEN-TINT	AA67-70065A	DNP T2.92	1
7	COVER-FRONT	AA63-00067A	WOOD	1
8	DOOR-CONTROL	AA64-00215A	WOOD	1
9	HOLDER-CONNECTOR	AA61-00062A	SECC T1.0	1
10	LEG-STOPPER	AA64-00216A	M16	4
11	CASTER	AA61-00030A	50,23,H63	4
12	BRACKET-CONTROL	AA61-00059A	SECC T1.0	1
13	ASSY-PCB,CONTROL	AA95-00183A	GPM-51A, P52A	1
14	SCREW-WOOD	AA60-00018A	M4 L20	2
15	SCREW-MACHINE	AA60-00019A	SCM435 M6*30	4
16	HANDLE-CABINET,WOOD	AA64-00209A	ABS HB BLK	4
17	MIRROR-BACK	AA67-00006A	1046*709*667	1
18	HOLDER-CONNECTOR	AA61-00062A	SECC T1.0	1
19	ASSY-CABINET,WOOD	AA91-00082A	WOOD	1
20	BRACKET-CHASSIS	AA61-00038A	SECC T1.6	1
21	SCREW-ASSY	AA60-00015A	M8 L25	2
22	POWER MASTER-ASSY	AA95-00118A	MASTER	1
23	COVER-BACK	AA63-00068A	WOOD	1
24	SCREW-TAPPING	AA60-10050U	M4 L25	9
25	SCREW-TAPTITE	6003-001023	M3 L10	13
26	ASSY-PCB,DEFLECTION	AA95-00075A	SVP431JM,KPM51A	1
27	TRANS-FLYBACK	AA25-30005A	FWZ-50A001,50	1
28	ASSY-PCB,UP/DOWN SCALE	AA95-00088A	GPM-51A, P52A	1
29	ASSY-PCB,MATRIX BOARD	AA95-00134A	GPM-51A,P52A	1
30	ASSY-PCB,MAIN(OPT)	AA94-00607A	GPM-51A,P52A	1
31	HOLDER-CHASSIS	AA61-20142B	ABS V0 GRY	1
32	SPACER-COVER,DUST	AA63-60121A	FELT T1.0	1
33	SCREW-ASSY	AA60-00015A	M8 L25	4
34	BRACKET-CRT,MAIN	AA61-11026A	SECC T1.6	1
35	ASSY-CRT(R)	AA94-00741A	P16LNM07RJA	1
36	ASSY-CRT(G)	AA94-00743A	P16LNM07HKA	1
37	ASSY-CRT(B)	AA94-00742A	P16LNM07BMB	1
38	ASSY-PCB,POWER	AA95-00094A	SVP431JM,KPM51A	1
39	REMOCON MODULE	AA95-90028T	SVP431JM,KPM51A	1
40	BRACKET-HV	AA61-10149A	SECC T1.0	1
41	ASSY-PCB, CONN.MOD	AA95-90038T	SVP431JM,KPM51A	1
42	ASSY-PCB, CONN AMP	AA95-00169A	GPM-51A,P52A	1
43	ASSY-CABINET,CHASSIS	AA91-00100A	WOOD	1
44	SPACER-FELT	AA63-60131C	820*140	1
45	BRACKET-CHASSIS	AA61-00038A	SECC T1.6	1
46	MODULE-FOCUS PACK	AA59-40002E	MHF174-04,NTSC	1





# 6. Electric Parts List

## 6-1 GPM-51A

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
<b>ASSY-PCB,MAIN</b>				DZ912	0403-000654	DIODE-ZENER;MTZ12B,12V,11.44-12.03V,500m	
				DZ913	0403-000296	DIODE-ZENER;MTZ5.6B,5.6V,5.45-5.73V,500m	
				DZ914	0403-000654	DIODE-ZENER;MTZ12B,12V,11.44-12.03V,500m	
*	AA94-00607A	ASSY-PCB,MAIN(OPT);GPM-51,P52A,DOMESTIC.		H014	AA63-00065A	SHIELD-CASE,-,SPTE0.5,0.5,SHIELD-CASE BO	
C501	2401-000027	C-AL;4.7uF,20%,50V,GPTP,5x11.5		IC01	1203-000577	IC-VOLTAGE REGUATOR;3090,ZIP5P,-,PLASTI	H/SINK
C801	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP,		IC02	1203-000203	IC-POS.ADJUST REG.;3050,TO-220,5P,-,PLA	H/SINK
C802	2401-002144	C-AL;47uF,20%,16V,GPTP,5x11.5		IC03	1203-000203	IC-POS.ADJUST REG.;3050,TO-220,5P,-,PLA	
C803	2401-000133	C-AL;1000uF,20%,16V,GPTP,10x20.5		IC901	AA13-30002H	IC-MCU,-,CXP853P40S-1,8bit,SDIP,-,64P	
C804	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP,		IC902	1103-000128	IC-EEPROM;24C02,256*8BIT,DIP,8P,300MIL,1	
C805	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP,		IC903	1202-000001	IC-VOLTAGE COMP;7533,TO-92,3P,-,SINGLE,	
C806	2401-002144	C-AL;47uF,20%,16V,GPTP,5x11.5		IC904	1203-000515	IC-VOL. DETECTOR;7042,TO-92,3P,177MIL,PL	
C807	2401-000133	C-AL;1000uF,20%,16V,GPTP,10x20.5		L901	2701-000115	INDUCTOR-AXIAL;10uH,10%,2.8x7mm	
C808	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP,		L902	2701-000115	INDUCTOR-AXIAL;10uH,10%,2.8x7mm	
C809	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP,		L903	2701-000115	INDUCTOR-AXIAL;10uH,10%,2.8x7mm	
C810	2401-002144	C-AL;47uF,20%,16V,GPTP,5x11.5		LEAD/C	AA39-20010D	LEAD-CONNECTOR,ASSY;- ,YFH800-01,S,1P,400	
C811	2401-000133	C-AL;1000uF,20%,16V,GPTP,10x20.5		MOD/F	AA59-40003P	MODULE-FOCUS,PACK;- ,F300,NTSC,43.6x46Z	
C812	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP,		N00096	AA68-50067B	LABEL-RATING;ART PAPER(90),ALL MODEL,LAM	
C901	2401-002144	C-AL;47uF,20%,16V,GPTP,5x11.5		Q501	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
C902	2201-000558	C-CERAMIC,DISC;470pF,10%,50V,Y5P,TP,5x3,		Q502	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
C903	2401-001333	C-AL;470nF,20%,50V,GPTP,5x11.5		Q501	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
C912	2201-000471	C-CERAMIC,DISC;0.33NF,10%,50V,Y5P,TP,4X3		Q902	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
C913	2401-000480	C-AL;10uF,20%,50V,GPTP,5x11.5		Q903	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
C914	2201-000375	C-CERAMIC,DISC;220pF,5%,50V,RH,TP,9.5x3.		Q904	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
C915	2401-000480	C-AL;10uF,20%,50V,GPTP,5x11.5		Q905	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
C918	2201-000611	C-CERAMIC,DISC;56pF,5%,50V,CH,TP,6.5x3.5		Q906	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
C919	2201-000573	C-CERAMIC,DISC;47pF,5%,50V,CH,TP,6.5x3.0		Q907	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
C920	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP,		Q908	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
C921	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP,		Q911	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
C922	2201-000273	C-CERAMIC,DISC;18pF,5%,50V,CH,TP,5.3x3mm,5		Q916	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
C923	2201-000273	C-CERAMIC,DISC;18pF,5%,50V,CH,TP,5.3x3mm,5		R501	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
C924	2201-000138	C-CERAMIC,DISC;100pF,10%,50V,Y5P,TP,4.0X		R502	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
C925	2201-000138	C-CERAMIC,DISC;100pF,10%,50V,Y5P,TP,4.0X		R503	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
C926	2401-000480	C-AL;10uF,20%,50V,GPTP,5x11.5		R504	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
C927	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP,		R505	2001-000938	R-CARBON;680HM,5%,1/8W,AA,TP,1.8X3.2MM	
C928	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP,		R801	2003-002070	R-METAL OXIDE;1ohm,5%,2W,AF,TP,3.9x10mm	
C929	2401-002594	C-AL;220uF,20%,16V,GPTP,8x11.5,5		R802	2003-001031	R-METAL OXIDE(S);2.4ohm,5%,2W,AF,TP,3.9x	
CN201	3711-003641	CONNECTOR-HEADER;BOX,12P,1R,2.5mm,STRAIG		R803	2003-001031	R-METAL OXIDE(S);2.4ohm,5%,2W,AF,TP,3.9x	
CN202	3711-003641	CONNECTOR-HEADER;BOX,12P,1R,2.5mm,STRAIG		R804	2003-002070	R-METAL OXIDE;1ohm,5%,2W,AF,TP,3.9x10mm	
CN501	3711-002647	CONNECTOR-HEADER;BOX,8P,1R,2.5mm,STRAIGH		R901	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
CN810	3711-002646	CONNECTOR-HEADER;BOX,7P,1R,2.5mm,STRAIGH		R902	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
CN901	2503-000159	C-NETWORK;330PFx5,20%,50V,MCCB1H331MX5YT		R903	2001-001093	R-CARBON(S);2.2KOHM,5%,1/2W,AA,TP,2.4X6.	
CN902	2503-000156	C-NETWORK;100pF,20%,50V		R905	2001-001093	R-CARBON(S);2.2KOHM,5%,1/2W,AA,TP,2.4X6.	
CN905	3711-002642	CONNECTOR-HEADER;BOX,3P,1R,2.5MM,STRAIGH		R907	2001-001093	R-CARBON(S);2.2KOHM,5%,1/2W,AA,TP,2.4X6.	
CN907	3711-003641	CONNECTOR-HEADER;BOX,12P,1R,2.5mm,STRAIG		R909	2001-001093	R-CARBON(S);2.2KOHM,5%,1/2W,AA,TP,2.4X6.	
CN908	3711-002644	CONNECTOR-HEADER;BOX,5P,1R,2.5mm,STRAIGH		R911	2001-001093	R-CARBON(S);2.2KOHM,5%,1/2W,AA,TP,2.4X6.	
CNM01	3710-001208	CONNECTOR-SOCKET;32P,2R,2.54mm,STRAIGHT,		R916	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
CNM02	3710-001208	CONNECTOR-SOCKET;32P,2R,2.54mm,STRAIGHT,		R917	2001-000003	R-CARBON;330OHM,5%,1/8W,AA,TP,1.8X3.2MM	
CNW02	AA39-20577A	LEAD CONNECTOR,ASSY;- ,YFH806-06,-,6(3)P,		R918	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
CNW03	AA39-20029D	LEAD-CONNECTOR,ASSY;- ,67096-007,S,7P,500		R919	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
CORE/F	3301-001201	CORE-FERRITE;AE,230.5x10.25x36mm,1500,28		R920	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
D501	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,		R921	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
D502	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,		R925	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
D503	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,		R926	2001-000003	R-CARBON;330OHM,5%,1/8W,AA,TP,1.8X3.2MM	
D801	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP		R927	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
D802	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP		R928	2001-000924	R-CARBON;680OHM,5%,1/8W,AA,TP,1.8X3.2MM	
D902	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,		R929	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
D903	0401-000005	DIODE-SWITCHING;1N4148,100V,200MA,DO-35,		R930	2001-000435	R-CARBON;1MOHM,5%,1/8W,AA,TP,1.8X3.2MM	
DZ501	0403-000289	DIODE-ZENER;MTZ10C,10V,9.7-10.2V,500mW,D		R931	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
DZ903	0403-000296	DIODE-ZENER;MTZ5.6B,5.6V,5.45-5.73V,500m		R932	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
DZ904	0403-000296	DIODE-ZENER;MTZ5.6B,5.6V,5.45-5.73V,500m		R933	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
DZ905	0403-000296	DIODE-ZENER;MTZ5.6B,5.6V,5.45-5.73V,500m		R934	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
DZ906	0403-000296	DIODE-ZENER;MTZ5.6B,5.6V,5.45-5.73V,500m		R935	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
DZ907	0403-000296	DIODE-ZENER;MTZ5.6B,5.6V,5.45-5.73V,500m		R936	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
DZ908	0403-000296	DIODE-ZENER;MTZ5.6B,5.6V,5.45-5.73V,500m		R937	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
DZ909	0403-000296	DIODE-ZENER;MTZ5.6B,5.6V,5.45-5.73V,500m		R940	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
DZ910	0403-000667	DIODE-ZENER;MTZ6.8A,6.8V,6.29-6.63V,500m		R941	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
DZ911	0403-000654	DIODE-ZENER;MTZ12B,12V,11.44-12.03V,500m		R942	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
R943	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C360	2305-000355	C-FILM,MPEF;330nF,5%,63V,TP,-5mm	
R944	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP;1.8X3.2MM		C361	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP;7.3x4.0x5.0mm	
R945	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP;1.8X3.2MM		C362	2305-000149	C-FILM,MPEF;100nF,5%,100V,TP;12x12.5x6.5	
R946	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C371	2401-000302	C-AL;100uF,20%,25V,GP;TP;6.3x11.5	
R947	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP;1.8X3.2MM		C372	2401-000480	C-AL;10uF,20%,50V,GP;TP;5x11.5	
R948	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP;1.8X3.2MM		C373	2401-000302	C-AL;100uF,20%,25V,GP;TP;6.3x11.5	
R949	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C374	2401-001621	C-AL;6.8uF,20%,450V,GP;TP;13x20.5	
R950	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP;1.8X3.2MM		C375	2401-000603	C-AL;1uF,20%,50V,GP;TP;5x11.5	
R951	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP;1.8X3.2MM		C391	2401-001571	C-AL;47uF,+20%-0%,50V,GP;TP;8x11.5,5	
R952	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP;1.8X3.2MM		C405	2201-000144	C-CERAMIC,DISC;100pF,5%,50V,CH,TP;8x3.5	
R953	2001-000857	R-CARBON;560OHM,5%,1/8W,AA,TP;1.8X3.2MM		C406	2201-000600	C-CERAMIC,DISC;560pF;10%,50V,Y5P;TP;5x3,	
R954	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP;1.8X3.2MM		C411	2401-000360	C-AL;100uF,20%,50V,GP;TP;8x11.5,5	
R955	2001-000857	R-CARBON;560OHM,5%,1/8W,AA,TP;1.8X3.2MM		C412	2301-000383	C-FILM,PEF;10nF,5%,50V,TP;6x7x3.2mm,5mm	
R956	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP;1.8X3.2MM		C413	2401-000360	C-AL;100uF,20%,50V,GP;TP;8x11.5,5	
R957	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP;1.8X3.2MM		C417	2401-001397	C-AL;470uF,20%,25V,GP;TP;10x16.5	
R958	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP;1.8X3.2MM		C418	2401-001840	C-AL;100uF,20%,16V,GP;TP;6.3x11.5	
R959	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP;1.8X3.2MM		C419	2201-000982	C-CERAMIC,DISC;10nF,+80-20%,50V,Y5V,TP;6	
R960	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP;1.8X3.2MM		C421	2401-000302	C-AL;100uF,20%,25V,GP;TP;6.3x11.5	
R961	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP;1.8X3.2MM		C422	2301-000289	C-FILM,PEF;5.6nF,5%,50V,TP;7x6x3,5	
R966	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP;1.8X3.2M		C427	2401-002300	C-AL;47uF,20%,50V,GP;TP;6.3x11.5	
R967	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP;1.8X3.2M		C428	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP;7.3x4.0x5.0mm	
R968	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP;1.8X3.2M		C429	2305-000704	C-FILM,MPEF;100nF,5%,250V,TP;16.5x10.3x5	
R969	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP;1.8X3.2M		C430	2306-000324	C-FILM,MPPF;3.3nF,5%,1.6KV,TP;28.5x13.5x	
R970	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C431	2306-000326	C-FILM,MPPF;4.7nF,5%,1.6KV,TP;28.5x16x9m	
R971	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C432	2306-000357	C-FILM,MPPF;8.2nF,5%,1.6KV,BK;20x9.5x1.7	
R972	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C436	2306-000235	C-FILM,MPPF;560nF,5%,400V,TP;26*22.5*14,	
R973	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C437	2401-003114	C-AL;4.7uF,20%,250V,WT;TP;10x16.5	
R974	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C438	2306-000357	C-FILM,MPPF;8.2nF,5%,1.6KV,BK;20x9.5x1.7	
R975	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C441	2401-000262	C-AL;100uF,20%,160V,HR,TP;16x25.7,5	
R976	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C445	2401-001622	C-AL;6.8uF,20%,50V,BP;TP;16x25mm,7,5	
R977	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C450	2401-001160	C-AL;33uF,20%,160V,GP,-16x35mm,7,5	
R980	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP;1.8X3.2M		C451	2401-001160	C-AL;33uF,20%,160V,GP,-16x35mm,7,5	
R981	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP;1.8X3.2M		C452	2201-000132	C-CERAMIC,DISC;100pF,10%,500V,Y5P;TP;6x4	
R982	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C453	2401-001397	C-AL;470uF,20%,25V,GP;TP;10x16.5	
R983	2001-000591	R-CARBON;3.3KOHM,5%,1/8W,AA,TP;1.8X3.2M		C454	2303-000331	C-FILM,PPF;4.7nF,5%,630V,TP;19.5x12x7.7,	
R984	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C455	2401-001527	C-AL;47uF,20%,250V,HR,TP;13x25mm,5m	
R985	2001-000591	R-CARBON;3.3KOHM,5%,1/8W,AA,TP;1.8X3.2M		C456	2201-000132	C-CERAMIC,DISC;100pF,10%,500V,Y5P;TP;6x4	
R986	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP;1.8X3.2M		C457	2201-000132	C-CERAMIC,DISC;100pF,10%,500V,Y5P;TP;6x4	
R988	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP;1.8X3.2M		C458	2401-001397	C-AL;470uF,20%,25V,GP;TP;10x16.5	
R989	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP;1.8X3.2MM		C461	2201-000600	C-CERAMIC,DISC;560pF,10%,50V,Y5P;TP;5x3,	
R990	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP;1.8X3.2MM		C462	2301-000246	C-FILM,PEF;33nF,5%,100V,TP;7x5.0x9.5mm,5	
R999	2001-000440	R-CARBON;1OHM,5%,1/8W,AA,TP;1.8X3.2MM		C465	2401-000302	C-AL;100uF,20%,25V,GP;TP;6.3x11.5	
RN901	2011-000157	R-NETWORK;10Kohm,5%,1/8W,A,SIP;6PT		C466	2305-000289	C-FILM,MPEF;220nF,5%,63V,TP,-5mm	
X901	2801-003120	CRYSTAL-UNIT;8.388608MHZ,25PPM,28-AAM,30		C467	2401-000360	C-AL;100uF,20%,50V,GP;TP;8x11.5,5	
				C468	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP,	
				C469	2201-000291	C-CERAMIC,DISC;1nF,10%,500V,Y5P;TP;8.5x5	
				C471	2303-000128	C-FILM,PPF;12nF,5%,1.6KV,BK;31x21x14,25m	
				C472	2401-000787	C-AL;220uF,20%,160V,GP;TP;16x31.5,7.5	
				C473	2306-000166	C-FILM,MPPF;220nF,5%,400V,TP;26x17x9,20m	
				C474	2306-000326	C-FILM,MPPF;4.7nF,5%,1.6KV,TP;28.5x16x9m	
				C476	2401-000647	C-AL;2.2uF,20%,50V,BP;TP;5x11.5	
				C477	2301-000213	C-FILM,PEF;220nF,5%,250V,TP;21.5x11.7,5	
				C478	2301-000020	C-FILM,PEF;27nF,5%,100V,TP;7.3x4x12.5mm,	
				C480	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP;7.3x4.0x5.0mm	
				C481	2401-000914	C-AL;22uF,20%,16V,GP;TP;5x11.5	
				C482	2301-000148	C-FILM,PEF;10nF,5%,100V,TP;7x3.2x7mm,5mm	
				C483	2301-000200	C-FILM,PEF;2.2nF,5%,200V,TP;11.0x6.0x9.0	
				C483A	2201-000132	C-CERAMIC,DISC;100pF,10%,500V,Y5P;TP;6x4	
				C484	2401-001026	C-AL;3.3uF,20%,50V,GP;TP;5x11.5	
				C485	2201-000138	C-CERAMIC,DISC;100pF,10%,50V,Y5P;TP;4.0X	
				C486	2201-000138	C-CERAMIC,DISC;100pF,10%,50V,Y5P;TP;4.0X	
				C487	2401-001026	C-AL;3.3uF,20%,50V,GP;TP;5x11.5	
				C488	2401-002144	C-AL;47uF,20%,16V,GP;TP;5x11.5	
				C489	2401-001840	C-AL;100uF,20%,16V,GP;TP;6.3x11.5	
				C490	2201-000982	C-CERAMIC,DISC;10nF,+80-20%,50V,Y5V,TP;6	
				C491	2303-000128	C-FILM,PPF;12nF,5%,1.6KV,BK;31x21x14,25m	
				C492	2401-002144	C-AL;47uF,20%,16V,GP;TP;5x11.5	
				C493	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP,	
				C494	2201-000471	C-CERAMIC,DISC;0.33nF,10%,50V,Y5P;TP;4X3	
				C495	2301-000192	C-FILM,PEF;1nF,5%,50V,TP;5.3x10.5mm,5mm	
				C496	2401-000832	C-AL;220uF,20%,25V,GP;TP;6.3x11.5,5	
				C497	2401-000302	C-AL;100uF,20%,25V,GP;TP;6.3x11.5	
				C499	2401-000598	C-AL;1uF,20%,50V,GP;TP;4x7,5	
				CN201	AA39-20071B	LEAD-CONNECTOR,ASSY,-,YBNH025-12,67096-0	
				CN401	3711-002645	CONNECTOR-HEADER,BOX,6P;1R,2.5MM,STRAIGH	
				CN804	3711-002648	CONNECTOR-HEADER,BOX,9P;1R,2.5mm,STRAIGH	
				CNW405	AA39-20010H	LEAD-CONNECTOR,ASSY,-,YFH800-01,S,1P,300	

### ASSY-ACCESSORY

- AA68-00179A MANUAL-USERS;P52A,DOM,-,B5,W/P 100(G)-
- AA39-10004E POWER-CORD,-,KKP-30B,SVT 3/8AWG,1.83M,KK
- AA39-90039B SIGNAL-CABLE,-,MAIL,MAIL,15P;2000MM,Ul29
- AA68-00289A MANUAL-USERS;P52A,ENG,-,B5,W/P100(G)-

### ASSY-PCB, DEFLECTION

- AA95-00075A ASSY-PCB, DEFLECTION,-,SVP-431JM,KPM51A,

C301	2305-000149	C-FILM,MPEF;100nF,5%,100V,TP;12x12.5x6.5	
C302	2201-000292	C-CERAMIC,DISC;1nF,10%,50V,Y5P;TP;5x3.5	
C303	2305-000149	C-FILM,MPEF;100nF,5%,100V,TP;12x12.5x6.5	
C304	2201-000292	C-CERAMIC,DISC;1nF,10%,50V,Y5P;TP;5x3.5	
C305	2201-002022	C-CERAMIC,DISC;5pF,0.25pF,500V,NPO,TP;5x	
C307	2401-000360	C-AL;100uF,20%,50V,GP;TP;8x11.5,5	
C308	2401-000360	C-AL;100uF,20%,50V,GP;TP;8x11.5,5	
C309	2305-000285	C-FILM,MPEF;220nF,5%,100V,TP;10.5X5.5X15	
C311	2305-000149	C-FILM,MPEF;100nF,5%,100V,TP;12x12.5x6.5	
C341	2401-000603	C-AL;1uF,20%,50V,GP;TP;5x11.5	
C342	2401-000962	C-AL;22uF,20%,50V,GP;TP;5x11.5	
C351	2301-000175	C-FILM,PEF;15nF,5%,50V,TP;7.3x5.13mm,5	
C352	2401-000480	C-AL;10uF,20%,50V,GP;TP;5x11.5	
C353	2201-000863	C-CERAMIC,DISC;680pF,10%,50V,Y5P;TP;5x3,	
C354	2301-000261	C-FILM,PEF;4.7nF,5%,100V,TP;10.5x12.5x6.	
C355	2401-000480	C-AL;10uF,20%,50V,GP;TP;5x11.5	
C356	2201-000982	C-CERAMIC,DISC;10nF,+80-20%,50V,Y5V,TP;6	
C357	2401-001989	C-AL;4.7uF,20%,50V,BP;TP;5x11.5	
C358	2401-000471	C-AL;10uF,20%,50V,BP;TP;5x11.5mm	

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
CNW804	AA39-20031C	LEAD-CONNECTOR, ASSY.-, 67096-009, S, 9P, 400		Q352	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D301	0403-000658	DIODE-ZENER; MTZ18A, 18V, 16.22-17.06V, 500m		Q353	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D302	0402-000546	DIODE-RECTIFIER; TVR10G, 400V, 1.0A, DO-41, T		Q354	0501-000283	TR-SMALL SIGNAL; KSA539, PNP, 400mW, TO-92, T	
D304	0403-000658	DIODE-ZENER; MTZ18A, 18V, 16.22-17.06V, 500m		Q355	0501-000366	TR-SMALL SIGNAL; KSC2330-Y, NPN, 1W, TO-92L	
D305	0403-000563	DIODE-ZENER; MTZ9.1B, 9.1V, 8.57-9.01V, 500m		Q371	0502-000442	TR-POWER; 2SC4636B, NPN, 2W, TO-220, ST, 10-	H/SINK
D306	0403-000494	DIODE-ZENER; MTZ39, 39V, 35.36-37.2V, 500mW,		Q372	0502-000442	TR-POWER; 2SC4636B, NPN, 2W, TO-220, ST, 10-	
D307	0403-000700	DIODE-ZENER; TZP33A, 33V, 31-35V, 1W, DO-41, T		Q381	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D342	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		Q382	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D343	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		Q401	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D344	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		Q402	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D352	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		Q411	0502-000258	TR-POWER; KSC1983, NPN, 30W, TO-220, -500	
D353	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		Q421	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D355	0402-000546	DIODE-RECTIFIER; TVR10G, 400V, 1.0A, DO-41, T		Q422	0502-001118	TR-POWER; KSC2335, NPN, 40W, TO-220, ST, 30-6	
D363	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		Q431	0502-001121	TR-POWER; 2SC5144, NPN, 200W, TO-3PL, BK, 10-	H/SINK
D364	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		Q432	0501-000283	TR-SMALL SIGNAL; KSA539, PNP, 400mW, TO-92, T	
D371	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		Q433	0502-000298	TR-POWER; KSD73, NPN, 30W, TO-220, -120-240	H/SINK
D372	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		Q441	0502-001104	TR-POWER; 2SD921, NPN, 80W, TO-3PBK, 700-	H/SINK
D373	0402-000243	DIODE-RECTIFIER; RC2-V1, 2000V, 0.2A, DO-201		Q451	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D384	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		Q452	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D385	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		Q453	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D386	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		Q454	0501-000283	TR-SMALL SIGNAL; KSA539, PNP, 400mW, TO-92, T	
D391	0403-000700	DIODE-ZENER; TZP33A, 33V, 31-35V, 1W, DO-41, T		Q461	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D395	0403-000355	DIODE-ZENER; UZ5, 18BS, 5.1V, 4.97-5.18V, 500		Q471	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D411	0403-000699	DIODE-ZENER; TZP27B, 27V, 27-30.8V, 1W, DO-41		Q472	0502-001118	TR-POWER; KSC2335, NPN, 40W, TO-220, ST, 30-6	
D412	0403-000700	DIODE-ZENER; TZP33A, 33V, 31-35V, 1W, DO-41, T		Q473	0502-001100	TR-POWER; 2SC4125, NPN, 70W, TO-3PML, BK, 8-	H/SINK
D431	0402-001176	DIODE-RECTIFIER; FMQ-G5G5, 1700V, 10A, TO-22	H/SINK	Q481	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D432	0402-001176	DIODE-RECTIFIER; FMQ-G5G5, 1700V, 10A, TO-22	H/SINK	Q482	0501-000283	TR-SMALL SIGNAL; KSA539, PNP, 400mW, TO-92, T	
D433	0402-000537	DIODE-RECTIFIER; RH1A, 600V, 0.6A, DO-204AC		Q483	0501-000283	TR-SMALL SIGNAL; KSA539, PNP, 400mW, TO-92, T	
D435	0402-000132	DIODE-RECTIFIER; 1N4004, 400V, 1A, DO-41, TP		Q485	0505-001202	FET-SILICON; IRFS640A, N, 200V, 9.8A, 0.18ohm	H/SINK
D440	0402-000534	DIODE-RECTIFIER; RG10V, 400V, 1.2A, DO-201, T		Q486	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D441	0402-000534	DIODE-RECTIFIER; RG10V, 400V, 1.2A, DO-201, T		Q491	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T	
D442	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		R301	2004-001897	R-METAL(S); 43.2kohm, 1%, 1/2W, AA, TP, 2.5x6	
D443	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		R302	2004-001897	R-METAL(S); 43.2kohm, 1%, 1/2W, AA, TP, 2.5x6	
D444	0402-000546	DIODE-RECTIFIER; TVR10G, 400V, 1.0A, DO-41, T		R303	2004-001984	R-METAL(S); 26.7kohm, 1%, 1/2W, AA, TP, 2.4x6	
D445	0403-000701	DIODE-ZENER; TZP5.1A, 5.1V, 4.8-5.4V, 1W, DO-		R305	2004-001984	R-METAL(S); 26.7kohm, 1%, 1/2W, AA, TP, 2.4x6	
D451	0402-000216	DIODE-RECTIFIER; ERC24-06, 600V, 1.0A, DO-20		R306	2003-001036	R-METAL OXIDE(S); 3.3ohm, 5%, 2W, AF, TP, 3.9x	
D452	0402-000250	DIODE-RECTIFIER; RG4C, 1000V, 1A, -		R307	2003-001036	R-METAL OXIDE(S); 3.3ohm, 5%, 2W, AF, TP, 3.9x	
D453	0402-000250	DIODE-RECTIFIER; RG4C, 1000V, 1A, -		R308	2001-000016	R-CARBON(S); 10HM, 5%, 1/2W, AA, TP, 2.4X6.4MM	
D456	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		R310	2003-002037	R-METAL OXIDE(S); 270ohm, 5%, 2W, AF, TP, 3.9x	
D457	0403-000551	DIODE-ZENER; MTZ3.9B, 3.9V, 3.89-4.16V, 500m		R312	2001-000290	R-CARBON; 10KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	
D464	0402-000236	DIODE-RECTIFIER; GIB24, 400V, 5A, - TP		R313	2001-000761	R-CARBON; 4300HM, 5%, 1/8W, AA, TP, 1.8X3.2MM	
D469	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		R314	2001-000761	R-CARBON; 4300HM, 5%, 1/8W, AA, TP, 1.8X3.2MM	
D471	0402-000546	DIODE-RECTIFIER; TVR10G, 400V, 1.0A, DO-41, T		R332	2001-001107	R-CARBON(S); 220ohm, 5%, 1/2W, AA, TP, 2.4x6.4	
D472	0402-000546	DIODE-RECTIFIER; TVR10G, 400V, 1.0A, DO-41, T		R333	2001-001107	R-CARBON(S); 220ohm, 5%, 1/2W, AA, TP, 2.4x6.4	
D473	0403-000563	DIODE-ZENER; MTZ9.1B, 9.1V, 8.57-9.01V, 500m		R334	2001-001107	R-CARBON(S); 220ohm, 5%, 1/2W, AA, TP, 2.4x6.4	
D474	0402-000546	DIODE-RECTIFIER; TVR10G, 400V, 1.0A, DO-41, T		R339	2001-000613	R-CARBON; 3.9KOHM, 5%, 1/8W, AA, TP, 1.8X3.2M	
D475	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		R340	2001-000241	R-CARBON; 1.5KOHM, 5%, 1/8W, AA, TP, 1.8X3.2M	
D476	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		R341	2001-000429	R-CARBON; 1KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	
D477	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		R342	2001-000273	R-CARBON; 100KOHM, 5%, 1/8W, AA, TP, 1.8X3.2M	
D478	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		R343	2001-000812	R-CARBON; 5.6KOHM, 5%, 1/8W, AA, TP, 1.8X3.2M	
D479	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		R344	2001-000890	R-CARBON; 6.8KOHM, 5%, 1/8W, AA, TP, 1.8X3.2M	
D480	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		R345	2001-001088	R-CARBON(S); 1KOHM, 5%, 1/2W, AA, TP, 2.4X6.4M	
D481	0403-000658	DIODE-ZENER; MTZ18A, 18V, 16.22-17.06V, 500m		R345A	2001-000429	R-CARBON; 1KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	
D482	0402-000132	DIODE-RECTIFIER; 1N4004, 400V, 1A, DO-41, TP		R346	2001-000290	R-CARBON; 10KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	
D483	0403-000563	DIODE-ZENER; MTZ9.1B, 9.1V, 8.57-9.01V, 500m		R347	2001-001088	R-CARBON(S); 1KOHM, 5%, 1/2W, AA, TP, 2.4X6.4M	
D484	0403-000734	DIODE-ZENER; TZP15B, 15V, 14.7-16.5V, 1W, DO-		R348	2001-000591	R-CARBON; 3.3KOHM, 5%, 1/8W, AA, TP, 1.8X3.2M	
D488	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		R349	2001-000252	R-CARBON; 1.6KOHM, 5%, 1/8W, AA, TP, 1.8X3.2M	
D491	0401-000005	DIODE-SWITCHING; 1N4148, 100V, 200MA, DO-35,		R350	2001-000232	R-CARBON; 1.3KOHM, 5%, 1/8W, AA, TP, 1.8X3.2M	
D492	0403-000666	DIODE-ZENER; MTZ5.1A, 5.1V, 4.81-5.07V, 500m		R351	2001-001178	R-CARBON(S); 680OHM, 5%, 1/2W, AA, TP, 2.4X6.4	
DF+FBT	8003-001023	SCREW-TAPTITE; RWH, +, B, M3, L10, ZPC(YEL), SW		R352	2001-000003	R-CARBON; 330OHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	
IC301	1204-000517	IC-VERTICAL DEF; LA7845, SIP, 7P, - PLASTIC	H/SINK	R353	2001-000890	R-CARBON; 6.8KOHM, 5%, 1/8W, AA, TP, 1.8X3.2M	
IC421	1203-000165	IC-POS1.ADJUST REG; 78R12, TO-220, 3P, -, -		R354	2001-000890	R-CARBON; 6.8KOHM, 5%, 1/8W, AA, TP, 1.8X3.2M	
IC431	1201-000191	IC-OP AMP; 4558, DIP, 8P, 300MIL, DUAL, 20V/mV		R355	2001-000977	R-CARBON; 8.2KOHM, 5%, 1/8W, AA, TP, 1.8X3.2M	
IC471	1203-000610	IC-PWM CONTROLLER; 494, DIP, 16P, 300MIL, CER		R357	2001-000009	R-CARBON; 20KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	
IC481	1203-001217	IC-POS1.ADJUST REG; 431, TO-92, 3P, 4.58MIL		R358	2001-000837	R-CARBON; 51KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	
IC491	0801-000659	IC-CMOS LOGIC; 74HC123, MULTIVIBATOR, DIP, 1		R359	2001-000766	R-CARBON; 43KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	
L351	AA27-10003M	COIL-CHOKE; -6100uH, 40, 34mA, TP, EL0607R		R360	2001-000857	R-CARBON; 560OHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	
L431	AA27-30003M	COIL-LINERITY; -5uH, OWA 14x15, USRSC, 1x60,		R361	2001-001191	R-CARBON(S); 820KOHM, 5%, 1/2W, AA, TP, 2.4X6.	
L432	AA27-40001V	COIL-HORIZ, WIDTH; -600uH, DR1420, P10, 45,-		R362	2001-000660	R-CARBON; 33KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	
L481	3301-000287	CORE-FERRITE BEAD; AA, 3.5x1x6mm, 1500, 2400		R363	2001-000812	R-CARBON; 5.6KOHM, 5%, 1/8W, AA, TP, 1.8X3.2M	
L482	3301-000287	CORE-FERRITE BEAD; AA, 3.5x1x6mm, 1500, 2400		R364	2001-000938	R-CARBON; 680HM, 5%, 1/8W, AA, TP, 1.8X3.2MM	
Q301	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T		R365	2001-001120	R-CARBON(S); 3.30HM, 5%, 1/2W, AA, TP, 2.4X6.4	
Q342	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T		R366	2001-000109	R-CARBON(S); 470OHM, 5%, 1/2W, AA, TP, 2.4X6.4	
Q343	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T		R367	2001-000087	R-CARBON(S); 120KOHM, 5%, 1/2W, AA, TP, 2.4X6.	
Q344	0501-000283	TR-SMALL SIGNAL; KSA539, PNP, 400mW, TO-92, T		R368	2001-001081	R-CARBON(S); 160KOHM, 5%, 1/2W, AA, TP, 2.4X6.	
Q350	0501-000389	TR-SMALL SIGNAL; KSC815, NPN, 400mW, TO-92, T		R369	2001-001081	R-CARBON(S); 160KOHM, 5%, 1/2W, AA, TP, 2.4X6.	
Q351	0501-000283	TR-SMALL SIGNAL; KSA539, PNP, 400mW, TO-92, T		R370	2001-001065	R-CARBON(S); 110KOHM, 5%, 1/2W, AA, TP, 2.4X6.	



Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
R371	2001-001065	R-CARBON(S);110KOHM,5%,1/2W,AA,TP,2.4X6		R461	2001-000302	R-CARBON;100HM,5%,1/8W,AA,TP,1.8X3.2MM	
R372	2001-001110	R-CARBON(S);240KOHM,5%,1/2W,AA,TP,2.4X6		R462	2003-000744	R-METAL OXIDE(S);56ohm,5%,2W,AA,TP,4x12m	
R373	2001-001110	R-CARBON(S);240KOHM,5%,1/2W,AA,TP,2.4X6		R463	2003-000429	R-METAL OXIDE(S);1.5Kohm,5%,2W,AA,TP,4x1	
R374	2001-001110	R-CARBON(S);240KOHM,5%,1/2W,AA,TP,2.4X6		R464	2003-000401	R-METAL OXIDE(S);0.68ohm,5%,1W,AA,TP,3.3	
R375	2001-001113	R-CARBON(S);270KOHM,5%,1/2W,AA,TP,2.4X6		R465	2008-001091	R-FUSIBLE(S);0.47OHM,10%,1/2W,AC,BK,2.5X	
R376	2001-000613	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,1.8X3.2M		R466	2004-001376	R-METAL(S);11Kohm,1%,1/2W,AA,TP,2.4x6.4m	
R377	2004-001892	R-METAL(S);162Kohm,1%,1/2W,AA,TP,2.5x6.5		R467	2004-002022	R-METAL(S);51Kohm,1%,1/2W,AA,TP,2.4x6.4m	
R378	2004-001892	R-METAL(S);162Kohm,1%,1/2W,AA,TP,2.5x6.5		R468	2001-001122	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
R379	2004-001892	R-METAL(S);162Kohm,1%,1/2W,AA,TP,2.5x6.5		R469	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
R380	2004-001892	R-METAL(S);162Kohm,1%,1/2W,AA,TP,2.5x6.5		R469A	2001-001043	R-CARBON(S);00HM,5%,1/2W,AA,TP,2.4X6.4MM	
R381	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M		R469B	2001-000028	R-CARBON(S);1000HM,5%,1/2W,AA,TP,2.4X6.4	
R382	2002-001015	R-COMPOSITION;47K,10%,1/2W,AA,TP,3.7x9.0		R470	2008-000252	R-FUSIBLE(S);0.47ohm,10%,1/2W,AF,TP,2.5x	
R383	2001-001043	R-CARBON(S);00HM,5%,1/2W,AA,TP,2.4X6.4MM		R470A	2004-001395	R-METAL(S);330Kohm,2%,1/2W,AA,TP,2.4x6.4	
R384	2001-001150	R-CARBON(S);470KOHM,5%,1/2W,AA,TP,2.4X6		R471	2004-002011	R-METAL(S);110Kohm,1%,1/2W,AA,TP,2.4x6.4	
R385	2001-000577	R-CARBON;2KOHM,5%,1/8W,AA,TP,1.8X3.2MM		R471A	2001-000007	R-CARBON;3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R386	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM		R472	2001-000800	R-CARBON;5.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R387	2001-000009	R-CARBON;20KOHM,5%,1/8W,AA,TP,1.8X3.2MM		R473	2001-000800	R-CARBON;5.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R388	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM		R474	2001-000009	R-CARBON;20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R389	2001-000577	R-CARBON;2KOHM,5%,1/8W,AA,TP,1.8X3.2MM		R474A	2001-000508	R-CARBON;220KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R391	2003-001098	R-METAL OXIDE(S);22Kohm,5%,3W,AA,TP,6x16		R475	2001-000605	R-CARBON;3.6KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R395	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M		R475A	2001-000411	R-CARBON;18KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R397	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		R475B	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R398	2001-000290	R-CARBON;10KOHM,5%,1/2W,AA,TP,2.4x6.4m		R476	2004-004046	R-METAL(S);430Kohm,1%,1/2W,AA,TP,2.5x6.5	
R4000	2004-001379	R-METAL(S);12Kohm,1%,1/2W,AA,TP,2.4x6.4m		R476A	2004-004046	R-METAL(S);430Kohm,1%,1/2W,AA,TP,2.5x6.5	
R4001	2004-002011	R-METAL(S);110Kohm,1%,1/2W,AA,TP,2.4x6.4		R476B	2004-002018	R-METAL(S);220Kohm,1%,1/2W,AA,TP,2.4x6.4	
R406	2004-001983	R-METAL(S);2.49Kohm,1%,1/2W,AA,TP,2.4x6		R476C	2004-002017	R-METAL(S);190Kohm,1%,1/2W,AA,TP,2.4x6.4	
R407	2004-001897	R-METAL(S);43.2Kohm,1%,1/2W,AA,TP,2.5x6		R477	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R408	2004-002016	R-METAL(S);15Kohm,1%,1/2W,AA,TP,2.5x6.5m		R478	2004-002017	R-METAL(S);190Kohm,1%,1/2W,AA,TP,2.4x6.4	
R409	2004-001394	R-METAL(S);2Kohm,1%,1/2W,AA,TP,2.4x6.4mm		R479	2001-000005	R-CARBON;390OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R410	2001-000109	R-CARBON(S);470OHM,5%,1/2W,AA,TP,2.4X6.4		R480	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R412	2001-000007	R-CARBON;3KOHM,5%,1/8W,AA,TP,1.8X3.2MM		R481	2001-000007	R-CARBON;3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R413	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM		R482	2001-001031	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R414	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM		R483	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R415	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M		R484	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R416	2001-000006	R-CARBON;2.4KOHM,5%,1/8W,AA,TP,1.8X3.2M		R485	2008-001096	R-FUSIBLE(S);3.3OHM,5%,1/2W,AC,BK,2.5X6	
R419	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM		R486	2003-000005	R-METAL OXIDE(S);1ohm,5%,2W,AA,TP,4x12mm	
R420	2001-000281	R-CARBON;1000HM,5%,1/8W,AA,TP,1.8X3.2MM		R487	2001-000924	R-CARBON;680OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R421	2001-001077	R-CARBON(S);1500HM,5%,1/2W,AA,TP,2.4X6.4		R488	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R422	2001-000832	R-CARBON(S);5100HM,5%,1/8W,AA,TP,1.8X3.2MM		R489	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R423	2001-000869	R-CARBON;560HM,5%,1/8W,AA,TP,1.8X3.2MM		R490	2001-000723	R-CARBON;4.3KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R424	2008-000299	R-FUSIBLE(S);47ohm,5%,2W,AF,TP,3.9x10mm		R491	2001-001178	R-CARBON(S);680OHM,5%,1/2W,AA,TP,2.4X6.4	
R425	2003-000417	R-METAL OXIDE(S);1.2Kohm,5%,3W,AA,TP,6x1		R492	2001-000591	R-CARBON;3.3KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R426	2003-001038	R-METAL OXIDE(S);4.7ohm,5%,2W,AF,TP,3.9x		R493	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R427	2003-000394	R-METAL OXIDE(S);0.39ohm,5%,2W,AA,TP,4x1		R494	2001-000066	R-CARBON(S);10KOHM,5%,1/2W,AA,TP,2.4X6.4	
R428	2002-001017	R-COMPOSITION;1K,10%,1/2W,AA,TP,3.7x9.0m		R495	2001-000037	R-CARBON(S);330OHM,5%,1/2W,AA,TP,2.4X6.4	
R429	2003-000586	R-METAL OXIDE(S);22Kohm,5%,2W,AF,TP,4x12		R496	2001-000313	R-CARBON;11KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R430	2003-000586	R-METAL OXIDE(S);22Kohm,5%,2W,AF,TP,4x12		R497	2001-000003	R-CARBON;330OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R433	2001-001155	R-CARBON(S);5.6KOHM,5%,1/2W,AA,TP,2.4X6		R498	2001-001070	R-CARBON(S);1200HM,5%,1/2W,AA,TP,2.4X6.4	
R434	2001-001093	R-CARBON(S);2.2KOHM,5%,1/2W,AA,TP,2.4X6		R499	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
R437	2008-000259	R-FUSIBLE(S);1.8ohm,5%,2W,AA,TP,3.9x10mm		SG301	AA27-90001B	COIL-SPARK,GAP,S-23,1.5KV,-,-,-	
R437A	2008-001096	R-FUSIBLE(S);3.3OHM,5%,1/2W,AC,BK,2.5X6		T431	AA26-50001U	TRANS-HORIZ DRIVE,-,28mH,105uH,4uH,ER28x	
R438	2001-000085	R-CARBON(S);100KOHM,5%,1/2W,AA,TP,2.4X6		T432	AA26-90002F	TRANS-DUMMY,-,1.3mH,1,1uH,108/32/214/8,E	
R439	2001-000085	R-CARBON(S);100KOHM,5%,1/2W,AA,TP,2.4X6		T444	AA26-30005A	TRANS-FLYBACK,-,FWZ-50A001,50,108V	
R440	2008-001091	R-FUSIBLE(S);0.47OHM,10%,1/2W,AC,BK,2.5X		T461	AA26-50001V	TRANS-HORIZ DRIVE,-,6.0mH,113uH,4uH,EI19	
R441	2008-000282	R-FUSIBLE;0.47ohm,5%,1W,AA,TP,3.9x12mm		T481	AA26-50001W	TRANS-HORIZ DRIVE,-,830uH,23uH,4uH,EI-30	
R441A	2008-000252	R-FUSIBLE(S);0.47ohm,10%,1/2W,AF,TP,2.5x		VR471	2103-000676	VR-SEMI;50Kohm,25%,1/5W,TOP	
R442	2008-001091	R-FUSIBLE(S);0.47OHM,10%,1/2W,AC,BK,2.5X		VR491	2103-000669	VR-SEMI;10Kohm,25%,1/5W,TOP	
R443	2003-000734	R-METAL OXIDE(S);560ohm,5%,2W,AA,TP,4x12					
R443A	2003-000734	R-METAL OXIDE(S);560ohm,5%,2W,AA,TP,4x12					
R444	2003-000584	R-METAL OXIDE(S);22Kohm,5%,2W,AA,TP,4x12					
R444A	2001-001129	R-CARBON(S);330KOHM,5%,1/2W,AA,TP,2.4X6					
R445	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M		AA95-00088A	ASSY-PCB,UP/DOWN SCALE,-,GPM-51,P52A,-,-		
R446	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM		CA01	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP5054,1.5mm	
R447	2001-000812	R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M		CA02	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP	
R448	2001-000411	R-CARBON;18KOHM,5%,1/8W,AA,TP,1.8X3.2MM		CA05	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP	
R449	2001-000660	R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM		CA09	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP5054,1.5mm	
R450	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM		CA10	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP	
R451	2001-000812	R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M		CA11	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP	
R452	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M		CA12	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP	
R453	2001-001146	R-CARBON(S);4.7OHM,5%,1/2W,AA,TP,2.4X6.4		CA13	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP5054,1.5mm	
R454	2001-000761	R-CARBON;430OHM,5%,1/8W,AA,TP,1.8X3.2MM		CA14	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP	
R455	2001-000761	R-CARBON;430OHM,5%,1/8W,AA,TP,1.8X3.2MM		CA15	2203-000239	C-CERAMIC,CHIP;1nF,5%,50V,NPO,TP,2012	
R456	2001-000761	R-CARBON;430OHM,5%,1/8W,AA,TP,1.8X3.2MM		CA16	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
R457	2001-001146	R-CARBON(S);4.7OHM,5%,1/2W,AA,TP,2.4X6.4		CA17	2203-000609	C-CERAMIC,CHIP;22nF,10%,50V,X7R,TP,2012	
R458	2001-000995	R-CARBON;820OHM,5%,1/8W,AA,TP,1.8X3.2MM		CA18	2203-000891	C-CERAMIC,CHIP;4.7nF,10%,50V,X7R,TP,2012	
R459	2001-001192	R-CARBON(S);820OHM,5%,1/2W,AA,TP,2.4X6.4		CA19	2203-000260	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,2012	
R460	2003-000500	R-METAL OXIDE(S);150ohm,5%,1W,AA,TP,3.3x					

### ASSY-PCB,UP/DOWN SCALE

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
CA20	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CM09	2401-001363	C-AL,470uF,20%,16V,GP,TP;10x12.5,5	
CA21	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CM10	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA22	2203-000260	C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,2012		CM11	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA23	2203-000609	C-CERAMIC,CHIP;22NF,10%,50V,X7R,TP,2012		CM12	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA24	2203-000891	C-CERAMIC,CHIP;4.7NF,10%,50V,X7R,TP,2012		CM13	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA25	2203-000260	C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,2012		CM14	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA26	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CM15	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA27	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CM16	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA28	2203-000260	C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,2012		CM17	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA29	2203-000609	C-CERAMIC,CHIP;22NF,10%,50V,X7R,TP,2012		CM18	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA30	2203-000891	C-CERAMIC,CHIP;4.7NF,10%,50V,X7R,TP,2012		CM19	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA31	2203-000260	C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,2012		CM20	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA32	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CM21	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA33	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CM22	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA34	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CM23	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA35	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm		CM24	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA36	2203-000444	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,2012,-		CM25	2203-000634	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,2012,-	
CA37	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CM26	2203-000634	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,2012,-	
CA38	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CM27	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm	
CA39	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CM28	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA40	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm		CM29	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm	
CA41	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CN01	3711-003630	CONNECTOR-HEADER;BOX,32P,2R,2.54mm,ANGLE	
CA42	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm		CN02	3711-003630	CONNECTOR-HEADER;BOX,32P,2R,2.54mm,ANGLE	
CA43	2203-000444	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,2012,-		CU01	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA44	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CU02	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA45	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm		CU03	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA46	2203-000444	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,2012,-		CU04	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA47	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CU05	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA48	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		CU06	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm	
CA49	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm		CU07	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm	
CA50	2203-000444	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,2012,-		CU08	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
CA51	2203-000361	C-CERAMIC,CHIP;150pF,5%,50V,NPO,TP,2012		CU15	2203-001002	C-CERAMIC,CHIP;.047NF,5%,50V,NPO,TP,2012	
CA52	2203-000802	C-CERAMIC,CHIP;33NF,10%,50V,X7R,TP,2012		CU16	2203-001002	C-CERAMIC,CHIP;.047NF,5%,50V,NPO,TP,2012	
CA53	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		DM01	0601-001143	LED,CHIPGRN,1.4x1.25mm,570nm	
CA54	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm		DM02	0601-001351	LED,CHIPRED,1.2x1.25MM,660NM	
CA55	2203-000444	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,2012,-		DZ101	0403-001016	DIODE-ZENER,RLZ6.2B,6.2V,5.96-6.27V,400m	
CA56	2203-001002	C-CERAMIC,CHIP;.047NF,5%,50V,NPO,TP,2012		DZ102	0403-001016	DIODE-ZENER,RLZ6.2B,6.2V,5.96-6.27V,400m	
CA57	2203-001002	C-CERAMIC,CHIP;.047NF,5%,50V,NPO,TP,2012		DZ103	0403-000689	DIODE-ZENER,DTZ5.1A,5.1V,4.84-5.04V,200m	
CA58	2203-001002	C-CERAMIC,CHIP;.047NF,5%,50V,NPO,TP,2012		DZ104	0403-000689	DIODE-ZENER,DTZ5.1A,5.1V,4.84-5.04V,200m	
CA59	2203-000239	C-CERAMIC,CHIP;.1NF,5%,50V,NPO,TP,2012		DZ105	0403-000689	DIODE-ZENER,DTZ5.1A,5.1V,4.84-5.04V,200m	
CA60	2404-000275	C-TA,CHIP;100UF,10%,10V,GP,TP,7343		DZ106	0403-000689	DIODE-ZENER,DTZ5.1A,5.1V,4.84-5.04V,200m	
CA61	2203-000260	C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,2012		DZ107	0403-000689	DIODE-ZENER,DTZ5.1A,5.1V,4.84-5.04V,200m	
CC01	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm		DZ108	0403-000689	DIODE-ZENER,DTZ5.1A,5.1V,4.84-5.04V,200m	
CC02	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		DZ109	0403-000689	DIODE-ZENER,DTZ5.1A,5.1V,4.84-5.04V,200m	
CC05	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		DZ110	0403-000689	DIODE-ZENER,DTZ5.1A,5.1V,4.84-5.04V,200m	
CC06	2203-000683	C-CERAMIC,CHIP;27pF,5%,50V,NPO,TP,2012,-		DZ111	0403-000689	DIODE-ZENER,DTZ5.1A,5.1V,4.84-5.04V,200m	
CC07	2203-000429	C-CERAMIC,CHIP;18pF,5%,50V,NPO,TP,2012,-		FA01	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CC08	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm		FA02	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CC09	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA03	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CC10	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA04	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CC11	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA05	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CC12	2203-000239	C-CERAMIC,CHIP;.1NF,5%,50V,NPO,TP,2012		FA06	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CC13	2203-000239	C-CERAMIC,CHIP;.1NF,5%,50V,NPO,TP,2012		FA07	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CF02	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA08	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CF03	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA09	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CF04	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA10	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CF05	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA11	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CF06	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA12	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CF07	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA13	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CF08	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA14	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CF09	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA15	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CF10	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA16	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CF11	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA17	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CF12	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA18	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CF13	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		FA19	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2	
CF14	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		ICA01	0803-000118	IC-TTL;74F14,INVERTER,SOP,14P,150MIL,	
CF15	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		ICA02	0803-000123	IC-TTL;74F125,BUFFER,SOP,14P,150MIL,Q	
CF16	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		ICA04	0802-001009	IC-BICMOS LOGIC,74ABT125,BUFFER,SOP,14P,	
CF17	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		ICA05	1002-001099	IC-A/D CONVERTER;TDAB752,8BIT,QFP,100P-	
CF18	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		ICA06	1203-000187	IC-POSI.ADJUST REG.;431,TO-92,3P,-,PLAST	
CF19	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		ICC01	0902-001218	IC-MICROPROCESSOR;89C51,8BIT,DIP,40P,600	
CM01	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm		ICC02	1103-000139	IC-EEPROM;24C16,2KX8BIT,DIP,8P,300MIL,10	
CM02	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		ICC03	1204-001251	IC-OSD PROCESSOR;MC14544DWR2,SOP,24P,15	
CM03	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm		ICC04	1203-000641	IC-RESET;7442,TO-92,3P,-,PLASTIC,-0.3/7	
CM04	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		ICF01	1105-001165	IC-DRAM;416S1020,512Kx16BITx2,TSOP,50P	
CM05	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm		ICF02	1105-001165	IC-DRAM;416S1020,512Kx16BITx2,TSOP,50P	
CM06	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,		ICF03	1105-001165	IC-DRAM;416S1020,512Kx16BITx2,TSOP,50P	

Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
ICM01	1003-001231	IC-LCD CONTROLLER;MX88282FC,PQFP;256P;11		RM28	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP	
ICM02	1203-001419	IC-VOLTAGE REGULATOR;4931,TO-252,3P;6.6x		RM29	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP	
ICU01	1002-001145	IC-D/A CONVERTER;TDA8772H/8,8BIT,QFP;44P		RM30	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP	
LA01	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RM31	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP	
LA03	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RM32	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP	
LA04	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RM33	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP	
LA05	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RM34	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP	
LA06	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RM35	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP	
LA07	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RM36	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP	
LA08	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RM37	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP	
LA09	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RM38	2007-000947	R-CHIP;47OHM,5%,1/10W,DA,TP;2012	
LC01	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RM39	2007-000947	R-CHIP;47OHM,5%,1/10W,DA,TP;2012	
LC03	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RM40	2007-000947	R-CHIP;47OHM,5%,1/10W,DA,TP;2012	
LM01	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RM44	2007-000029	R-CHIP;00HM,5%,1/10W,DA,TP;2012	
LM02	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RU16	2007-001177	R-CHIP;8.2KOHM,5%,1/10W,DA,TP;2012	
LM03	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RU17	2007-000029	R-CHIP;00HM,5%,1/10W,DA,TP;2012	
LM04	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RU18	2007-000029	R-CHIP;00HM,5%,1/10W,DA,TP;2012	
LM05	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RU19	2007-000029	R-CHIP;00HM,5%,1/10W,DA,TP;2012	
LU01	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RU20	2007-001166	R-CHIP;75OHM,5%,1/10W,DA,TP;2012	
LU02	2703-000392	INDUCTOR-SMD;10uH,5%,4.5x3.2x2.2mm		RU21	2007-001166	R-CHIP;75OHM,5%,1/10W,DA,TP;2012	
RA01	2007-001092	R-CHIP;620OHM,5%,1/10W,DA,TP;2012		RU22	2007-001166	R-CHIP;75OHM,5%,1/10W,DA,TP;2012	
RA02	2007-001092	R-CHIP;620OHM,5%,1/10W,DA,TP;2012		RU23	2007-000774	R-CHIP;33KOHM,5%,1/10W,DA,TP;2012	
RA07	2007-000593	R-CHIP;22OHM,5%,1/10W,DA,TP;2012		XC01	2801-003708	CRYSTAL-UNIT;11.0592MHz,30ppm,28-AAA,16p	
RA08	2007-000593	R-CHIP;22OHM,5%,1/10W,DA,TP;2012		XM01	2801-000151	CRYSTAL-UNIT;14.31818MHz,30ppm,28-AAA,30	
RA11	2007-000493	R-CHIP;2.2KOHM,5%,1/10W,DA,TP;2012					
RA12	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP;2012					
RA13	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP;2012					
RA14	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP;2012					
RA15	2007-000029	R-CHIP;00HM,5%,1/10W,DA,TP;2012					
RA16	2007-000029	R-CHIP;00HM,5%,1/10W,DA,TP;2012					
RA18	2007-000029	R-CHIP;00HM,5%,1/10W,DA,TP;2012					
RA19	2007-000593	R-CHIP;22OHM,5%,1/10W,DA,TP;2012					
RA20	2007-000029	R-CHIP;00HM,5%,1/10W,DA,TP;2012					
RA21	2007-000029	R-CHIP;00HM,5%,1/10W,DA,TP;2012					
RA22	2007-000593	R-CHIP;22OHM,5%,1/10W,DA,TP;2012					
RA23	2007-000593	R-CHIP;22OHM,5%,1/10W,DA,TP;2012					
RA33	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP					
RA34	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP					
RA35	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP					
RA36	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP					
RA37	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP					
RA38	2011-000585	R-NETWORK;47ohm,5%,1/16W,L,CHIP8P;TP					
RC01	2007-000029	R-CHIP;00HM,5%,1/10W,DA,TP;2012					
RC02	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP;2012					
RC03	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP;2012					
RC04	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP;2012					
RC05	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP;2012					
RC06	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP;2012					
RC07	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP;2012					
RC08	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP;2012					
RC09	2007-000465	R-CHIP;1KOHM,1%,1/10W,DA,TP;2012					
RC10	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP;2012					
RC14	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP;2012					
RC15	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP;2012					
RC16	2007-001097	R-CHIP;62Kohm,5%,1/10W,DA,TP;2012					
RC17	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP;2012					
RC19	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP;2012					
RC20	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP;2012					
RC21	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP;2012					
RC22	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP;2012					
RC23	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP;2012					
RC24	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP;2012					
RC25	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP;2012					
RC26	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP;2012					
RC27	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP;2012					
RC28	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP;2012					
RC29	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP;2012					
RC30	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP;2012					
RC31	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP;2012					
RM02	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP;2012					
RM03	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP;2012					
RM05	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP;2012					
RM07	2007-000872	R-CHIP;4.7KOHM,5%,1/10W,DA,TP;2012					
RM11	2007-000947	R-CHIP;47OHM,5%,1/10W,DA,TP;2012					
RM12	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP;2012					
RM13	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP;2012					
RM14	2007-000477	R-CHIP;1MOHM,5%,1/10W,DA,TP;2012					
B1	AA61-10068A	BRACKET-PCB,-,M2160,SPT,TO.3,-,-,-					
B2	AA61-10068A	BRACKET-PCB,-,M2160,SPT,TO.3,-,-,-					
CNY01	3711-001283	CONNECTOR-HEADER;NOWALL,14P,1R,2.5mm,ANG					
CNY02	3711-003577	CONNECTOR-HEADER;NOWALL,11P,1R,2.5mm,ANG					
CNY03	3711-003543	CONNECTOR-HEADER;NOWALL,16P,1R,2.54MM,AN					
CY01	2404-000465	C-TA,CHIP;22uF,10%,16V,GP;TP;6032,-					
CY02	2401-000287	C-AL;100uF;20%,16V,WT,TP;6.3x11,5					
CY03	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY04	2401-000287	C-AL;100uF;20%,16V,WT,TP;6.3x11,5					
CY05	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY06	2203-000683	C-CERAMIC,CHIP;27pF;5%,50V,NPO,TP;2012,-					
CY07	2203-000683	C-CERAMIC,CHIP;27pF;5%,50V,NPO,TP;2012,-					
CY08	2203-000925	C-CERAMIC,CHIP;470NF;+80-20%,50V,Y5V,TP					
CY09	2203-000938	C-CERAMIC,CHIP;47NF;5%,50V,NPO,TP;2012					
CY10	2203-000444	C-CERAMIC,CHIP;1nF;10%,50V,X7R,TP;2012,-					
CY11	2203-000444	C-CERAMIC,CHIP;1nF;10%,50V,X7R,TP;2012,-					
CY12	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY14	2404-000151	C-TA,CHIP;1uF;20%,16V,-,TP;3216,-					
CY15	2203-000444	C-CERAMIC,CHIP;1nF;10%,50V,X7R,TP;2012,-					
CY16	2203-000444	C-CERAMIC,CHIP;1nF;10%,50V,X7R,TP;2012,-					
CY17	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY18	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY19	2404-000123	C-TA,CHIP;10uF;20%,16V,-,TP;6032,2.9mm					
CY20	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY21	2203-000925	C-CERAMIC,CHIP;470NF;+80-20%,50V,Y5V,TP					
CY22	2203-001088	C-CERAMIC,CHIP;5pF;0.25pF;50V,NPO,TP;201					
CY23	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY24	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY25	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY26	2203-000260	C-CERAMIC,CHIP;10NF;10%,50V,X7R,TP;2012					
CY27	2203-000802	C-CERAMIC,CHIP;33NF;10%,50V,X7R,TP;2012					
CY28	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY29	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY30	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY31	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY32	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY33	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY34	2203-002442	C-CERAMIC,CHIP;330NF;+80-20%,25V,Y5V,TP					
CY35	2203-002442	C-CERAMIC,CHIP;330NF;+80-20%,25V,Y5V,TP					
CY36	2203-002442	C-CERAMIC,CHIP;330NF;+80-20%,25V,Y5V,TP					
CY37	2203-002442	C-CERAMIC,CHIP;330NF;+80-20%,25V,Y5V,TP					
CY38	2203-002442	C-CERAMIC,CHIP;330NF;+80-20%,25V,Y5V,TP					
CY39	2203-002442	C-CERAMIC,CHIP;330NF;+80-20%,25V,Y5V,TP					
CY40	2203-000192	C-CERAMIC,CHIP;100nF;+80-20%,50V,Y5V,TP					
CY41	2203-001002	C-CERAMIC,CHIP;047NF;5%,50V,NPO,TP;2012					
CY42	2203-002442	C-CERAMIC,CHIP;330NF;+80-20%,25V,Y5V,TP					
CY43	2203-002442	C-CERAMIC,CHIP;330NF;+80-20%,25V,Y5V,TP					

ASSY-PCB,MATRIX,BORD

* AA95-00134A	ASSY-PCB,MATRIX,BORD,-,GPM-51,P52A,NTSC,		
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Loc. No.	Code No.	Description : Specification	Remark	Loc. No.	Code No.	Description : Specification	Remark
C188	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm		IC141	1103-000139	IC-EEPROM;24C16,2KX8BIT,DIP,8P,300MIL,10	
C189	2404-000125	C-TA,CHIP;10uF,20%,16V,-,TP,5054,1.5mm		IC143	AA13-10002P	IC-ASIC,-,SSVC-1000,QFP;160P,VGA CONVE	
C190	2203-001680	C-CERAMIC,CHIP;68NF,20%,50V,Y5V,TP,2012		IC144	1203-000641	IC-RESET;7442,TO-92,3P,-,PLASTIC,-0.3/7	
C191	2305-000289	C-FILM,MPEF;220nF,5%,63V,TP,-,5mm		L100	AA26-10006K	TRANS-IF;-5CA,IF,1.7uH,5mm,-,16.1MHz,S	
C193	2404-000123	C-TA,CHIP;10uF,20%,16V,-,TP,6032,2.9mm		L102	2703-000248	INDUCTOR-SMD;820uH,5%,3.2x4.5x3.2mm	
C194	2203-001680	C-CERAMIC,CHIP;68NF,20%,50V,Y5V,TP,2012		L103	2703-000248	INDUCTOR-SMD;820uH,5%,3.2x4.5x3.2mm	
C195	2404-000275	C-TA,CHIP;100UF,10%,10V,GP,TP,7343		L104	2703-000248	INDUCTOR-SMD;820uH,5%,3.2x4.5x3.2mm	
C196	2203-000634	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,2012,-		L105	2703-000248	INDUCTOR-SMD;820uH,5%,3.2x4.5x3.2mm	
C197	2203-000634	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,2012,-		L106	2703-000248	INDUCTOR-SMD;820uH,5%,3.2x4.5x3.2mm	
C198	2203-000634	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,2012,-		L107	2703-000248	INDUCTOR-SMD;820uH,5%,3.2x4.5x3.2mm	
C199	2401-000027	C-AL;4.7uF,20%,50V,GP,TP,5x11,5		L108	2703-000395	INDUCTOR-SMD;470uH,5%,4.5x3.2x2.2mm	
C201	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP		L109	2703-000395	INDUCTOR-SMD;470uH,5%,4.5x3.2x2.2mm	
C202	2203-000683	C-CERAMIC,CHIP;27pF,5%,50V,NPO,TP,2012,-		L110	2703-000395	INDUCTOR-SMD;470uH,5%,4.5x3.2x2.2mm	
C203	2203-000429	C-CERAMIC,CHIP;18pF,5%,50V,NPO,TP,2012,-		L111	2703-000395	INDUCTOR-SMD;470uH,5%,4.5x3.2x2.2mm	
C207	2203-001680	C-CERAMIC,CHIP;68NF,20%,50V,Y5V,TP,2012		L112	2703-000395	INDUCTOR-SMD;470uH,5%,4.5x3.2x2.2mm	
C208	2203-000444	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,2012,-		L113	2703-000395	INDUCTOR-SMD;470uH,5%,4.5x3.2x2.2mm	
C209	2203-000260	C-CERAMIC,CHIP;10NF,10%,50V,X7R,TP,2012		L121	2901-000297	FILTER-EMI ON BOARD;-3A,-,3.5x5,TP-	
C210	2404-000123	C-TA,CHIP;10uF,20%,16V,-,TP,6032,2.9mm		LEAD/C	AA39-20016G	LEAD CONNECTOR-ASSY;-67096-003,S,3P,900	
C221	2203-001048	C-CERAMIC,CHIP;560pF,10%,50V,NPO,TP,2012		O100	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
C222	2203-001048	C-CERAMIC,CHIP;560pF,10%,50V,NPO,TP,2012		O101	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
C301	2203-000634	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,2012,-		O102	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
C302	2203-000634	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,2012,-		O103	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
C303	2203-000634	C-CERAMIC,CHIP;22pF,5%,50V,NPO,TP,2012,-		O104	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
C305	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP		O105	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CN001	3711-003601	CONNECTOR-HEADER,BOX,12P,1R,2.5mm,ANGLE		O106	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CN002	3711-000585	CONNECTOR-HEADER,BOX,10P,1R,2.5mm,ANGLE		O107	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CN003	3711-002642	CONNECTOR-HEADER,BOX,3P,1R,2.5MM,STRAIGH		O108	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CNW001	AA39-20032C	LEAD-CONNECTOR,ASSY;-67096-012,S,12P,40		O109	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CNW002	AA39-20025E	LEAD-CONNECTOR,ASSY;-67096-010,S,10P,40		O110	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP101	2901-000233	FILTER-EMI SMD;50V,300mA,-,330pF,4.5x1.8		O111	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP102	2901-000233	FILTER-EMI SMD;50V,300mA,-,330pF,4.5x1.8		O112	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP103	2901-000229	FILTER-EMI SMD;50V,300mA,-,22nF,4.5x1.8x		O113	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP104	2901-000229	FILTER-EMI SMD;50V,300mA,-,22nF,4.5x1.8x		O114	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP105	2901-000229	FILTER-EMI SMD;50V,300mA,-,22nF,4.5x1.8x		O115	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP106	2901-000229	FILTER-EMI SMD;50V,300mA,-,22nF,4.5x1.8x		O116	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP107	2901-000229	FILTER-EMI SMD;50V,300mA,-,22nF,4.5x1.8x		O117	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP108	2901-000232	FILTER-EMI SMD;50V,300mA,-,100pF,4.5x1.8x		O118	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP109	2901-000232	FILTER-EMI SMD;50V,300mA,-,10nF,4.5x1.8x		O119	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP110	2901-000232	FILTER-EMI SMD;50V,300mA,-,10nF,4.5x1.8x		O120	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP120	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2		O121	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP121	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2		O122	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP122	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2		O123	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP123	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2		O124	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP124	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2		O125	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP125	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2		O126	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP126	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2		O127	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
CP127	2901-000226	FILTER-EMI SMD;25V,200mA,-,100pF,3.2x1.2		O128	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
D100	0401-000003	DIODE-SWITCHING;1SS193,80V,100mA,SOT-23,		O129	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
D101	0405-000128	DIODE-VARACTOR;1SV214,30V,10nA,USC,TP		O130	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
D104	0403-000689	DIODE-ZENER;DTZ5.1A,5.1V,4.84-5.04V,200m		O131	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
D105	0401-000003	DIODE-SWITCHING;1SS193,80V,100mA,SOT-23,		O132	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
D106	0401-000003	DIODE-SWITCHING;1SS193,80V,100mA,SOT-23,		O133	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
D110	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,		O134	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
D111	0401-000003	DIODE-SWITCHING;1SS193,80V,100mA,SOT-23,		O135	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
D112	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,		O136	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
D113	0401-000003	DIODE-SWITCHING;1SS193,80V,100mA,SOT-23,		O137	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
D114	0401-000008	DIODE-SWITCHING;DAN217,80V,100mA,SOT-23,		O138	0501-000280	TR-SMALL SIGNAL;KSA1182,PNP,150mW,SOT-23	
D115	0401-000003	DIODE-SWITCHING;1SS193,80V,100mA,SOT-23,		O139	0501-000280	TR-SMALL SIGNAL;KSA1182,PNP,150mW,SOT-23	
D116	0401-000003	DIODE-SWITCHING;1SS193,80V,100mA,SOT-23,		O140	0501-000280	TR-SMALL SIGNAL;KSA1182,PNP,150mW,SOT-23	
D117	0401-000003	DIODE-SWITCHING;1SS193,80V,100mA,SOT-23,		O141	0501-000280	TR-SMALL SIGNAL;KSA1182,PNP,150mW,SOT-23	
D118	0403-000689	DIODE-ZENER;DTZ5.1A,5.1V,4.84-5.04V,200m		O142	0501-000280	TR-SMALL SIGNAL;KSA1182,PNP,150mW,SOT-23	
D119	0403-000689	DIODE-ZENER;DTZ5.1A,5.1V,4.84-5.04V,200m		O143	0501-000280	TR-SMALL SIGNAL;KSA1182,PNP,150mW,SOT-23	
D120	0403-001016	DIODE-ZENER;RLZ6.2B,6.2V,5.96-6.27V,400m		O146	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	
D200	0403-000689	DIODE-ZENER;DTZ5.1A,5.1V,4.84-5.04V,200m		O200	0505-000257	FET-SILICON;2SK217,N,-,20mA,-,150mW,SOT-	
D201	0403-000689	DIODE-ZENER;DTZ5.1A,5.1V,4.84-5.04V,200m		O201	0505-000257	FET-SILICON;2SK217,N,-,20mA,-,150mW,SOT-	
D202	0403-000689	DIODE-ZENER;DTZ5.1A,5.1V,4.84-5.04V,200m		O202	0505-000257	FET-SILICON;2SK217,N,-,20mA,-,150mW,SOT-	
D203	0403-000689	DIODE-ZENER;DTZ5.1A,5.1V,4.84-5.04V,200m		O203	0505-000257	FET-SILICON;2SK217,N,-,20mA,-,150mW,SOT-	
IC104	1001-000105	IC-ANALOG SWITCH;CD4066BM,BILATERAL CMOS		O204	0505-000257	FET-SILICON;2SK217,N,-,20mA,-,150mW,SOT-	
IC106	1201-000167	IC-OP AMP;358,SOP,8P;150MIL,DUAL,100V/mV		O205	0505-000257	FET-SILICON;2SK217,N,-,20mA,-,150mW,SOT-	
IC112	AA13-30006B	IC-MCU;-AT89C52-24,-,DIP,-,40P,600MI		R100	2007-000282	R-CHIP;100KOHM,5%,1/10W,DA,TP,2012	
IC113	1002-000131	IC-A/D&D/A CONVERTER;PCM55HP;16BIT,SOP,2		R101	2007-000282	R-CHIP;100KOHM,5%,1/10W,DA,TP,2012	
IC114	1002-000131	IC-A/D&D/A CONVERTER;PCM55HP;16BIT,SOP,2		R102	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
IC115	1002-000131	IC-A/D&D/A CONVERTER;PCM55HP;16BIT,SOP,2		R103	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
IC132	0801-001156	IC-CMOS LOGIC;74HC4066,BILATERAL SWITCH,		R104	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
IC133	0801-001156	IC-CMOS LOGIC;74HC4066,BILATERAL SWITCH,		R105	2007-000586	R-CHIP;22KOHM,5%,1/10W,DA,TP,2012	
IC135	1001-000105	IC-ANALOG SWITCH;CD4066BM,BILATERAL CMOS		R106	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	
IC136	1001-000105	IC-ANALOG SWITCH;CD4066BM,BILATERAL CMOS		R107	2007-000468	R-CHIP;1KOHM,5%,1/10W,DA,TP,2012	







Loc. No.	Code No.	Description ; Specification	Remark
R550	2001-000066	R-CARBON(S);10KOHM,5%,1/2W,AA,TP,2.4X6.4	
R551	2001-001052	R-CARBON(S);1.5MOHM,5%,1/2W,AA,TP,2.4X6	
R552	2002-001006	R-COMPOSITION;4.7KOHM,10%,1/2W,AA,TP,3.7	
R553	2002-001006	R-COMPOSITION;4.7KOHM,10%,1/2W,AA,TP,3.7	
R554	2001-000028	R-CARBON(S);100OHM,5%,1/2W,AA,TP,2.4X6.4	
R559	2002-001016	R-COMPOSITION;330K,10%,1/2W,AA,TP,3.7x9	
R561	2001-000302	R-CARBON;100HM,5%,1/8W,AA,TP,1.8X3.2MM	
R562	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R563	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R566	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
R567	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R571	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
R572	2003-000706	R-METAL OXIDE(S);47Kohm,5%,2W,AA,TP,4.3x	
R573	2008-000252	R-FUSIBLE(S);0.47ohm,10%,1/2W,AF,TP,2.5x	
R574	2001-001122	R-CARBON(S);3.9KOHM,5%,1/2W,AA,TP,2.4X6	
R575	2002-001017	R-COMPOSITION;1K,10%,1/2W,AA,TP,3.7x9.0m	
R576	2001-000009	R-CARBON;20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
R577	2001-000085	R-CARBON(S);100KOHM,5%,1/2W,AA,TP,2.4X6	
R578	2002-001016	R-COMPOSITION;330K,10%,1/2W,AA,TP,3.7x9	
R579	2002-001016	R-COMPOSITION;330K,10%,1/2W,AA,TP,3.7x9	
R580	2001-000066	R-CARBON(S);10KOHM,5%,1/2W,AA,TP,2.4X6.4	
R581	2001-001052	R-CARBON(S);1.5MOHM,5%,1/2W,AA,TP,2.4X6	
R582	2002-001006	R-COMPOSITION;4.7KOHM,10%,1/2W,AA,TP,3.7	
R583	2002-001006	R-COMPOSITION;4.7KOHM,10%,1/2W,AA,TP,3.7	
R584	2001-000028	R-CARBON(S);100OHM,5%,1/2W,AA,TP,2.4X6.4	
R589	2002-001016	R-COMPOSITION;330K,10%,1/2W,AA,TP,3.7x9	
SG501	AA27-90001B	COIL-SPARK,GAP:S-23,1.5KV,-,-	
SG502	AA27-90001B	COIL-SPARK,GAP:S-23,1.5KV,-,-	
SG531	AA27-90001B	COIL-SPARK,GAP:S-23,1.5KV,-,-	
SG532	AA27-90001B	COIL-SPARK,GAP:S-23,1.5KV,-,-	
SG561	AA27-90001B	COIL-SPARK,GAP:S-23,1.5KV,-,-	
SG562	AA27-90001B	COIL-SPARK,GAP:S-23,1.5KV,-,-	
V501	3704-001019	SOCKET-CRT;10P;29.1PI,35.5PI,AU30U	
V531	3704-001019	SOCKET-CRT;10P;29.1PI,35.5PI,AU30U	
V561	3704-001019	SOCKET-CRT;10P;29.1PI,35.5PI,AU30U	
VR501	2101-000321	VR-ROTARY;1Mohm,0.2,0.6W,-,-	
VR531	2101-000321	VR-ROTARY;1Mohm,0.2,0.6W,-,-	
VR561	2101-000321	VR-ROTARY;1Mohm,0.2,0.6W,-,-	

**ASSY-PCB,POWER**

\* AA95-00185A ASSY-PCB,POWER,GPM-51A,P52A,51,-,DOMEST

C801	2306-000321	C-FILM,MPPF;470nF,5%,275V,TP,-,22.5mm	
C802	2306-000321	C-FILM,MPPF;470nF,5%,275V,TP,-,22.5mm	
C805	2306-000321	C-FILM,MPPF;470nF,5%,275V,TP,-,22.5mm	
C806	2201-000332	C-CERAMIC,DISC;2.2nF,20%,250VAC,Y5U,TP,1	
C807	2201-000332	C-CERAMIC,DISC;2.2nF,20%,250VAC,Y5U,TP,1	
C808	2401-001426	C-AL;470uF,20%,400V,GP,-,35x45mm,10	
C809	2401-001426	C-AL;470uF,20%,400V,GP,-,35x45mm,10	
C810	2201-000332	C-CERAMIC,DISC;2.2nF,20%,250VAC,Y5U,TP,1	
C811	2306-000324	C-FILM,MPPF;3.3nf,5%,1.6KV,TP,28.5x13.5x	
C812	2401-003065	C-AL;470uF,20%,50V,LZ,TP,13x25mm,5m	
C813	2201-000292	C-CERAMIC,DISC;1nF,10%,50V,Y5P,TP,5x3,5	
C814	2401-002274	C-AL;220uF,20%,35V,WT,TP,10x12.5,5	
C815	2401-002262	C-AL;10uF,20%,160V,WT,TP,10x20,5	
C816	2201-000332	C-CERAMIC,DISC;2.2nF,20%,250VAC,Y5U,TP,1	
C817	2201-000332	C-CERAMIC,DISC;2.2nF,20%,250VAC,Y5U,TP,1	
C818	2201-000467	C-CERAMIC,DISC;330pF,10%,2KV,Y5P,TP,8x6	
C831	2306-000323	C-FILM,MPPF;2.2nF,5%,1.6KV,TP,28.5x15.5x	
C832	2401-003065	C-AL;470uF,20%,50V,LZ,TP,13x25mm,5m	
C833	2201-000292	C-CERAMIC,DISC;1nF,10%,50V,Y5P,TP,5x3,5	
C834	2401-002274	C-AL;220uF,20%,35V,WT,TP,10x12.5,5	
C835	2401-002262	C-AL;10uF,20%,160V,WT,TP,10x20,5	
C851	2201-000551	C-CERAMIC,DISC;470pF,10%,1KV,Y5P,TP,8x5	
C852	2401-001998	C-AL;1000uF,20%,25V,GP,TP,6.3x11.5	
C853	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11.5	
C854	2201-000551	C-CERAMIC,DISC;470pF,10%,1KV,Y5P,TP,8x5	
C855	2401-002296	C-AL;220uF,20%,35V,GP,BK,16x31.5,7.5	
C857	2401-000133	C-AL;1000uF,20%,16V,GP,TP,10x20,5	
C858	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11.5	
C859	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP	
C860	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP	
C864	2201-000551	C-CERAMIC,DISC;470pF,10%,1KV,Y5P,TP,8x5	
C865	2401-002271	C-AL;220uF,20%,63V,GP,BK,18x36mm,7.5	
C866	2401-001429	C-AL;470uF,20%,50V,GP,TP,13x20,5	

Loc. No.	Code No.	Description ; Specification	Remark
C867	2201-000551	C-CERAMIC,DISC;470pF,10%,1KV,Y5P,TP,8x5	
C868	2401-002271	C-AL;220uF,20%,63V,GP,BK,18x36mm,7.5	
C869	2401-000192	C-AL;1000uF,20%,50V,GP,TP,16x25,7.5	
C870	2305-000411	C-FILM,MPEF;470nF,5%,50V,TP,7.3x4.8x5.5m	
C871	2201-000551	C-CERAMIC,DISC;470pF,10%,1KV,Y5P,TP,8x5	
C872	2401-000737	C-AL;220uF,20%,50V,GP,TP,18x35.5,7.5	
C873	2401-000154	C-AL;1000uF,20%,25V,GP,TP,16x26,7.5	
C874	2201-002028	C-CERAMIC,DISC;470pF,10%,2KV,B,TP,8x6mm	
C875	2401-002287	C-AL;470uF,20%,200V,WT,BK,25x40,10	
C876	2401-000818	C-AL;220uF,20%,200V,GP,BK,25x30,10	
C877	2305-000411	C-FILM,MPEF;470nF,5%,50V,TP,7.3x4.8x5.5m	
C879	2201-000551	C-CERAMIC,DISC;470pF,10%,1KV,Y5P,TP,8x5	
C880	2401-000192	C-AL;1000uF,20%,50V,GP,TP,16x25,7.5	
C881	2401-000133	C-AL;1000uF,20%,16V,GP,TP,10x20,5	
C891	2201-000446	C-CERAMIC,DISC;3.3nF,20%,400V,Y5U,TP,18x	
C892	2201-000446	C-CERAMIC,DISC;3.3nF,20%,400V,Y5U,TP,18x	
C893	2201-000446	C-CERAMIC,DISC;3.3nF,20%,400V,Y5U,TP,18x	
C894	2201-000446	C-CERAMIC,DISC;3.3nF,20%,400V,Y5U,TP,18x	
CN803	3711-000628	CONNECTOR-HEADER;-;11P,1R,2.5mm,STRAIGHT	
CN804	3711-002648	CONNECTOR-HEADER;BOX,9P,1R,2.5mm,STRAIGH	
CN805	3711-002646	CONNECTOR-HEADER;BOX,7P,1R,2.5mm,STRAIGH	
CS807	2201-000119	C-CERAMIC,DISC;100nF,+80-20%,50V,Y5V,TP	
CS808	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11.5	
CS851	2401-000192	C-AL;1000uF,20%,50V,GP,TP,16x25,7.5	
CS852	2401-001998	C-AL;1000uF,20%,25V,GP,TP,10x20,5mm	
CS853	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11.5	
D801	1405-000152	VARIATOR;560V,2500A,14x8.5mm,TP	
D802	1405-000152	VARIATOR;560V,2500A,14x8.5mm,TP	
D804	0402-000549	DIODE-BRIDGE;RBV606,600V,6A,-,BK	H/SINK
D805	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
D806	0402-000549	DIODE-BRIDGE;RBV606,600V,6A,-,BK	H/SINK
D807	1405-000152	VARIATOR;560V,2500A,14x8.5mm,TP	
D811	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
D812	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
D813	0403-000704	DIODE-ZENER;TZP7.5B,7.5V,7.5-8.4V,1W,DO-	
D814	0402-000493	DIODE-RECTIFIER;1R5GU41,400V,1.5A,DO-15L	
D815	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
D816	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
D817	0402-000493	DIODE-RECTIFIER;1R5GU41,400V,1.5A,DO-15L	
D818	0402-000213	DIODE-RECTIFIER;ERB12-06,600V,1.0A,DO-41	
D819	0403-000662	DIODE-ZENER;MTZ3.0B,3.0V,3.01-3.22V,500m	
D820	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
D821	0403-000656	DIODE-ZENER;MTZ15C,15V,14.35-15.09V,500m	
D822	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
D831	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
D832	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
D833	0403-000704	DIODE-ZENER;TZP7.5B,7.5V,7.5-8.4V,1W,DO-	
D834	0402-000493	DIODE-RECTIFIER;1R5GU41,400V,1.5A,DO-15L	
D835	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
D836	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
D837	0402-000493	DIODE-RECTIFIER;1R5GU41,400V,1.5A,DO-15L	
D838	0402-000213	DIODE-RECTIFIER;ERB12-06,600V,1.0A,DO-41	
D839	0403-000662	DIODE-ZENER;MTZ3.0B,3.0V,3.01-3.22V,500m	
D840	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
D841	0403-000656	DIODE-ZENER;MTZ15C,15V,14.35-15.09V,500m	
D842	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
D843	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
D851	0402-000493	DIODE-RECTIFIER;1R5GU41,400V,1.5A,DO-15L	
D852	0402-000233	DIODE-RECTIFIER;FML-G12S,200V,5A,-,-	H/SINK
D855	0402-000233	DIODE-RECTIFIER;FML-G12S,200V,5A,-,-	H/SINK
D856	0402-000233	DIODE-RECTIFIER;FML-G12S,200V,5A,-,-	H/SINK
D857	0403-000700	DIODE-ZENER;TZP33A,33V,31-35V,1W,DO-41,T	
D858	0403-000656	DIODE-ZENER;MTZ15C,15V,14.35-15.09V,500m	
D871	0402-000231	DIODE-RECTIFIER;FMG-G26S,600V,4A,TO-220F	H/SINK
D872	0402-000233	DIODE-RECTIFIER;FML-G12S,200V,5A,-,-	H/SINK
D874	0402-000233	DIODE-RECTIFIER;FML-G12S,200V,5A,-,-	H/SINK
DS851	0402-000101	DIODE-BRIDGE;2KBPO6M,600V,2A,-,BK	
DS852	0403-000658	DIODE-ZENER;MTZ18A,18V,16.22-17.06V,500m	
DS853	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
DS854	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
DS855	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP	
F801	3601-000300	FUSE-FERRULE;250V,6.3A,SB,GLASS,5X20MM	
F801A	3602-000114	FUSE-HOLDER;-,-,30mohm	
F801B	3602-000114	FUSE-HOLDER;-,-,30mohm	
F803	3601-001086	FUSE-FERRULE;125V,5A,FA,GLASS,2.4x7.5mm	
F804	3601-001086	FUSE-FERRULE;125V,5A,FA,GLASS,2.4x7.5mm	
F852	3601-000120	FUSE-FERRULE;125V,2.5A,FA,GLASS,2.4x7.5mm	

Loc. No.	Code No.	Description ; Specification	Remark
F855	3601-001137	FUSE-FERRULE;250V,6A,SB,GLASS,5.2X20MM	
F859	3601-001065	FUSE-FERRULE;125V,3.5A,FA,CERAMIC,2.4X7.	
F871	3601-001065	FUSE-FERRULE;125V,3.5A,FA,CERAMIC,2.4X7.	
GTW803	AA39-20010E	LEAD-CONNECTOR,ASSY,-,YFH800-01,S,1P,800	
IC801	AA13-20002K	IC-HYBRID;- ,STR-S6709 LF953,SIP,9P,SMPS	H/SINK
IC802	AA13-20002K	IC-HYBRID;- ,STR-S6709 LF953,SIP,9P,SMPS	H/SINK
IC803	1203-001197	IC-POWER PRESCALER;012,SIP,3P,TO-220,PLA	
IC804	1203-001400	IC-POWER PRESCALER,SE110N,TO-220(SIP),3P	
IC805	0604-001032	PHOTO-COUPLER,TR,170-260V,300mW,DIP-4,ST	
IC806	0604-001032	PHOTO-COUPLER,TR,170-260V,300mW,DIP-4,ST	
IC807	1203-000203	IC-POSI.ADJUST REG.,3050,TO-220,5P,-,PLA	H/SINK
IC808	1203-000121	IC-NEGA.FIXED REG.,7906,TO-220,3P,-,PLAS	H/SINK
IC809	1203-000284	IC-POSI.FIXED REG.,7806,TO-220,3P,-,PLAS	H/SINK
L800	AA29-30002M	FILTER-LINE NOISE,-,1mHMIN,5A,AC90-260V,	
L801	AA29-30002L	FILTER-LINE NOISE,-,10mHMIN,5A,AC90-260V	
L803	AA29-30001Z	FILTER-LINE,-,10MH,2.8A,-,SQE3535	
L806	AA29-30001Z	FILTER-LINE,-,10MH,2.8A,-,SQE3535	
L810	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
L811	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
L812	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
L813	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
L831	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
L832	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
L851	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
L853	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
L854	AA27-10002L	COIL-CHOKE,-,24UH,K,-,2A,-,24UH-K,10X10M	
L859	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
L860	AA27-10001C	COIL-CHOKE,-,100uH,K,-,5.0A,ST,700UH-K(R	
L861	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
L862	AA27-10001C	COIL-CHOKE,-,100uH,K,-,5.0A,ST,700UH-K(R	
L870	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
L871	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
L872	AA27-10001C	COIL-CHOKE,-,100uH,K,-,5.0A,ST,700UH-K(R	
L873	3301-000287	CORE-FERRITE BEAD,AA,3.5x1x6mm,1500,2400	
L874	AA27-10002L	COIL-CHOKE,-,24UH,K,-,2A,-,24UH-K,10X10M	
L878	AA27-10002L	COIL-CHOKE,-,24UH,K,-,2A,-,24UH-K,10X10M	
Q801	0501-000369	TR-SMALL SIGNAL,KSC2331-Y,NPN,1W,TO-92L,	
Q811	0503-000153	TR-DARLINGTON:TIP102,NPN,2W,TO-220,TP,10	
Q831	0503-000153	TR-DARLINGTON:TIP102,NPN,2W,TO-220,TP,10	
QS851	0501-000389	TR-SMALL SIGNAL,KSC815,NPN,400mW,TO-92,T	
QS852	0501-000389	TR-SMALL SIGNAL,KSC815,NPN,400mW,TO-92,T	
QS853	0502-000244	TR-POWER;KSA940,PNP,1.5W,TO-220,-,40-14	
R802	2001-000002	R-CARBON(S);200KOHM,5%,1/2W,AA,TP,6.4X2.	
R803	2001-000002	R-CARBON(S);200KOHM,5%,1/2W,AA,TP,6.4X2.	
R804	1404-001045	THERMISTOR-NTC;4.7OHM,15%,2900K,35.0MW,T	
R805	2001-001096	R-CARBON(S);2.20OHM,5%,1/2W,AA,TP,2.4X6.4	
R806	2001-001107	R-CARBON(S);220ohm,5%,1/2W,AA,TP,2.4x6.4	
R807	1404-001045	THERMISTOR-NTC;4.7OHM,15%,2900K,35.0MW,T	
R808	2001-000002	R-CARBON(S);200KOHM,5%,1/2W,AA,TP,6.4X2.	
R809	2001-000002	R-CARBON(S);200KOHM,5%,1/2W,AA,TP,6.4X2.	
R810	2002-001011	R-COMPOSITION;3.3Mohm,10%,1/2W,AA,TP,3.7	
R811	2006-000296	R-CEMENT;11ohm,5%,5W,CH,BK,9.5x27x9.5mm	
R812	2001-001078	R-CARBON(S);15KOHM,5%,1/2W,AA,TP,2.4X6.4	
R813	2001-001055	R-CARBON(S);1.8KOHM,5%,1/2W,AA,TP,2.4X6.4	
R814	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
R815	2001-001143	R-CARBON(S);4.3KOHM,5%,1/2W,AA,TP,2.4X6.4	
R816	2001-001199	R-CARBON(S);910HM,5%,1/2W,AA,TP,2.4X6.4M	
R817	2009-000026	R-METAL PLATE;0.150HM,10%,5W,CL,TP,5X14X	
R818	2001-001117	R-CARBON(S);2KOHM,5%,1/2W,AA,TP,2.4X6.4M	
R820	2001-001117	R-CARBON(S);2KOHM,5%,1/2W,AA,TP,2.4X6.4M	
R821	2001-001117	R-CARBON(S);2KOHM,5%,1/2W,AA,TP,2.4X6.4M	
R822	2003-000462	R-METAL OXIDE(S);10Kohm,5%,2W,AA,TP,4x12	
R823	2003-000462	R-METAL OXIDE(S);10Kohm,5%,2W,AA,TP,4x12	
R826	2001-001182	R-CARBON(S);7.5KOHM,5%,1/2W,AA,TP,2.4X6.	
R827	2003-000462	R-METAL OXIDE(S);10Kohm,5%,2W,AA,TP,4x12	
R831	2006-000296	R-CEMENT;11ohm,5%,5W,CH,BK,9.5x27x9.5mm	
R832	2001-001078	R-CARBON(S);15KOHM,5%,1/2W,AA,TP,2.4X6.4	
R833	2001-001055	R-CARBON(S);1.8KOHM,5%,1/2W,AA,TP,2.4X6.4	
R834	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
R835	2001-001143	R-CARBON(S);4.3KOHM,5%,1/2W,AA,TP,2.4X6.	
R836	2001-001199	R-CARBON(S);910HM,5%,1/2W,AA,TP,2.4X6.4M	
R837	2009-000026	R-METAL PLATE;0.150HM,10%,5W,CL,TP,5X14X	
R838	2001-001117	R-CARBON(S);2KOHM,5%,1/2W,AA,TP,2.4X6.4M	
R840	2001-001117	R-CARBON(S);2KOHM,5%,1/2W,AA,TP,2.4X6.4M	
R841	2001-001117	R-CARBON(S);2KOHM,5%,1/2W,AA,TP,2.4X6.4M	
R842	2003-000462	R-METAL OXIDE(S);10Kohm,5%,2W,AA,TP,4x12	
R843	2003-000462	R-METAL OXIDE(S);10Kohm,5%,2W,AA,TP,4x12	

Loc. No.	Code No.	Description ; Specification	Remark
R844	2003-000462	R-METAL OXIDE(S);10Kohm,5%,2W,AA,TP,4x12	
R853	2001-001143	R-CARBON(S);4.3KOHM,5%,1/2W,AA,TP,2.4X6.	
R854	2001-001093	R-CARBON(S);2.2KOHM,5%,1/2W,AA,TP,2.4X6.	
R856	2001-001155	R-CARBON(S);5.6KOHM,5%,1/2W,AA,TP,2.4X6.	
R857	2001-001155	R-CARBON(S);5.6KOHM,5%,1/2W,AA,TP,2.4X6.	
R860	2001-001185	R-CARBON(S);750OHM,5%,1/2W,AA,TP,2.4X6.4	
R871	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
R872	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
R875	2001-001172	R-CARBON(S);620OHM,5%,1/2W,AA,TP,2.4X6.4	
R891	2002-001012	R-COMPOSITION;8.2Mohm,10%,1/2W,AA,TP,3.7	
RF851	2008-001004	R-FUSIBLE;0.27ohm,10%,1W,AA,TP,4.7x11.7m	
RL801	3501-001053	RELAY-POWER;5VDC,530MW,10A,1FORMA,15MS,5	
RS852	2001-001108	R-CARBON(S);22KOHM,5%,1/2W,AA,TP,2.4X6.4	
RS853	2001-001194	R-CARBON(S);82KOHM,5%,1/2W,AA,TP,2.4X6.4	
RS855	2001-000085	R-CARBON(S);100KOHM,5%,1/2W,AA,TP,2.4X6.	
RS856	2001-001108	R-CARBON(S);22KOHM,5%,1/2W,AA,TP,2.4X6.4	
RS857	2001-001093	R-CARBON(S);2.2KOHM,5%,1/2W,AA,TP,2.4X6.	
RS858	2001-001144	R-CARBON(S);4.7KOHM,5%,1/2W,AA,TP,2.4X6.	
SG804	AA47-20001C	SPARK-GAP,-,SP45.4.5(4.3)MM,K.S,BK	
T801	AA26-20007K	TRANS-SWITCHING,-,90-260V,+28/+16.5/+	
T802	AA26-20007J	TRANS-SWITCHING,-,90-260V,110V/22V/15V,U	
TS801	AA26-80001D	TRANS-POWER;E148X40,85-264V,60HZ,-	

**ASSY-CRT**

AA94-00991A	ASSY-CRT;P16LNM07RJA,+380MG,7,BARE,GPM
AA03-10026U	CRT-MONO;- ,P16LNM07RJA,-,7INCH,90deg,90
AA27-50004L	DEFLECTION-YOKE,-,Z261853,7,S/T,0.86mH,

**ASSY-CRT**

AA94-00992A	ASSY-CRT;P16LNM07BMB,+380MG,7,BARE,GPM
AA03-10026W	CRT-MONO;- ,P16LNM07BMB,-,7INCH,90deg,90
AA27-50004L	DEFLECTION-YOKE,-,Z261853,7,S/T,0.86mH,

**ASSY-CRT-(G)**

AA94-00993A	ASSY-CRT-(G);P16LNM07HKA,+380MG,7,BARE,
AA03-10026V	CRT-MONO;- ,P16LNM07HKA,-,7INCH,90deg,90
AA27-50004L	DEFLECTION-YOKE,-,Z261853,7,S/T,0.86mH,

**ASSY-POWER,MASTER**

AA29-00003A	FILTER-LC;- ,JP-0642-H2,6.3A,-,BK
3301-001201	CORE-FERRITE;AE,230.5x10.25x36mm,1500,28
AA39-00030A	LEAD CONNECTOR-ASSY,-,YFH800-150,F,3(2)P

**REMOCON**

AA59-00024A	REMOCON;- ,TM57,SSOM348M,29,L/GRAY,SS,D
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**ASSY-CHASSIS,PART**

AA90-00074A	ASSY-CHASSIS,PART;P52A,GPM-51A	
AA65-30109A	CLAMP-FBT;NYLON-66,V2,BLK,-,-	
AA65-30018A	CLAMP-WIRE;NYLON-66,-,DATL-600,DONG-A,	
AA65-30104B	CLAMP-WIRE;NYLON-66,V2,BLK,W2 Z5,ALL MODE	
AA65-30105A	CLAMP-WIRE;NYLON-66,V2,NTR,15MM,ALL MODE	
AA61-20142B	HOLDER-CHASSIS;- ,SVP-462J,ABS,V0,GRY,-	
DF+HC	6003-001023	SCREW-TAPTITE;RWH,+ ,B,M3,L10,ZPC(YEL),SW
MAIN+H	6003-001023	SCREW-TAPTITE;RWH,+ ,B,M3,L10,ZPC(YEL),SW
HV+BH	6003-001023	SCREW-TAPTITE;RWH,+ ,B,M3,L10,ZPC(YEL),SW

**ASSY-CABINET**

AA90-00075A	ASSY-CABINET;GPM-51A,-
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Loc. No.	Code No.	Description ; Specification	Remark	Loc. No.	Code No.	Description ; Specification	Remark
	AA61-00038A	BRACKET-CHASSIS,-,SVP-614J,SECC,T1.6,NT					
	AA61-11026A	BRACKET-CRT,MAIN,-,SVP-434J,SECC,T1.6,-,					
	AA61-00108B	BRACKET-FBT,-,SP43J2,53J2,SECC-1,T1.0,NT					
	AA63-00068A	COVER-BACK,-,GPM-51A,-,WOOD,-,-,-,-					
	AA63-00067A	COVER-FRONT,-,GPM-51A,-,WOOD,-,-,-,-					
	AA64-00215A	DOOR-CONTROL,-,GPM-51A,-,WOOD,-,-,-,-					
	AA61-20285A	HOLDER-BOX,-,3456,PP,VO,WHT,-					
	AA67-00006A	MIRROR-BACK;51INCH,GLASS,3.0,-,BSM,1046X					
	AA67-70065A	SCREEN-TINT,-,52',DNP,-,-,-,1087,815					
BC+CW	AA60-00015A	SCREW-ASSY,-,WP,-,M8,L25,SCM30C,-,-					
BCM+CC	AA60-00015A	SCREW-ASSY,-,WP,-,M8,L25,SCM30C,-,-					
CF+CW	AA60-00019A	SCREW-MACHINE;FH,-,-,M6,30,WHT,SCM435,-,					
HC+CC	AA60-10050U	SCREW-TAPPING;RWH,+4,M4,L25,ZPC(BLK),SW					
AC+BCM	AA60-10011A	SCREW-TAPTITE;HH,+PC,M4,L12,ZPC(BLK),SW					
PP+BRK	AA60-10011A	SCREW-TAPTITE;HH,+PC,M4,L12,ZPC(BLK),SW					
BM+ACM	6003-000334	SCREW-TAPTITE;RH,+2S,M3,L6,ZPC(YEL),SWR					
HS+CW	AA60-00018A	SCREW-WOOD;TH,+M4,L20,ZPC(BLK),SWRCH18,					
CB+CC	AA60-00018A	SCREW-WOOD;TH,+M4,L20,ZPC(BLK),SWRCH18,					
CB+CW	AA60-00018A	SCREW-WOOD;TH,+M4,L20,ZPC(BLK),SWRCH18,					
BC+CCW	AA60-10050W	SCREW-WOOD;W/H,+M4,20,ZPC(BLK),SWRCH18A					
BC+CCW	AA60-10050W	SCREW-WOOD;W/H,+M4,20,ZPC(BLK),SWRCH18A					
FILTER	AA60-10050W	SCREW-WOOD;W/H,+M4,20,ZPC(BLK),SWRCH18A					
HC+CCW	AA60-10050W	SCREW-WOOD;W/H,+M4,20,ZPC(BLK),SWRCH18A					
MIRROR	AA60-10050W	SCREW-WOOD;W/H,+M4,20,ZPC(BLK),SWRCH18A					
	AA63-60131C	SPACER—FELT;FELT,0.5,-,820*140,-,-					
	AA63-60121A	SPACER-COVER,DUST;FELT,T1.0,BLK,600x200,					
	AA63-60040A	SPACER-DIECAST;PU,-,-,L200,S4388,-					
CCW	AA63-60001X	SPACER-FELT;FELT,T0.5,BLK,330X15,-,-					
	AA67-70048A	SUN-SCREEN,-,52,H/C, A/S,PMMA,TRAN=82%,					

### ASSY-CABINET,MASK

*	AA91-00081A	ASSY-CABINET,MASK,-,HB,BK901P,-,GPM-51A	
	AA64-00132C	CABINET-FRONT,MASK,-,GPM-51A,L1016,ABS,H	
	AA64-00132D	CABINET-FRONT,MASK,-,GPM-51A,L744,ABS,HB	
	AA61-00037A	HOLDER-MASK,CORNER,-,SVP-614JM,ABS,HB,BL	
	AA63-70002A	SHEET,PE FOAM,T1.0,-,-,50G,-,-,-	
	AA63-00063A	SPACER-DUAL,LOCK,#400,-,-,19X19,SVP-614J	

### ASSY-CABINET,WOOD

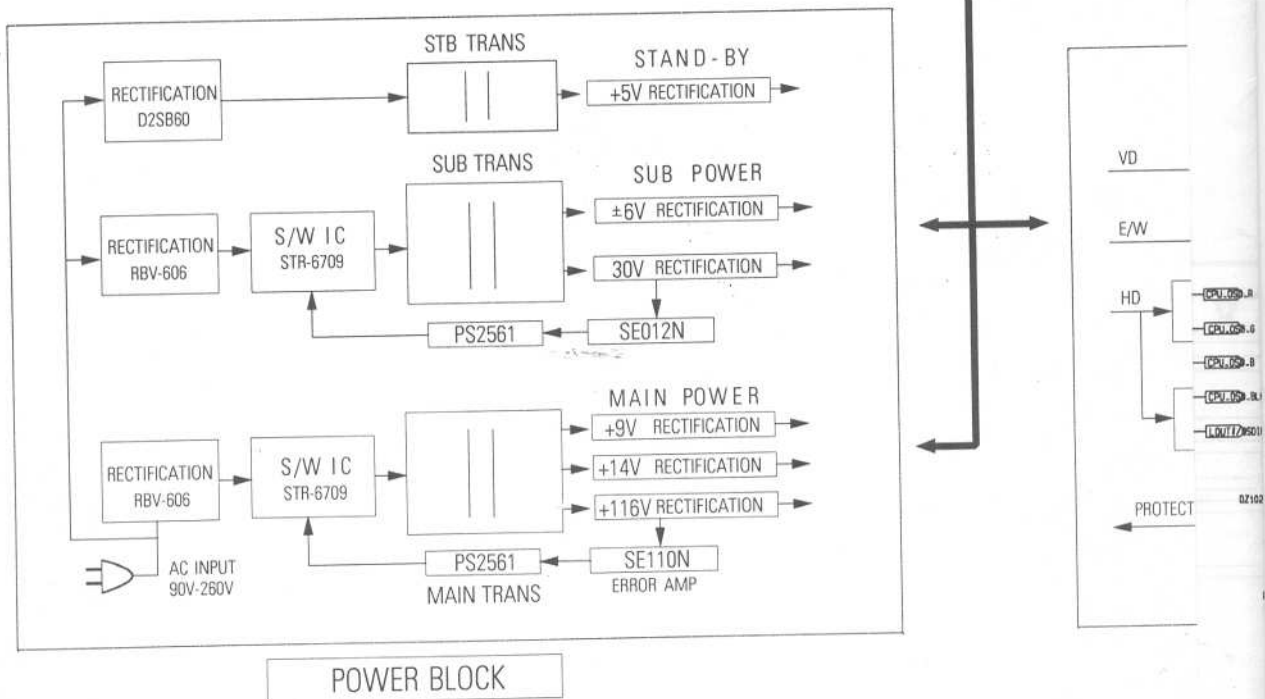
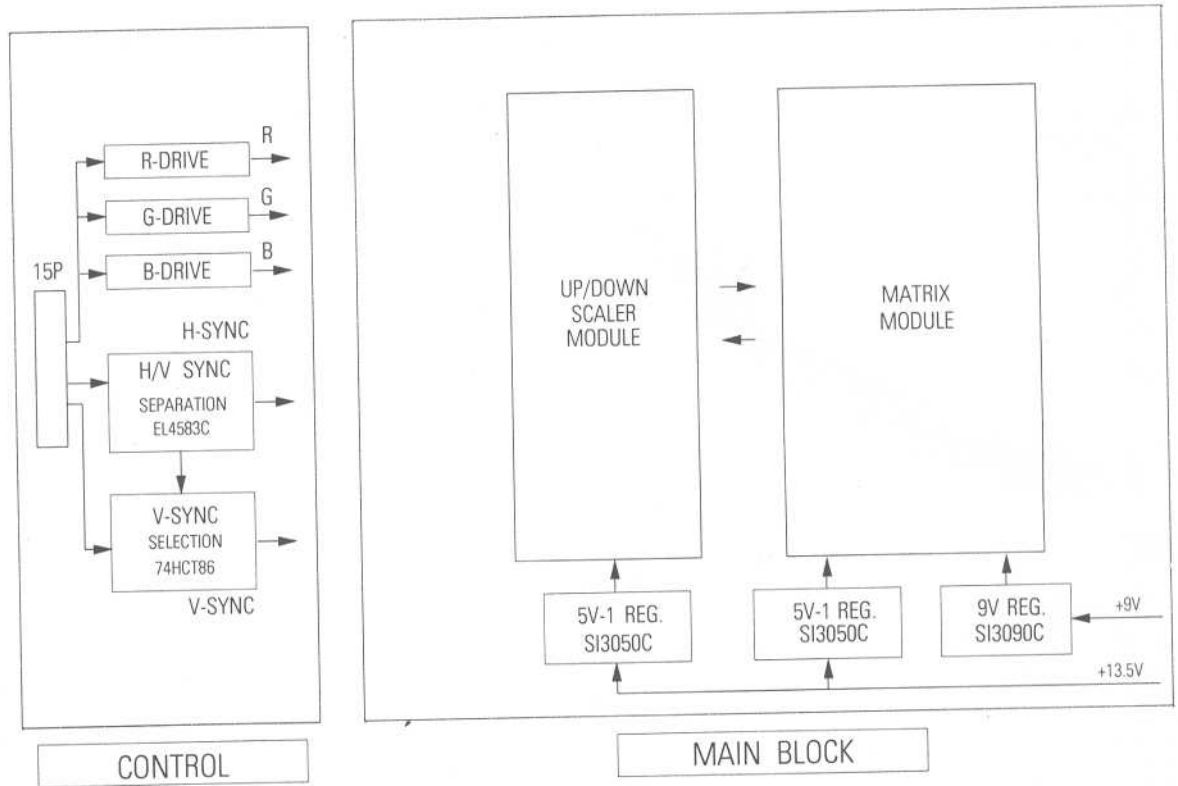
*	AA91-00082A	ASSY-CABINET,WOOD,-,-,WOOD,GPM-51A	
	AA61-10387A	BRACKET-GRILLE,-,SVP-462J,SECC-1,T0.5,-,	
	AA61-00060A	BRACKET-NUT,-,GAME PJT,SECC,T1.6,-,-,-	
	AA64-00214A	CABINET-WOOD,-,GPM-51A,-,WOOD,-,-,-,-	
	AA61-00030A	CASTER,SVP-614JM,POLYURETHANE,-,50,23	
	AA64-00209A	HANDLE-CABINET,WOOD,-,PJT TV,-,ABS,HB,BL	
	AA61-00062A	HOLDER-CONNECTOR,-,PJT TV,SECC,-,-,T1.0	
	AA61-00097A	HOLDER-WIRE,-,-,NYLON 6/6,-,NTR,-	
	AA64-00216A	LEG-STOPPER,-,GPM-51A,M16,-,-,-,-	
BRKT	AA60-10051A	SCREW-WOOD;PH,+M4,L16,ZPC(BLK),SWRCH18A	
CASTER	AA60-10051A	SCREW-WOOD;PH,+M4,L16,ZPC(BLK),SWRCH18A	
HC+CW	AA60-10051B	SCREW-WOOD;RH,+M3.5,L11,ZPC(YEL),SWRCH1	
	AA63-00066A	SPACER-DUAL,LOCK,#250,-,-,12.5X25,-,-	

### ASSY—CABINET,CHASSIS

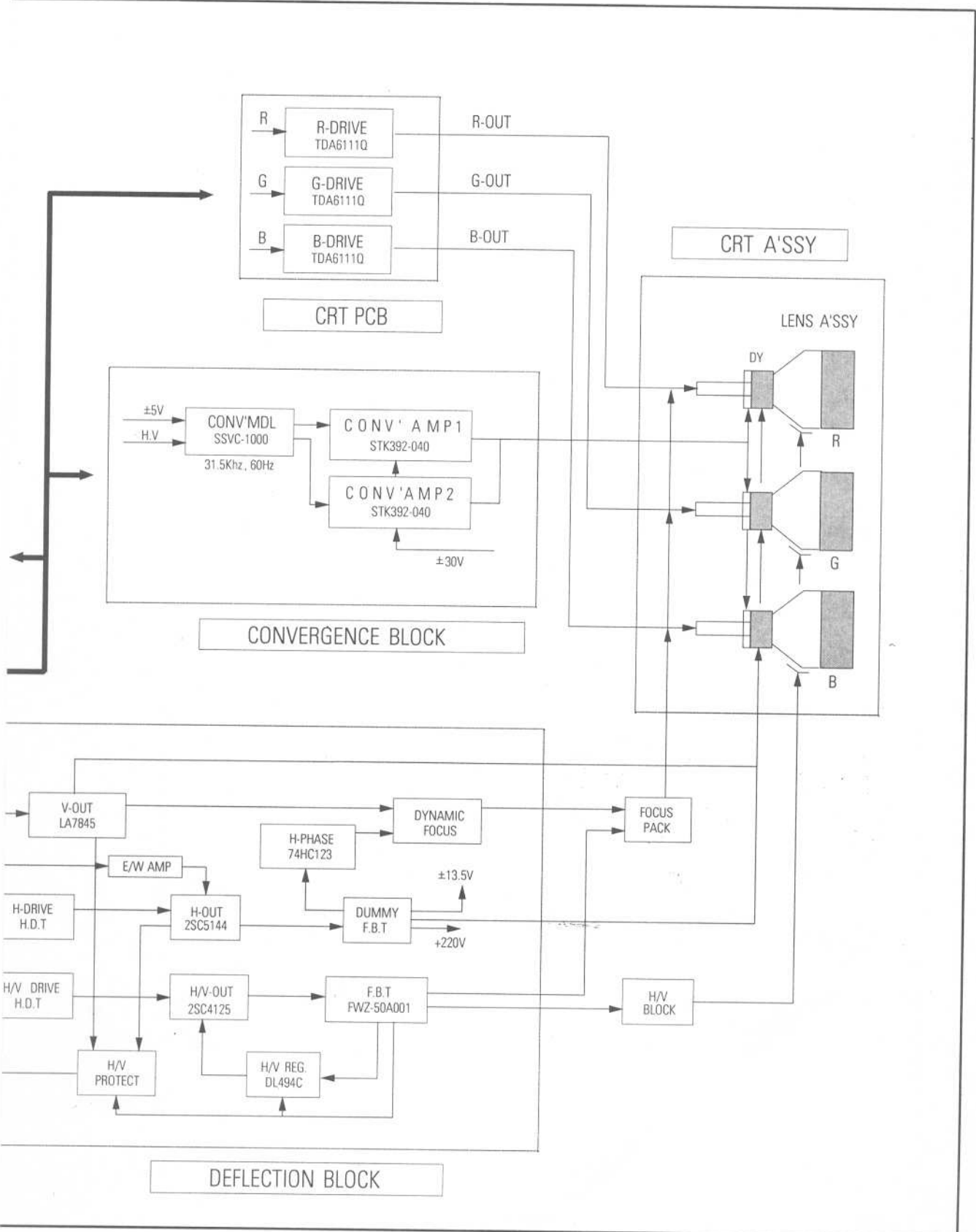
*	AA91-00100A	ASSY—CABINET,CHASSIS,-,-,WOOD,GPM-51A	
	AA61-11003A	BRACKET-BACK,-,PROJ,SECC,T1.0,-,-,-	
	AA61-11029A	BRACKET-MODULE,-,SVP-431JM,SECC,T0.6,BLK	
	AA64-00251A	CABINET-CHASSIS,WOOD,-,GPM-51A,-,WOOD,-,	
	AA65-30115A	CLAMP-WIRE;FE,-,BLK,2X150,PRJT,-	
	AA61-70053A	RAIL-PCB,-,SVP-524JA,ABS,VO,BLK,-,-	
BB+CCW	AA60-10051B	SCREW-WOOD;RH,+M3.5,L11,ZPC(YEL),SWRCH1	
BM+CCW	AA60-10051B	SCREW-WOOD;RH,+M3.5,L11,ZPC(YEL),SWRCH1	



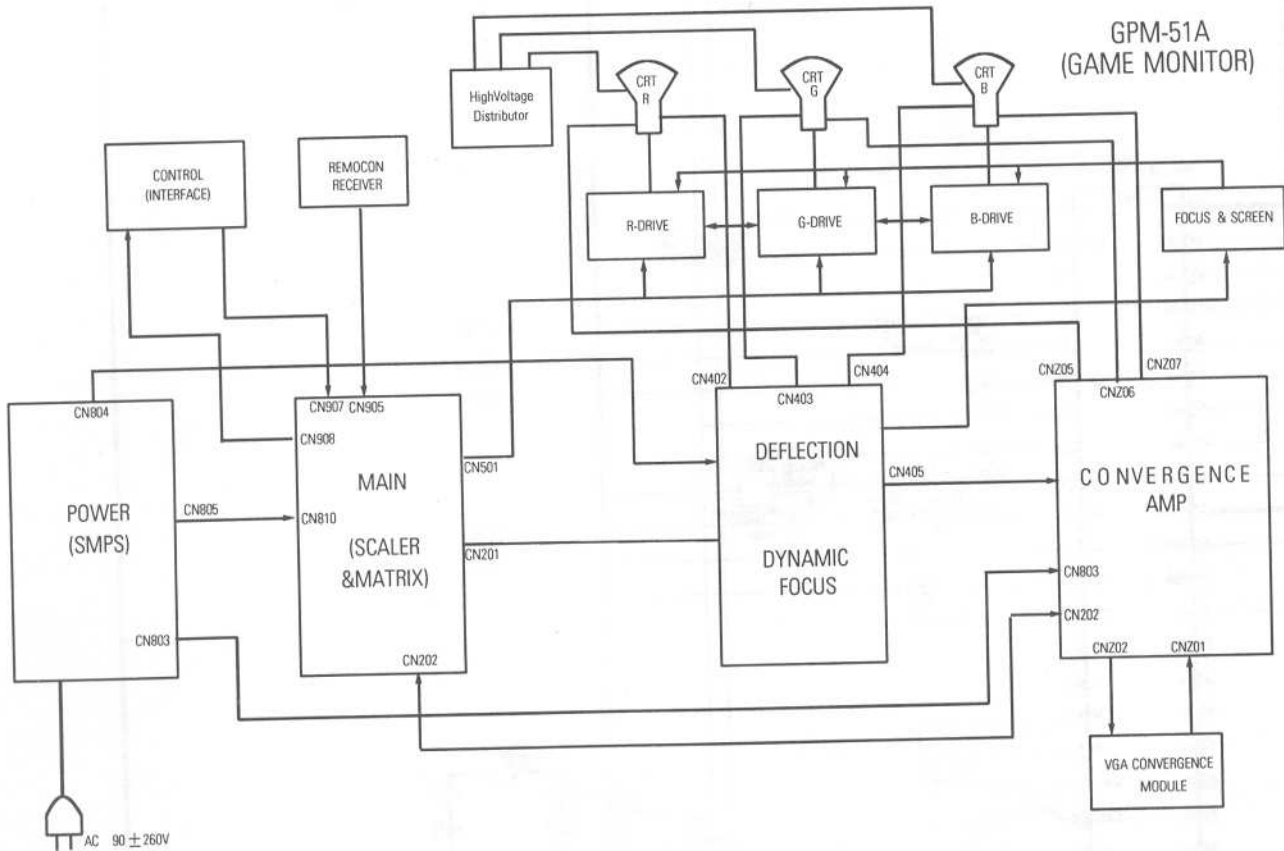
# 7. Block Diagram





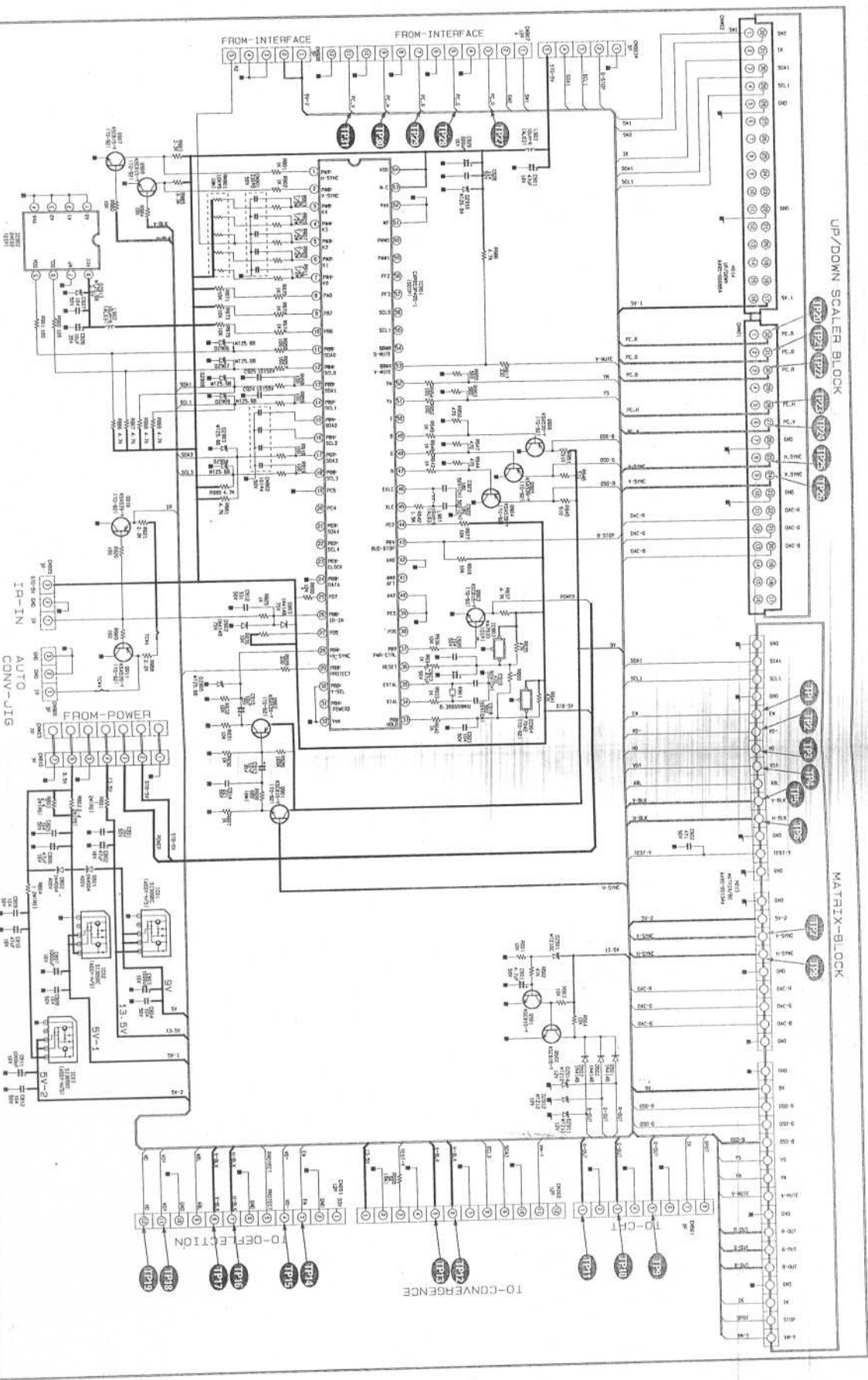


# 8. Wiring Diagram



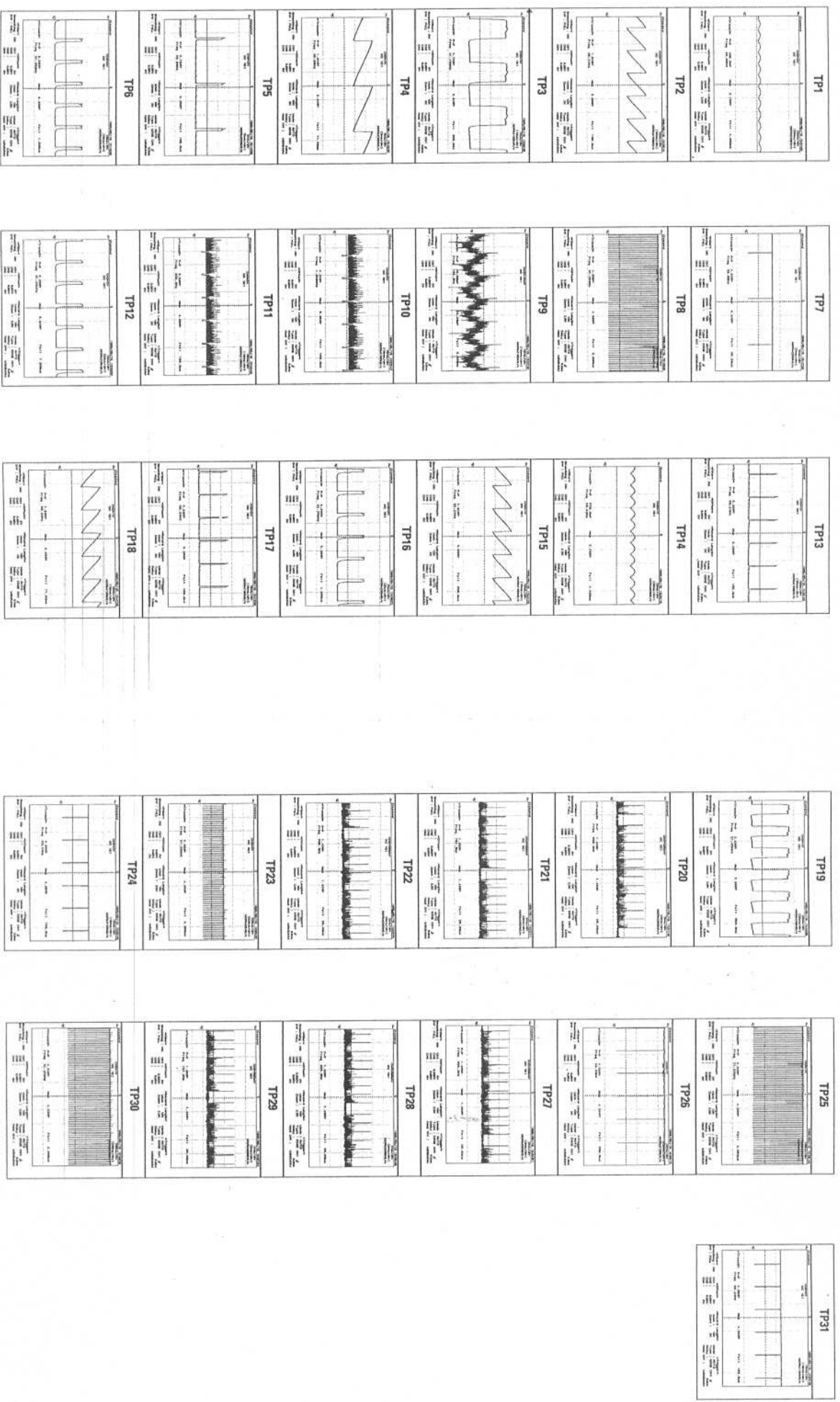
### 9. Schematic Diagrams

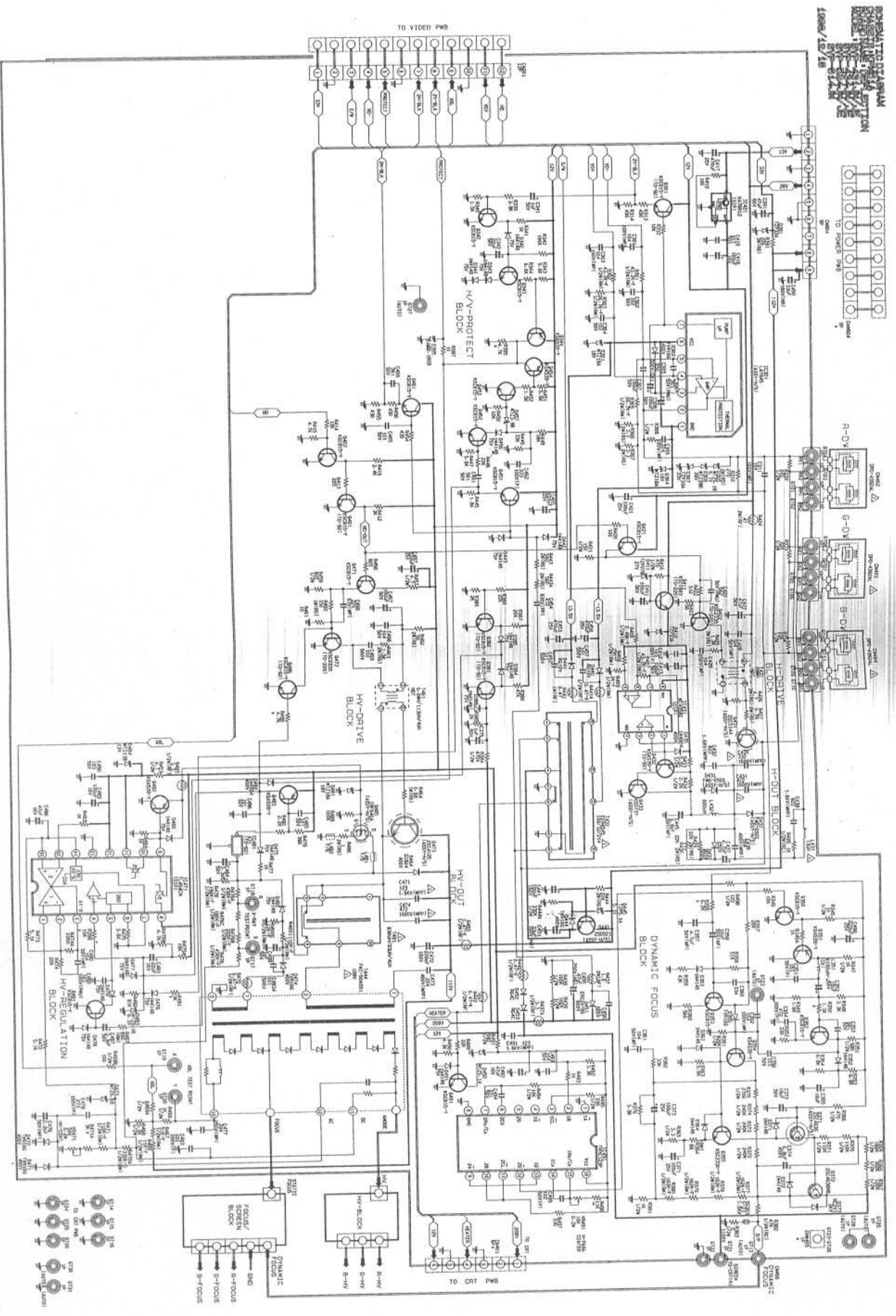
#### 9-1 MAIN



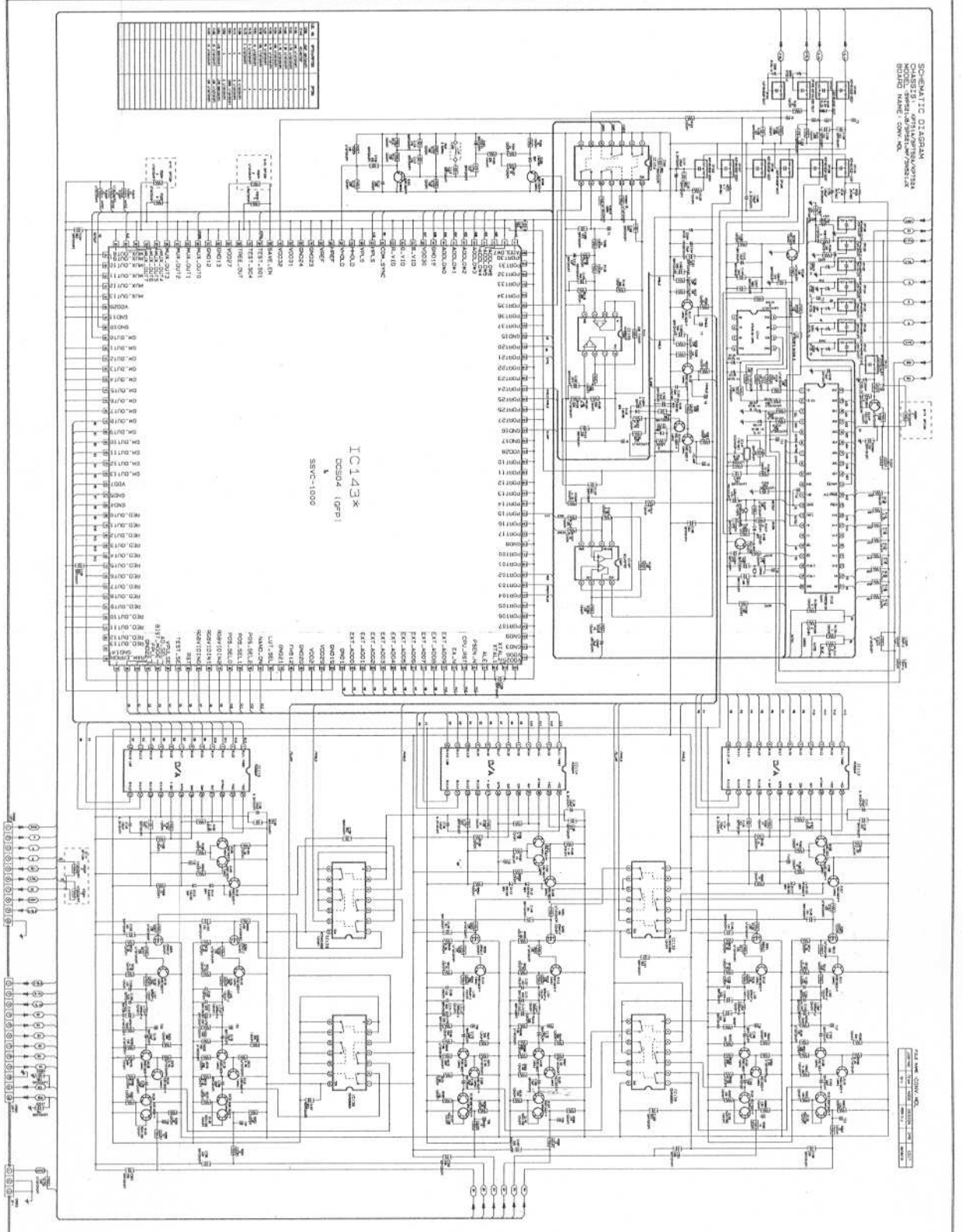
Power Line  
Signal Line

9-1-1 Waveforms

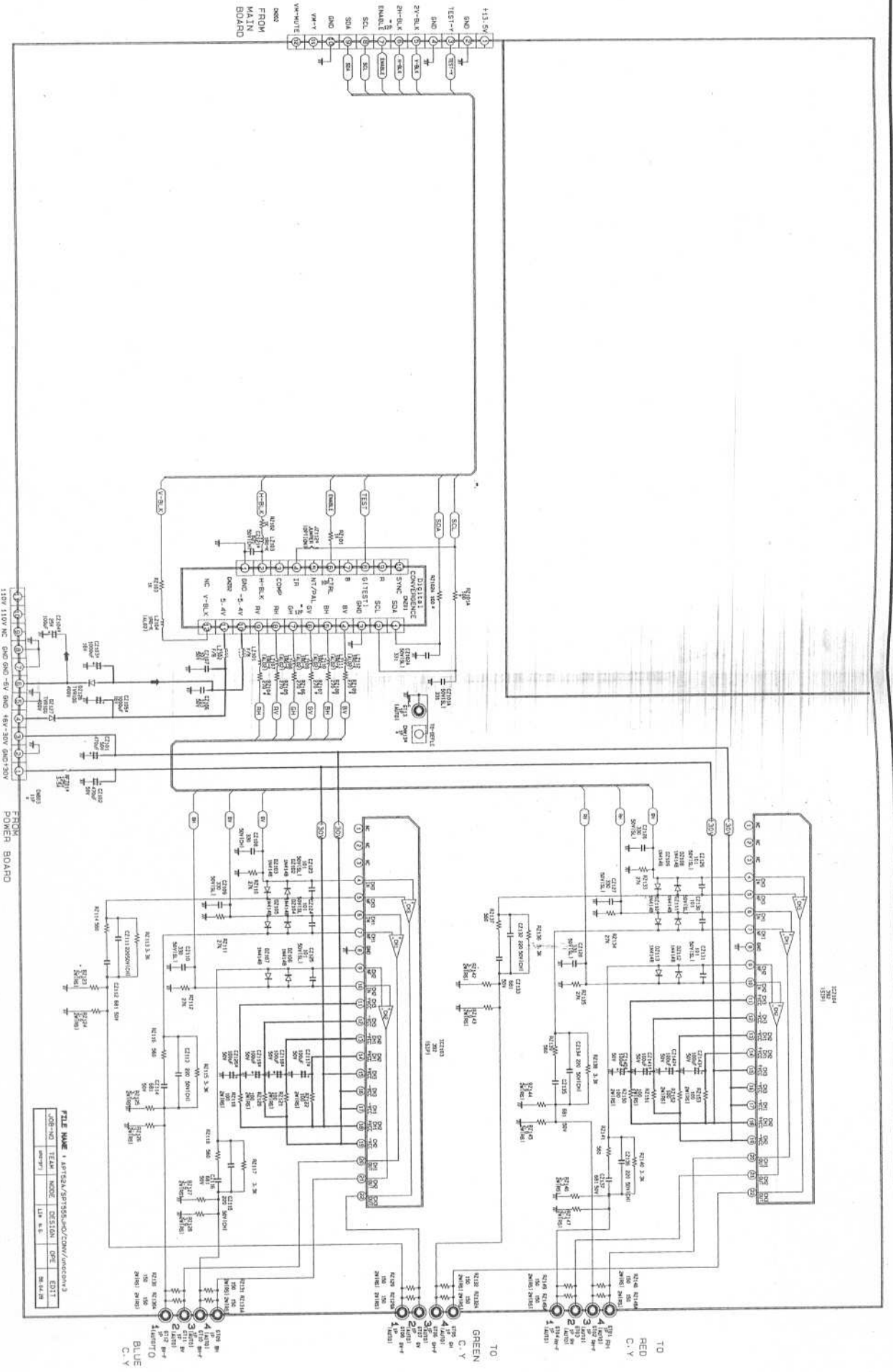




3 CONVERGENCE MODULE



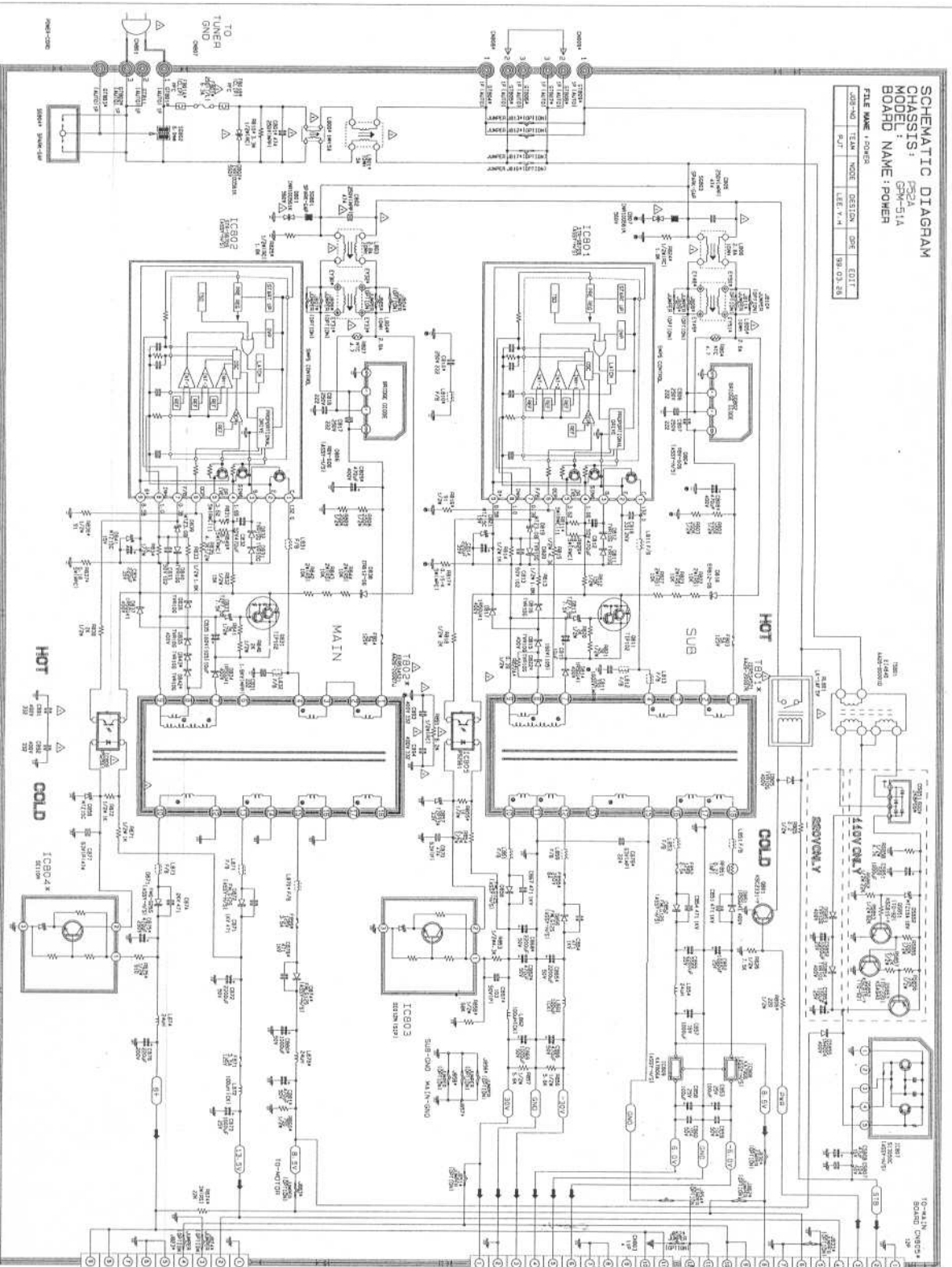




SCHEMATIC DIAGRAM

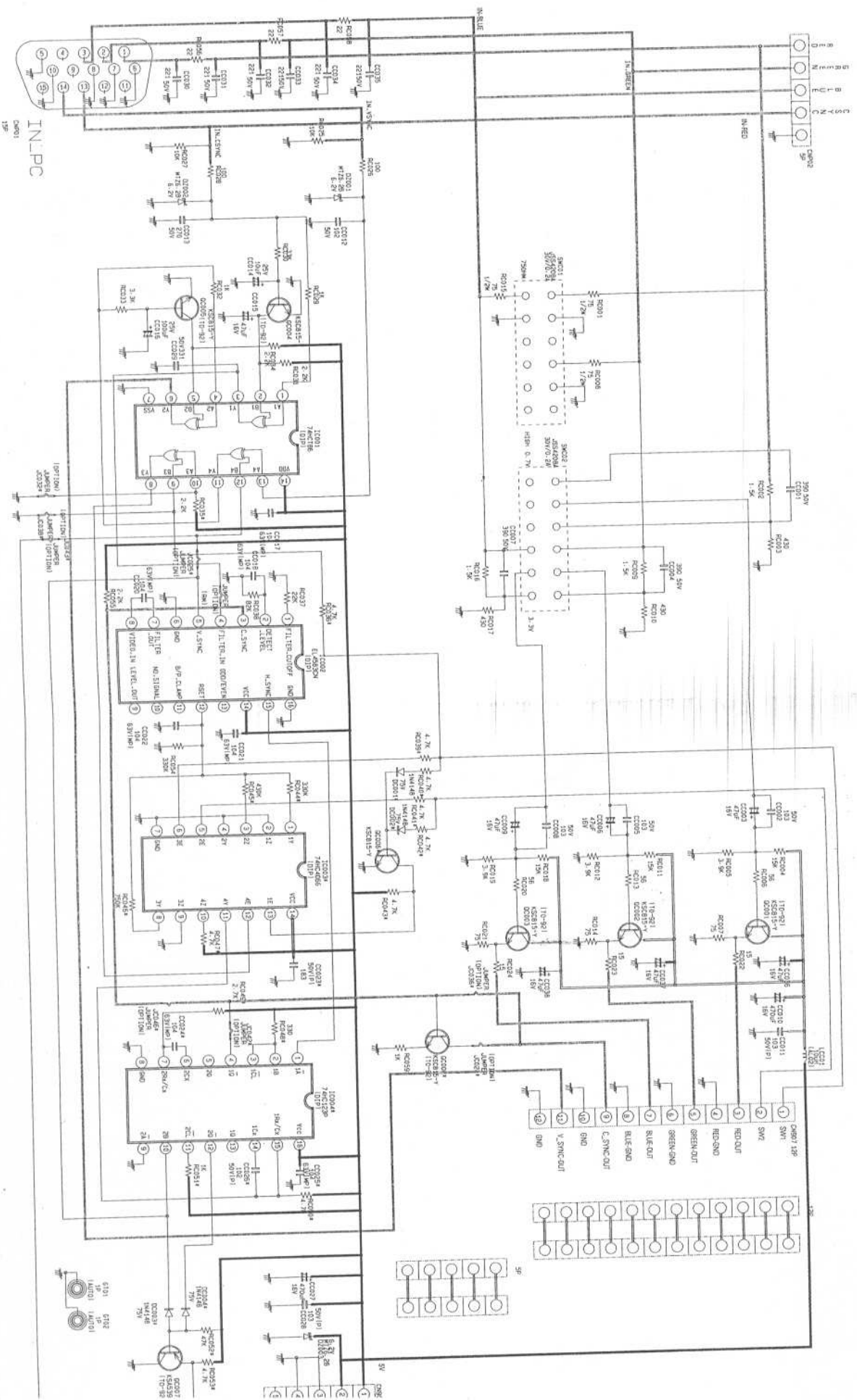
CHASSIS: P22A  
MODEL: GPW-51A  
BOARD NAME: POWER

FILE NAME: POWER
JOB NO: TEAM
DATE: 10/23/88
DESIGNER: LEE, Y. H.
EDITOR:



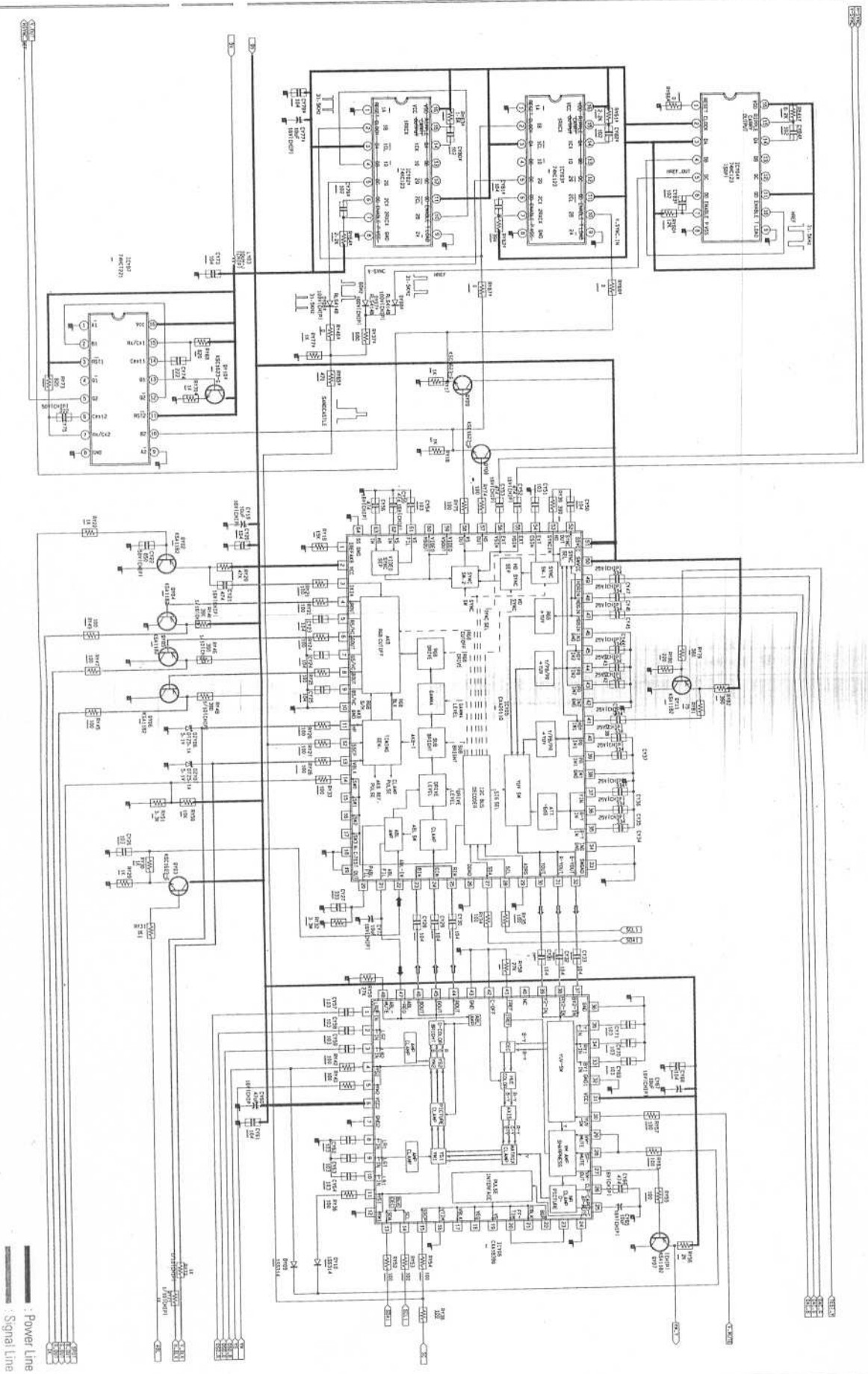
COMPONENT	VALUE	REF. DES.	QTY	UNIT	REMARKS
10B01	1000	1000	1	PCB	1000
10B02	1000	1000	1	PCB	1000
10B03	1000	1000	1	PCB	1000
10B04	1000	1000	1	PCB	1000
10B05	1000	1000	1	PCB	1000
15B02	1000	1000	1	PCB	1000
10B06	1000	1000	1	PCB	1000
10B07	1000	1000	1	PCB	1000
10B08	1000	1000	1	PCB	1000
10B09	1000	1000	1	PCB	1000
10B10	1000	1000	1	PCB	1000
10B11	1000	1000	1	PCB	1000
10B12	1000	1000	1	PCB	1000
10B13	1000	1000	1	PCB	1000
10B14	1000	1000	1	PCB	1000
10B15	1000	1000	1	PCB	1000
10B16	1000	1000	1	PCB	1000
10B17	1000	1000	1	PCB	1000
10B18	1000	1000	1	PCB	1000
10B19	1000	1000	1	PCB	1000
10B20	1000	1000	1	PCB	1000
10B21	1000	1000	1	PCB	1000
10B22	1000	1000	1	PCB	1000
10B23	1000	1000	1	PCB	1000
10B24	1000	1000	1	PCB	1000
10B25	1000	1000	1	PCB	1000
10B26	1000	1000	1	PCB	1000
10B27	1000	1000	1	PCB	1000
10B28	1000	1000	1	PCB	1000
10B29	1000	1000	1	PCB	1000
10B30	1000	1000	1	PCB	1000
10B31	1000	1000	1	PCB	1000
10B32	1000	1000	1	PCB	1000
10B33	1000	1000	1	PCB	1000
10B34	1000	1000	1	PCB	1000
10B35	1000	1000	1	PCB	1000
10B36	1000	1000	1	PCB	1000
10B37	1000	1000	1	PCB	1000
10B38	1000	1000	1	PCB	1000
10B39	1000	1000	1	PCB	1000
10B40	1000	1000	1	PCB	1000
10B41	1000	1000	1	PCB	1000
10B42	1000	1000	1	PCB	1000
10B43	1000	1000	1	PCB	1000
10B44	1000	1000	1	PCB	1000
10B45	1000	1000	1	PCB	1000
10B46	1000	1000	1	PCB	1000
10B47	1000	1000	1	PCB	1000
10B48	1000	1000	1	PCB	1000
10B49	1000	1000	1	PCB	1000
10B50	1000	1000	1	PCB	1000
10B51	1000	1000	1	PCB	1000
10B52	1000	1000	1	PCB	1000
10B53	1000	1000	1	PCB	1000
10B54	1000	1000	1	PCB	1000
10B55	1000	1000	1	PCB	1000
10B56	1000	1000	1	PCB	1000
10B57	1000	1000	1	PCB	1000
10B58	1000	1000	1	PCB	1000
10B59	1000	1000	1	PCB	1000
10B60	1000	1000	1	PCB	1000
10B61	1000	1000	1	PCB	1000
10B62	1000	1000	1	PCB	1000
10B63	1000	1000	1	PCB	1000
10B64	1000	1000	1	PCB	1000
10B65	1000	1000	1	PCB	1000
10B66	1000	1000	1	PCB	1000
10B67	1000	1000	1	PCB	1000
10B68	1000	1000	1	PCB	1000
10B69	1000	1000	1	PCB	1000
10B70	1000	1000	1	PCB	1000
10B71	1000	1000	1	PCB	1000
10B72	1000	1000	1	PCB	1000
10B73	1000	1000	1	PCB	1000
10B74	1000	1000	1	PCB	1000
10B75	1000	1000	1	PCB	1000
10B76	1000	1000	1	PCB	1000
10B77	1000	1000	1	PCB	1000
10B78	1000	1000	1	PCB	1000
10B79	1000	1000	1	PCB	1000
10B80	1000	1000	1	PCB	1000
10B81	1000	1000	1	PCB	1000
10B82	1000	1000	1	PCB	1000
10B83	1000	1000	1	PCB	1000
10B84	1000	1000	1	PCB	1000
10B85	1000	1000	1	PCB	1000
10B86	1000	1000	1	PCB	1000
10B87	1000	1000	1	PCB	1000
10B88	1000	1000	1	PCB	1000
10B89	1000	1000	1	PCB	1000
10B90	1000	1000	1	PCB	1000
10B91	1000	1000	1	PCB	1000
10B92	1000	1000	1	PCB	1000
10B93	1000	1000	1	PCB	1000
10B94	1000	1000	1	PCB	1000
10B95	1000	1000	1	PCB	1000
10B96	1000	1000	1	PCB	1000
10B97	1000	1000	1	PCB	1000
10B98	1000	1000	1	PCB	1000
10B99	1000	1000	1	PCB	1000
10B100	1000	1000	1	PCB	1000





Schematic Diagram





SCHEMATIC DIAGRAM  
CHASSIS: SPS-2265M (SAME-MONITOR)  
BOARD NAME: MX-BOARD

