zenith

SERVICE MANUAL

Product Type:	Consumer Flat Screen TV
Chassis:	AC-02SA
Manual Series:	
Manual Part #:	3828VD0156A
Model Line:	
Product Year:	2003

Model Series:

C32V37

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PRODUCT SAFETY SERVICING GUIDELINES FOR AUDIO-VIDEO PRODUCTS

IMPORTANT SAFETY NOTICE

This manual was prepared for use only by properly trained audio-visual service technicians.

When servicing this product, under no circumstances should the original design be modified or altered without permission from Zenith Electronics Corporation. All components should be replaced only with types identical to those in the original circuit and their physical location, wiring and lead dress must conform to original layout upon completion of repairs.

Special components are also used to prevent x-radiation, shock and fire hazard. These components are indicated by the letter "x" included in their component designators and are required to maintain safe performance. No deviations are allowed without prior approval by Zenith Electronics Corporation.
Circuit diagrams may occasionally differ from the actual circuit used. This way, implementation of the latest safety and performance improvement changes into the set is not delayed until the new service literature is printed.

CAUTION: Do not attempt to modify this product in any way.
Never perform customized installations without manufacturer's approval.
Unauthorized modifications will not only void the warranty, but may lead to property damage or user injury.

Service work should be performed only after you are thoroughly familiar with these safety checks and servicing guidelines.

GRAPHIC SYMBOLS



The exclamation point within an equilateral triangle is intended to alert the service personnel to important safety information in the service literature.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the service personnel to the presence of noninsulated "dangerous voltage" that may be of sufficient magnitude to constitute a risk of electric shock.



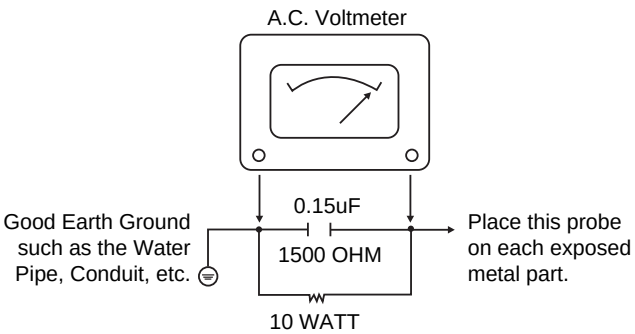
The pictorial representation of a fuse and its rating within an equilateral triangle is intended to convey to the service personnel the following fuse replacement caution notice:
CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ALL FUSES WITH THE SAME TYPE AND RATING AS MARKED NEAR EACH FUSE.

SERVICE INFORMATION

While servicing, use an isolation transformer for protection from AC line shock.
After the original service problem has been corrected, make a check of the following:

FIRE AND SHOCK HAZARD

1. Be sure that all components are positioned to avoid a possibility of adjacent component shorts. This is especially important on items transported to and from the repair shop.
2. Verify that all protective devices such as insulators, barriers, covers, shields, strain reliefs, power supply cords, and other hardware have been reinstalled per the original design. Be sure that the safety purpose of the polarized line plug has not been defeated.
3. Soldering must be inspected to discover possible cold solder joints, solder splashes, or sharp solder points. Be certain to remove all loose foreign particles.
4. Check for physical evidence of damage or deterioration to parts and components, for frayed leads or damaged insulation (including the AC cord), and replace if necessary.
5. No lead or component should touch a receiving tube or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces must be avoided.
6. After reassembly of the set, always perform an AC leakage test on all exposed metallic parts of the cabinet (the channel selector knobs, antenna terminals, handle and screws) to be sure that set is safe to operate without danger of electrical shock. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST. Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner: Connect a 1500 ohm, 10 watt resistor, paralleled by a .15 mfd 150V AC type capacitor between a known good earth ground water pipe, conduit, etc.) and the exposed metallic parts, one at a time.
   Measure the AC voltage across the combination of 1500 ohm resistor and .15 mfd capacitor. Reverse the AC plug by using a non-polarized adaptor and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 volts RMS. This corresponds to 0.5 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



X-RADIATION

1. Be sure procedures and instructions to all service personnel cover the subject of x-radiation. The only potential source of x-rays in current TV receivers is the picture tube. However, this tube does not emit x-rays when the HV is at the factory-specified level. The proper value is given in the applicable schematic. Operation at higher voltages may cause a failure of the picture tube or high-voltage supply and, under certain circumstances, may produce radiation in excess of desirable levels.
2. Only factory-specified CRT anode connectors must be used.
3. It is essential that the service personnel have available an accurate and reliable high-voltage meter.
4. When the high-voltage circuitry is operating properly, there is no possibility of an x-radiation problem. Every time a color chassis is serviced, the brightness should be run up and down while monitoring the high voltage with a meter, to be certain that the high voltage does not exceed the specified value and that it is regulating correctly.
5. When troubleshooting and making test measurements in a product with a problem of excessively high voltage, avoid being unnecessarily close to the picture tube and the high voltage power supply. Do not operate the product longer than necessary to locate the cause of excessive voltage.
6. Refer to HV, B+, and shutdown adjustment procedures described in the appropriate schematics and diagrams (where used).

IMPLOSION

1. All direct view picture tubes are equipped with an integral implosion protection system; take care to avoid damage during installation.
2. Use only the recommended factory replacement tubes.

PRODUCT SAFETY SERVICING GUIDELINES FOR AUDIO-VIDEO PRODUCTS

TIPS ON PROPER INSTALLATION

1. Never install any receiver in a closed-in recess, cubbyhole, or closely fitting shelf space over, or close to, a heat duct, or in the path of heated air flow.
2. Avoid conditions of high humidity such as: outdoor patio installations where dew is a factor, near steam radiators where steam leakage is a factor, etc.
3. Avoid placement where draperies may obstruct venting. The customer should also avoid the use of decorative scarves or other coverings that might obstruct ventilation.
4. Wall-and shelf-mounted installations using a commercial mounting kit must follow the factory-approved mounting instructions. A product mounted to a shelf or platform must retain its original feet(or the equivalent thickness in spacers) to provide adequate air flow across the bottom. Bolts or screws used for fasteners must not touch any parts or wiring. Perform leakage tests on customized installations.
5. Caution customers against mounting a product on a sloping shelf or in a tilted position, unless the receiver is properly secured.
6. A product on a roll-about cart should be stable in its mounting to the cart. Caution the customer on the hazards or trying to roll a cart with small casters across thresholds or deep pile carpets.
7. Caution customers against using a cart or stand that has not been listed by Underwriters Laboratories, Inc. for use with its specific model of television receiver or generically approved for use with TVs9 of the same or larger screen size.
8. Caution customers against using extension cords. Explain that a forest of extensions, sprouting from a single outlet, can lead to disastrous consequences to home and family.

SERVICING GUIDELINES FOR X-RADIATION PROTECTION

X-RADIATION

To prevent possible exposure to radiation caused by excessive CRT Anode voltage, the High Voltage Shutdown circuit senses the level of flyback pulse from “Flyback Transformer” representative of the actual high voltage on the CRT anode. When this level exceeds a predetermined voltage, the circuit shuts down the horizontal drive, preventing further generation of anode voltage. In this condition, the horizontal drive is “latched” off. The drive will remain off until power (via remote control or front panel) is cycled from “Off” to “On”.

CRT ANODE HIGH VOLTAGE MEASUREMENT PROCEDURE

Each screen size has its own safe operating Anode Voltage and shutdown voltage. Critical Safety components (designated with an “X” in the component designator) are designed to operate the CRT at a safe operating Anode voltage and provide proper shutdown thresholds. If replacement of any of these components are deemed necessary, it is important to use original type Zenith replacement components.
After replacement is made, confirm proper Anode voltage using the following procedure.

Measurement of the CRT Anode voltage must be performed using a high impedance high voltage meter, with no visible raster on the screen, and operating at nominal horizontal scanning frequency.
Connect a strong broadcast signal (or TV signal generator operating at 15.734kHz horizontal scanning rate) to the RF input.

After the CRT is discharged, connect a high impedance high voltage meter at the distribution block. Turn the television “on” and confirm a good signal is being displayed . Reduce Brightness and Contrast settings until the picture is well extinguished.

Observe the Anode voltage meter reading and compare with the table below for the proper CRT screen size. If the voltage reading is higher that the maximum, verify circuit component values and proper operation.

SCREEN SIZE	B+ VDC (0 BEAM)	HV NOM KV	HV MAX KV
COMPONENT LEVEL REPAIR			
32	125V	30.5KV	32.5KV

EQUIPMENT REQUIRED

a) Video Generator.
b) HV DC meter (0 to 40 KV, high Z).
c) External variable power supply (0V to 7.5VDC @ 5Amps minimum).

TEST PROCEDURE

To verify the Shutdown Circuit is operating properly proceed with the following procedure:
Supply +7.5V DC between R446 and R448 on the High Voltage Deflection PCB. If there is no raster and set goes into Shutdown, then the Shutdown Circuit is functional. If the set doesn’t go into Shutdown, then the Circuit is defective.

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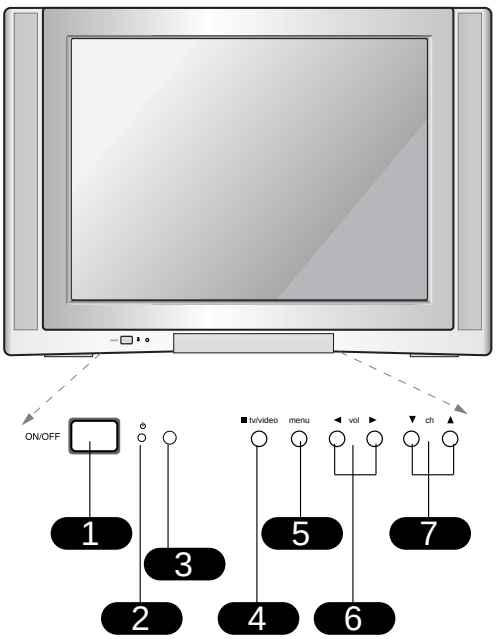
EXPLODED VIEW PARTS LIST 31

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SCHEMATIC DIAGRAM.....

DESCRIPTION OF CONTROLS

Front Panel Controls



1 Power

2 Standby indicator (Illuminates brightly when the TV is in standby mode. Dims when the TV is switched on.)

3 Remote control sensor

4 TV/VIDEO

5 Menu

6 VOL LEFT / RIGHT
Volume(▶) button increases the sound level and volume(◀) button decreases the sound level.

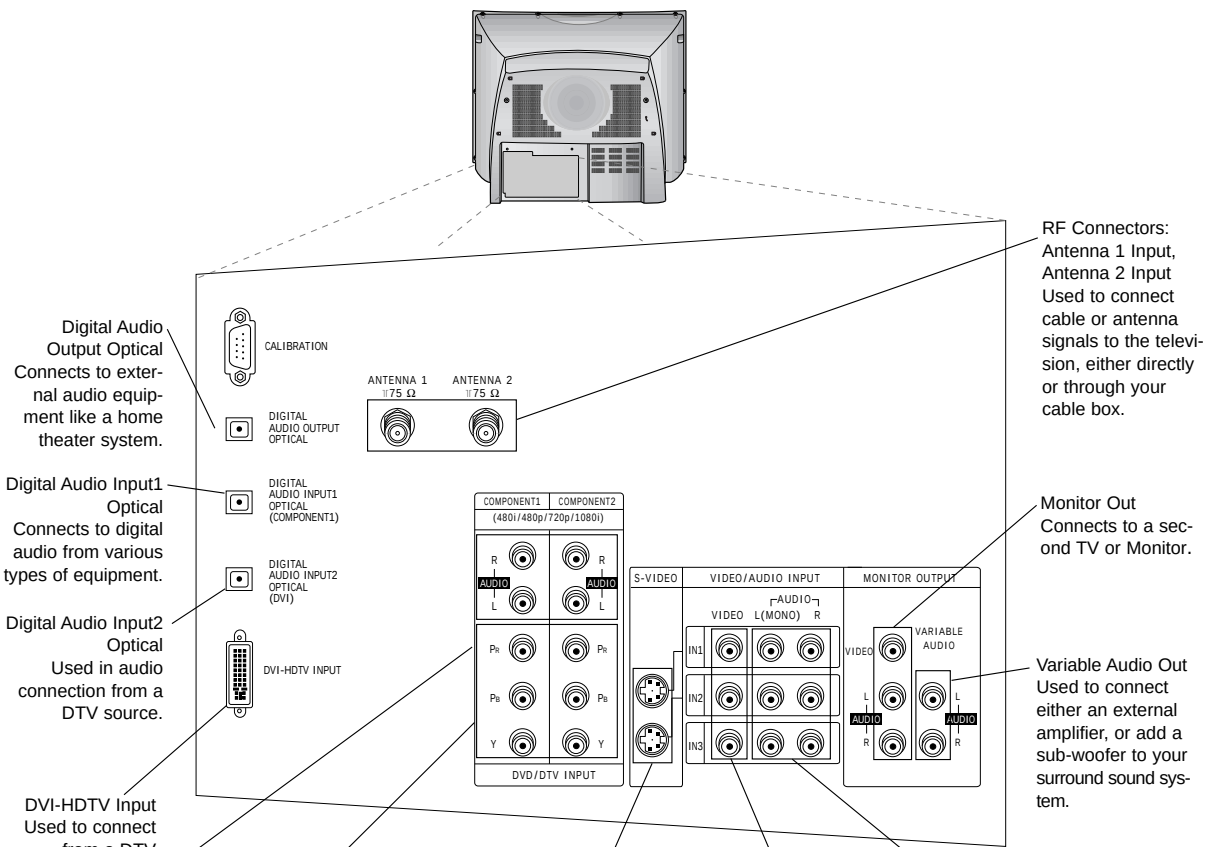
7 CH (Channel) UP / DOWN

These buttons work just as they do on your remote control.

DESCRIPTION OF CONTROLS

Rear Connections Panel

Connecting external equipment to your TV.



Digital Audio Output Optical
Connects to external audio equipment like a home theater system.

Digital Audio Input1 Optical
Connects to digital audio from various types of equipment.

Digital Audio Input2 Optical
Used in audio connection from a DTV source.

DVI-HDTV Input
Used to connect from a DTV source.

RF Connectors: Antenna 1 Input, Antenna 2 Input
Used to connect cable or antenna signals to the television, either directly or through your cable box.

Monitor Out
Connects to a second TV or Monitor.

Variable Audio Out
Used to connect either an external amplifier, or add a sub-woofer to your surround sound system.

Component Left/Right Audio
Used for stereo sound from various types of equipment.

Y, P_B, P_R
DVD Component Video and HD Component Video
Some top-of-the-line DVD players use what is called "component video," for extremely accurate picture reproduction. Refer to your DVD manual for further information.

S-Video In
A connection available with some high-end equipment that provides even better picture quality for Video 1, 2.

Video 1, 2 and 3 Inputs
Connects the video signals from various types of equipment.

Left/Right Audio
Used for stereo sound from various types of equipment.

Mini glossary

JACK — A connection on the back of a TV, VCR, or any other A/V device. This includes the RF jack and the Audio/Video jacks that are color-coded.

SIGNAL — Picture and sound traveling through cable, or over the air, to your television screen.

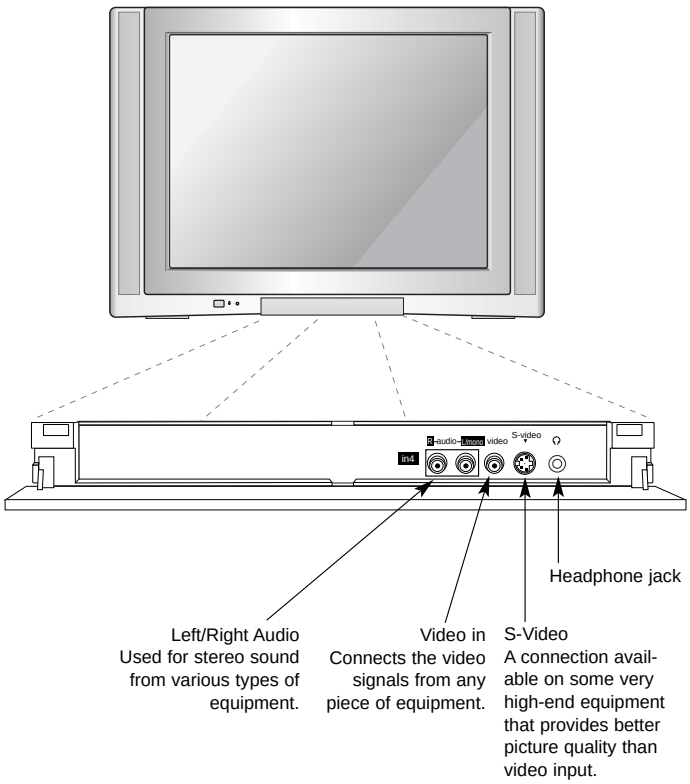
DESCRIPTION OF CONTROLS

Front Connections Panel (Front Video)

There are four jacks on the lower-right front side of your TV that make connecting Audio/Video devices like video games and camcorders very simple.

The jacks are like those found on the back jack connection panel. This means that most equipment that connects to those types of jacks on the rear jackpack, may be connected to the front connection panel (Front Video).

To use the front jacks as the signal source, select them using Main input menu as described on page 25. They will be named “Front Video” in the Main input menu.



When you select Front video or Front S-Video, the front audio inputs are automatically selected as well.

Do not connect to both Video and S-Video at the same time. Connect either Video or S-Video only.

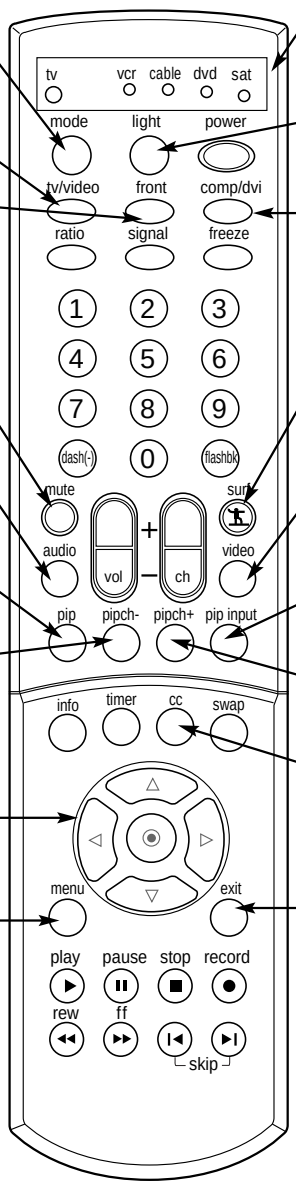
Mini glossary

A/V CABLES Audio/Video cables. Three cable connector—Right audio (red), Left audio (white), and Video (yellow). A/V cables are used for stereo playback of videocassettes and for higher quality picture and sound from other A/V devices.

A/V DEVICE Any device that produces video (picture) and/or audio (sound) (VCR, DVD, cable box, or television).

DESCRIPTION OF CONTROLS

Remote Control Functions in TV Mode



MODE
Selects the remote operating mode: TV, VCR, Cable, DVD or Satellite. Select other operating modes, for the remote to operate external devices.

TV/VIDEO
Selects: DTV, Analog, Video1, Video2, Video3, Front video, Component 1-2, and DVI input sources.

FRONT
Selects the front video input sources.

MUTE
Switches the sound on or off

AUDIO
Selects MTS sound: Mono, Stereo, and SAP. Change the audio language in DTV mode.

PIP
Switches between PIP, POP (Picture-out-of-Picture) and Twin picture mode.

PIPCH-
Changes to next lower PIP channel

THUMBSTICK
Allows you to navigate the on-screen menus and to adjust the system settings and preferences, by moving to an option with◄▲▼► and selecting the highlighted option with ◎.

MENU
Brings up the main menu to the screen.

MODE INDICATOR LIGHTS
Show active remote mode every time any button is pressed.

LIGHT
Illuminates the remote control buttons.

COMP/DVI
Selects: Component 1, Component 2, and DVI input sources.

SURF
Use to scroll the Surf channel list.

VIDEO
Adjusts the factory preset picture according to the room.

PIP INPUT
Selects the input source for the sub picture.

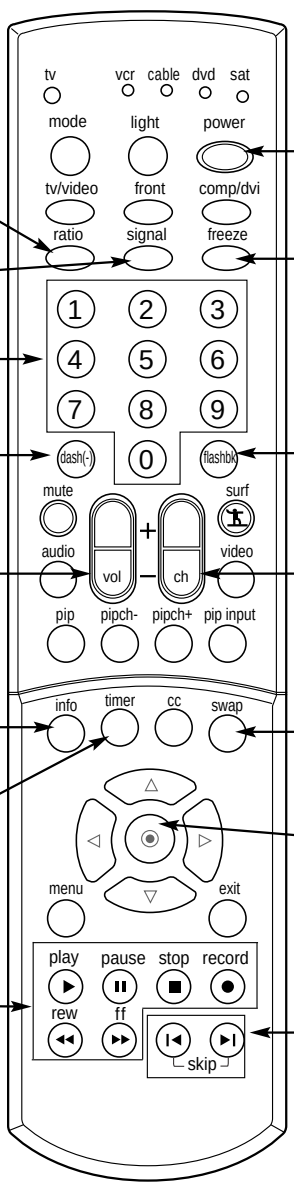
PIPCH+
Changes to next higher PIP channel.

CC
Lets you select a closed caption mode for displaying captioning information when provided for DTV/Analog signal.

EXIT
Clears all on-screen displays and returns to TV viewing from any menu.

DESCRIPTION OF CONTROLS

Remote Control Functions in TV Mode



RATIO
Changes the aspect ratio.

SIGNAL
Displays the digital signal strength.

NUMBER KEYPAD
For direct channel selection and programming functions.

DASH
Is used to enter a program number for multiple program channels.

VOLUME UP/DOWN
Increases/decreases the sound level.

INFO
When you watch the TV, displays information on top of the screen. Not available in Component 1-2 and DVI.

TIMER
Lets you select the amount of time before your TV turns itself off automatically.

RECORD, PAUSE, REW, FFWD, PLAY, STOP
Control the functions on your VCR.

POWER
Turns your TV or any other programmed equipment on or off, depending on mode.

FREEZE
Captures and freezes the currently-viewed picture. Main picture is frozen in PIP or Twin picture mode.

FLASHBK
Tunes to the last channel viewed.

CHANNEL UP/DOWN
Scrolls through available channels present in EZ Scan memory.

SWAP
Swaps the signal from your PIP window to the main screen.

ENTER
When in the menu system and other on-screen displays, selects highlighted options.

SKIP LEFT/RIGHT
Playing CDs: Selects songs.
Playing DVDs: Selects movie chapters.

SPECIFICATIONS

Product Specifications

Models	C32V37
Power requirement	120V, 60Hz
Television system	American TV Standard, NTSC, ATSC with STB
Television Channel	VHF: 2 - 13 UHF: 14 - 69 CATV: 1 - 125
Power consumption (W)	220W
Antenna	75 ohm external terminal for VHF/UHF
Audio Output (W)	7W x 2
Supplied accessories	Remote control, batteries 2 size AA (Alkaline battery)
External input ports	Video/Audio input (4 set) Video output (1 set) S-Video input (3) Component input (2 set) Variable audio output (1 set) DVI-HDTV input (1) Digital audio optical input (2) Digital audio optical output (1) Calibration port (1) Antenna port (2)

Design and specifications are subject to change without prior notice.

PROGRAMMING CODES

Programming Codes

TVs

Brand	Codes	Brand	Codes	Brand	Codes	Brand	Codes
A MARK	112 143	GOLDSTAR	004 102 106		019 024 040	Sharp	004 014 019
ADMIRAL	072 081 161		110 112 113		056 130 132		022 028 029
AKAI	006 146		116 119 122		134		081 143 170
AMPRO	073 167		127 137 143	NIKEI	043		175
AMSTRAD	052	HALL MARK	004 116	ONKING	043	SIEMENS	088
ANAM	043 054 056	HITACHI	004 006 009	ONWA	043	SIGNATURE	072
	080 104 108		010 011 012	OPTONICA	019 081	SONY	041 070 079
	112 115 118		023 041 075	PANASONIC	034 056 080		085 126 139
	121 131		143 158 163		092 164		147 185
AOC	004 006 058		166	PHILCO	003 004 006	SOUNDESIGN	003 004 028
	112	INFINITY	164		024 043 056		043 116
BLAUPUNKT	088	INKEL	129		059 060 063	SPECTRICON	112
CANDLE	002 003 004	JBL	164		064 127 143	SSS	004 043
	006	JCPENNY	004 006 008		164	SUPRE MACY	002
CAPEHART	058		009 024 030	PHILIPS	003 004 005	SYLVANIA	003 004 006
CETRONIC	043		065 101 143		006 038 059		044 059 060
CITIZEN	002 003 004		156 160		070 093 143		063 064 116
	006 043 101	JENSEN	013		160 164		127 140 160
	103 143	JVC	034 038 070	PIONEER	006 018 023		164
CLASSIC	043		083 145		025 027 116	TANDY	081
CONCERTO	004	KEC	043		135 176	TATUNG	056 062
CONTEC	039 043 050	KENWOOD	006 070	PORTLAND	004 143	TECHNICS	034 080 084
	051	KLOSS	002 059	PROSCAN	144 160 161	TECHWOOD	004
CORONADO	143	KMC	143		165 167	TEKNIKA	002 003 004
CRAIG	043 054	KTV	006 043 143	PROTON	004 058 116		006 024 028
CROWN	043 143		154		131 143 171		031 043 072
CURTIS MATHES	004 006 101	LG	255		173		077 101 103
	116 143	LODGENET	072	QUASAR	034 056 092		143
CXC	043	LOGIK	072	RADIO SHACK	019 043 047	TELEFUNKEN	037 046 086
DAEWOO	004 016 017	LUXMAN	004		116 127 143		087
	043 044 055	LXI	007 015 052	RCA	004 006 023	TELERENT	072
	071 076 103		081 160 164		024 056 065	TERA	172
	107 111 114		166		074 144 152	TMK	004 116
	117 120 123	MAGNAVOX	003 004 006		156 160 161	TOSHIBA	007 015 030
	125 127 128		022 059 060		165		040 051 062
	136 143		061 063 064	REALISTIC	007 019 043		101 138
DAYTRON	004 116 143		127 143 160		047	TOTEVISION	143
DYNASTY	043		164	ROCTEC	186	UNIVERSAL	008 009
DYNATECH	062	MARANTZ	006 077 164	RUNCO	168 169	VIDEO CONCEPTS	146
ELECTROHOME	024 077 143	MATSUI	164	SAMPO	004 006 058	VIDIKRON	174
EMERSON	004 005 006	MEMOREX	004 007 072		116	VIDTECH	004 116
	028 043 047		116	SAMSUNG	004 050 089	WARDS	004 008 009
	048 050 051	METZ	088		101 105 113		019 028 060
	096 116 143	MGA	004 006 024		116 127 133		061 063 064
	151 153 154		028 042 049		137 143 160		072 074 116
	155		077 116	SANYO	007 020 021		143 164
FISHER	007 057	MINERVA	088		033 039 053	YAMAHA	004 006
FUNAI	028 043	MITSUBISHI	004 006 024		057 082 166	YORK	004 116
FUTURETECH	043		028 040 042	SCOTT	004 028 043	YUPITERU	043
GE	004 006 008		109 116 124		048 116 143	ZENITH	001 072 073
	009 034 056		146	SEARS	004 007 015		095 103 157
	073 074 091	MTC	004 006 062		028 030 057	ZONDA	112
	116 130 144		101		082 094 101		
	155 160 161	NAD	015 025		116 143 160		
	165	NEC	006 007 016				

PROGRAMMING CODES

Programming Codes

VCRs

Brand	Codes	Brand	Codes	Brand	Codes	Brands	Codes
AIWA	034		055 060 130		034 040 041	TOTEVISION	040 101
AKAI	016 043 046		150 152		062 063 107	UNITECH	040
	124 125 146	KENWOOD	014 034 039		109 140 144	VECTOR RESEARCH	012
AMPRO	072		043 047 048		145 147	VICTOR	048
ANAM	031 033 103	LG	255	REALISTIC	003 008 010	VIDEO CONCEPTS	012 034 046
AUDIO DYNAMICS	012 023 039	LLOYD	034		014 031 033	VIDEOSONIC	040
	043	LXI	003 009 013		034 040 053	WARDS	003 013 017
BROKSONIC	035 037 129		014 017 034		054 101		024 031 033
CANON	028 031 033		101 106	RICO	058		034 040 053
CAPEHART	108	MAGIN	040	RUNCO	148		054 131
CRAIG	003 040 135	MAGNAVOX	031 033 034	SALORA	014	YAMAHA	012 034 039
CURTIS MATHES	031 033 041		041 067 068	SAMSUNG	032 040 102		043
DAEWOO	005 007 010	MARANTZ	012 031 033		104 105 107	ZENITH	001 034 048
	064 065 108		067 069		109 112 113		056 058 072
	110 111 112	MARTA	101		115 120 122		080 101
	116 117 119	MATSUI	027 030		125		
DAYTRON	108	MEI	031 033	SANSUI	022 043 048		
DBX	012 023 039	MEMOREX	003 010 014		135		
	043		031 033 034	SANYO	003 007 010		
DYNATECH	034 053		053 072 101		014 102 134		
ELECTROHOME	059		102 134 139	SCOTT	017 037 112		
EMERSON	006 017 025	MGA	045 046 059		129 131		
	027 029 031	MINOLTA	013 020	SEARS	003 008 009		
	034 035 036	MITSUBISHI	013 020 045		010 013 014		
	037 046 101		046 049 051		017 020 031		
	129 131 138		059 061 151		042 073 081		
	153	MTC	034 040		101		
FISHER	003 008 009	MULTITECH	024 034	SHARP	031 054 149		
	010	NEC	012 023 039	SHINTOM	024		
FUNAI	034		043 048	SONY	003 009 031		
GE	031 033 063	NORDMENDE	043		052 056 057		
	072 107 109	OPTONICA	053 054		058 076 077		
	144 147	PANASONIC	066 070 074		078 149		
GO VIDEO	132 136		083 133 140	SOUNDESIGN	034		
GOLDSTAR	012 013 020		145	STS	013		
	101 106 114	PENTAX	013 020 031	SYLVANIA	031 033 034		
	123		033 063		059 067		
HARMAN KARDON	012 045	PHILCO	031 034 067	SYMPHONIC	034		
HITACHI	004 018 026	PHILIPS	031 033 034	TANDY	010 034		
	034 043 063		054 067 071	TATUNG	039 043		
	137 150		101	TEAC	034 039 043		
INSTANTREPLAY	031 033	PILOT	101	TECHNICS	031 033 070		
JCL	031 033	PIONEER	013 021 048	TEKNIKA	019 031 033		
JCPENNY	012 013 015	PORTLAND	108		034 101		
	033 040 066	PULSAR	072	THOMAS	034		
	101	QUARTZ	011 014	TMK	006		
JENSEN	043	QUASAR	033 066 075	TOSHIBA	008 013 042		
JVC	012 031 033		145		047 059 082		
	043 048 050	RCA	013 020 033		112 131		

PROGRAMMING CODES

Programming Codes

SAT

Brand	Codes	Brand	Codes	Brand	Codes	Brand	Codes
ALPHASTAR DSR	123		027 133 134	PERSONAL CABLE	117	VIEWSTAR	115
AMPLICA	050	GENERAL INSTRUMENT	003 004 016	PHILIPS	071	WINEGARD	128 146
BIRDVIEW	051 126 129		029 031 059	PICO	105	ZENITH	001 081 082
BSR	053		101	PRESIDENT	019 102		083 084 091
CAPETRONICS	053	HITACHI	139 140	PRIMESTAR	030 110 111		120
CHANNEL MASTER	013 014 015	HOUSTON TRACKER	033 037 039	PROSAT	072		
	018 036 055		051 057 104	RCA	066 106		
CHAPARRAL	008 009 012	HUGHES	068	REALISTIC	043 074		
	077	HYTEK	053	SAMSUNG	123		
CITOH	054	JANIEL	060 147	SATELLITE SERVICE	CO028 035 047		
CURTIS MATHES	050 145	JERROLD	061		057 085		
DRAKE	005 006 007	KATHREIN	108	SCIENTIFIC ATLANTA	032 138		
	010 011 052	LEGEND	057	SONY	103		
	112 116 141	LG	255	STARCAST	041		
DX ANTENNA	024 046 056	LUTRON	132	SUPER GUIDE	020 124 125		
	076	LUXOR	062 144	TEECOM	023 026 075		
ECHOSTAR	038 040 057	MACOM	010 059 063		087 088 090		
	058 093 094		064 065		107 130 137		
	095 096 097	MEMOREX	057	TOSHIBA	002 127		
	098 099 100	NEXTWAVE	028 124 125	UNIDEN	016 025 042		
	122	NORSAT	069 070		043 044 045		
ELECTRO HOME	089	PACE SKY SATELLITE	143		048 049 078		
EUROPLUS	114	PANASONIC	060 142		079 080 086		
FUJITSU	017 021 022	PANSAT	121		101 135 136		

DVD

Brand	Codes	Brand	Codes	Brand	Codes	Brand	Codes
APEX DIGITAL	022		025	PHILIPS	013	THOMPSON	005 006
DENON	020 014	MAGNAVOX	013	PIONEER	004 026	TOSHIBA	019 008
GE	005 006	MARANTZ	024	PROCEED	021	YAMAHA	009 018
GOLDSTAR	010 016 025	MITSUBISHI	002	PROSCAN	005 006	ZENITH	010 016 025
HARMAN KARDON	027	NAD	023	RCA	005 006		
JVC	012	ONKYO	008 017	SAMSUNG	011 015		
LG	001 010 016	PANASONIC	003 009	SONY	007		

PROGRAMMING CODES

Programming Codes

CATV

Brand	Codes	Brand	Codes	Brand	Codes	Brand	Codes
ABC	003 004 039		008 009 010	REGAL	049 050		032 035
	042 046 052		052 069 074	REGENCY	057	VIEWSTAR	012 015 018
	053	LG	255	REMBRANT	025		086 087 088
ANTRONIK	014	M-NET	037	RK	091		089
ARCHER	005 007 014	MACOM	033	SAMSUNG	030 068	ZENITH	001 060 093
	024	MAGNAVOX	010 012 064	SCIENTIFIC ATLANTA	003 011 041		
CABLE STAR	026		079		042 043 045		
CENTURION	092	MEMOREX	001		046		
CENTURY	007	MOVIE TIME	028 032	SHERITECH	022		
CITIZEN	007	NSC	015 028 038	SIGNAL	030		
COLOUR VOICE	065 090		071 073	SIGNATURE	052		
COMBANO	080 081	OAK	016 031 037	SL MARX	030		
COMTRONICS	019 030		053	SPRUCER	047 078		
DIAMOND	023	PANASONIC	044 047	STARCOM	002 004 008		
EAGLE	020 030 040	PARAGON	001		009		
EASTERN	057 062 066	PHILIPS	006 012 013	STARGATE	008 030		
ELECTRICORD	032		020 065 085	SYLVANIA	067		
GE	072		090	TADIRAN	030		
GEMINI	008 022 025	PIONEER	034 051 052	TANDY	017		
	054		063 076	TEXSCAN	029 067		
GI	052 074	POST NEWS WEEK	016	TOCOM	039 040 056		
GOLDEN CHANNEL	030	PRUCER	059	TOSHIBA	001		
HAMLIN	049 050 055	PTS	011 048 071	UNIKA	007 014 024		
HITACHI	052 055		072 073 074	UNITED CABLE	004 053		
HOSPITALITY	070 077	PULSAR	001	UNIVERSAL	005 007 014		
JERROLD	002 003 004	RCA	047		024 026 027		

ADJUSTMENT INSTRUCTIONS

1. Application Object

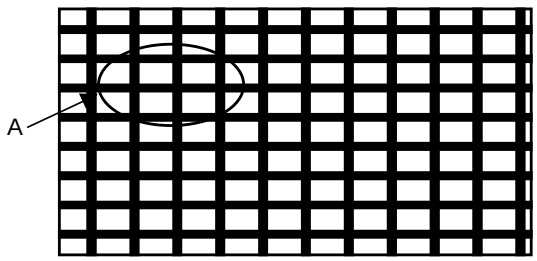
These instructions are applied to the AC-02SA chassis.

2. Notes

(1) Because this is not a hot chassis, it is not necessary to use an isolation transformer. However, the use of an isolation transformer will help protect test instruments.
(2) Adjustments must be done in the correct order.
(3) The input voltage of the receiver must remain at 120V±10% while adjusting.
(4) The receiver must be operated for about 20 minutes prior to the adjustment.

※ Never operate the set over 10 minutes with a still picture because an image burn may appear.

3. Focus Adjustment



(1) Set Picture condition to “APC ON”.

APC ON
- CONTRAST : 100
- BRIGHT : 50
- TINT : 55
- COLOR : 0
- SHARPNESS : 55

(2) Set the Aspect ratio to Wide Mode.
(3) Receive a Cross Hatch Pattern, adjusting the FOCUS Knob on the flyback transformer for the best focus in the area designated “A” above.

※ Heat run over 15 minutes before adjustment.

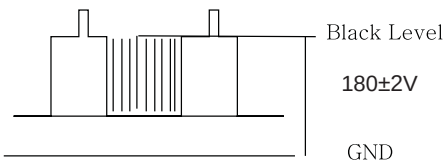
4. CUT-OFF Adjustment (Screen Voltage Adjustment)

4-1. Test equipment

(1) Service remote control
(2) Oscilloscope(100:1) Probe

4-2. Adjustment

(1) Select EZ Adjust 3. CUT-OFF, pressing ADJ key on the SVC Remote control.
When it enters to adjustment mode, the pattern(14CH.) being selected, it becomes with Normal image 16:9 and the CUT-OFF DRIVE data setting 31.
(2) Connect the oscilloscope ground lead to GND on the CPT board and the probe to the GK pin connector of the CPT socket.
Using the SCREEN knob on the Flyback Transformer, adjust the black level voltage to 180±2V.



CUT-OFF Adjustment

(SCREEN voltage adjustment OSCILLOSCOPE, 100:1 PROBE, VOLTS/DIV : 0.5V/DIV SEC/DIV : 5us, The TRIGGER MODE it puts in the TV-H)

5. Deflection Adjustment

5-1. Preliminary Steps

Select EZ Adjust 1. Raster, Cent, H/V Size pressing ADJ key on the SVC Remote control.
In the adjustment mode Digital Pattern signal, the image which is clear, 16:9 screens become the display.

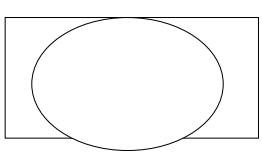
5-2. Raster V-Center(V.Center) Adjustment

Select 62. V-Postition in the adjustment mode and adjust it to position the vertical center line in vertical center of CPT.

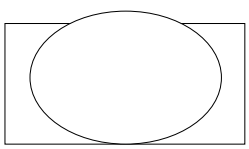
5-3. Vertical Deflection Size Adjustment

(Overscan : 10%)

(1) Select 59. V-SIZE in the adjustment mode.
(2) Adjust until the smaller inscribed circle coincides with the outer frame of screen.
(3) Select 95. LO-VLIN or 94. UP-VLIN and adjust until the larger inscribed circle coincides with the outer frame of screen.



LO-VLIN



UP-VLIN

5-4. Raster H-center(H.CENTER) Adjustment

Select 77. H Postion in the adjustment mode and adjust until left and right screen are symmetrically equal.

5-5. Horizontal Deflection Size Adjustment

(1) Reduce 66 H-Size to verify screen protection (overscan) on the right and left sides.
(2) Adjust the horizontal size, using pattern (13CH)

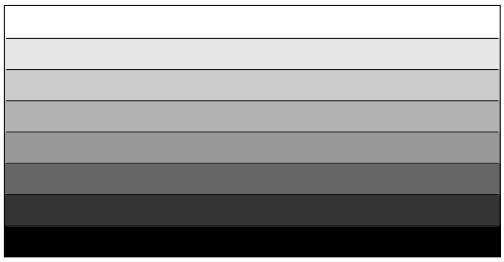
5-6. Horizontal Pincushion Adjustment

(1) Select EZ Adjust 2. Pin-Cushion pressing ADJ key on the SVC Remote control.
(2) Select PIN-PHASE, PIN-AMP, AFC-BOW, AFC-ANGLE, UP-CPIN, LO-CPIN in the adjustment mode and adjust until there is no Pincushion distortion or trapezoid distortion on the screen.

6. Component AD9883A Offset/Gain Adjustment

6-1. Test equipment

(1) SVC Remote Control,
(2) 801GF(802B, 802F, 802R) pattern generator



<1080I Hoz30Bar Pattern>

6-2. Preliminary Steps

(1) Turn the power supply on.
(2) Enter the Component mode.
(3) Receive the 1080I, Hoz30Bar Pattern of the 801GF.

6-3. ADC Offset Adjustment

(1) After receiving signal press the ADJ Key on the SVC Remote Control repeatedly to Adjustment mode.
(2) #9. Set Adjustment will set the AD9883A automatically.

7. White Balance Adjustment

Do screen adjustment first.
Color Temp must be adjusted from Medium Mode.
(The image condition must be adjusted from Normal condition)
Manual adjustment is also possible by the following sequence.

(1) Receive White Pattern.
(2) Set screen size to wide mode
(3) Select EZ Adjust 4. White Balance on the SVC Remote control.

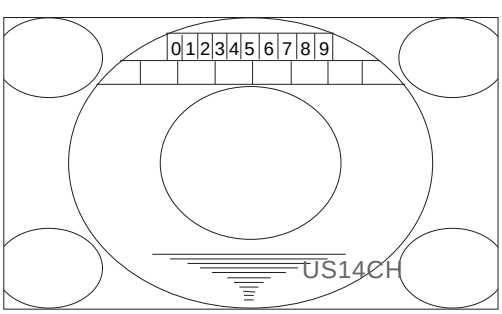
(4) Adjustment
1. Set an image with Normal image.
2. Adjust R-DRIVE and B-DRIVE data so the color coordinates in High light are the values in Table below. (bright level : 25Ft_L)
3. Adjust “CONTRAST” and “BRIGHT” so the bright level is 4.5±0.5Ft_L.
4. Adjust R-CUT and B-CUT data so the color coordinates in Low light are the values in Table below.
5. Repeat 1 ~ 4 until the color coordinates in High and Low color satisfies the Table.
6. Check the adjusted color coordinates with the white balance meter.

High Light : x=287±3, y=293±3
Low Light : x=287±3, y=293±3
Color temperature : 9,000K±1000(-5MPCD)

※ The White Balance it executes from automatic adjustment hour Normal image condition.
Start adjustments from initial setting of R.DRIVE=31, G.DRIVE=31, B.DRIVE=31, R.CUT=31, G.CUT=31, B.CUT=31.

8. Sub Bright, TINT, COLOR Adjustment

8-1. Sub Bright Adjustment



(1) Select EZ Adjust 5. Sub Bright pressing ADJ key on the SVC Remote control.
(2) Adjust to the point where “2” is not visible.

8-2. Sub COLOR, TINT Adjustment



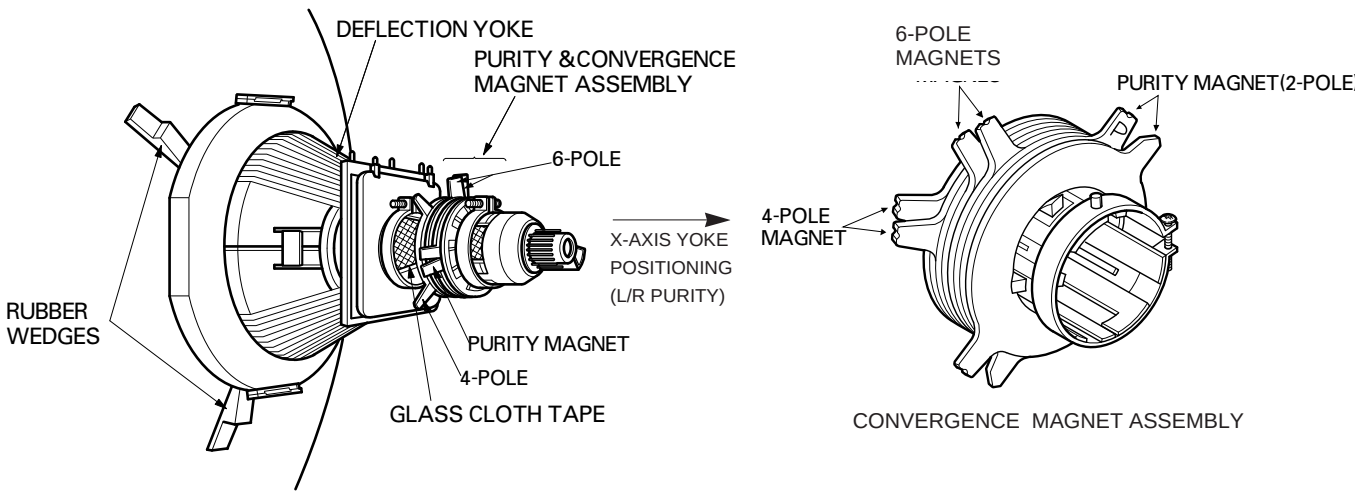
(1) Select EZ Adjust 6. Sub Tint, Color pressing ADJ key on the SVC Remote control.
(2) Select SUB COLOR and adjust the 1 and 1’ portion not to be classified.
(3) Select SUB TINT and adjust the 3 and 3’ portion not to be classified.

PURITY & CONVERGENCE ADJUSTMENT

Caution:
Convergence and Purity have been factory aligned. Do not attempt to tamper with these alignments.
However, the effects of adjacent receiver components, or replacement of picture tube or deflection yoke may require the readjustment of purity and convergence.

5. Reconnect the internal degaussing coil.

6. Position the beam bender locking rings at the 9 o'clock position and the other three pairs of tabs (2,4 and 6 pole magnets) at the 12 o'clock position.



● Purity Adjustment

This procedure DOES NOT apply to bonded yoke and picture tube assemblies.
The instrument should be at room temperature (60 degrees F or above) for six (6) hours and be operating at low beam current (dark background) for approximately 20 to 30 minutes before performing purity adjustments.

CAUTION: Do not remove any trim magnets that may be attached to the bell of the picture tube.

1. Remove the AC power and disconnect the internal degaussing coil.

2. Remove the yoke from the neck of the picture tube.

3. If the yoke has the tape version beam bender, remove it and replace it with an adjustable type beam bender (follow the instructions provided with the new beam bender)

4. Replace the yoke on the picture tube neck, temporarily remove the three (3) rubber wedges from the bell of the picture tube and then slide the yoke completely forward.

7. Perform the following steps, in the order given, to prepare the receiver for the purity adjustment procedure.

   a. Face the receiver in the "magnetic north" direction.

   b. Externally degauss the receiver screen with the television power turned off.

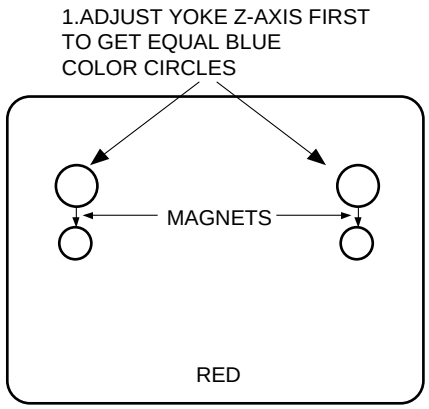
   c. Turn the television on for approximately 10 seconds to perform internal degaussing and then turn the TV off.

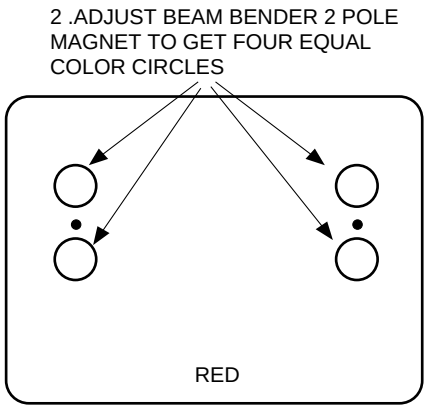
   d. Unplug the internal degaussing coil. This allows the thermistor to cool down while you are performing the purity adjustment. DO NOT MOVE THE RECEIVER FROM ITS "MAGNETIC NORTH" POSITION.

   e. Turn the receiver on and obtain a red raster by increasing the red bias control (CW) and decreasing the bias controls for the remaining two colors (CCW).

   f. Attach two round magnets on the picture tube screen at 3 o'clock and 9 o'clock positions, approximately one (1) inch from the edge of the mask (use double-sided tape).

PURITY & CONVERGENCE ADJUSTMENT





8. Referring to above, perform the following two steps:
   a. Adjust the yoke Z-axis to obtain equal blue circles.
   b. Adjust the appropriate beam bender tabs to obtain correct purity (four equal circles).

9. After correct purity is set, tighten the yoke clamp screw and remove the two screen magnets.

10. Remove the AC power and rotate the receiver 180 degrees (facing "magnetic south").

11. Reconnect the internal degaussing coil.

12. Turn the receiver on for 10 seconds (make sure the receiver came on) to perform internal degaussing, and then turn the receiver off.

13. Unplug the internal degaussing coil.

14. Turn the receiver on and check the purity by holding one (1) round magnet at the 3 o'clock and a second round magnet at 9 o'clock position. If purity is not satisfactory, repeat steps 8 through 14.

15. Turn off the receiver and reconnect the internal degaussing coil.

● Convergence Adjustment

Caution: This procedure DOES NOT apply to bonded yoke and picture tube assemblies.
Do not use screen magnets during this adjustment procedure. Use of screen magnets will cause an incorrect display.

1. Remove AC power and disconnect the internal degaussing coil.

2. Apply AC Power and set the brightness to the Picture Reset condition. Set the Color control to minimum.

3. Make horizontal line.

4. Adjust the Red, Green and Blue Bias controls to get a dim white line.

5. Restore the screen by removing the horizontal line.

6. Reconnect the internal degaussing coil and apply AC power.

7. Turn the receiver on for 10 seconds to perform internal degaussing and then turn the receiver off again.

8. Unplug the internal degaussing-coil.

9. Turn the receiver on, connect a signal generator to the VHF antenna terminal and apply a crosshatch signal.

Caution: During the convergence adjustment procedure, be very careful not to disturb the purity adjustment tabs. Purity should be confirmed before proceeding with the convergence adjustments.

Note: Make sure the focus is set correctly on this instrument before proceeding with the following adjustment.

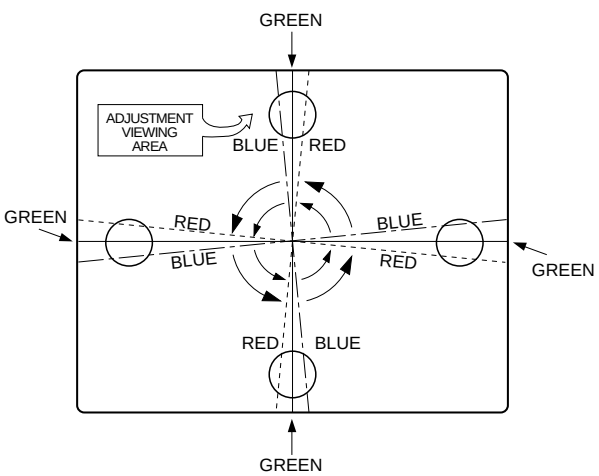
10. Converge the red and blue vertical lines to the green vertical line at the center of the screen by performing the following steps (below TABLE).
    a. Carefully rotate both tabs of the 4-pole ring magnet simultaneously in opposite directions from the 12 o'clock position to converge the red and blue vertical lines.
    b. Carefully rotate both tabs of the 6-pole ring magnet simultaneously in opposite directions form the 12 o'clock position to converge the red and blue (now purple) vertical lines with the green vertical line.

11. Converge the red and blue horizontal with the green line at the center of the screen by performing the following steps. (below TABLE)
    a. Carefully rotate both tabs of the 4-pole ring magnet simultaneously in the same direction (keep the spacing between the two tabs the same) to converge the red and blue horizontal lines.
    b. Carefully rotate both tabs of the 6-pole ring magnet simultaneously in same direction (keep the spacing between the two tabs the same) to converge the red and blue (now purple) horizontal lines with the green horizontal line.
    c. Secure the tabs previsouly adjusted by locking them in place with the locking tabs on the beam bender.

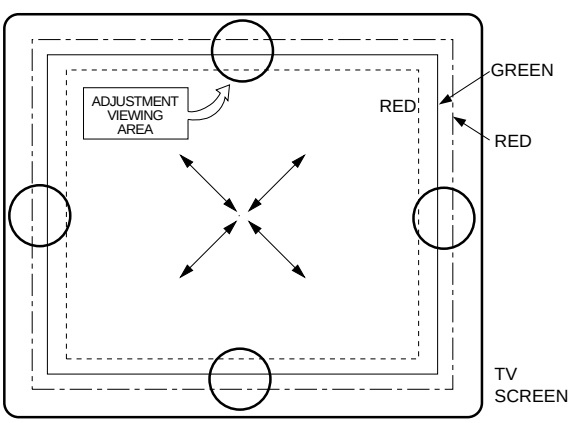
PURITY & CONVERGENCE ADJUSTMENT

RING PAIRS	ROTATION DIRECTION OF BOTH TABS	MOVEMENT OF RED AND BLUE BEAMS
4 POLE	OPPOSITE	B R OR B R
	SAME	B R OR B R
6 POLE	OPPOSITE	B R OR B R
	SAME	B R OR B R

UP/DOWN ROCKING OF THE YOKE CAUSES OPPOSITE ROTATION OF RED AND BLUE RASTERS



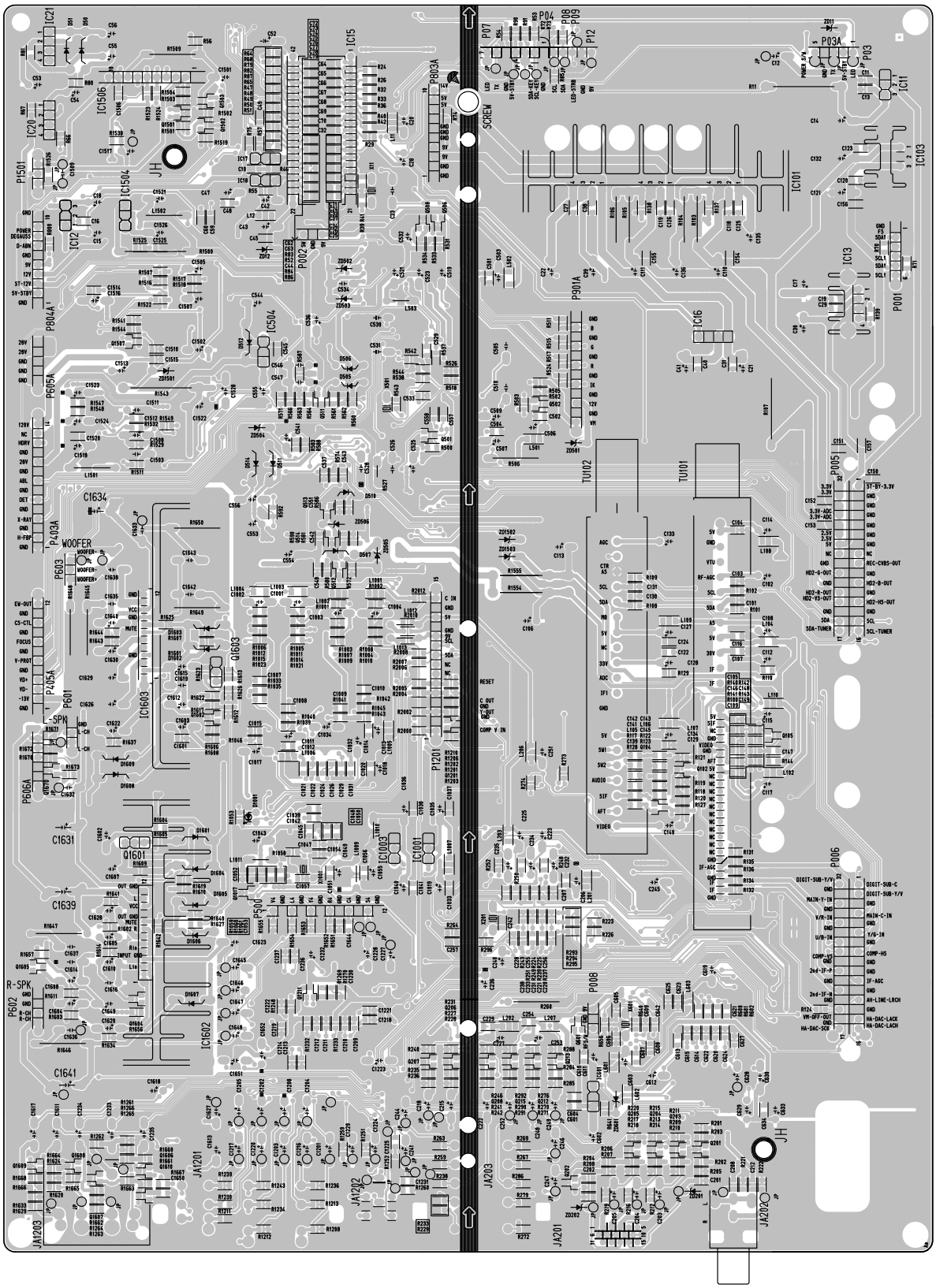
LEFT/RIGHT ROCKING OF THE YOKE CAUSES OPPOSITE SIZE CHANGE OF THE RED AND BLUE RASTERS



12. While watching the 6 o'clock positions on the screen, rock the front of the yoke in a vertical (up/down) direction to converge the red and blue vertical lines. (Fig upper left)
13. Temporarily place a rubber wedge at the 12 o'clock position to hold the vertical position or the yoke.
14. Check the 3 o'clock and 9 o'clock areas to confirm that the red and blue horizontal lines are converged.
    If the lines are not converged, slightly offset the vertical tilt of the yoke (move the rubber wedge if necessary) to equally balance the convergence error of the horizontal lines at 3 o'clock and 9 o'clock and the vertical lines at 6 o'clock and 12 o'clock.
15. Place a 1.5 inch piece of glass tape over the rubber foot at the rear of the 12 o'clock wedge.
16. While watching the 6 o'clock and 12 o'clock areas of the screen, rock the front of the yoke in the horizontal (left to right) motion to converge the red and blue horizontal lines. (Fig. upper right)
17. Temporarily place a rubber wedge at the 5 o'clock and 7 o'clock positions to hold the horizontal position of the yoke.
18. Check the 3 o'clock and 9 o'clock areas to confirm that the red and blue vertical lines are converged. If the lines are not converged, slightly offset the horizontal tilt of the yoke (move the temporary rubber wedges if necessary) to equally balance the convergence error of the horizontal lines at 6 o'clock and 12 o'clock and the vertical lines at 3 o'clock and 9 o'clock.
19. Using a round magnet confirm purity at the center, right and left sides and corners. See Purity Adjustment Procedure.
20. Reconfirm convergence and apply a 1.5 inch piece of glass tape over the rubber foot at the rear of the 5 o'clock and the 7 o'clock wedges.

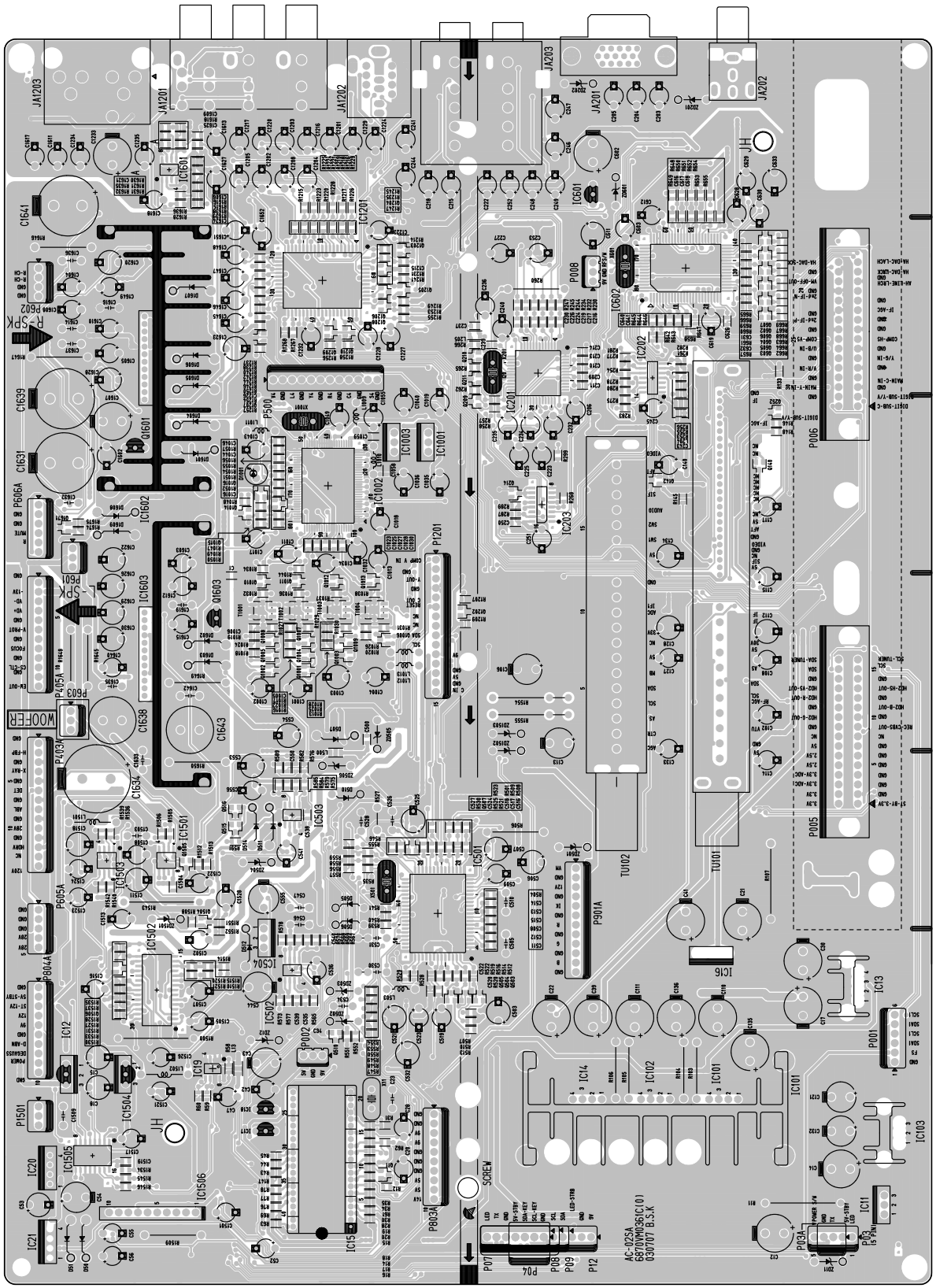
PRINTED CIRCUIT BOARD

MAIN(BOTTOM)

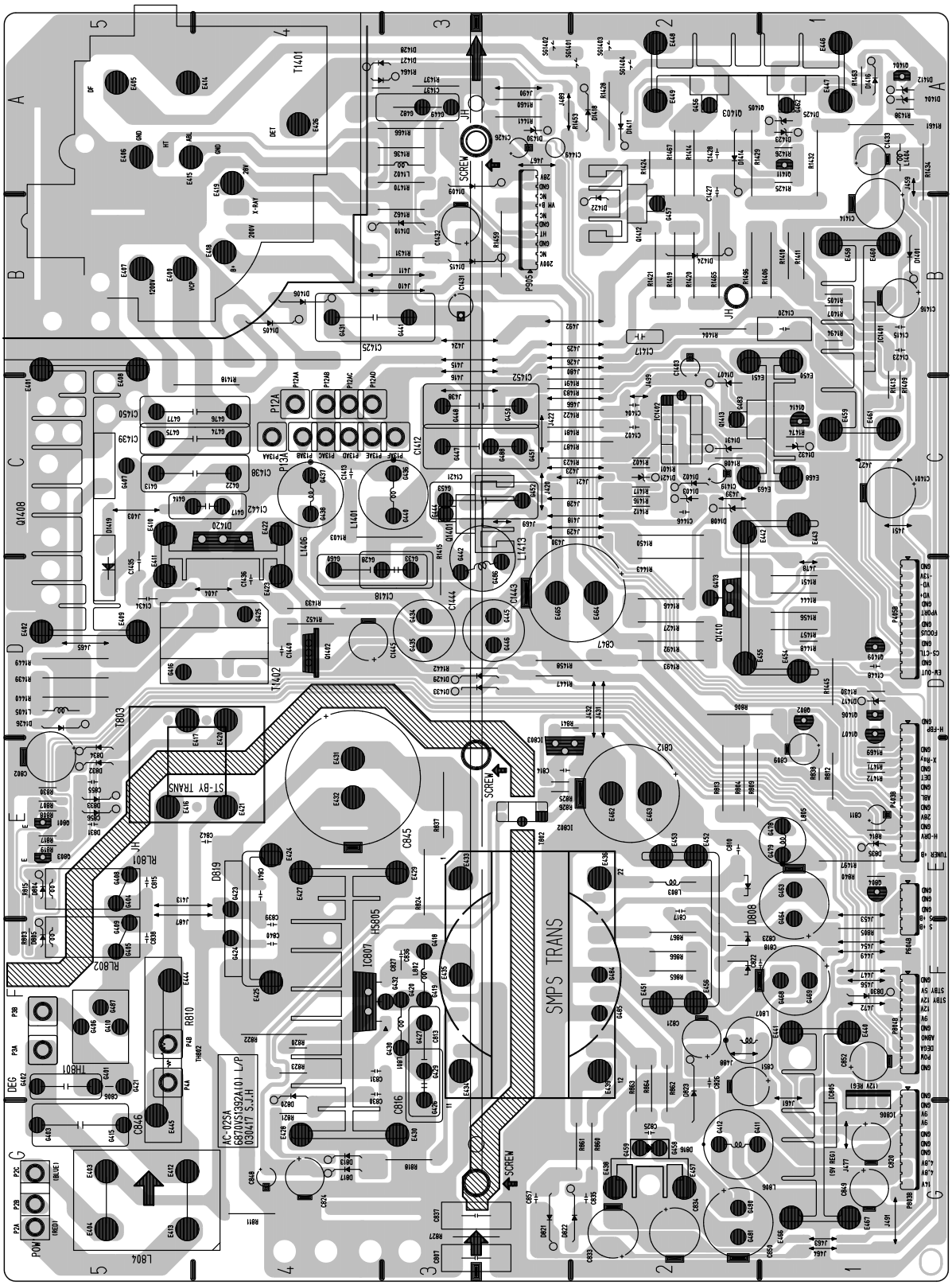


PRINTED CIRCUIT BOARD

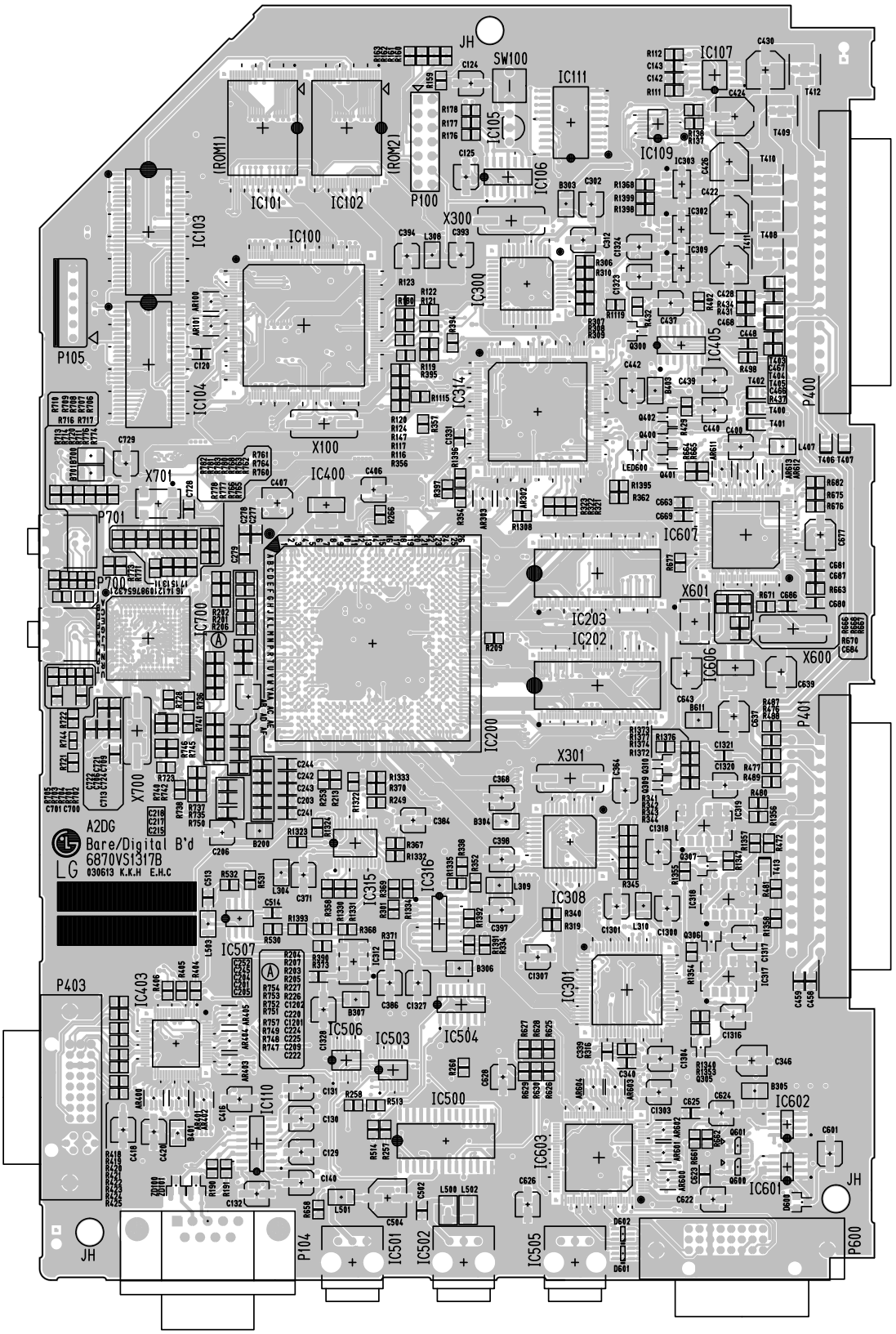
MAIN(TOP)



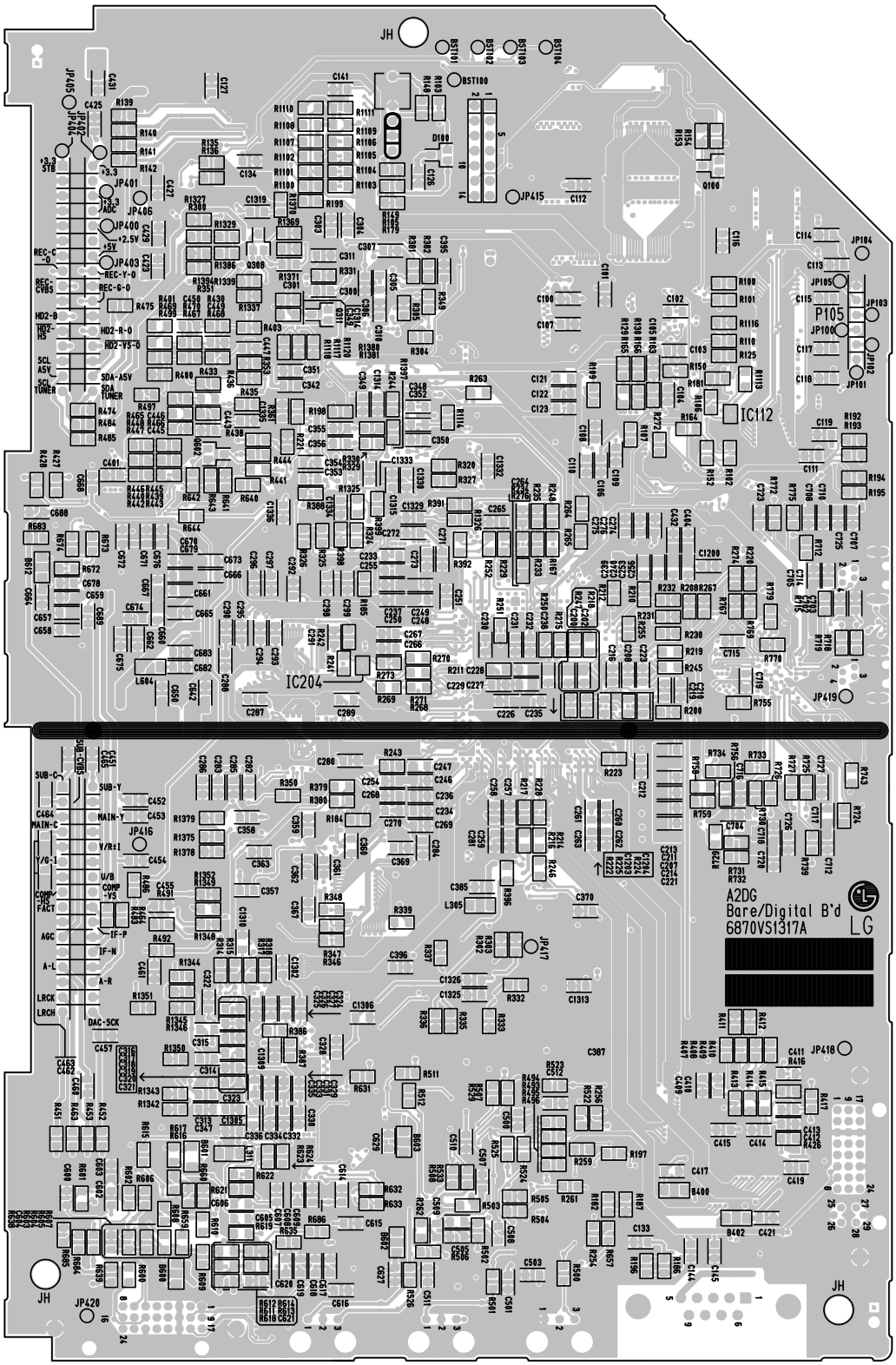
MAIN2


SMPS TRANS
ST-BY TRANS
SCREW
AC-025A
68710S1392A(01) L/P
030417 S.J.L.H

DIGITAL(TOP)

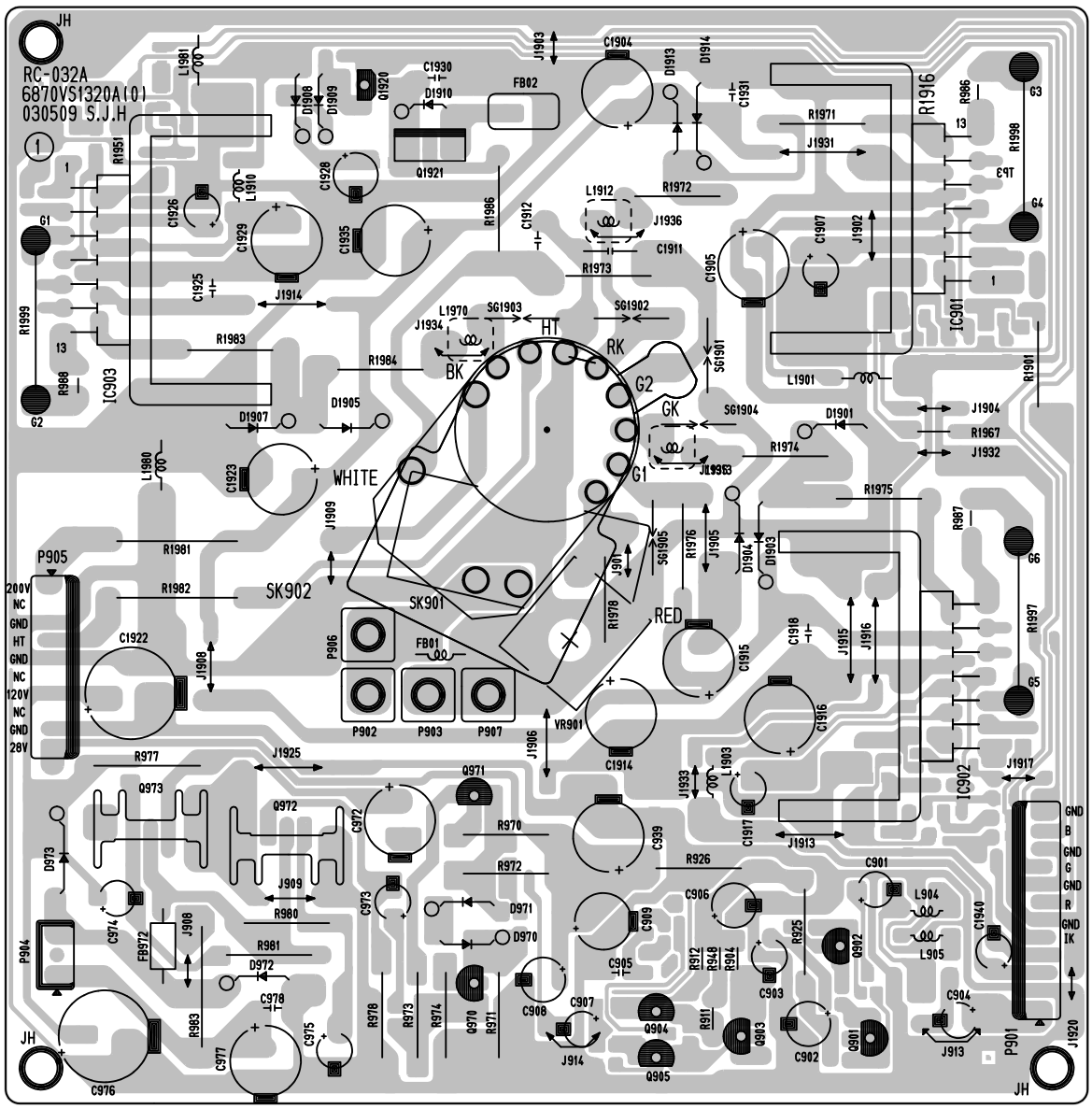

A2DG
Bare/Digital B'd
6870VS1317B
030613 K.K.H E.H.C
LG
IC100
IC101
IC102
IC103
IC104
IC105
IC106
IC107
IC109
IC110
IC111
IC200
IC202
IC203
IC300
IC301
IC308
IC314
IC315
IC316
IC400
IC403
IC405
IC500
IC501
IC502
IC503
IC504
IC505
IC506
IC507
IC601
IC602
IC603
IC607
IC700
P100
P104
P105
P400
P401
P403
P600
P701
X100
X300
X301
X600
X601
X700
X701
JH

DIGITAL(BOTTOM)



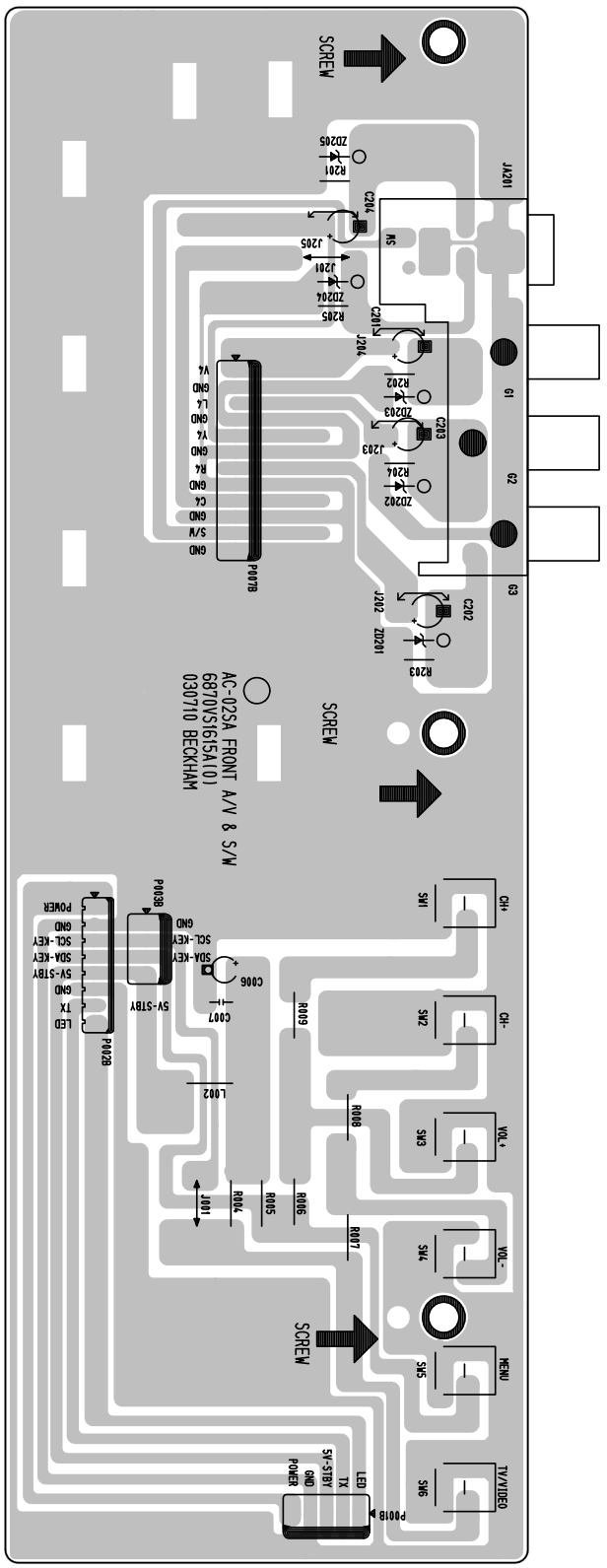
PRINTED CIRCUIT BOARD

CPT

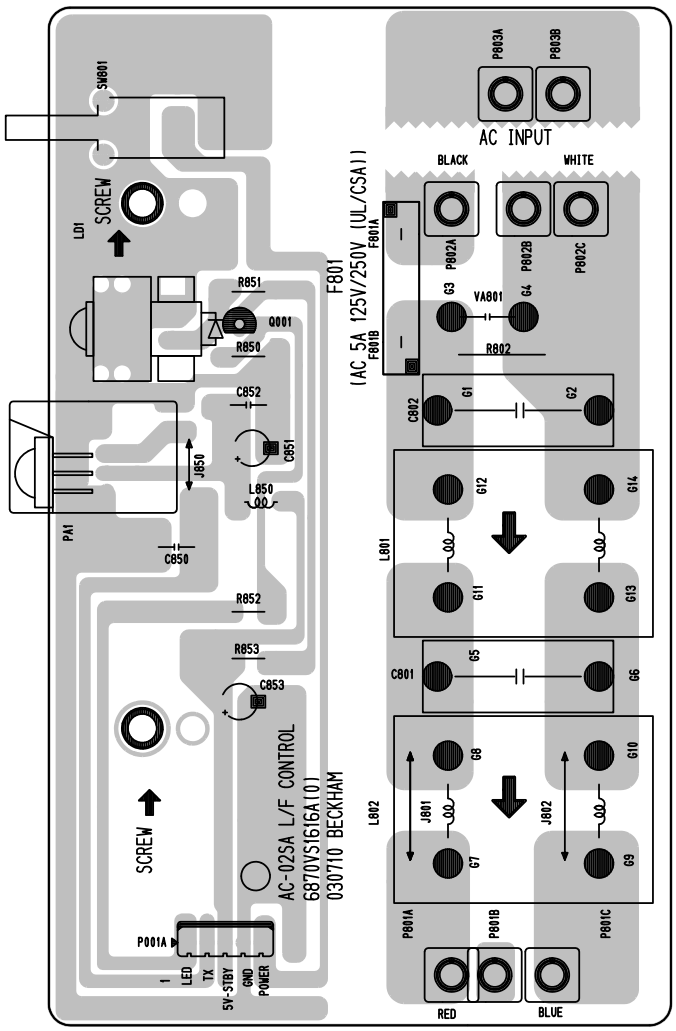


PRINTED CIRCUIT BOARD

AV & CONTROL

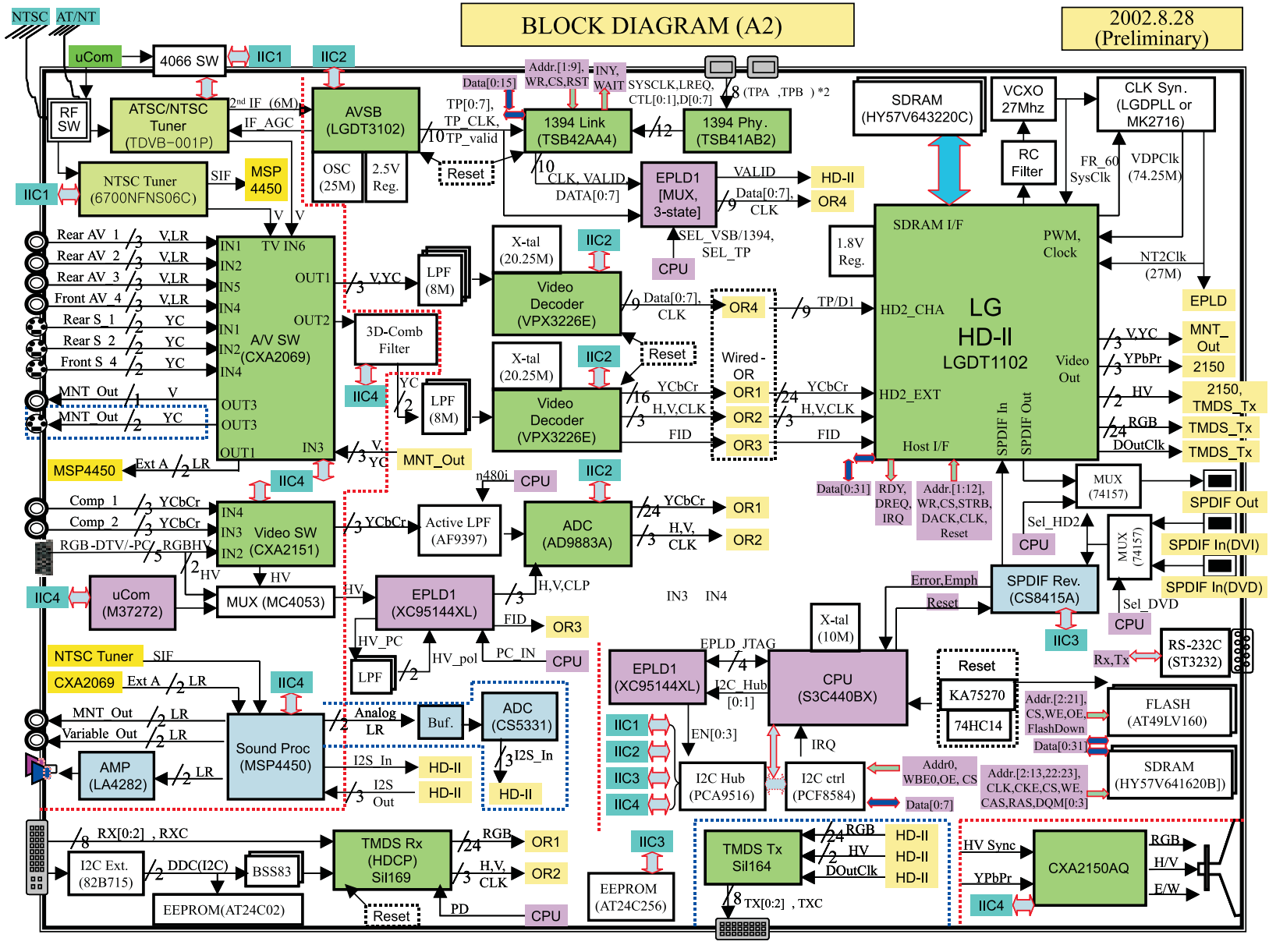


PSW

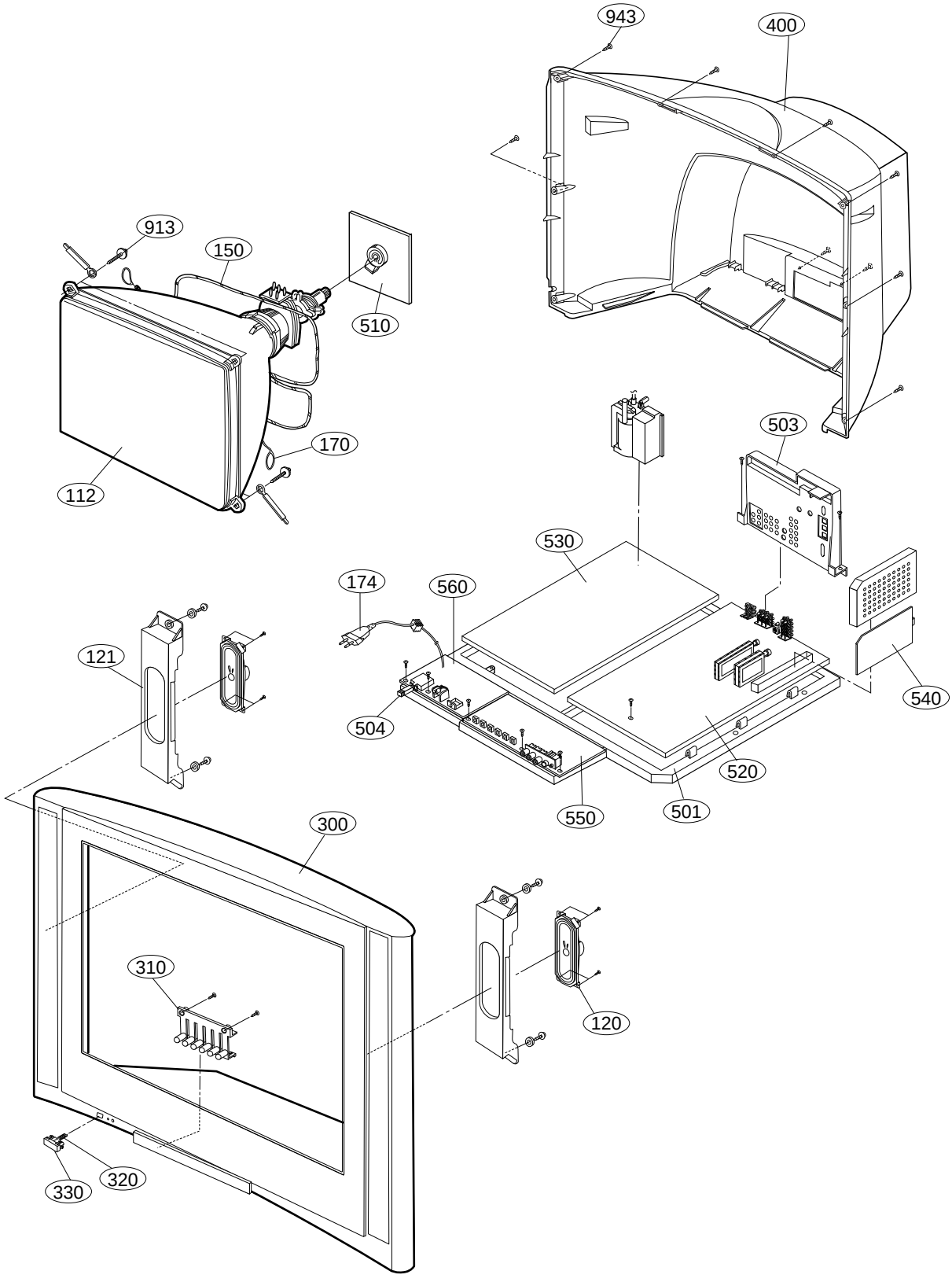


BLOCK DIAGRAM (A2)

2002.8.28
(Preliminary)



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

No.	Part No.	Description
⚠112	6335V34006A	CPT ASSEMBLY,A80ERF042X64H N(+0.40G) 0G LG PHILIPS LGERS GOMEZ
120	6400VA0025B	SPEAKER,FULLRANGE C163P02K1450 (GENERAL) 8OHM 15/20W 85DB
121	4810V00549B	BRACKET,SPK RT-29FB21RB,CKD MC017A ABS, HF-380 .
150	6140VC2005B	COIL,DEGAUSSING CU 0.7 33 80TURN 15 OHM CT-33Q10NP
170	170-797U	CPT EARTH,34 48T 0LUG RING
174	174-225Y	POWER CORD ASSEMBLY,6410VUH004A ASSY UL/CSA 3000MM
300	3091V00496G	CABINET ASSEMBLY,DU-34FC50 LAGZRZ3 STEREO AC02SA
310	5020V00753B	BUTTON,CONTROL RU-34FC50 LAGZRZ3 CKD ABS, HF-380 6KEY
320	320-062E	SPRING,KNOB
330	5020V00752B	BUTTON,POWER RU-34FC50 LAGZRZ3 CKD ABS, HF-380 1KEY
400	3809V00343C	BACK COVER ASSEMBLY,RU-34FC50 LAGZRZ3 NON RC032A
501	4810V00708F	BRACKET,MAIN DU-34FC50 LAGZRZ3 CKD AC02SA HIPS 40AF .
503	4810V00842E	BRACKET,REAR AV DU-36FZ20 LATZRZ3 CKD AC02SA HIPS 40AF .
504	351-009A	LINK,POWER S/W
510	6871VSMW73B	PCB ASSEMBLY,SUB CRTMIN AC02SA RS(DU-34FC50)
520	6871VMM776B	PCB ASSEMBLY,MAIN AC-02SA DU-34FC50 RS
530	6871VDM907B	PCB ASSEMBLY,DEFLECTION,MAIN2 AC-02SA(DU-34FC50) RS
540	6871VSMW72B	PCB ASSEMBLY,SUB,DIGITAL AC02SA DU-34FC50 RS
550	6871VSMW75B	PCB ASSEMBLY,SUB,A/V AC02SA DU-34FC50 A/V&CONTL RS
560	6871VSMW76B	PCB ASSEMBLY,SUB,PSW AC02SA DU-34FC50 PSW&L/F RS
943	1PTF0403116	SCREW,TAP TITE(P)[TRUSS HEAD]

REPLACEMENT PARTS LIST

For Capacitor & Resistors, the charactors at 2nd and 3rd digit in the P/No. means as follows;
CC, CX, CK, CN : Ceramic
CQ : Polyestor
CE : Electrolytic
RD : Carbon Film
RS : Metal Oxide Film
RN : Metal Film
RF : Fusible

RUN DATE : 2003.7.21

LOCA. NO	PART NO	DESCRIPTION
		IC
D808	0ISK100300A	SLA1003 SIP12 (RU4AM+FMLG12S)
IC100	0IMCRSS016A	S3C44BOX LQFP160 TRAY CPU
IC1001	0ISG111733B	LD1117V33C 3SIP ST REGULATOR
IC1002	0IMMRNE002A	UPD64083GF3BA 100 QFP ST 3D YC
IC1003	0ISG111725B	LD1117V25 3 SIP ST REGULATOR
IC101	0ISH052100C	PQ05RD21 4SIP ST REGULATOR
IC101	0ISH323422A	PQ3RF23 4P(TO220) 3.3V
IC101	0IMMRAL016A	COPY AT49LV16090TI 16MBIT 48P
IC102	0IMMRAL016A	COPY AT49LV16090TI 16MBIT 48P
IC103	0ISJ156612A	SC15661T2.5TR 3P TO2203L 2.5V 3A
IC103	0IMMRHY001F	HY57V641620HGTH 54 64M
IC104	0IMMRHY001F	HY57V641620HGTH 54P 64M
IC105	0IMCRKE005A	KIA7029AP KEC TO92, 3P TP 2.9V
IC106	0IPH741400E	74HC14D 14SOP TP SHITTER
IC107	0IAL242561B	AT24C256W10SI2.7V 8P ST EEPROM
IC109	0IMCRPH026A	PCA9516PW 16P
IC110	0IMCRSG010A	ST3232CDR SOP16 R/TP RS232
IC12	0IKE780500Q	KIA7805API 3P TO220 ST 5V
IC1201	0ISO206900A	CXA2069Q QFP64 BK I2C BUS AV S/W
IC13	0ISH052100C	PQ05RD21 4SIP ST REGULATOR
IC1401	0ISA784500A	LA7845 7SIP V/OUT(1.5A)
IC15	0IZZVA0012X	M37272E8A(OTP) DIP 42P ST
IC1501	0IMCRFA003A	KA2903 8SOP R/TP AMPLIFIER
IC1502	0ISO172630A	CXA1726AM 30P SOP
IC1503	0IMCRJR001A	NJM353M JRC 8SOP
IC1504	0IKE780500Q	KIA7805API 3P TO220 ST 5V
IC1505	0ISO187500A	CXA1875AM 16P SOP R/TP 8BIT
IC1506	0ISA164500B	LB1645N 10SIP BK MOTOR DRIVE IC
IC16	0ISH052100C	PQ05RD21 4SIP ST REGULATOR
IC1601	0ISS455880A	KA4558D 8SOP OP AMP
IC1602	0ISA428200A	LA4282 12S 2CHX10W AUDIO AMP
IC17	0IFA753307A	KA75330ZTA 3P,TO92 TP 3.3V
IC18	0IFA754207A	KA75420ZTA 3P,TO92 TP 4.2V \
IC19	0IMCRAL006A	AT24C16AN10SI2.7 8P SOIC R/TP EEPROM
IC20	0ISH092100B	PQ09RD21 4SIP ST REGULATOR
IC200	0ICTMLG009A	LGDT1102 HD2 SBGA432PIN
IC201	0IMCRSO008A	CXA2151Q 48P QFP TRAY 60LCD
IC202	0INA562300A	CLC5623IMX 14P,SOP TP TRIPLE VIDEO
IC202	0IMMRHY033A	HY57V643220C(L)T6 86P TSOP TRAY 64M
IC203	0IMMRHY033A	HY57V643220C(L)T6 86P TSOP TRAY 64M
IC300	0ILNRMN005A	VPX3226E 44 QFP TRAY VIDEO
IC301	0IMCRAD002A	AD9883A 80P TQFP R/TP DIGITAL BOARD
IC308	0ILNRMN005A	VPX3226E 44 QFP TRAY VIDEO
IC314	0IMCRXL004A	XC95288XL10TQ144C 144P
IC315	0ICTMLG013A	LGDT1901A 24P SSOP TRAY DPLL
IC316	0IMCRCY002A	CY2309SC1HT 16P R/TP 3.3V
IC400	0IMCRSJ001A	SC1565IST1.8 3P SOT223
IC405	0INA562300A	CLC5623IMX 14P,SOP TP TRIPLE VIDEO
IC500	0ICB841500D	CS8415ARCSR 28PIN R/TP AUDIO
IC501	0IMCRSO007A	CXA2150Q 64P QFP TRAY 60LCD
IC502	0IMCRFA004A	KA2904DTF 8SOP R/TP OPAMP
⚠ IC503	0IMCRFA003A	KA2903 8SOP R/TP AMPLIFIER
⚠ IC503	0ITO741570C	TC74LCX157FT 16P
IC504	0IKE782400C	KIA7824API 3 ST REGULATOR .
IC504	0IMCRFA014A	74F04SCX 14P
IC506	0ITO741570C	TC74LCX157FT 16P
IC601	0IKE780500P	KIA78L05BP(AT) 3P 5V,150MA
IC601	0IMMRAL014B	AT24C02N10SI2.7 8P
IC602	0IMCRMN012A	MSP4450G QA B8 80P MULTI SOUND
IC602	0IPH827150A	P82B715T 8SOP R/TP IIC EXTENDER
IC603	0IMCRS5003A	SIL169 CL100 100P
IC606	0IMCRSJ001A	SC1565IST1.8 3P SOT223
IC607	0ICTMLG014A	LGDT3302 100P
IC802	0ILI817000G	LTV817MVB 4P
IC803	0ISK120000A	SE120N 3P 120V ERROR AMP
IC805	0ISH092100B	PQ09RD21 4SIP ST REGULATOR
IC806	0ISH122100B	PQ12RD21 4SIP ST REGULATOR
IC807	0ISK665813A	STRF6658B(LF1352) 5PIN
IC901	0IPH612000B	TDA6120Q/N2 13P SIP BK VIDEO
IC902	0IPH612000B	TDA6120Q/N2 13P SIP BK VIDEO
IC903	0IPH612000B	TDA6120Q/N2 13P SIP BK VIDEO
		TRANSISTOR
Q001	0TR319809AA	KTC3198 TO92 50V 150MA
Q100	0TR102008AA	KRA102S R/TP KEC SOT23 CHIP TR
Q1001	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1002	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1003	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1004	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1005	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1006	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1007	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1008	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1009	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1010	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1011	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1012	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1013	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1014	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1015	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1016	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1017	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q102	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q104	0TR387500AA	CHIP 2SC3875S(ALY) KEC

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
Q105	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q11	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1201	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1202	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1203	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1204	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1205	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1206	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1207	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1208	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1209	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1210	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1211	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q140	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1401	0TR102009AG	CHIP KRC102S SOT23
Q1402	0TFIR10003A	IRFBC20 ST TO220AB 600V 2.2A
Q1403	0TR471000AA	2SC4710 BK SANYO OTOROLA IBA
Q1404	0TR319809AA	KTC3198(KTC1815) TO92 50V 150MA
Q1405	0TR471000AA	2SC4710 BK SANYO OTOROLA IBA
Q1406	0TR319809AA	KTC3198(KTC1815) TO92 50V 150MA
Q1407	0TR126609AA	KTA1266Y(KTA1015) TO92 50V 150MA
Q1408	0TR544600AA	2SC5446(AS) 1700V23A MESA TYPE
Q1409	0TR126609AA	KTA1266Y(KTA1015) TO92 50V 150MA
Q1410	0TR205900AB	KTD2059Y TO220IS KEC
Q1411	0TR319809AA	KTC3198(KTC1815) TO92 50V 150MA
Q1412	0TR471000AA	2SC4710 BK SANYO OTOROLA IBA
Q142	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1501	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1502	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1503	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1504	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1505	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1506	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q1507	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1601	0TR126609AA	KTA1266Y(KTA1015) TO92 50V 150MA
Q1604	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1605	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1606	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1607	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1608	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1609	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1610	0TR102008AA	KRA102S R/TP KEC SOT23 CHIP TR
Q1901	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1902	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1903	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1904	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1905	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1906	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1907	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q1920	0TR322800AB	KTC3228Y(KTC2383),KEC
Q1921	0TR471000AA	2SC4710 BK SANYO OTOROLA IBA

LOCA. NO	PART NO	DESCRIPTION
Q206	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q207	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q208	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q209	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q210	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q211	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q212	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q213	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q215	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q252	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q305	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q306	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q307	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q308	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q309	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q310	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q311	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q400	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q401	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q402	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q502	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q503	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q504	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q505	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q506	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q507	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q508	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q510	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q511	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q512	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q513	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q514	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q515	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q516	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q600	0TR830009BA	BSS83
Q601	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q601	0TR830009BA	BSS83
Q602	0TR387500AA	CHIP 2SC3875S(ALY) KEC
Q603	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q604	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q605	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q606	0TR150400BA	CHIP 2SA1504S(ASY) KEC
Q801	0TR322709AA	KTC3227Y,TP(KTC1627A),KEC
Q802	0TR421009CB	BF421L(AMMO)TO92 TP PHILIPS
Q803	0TR322709AA	KTC3227Y,TP(KTC1627A),KEC
Q804	0TR102009AB	KRC102M(KRC1202)
Q901	0TR319809AA	KTC3198(KTC1815) TO92 50V 150MA
Q902	0TR126609AA	KTA1266Y(KTA1015) TO92 50V 150MA
Q903	0TR322709AA	KTC3227Y,TP(KTC1627A),KEC
Q904	0TR322709AA	KTC3227Y,TP(KTC1627A),KEC
Q905	0TR127409AB	KTA1274Y TO92L TP KEC

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
Q970	0TR127409AB	KTA1274Y TO92L TP KEC
Q971	0TR322709AA	KTC3227Y,TP(KTC1627A)
Q972	0TR394400AA	2SC3944A TO220 180V
Q973	0TR153500AA	2SA1535A TO220 180V
DIODE		
D100	0DD184009AA	KDS184S CHIP 85V 300MA
⚠ D1401	0DD150009CE	GP15J 600V
D1404	0DZ120009BG	ZENERS,GDZJ12B
D1405	0DD100009AQ	RP1HV(1) TP SANKEN TP SANKEN
D1406	0DD100009AQ	RP1HV(1) TP SANKEN TP SANKEN
D1409	0DD100009AE	RU1A V(1) TP SANKEN
D1410	0DD100009AE	RU1A V(1) TP SANKEN
D1411	0DD414809ED	1N4148 TP GRANDE
D1412	0DZ750009AG	ZENERS,MTZJ7.5B
D1414	0DD100009AQ	RP1HV(1) TP SANKEN TP SANKEN
D1415	0DD100009AE	RU1A V(1) TP SANKEN
D1416	0DD414809ED	1N4148 TP GRANDE
D1417	0DZ510009AK	ZENERS,GDZJ5.1B
D1419	0DR500000CA	FMQG5GS TO3P 1700V 10A
D1420	0DR360000AA	FMG36S 2.2V 100NSEC 1.0MA
D1422	0DD414809ED	1N4148 TP GRANDE
D1424	0DD100009AQ	RP1HV(1) TP SANKEN TP SANKEN
D1425	0DZ240009CG	ZENERS,MTZJ24B
D1426	0DD140009AA	EK14 V(1) 40V 1.5A
D1427	0DD414809ED	1N4148 TP GRANDE
D1428	0DD414809ED	1N4148 TP GRANDE
D1429	0DD400509AA	1N4005 TP KEC
D1430	0DZ120009BG	ZENERS,GDZJ12B
D1433	0DD400509AA	1N4005 TP KEC
D1601	0DS113379BA	1SS133 T72 DO34 90V
D1604	0DS113379BA	1SS133 T72 DO34 90V
D1605	0DS113379BA	1SS133 T72 DO34 90V
D1606	0DS113379BA	1SS133 T72 DO34 90V
D1609	0DS113379BA	1SS133 T72 DO34 90V
D1901	0DD060009AC	TVR06J 600V 250NSEC
D1903	0DD060009AC	TVR06J 600V 250NSEC
D1904	0DD060009AC	TVR06J 600V 250NSEC
D1905	0DD060009AC	TVR06J 600V 250NSEC
D1907	0DD060009AC	TVR06J 600V 250NSEC
D1908	0DD060009AC	TVR06J 600V 250NSEC
D1909	0DZ100009AE	ZENERS,MTZJ10C
D1913	0DD060009AC	TVR06J 600V 250NSEC
D1914	0DD060009AC	TVR06J 600V 250NSEC
D505	0DS113379BA	1SS133 T72 DO34 90V
D506	0DS113379BA	1SS133 T72 DO34 90V
D507	0DS113379BA	1SS133 T72 DO34 90V
D510	0DS113379BA	1SS133 T72 DO34 90V
⚠ D511	0DS113379BA	1SS133 T72 DO34 90V
D512	0DS113379BA	1SS133 T72 DO34 90V
D514	0DS113379BA	1SS133 T72 DO34 90V

LOCA. NO	PART NO	DESCRIPTION
D600	0DD184009AA	KDS184S CHIP 85V 300MA
D601	0DRSE00018A	SRV054.TC SOT236L 5V 1A
D602	0DRSE00018A	SRV054.TC SOT236L 5V 1A
D804	0DD414809ED	1N4148 TP GRANDE
D805	0DD414809ED	1N4148 TP GRANDE
D813	0DD100009AM	EU1ZV(1) TP SANKEN
D816	0DD120000BB	FMLG12S
D817	0DD100009AM	EU1ZV(1) TP SANKEN
D819	0DD606000AA	RBV606 600V 6A 150A NA 10UA
D820	0DD100009AM	EU1ZV(1) TP SANKEN
D821	0DD200009AF	RU2M V(1) TP SANKEN
D822	0DD200009AF	RU2M V(1) TP SANKEN
D823	0DD060009AC	TVR06J 600V 250NSEC
D830	0DD060009AC	TVR06J 600V 250NSEC
D831	0DD060009AC	TVR06J 600V 250NSEC
D832	0DD060009AC	TVR06J 600V 250NSEC
D833	0DD060009AC	TVR06J 600V 250NSEC
D834	0DD060009AC	TVR06J 600V 250NSEC
D901	0DD226239AA	CHIP KDS226 SOT23
D904	0DD226239AA	CHIP KDS226 SOT23
D907	0DD226239AA	CHIP KDS226 SOT23
D908	0DD226239AA	CHIP KDS226 SOT23
D970	0DD060009AC	TVR06J 600V 250NSEC
D971	0DD060009AC	TVR06J 600V 250NSEC
D972	0DD060009AC	TVR06J 600V 250NSEC
D973	0DD060009AC	TVR06J 600V 250NSEC
LD1	162-002B	LED ASSY (MC51A,M8.9)
LED600	0DL233309AC	LED,SAM2333
ZD100	0DRSE00038A	SDC15 SOT23 12.8V 10A .A .
ZD101	0DRSE00038A	SDC15 SOT23 12.8V 10A .A
ZD11	0DZ620009AK	ZENERS,GDZJ6.2B
ZD12	0DZ510009BF	ZENERS,GDZ5.1B
ZD1501	0DZ510009BF	ZENERS,GDZ5.1B
ZD1502	0DZ330009BA	ZENERS,ZENER HZT33
ZD1503	0DZ330009BA	ZENERS,ZENER HZT33
ZD501	0DZ120009AF	ZENERS,MTZJ12B
ZD502	0DZ560009AH	ZENERS,GDZJ5.6B
ZD503	0DZ620009AK	ZENERS,GDZJ6.2B
⚠ ZD504	0DZ510009BF	ZENERS,GDZ5.1B
ZD505	0DZ510009BF	ZENERS,GDZ5.1B
ZD506	0DZ510009BF	ZENERS,GDZ5.1B
ZD601	0DZ820009BF	ZENERS,GDZJ8.2B
CAPACITOR		
C006	0CE476DF618	47UF STD 16V M
C007	0CN1020K519	1000P 50V K B
C10	0CK104DK56A	0.1UF 2012 50V 10%
C1003	0CE476DK618	47UF STD 50V M
C1004	0CE474DK618	0.4700UF STD 50V M
C1007	0CK104DK56A	0.1UF 2012 50V 10%
C1008	0CK104DK56A	0.1UF 2012 50V 10%

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
C1009	0CK104DK56A	0.1UF 2012 50V 10%
C1010	0CK104DK56A	0.1UF 2012 50V 10%
C1011	0CE476DF618	47UF STD 16V M
C1012	0CK104DK56A	0.1UF 2012 50V 10%
C1013	0CE476DF618	47UF STD 16V M
C1014	0CK104DK56A	0.1UF 2012 50V 10%
C1016	0CK104DK56A	0.1UF 2012 50V 10%
C1017	0CE105DK618	1UF STD 50V M
C1018	0CE476DF618	47UF STD 16V M
C1019	0CE476DF618	47UF STD 16V M
C102	0CE105DK618	1UF STD 50V M
C1020	0CK104DK56A	0.1UF 2012 50V 10%
C1021	0CK104DK56A	0.1UF 2012 50V 10%
C1022	0CK104DK56A	0.1UF 2012 50V 10%
C1023	0CK104DK56A	0.1UF 2012 50V 10%
C1024	0CK104DK56A	0.1UF 2012 50V 10%
C1025	0CK104DK56A	0.1UF 2012 50V 10%
C1026	0CK104DK56A	0.1UF 2012 50V 10%
C1027	0CK104DK56A	0.1UF 2012 50V 10%
C1028	0CK104DK56A	0.1UF 2012 50V 10%
C1029	0CK104DK56A	0.1UF 2012 50V 10%
C1030	0CK104DK56A	0.1UF 2012 50V 10%
C1031	0CK104DK56A	0.1UF 2012 50V 10%
C1032	0CE106DF618	10UF STD 16V M
C1033	0CK104DK56A	0.1UF 2012 50V 10%
C1034	0CE106DF618	10UF STD 16V M
C1035	0CE476DF618	47UF STD 16V M
C1036	0CE476DF618	47UF STD 16V M
C1037	0CK104DK56A	0.1UF 2012 50V 10%
C1038	0CK104DK56A	0.1UF 2012 50V 10%
C1039	0CK104DK56A	0.1UF 2012 50V 10%
C1040	0CE476DF618	47UF STD 16V M
C1041	0CK104DK56A	0.1UF 2012 50V 10%
C1042	0CK104DK56A	0.1UF 2012 50V 10%
C1043	0CE106DF618	10UF STD 16V M
C1045	0CK104DK56A	0.1UF 2012 50V 10%
C1047	0CK104DK56A	0.1UF 2012 50V 10%
C1048	0CK104DK56A	0.1UF 2012 50V 10%
C1049	0CE106DF618	10UF STD 16V M
C1050	0CK104DK56A	0.1UF 2012 50V 10%
C1051	0CK104DK56A	0.1UF 2012 50V 10%
C1053	0CK104DK56A	0.1UF 2012 50V 10%
C1055	0CE106DF618	10UF STD 16V M
C1056	0CK104DK56A	0.1UF 2012 50V 10%
C106	0CE107BK618	100UF KME 50V M
C107	0CK104DK56A	0.1UF 2012 50V 10%
C108	0CE226DD618	22UF STD 10V 20%
C110	0CE477DD618	470UF STD 10V M
C111	0CE477DD618	470UF STD 10V M
C112	0CE476DK618	47UF STD 50V M
C113	0CE107BK618	100UF KME 50V M

LOCA. NO	PART NO	DESCRIPTION
C114	0CE476DD618	47UF STD 10V 20%
C115	0CE476DD618	47UF STD 10V 20%
C116	0CK104DK56A	0.1UF 2012 50V 10%
C117	0CE476DD618	47UF STD 10V 20%
C118	0CK104DK56A	0.1UF 2012 50V 10%
C119	0CK104DK56A	0.1UF 2012 50V 10%
C120	0CK104DK56A	0.1UF 2012 50V 10%
C1201	0CE105DK618	1UF STD 50V M
C1201	0CE106SF6DC	10UF MVG 16V 20%
C1202	0CE105DK618	1UF STD 50V M
C1203	0CE105DK618	1UF STD 50V M
C1204	0CE105DK618	1UF STD 50V M
C1205	0CE105DK618	1UF STD 50V M
C1208	0CE105DK618	1UF STD 50V M
C121	0CE477DD618	470UF STD 10V M
C1216	0CE105DK618	1UF STD 50V M
C1217	0CE105DK618	1UF STD 50V M
C122	0CK104DK56A	0.1UF 2012 50V 10%
C1220	0CE105DK618	1UF STD 50V M
C1223	0CE105DK618	1UF STD 50V M
C1224	0CE106DK618	10UF STD 50V M
C1225	0CK104DK56A	0.1UF 2012 50V 10%
C1227	0CE226DK618	22UF STD 50V M
C1228	0CE226DK618	22UF STD 50V M
C1229	0CE106DK618	10UF STD 50V M
C123	0CK104DK56A	0.1UF 2012 50V 10%
C1231	0CK104DK56A	0.1UF 2012 50V 10%
C1232	0CE226DF618	22UF STD 16V M
C1233	0CE477DF618	470UF STD 16V 20%
C1234	0CE475DK618	4.7UF STD 50V 20%
C1235	0CE475DK618	4.7UF STD 50V 20%
C124	0CE106SF6DC	10UF MVG 16V 20%
C125	0CK104DK56A	0.1UF 2012 50V 10%
C125	0CE106SF6DC	10UF MVG 16V 20%
C126	0CK104DK56A	0.1UF 2012 50V 10%
C127	0CE476DD618	47UF STD 10V 20%
C128	0CE476DK618	47UF STD 50V M
C129	0CE105SK6DC	1UF MVG 50V M
C130	0CE105SK6DC	1UF MVG 50V M
C1300	0CE106SF6DC	10UF MVG 16V 20%
C1301	0CE226SF6DC	22UF MVG 16V M
C1303	0CE106SF6DC	10UF MVG 16V 20%
C1304	0CE226SF6DC	22UF MVG 16V M
C1307	0CE226SF6DC	22UF MVG 16V M
C131	0CE105SK6DC	1UF MVG 50V M
C1316	0CE106SF6DC	10UF MVG 16V 20%
C1317	0CE106SF6DC	10UF MVG 16V 20%
C1318	0CE106SF6DC	10UF MVG 16V 20%
C132	0CE477DD618	470UF STD 10V M
C132	0CE105SK6DC	1UF MVG 50V M
C1320	0CE106SF6DC	10UF MVG 16V 20%

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
C1324	0CE106SF6DC	10UF MVG 16V 20%
C1327	0CE106SF6DC	10UF MVG 16V 20%
C1328	0CE106SF6DC	10UF MVG 16V 20%
C133	0CE105DK618	1UF STD 50V M
C134	0CE476DD618	47UF STD 10V 20%
C135	0CE108DD618	1000UF STD 10V M
C136	0CE108DD618	1000UF STD 10V M
C140	0CE476DD618	47UF STD 10V 20%
C140	0CE105SK6DC	1UF MVG 50V M
C1401	0CE108DH618	1000UF STD 25V M
⚠ C1412	181-013Z	MPP 400V 0.30UF J
C1413	0CK2220W515	2200P 500V K
C1414	0CE108DH618	1000UF STD 25V M
C1415	0CK1020K515	1000P 50V K
C1416	0CE227BK618	220UF KME 50V M
C1417	0CQ1041N509	0.1U 100V K
C1418	181-013U	MPP 630V 0.1UF J
C1420	0CQ3341N401	0.33U 100V J
C1421	181-010E	PP 400V 0.12UF J
C1423	0CK1020K515	1000P 50V K
C1425	181-014V	0.01UF 2KV 5%
C1426	0CE476BK618	47UF KME 50V M
C1427	0CK10102515	100PF 2KV K B TR
C1428	0CC3300K415	33P 50V J
⚠ C1431	0CE106DK618	10UF STD 50V M
C1432	0CE226CR618	22UF SHL,SD 250V M
C1433	0CE107BK618	100UF KME 50V M
C1434	181-091W	R 470PF 2KV 10%,10%
C1435	181-091W	R 470PF 2KV 10%,10%
C1436	0CQ5621N419	5600P 100V J
C1437	181-009D	PP 200V 0.068UF J
⚠ C1438	181-015G	MPP 1600V 0.0077UF H
⚠ C1439	181-011B	0.001UF D 1.6KV J
C1440	0CK2210W515	220P 500V K B TS
C1442	181-010J	PP 630V 0.0082UF J
C1443	181-0641	CE 6.8UF 50V 5% M (16*35.5)
C1444	181-0641	CE 6.8UF 50V 5% M (16*35.5)
C1445	0CE106BP618	10UF KME 160V M
C1448	0CQ1042K439	0.1UF S 50V 5% 5
C1449	0CE335CK636	3.3UF SHL,SD 50V 20%
C147	0CK104DK56A	0.1UF 2012 50V 10%
C15	0CE107DF618	100UF STD 16V M
C15	0CE107BF618	100UF KME 16V M
C1501	0CE476DH618	47UF STD 25V 20%
C1502	0CE105DK618	1UF STD 50V M
C1503	0CQ1031N509	0.01U 100V K
C1504	0CK104DK56A	0.1UF 2012 50V 10%
C1505	0CE104DK618	0.1000UF STD 50V M
C1507	0CE105DK618	1UF STD 50V M
C1508	0CE106DK618	10UF STD 50V M
C1509	0CQ1041N509	0.1U 100V K

LOCA. NO	PART NO	DESCRIPTION
C1510	0CK104DK56A	0.1UF 2012 50V 10%
C1511	0CE107DH618	100UF STD 25V M
C1512	0CK104DK56A	0.1UF 2012 50V 10%
C1513	0CE226DK618	22UF STD 50V M
C1515	0CK104DK56A	0.1UF 2012 50V 10%
C1516	0CE105DK618	1UF STD 50V M
C1517	0CE226DK618	22UF STD 50V M
C1518	0CE107DH618	100UF STD 25V M
C1519	0CK104DK56A	0.1UF 2012 50V 10%
C1520	0CK104DK56A	0.1UF 2012 50V 10%
C1521	0CE105DK618	1UF STD 50V M
C1522	0CE105DK618	1UF STD 50V M
C1523	0CE335DK618	3.3UF STD 50V 20%
C1524	0CE335DK618	3.3UF STD 50V 20%
C1525	0CK104DK56A	0.1UF 2012 50V 10%
C1526	0CE226DK618	22UF STD 50V M
C1528	0CE105DK618	1UF STD 50V M
C16	0CK104DK56A	0.1UF 2012 50V 10%
C1602	0CE106DF618	10UF STD 16V M
C1604	0CE226DF618	22UF STD 16V M
C1605	0CE226DF618	22UF STD 16V M
C1607	0CE108DF618	1000UF STD 16V M
C1608	0CE226DF618	22UF STD 16V M
C1610	0CE226DF618	22UF STD 16V M
C1611	0CE475DK618	4.7UF STD 50V 20%
C1613	0CE226DF618	22UF STD 16V M
C1614	0CC5610K405	560P 50V J SL TS
C1616	0CC5610K405	560P 50V J SL TS
C1617	0CE475DK618	4.7UF STD 50V 20%
C1618	0CE226DF618	22UF STD 16V M
C1620	0CE107DF618	100UF STD 16V M
C1623	0CE107DH618	100UF STD 25V M
C1627	0CE105DK618	1UF STD 50V M
C1628	0CE107DF618	100UF STD 16V M
C1631	0CE108DK61A	1000UF STD 50V M
C1631	0CE108DK61A	1000UF STD 50V M
C1632	0CQ1041N509	0.1U 100V K
C1636	0CQ1041N509	0.1U 100V K
C1637	0CQ1041N509	0.1U 100V K
C1639	0CE228DJ650	2200UF STD 35V M
C1641	0CE228DJ650	2200UF STD 35V M
C1644	0CK104DK56A	0.1UF 2012 50V 10%
C1645	0CE105DK618	1UF STD 50V M
C1646	0CE106DK618	10UF STD 50V M
C1647	0CE105DK618	1UF STD 50V M
C1648	0CE105DK618	1UF STD 50V M
C1650	0CK104DK56A	0.1UF 2012 50V 10%
C1651	0CE105CK636	1UF SHL,SD 50V M
C1652	0CE105CK636	1UF SHL,SD 50V M
C17	0CE108DF618	1000UF STD 16V M
C18	0CE107DF618	100UF STD 16V M

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
C19	0CK104DK56A	0.1UF 2012 50V 10%
C1902	0CK104DK56A	0.1UF 2012 50V 10%
C1905	0CE108DF618	1000UF STD 16V M
C1906	0CK104DK56A	0.1UF 2012 50V 10%
C1907	0CE107BF618	100UF KME 16V M
C1911	0CK47202510	4700P 2KV K B S
C1912	0CK47102515	470P 2KV K B TS
C1915	0CE106DR618	10UF STD 250V M
C1916	0CE108DF618	1000UF STD 16V M
C1917	0CE107BF618	100UF KME 16V M
C1918	0CQ1044R539	0.1UF TE 250V K 5
C1923	0CE106DR618	10UF STD 250V M
C1925	0CQ1044R539	0.1UF TE 250V K 5
C1926	0CE107BF618	100UF KME 16V M
C1928	0CE107BF618	100UF KME 16V M
C1929	0CE108DF618	1000UF STD 16V M
C1930	0CK1040K945	0.1UF 50V Z F TR
C1931	0CQ1044R539	0.1UF TE 250V K 5
C1940	0CE107BF618	100UF KME 16V M
C1952	0CK104DK56A	0.1UF 2012 50V 10%
C1953	0CK104DK56A	0.1UF 2012 50V 10%
C1955	0CK104DK56A	0.1UF 2012 50V 10%
C1956	0CK104DK56A	0.1UF 2012 50V 10%
C20	0CE107DD618	100UF STD 10V M
C206	0CE106DF618	10UF STD 16V M
C206	0CE226SF6DC	22UF MVG 16V M
C207	0CK104DK56A	0.1UF 2012 50V 10%
C21	0CE108DF618	1000UF STD 16V M
C215	0CE106DF618	10UF STD 16V M
C218	0CE106DF618	10UF STD 16V M
C22	0CE477DF618	470UF STD 16V 20%
C222	0CE106DF618	10UF STD 16V M
C225	0CE226DD618	22UF STD 10V 20%
C227	0CE106DF618	10UF STD 16V M
C228	0CK104DK56A	0.1UF 2012 50V 10%
C229	0CK104DK56A	0.1UF 2012 50V 10%
C23	0CQ1041N509	0.1U 100V K
C232	0CE475DK618	4.7UF STD 50V 20%
C234	0CE475DK618	4.7UF STD 50V 20%
C235	0CE475DK618	4.7UF STD 50V 20%
C236	0CE476DF618	47UF STD 16V M
C237	0CK104DK56A	0.1UF 2012 50V 10%
C239	0CK104DK56A	0.1UF 2012 50V 10%
C240	0CE105DK618	1UF STD 50V M
C241	0CE475DK618	4.7UF STD 50V 20%
C243	0CK104DK56A	0.1UF 2012 50V 10%
C244	0CE475DK618	4.7UF STD 50V 20%
C245	0CE106DF618	10UF STD 16V M
C246	0CE475DK618	4.7UF STD 50V 20%
C247	0CE475DK618	4.7UF STD 50V 20%
C248	0CE106DF618	10UF STD 16V M

LOCA. NO	PART NO	DESCRIPTION
C249	0CE106DF618	10UF STD 16V M
C252	0CE106DF618	10UF STD 16V M
C253	0CE106DF618	10UF STD 16V M
C254	0CK104DK56A	0.1UF 2012 50V 10%
C27	0CK104DK56A	0.1UF 2012 50V 10%
C28	0CE105DK618	1UF STD 50V M
C29	0CK104DK56A	0.1UF 2012 50V 10%
C30	0CE108DD618	1000UF STD 10V M
C302	0CE226SF6DC	22UF MVG 16V M
C31	0CK104DK56A	0.1UF 2012 50V 10%
C312	0CE106SF6DC	10UF MVG 16V 20%
C339	0CK823DK56A	82000PF 2012 50V 10%
C346	0CE476SF6DC	47UF MVG 16V M
C364	0CE106SF6DC	10UF MVG 16V 20%
C368	0CE226SF6DC	22UF MVG 16V M
C371	0CE106SF6DC	10UF MVG 16V 20%
C38	0CK104DK56A	0.1UF 2012 50V 10%
C384	0CE106SF6DC	10UF MVG 16V 20%
C386	0CE106SF6DC	10UF MVG 16V 20%
C39	0CE108DD618	1000UF STD 10V M
C393	0CE226SF6DC	22UF MVG 16V M
C394	0CE106SF6DC	10UF MVG 16V 20%
C397	0CE226SF6DC	22UF MVG 16V M
C398	0CE106SF6DC	10UF MVG 16V 20%
C40	0CK104DK56A	0.1UF 2012 50V 10%
C400	0CE226SF6DC	22UF MVG 16V M
C406	0CE106SF6DC	10UF MVG 16V 20%
C407	0CE476SF6DC	47UF MVG 16V M
C41	0CE476DD618	47UF STD 10V 20%
C42	0CE105DK618	1UF STD 50V M
C422	0CE107SF6DC	100UF MVG 16V M
C424	0CE107SF6DC	100UF MVG 16V M
C426	0CE107SF6DC	100UF MVG 16V M
C428	0CE107SF6DC	100UF MVG 16V M
C43	0CE477DD618	470UF STD 10V M
C437	0CE226SF6DC	22UF MVG 16V M
C439	0CE226SF6DC	22UF MVG 16V M
C44	0CK104DK56A	0.1UF 2012 50V 10%
C440	0CE226SF6DC	22UF MVG 16V M
C442	0CE106SF6DC	10UF MVG 16V 20%
C45	0CK104DK56A	0.1UF 2012 50V 10%
C47	0CE107DD618	100UF STD 10V M
C48	0CK104DK56A	0.1UF 2012 50V 10%
C501	0CK104DK56A	0.1UF 2012 50V 10%
C502	0CK104DK56A	0.1UF 2012 50V 10%
C503	0CE476DF618	47UF STD 16V M
C504	0CK104DK56A	0.1UF 2012 50V 10%
C504	0CE107SF6DC	100UF MVG 16V M
C505	181-007H	MPE ECQV1H474JL3(TR), 50V 0.47UF J
C506	0CE476DK618	47UF STD 50V M
C507	0CE107DF618	100UF STD 16V M

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
C508	0CK104DK56A	0.1UF 2012 50V 10%
C509	0CE475DK618	4.7UF STD 50V 20%
C510	181-007H	MPE ECQV1H474JL3(TR), 50V 0.47UF J
C511	0CK104DK56A	0.1UF 2012 50V 10%
C512	0CK104DK56A	0.1UF 2012 50V 10%
C513	0CK104DK56A	0.1UF 2012 50V 10%
C514	0CK104DK56A	0.1UF 2012 50V 10%
C515	0CK104DK56A	0.1UF 2012 50V 10%
C516	0CK104DK56A	0.1UF 2012 50V 10%
C517	0CK104DK56A	0.1UF 2012 50V 10%
C518	0CK104DK56A	0.1UF 2012 50V 10%
C519	0CE105DK618	1UF STD 50V M
C52	0CE107DD618	100UF STD 10V M
C520	0CK104DK56A	0.1UF 2012 50V 10%
C521	0CE107DF618	100UF STD 16V M
C523	0CE106DK618	10UF STD 50V M
C524	0CK104DK56A	0.1UF 2012 50V 10%
C525	0CE107DF618	100UF STD 16V M
C526	181-007J	MPE ECQV1H564JL3(TR), 50V 0.56UF J
C528	181-007H	MPE ECQV1H474JL3(TR), 50V 0.47UF J
C529	0CK104DK56A	0.1UF 2012 50V 10%
C53	0CE107BF618	100UF KME 16V M
C530	0CQ1041N455	0.1000UF 100V J
C531	0CQ1041N455	0.1000UF 100V J
C532	0CE107DF618	100UF STD 16V M
C536	0CE226DF618	22UF STD 16V M
C54	0CE477DF618	470UF STD 16V 20%
⚠ C541	0CE474DK618	0.4700UF STD 50V M
C544	0CE107DJ618	100UF STD 35V M
C546	0CQ5621N419	5600P 100V J
C547	0CQ2221N509	0.0022U 100V K
C553	0CE476DK618	47UF STD 50V M
C554	0CE476DK618	47UF STD 50V M
C555	0CE107DJ618	100UF STD 35V M
C556	0CQ1032K439	0.0100UF S 50V J
C601	0CK104DK56A	0.1UF 2012 50V 10%
C601	0CE106SF6DC	10UF MVG 16V 20%
C602	0CE477DF618	470UF STD 16V 20%
C603	0CE226DD618	22UF STD 10V 20%
C604	0CK104DK56A	0.1UF 2012 50V 10%
C607	0CK104DK56A	0.1UF 2012 50V 10%
C610	0CK104DK56A	0.1UF 2012 50V 10%
C611	0CE107DF618	100UF STD 16V M
C612	0CE335DK618	3.3UF STD 50V 20%
C619	0CE226DF618	22UF STD 16V M
C621	0CK104DK56A	0.1UF 2012 50V 10%
C622	0CE106SF6DC	10UF MVG 16V 20%
C624	0CE106SF6DC	10UF MVG 16V 20%
C626	0CE106SF6DC	10UF MVG 16V 20%
C628	0CE335DK618	3.3UF STD 50V 20%
C628	0CE106SF6DC	10UF MVG 16V 20%

LOCA. NO	PART NO	DESCRIPTION
C629	0CE106DF618	10UF STD 16V M
C630	0CE106DF618	10UF STD 16V M
C633	0CE107DF618	100UF STD 16V M
C634	0CK104DK56A	0.1UF 2012 50V 10%
C637	0CE476SF6DC	47UF MVG 16V M
C639	0CE476SF6DC	47UF MVG 16V M
C643	0CE476SF6DC	47UF MVG 16V M
C677	0CE476SF6DC	47UF MVG 16V M
C689	0CK105DF64A	1UF 2012 16V 20%
C801	0CQZVBK002C	A.C 275V 0.22UF K (S=22.5)
C802	0CQZVBK002C	A.C 275V 0.22UF K (S=22.5)
C802	0CE228DF618	2200UF STD 16V M
C806	0CQZVBK002A	A.C 275V 0.1UF M (S=15)
C807	181-120N	1000PF 4KV M
C809	0CE337DD618	330UF STD 10V M
C810	181-091P	SL 270PF 1KV 10%,10%
C811	0CE106DH618	10UF STD 25V M
C812	181-001B	CE 200V 470UF M LUG (105)
C814	0CQ2242K439	0.22UF S 50V 5% 5
C815	181-091Q	R 470PF 1KV 10%,10%
C816	181-014A	0.0022UF 1.6KV 5%
C817	0CK47101515	470P 1KV K B TS
C817	181-091C	DEHR33A471KN2A 470PF 1KV 10%,10%
C818	0CE478BH650	4700UF KME 25V M
C820	0CE108DF618	1000UF STD 16V M
C821	0CE107BF618	100UF KME 16V M
C822	0CK4710W515	470PF 500V K B TR
C823	0CE228DK650	2200UF STD 50V M
C824	0CE227BJ618	220U KME 35V M
C825	0CK4710W515	470PF 500V K B TR
C826	0CK4710W515	470PF 500V K B TR
C826	181-091C	DEHR33A471KN2A 470PF 1KV 10%,10%
C830	0CK47101515	470P 1KV K B TS
C831	0CK10201515	1000P 1KV K B TS
C833	0CE108DH618	1000UF STD 25V M
C834	0CE108DH618	1000UF STD 25V M
C835	0CK4710W515	470PF 500V K B TR
C837	181-120K	2200PF 4KV M E
C838	181-091Q	R 470PF 1KV 10%,10%
C839	181-091R	R 1000PF 1KV 10%,10%
C840	181-091R	R 1000PF 1KV 10%,10%
C841	181-091R	R 1000PF 1KV 10%,10%
C842	181-091R	R 1000PF 1KV 10%,10%
C845	0CE477RU640	470UF KMH 400V 20%
C846	0CQZVBK002D	A.C 275V 0.47UF K (S=22.5)
C847	181-001B	CE 200V 470UF M LUG (105)
C849	0CE108DF618	1000UF STD 16V M
C850	0CE478BH650	4700UF KME 25V M
C851	0CE337DH618	330UF STD 25V M
C851	0CE476DF618	47UF STD 16V M
C852	0CE108DF618	1000UF STD 16V M

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
C852	0CN1030F679	10000P 16V M Y
C853	0CE476DF618	47UF STD 16V M
C855	0CK1020W515	1000P 500V K B TS
C856	0CK1020W515	1000P 500V K B TS
C857	0CK4710W515	470PF 500V K B TR
C901	0CE106DK618	10UF STD 50V M
C902	0CE476DK618	47UF STD 50V M
C903	0CE106BN618	10UF KME 100V M
C903	0CE106DK618	10UF STD 50V M
C904	0CE106DK618	10UF STD 50V M
C905	0CQ1031N509	0.01U 100V K
C906	0CE476BN618	47UF KME 100V M
C906	0CE476DK618	47UF STD 50V M
C908	0CE336DK618	33UF STD 50V M
C911	0CK104DK56A	0.1UF 2012 50V 10%
C920	0CK104DK56A	0.1UF 2012 50V 10%
C939	0CE337DK618	330UF STD 50V M
C972	0CE106DR618	10UF STD 250V M
C973	0CE106DK618	10UF STD 50V M
C974	0CE106DK618	10UF STD 50V M
C975	0CE106DK618	10UF STD 50V M
C976	0CE336DP618	33UF STD 160V M
C977	0CE107DN618	100UF STD 100V M
C978	0CQ1031N509	0.01U 100V K
C979	0CK104DK56A	0.1UF 2012 50V 10%
R1977	0CK104DK56A	0.1UF 2012 50V 10%

JACK

IC501	6612BBBHN4A	JACK,DIN TOTX179
IC502	6612BBBHN4B	JACK,DIN TORX179 K
IC505	6612BBBHN4B	JACK,DIN TORX179
JA1201	6613V00013F	JACK ASSEMBLY,PMJ021F A/V 9P
JA1202	6612VBH001B	JACK,DIN PSJ013A 2 INPUT SJACK
JA1203	380-392G	JACK,RCA S457J A/V 5P
JA201	6613V00010B	JACK ASSY,PMJ016B A/V 3P + SVHS
JA203	6612VJH022B	JACK,RCA PPJ125B A/V 10P MONO
P400	6612VMH003A	JACK,SCART 365100032 48PIN
P401	6612VMH003A	JACK,SCART 365100032 48PIN

COIL & TRANSFORMER

L002	0LA0102K119	INDUCTOR,10UH K
L1009	0LA0102K119	INDUCTOR,10UH K
L1010	0LA0102K119	INDUCTOR,10UH K
L1011	0LA0561K119	INDUCTOR,5.6UH K
L1012	0LA0102K119	INDUCTOR,10UH K
L1013	0LA0102K119	INDUCTOR,10UH K
⚠ L1401	6140VE0001T	COIL,LINEARITY 23.5TURN
L1402	0LA1001K139	INDUCTOR,1000UH 10% A
L1404	0LA1000K119	INDUCTOR,100UH K
L1406	150-C04E	COIL,CHOKE 285UH PHY TURN
L1413	150-W01A	COIL,CHOKE WIDTH 24UH

LOCA. NO	PART NO	DESCRIPTION
L1501	0LA1000K119	INDUCTOR,100UH K
L1502	0LA1000K119	INDUCTOR,100UH K
L1901	0LA0102K119	INDUCTOR,10UH K
L1903	0LA0102K119	INDUCTOR,10UH K
L1910	0LA0102K119	INDUCTOR,10UH K
L503	0LA0332K119	INDUCTOR,33UH K
L805	150-C02F	COIL,CHOKE 82UH PHY TURN
L806	6170VZ0005A	TRANSFORMER,HDRIVER IRON15 120UH
L807	150-C02F	COIL,CHOKE 82UH PHY TURN
L850	0LA0102K119	INDUCTOR,10UH K
⚠ T1401	6174V-5010A	FBT,6174Z5003L 34 JE 5003J
T1402	6170VC0002A	TRANSFORMER,HDRIVE EER2619
T802	6170VMCB16C	TRANSFORMER,SMPS[COIL] EE5555 520UH
T803	6170VS0001D	TRANSFORMER,STANDBY EER3541 0UH

CONNECTOR

P001A	387-812D	CONNECTOR ASSEMBLY,5P 2.5MM
P002B	387-A08C	CONNECTOR ASSEMBLY,8P 2.5MM
P005	6932V25004A	CONNECTOR,HOUSING 365120098
P006	6932V25004A	CONNECTOR,HOUSING 365120098
P008	387-A03C	CONNECTOR ASSEMBLY,3P 2.5MM
P104	6630VGA004B	CONNECTOR,DSUB 9P 2.77MM
P403B	6631V25A04A	CONNECTOR ASSEMBLY,14P 2.5MM
P405B	387-A15A	CONNECTOR ASSEMBLY,12P 2.5MM
P600	6630GZ00724	CONNECTOR,DSUB 24P 1.91MM
P604B	387-A05A	CONNECTOR ASSEMBLY,5P 2.5MM
P803B	387-A10C	CONNECTOR ASSEMBLY,10P 2.5MM
P804B	387-A10A	CONNECTOR ASSEMBLY,10P 2.5MM
P901	387-J12J	CONNECTOR ASSY,12P(500)
P905	387-A10G	CONNECTOR ASSEMBLY,10P 2.5MM

RESISTOR

AR100	0RRZVTA001C	4.7K OHM 1 / 16 W 1608 5%
AR101	0RRZVTA001C	4.7K OHM 1 / 16 W 1608 5%
AR302	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR303	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR600	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR601	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR602	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR603	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR604	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR611	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR612	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
AR613	0RRZVTA001D	22 OHM 1 / 16 W 1608 5%
D835	0RD6202F609	62K OHM 1/6 W 5.00%
R006	0RD3901F609	3.9K OHM 1/6 W 5%
R007	0RD3901F609	3.9K OHM 1/6 W 5%
R008	0RD6801F609	6.8K OHM 1/6 W 5.00%
R009	0RD6801F609	6.8K OHM 1/6 W 5.00%
R107	0RS0202K607	20 OHM 2 W 5.00%
R1403	0RS2200J607	220 OHM 1 W 5.00%

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
R1404	0RD0332H609	33 OHM 1/2 W 5.00%
R1405	0RN3301F409	3.3K OHM 1/6 W 1.00%
R1406	0RS3300J607	330 OHM 1 W 5.00%
R1407	0RN3301F409	3.3K OHM 1/6 W 1.00%
R1409	0RD1302F609	13K OHM 1/6 W 5.00%
R1410	0RN0680H609	0.68 OHM 1/2 W 5.00%
R1411	0RN0820H609	0.82 OHM 1/2 W 5.00%
R1413	0RD1302F609	13K OHM 1/6 W 5.00%
R1414	0RS4702J607	47K OHM 1 W 5.00%
R1417	0RD1003F609	100K OHM 1/6 W 5%
R1418	0RF0561K607	5.6 OHM 2 W 5.00%
R1419	0RS2403J607	240K OHM 1 W 5.00%
R1420	0RS2403J607	240K OHM 1 W 5.00%
R1421	0RS2203J607	220K OHM 1 W 5.00%
R1424	0RD6801F609	6.8K OHM 1/6 W 5.00%
R1425	0RD1003F609	100K OHM 1/6 W 5%
R1426	0RD1002F609	10K OHM 1/6 W 5%
R1428	180-C02M	5.6K OHM 1/2 W 10%
R1429	0RS2203J607	220K OHM 1 W 5.00%
R1430	0RD1000F609	100 OHM 1/6 W 5%
R1431	0RF0470H609	0.47 OHM 1/2 W 5.00%
R1432	0RS2203J607	220K OHM 1 W 5.00%
R1433	0RD1001H609	1K OHM 1/2 W 5.00%
R1436	0RS2701H609	2.7K OHM 1/2 W 5.00%
R1437	0RD2204H609	2.2M OHM 1/2 W 5.00%
R1438	0RD8201F609	8.2K OHM 1/6 W 5.00%
R1439	180-A01M	0.22 OHM 2 W 5%
R1440	180-A01M	0.22 OHM 2 W 5%
R1441	0RD2701H609	2.7K OHM 1/2 W 5.00%
R1442	0RD1000F609	100 OHM 1/6 W 5%
R1443	0RS0391K607	3.9 OHM 2 W 5.00%
R1444	0RD1301H609	1.3K OHM 1/2 W 5.00%
R1445	0RD3901H609	3.9K OHM 1/2 W 5.00%
R1447	0RD4701F609	4.7K OHM 1/6 W 5%
R1448	0RD2400F609	240 OHM 1/6 W 5.00%
R1449	0RS0562K607	56 OHM 2 W 5.00%
R1450	0RS0391K607	3.9 OHM 2 W 5.00%
R1451	0RD1001H609	1K OHM 1/2 W 5.00%
R1452	0RD2202H609	22K OHM 1/2 W 5.00%
R1456	0RD2401H609	2.4K OHM 1/2 W 5.00%
R1457	0RD2401H609	2.4K OHM 1/2 W 5.00%
R1458	0RS1201K607	1.2K OHM 2 W 5.00%
R1459	0RS2701K607	2.7K OHM 2 W 5.00%
R1460	0RD4301H609	4.3K OHM 1/2 W 5.00%
R1461	0RS2203J607	220K OHM 1 W 5.00%
R1462	0RF0101H609	1 OHM 1/2 W 5.00%
R1463	0RD2200F609	220 OHM 1/6 W 5.00%
R1464	0RD1003F609	100K OHM 1/6 W 5%
R1465	0RS2203J607	220K OHM 1 W 5.00%
R1466	0RF0680J607	0.68 OHM 1 W 5.00%
R1467	0RS4702J607	47K OHM 1 W 5.00%

LOCA. NO	PART NO	DESCRIPTION
R1469	0RD1002F609	10K OHM 1/6 W 5%
R1470	0RF0680H609	0.68 OHM 1/2 W 5.00%
⚠ R1471	0RD3902F609	39K OHM 1/6 W 5.00%
⚠ R1472	0RD9101F609	9.1K OHM 1/6 W 5.00%
R1492	0RS1201K607	1.2K OHM 2 W 5.00%
R1493	0RS1201K607	1.2K OHM 2 W 5.00%
R1494	0RD4301F609	4.3K OHM 1/6 W 5.00%
R1496	0RS3300J607	330 OHM 1 W 5.00%
R1497	0RS4701K607	4.7K OHM 2 W 5.00%
R1500	0RS0222J607	22 OHM 1 W 5.00%
R1509	0RS0472H609	47 OHM 1/2 W 5.00%
R1543	0RS2200J607	220 OHM 1 W 5.00%
R1554	0RS6801K607	6.8K OHM 2 W 5.00%
R1555	0RS6801K607	6.8K OHM 2 W 5.00%
R1646	0RF0561H609	5.6 OHM 1/2 W 5.00%
R1647	0RF0561H609	5.6 OHM 1/2 W 5.00%
R1901	0RD1000F609	100 OHM 1/6 W 5%
R1967	0RD2702F609	27K OHM 1/6 W 5.00%
R1971	0RC0512H609	51 OHM 1/2 W 5.00%
R1972	0RC2200H609	220 OHM 1/2 W 5.00%
R1974	0RC2200H609	220 OHM 1/2 W 5.00%
R1975	0RC0512H609	51 OHM 1/2 W 5.00%
R1976	0RKZVTA001A	2.2M OHM 1/2 W 5%
R1981	0RF0561K607	5.6 OHM 2 W 5.00%
R1982	0RF0680J607	0.68 OHM 1 W 5.00%
R1983	0RC0512H609	51 OHM 1/2 W 5.00%
R1984	0RC2200H609	220 OHM 1/2 W 5.00%
R1986	180-C02M	5.6K OHM 1/2 W 10%
R1997	0RX2402L607	24K OHM 3 W 5%
R1998	0RX2402L607	24K OHM 3 W 5%
R1999	0RX2402L607	24K OHM 3 W 5%
R260	0RN1002F409	10K OHM 1/6 W 1.00%
R506	0RN4701F409	4.7K OHM 1/6 W 1.00%
R527	0RN1002F409	10K OHM 1/6 W 1.00%
R802	0RKZVTA001K	0.47M OHM 1/2 W 5%
R803	0RD0102F609	10 OHM 1/6 W 5%
R804	0RF0161K607	1.6 OHM 2 W 5.00%
R805	0RD2702H609	27K OHM 1/2 W 5.00%
R806	0RS1002J607	10K OHM 1 W 5.00%
R807	0RD4701F609	4.7K OHM 1/6 W 5%
R808	0RD4702F609	47K OHM 1/6 W 5%
R809	0RD5100F609	510 OHM 1/6 W 5.00%
R810	180-822M	RWR 15W 1.0 OHM J PD
R811	180-C02B	4.7MOHM 1/2 W 10% A
R812	0RD7502H609	75K OHM 1/2 W 5.00%
R813	0RF0161K607	1.6 OHM 2 W 5.00%
R814	0RD1002F609	10K OHM 1/6 W 5%
R815	0RD0102F609	10 OHM 1/6 W 5%
R817	0RD4701F609	4.7K OHM 1/6 W 5%
R818	0RS0822H609	82 OHM 1/2 W 5.00%
R819	0RD4702F609	47K OHM 1/6 W 5%

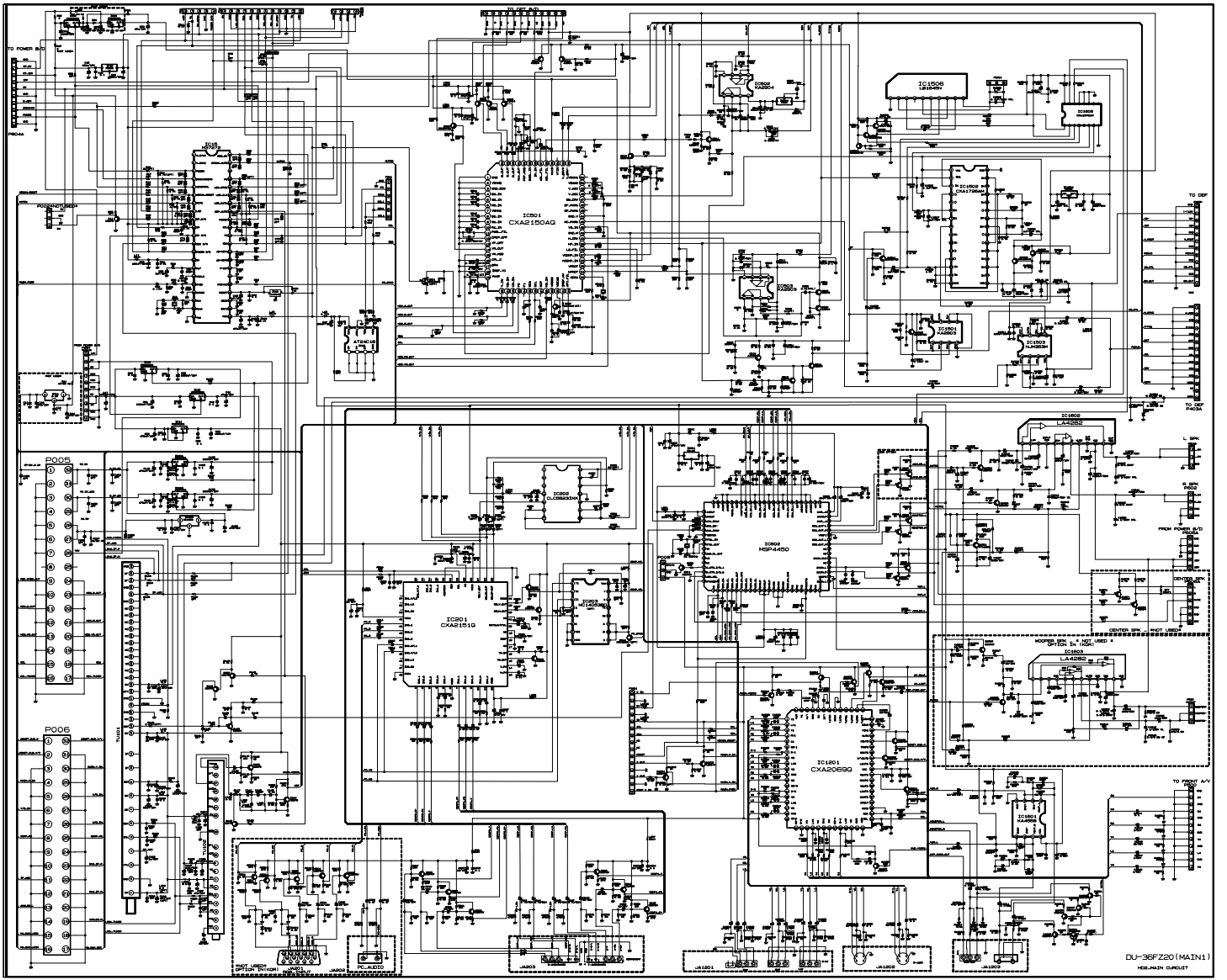
REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
R820	0RD1001F609	1K OHM 1/6 W 5%
R821	0RD3001F609	3K OHM 1/6 W 5.00%
R822	180-A01Q	0.082 OHM 2W +/10%
R823	0RD4701F609	4.7K OHM 1/6 W 5%
R824	0RS2202K607	22K OHM 2 W 5.00%
R825	0RD1301F609	1.3K OHM 1/6 W 5.00%
R826	0RD1001F609	1K OHM 1/6 W 5%
R827	180-C02B	4.7MOHM 1/2 W 10% A
R830	0RD5601F609	5.6K OHM 1/6 W 5%
R837	0RS2202K607	22K OHM 2 W 5.00%
R838	0RD2403F609	240K OHM 1/6 W 5.00%
R850	0RD4702F609	47K OHM 1/6 W 5%
R851	0RD1001F609	1K OHM 1/6 W 5%
R852	0RD4701F609	4.7K OHM 1/6 W 5%
R853	0RD5100F609	510 OHM 1/6 W 5.00%
R860	0RP0050H709	0.05 OHM 1/2 W 10%
R861	0RP0050H709	0.05 OHM 1/2 W 10%
R862	0RP0050H709	0.05 OHM 1/2 W 10%
R863	0RP0020J809	0.02 OHM 1 W 20%
R864	0RP0020J809	0.02 OHM 1 W 20%
R865	0RP0020J809	0.02 OHM 1 W 20%
R866	0RP0020J809	0.02 OHM 1 W 20%
R867	0RP0050H709	0.05 OHM 1/2 W 10%
R904	0RD2202F609	22K OHM 1/6 W 5%
R911	0RD3900F609	390 OHM 1/6 W 5%
R912	0RD0222F609	22 OHM 1/6 W 5.00%
R925	0RF0102H609	10 OHM 1/2 W 5.00%
R926	0RF0102H609	10 OHM 1/2 W 5.00%
R948	0RS3900K619	390 OHM 2 W 5%
R948	0RD3900F609	390 OHM 1/6 W 5%
R970	0RD0271H609	2.7 OHM 1/2 W 5.00%
R971	0RD1801H609	1.8K OHM 1/2 W 5.00%
R972	0RD1801H609	1.8K OHM 1/2 W 5.00%
R973	0RD0102H609	10 OHM 1/2 W 5.00%
R974	0RD0271H609	2.7 OHM 1/2 W 5.00%
R977	0RD1000H609	100 OHM 1/2 W 5.00%
R978	0RD1000H609	100 OHM 1/2 W 5.00%
R980	0RD3902H609	39K OHM 1/2 W 5.00%
R981	0RD3902H609	39K OHM 1/2 W 5.00%
R983	0RS1800J607	180 OHM 1 W 5.00%
R986	0RS3001K619	3K OHM 2 W 5%
R987	0RS3001K619	3K OHM 2 W 5%
R988	0RS3001K619	3K OHM 2 W 5% TR
SPARK GAP		
SG1401	165-004A	SPARK GAP,AG20PT 152FL3N/S23
SG1402	165-004A	SPARK GAP,AG20PT 152FL3N/S23
SG1403	165-004A	SPARK GAP,AG20PT 152FL3N/S23
SG1404	165-004A	SPARK GAP,AG20PT 152FL3N/S23
SG1901	6918VAX002H	SPARK GAP,WSP122N 1200V 100V,+300V
SG1902	6918VAX002E	SPARK GAP,WSP351M 350V 20%
SG1903	6918VAX002E	SPARK GAP,WSP351M 350V 20%
SG1904	6918VAX002E	SPARK GAP,WSP351M 350V 20%
SG1905	6918VAX002E	SPARK GAP,WSP351M 350V 20%
SWITCH		
SW1	140-315A	SWITCH,TACT SKHV17910B 12V
SW100	140-313A	SWITCH,TACT 2LEAD 100G(TA)
SW2	140-315A	SWITCH,TACT SKHV17910B 12V
SW3	140-315A	SWITCH,TACT SKHV17910B 12V
SW4	140-315A	SWITCH,TACT SKHV17910B 12V
SW5	140-315A	SWITCH,TACT SKHV17910B 12V
SW6	140-315A	SWITCH,TACT SKHV17910B 12V
SW801	140-275B	SWITCH,PUSH JDPB21NA 30V 0.3A
FILTER & CRYSTAL		
FB01	125-022K	FILTER,EMC FERRITE 1UH
FB02	125-123A	FILTER,EMC FERRITE BFD3565R2F
IC302	6200C000010	FILTER,B.P. H354LAIK5202
IC303	6200C000010	FILTER,B.P. H354LAIK5202
IC317	6200VKR002A	FILTER,B.P. LPF 2EA TA355LSKK5216 38MHZ
IC318	6200VKR002A	FILTER,B.P. LPF 2EA TA355LSKK5216 38MHZ
IC319	6200VKR002A	FILTER,B.P. LPF 2EA TA355LSKK5216 38MHZ
L1001	6210TCE001G	FILTER,EMC HH1M3216501
L1002	6210TCE001G	FILTER,EMC HH1M3216501
L1003	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L1004	6210VC0006A	FILTER,EMC FBMH3216 HM501NT
L1005	6210TCE001G	FILTER,EMC HH1M3216501
L1006	6210TCE001G	FILTER,EMC HH1M3216501
L1405	125-022K	FILTER,EMC FERRITE 1UH
L801	150-F06T	FILTER,EMC SQE3535 20MH
L801	125-022K	FILTER,EMC FERRITE 1UH
L802	150-F06T	FILTER,EMC SQE3535 20MH
L802	125-022K	FILTER,EMC FERRITE 1UH
L802	125-022K	FILTER,EMC FERRITE 1UH
L803	125-022K	FILTER,EMC FERRITE 1UH
L804	150-F06Z	FILTER,EMC SQE3535 10MH 0.85PHY
T1001	6200C000010	FILTER,B.P. H354LAIK5202
T1002	6200C000010	FILTER,B.P. H354LAIK5202
T1003	6200C000009	FILTER,B.P. H354LAIK5225
T1004	6200C000009	FILTER,B.P. H354LAIK5225
T400	6200QJ3001A	FILTER,EMC EMI REEL/ BMS400 25V 200MA
T401	6200QJ3001A	FILTER,EMC EMI REEL/ BMS400 25V 200MA
T402	6200QJ3001A	FILTER,EMC EMI REEL/ BMS400 25V 200MA
T403	6200QJ3001A	FILTER,EMC EMI REEL/ BMS400 25V 200MA
T404	6200QJ3001A	FILTER,EMC EMI REEL/ BMS400 25V 200MA
T405	6200QJ3001A	FILTER,EMC EMI REEL/ BMS400 25V 200MA
T406	6200QJ3001A	FILTER,EMC EMI REEL/ BMS400 25V 200MA
T407	6200QJ3001A	FILTER,EMC EMI REEL/ BMS400 25V 200MA
T408	6200VJT006A	FILTER,EMC STC222D 50VOLT 4A 2200PF
T409	6200VJT006A	FILTER,EMC STC222D 50VOLT 4A 2200PF
T410	6200VJT006A	FILTER,EMC STC222D 50VOLT 4A 2200PF

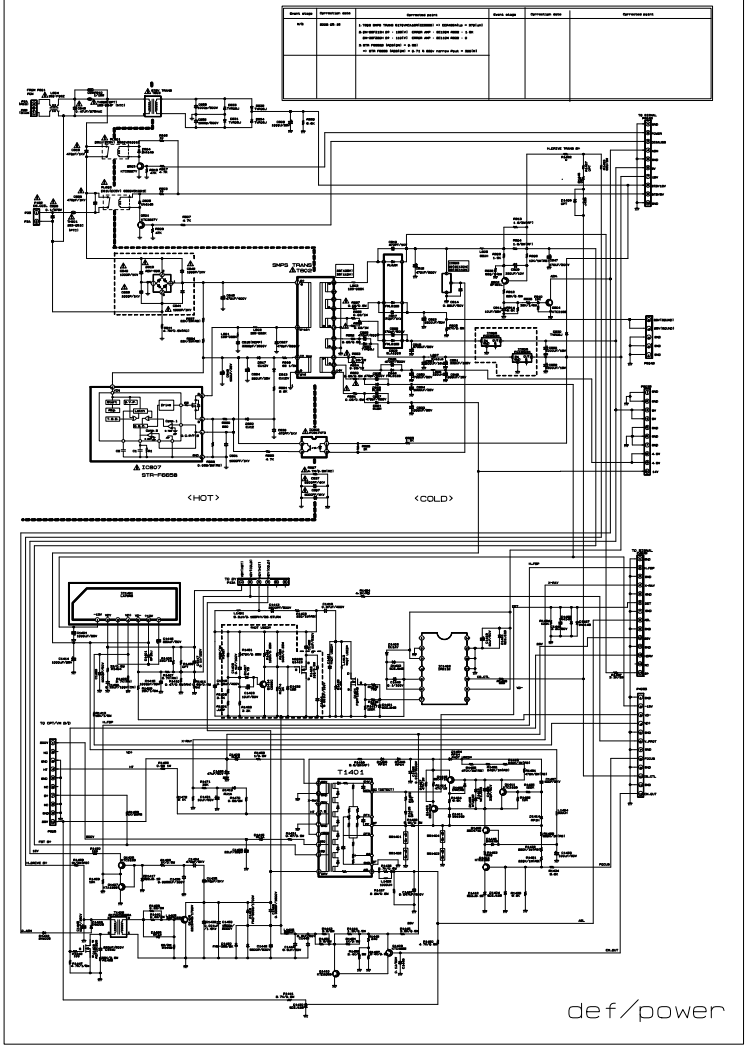
REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
T411	6200VJT006A	FILTER,EMC STC222D 50VOLT 4A 2200PF
T413	6200QJ3001A	FILTER,EMC EMI REEL/ BMS400 25V 200MA
X100	6212AB2015E	RESONATOR,CRYSTAL HC49/SM 10.0MHZ
X1001	156-A02Z	RESONATOR,CRYSTAL HC49/U 20.000MHZ
X11	156-A01P	RESONATOR,CRYSTAL HC49U 8.000MHZ
X201	156-A01E	RESONATOR,CRYSTAL HC49U 4.000MHZ
X300	6202VDT002E	RESONATOR,CRYSTAL SX1SMD 20250000HZ
X301	6202VDT002E	RESONATOR,CRYSTAL SX1SMD 20250000HZ
X601	156-A02R	RESONATOR,CRYSTAL HC49U 18.432MHZ
MISCELLANEOUS		
F801	0FS5001A51B	FUSE,SLOW BLOW 5000MA 125V
IC312	6204B60001B	OSCILLATOR,VCXO 27MHZ +/ 100 PPM 3.3V
PA1	6712R1538GG	REMOTE CONTROLLER RECEIVER,38KHZ
RL801	6920VB1001E	RELAY,SDTS105LMR OEG 5V 0.05A
RL802	6920VB1001E	RELAY,SDTS105LMR OEG 5V 0.05A
SK901	6620VBD001A	SOCKET,CPT PCS701A 9P 14/360
TH801	163-054F	THERMISTOR,PTC J502P84D140M290Q
TU101	6700NFNS04B	TUNER,TDVBH701P
TU102	6700NFNS06B	TUNER,TAFDH001P
VA801	164-003K	VARISTOR,SVC621D14A 620V 0%
X601	6204B47985K	OSCILLATOR,BMS873R 25MHZ +/ 50 PPM 3.3V
ACCESSORIES		
A1	3828VA0395B	MANUAL,OWNERS DU34FC50 ZENITH
A2	6710V00102B	REMOTE CONTROLLER,AC02SA

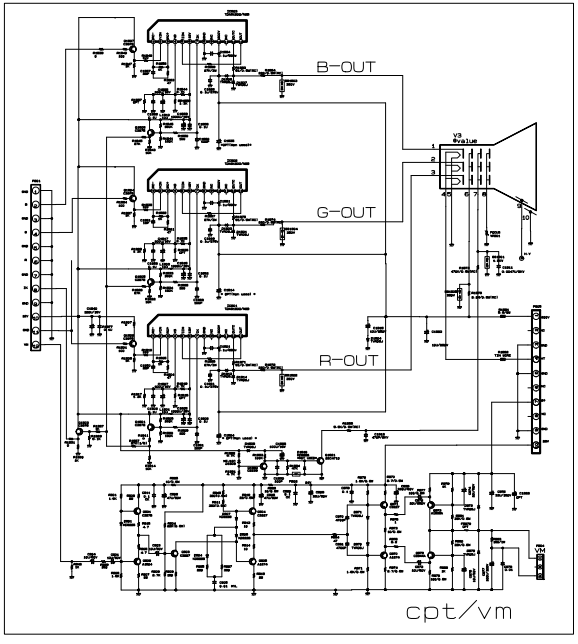
LOCA. NO	PART NO	DESCRIPTION


DU-36FZ20(MAIN1)
HDB_MAIN CURCUIT

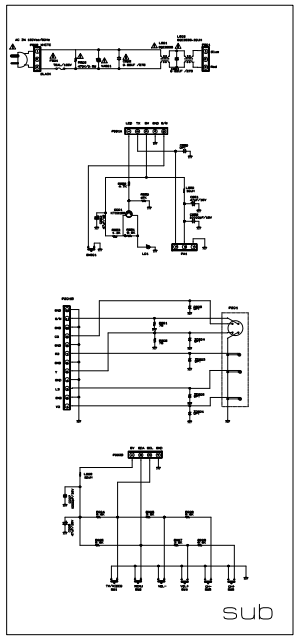
DU-36FZ20(DEF_POWER)



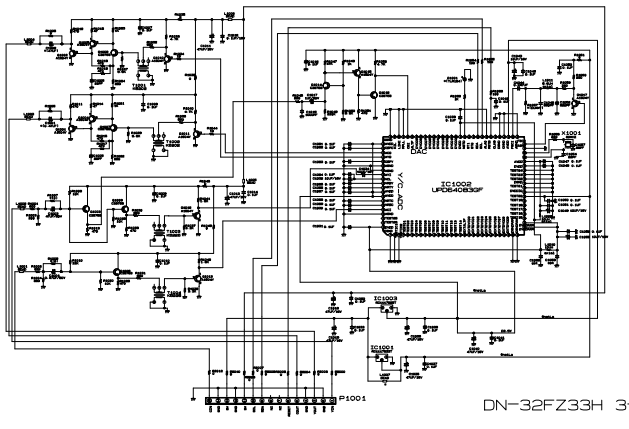
def/power



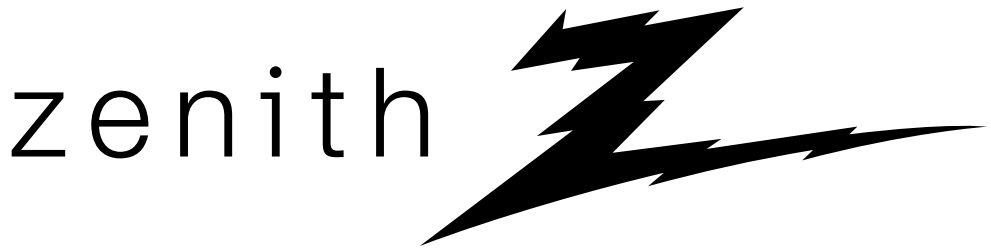
cpt/vm



sub



DN-32FZ33H 3-D DCF


zenith