SAFETY PRECAUTIONS

SERVICE WARNING

Only qualified service technicians who are familiar with safety checks and guidelines should perform service work. Before replacing parts, disconnect power source to protect electrostatically sensitive parts. Do not attempt to modify any circuit unless so recommended by the manufacturer. When servicing the receiver, use an isolation transformer between the line cord and power receptacle.

GENERAL GUIDELINES

Perform a final SAFETY CHECK before returning receiver to customer. Check repaired area for poorly soldered connections, and check entire circuit board for solder splashes. Check board wiring for pinched wires or wires contacting any high wattage resistors. Check that all control knobs, shields, covers, grounds, and mounting hardware have been replaced. Be sure to replace all insulators and restore proper lead dress.

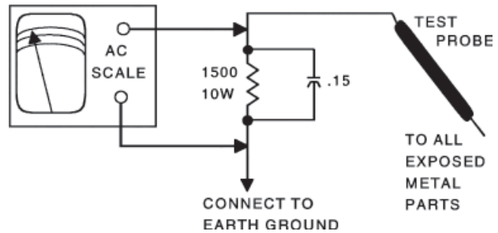
SAFETY CHECKS — FIRE AND SHOCK HAZARD

Cold Leakage Checks for Receivers with Isolated Ground

Unplug the AC cord, connect a jumper across the plug prongs, and turn the power switch on (if applicable). Use an ohmmeter to measure the resistance between the jumped AC plug and any exposed metal cabinet parts such as antenna screw heads, control shafts, or handle brackets. Exposed metal parts with a return path should measure between 1M ohms and 5.2M ohms. Parts without a return path must measure infinity.

Hot Leakage Current Check

Plug the AC cord directly into an AC outlet. DO NOT use an isolation transformer. Use a 1500 ohms, 10W resistor in parallel with a .15µF capacitor to connect between any exposed metal parts on the receiver and a good earth ground. (See figure below.) Use an AC voltmeter with at least 5000 ohms per volt sensitivity to measure the voltage across the resistor. Check all exposed metal parts and measure voltage at each point. Voltage measurements should not exceed .75VAC, 500µA. Any value exceeding this limit constitutes a potential shock hazard and must be corrected. If the AC plug is not polarized, reverse the AC plug and repeat exposed metal part voltage measurement at each point.



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SET 5520

MODEL LT-40X667/S

JVC

QUICKFACT FROM PHOTOFACT® *Technical Service Data*

LCD SERIES

JVC

Model LT-40X667/S

INDEX

THIS IS A GREEN PRODUCT

Do not use lead based solder for repair. Use only green product parts for replacement.

For a Complete List of Manuals, Visit www.samswebsite.com

Representative Model

Essential Coverage For Servicing These LCD Receiver...

- **Component Locations**
- **Parts list**
- **Placement chart**
- **Power Supply Schematic**

SAMS® Technical Publishing

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MISCELLANEOUS ADJUSTMENTS

ADJUSTMENT PREPARATION

First preset the following settings with the remote before entering Service Mode.

Setting Item	Setting Position
Video Status	Standard
Picture adjustments	Center
Color Temperature	Low
Digital Noise Clear	Off
Color Management	On
Natural Cinema	Off
Sound Adjustments	Center
Smart Sound	Off
MTS	Stereo
A.H.S.	Off
Max Base	Off
Aspect	Full

SERVICE MODE

Before entering the Self Check Display Mode, confirm that the setting of the TV/CATV switch on the remote is in the TV setting, and the VCR/DVD switch is in the VCR setting. **NOTE:** If the switches are not properly selected for TV and VCR on the remote the Self Check Display cannot be entered.
Set to "0 minutes" using the "Sleep Timer" button on the remote.
Press the "Video Status" and "Display" buttons simultaneously on the remote to enter the Service Mode.
When the Service Mode window is displayed, press the "1" button on the remote then the Adjustment Mode window will display. Select setting items using the up/down function arrows on the remote. Change of setting value/data use the left/right function arrows on the remote. Return back to the Service Menu Screen by pressing the "Menu" button on the remote. **Exit:** The Service Mode by pressing the "Back" button on the remote.
Note: Make note of the value/data before any changes are made.

ENTERING THE ADJUSTMENT MODE

Enter the Service Mode and in the Service Menu Screen press the "1" key on the remote to enter the Adjustment Mode. The following items will appear in the Adjustment Mode display.

	ADJUSTMENT MODE
S001	(Setting Item No.)
R Drive	(Setting Item)
123	(Setting Value/Data)
NTSC3	(Signal System)
Full	(Screen Mode)
STD	(Video Status)
Low	(White Balance)

SETTING ITEM NAME

SETTING ITEMS	SETTINGS	ITEM NO.
Video system setting	Adjustable	S001-S009
Audio system setting	Adjustable	T001-T003
Main CPU system set	Fixed	M001-M224
Drive system setting	Fixed	F001-F002
(Not Used)	(Not Used)	D001
(Not Used)	(Not Used)	Z001

SELECTING SETTING ITEM No

Use the "Channel +/Channel-" buttons on the remote to select one of the Setting Items. (S001, T001, M001, F001, D001 or Z001)
Use the "Sleep Timer" button on the remote to switch to the next items.
Use the "Vol+/ Vol-" buttons on the remote to set values up/down.
Press the "Muting" button on the remote to memorize value changes.

MEMORY OF SETTING VALUE/DATA
Press the "Muting" button on the remote to write value/data changes to memory.

EXIT THE SERVICE MODE
Exit the Service Mode by pressing the "Back" button on the remote.

WHITE BALANCE (HIGHLIGHT)

1. Apply a NTSC 75% all white signal.
2. Set "VIDEO STATUS" to "STANDARD".
3. Set ASPECT to "FULL".
4. Set "COLOR TEMPERATURE" to "LOW".
5. Select "1. ADJUST" from the SERVICE MODE.
6. Adjust to keep one of the R, G, or B-Drives unchanged, than lower the other two so that an all-white screen is equally white throughout. **Note:** Set one or more of <S030> RED, <S031>GREEN, or <S032> BLUE drives to "137".
7. Check that white balance is properly tracked from low light to high light. If the white balance tracking is deviated, adjust to correct it.
8. Press the "MUTING" button on the remote to memorize values.

POWER LED BLINKING CHART

The TV's Power LED flashing indicates an abnormality has occurred, with no raster.

Blinking Times	Power Indicator	Check Area
1sec intervals	Blue LED blinking on/off	Low Bias line short.
2 sec intervals	Blue LED blinking on/off	ATSC Tuner fan lock
2 sec intervals	Blue LED blinking on/off	Cable-Card error

SELF-CHECK

If the power should fail or if the video or audio fails the self –check function can be used to determine and limit the scope of finding the defective circuit.

Accessing Self-Check Function

Before entering the Self Check Display Mode, confirm that the setting of the TV/CATV switch on the remote is in the TV setting, and the VCR/DVD switch is in the VCR setting. **NOTE:** If the switches are not properly selected for TV and VCR on the remote the Self Check Display cannot be entered.
Set to "0 minutes" using the "Sleep Timer" button on the remote.
Press the "Video Status" and "Display" buttons simultaneously on the remote to enter the Service Mode. The Service Menu Screen will be displayed. Select #2 in the window for "SELF CHK" page 1 will be displayed & press "Sleep Timer" button on the remote to select page 2 of the Self Check Mode. **Note:** Use the "Return+" button to return to page 1. Press the "Menu" button on the remote to return to the Service Menu Screen. Item window will indicate: "OK" is normal, "NG" is abnormal.

PAGE 1:

Detection Item	Display	Detection Content	Signal	Detection Timing
Low bias line short	LOB	Confirm Q9601, Q9651 voltages	LB_PRO	Will power TV off in 3 seconds if error persist.
Fan Lock	FAN	Not used	-	-
Audio	AUD	Not used	-	-
Analog Devices on board	ANA	Confirm Acknowledgment I2C Lines	SDA	Confirm presence of Data signal
		IC101, 02, 381, 601, 606, & TU3001 (Analog brd)	No reply of ACK signal an error will count	
Digital Devices on board	DIG	Confirm Acknowledgment I2C Lines (Digital Board)	SDA	Confirm presence of Data signal No reply of ACK signal an error will count

PAGE 2:

Detection Item	Display	Detection Content	Signal	Detection Timing
Temp sensor	TMP	Not used	-	-
Lamp doesn't light	L1	Not used	-	-
Lamp goes out	L2	Not used	-	-
Abnormal DD CPU circt	DDT	Not used	-	-
Fan lock	FAN	Not used	-	-
Lamp cover open	LC	Not used	-	-
Abnormal optical iris	IRS	Not used	-	-

NOTE: As "Sync" is not counted, the failures are not displayed.

FAILURE HISTORY

Failure history can be counted up to 9 times for each item. When the number exceeds 9, the number will remain as 9. Failure history will be stored in the memory unless it has been reset.

Exiting Self-Check Function

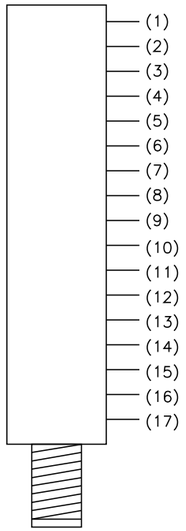
To save any failure history: Unplug the TV from the AC source while still in the Self-Check Mode.
To exit and reset failure history: Turn the TV off using the "Power" button on the remote while still in the Self-Check Mode.

Wattage Consumption

Power consumption: Maximum 275W @120VAC 60Hz
Standby: 0.6W
Note: When using a Variac and/or Isolation Transformer during servicing make sure they are capable of supplying the necessary power output to the TV.

TUNER INFORMATION

TU3001 Terminal Guide



TU3001 TUNER

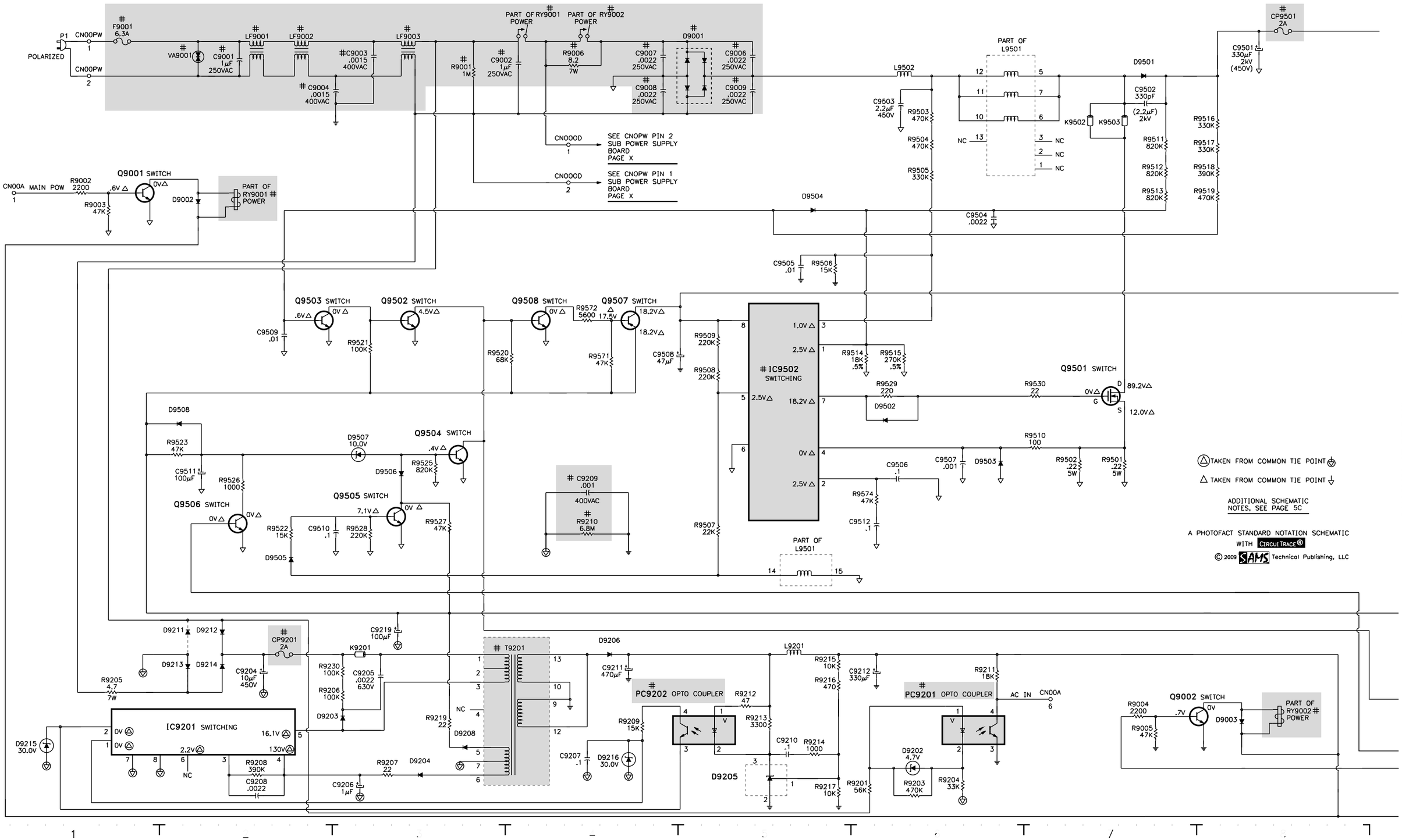
PIN	Description	Voltage
1	NC	-
2	NC	-
3	BM	5.0V
4	NC	-
5	NC	-
6	NC	-
7	NC	-
8	RF AGC	1.9V
9	IF	-
10	SCL	5.0V
11	SDA	5.0V
12	AFT	2.3V
13	Audio Out	2.1V
14	SIF-OUT	.5V
15	BTL	32.0V
16	AGC Cont	2.3V
17	Video Out	1.8V

Note: No ATSC Tuner information available at time of publication.

SCHEMATIC COMPONENT LOCATION GUIDE

C9001	A2	C9512	D6	D9212	D2	LF9001	A22	R9057	E26	R9527	D3
C9001	A23	C9531	C10	D9213	E2	LF9002	A2	R9059	D25	R9528	D3
C9002	A24	C9532	D11	D9214	E2	LF9003	A3	R9060	C26	R9529	C6
C9002	A4	C9533	D11	D9215	E1	P1	A1	R9071	B27	R9530	C6
C9003	A3	C9534	D10	D9216	E4	PC9001	D25	R9201	E6	R9531	A10
C9003	B23	C9535	D10	D9301	D18	PC9201	E6	R9203	E6	R9532	C12
C9004	A2	C9536	C11	D9302	C19	PC9202	E5	R9204	E6	R9533	C12
C9004	C23	C9537	E13	D9501	A7	PC9501	D15	R9205	E1	R9534	C12
C9006	A5	C9538	D9	D9502	C6	PC9502	D13	R9206	E3	R9535	C12
C9006	C23	C9539	D12	D9503	C6	PC9503	E15	R9207	E3	R9536	C12
C9007	A4	C9540	A10	D9504	B5	Q9001	B1	R9208	E2	R9537	D10
C9008	A4	C9541	C10	D9505	D2	Q9002	E7	R9209	E4	R9538	D10
C9008	D23	C9542	C13	D9506	C3	Q9501	C7	R9210	D4	R9539	D9
C9009	A5	C9551	A18	D9507	C3	Q9502	C3	R9211	E6	R9540	D9
C9010	D22	C9552	A18	D9508	C2	Q9503	C2	R9212	E5	R9541	D11
C9011	D24	C9553	A18	D9531	D11	Q9504	C3	R9213	E5	R9542	D11
C9012	C23	C9560	C18	D9532	D12	Q9505	D3	R9214	E5	R9543	D12
C9024	A21	C9561	B19	D9533	C12	Q9506	D2	R9215	E5	R9544	D12
C9051	A26	C9562	D15	D9534	C13	Q9507	C4	R9216	E5	R9545	D11
C9054	B26	C9903	D24	D9535	C12	Q9508	C4	R9217	E5	R9547	D12
C9055	C26	CP9001	A23	D9536	C12	Q9531	C9	R9219	E3	R9548	E12
C9057	E25	CP9071	A26	D9537	D10	Q9532	D12	R9230	E3	R9549	D10
C9060	B27	CP9072	B26	D9550	B15	Q9533	D12	R9301	C17	R9553	A17
C9061	C27	CP9073	C26	D9551	A15	Q9534	E12	R9302	C18	R9554	D15
C9072	B26	CP9074	C26	D9552	A15	Q9535	E12	R9303	D18	R9555	D15
C9073	C27	CP9201	E2	D9553	B15	Q9536	C10	R9304	C19	R9556	D16
C9076	C27	CP9501	A8	F9001	A1	Q9537	D10	R9305	C17	R9557	D16
C9078	B27	D9001	A5	IC9001	B22	Q9551	D13	R9306	C18	R9558	D16
C9204	E2	D9001	C23	IC9051	E25	Q9552	E15	R9501	C7	R9559	D16
C9205	E3	D9002	B2	IC9201	E2	R9001	A3	R9502	C7	R9560	D13
C9206	E3	D9003	E8	IC9301	C18	R9001	C23	R9503	A6	R9561	E15
C9207	E4	D9004	C24	IC9501	C11	R9002	B1	R9504	B6	R9571	C4
C9208	E2	D9005	C23	IC9502	C5	R9002	D22	R9505	B6	R9572	C4
C9209	D4	D9006	C24	IC9551	D15	R9003	B1	R9506	B5	R9574	D6
C9210	E5	D9008	B24	K9051	A25	R9003	D23	R9507	D5	RY9001	A4
C9211	E4	D9009	B24	K9071	B25	R9004	C23	R9508	C5	RY9001	B2
C9212	E6	D9011	E24	K9075	C25	R9004	E7	R9509	C5	RY9002	A4
C9219	D3	D9021	A22	K9201	E3	R9005	E7	R9510	C6	RY9002	E8
C9301	D18	D9022	B23	K9502	A7	R9006	A4	R9511	B7	T9001	A24
C9301	D18	D9023	D22	K9503	A7	R9006	C24	R9512	B7	T9201	D4
C9302	D18	D9051	A25	K9552	E18	R9008	A24	R9513	B7	T9501	A14
C9304	C18	D9053	B26	K9553	E18	R9009	A24	R9514	C6	T9502	C14
C9501	A8	D9054	C25	K9554	E18	R9010	C24	R9515	C6	VA9001	A2
C9502	A7	D9055	C27	K9555	E18	R9011	D24	R9516	A8		
C9503	A6	D9056	C25	K9556	D18	R9012	E23	R9517	B8		
C9504	B6	D9071	B26	K9557	D18	R9021	A22	R9518	B8		
C9505	B5	D9202	E6	L9056	C27	R9022	A22	R9519	B8		
C9506	D6	D9203	E3	L9201	E5	R9023	B22	R9520	C3		
C9507	C6	D9204	E3	L9501	A6	R9024	D22	R9521	C3		
C9508	C4	D9205	E5	L9501	D5	R9050	A27	R9522	D2		
C9509	C2	D9206	E4	L9502	A6	R9051	D26	R9523	C2		
C9510	D2	D9208	E3	L9552	B17	R9053	E26	R9525	C3		
C9511	C2	D9211	D2	LF9001	A2	R9055	E26	R9526	D2		

POWER SUPPLY SCHEMATIC



JVC MODEL LT-40X667/S

POWER SUPPLY SCHEMATIC continued

SCHEMATIC NOTES

#	For SAFETY use only equivalent replacement part, see parts list.
—×—	Circuitry not used in some versions.
- - - -	Circuitry used in some versions.
⏚	Ground
⏚	Chassis ground
⏚	Common tie point
△	Taken from common tie point
3	Schematic CIRCUITRACE® Voltage source tie point.
A	Cabling: Heavy lines reduce use of multiple lines.

Waveforms and voltages are taken from ground, unless otherwise noted.
Waveforms taken with triggered scope and colorbar signal. Waveform voltage is peak to peak. Timebase is per division. Waveforms shown at 10 divisions.
Supply voltages maintained as seen at input.
Voltages measured with digital meter and a 1000µV RF signal, with colorbar pattern applied to antenna terminal.
Controls adjusted for normal operation.
Capacitors are 50 volts or less, 5% or greater unless noted.
Capacitor values are in microfarads unless noted.
Electrolytic capacitors are 50 volts or less, 20% or greater unless noted.
Resistors are less than 1W, 5% or greater unless noted.
Value in ( ) used in some versions.
Measurements with switching as shown unless noted.
Rated voltage shown on zener diodes.

△ TAKEN FROM COMMON TIE POINT ⏚

A PHOTOFACT STANDARD NOTATION SCHEMATIC WITH CIRCUITRACE®

C9540 .056
R9531 1M
2A
#T9501
#T9502
D9551
D9552
D9553
D9550
NC
IC9501 SWITCHING
373V△
240V△
1.0V△
241V△
1.6V△
18.2V△
0V△
4.9V△
3.0V△
4.5V△
3.2V△
R9534 270
R9533 18
D9534
D9535 27.0V
D9536 27.0V
R9532 22K
R9535 3300
D9533 5.6V
R9536 47K
C9536 .1
C9542 .001 400VAC
R9542 .22 5W
R9541 1 2W
D9531
D9532
C9533 .022
C9532 .022
C9539 22µF
Q9532 SWITCH
18.2V△
18.1V△
R9544 47K
17.5V△
R9543 5600
R9547 100K
PC9502 OPTO COUPLER
R9560 18K
STBY 5V CN00A
Q9551 SWITCH
3.2V
PFC POW CN00A
C9537 330pF
Q9535 SWITCH
R9548 100k
R9545 68K
Q9534 SWITCH
0V△
Q9533 SWITCH
Q9531 SWITCH
.6V△
0V△
C9541 .0047
C9531 330pF
Q9536 SWITCH
3.9V△
1.0V△
4.4V△
D9537
R9539 10K
R9540 22K
C9538 10µF
C9535 .1
R9537 1000
Q9537 SWITCH
R9549 6800
R9538 10K
C9534 .1
PC9501 OPTO COUPLER
R9555 10K
R9554 10K
R9556 27K
R9557 6800
IC9551 REG
CATHODE 2.4V
REF 9.2V
ANODE
R9558 330K
R9559 3900
C9562 .47
PC9503 OPTO COUPLER
R9561 1800
Q9552 SWITCH
LB POW CN00A
CN00A 11
CN00A 10
16V

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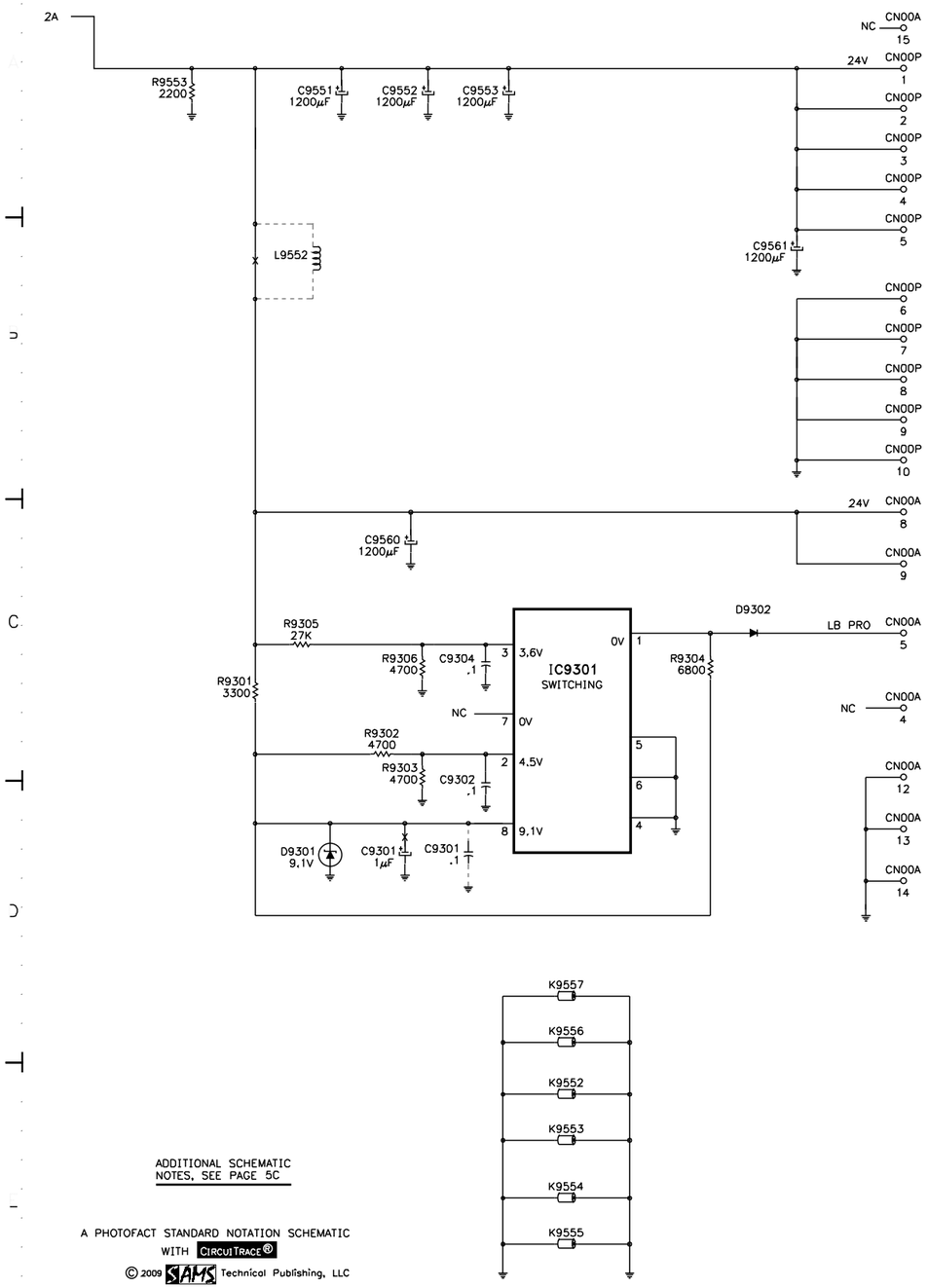
E
POWER SUPPLY SCHEMATIC continued



ADDITIONAL SCHEMATIC NOTES, SEE PAGE 5C

A PHOTOFACT STANDARD NOTATION SCHEMATIC WITH CIRCUITRACE®

SUB POWER SUPPLY SCHEMATIC

SEE CNOOOD PIN 1 POWER SUPPLY PAGE 5A

SEE CNOOOD PIN 2 POWER SUPPLY PAGE 5A

CNOPW 1

CNOPW 2

C9024 .22 275VAC

LF9001

R9021 3.3 7W

D9021

R9022 220K

R9023 220K

C9001 680µF

CP9001 5A

C9002 .0033 630V

R9008 560K

R9009 22 3W

D9008

D9009

#9001

5

6

7

IC9001 SWITCHING

DRAIN 8.2V△ 1

164V△ 2 NC

VCC 0V△ 4

OCP/BD .8V△ 7

SS/OLP .9V△ 5

S/GND 3.3V△ 3

FB 1.3V△ 6

D9022

C9003 470pF 2kV

R9004 47K 2W

D9004

R9010 100

3

D9001 31.0V

D9005

R9006 1000

D9006

R9001 220

C9004 470pF

C9006 .0015

D9023

C9012 .1

C9011 22µF

C9010 3.3µF

R9024 47K

R9002 .39 1W

R9003 .82 1W

C9008 .1

R9012 1000

2

C9903 470pF 250VAC

R9011 3300

PC9001 OPTO COUPLER

4 1 3.9V 3 2

D9011

R9051 1000

R9059 1000

R9055 18K 1%

C9057 .1

R9053 12K

IC9051

3 1 2

R9057 3300

12 K9051 D9051

CP9071 5A

10

9 K9071 D9071

CP9072 5A

11

C9051 680µF

R9050 820 1W

C9072 680µF

R9071 820 1W

CN900F 1 2 3 4

C9078 .0022

13 D9053

14

15 K9075 D9056

16 D9054

CP9074 2,5A

CP9073 2A

C9061 1200µF

R9060 1500 2W

C9055 10µF 100V

D9055 31.0V

C9073 1µF

L9056

C9076 10µF

C9054 1800µF

C9060 1800µF

16.5V CN900G 2

CN900G 3

11V CN900G 6

CN900G 4

CN900G 5

32V CN900G 1

△ TAKEN FROM COMMON TIE POINT ⏚

ADDITIONAL SCHEMATIC NOTES, SEE PAGE 5C

A PHOTOFACT STANDARD NOTATION SCHEMATIC WITH CIRCUITRACE®

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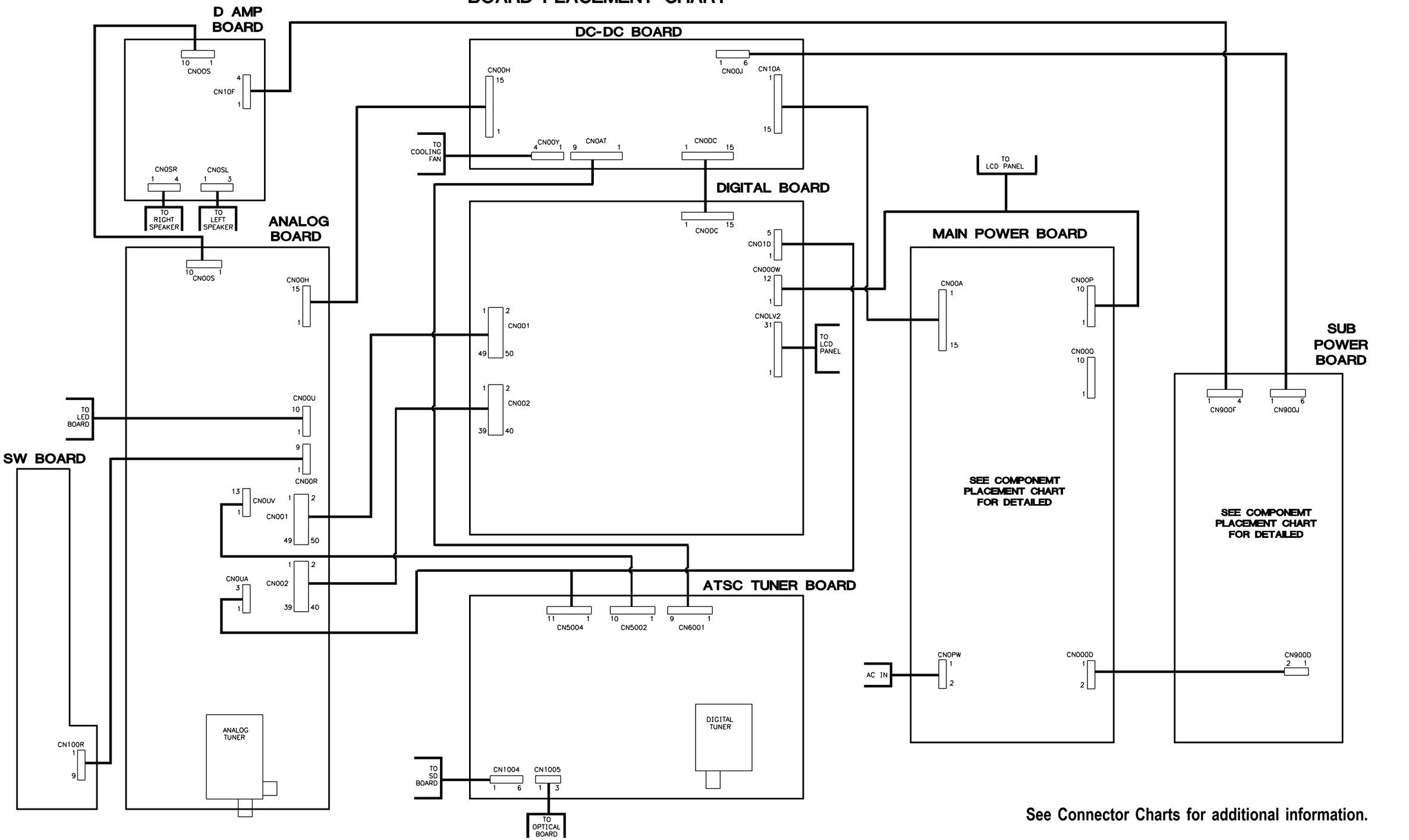
BOARD PLACEMENT CHART

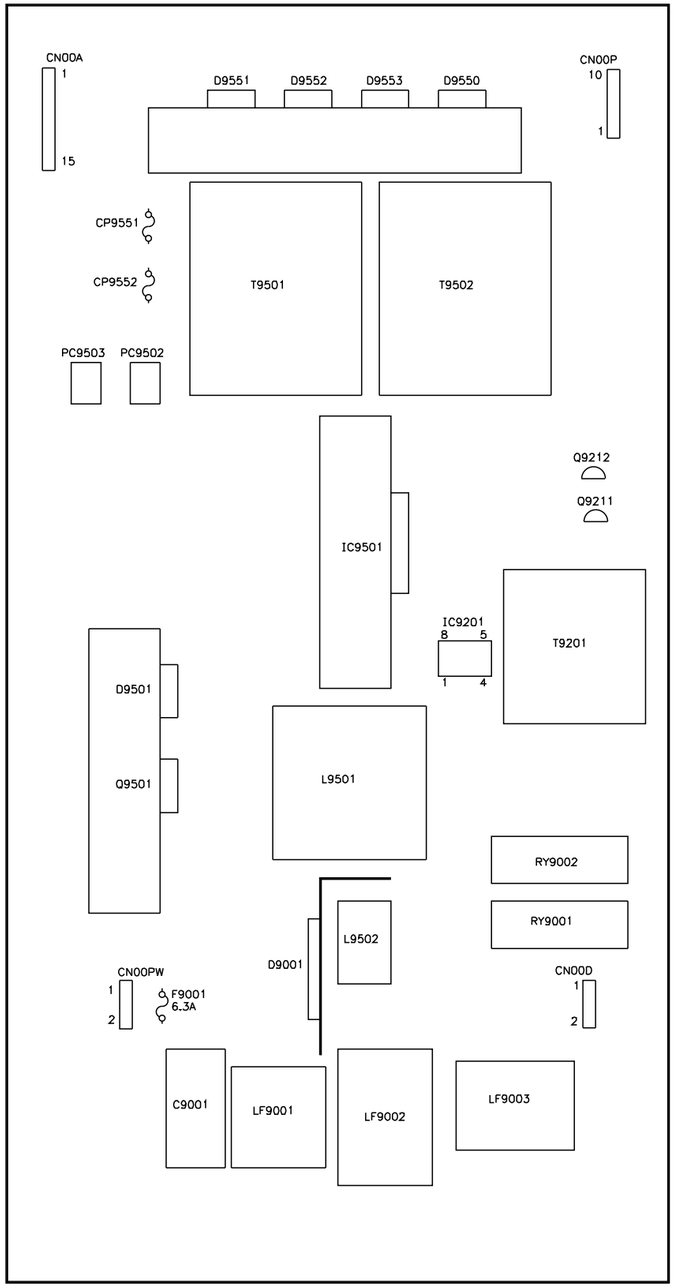


See Connector Charts for additional information.

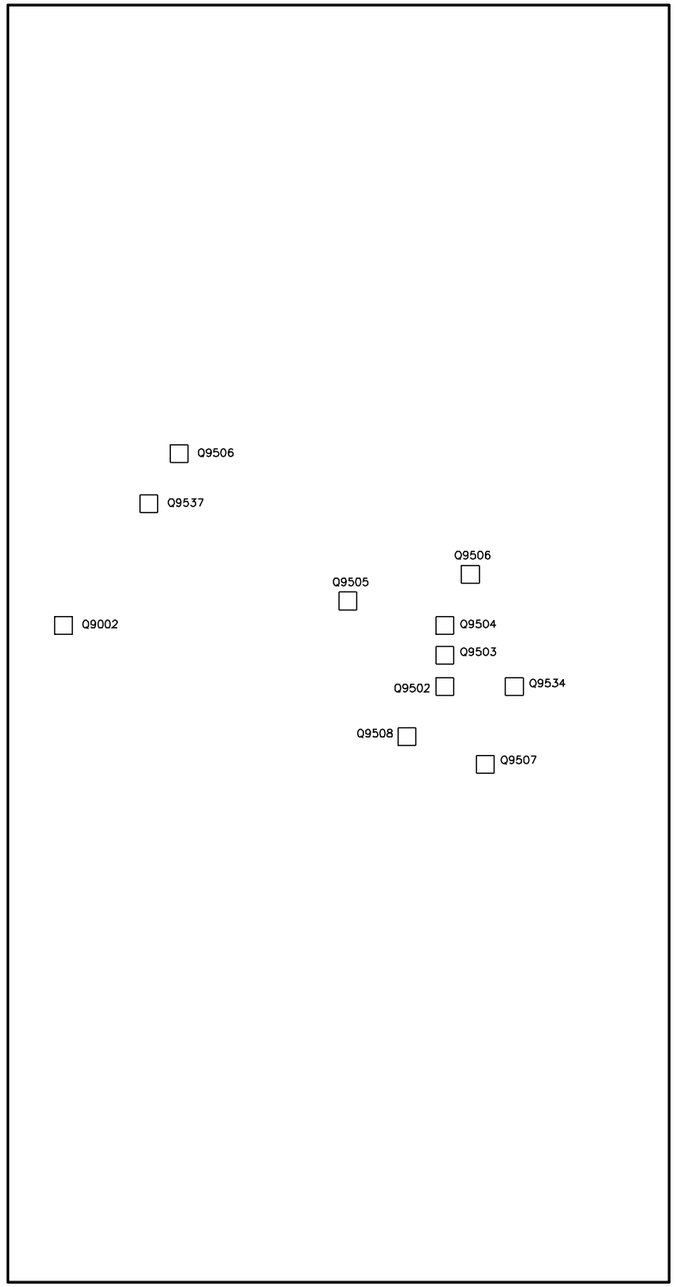
SET 5520 Page 8

COMPONENT PLACEMENT CHART

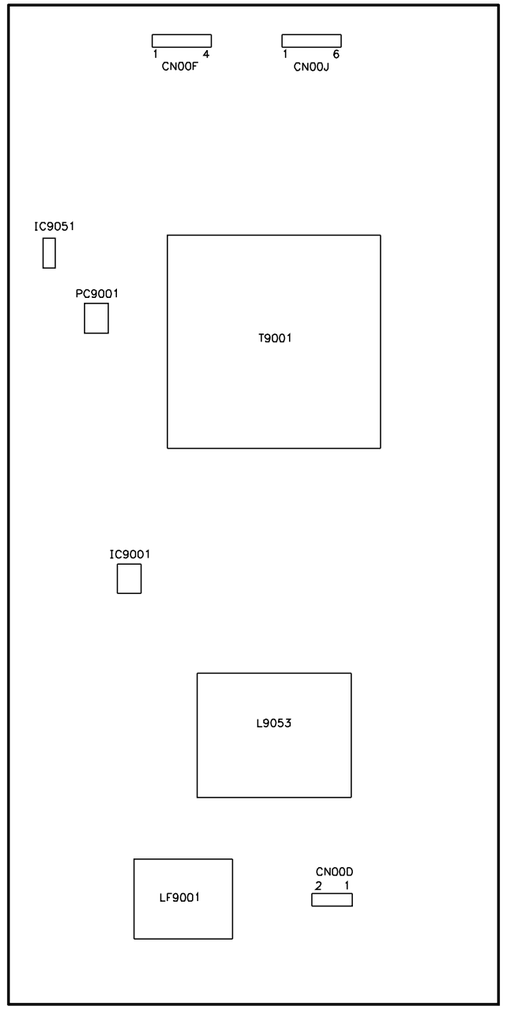
MAIN POWER SUPPLY BOARD - TOP VIEW



MAIN POWER SUPPLY BOARD - BOTTOM VIEW



SUB POWER SUPPLY BOARD



See Connector Charts for additional information.

JVC

MODEL LT-40X667/S

CONNECTOR CHARTS

ANALOG SIGNAL BOARD

CN001

PIN ID

Do Not Measure

CN00R

PIN	PIN ID	Voltage
1	KEY1	5.0V
2	KEY2	5.0V
3	MECA SW	0V
4	GND	0V
5	5V	5.0V
6	HP-L	1.2V
7	HP-GND	0V
8	HP-R	1.2V
9	HP-DET	1.2V

CN00S

PIN	PIN ID	Voltage
1	AU +VCC	5.0V
2	LB-POW	4.8V
3	VCC 12V	12.0V
4	HB-MUTE	0V
5	AMP-L	1.0V
6	GND	0V
7	AMP-R	1.0V
8	GND	0V
9	AMP-MU	0V
10	TEMP	0V

CN002

PIN ID

Do Not Measure

CN00H

PIN	PIN ID	Voltage
1	32V	32.0V
2	GND	0V
3	MAIN POW	4.8V
4	POWER GOOD	4.8V
5	LCD-POW	4.8V
6	AC-IN	4.8V
7	STB-IN	5.0V
8	GND	0V
9	SCL 3A5	3.4V
10	GND	0V
11	SDA 3A5	3.4V
12	5V	5.0V
13	9V	9.0V
14	GND	0V
15	GND	0V

CN00U

PIN	PIN ID	Voltage
1	5V	5.0V
2	POW LED	5.0V
3	GND	0V
4	DIMMER LED	4.8V
5	STDBY	5.0V
6	DBS LED1	4.8V
7	DBS LED2	4.8V
8	REC LED	4.8V
9	EE CDS	4.8V
10	REMOCON	4.8V

CN0UA

PIN	PIN ID	Voltage
1	DTU-R IN	0V
2	GND	0V
3	DTU-L IN	0V

CN0UV

PIN	PIN ID	Voltage
1	GND	0V
2	NC	-
3	GND	0V
4	V	1.1V
5	GND	0V
6	Y	.9V
7	GND	0V
8	U	1.1V
9	GND	0V
10	CV	.9V
11	GND	0V
12	C	.9V
13	NC	-

D-AMP BOARD

CN00S

PIN	PIN ID	Voltage
1	AU +VCC	5.0V
2	LB-POW	4.8V
3	VCC 12V	12.0V
4	HB-MUTE	0V
5	AMP-L	1.0V
6	GND	0V
7	AMP-R	1.0V
8	GND	0V
9	AMP-MU	0V
10	TEMP	0V

CN0SL

PIN	PIN ID	Voltage
1	L-OUT	1.0V
2	L-GND	0V
3	L-GND	0V

CN10F

PIN	PIN ID	Voltage
1	AU +VCC	16.0V
2	GND	0V
3	GND	0V
4	AU -VCC	-16.0V

CN0SR

PIN	PIN ID	Voltage
1	R-OUT	1.0V
2	R-OUT	1.0V
3	R-GND	0V
4	R-GND	0V

See placement charts for connector location.

ATSC TUNER BOARD

CN5004

Do not measure

CN1004

Do not measure

CN1005

PIN	PIN ID	Voltage
1	RCX	1.0V
2	GND	0V
3	5V	5.0V

CN5002

PIN	PIN ID	Voltage
1	GND	0V
2	NC	-
3	GND	0V
4	V	1.1V
5	GND	0V
6	Y	.9V
7	GND	0V
8	U	1.1V
9	GND	0V
10	CV	.9V
11	GND	0V
12	C	.9V
13	NC	-

CN6001

PIN	PIN ID	Voltage
1	BT32V	32.0V
2	5V	5.0V
3	T GND	0V
4	3.3VD	3.3V
5	DGND	0V
6	2.5VD	2.5V
7	DGND	0V
8	9VA	9.0V
9	AGND	0V

See placement charts for connector location.

DC-DC BOARD

CN00H

PIN	PIN ID	Voltage
1	BT-32V	32.0V
2	GND	0V
3	MAIN-POW	4.8V
4	POW-GOOD	4.8V
5	LCD-POW	4.8V
6	AC-IN	4.8V
7	STBY 5V	5.0V
8	GND	0V
9	SCL	3.4V
10	GND	0V
11	SDA	3.4V
12	5V	5.0V
13	9V	9.0V
14	GND	0V
15	GND	0V

CN10A

PIN	PIN ID	Voltage
1	MAIN POW	4.8V
2	LB-POW	4.8V
3	PFC POW	4.8V
4	PDW GOOD	4.8V
5	LB-POW	4.8V
6	AC IN	4..8V
7	STDBY 5V	5.0V
8	24V	24.0V
9	24V	24.0V
10	16V	16.0V
11	16V	16.0V
12	GND	0V
13	GND	0V
14	GND	0V
15	BT32V	32.0V

CN0DC

PIN	PIN ID	Voltage
1	LB-POW	4.8V
2	PFC-POW	4.8V
3	GND	0V
4	LB-POW	4.8V
5	LCD-5V	5.0V
6	16V	16.0V
7	GND	0V
8	5V	5.0V
9	GND	0V
10	LCD-5V	5.0V
11	GND	0V
12	9V	9.0V
13	GND	0V
14	BS-DDU	4.8V
15	BT32V	32.0V

CN0AT

PIN	PIN ID	Voltage
1	BT32V	32.0V
2	5V	5.0V
3	T GND	0V
4	3.3VD	3.3V
5	DGND	0V
6	2.5VD	2.5V
7	DGND	0V
8	9VA	9.0V
9	AGND	0V

CN00J

PIN	PIN ID	Voltage
1	BT32V	32.0V
2	16V	16.0V
3	16V	16.0V
4	GND	0V
5	GND	0V
6	11V	11.0V

CN00Y

PIN	PIN ID	Voltage
1	VCC 9V	9.0V
2	GND	0V
3	FAN LK SENS	0V
4	NC	-

CONNECTOR CHARTS Continued

DIGITAL BOARD

CN0DC

PIN	PIN ID	Voltage
1	LB-PRO	4.8V
2	PFC-POW	4.8V
3	GND	0V
4	LB-POW	4.8V
5	LCD-5V	5.0V
6	16V	16.0V
7	GND	0V
8	5V	5.0V
9	GND	0V
10	LCD-5V	5.0V
11	GND	0V
12	9V	9.0V
13	GND	0V
14	BS-DDU	4.8V
15	BT32V	32.0V

CN001/02

Do not measure

CNOLV2

Do not measure

CN000W

PIN	PIN ID	Voltage
1	FRAME	0V
2	0/SSET	0V
3	GND	0V
4	GND	0V
5	TEMP3	0V
6	TEMP2	0V
7	TEMP1	0V
8	BL-ON	3.0V
9	PWM-DIM	2.9V
10	NC	-
11	DC-DIM	1.6V
12	GND	0V

LED BOARD

CN200U

PIN	PIN ID	Voltage
1	5V	5.0V
2	POW LED	5.0V
3	GND	0V
4	DIMMER LED	4.8V
5	STDBY	5.0V
6	DBS LED1	4.8V
7	DBS LED2	4.8V
8	REC LED	4.8V
9	EE CDS	4.8V
10	REMOCON	4.8V

MAIN POWER BOARD

CN00A

PIN	PIN ID	Voltage
1	MAIN POW	4.8V
2	LB-POW	4.8V
3	PFC POW	4.8V
4	PDW GOOD	4.8V
5	LB-POW	4.8V
6	AC IN	4..8V
7	STDBY 5V	5.0V
8	24V	24.0V
9	24V	24.0V
10	16V	16.0V
11	16V	16.0V
12	GND	0V
13	GND	0V
14	GND	0V
15	BT32V	32.0V

CN000D

PIN	PIN ID	Voltage
1	ACV	120V
2	ACV	0V

CN0PW

PIN	PIN ID	Voltage
1	ACV	120V
2	ACV	0V

CN00P

PIN	PIN ID	Voltage
1	24V	24.0V
2	24V	24.0V
3	24V	24.0V
4	24V	24.0V
5	24V	24.0V
6	GND	0V
7	GND	0V
8	GND	0V
9	GND	0V
10	GND	0V

OPTICAL BOARD

CN00DA

PIN	PIN ID	Voltage
1	RCX	1.0V
2	GND	0V
3	5V	5.0V

See placement charts for connector location.

SD CARD BOARD

CN200L

PIN	PIN ID	Voltage	PIN	PIN ID	Voltage
1	ADRIA-RDA	0V	6	DAT AP	3.3V
2	ADRIA-TDA	0V	7	GND	0V
3	SD-INT	3.3V	8	RXD	0V
4	VCC	5.0V	9	TXD	0V
5	DAT AN	0V			

SW BOARD

CN100R

PIN	PIN ID	Voltage	PIN	PIN ID	Voltage
1	KEY1	5.0V	6	HP-L	1.2V
2	KEY2	5.0V	7	HP-GND	0V
3	MECA SW	0V	8	HP-R	1.2V
4	GND	0V	9	HP-DET	1.2V
5	5V	5.0V			

SUB POWER SUPPLY BOARD

CN900D

PIN	PIN ID	Voltage
1	ACV	120V
2	ACV	0V

CN900F

PIN	PIN ID	Voltage
1	AU +VCC	16.0V
2	GND	0V
3	GND	0V
4	AU -VCC	-16.0V

CN900J

PIN	PIN ID	Voltage
1	BT32V	32.0V
2	16V	16.0V
3	16V	16.0V
4	GND	0V
5	GND	0V
6	11V	11.0V

See placement charts for connector location.

Important Parts Information

- **Parts not listed in the parts list are commonly available at your local electronics parts retailer.**
- The parts listed here are those not usually available from a well-stocked supply cabinet or bin.
- On the parts lists, safety items are marked with a **#** to remind you that only exact replacements are recommended for these items.
- When ordering parts, state the model number, part number, and description.

PARTS LIST

	Item No.	Type No.	Mfr. Part No.	Notes
#	**D9001**	-	D25XB60	
	D9001	-	MTZJ33B-T2	On Sub Board
	D9002, 03	-	MA111-X	-
	D9004	-	FR105GT-T3	On Sub Board
	D9004	-	1SS133-T2	-
	D9006	-	FR105GT-T3	-
	D9008, 09	-	SARS01-T2	-
	D9011	-	1SS133-T2	-
	D9021	-	D2SBA60	
	D9022	-	FR105GT-T3	-
	D9023	-	1SS133-T2	-
	D9051	-	RU3AM-LFC4	-
	D9053	-	FMX-22S	-
	D9054	-	FR105GT-T3	-
	D9055	-	MTZJ33B-T2	-
	D9056	-	RK14-T3	-
	D9071	-	RU3AM-LFC4	-
	D9202	-	MA8047-X	-
	D9203	-	EG01C-T2	-
	D9204	-	D1FL20U-X	-
	D9205	-	UTCTL431-T	-
	D9206	-	EC21QS10-X	-
	D9208	-	D1FL20U-X	-
	D9212, 13, 14	-	EM1A-LFF4	-
	D9215, 16	-	MA8330/M/-X	-
	D9301	-	MA8091/M/-X	-
	D9302	-	MA111-X	-
	D9501	-	YG972S6R	-
	D9502	-	D1FL20U-X	-
	D9503, 04	-	MA111-X	-
	D9505	-	D1FL20U-X	-
	D9506	-	MA111-X	-
	D9507	-	MA8100/M/-X	-
	D9508	-	MA111-X	-
	D9531	-	D1FS4-X	-
	D9532	-	MA111-X	-
	D9533	-	UDZS5.6B-X	-
	D9534	-	SD883-04-X	-
	D9535, 36	-	PTZ27B-X	-
	D9537	-	1SS355W-X	-
	D9550 Thru			
	D9553	-	FCH20A10	-
	IC9001	-	STR-W6765-F5	-
	IC9051	-	TL431/A/-T	-
	IC9201	-	MIP2C20MSSCF	-
	IC9301	-	LM393DR-X	-
	IC9501	-	F9222L-F219	-
#	**IC9502**	-	FA5500AN-W	-
#	**IC9551**	-	UTCTL431-T	-
#	**PC9001**	Photo Coupler	PS2581AL1/QW/	On Sub Power Board
#	**PC9201, 02**	Photo Coupler	PS2581AL2/QW/-W	On Main Power Board
#	**PC9501, 02, 03**	Photo Coupler	PS2581AL2/QW/-W	On Main Power Board
	Q9001, 02	-	2SC3928A/QR/-X	-
	Q9501	-	2SK3522-01-F1	
	Q9502, 03	-	2SC3928A/QR/-X	-
	Q9504	-	UN2213-X	-
	Q9505, 06	-	UN2212-X	-
	Q9507	-	2SB1188/QR/-W	-
	Q9508	-	UN2212-X	-
	Q9531	-	2SC3928A/QR/-X	-
	Q9532	-	2SB1188/QR/-W	-
	Q9533	-	UN2212-X	-
	Q9534, 35	-	UN2213-X	-
	Q9536, 37	-	2SA1530A/QR/-X	-
	Q9551, 52	-	UN2212-X	-

	Item No.	Function/Rating	Mfr. Part No.	Notes
#	**C9001, 02**	1µF 250VAC	QFZ9072-105	-
	C9003	470PF 2KV	QCZ0354-471Z	On Sub Power Board
#	**C9003, 04**	.0015 400VAC	QCZ9071-152	-
#	**C9006 Thru**			-
#	**C9009**	.0022 250VAC	QCZ9082-222Z	-
#	**C9024**	.22 275VAC	QFZ9075-224	-
#	**C9209**	.001 400VAC	QCZ9071-102	-
	C9502	330PF 2KV	QCZ0340-331	-

	Item No.	Function/Rating	Mfr. Part No.	Notes
#	**C9542**	.001 400VAC	QCZ9071-102	-
#	**C9203, 04, 05**	.022 250VAC	QFZ9082-222Z	-
#	**C9903**	470PF 250VAC	QCZ9079-471	-
#	**CN0PW**	Line Cord	QMPD390-200-JS	AC, Polarized
	CN0006	Connector	QGB2501J1-07	-
#	**CN0007**	Connector	QGB2501J1-10	-
	CN000H	Connector	QGF1201C2-21	-
	CN9806	Connector	QGB2501K2-07	-
	CN9807	Connector	QGB2501K2-10	-
#	**CP9001**	Fuse	QMFZ043-5R0Z-J1	5 AMP 250VAC
#	**CP9071, 72**	Fuse	QMFZ034-5R0Z-J1	5 AMP 125V
#	**CP9073**	IC Protector	ICP-N50-T	2 AMP
#	**CP9074**	IC Protector	ICP-N70-T	2.5 AMP
#	**CP9201**	Fuse	QMFZ052-2R0-E	2 AMP 250VAC
#	**CP9501**	Fuse	QMFZ043-2R0Z-J1	2 AMP 250VAC
#	**F9001**	Fuse	QMF5AD2-6R3-J1	6.3 AMP 250VAC
	IC7701	Receiver	GP1UM281QK	Remote
	K9051	Ferrite Bead	QQR0621-002Z	-
	K9071	Ferrite Bead	QQR0621-002Z	-
	K9075	Ferrite Bead	QQR0621-002Z	-
	K9201	Ferrite Bead	NQR0499-001X	-
	K9502, 03	Ferrite Bead	QQR0621-002Z	-
	K9552 Thru			
	K9557	Ferrite Bead	NQR0499-002X	-
	L9056	100µH	QQL01BK-101Z	Peaking
	L9201	5.6µH	QQL26AM-5R6Z	-
	L9501	COIL	QQR1468-001	-
	L9502	COIL	QQR1513-001	-
#	**LF9001**	Line Filter	QQR1085-003	On Sub Power
#	**LF9001**	Line Filter	QQR1655-001	On Main Power
#	**LF9002**	Line Filter	QQR1281-005	On Main Power
#	**LF9003**	Line Filter	QQR1654-001	On Main Power
#	**P1**	Power Cord	QMPD710-170-JC	-
#	**R9001**	1M 10% 1/2W	QRZ9046-105Z	-
#	**R9006**	8.2 Fusible	QRZ9058-8R2	-
	R9009	22 5% 3W	QRL039J-220	-
	R9021	3.3 10% 7W	QRF074K-3R3	-
	R9055	18K 1% 1/4W	QRA14CF-1802Y	-
	R9057	3300 1% 1/4W	QRA14CF-3301Y	-
	R9101	4.7 10% 7W	QRZ0216-4R7	-
#	**R9199**	6.8M 10% 1/2W	QRZ9046-685Z	-
#	**R9201**	8.2 10% 2W	QRZ9055-8R2	Fusible
	R9205	4.7 10% 7W	QRZ0216-4R7	-
#	**R9210**	6.8M 10% 1/2W	QRZ9046-685Z	-
	R9501, 02	10K 5% 3W	QRL03EJ-103X	-
	R9542	.22 5% 5W	QRM059J-R22	-
#	**RY9001, 02**	Relay	QSK0162-001	-
	S7701	Tact Switch	QSW1131-001Z	Channel -
	S7702	Tact Switch	QSW1131-001Z	Channel +
	S7703	Tact Switch	QSW1131-001Z	Menu/OK
	S7704	Tact Switch	QSW1131-001Z	TV/VIDEO
	S7705	Tact Switch	QSW1131-001Z	Volume +
	S7706	Tact Switch	QSW1131-001Z	Volume -
	S7707	Tact Switch	QSW1131-001Z	Power
	SP1, 2	Speaker	LC41913-006A-C	-
#	**T9001**	Switching	QQS0341-001	-
#	**T9201**	Switching	QQS0363-002	-
#	**T9501, 02**	Switching	QQS0347-003	-
#	**TU3001**	Tuner MD001	QAU0467-001	-
#	**VA9001**	Varistor	QAF0060-621	620V
#		LCD Panel	QLD0439-001-JIM	Panel
#		PC Board	SFL-1312A-M2	Analog
#		PC Board	SSD-2204A-M2	ATSC Tuner
#		PC Board	SFL-6302A-M2	D-Amp
#		PC Board	SFL-9161A-M2	DC-DC
#		PC Board	SFL0D189A-M2	Digital
#		PC Board	SFL-8712A-M2	LED
#		PC Board	SFL-9060A-M2	Main Power
#		PC Board	SFL-2501A-M2	Optical
#		PC Board	SFL-1305A-M2	SD Card
#		PC Board	SFL-7210A-M2	SW
#		PC Board	SFL-9711A-M2	Sub Power
		Transmitter	RM-C18G-1H	Remote

 # For SAFETY use only equivalent replacement part.
Use Lead Free Solder.