

# Shinco® SERVICE MANUAL

## MODEL DVD-8320

---

CAUTION : Before servicing this chassis, read the "PRODUCT SAFETY SERVICE FOR VIDEO PRODUCTS" section on page 2 of this manual.

## DVD and CD PLAYER

### CONTENTS

SERVICE PRECAUTIONS .....	2,3
BLOCK DIAGRAMS .....	4
ELECTRICAL TROUBLE SHOOTING GUIDE. ....	5,15
PRINTED CIRCUIT .....	16,21
REPLACEMENT PARTS LIST .....	22,25



# PRODUCT SAFETY SERVICING GUIDELINES FOR VIDEO PRODUCTS

CAUTION: DO NOT ATTEMPT TO MODIFY THIS PRODUCT IN ANY WAY AND NEVER PERFORM CUSTOMIZED INSTALLATIONS WITHOUT MANUFACTURER'S APPROVAL. UNAUTHORIZED MODIFICATIONS WILL NOT ONLY VOID THE WARRANTY, BUT MAY LEAD TO YOUR BEING LIABLE FOR ANY RESULTING PROPERTY DAMAGE OR USER INJURY.

SERVICE WORK SHOULD BE PERFORMED ONLY AFTER YOU ARE THOROUGHLY FAMILIAR WITH ALL OF THE FOLLOWING SAFETY CHECKS AND SERVICING GUIDELINES. TO DO OTHERWISE, INCREASES THE RISK OF POTENTIAL HAZARDS AND INJURY TO THE USER.

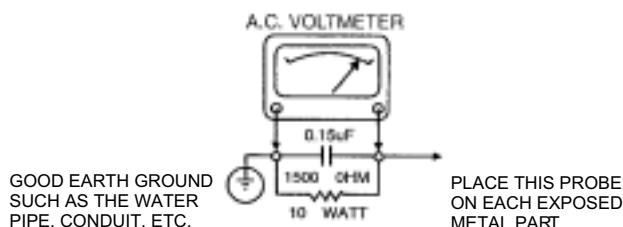
WHILE SERVICING, USE AN ISOLATION TRANSFORMER FOR PROTECTION FROM A.C. LINE SHOCK.

## SAFETY CHECKS

AFTER THE ORIGINAL SERVICE PROBLEM HAS BEEN CORRECTED, A CHECK SHOULD BE MADE OF THE FOLLOWING.

### SUBJECT: FIRE & SHOCK HAZARD

1. BE SURE THAT ALL COMPONENTS ARE POSITIONED IN SUCH A WAY AS TO AVOID POSSIBILITY OF ADJACENT COMPONENT SHORTS. THIS IS ESPECIALLY IMPORTANT ON THOSE MODULES WHICH ARE TRANSPORTED TO AND FROM THE REPAIR SHOP.
2. NEVER RELEASE A REPAIR UNLESS ALL PROTECTIVE DEVICES SUCH AS INSULATORS, BARRIERS, COVERS, SHIELDS, STRAIN RELIEFS, POWER SUPPLY CORDS, AND OTHER HARDWARE HAVE BEEN REINSTALLED PER 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 AND DAMAGED INSULATION (INCLUDING A.C. CORD), AND REPLACE IF NECESSARY FOLLOW ORIGINAL LAYOUT, LEAD LENGTH AND DRESS.
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. ALL CRITICAL COMPONENTS SUCH AS FUSES, FLAMEPROOF RESISTORS, CAPACITORS, ETC. MUST BE REPLACED WITH EXACT FACTORY TYPES, DO NOT USE REPLACEMENT COMPONENTS OTHER THAN THOSE SPECIFIED OR MAKE UNRECOMMENDED CIRCUIT MODIFICATIONS.
7. AFTER RE-ASSEMBLY OF THE SET, ALWAYS PERFORM AN A.C. LEAKAGE TEST ON ALL EXPOSED METALLIC PARTS OF THE CABINET, (THE CHANNEL SELECTOR KNOB, ANTENNA TERMINALS, HANDLE AND SCREWS) TO BE SURE THE SET IS SAFE TO OPERATE WITHOUT DANGER OF ELECTRICAL SHOCK. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST, MAKE SURE TO USE AN A.C. VOLTMETER, HAVING 5000 OHMS PER VOLT OR MORE SENSITIVITY, IN THE FOLLOWING MANNER; CONNECT A 1500 OHMS 10 WATT RESISTOR, PARALLELED BY A .15 MFD. 150V A.C. TYPE CAPACITOR BETWEEN A KNOWN GOOD EARTH GROUND (WATER PIPE, CONDUIT, ETC.) AND THE EXPOSED METALLIC PARTS, ONE AT A TIME. MEASURE THE A.C. VOLTAGE ACROSS THE COMBINATION OF 1500 OHM RESISTOR AND .15 MFD CAPACITOR. REVERSE THE A.C. PLUG AND REPEAT A.C. ANY VOLTAGE MEASUREMENTS FOR EACH EXPOSED METALLIC PART. VOLTAGE MEASURED MUST NOT EXCEED 75 VOLTS R.M.S. THIS CORRESPONDS TO 0.5 MILLIAMPS A.C. ANY VALUE EXCEEDING THIS LIMIT CONSTITUTES A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED IMMEDIATELY.



### SUBJECT GRAPHIC SYMBOLS



THE LIGHTNING FLASH WITH APROWHEAD SYMBOL. WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF IMPORTANT SAFETY INFORMATION IN SERVICE LITERATURE.

### SUBJECT: 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 T.V. RECEIVERS IS THE PICTURE TUBE. HOWEVER, THIS TUBE DOES NOT EMIT X-RAYS WHEN THE HIGH VOLTAGE 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 C.R.T ANODE CONNECTORS MUST BE USED. DEGAUSSING SHIELDS ALSO SERVE AS AN X-RAY SHIELD IN COLOR SETS, ALWAYS RE-INSTALL THEM.
3. IT IS ESSENTIAL THAT SERVICE PERSONNEL HAVE AVAILABLE AN ACCURATE AND RELIABLE HIGH VOLTAGE METER. THE CALIBRATION OF THE METER SHOULD BE CHECKED PERIODICALLY AGAINST A REFERENCE STANDARD, SUCH AS THE ONE AVAILABLE AT YOUR DISTRIBUTOR.
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. WE SUGGEST THAT YOU AND YOUR SERVICE ORGANIZATION REVIEW TEST PROCEDURES SO THAT VOLTAGE REGULATION IS ALWAYS CHECKED AS A STANDARD SERVICING PROCEDURE AND THAT THE HIGH VOLTAGE READING BE RECORDED ON EACH CUSTOMER'S INVOICE.
5. WHEN TROUBLESHOOTING AND MAKING TEST MEASUREMENTS IN A PRODUCT WITH A PROBLEM OF EXCESSIVE HIGH VOLTAGE AVOID BEING UNNECESSARILY CLOSE TO THE PICTURE TUBE AND THE HIGH VOLTAGE SUPPLY DO NOT OPERATE THE PRODUCT LONGER THAN IT IS NECESSARY TO LOCATE THE CAUSE OF EXCESSIVE VOLTAGE.
6. REFER TO HV. B+ AND SHUTDOWN ADJUSTMENT PROCEDURES DESCRIBED IN THE APPROPRIATE SCHEMATIC AND DIAGRAMS (WHERE USED).

### SUBJECT: IMPLOSION

1. ALL DIRECT VIEWED PICTURE TUBES ARE EQUIPPED WITH AN INTEGRAL IMPLOSION PROTECTION SYSTEM, BUT CARE SHOULD BE TAKEN TO AVOID DAMAGE DURING INSTALLATION, AVOID SCRATCHING THE TUBE. IF SCRATCHED REPLACE IT.
2. USE ONLY RECOMMENDED FACTORY REPLACEMENT TUBES.

### SUBJECT: TIPS ON PROPER INSTALLATION

1. NEVER INSTALL ANY PRODUCT IN A CLOSED-IN RECESS. CUBBYHOLE OR CLOSELY FITTING SHELF SPACE, OVER OR CLOSE TO 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 REAR VENTING. THE CUSTOMER SHOULD ALSO AVOID THE USE OF DECORATIVE SCARVES OR OTHER COVERINGS WHICH 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 TEST ON CUSTOMIZED INSTALLATIONS.
5. CAUTION CUSTOMERS AGAINST THE MOUNTING OF A PRODUCT ON SLOPING SHELF OR A TILTED POSITION, UNLESS THE PRODUCT IS PROPERLY SECURED.
6. A PRODUCT ON A ROLL-ABOUT CART SHOULD BE STABLE ON ITS MOUNTING TO THE CART CAUTION THE CUSTOMER ON THE HAZARDS OF TRYING TO ROLL A CART WITH SMALL CASTERS ACROSS THRESHOLDS OR DEEP PILE CARPETS.
7. CAUTION CUSTOMERS AGAINST THE USE OF A CART OR STAND WHICH HAS NOT BEEN LISTED BY UNDERWRITERS LABORATORIES, INC. FOR USE WITH THEIR SPECIFIC MODEL OF TELEVISION RECEIVER OR GENERICALLY APPROVED FOR USE WITH TV'S OF THE SAME OR LARGER SCREEN SIZE.
8. CAUTION CUSTOMERS AGAINST THE USE OF EXTENSION CORDS. EXPLAIN THAT A FOREST OF EXTENSIONS SPROUTING FROM A SINGLE OUTLET CAN LEAD TO DISASTROUS CONSEQUENCES TO HOME AND FAMILY.

# SERVICING PRECAUTIONS

**CAUTION :** Before servicing the DVD covered by this service data and its supplements and ADDENDUMS, read and follow the **SAFETY PRECAUTIONS NOTE** : if unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions in this publications, always follow the safety precautions.

*Remember Safety First:*

## General Servicing Precautions

1. Always unplug the DVD AC power cord from the AC power source before:
  - (1) Removing or reinstalling any component, circuit board, module, or any other assembly.
  - (2) Disconnection or reconnecting any internal electrical plug or other electrical connection.
  - (3) Connecting a test substitute in parallel with an electrolytic capacitor

**Caution :** A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
2. Do not spray chemicals on or near this DVD or any of its assemblies.
3. Unless specified otherwise in this service data, clean electrical contacts by applying an appropriate contact cleaning solution to the contacts with a pipe cleaner, cotton-tipped swab, or comparable soft applicator.  
Unless specified otherwise in this service data, lubrication of contacts is not required.
4. Do not defeat any plug/socket B+ voltage interlocks with witch instruments covered by this service manual might be equipped.
5. Do not apply AC power to this DVD and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
6. Always connect test instrument ground lead to the appropriate ground before connection the test instrument positive lead. Always remove the test instrument ground lead last.

## Insulation Checking Procedure

Disconnect the attachment plug from the AC outlet and turn the power on. Connect an insulation resistance meter(500V) to the blades of the attachment plug. The insulation resistance between each blade of the attachment plug and accessible conductive parts (Note 1) should be more than 1M ohm.

**Note 1 :** Accessible Conductive Parts including Metal panels, input terminals, Earphone jacks, etc.

## Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field effect transistors and semiconductor chip components.

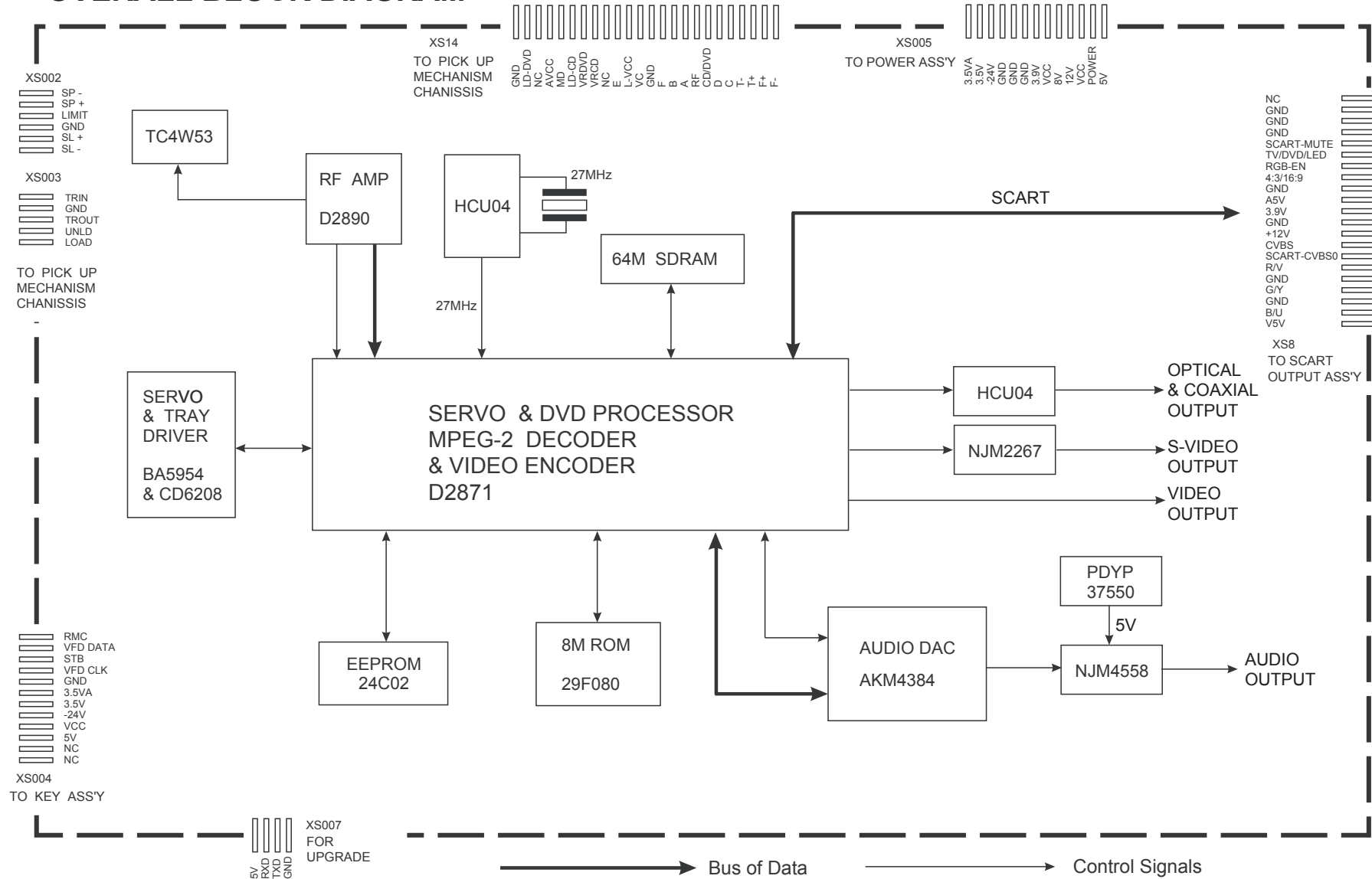
The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a GROUNDED-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified a "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charge sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil, or comparable conductive material.)
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

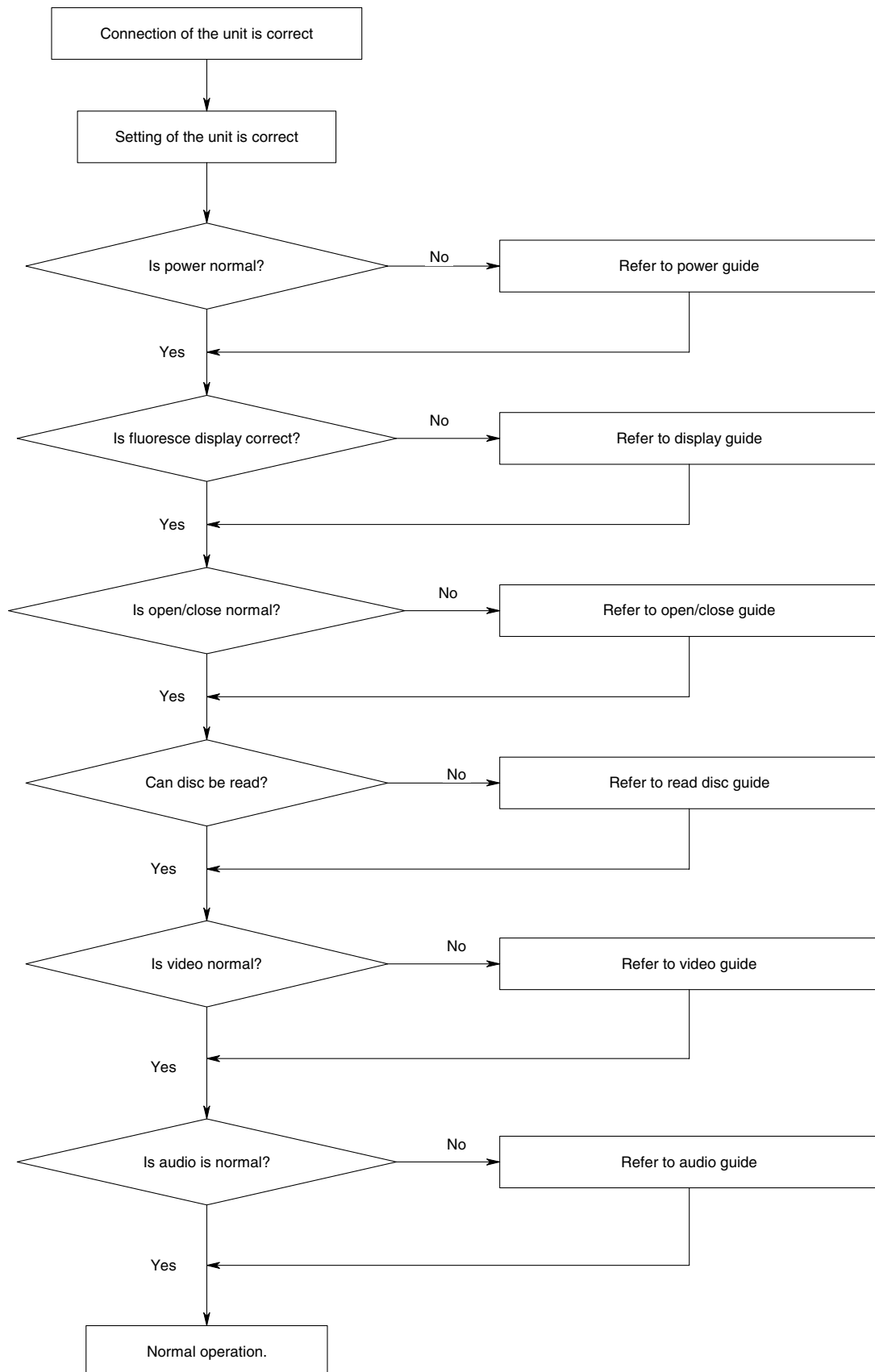
**Caution :** Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Normally harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

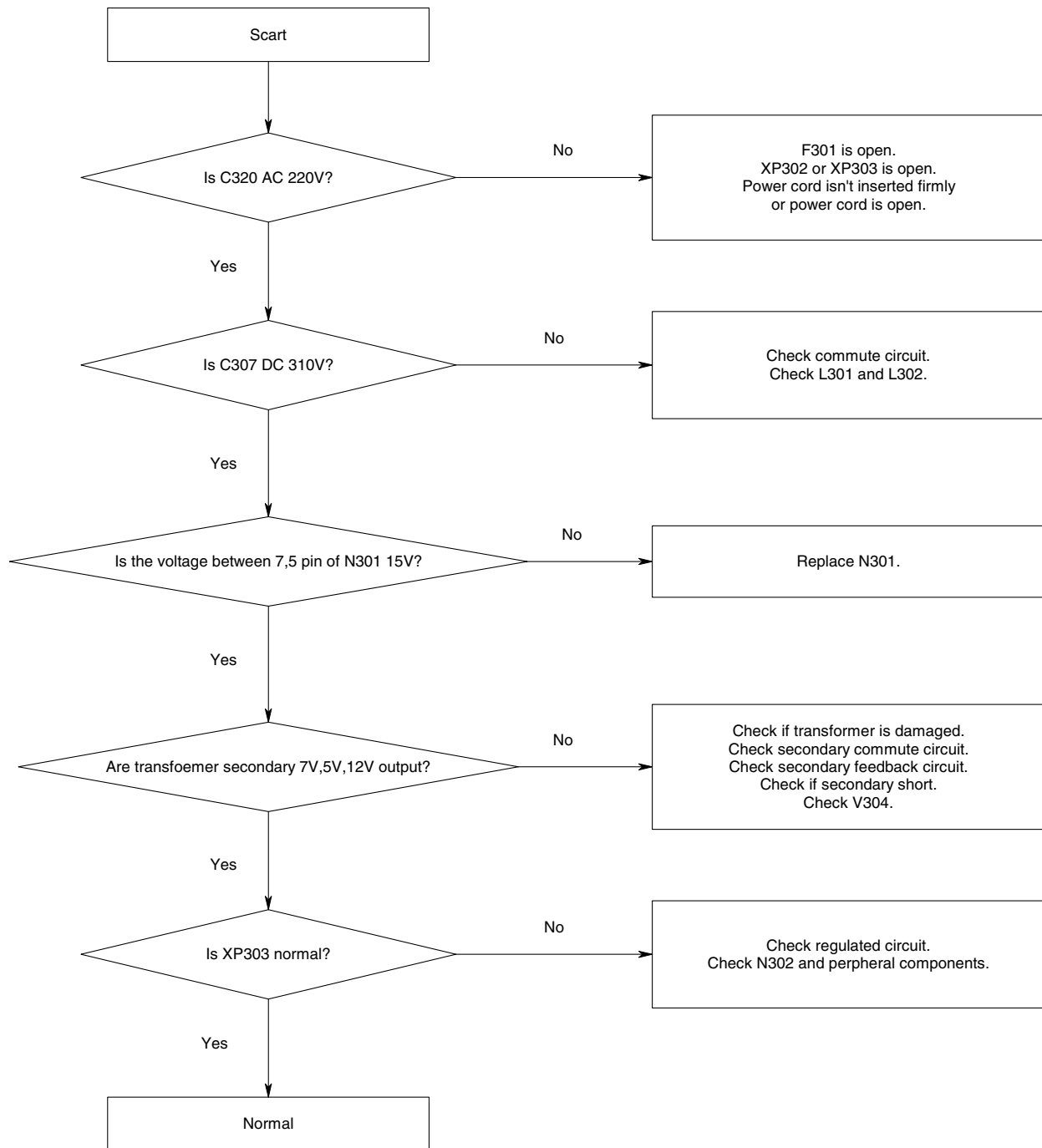
# OVERALL BLOCK DIAGRAM



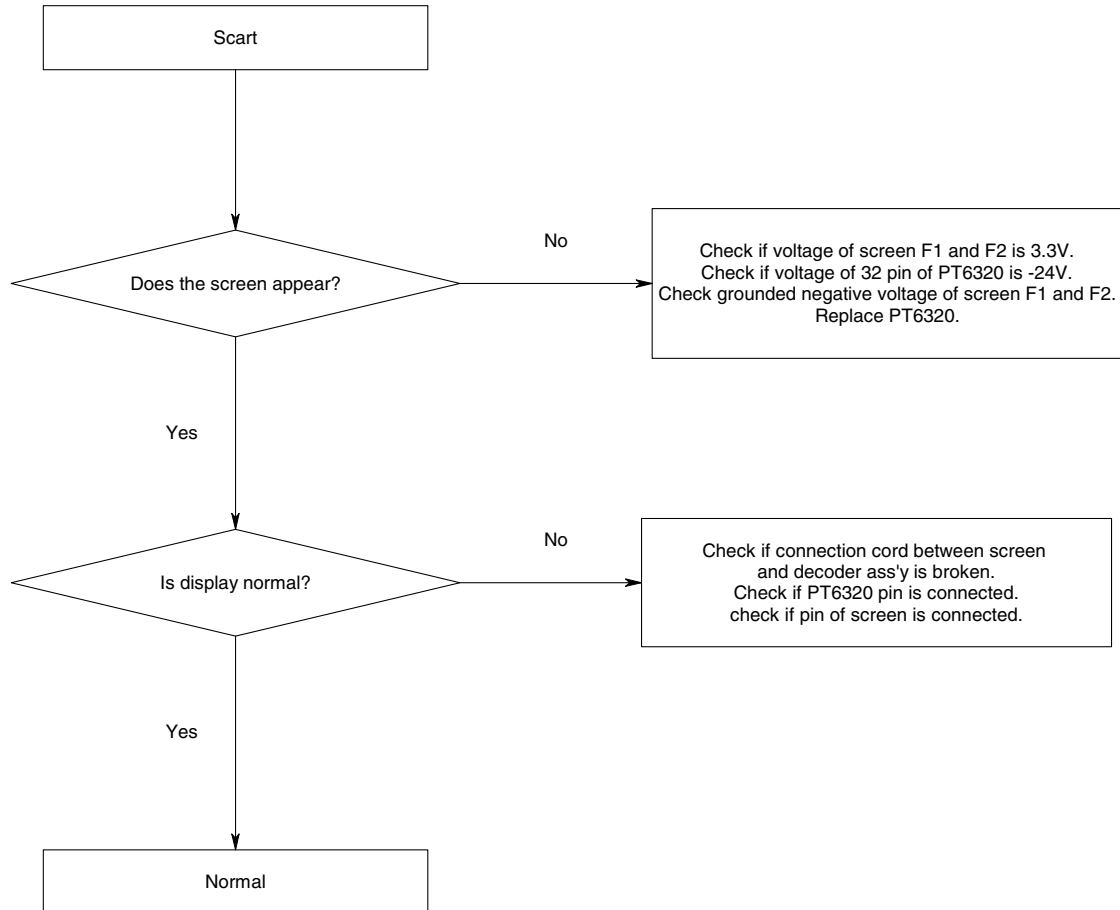
# Electrical Trouble Shooting Guide



## A Power Circuit abnormal



## B Display abnormal

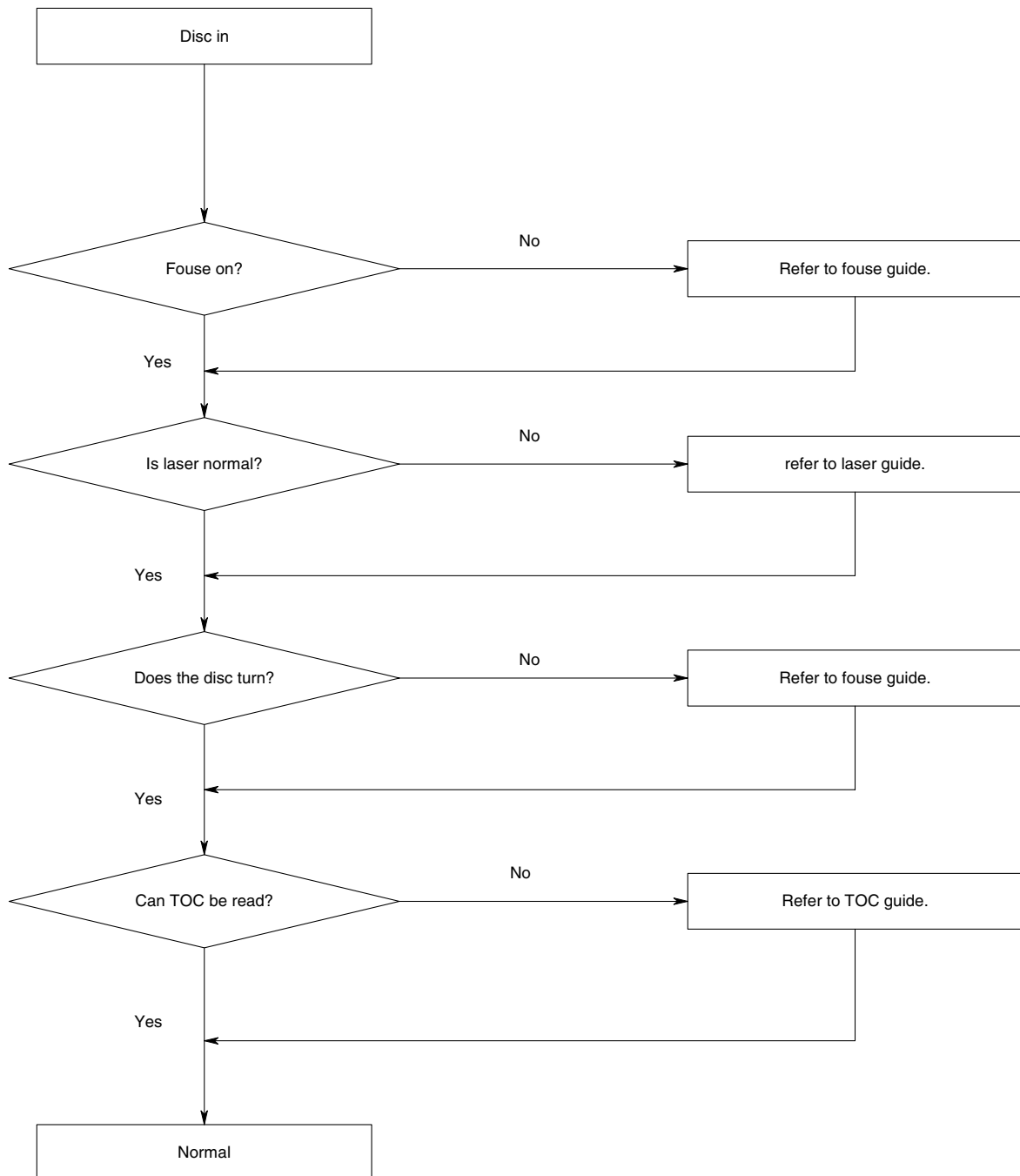


## C Open/close abnormal

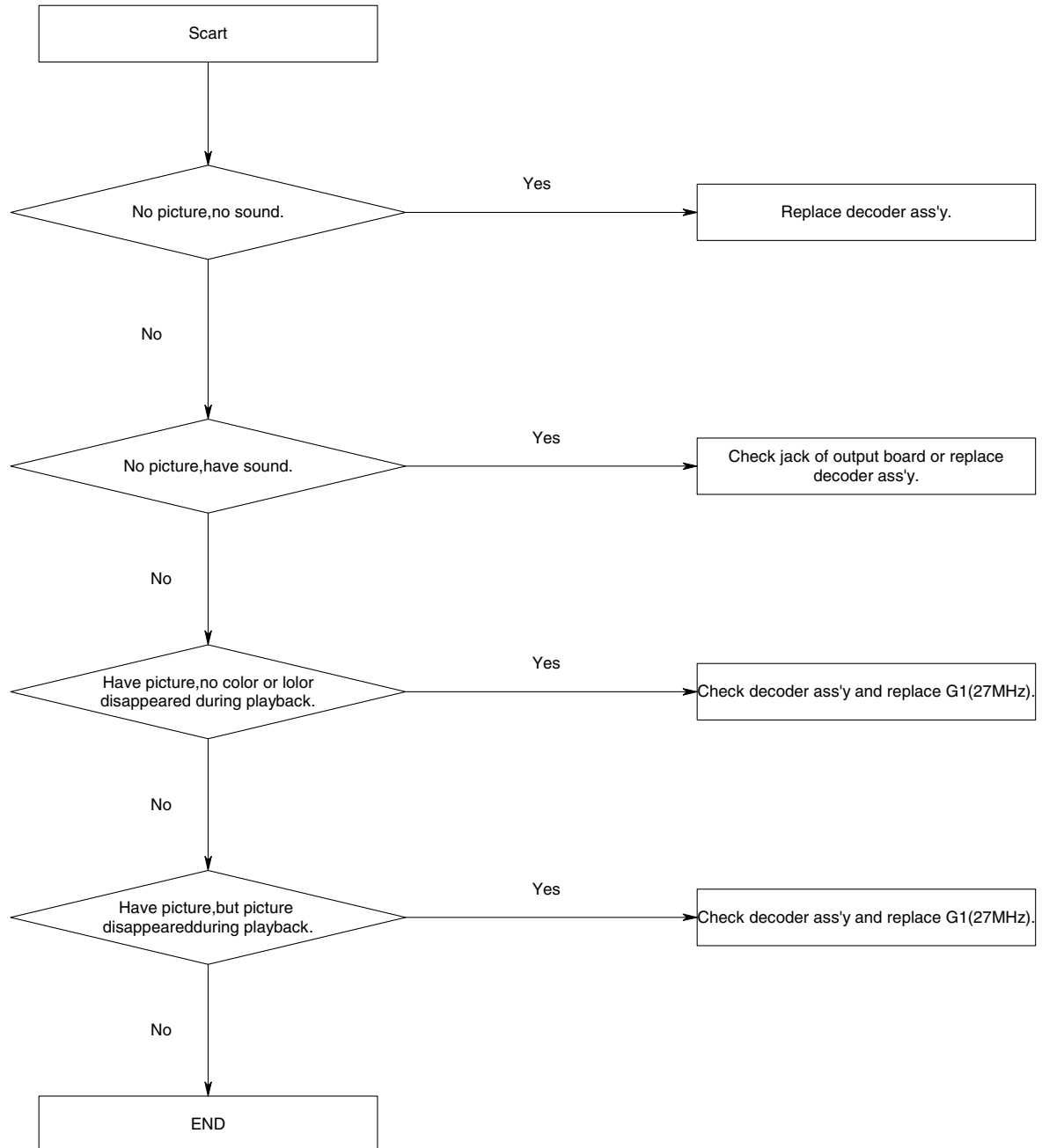




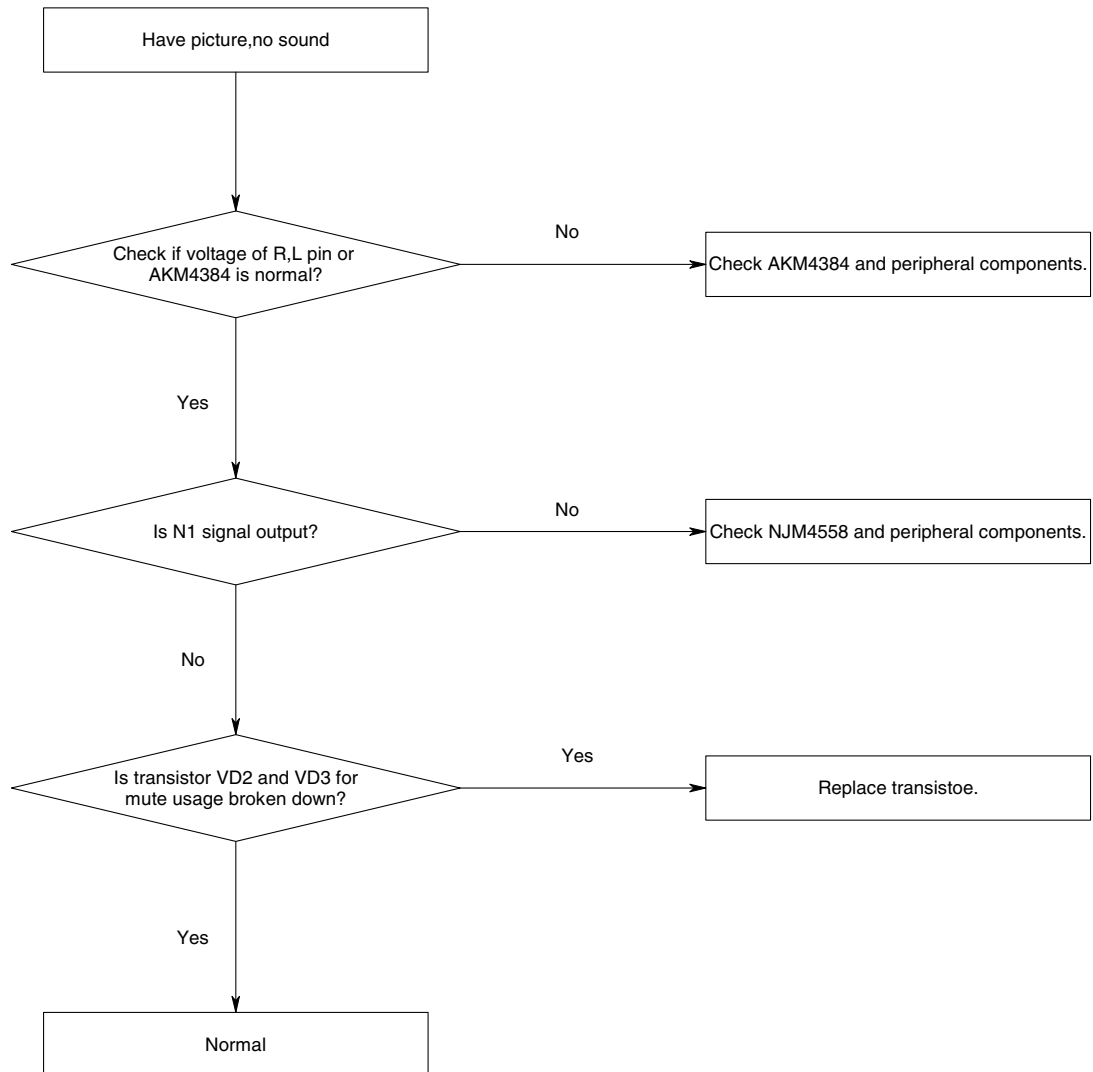
## D Read disc abnormal



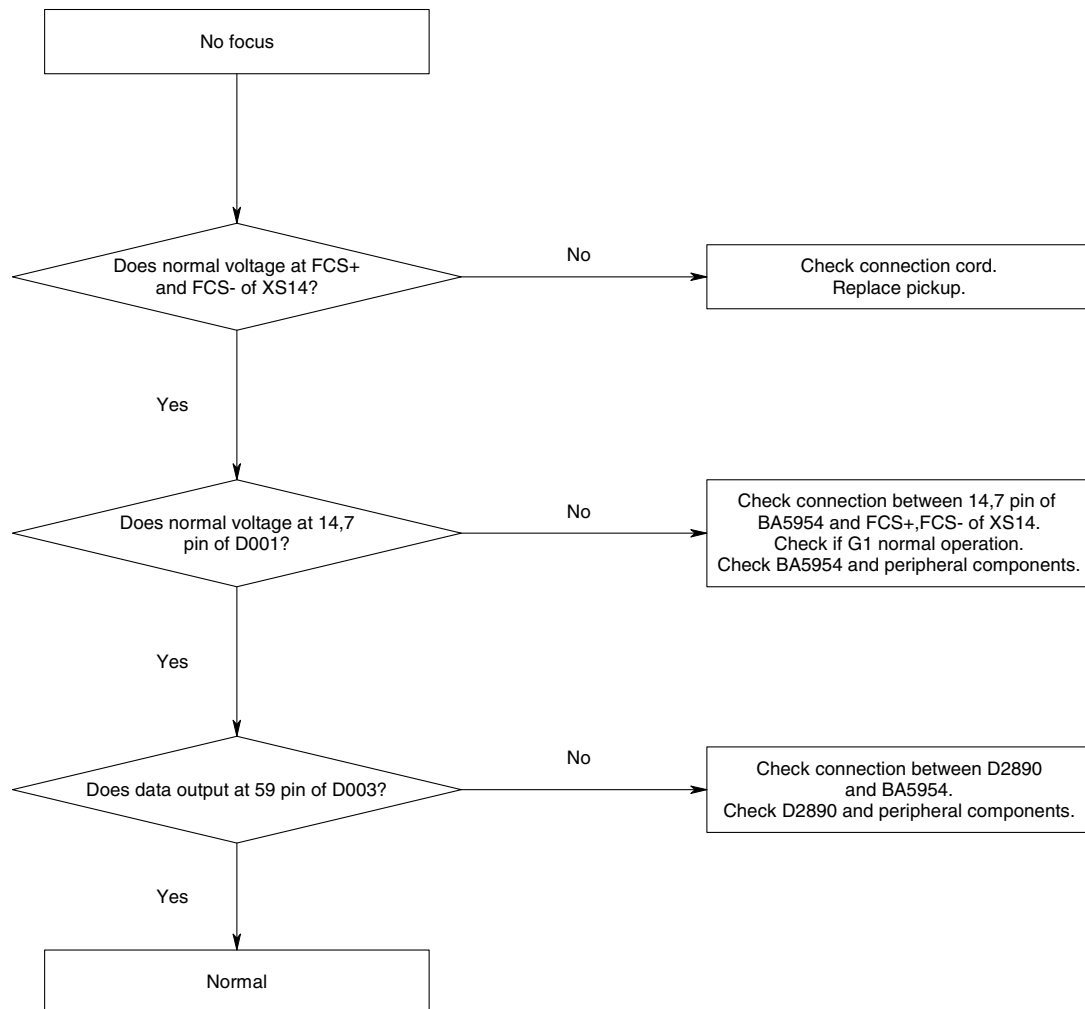
## E Video abnormal



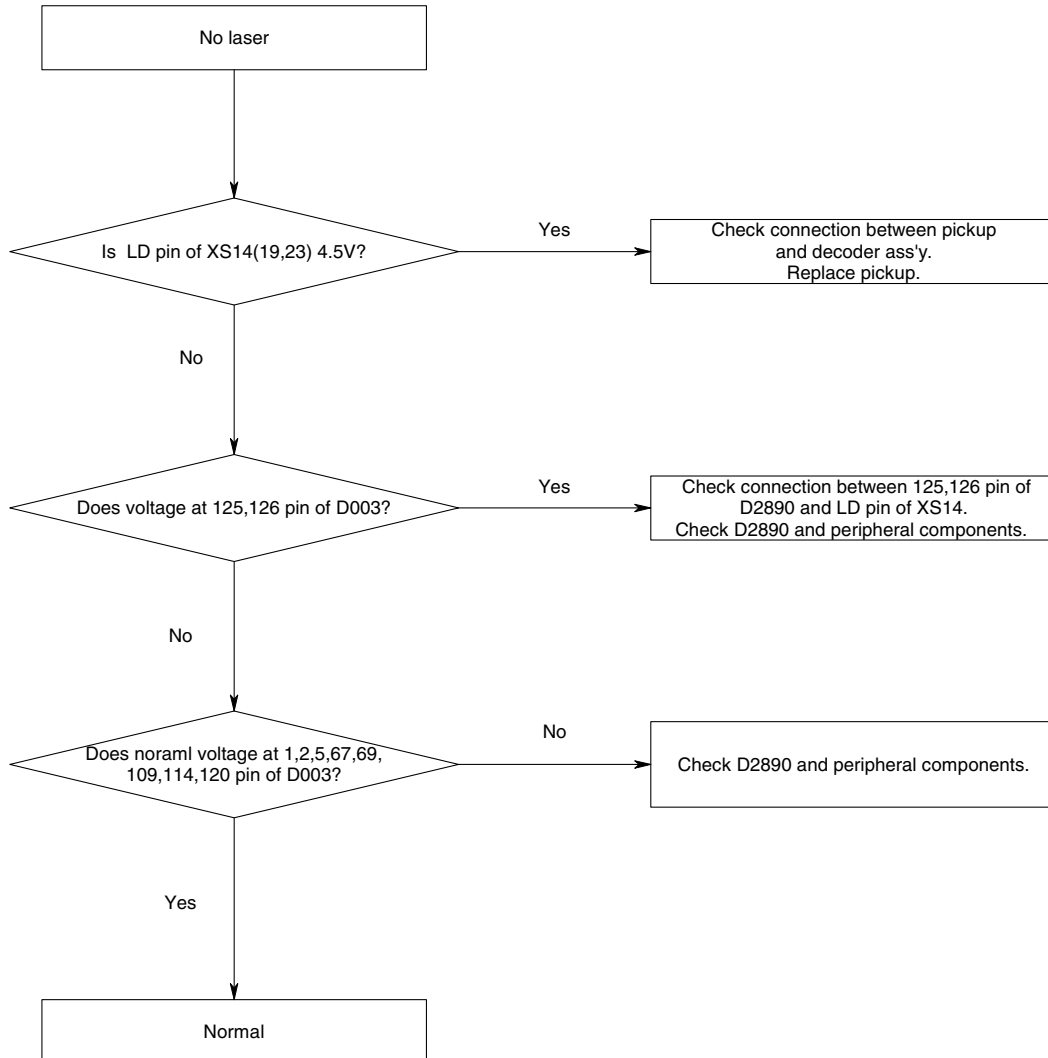
## F Audio abnormal



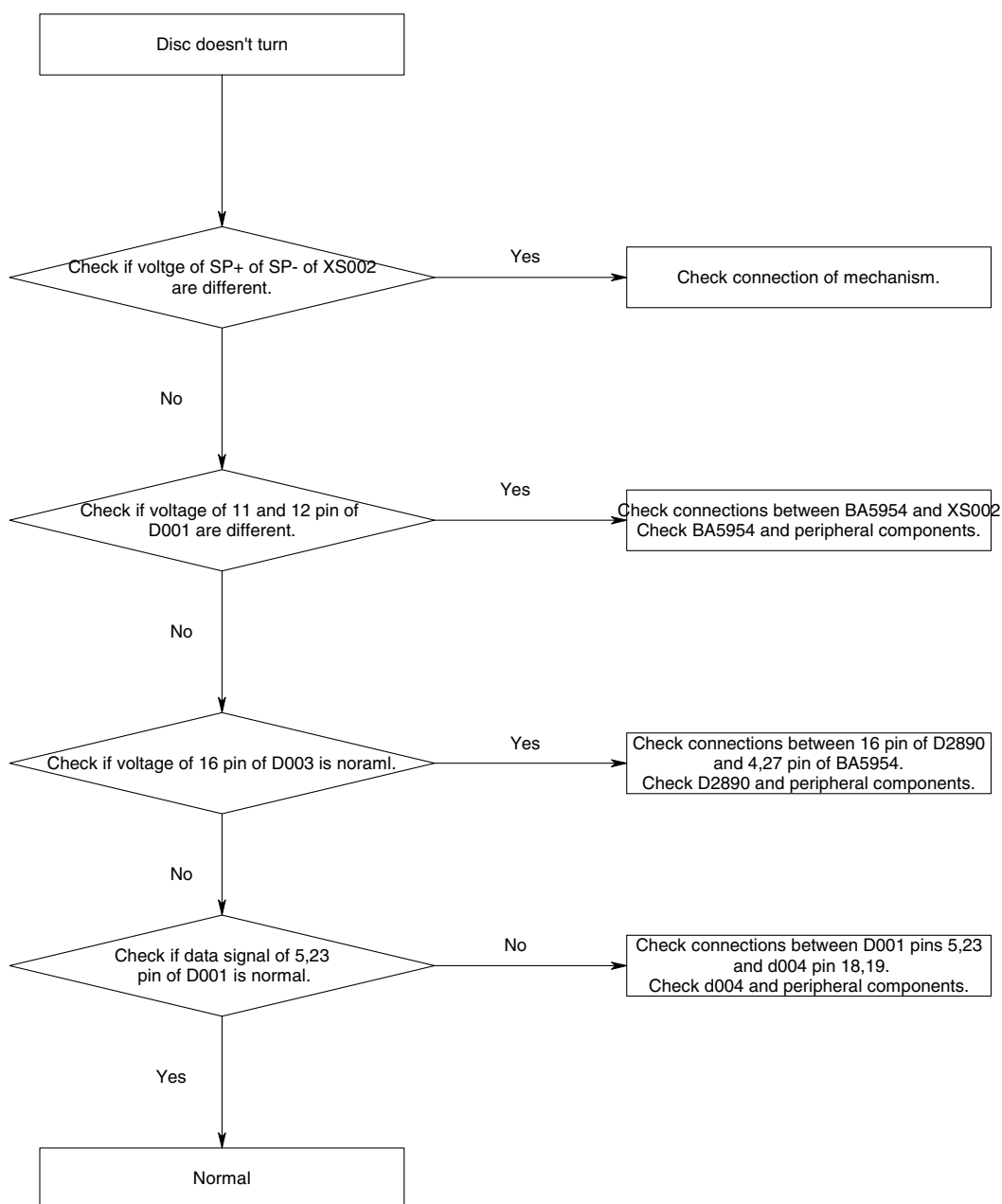
## G Focus abnormal



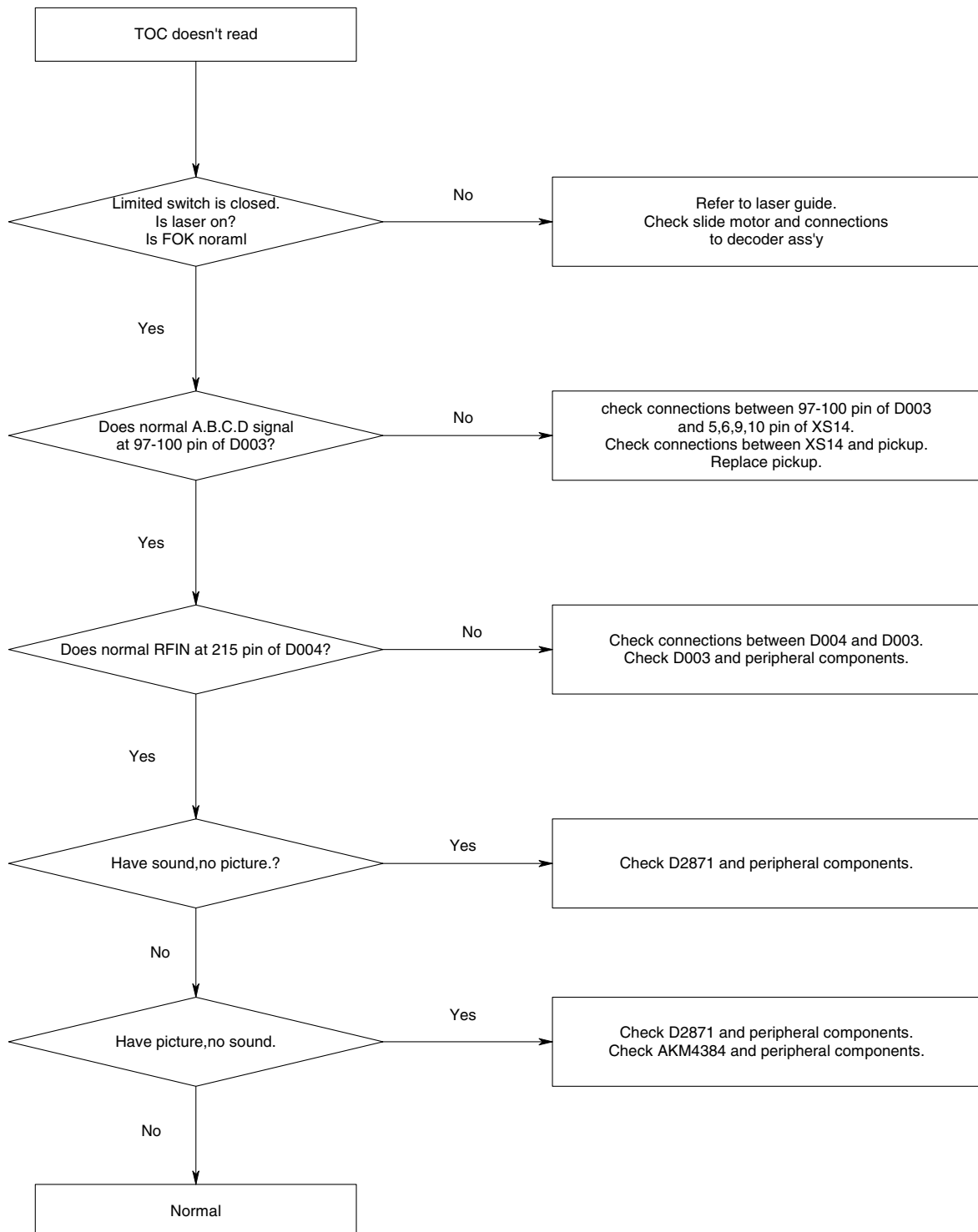
## H Laser abnormal



## I Turn abnormal



## J TOC abnormal



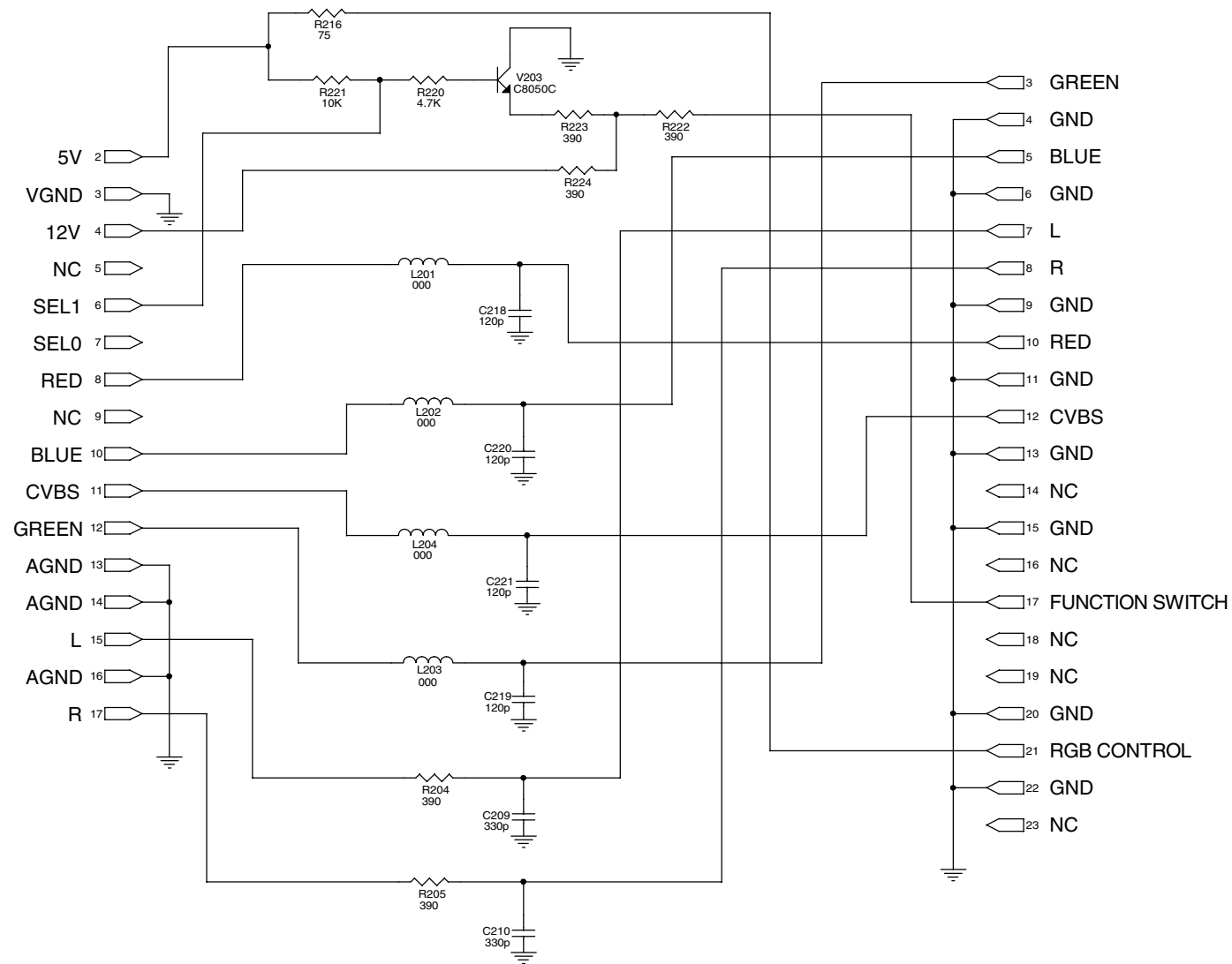




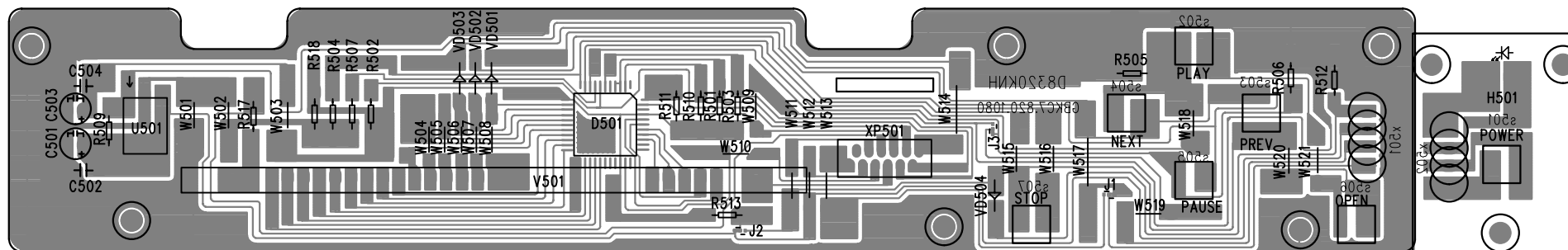


## DVD8320 MIC CIRCUIT DIAGRAM

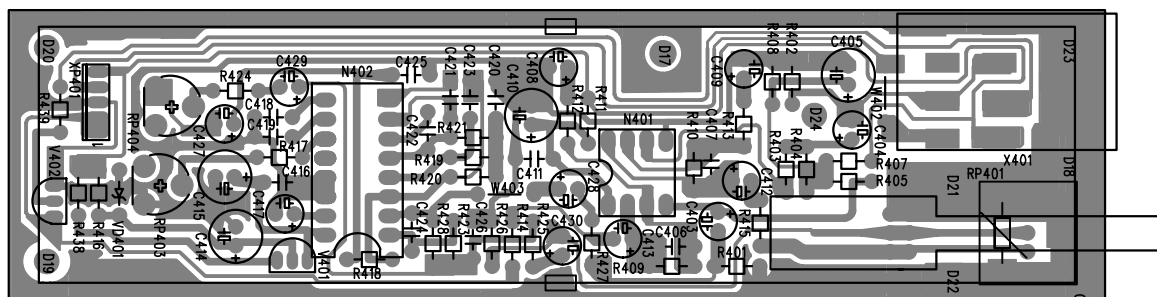




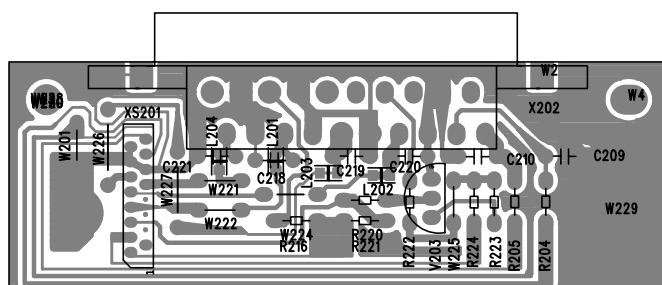
SCART400 OUTPUT CIRCUIT DIAGRAM



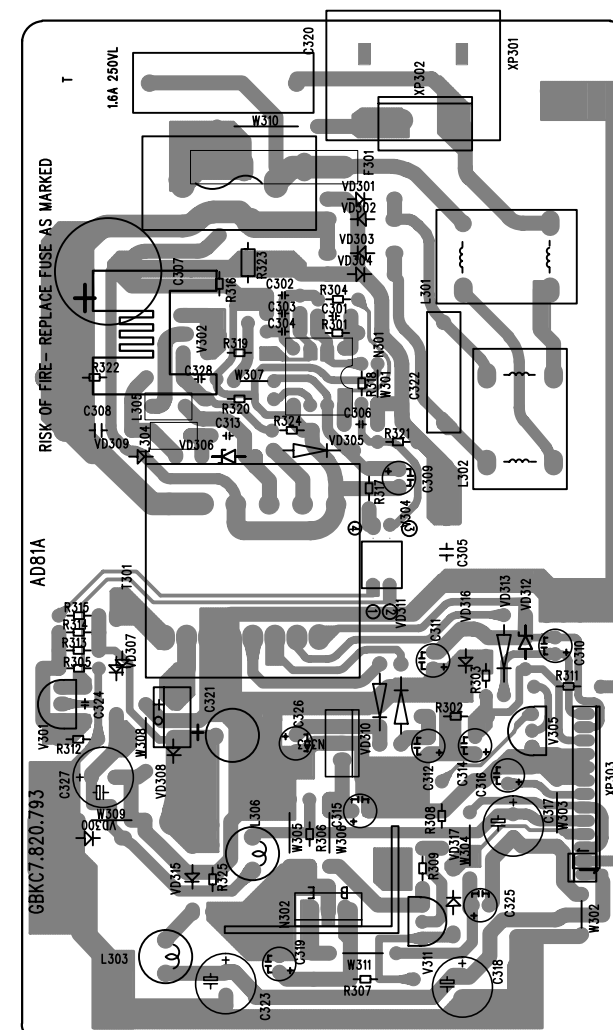
DVD8320 KEY BOARD DIAGRAM



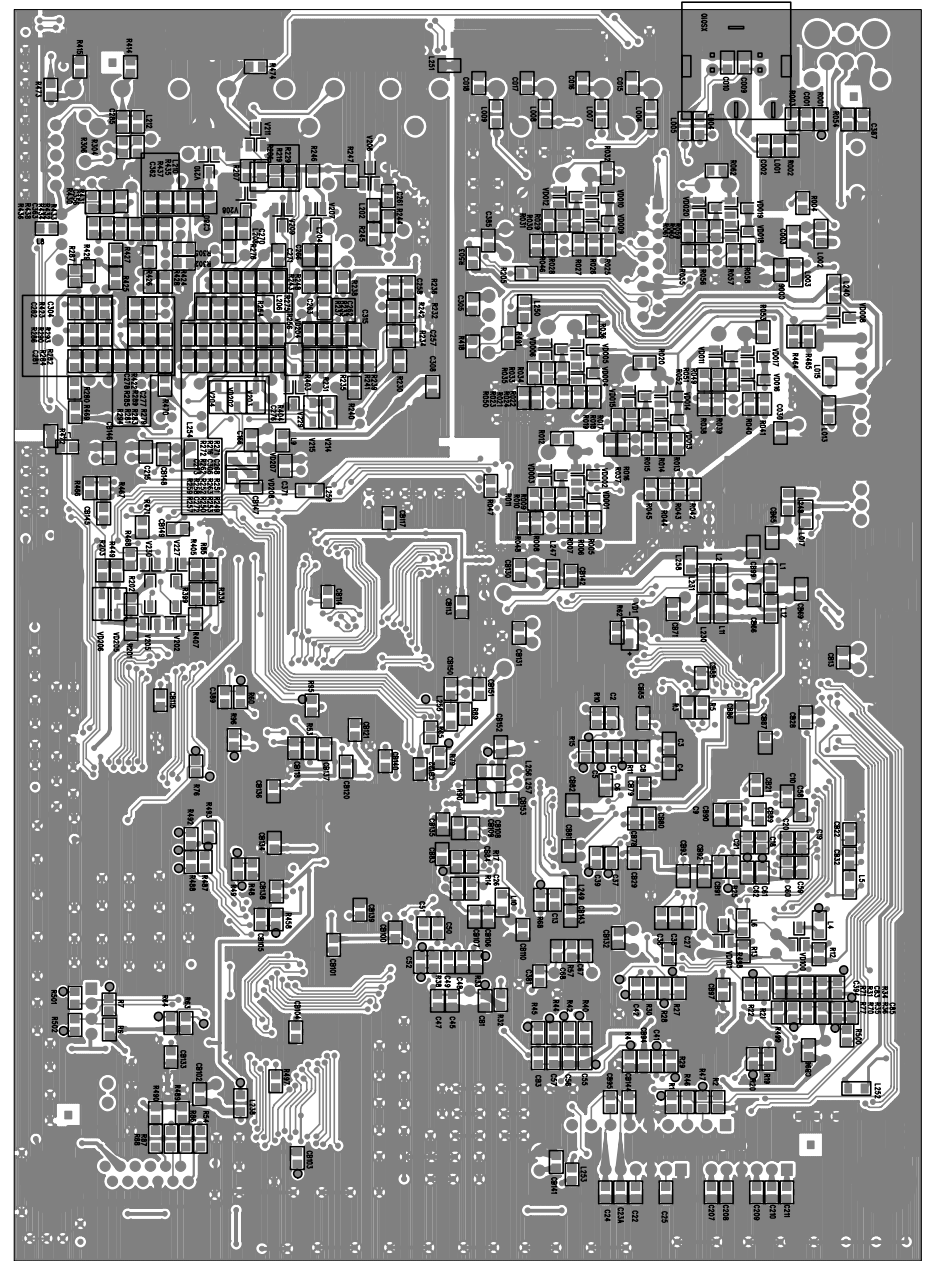
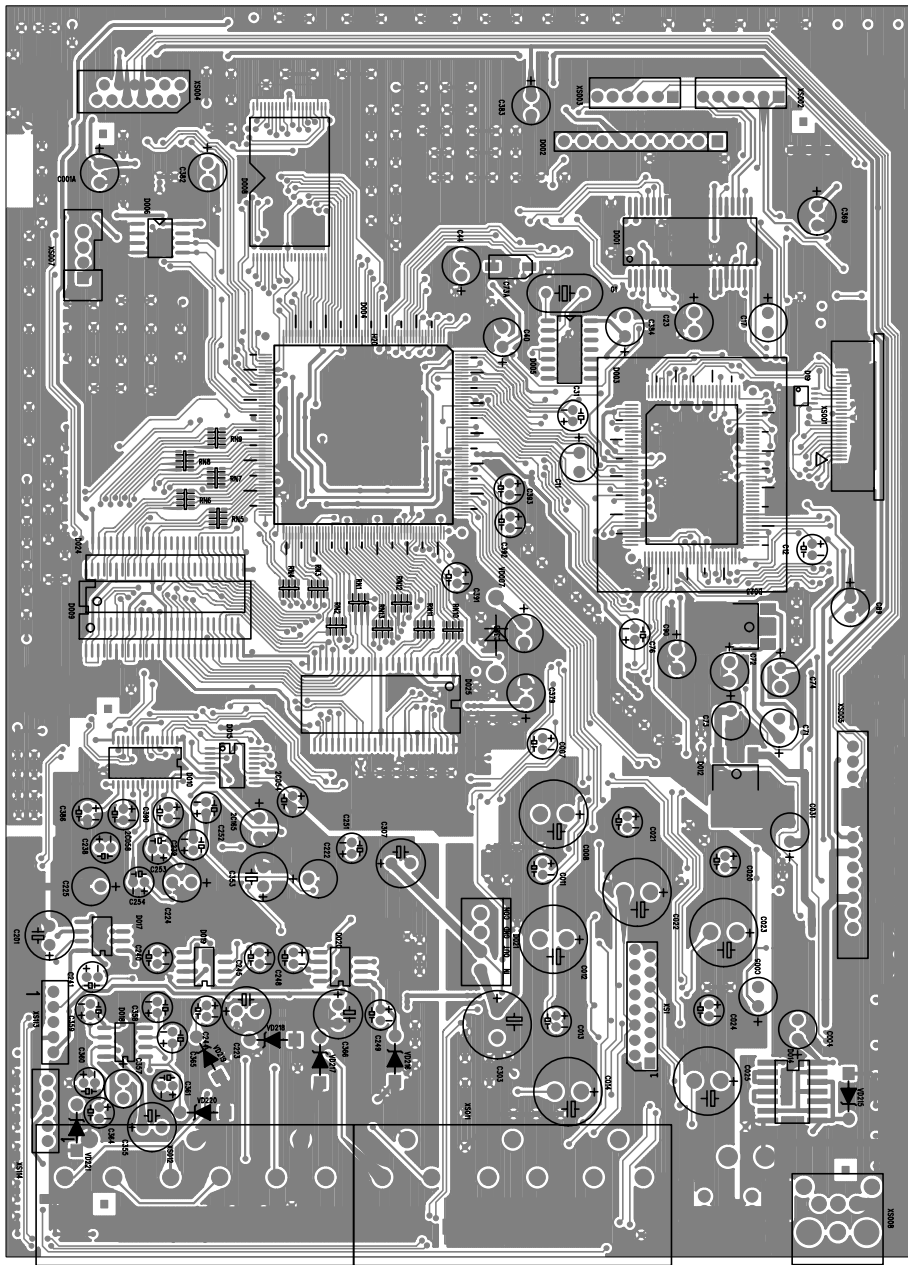
DVD8320M MIC BOARD DIAGRAM



SCART-400 OUTPUT BOARD DIAGRAM



AD81NAH POWER BOARD DIAGRAM



DHB206M-SCART DECODER BOARD DIAGRAM

# ELECTRICAL PARTS LIST

PART No.	PART NAME	Q'TY
<b>DVD8320</b>		
21229	DHB206M-SCART DECODER ASS'Y	1
S7429	SCART400 OUTPUT ASS'Y	1
S7244-1	AD81NAH POWER ASS'Y	1
S7371	D8320KNH KEY ASS'Y	1
S7310	D8320M MIC ASS'Y	1
S2701	7# BATTERY	2
S2672	VDE POWER CORD	1
S8095	DV34N LOADING ASS'Y	1
S3024	POWER CORD HOLE	1
S0834e	D8320 OWNER MANUAL	1
S2667	SCART WIRE	1
S3022	RCA CORD VIDEO	1
S3035	RCA CORD AUDIO	1
S3145	CC-1.0×12×130	1
S3123	CC-1.0×16×160	1
S3251h	CC-0.5×24×210-MT(8+/-0.5)	1
S3467	KHL-DV34 LOADING WIRE	1
S06061	RC-382H REMOTE CONTROLLER (WHITE)	1

REF No.	PART No.	PART NAME
<b>D8320KNH KEY ASS'Y</b>		
S501	G6434	TOUCH EVQ21504M(4.5mm)
S502	G6434	TOUCH EVQ21504M(4.5mm)
S503	G6434	TOUCH EVQ21504M(4.5mm)
S504	G6434	TOUCH EVQ21504M(4.5mm)
S505	G6434	TOUCH EVQ21504M(4.5mm)
S506	G6434	TOUCH EVQ21504M(4.5mm)
S507	G6434	TOUCH EVQ21504M(4.5mm)
C501	a3540	CD110-6.3V-100uF±20%
C502	a3304	CT4D-2F4-63V-0.1uF-S
C503	a3540	CD110-6.3V-100uF±20%
C504	a3304	CT4D-2F4-63V-0.1uF-S
R501	G0728	RT13-0.167W-4.7K±5%
R502	G0728	RT13-0.167W-4.7K±5%
R503	G0728	RT13-0.167W-4.7K±5%
R504	G0735	RT13-0.167W-10K±5%
R505	G0735	RT13-0.167W-10K±5%
R506	G0735	RT13-0.167W-10K±5%
R507	G0735	RT13-0.167W-10K±5%
R509	G0728	RT13-0.167W-4.7K±5%
R510	G0728	RT13-0.167W-4.7K±5%
R511	G0784	RT13-0.167W-56K±5%
R512	G0719	RT13-0.167W-1K±5%
R513	G0705	RT13-0.167W-10±5%
R517	G0704	RT13-0.167W-4.7±5%
R518	G0714	RT13-0.167W-180±5%
H501	a1500	RED LED
VD501	a5004	1N4148
VD502	a5004	1N4148
VD503	a5004	1N4148
VD504	a5004	1N4148
U501	a6733	HS0038B RECEIVER
D501	P90116a	PT6320
V501	a7141	VFD18-0503
XP501	P6783	12 PINS SOCKET
X501	a9061	KEY CONNECTOR WIRE
<b>D8320M MIC ASS'Y</b>		
<b>RESISTOR</b>		
R401	G0753	RT13-0.167W-100K±5%
R402	G0738	RT13-0.167W-15K±5%

REF No.	PART No.	PART NAME
R403	G0719	RT13-0.167W-1K±5%
R404	G0753	RT13-0.167W-100K±5%
R405	G0753	RT13-0.167W-100K±5%
R407	G0735	RT13-0.167W-10K±5%
R408	G0735	RT13-0.167W-10K±5%
R409	G0737	RT13-0.167W-12K±5%
R410	G0754	RT13-0.167W-120K±5%
R411	G0712	RT13-0.167W-100±5%
R412	G0724	RT13-0.167W-3K±5%
R413	G0721	RT13-0.167W-2K±5%
R414	G0721	RT13-0.167W-2K±5%
R415	G0735	RT13-0.167W-10K±5%
R416	G0728	RT13-0.167W-4.7K±5%
R417	G0735	RT13-0.167W-10K±5%
R418	G0731	RT13-0.167W-6.8K±5%
R419	G0735	RT13-0.167W-10K±5%
R420	G0738	RT13-0.167W-15K±5%
R421	G0735	RT13-0.167W-10K±5%
R423	G0735	RT13-0.167W-10K±5%
R424	G0743	RT13-0.167W-30K±5%
R425	G0735	RT13-0.167W-10K±5%
R427	G0728	RT13-0.167W-4.7K±5%
R428	G0735	RT13-0.167W-10K±5%
R438	G0712	RT13-0.167W-100±5%
R439	G0721	RT13-0.167W-2K±5%
<b>RHEOSTAT</b>		
RP401	a0648	WH9JTH-50KA-F20
RP403	a0511	WH0615-22K
RP404	a0640	WH0615-47K
<b>CAPACITOR</b>		
C403	a3508	CD110-16V-4.7uF-M
C404	a3505	CD110-1u-M-16V
C405	a3512	CD110-47u-M-16V
C406	a2015	CC1-63V-05B-20K-CH
C407	a2015	CC1-63V-05B-20K-CH
C408	a3512	CD110-47u-M-16V
C409	a3509	CD110-16V-10u-M
C410	a3513	CD110X-16V-100u-M
C411	a3304	CT4D-2F4-63V-0.1uF-S
C412	a3508	CD110-16V-4.7uF-M

REF No.	PART No.	PART NAME
C413	a3508	CD110-16V-4.7uF-M
C414	a3513	CD110X-16V-100u-M
C415	a3513	CD110X-16V-100u-M
C416	a3304	CT4D-2F4-63V-0.1uF-S
C417	a3512	CD110-16V-47uF-M
C418	a3304	CT4D-2F4-63V-0.1uF-S
C419	a3304	CT4D-2F4-63V-0.1uF-S
C420	a3044	CL11-100V-5600P-K
C421	a3304	CT4D-2F4-63V-0.1uF-S
C422	a3304	CT4D-2F4-63V-0.1uF-S
C423	a2038	CC1-63V-10B-511K-SL
C424	a2038	CC1-63V-10B-511K-SL
C425	a3044	CL11-100V-5600P-K
C426	a3041	CL11-100V-3900P-K
C427	a3510	CD110-16V-22uF-M
C428	a3509	CD110-16V-10u-M
C429	a3508	CD110-16V-4.7uF-M
C430	a3509	CD110-16V-10u-M
OTHER		
VD401	a1118	HZ6A3(1/2W,5.6V)
V401	a5014	C8050C
V402	a5009	C9014C
N401	a4042b	UTC4558
N402	a4503	PT2399
X401	a6871	CKX-6.35-7 JACK
XP401	a8798	MIC WIRE
AD81NAH POWER ASS'Y		
RESISTOR		
R301	G0744	RT13-0.167W-33K±5%
R302	G0010	RT14-0.25W-22±5%
R303	G0728	RT13-0.167W-4.7K±5%
R304	G0731	RT13-0.167W-6.8K±5%
R305	G0753	RT13-0.167W-100K±5%
R306	G0034	RT14-0.25W-390±5%
R307	a0440	RY27-2W-10±5%
R308	G0042	RT14-0.25W-820±5%
R309	G0721	RT13-0.167W-2K±5%
R311	G0728	RT13-0.167W-4.7K±5%
R312	G0909	RT13-0.167W-3.6K±5%
R313	G0728	RT13-0.167W-4.7K±5%

REF No.	PART No.	PART NAME
R315	G0714	RT13-0.167W-180±5%
R316	a0400	RY27-2W-1.3±5%
R317	G0705	RT13-0.167W-10±5%
R318	G0735	RT13-0.167W-10K±5%
R319	G0032	RT14-0.25W-330±5%
R320	G0010	RT14-0.25W-22±5%
R321	G0721	RT13-0.167W-2K±5%
R322	a0472	RY27-2W-47K±5%
R323	a0407	RY27-2W-180K±5%
R325	G0036	RT14-0.25W-470±5%
CAPACITOR		
C301	a2051	CT1-06B-103S-63V-Y5V
C302	a3006	CL11-2200P-100V-J
C303	a2042	CT1-05B-102M-63V-Y5V
C304	a2037	CC1-10B-471K-63V-SL
C305	a2081	CT81-18B-2E4-472M-400VAC-YA
C306	a2056	CS1-06B-104Z-63V-Y5V
C307	a3661	CD288-27uF-M-400V
C308	a2077	CT81-14B-2E4-103M-1KV
C309	a3607	CD110X-22uF-M-50V
C310	a3608	CD110X-220uF-M-10V
C311	a3607	CD110X-22uF-M-50V
C312	a3607	CD110X-22uF-M-50V
C313	a2063	CC81-06B-47K-1KV-SL
C315	a3513	CD110X-100uF-M-16V
C317	a3561	CD110X-470uF-M-10V
C318	a3542	CD110X-1000uF-M-6.3V
C319	a3554	CD110-10uF-M-10V
C320	a3447	CIS-0.22uF-280VACX2-K
C321	a3676	CD288-1000uF-M-10V
C324	a2056	CS1-06B-104Z-63V-Y5V
C325	a3554	CD110-10uF-M-10V
C326	a3513	CD110X-100uF-M-16V
C327	a3561	CD110X-470uF-M-10V
C328	a2015	CC1-05B-20K-63V-CH
DIODE		
VD301	a5005a	1N4007-YG
VD302	a5005a	1N4007-YG
VD303	a5005a	1N4007-YG
VD304	a5005a	1N4007-YG



REF No.	PART No.	PART NAME
VD305	a1202a	SF16-YG
VD306	a1205	HER108
VD307	a1203	21DQ10
VD308	a1568	31DQ06
VD309	a1225	P6KE200
VD310	a1202a	SF16-YG
VD311	a1202a	SF16-YG
VD312	a1142	HZ4C1
VD313	a1202a	SF16-YG
VD315	a5005a	1N4007-YG
VD317	a5005a	1N4007-YG
TRIODE.IC		
N301	a4721a	UC3842B
N302	a4571a	MC7805CT
N303	a4031a	MC7812CT
V301	a4557a	UTC431
V302	a5121	2SK2750
V304	a5114	PC817
V305	a5009	C9014C
V311	a5104	C8550D
OTHER		
T301	a7003a	BCK-700A-XY TRANSFORMER
L301	a6686	LV-R1481 FILTER
L302	a6629	LV-F2030 FILTER
L303	a6621	COIL-0.02mH
L304	a7020	ZBF253L-4
L305	a7020	ZBF253L-4
L306	a6621	COIL-0.02mH
F301	a6763	FUSE 61801.6M
XP302	a6605	2P SOCKET
XP303	a8917	AD70 DC POWER CORD
	a6443	FC502H FUSE HOLDER
SCART400 OUTPUT ASS'Y		
RESISTOR		
R204	G0814	RT13-0.167W-390±5%
R205	G0814	RT13-0.167W-390±5%
R216	G0803	RT13-0.167W-75±5%
R220	G0728	RT13-0.167W-4.7K±5%
R221	G0735	RT13-0.167W-10K±5%
R222	G0814	RT13-0.167W-390±5%

REF No.	PART No.	PART NAME
R223	G0814	RT13-0.167W-390±5%
R224	G0814	RT13-0.167W-390±5%
CAPACITOR.TRIODE.SOCKET		
C209	a2307	CC1-08B-331J-50V-SL
C210	a2307	CC1-08B-331J-50V-SL
C218	a2304	CC1-05B-121J-50V-SL
C219	a2304	CC1-05B-121J-50V-SL
C220	a2304	CC1-05B-121J-50V-SL
C221	a2304	CC1-05B-121J-50V-SL
V203	a5014	C8050C
X202	a6820	SCART SCOKET
XS201	a6434	FABSD1652 SOCKET