

TEAC

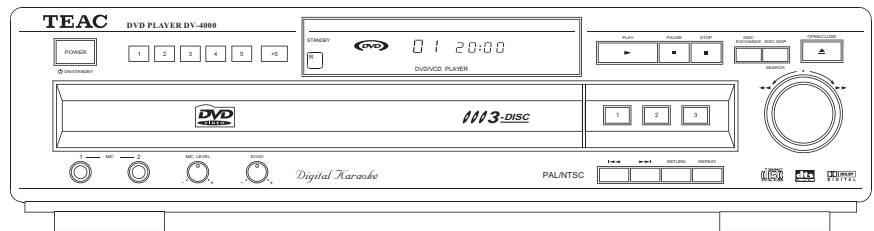
SERVICE MANUAL

MODEL

DV-4000

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

DVD and CD PLAYER



SPECIFICATIONS

DVD VIDEO PLAYER

Signal system	PAL/AUTO/NTSC
Laser	wavelength 650nm
Frequency response	20Hz to 20kHz
Signal/Noise ratio	≥85dB
Audio distortion+noise	≤-80dB(1kHz)
Channel separation	≥70dB(1kHz)
Dynamic range	≤85dB(1kHz)

OUTPUTS

Video outputs	1.0V(p-p), 75ohm, negative sync.
S-video outputs	(Y)1.0V(p-p), (C)0.286V(p-p) 75ohm, negative sync.
Audio outputs (digital audio)	0.5V(p-p), 75ohm
Audio outputs (analog audio)	2.0Vrms(1KHz,0.8dB), 10Kohm

GENERAL

Power supply	AC240V, 50Hz
Power consumption	<20W
Dimensions	435 x 335 x 105 (mm)
Weight	Around 5kgs

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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.

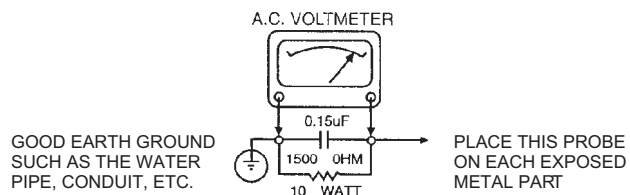
WHILE SERVICING, USE AN ISOLATION TRANSFORMER FOR PROTECTION FROM A.C. LINE SHOCK.

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 APOWHEAD 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 wotch 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.

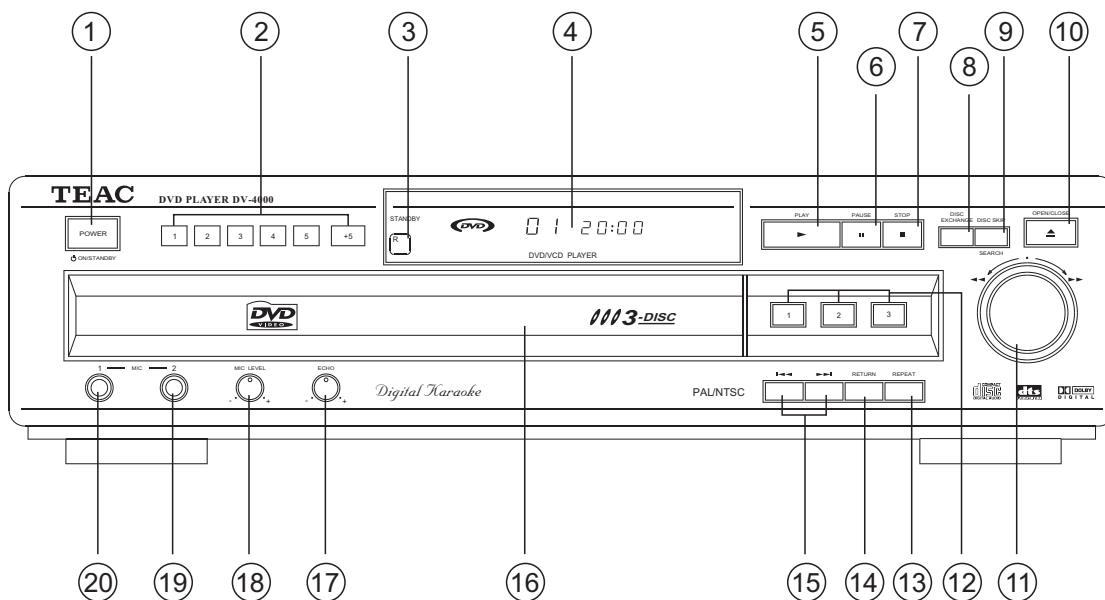
1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential 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.)

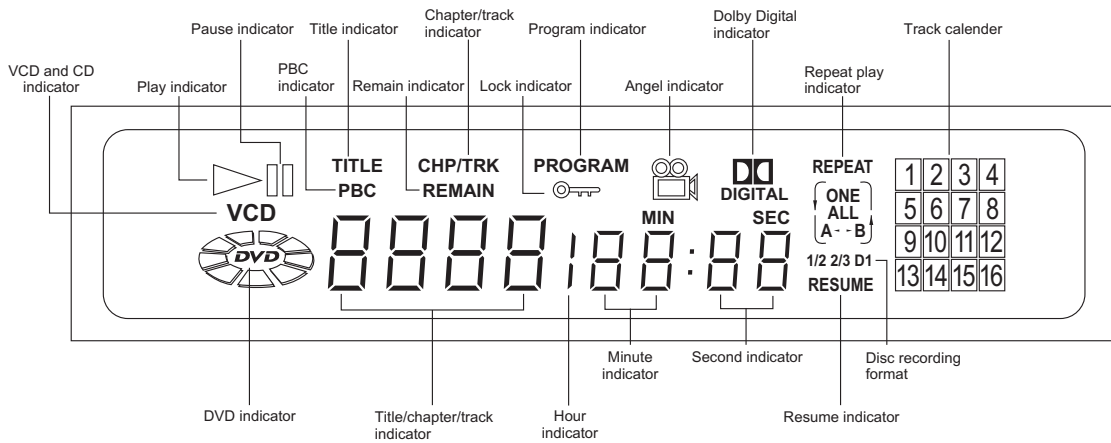
PREPARATIONS BEFORE OPERATION

FRONT PANEL



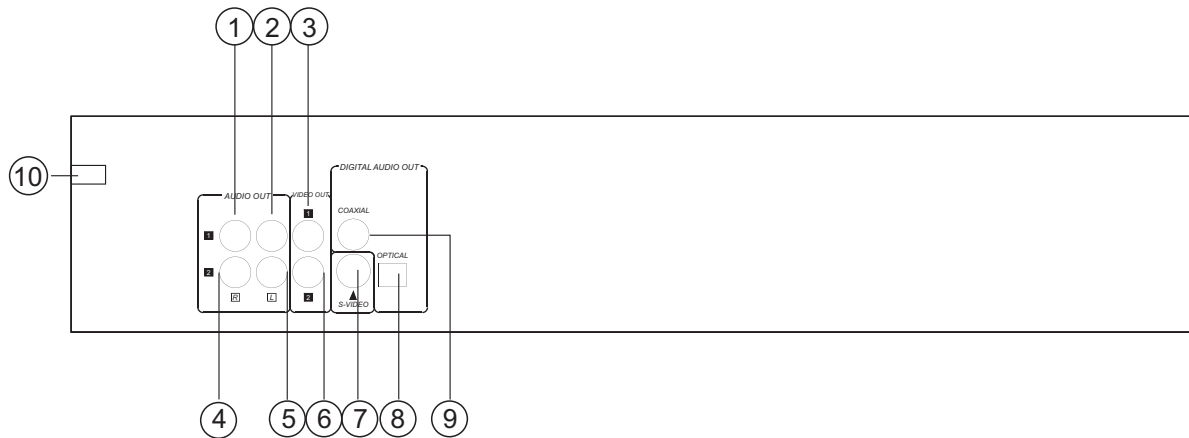
- | | |
|-------------------|-------------------|
| 1. POWER | 11. SEARCH |
| 2. NUMBER BUTTONS | 12. DISC1, 2, 3 |
| 3. REMOTE SENSOR | 13. REPEAT |
| 4. DISPLAY | 14. RETURN |
| 5. PLAY | 15. PREVIOUS/NEXT |
| 6. PAUSE | 16. DISC TRAY |
| 7. STOP | 17. ECHO |
| 8. DISC EXCHANGE | 18. MIC LEVEL |
| 9. DISC SKIP | 19. MIC 2 |
| 10. OPEN/CLOSE | 20. MIC 1 |

DISPLAY



Push **DIMMER**, the brightness of the display is reduced by half, push it once more, the display becomes dark. Push the button again, the display resumes brightness.

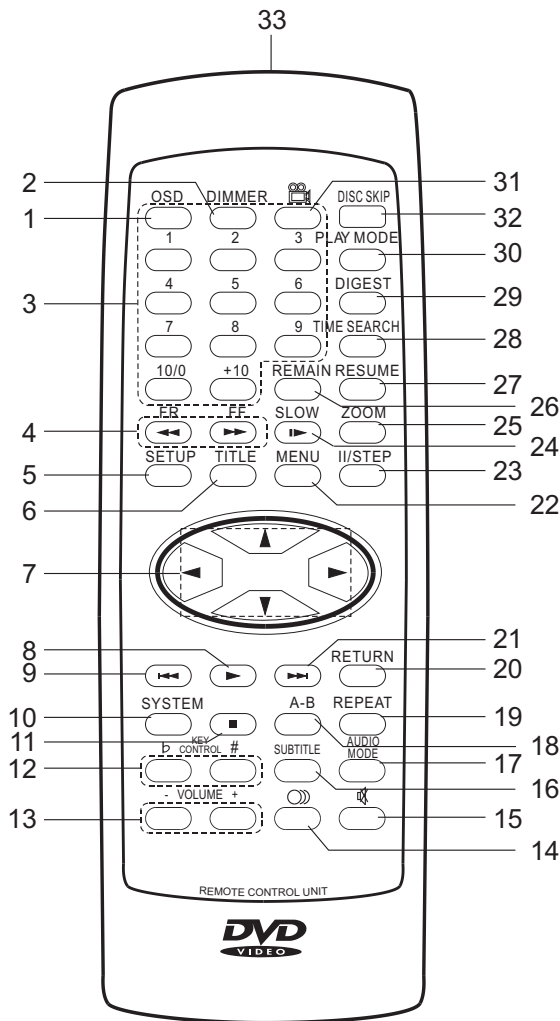
REAR PANEL



- 1 AUDIO OUT1 R
- 2 AUDIO OUT1 L
- 3 VIDEO OUT1
- 4 AUDIO OUT2 R
- 5 AUDIO OUT2 L

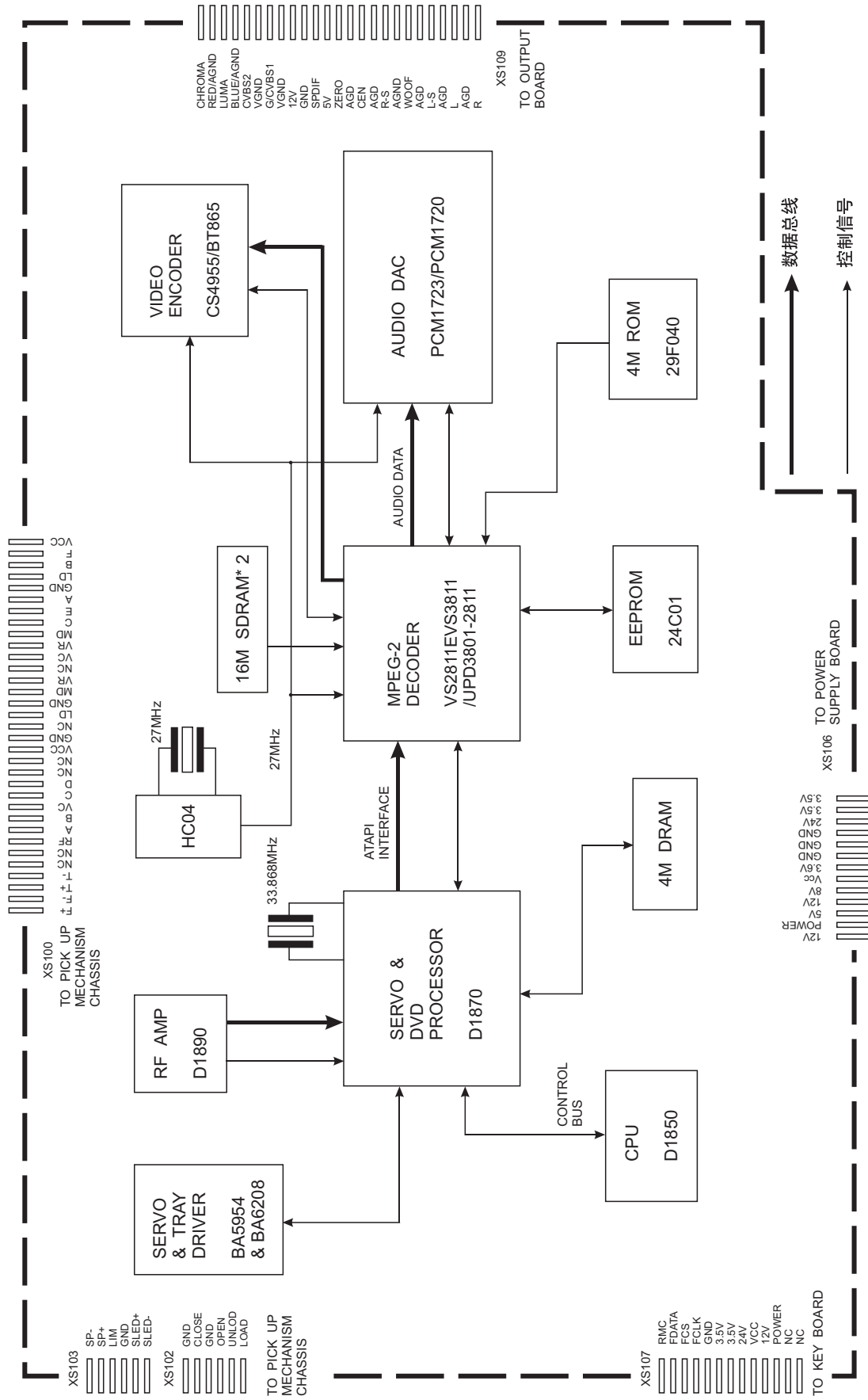
- 6 VIDEO OUT2
- 7 S-VIDEO
- 8 OPTICAL
- 9 COAXIAL
- 10 POWER SUPPLY CORD

NAME AND LAYOUT OF REMOTE CONTROLS

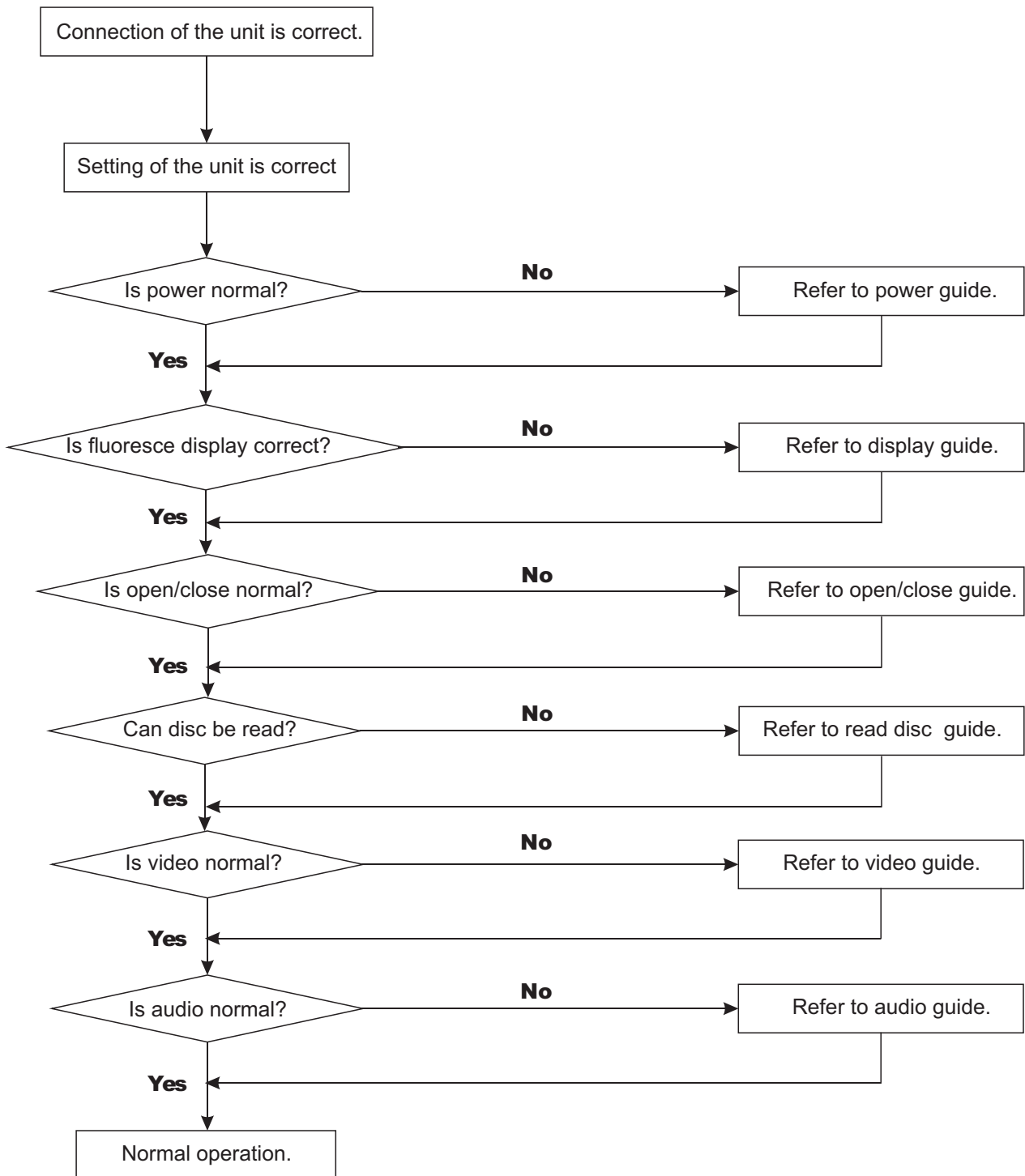


1. OSD
2. DIMMER
3. NUMBER BUTTONS
4. ◀ ▶ SEARCH
5. SET UP
6. TITLE
7. DIRECTIONS
8. PLAY(ENTER)
9. PREVIOUS
10. SYSTEM
11. STOP
12. KEY CONTROL
13. VOLUME +/-
14. LANGUAGE
15. MUTE
16. SUBTITLE
17. AUDIO MODE
18. A-B REPEAT
19. REPEAT
20. RETURN
21. NEXT
22. MENU
23. PAUSE/STEP
24. SLOW PLAY
25. ZOOM
26. REMAIN
27. RESUME
28. TIME SEARCH
29. DIGEST
30. PLAY MODE
31. ANGLE
32. DISC SKIP
33. REMOTE TRANSMITTER

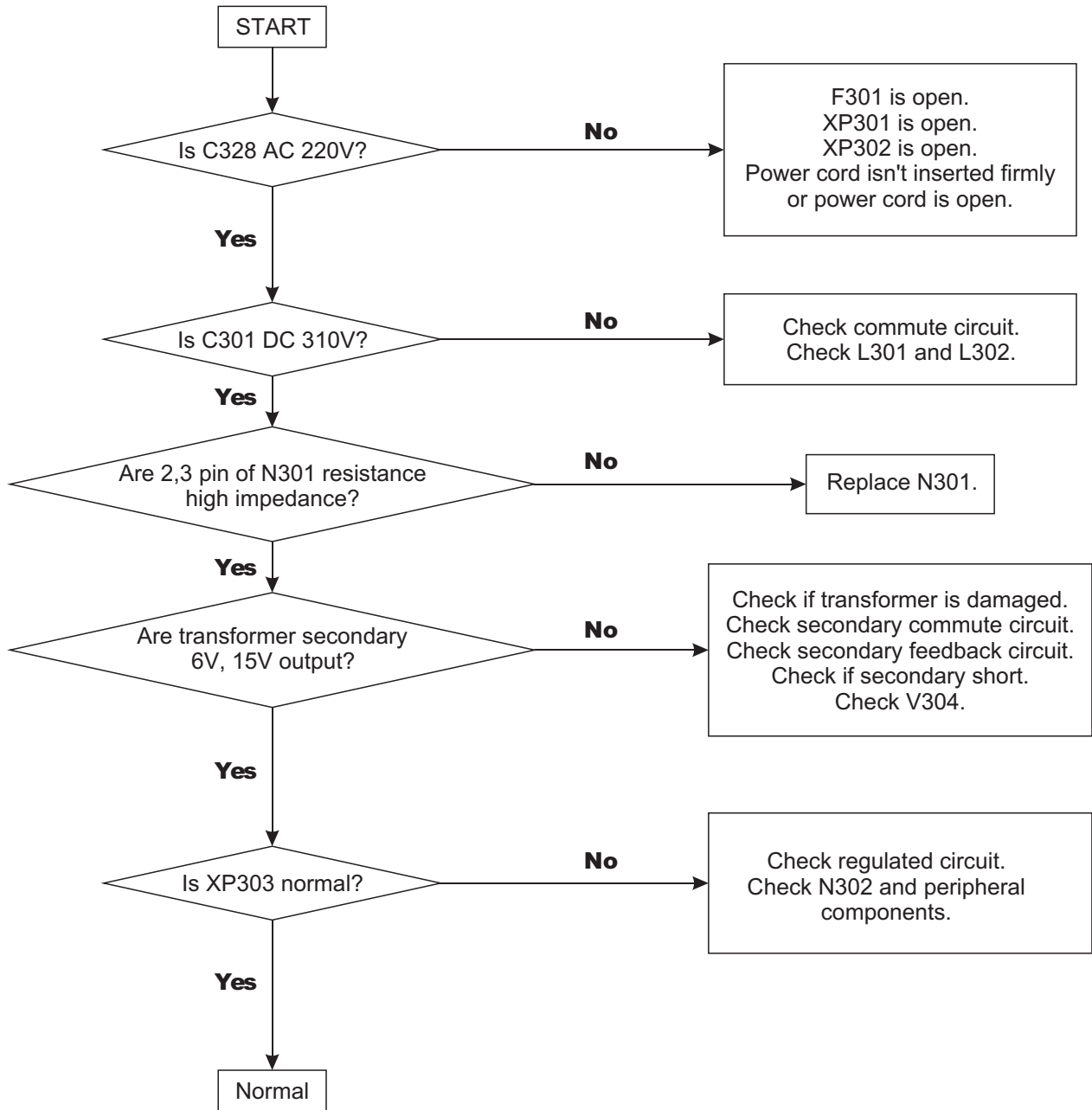
OVERALL BLOCK DIAGRAM



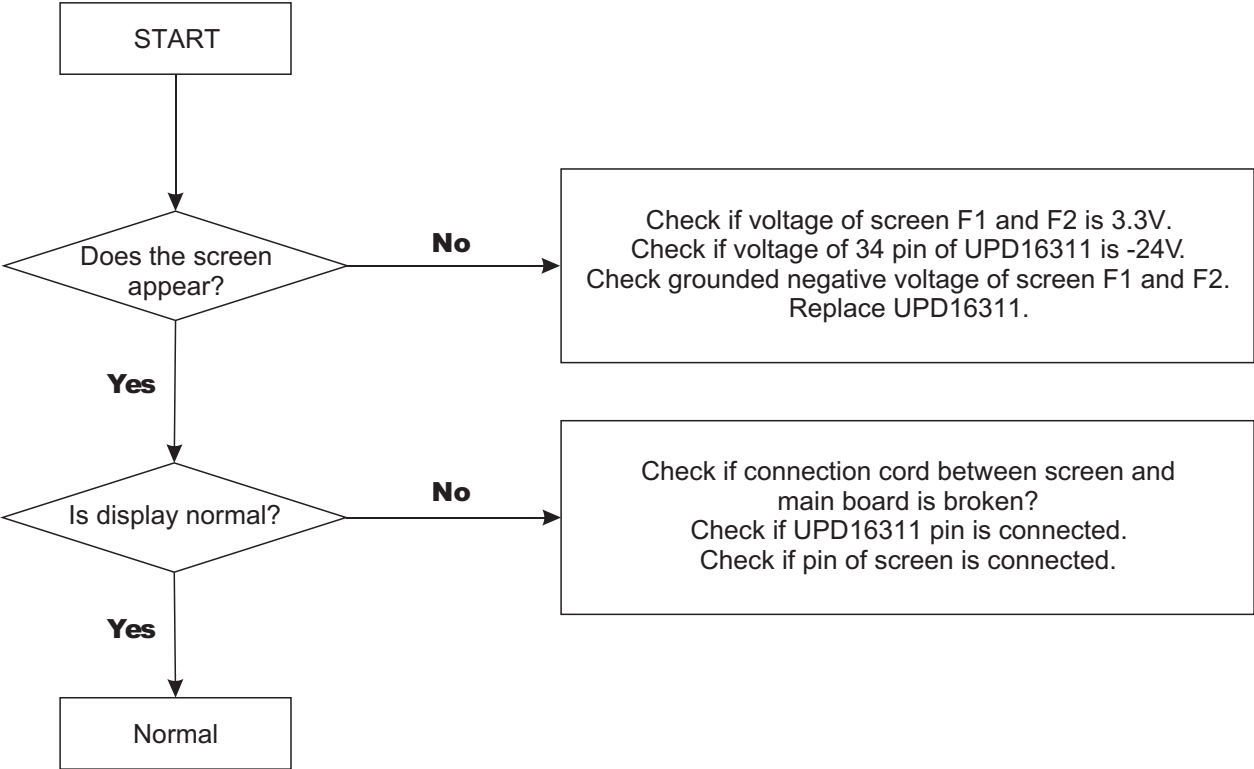
Electrical Trouble Shooting Guide



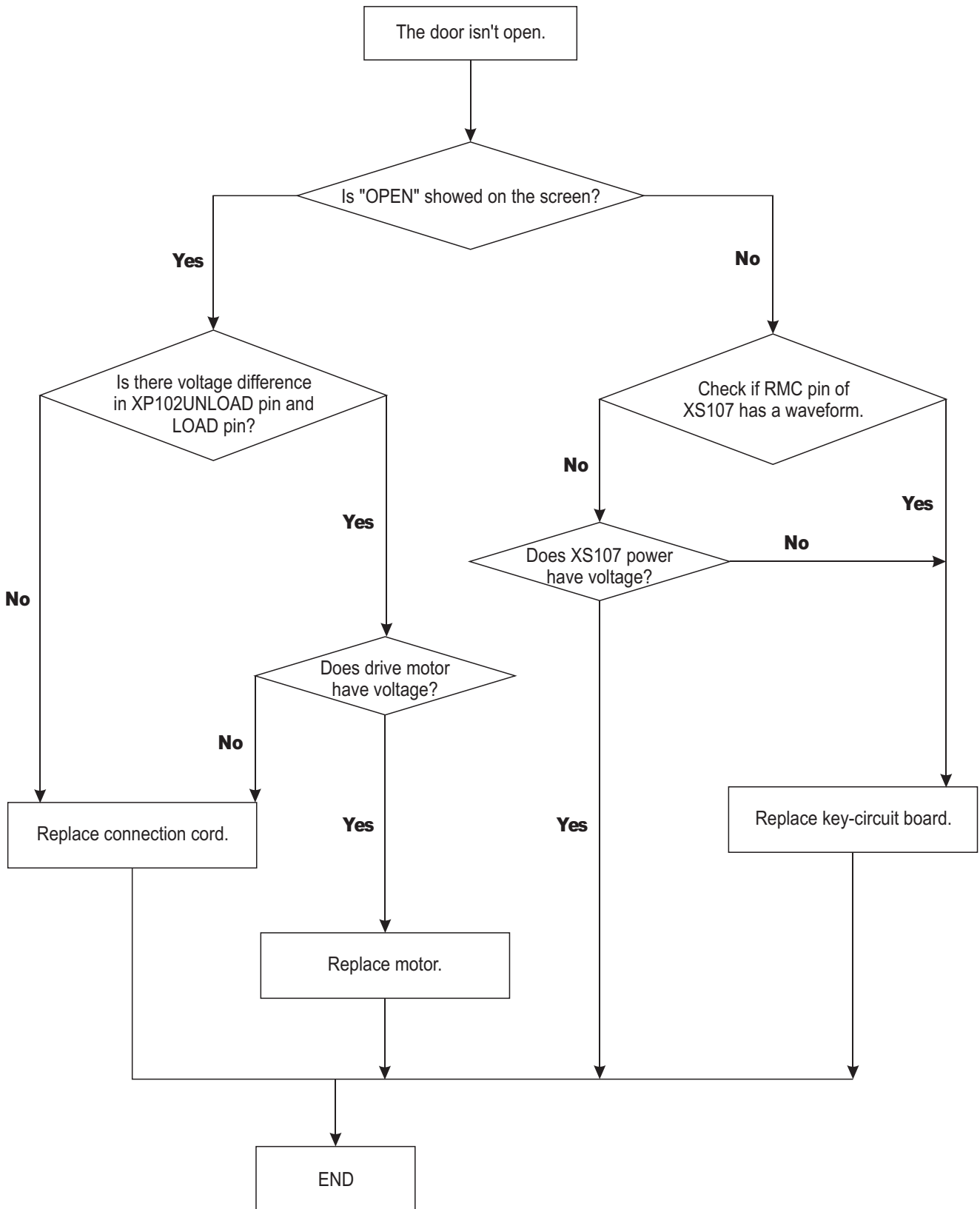
A Power Circuit abnormal



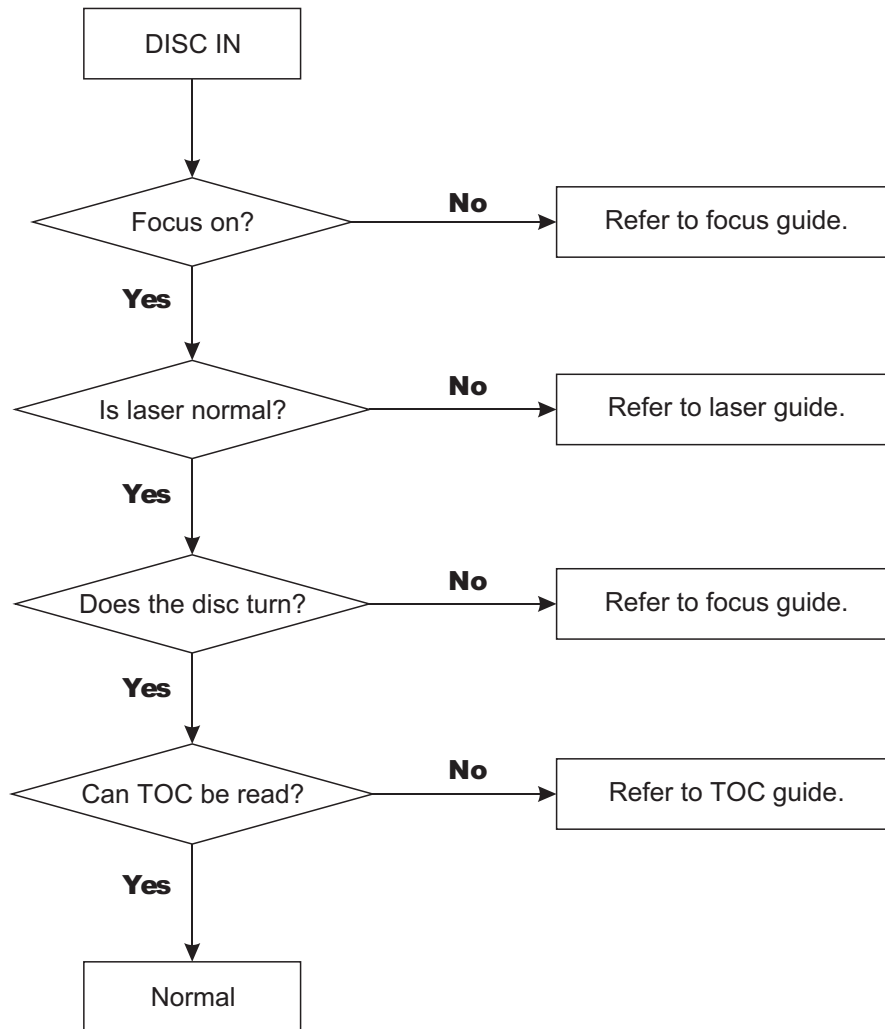
B Display abnormal



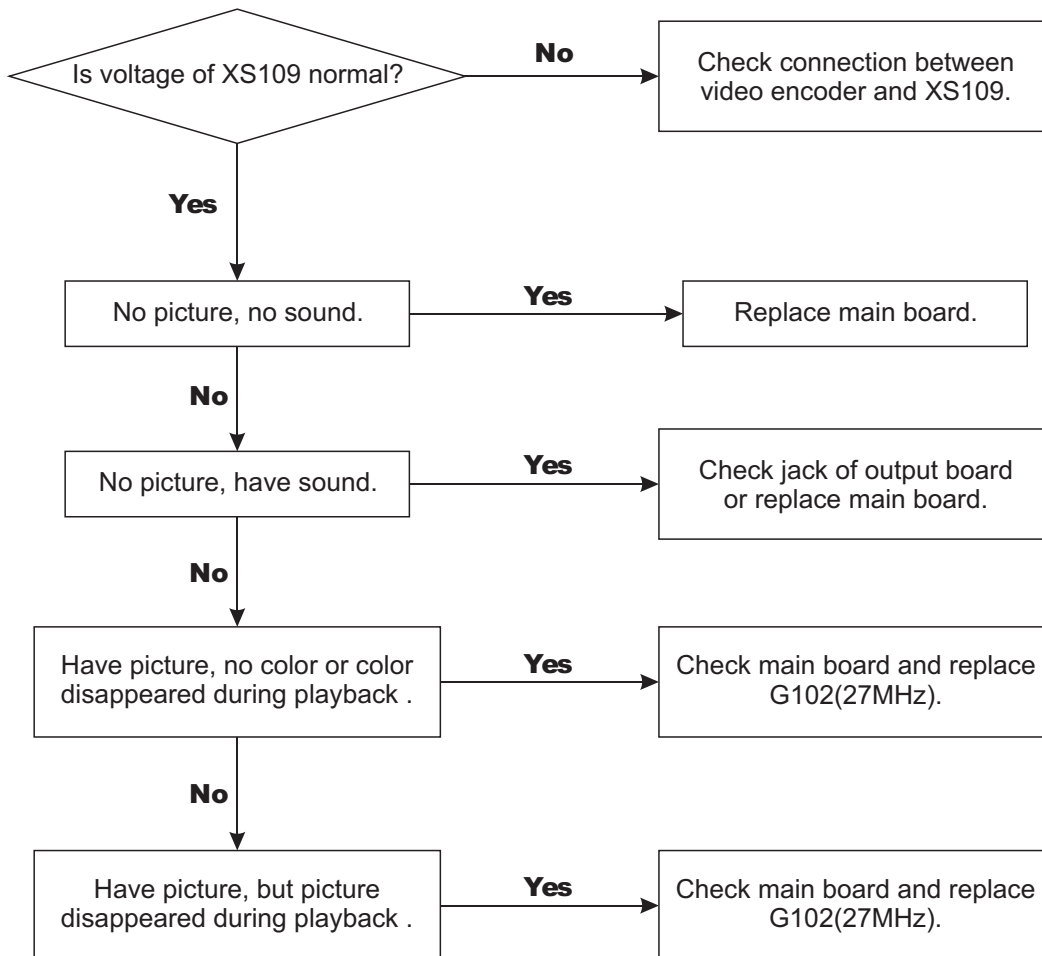
C Open/close abnormal



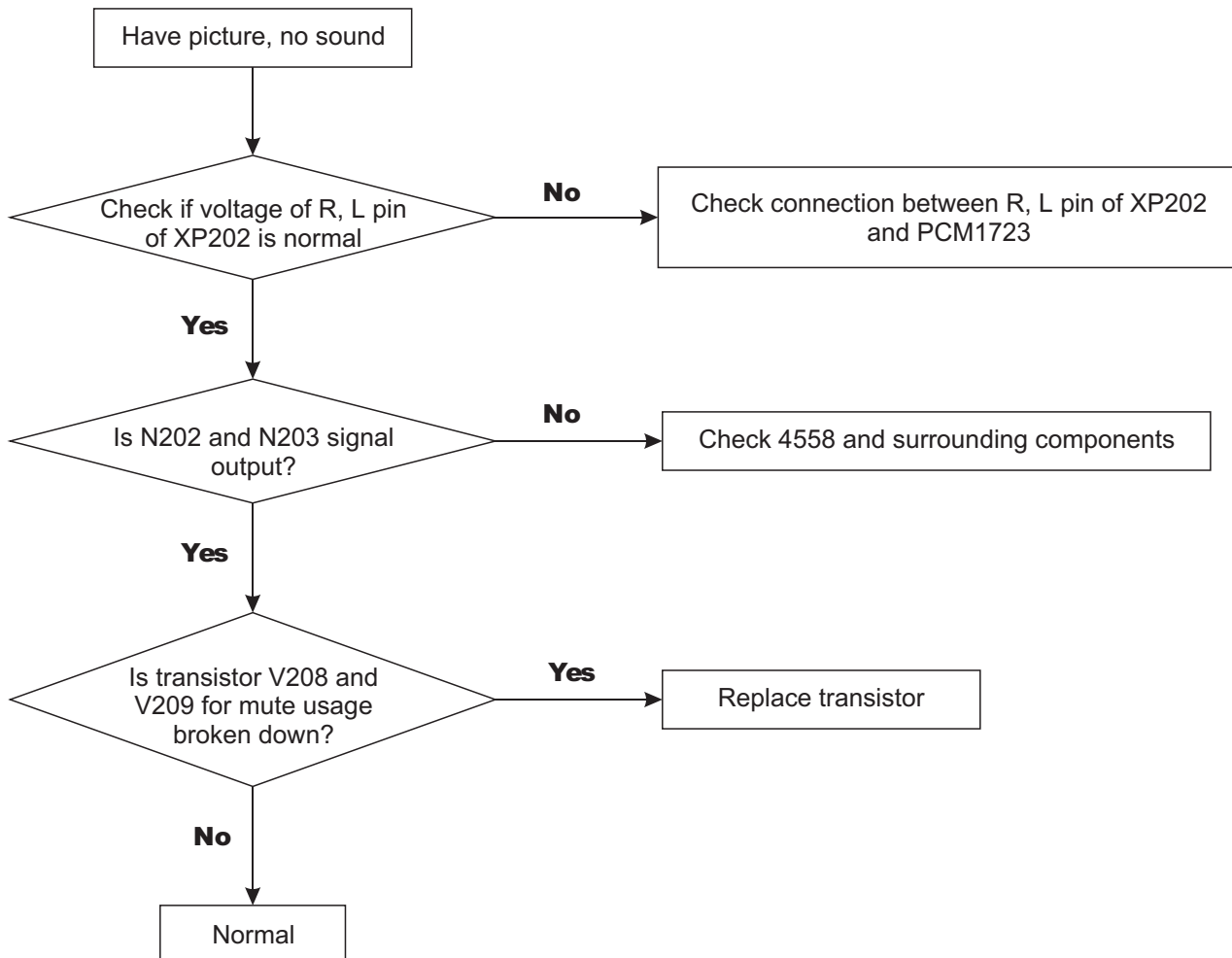
D Read disc abnormal



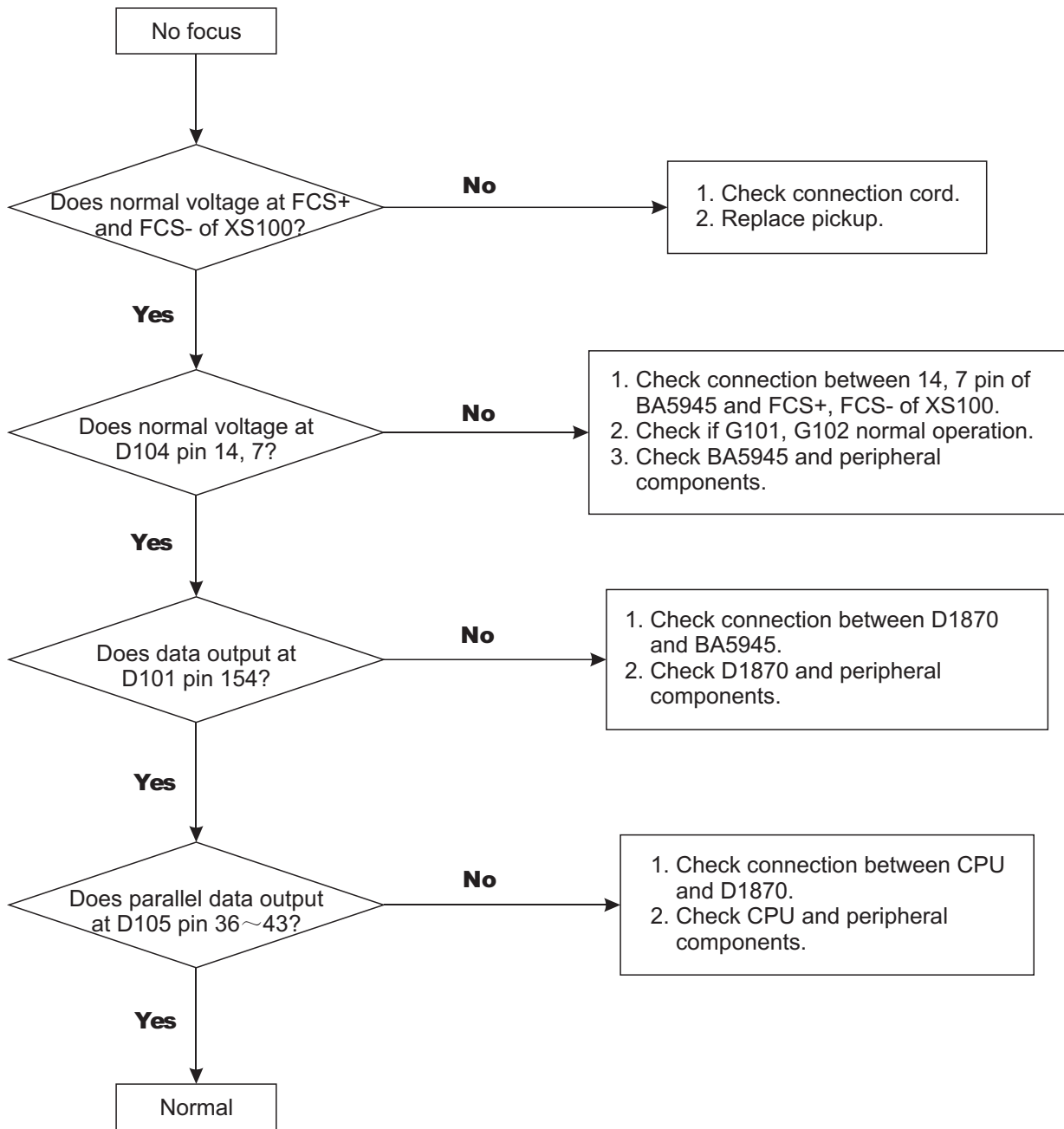
E Video abnormal



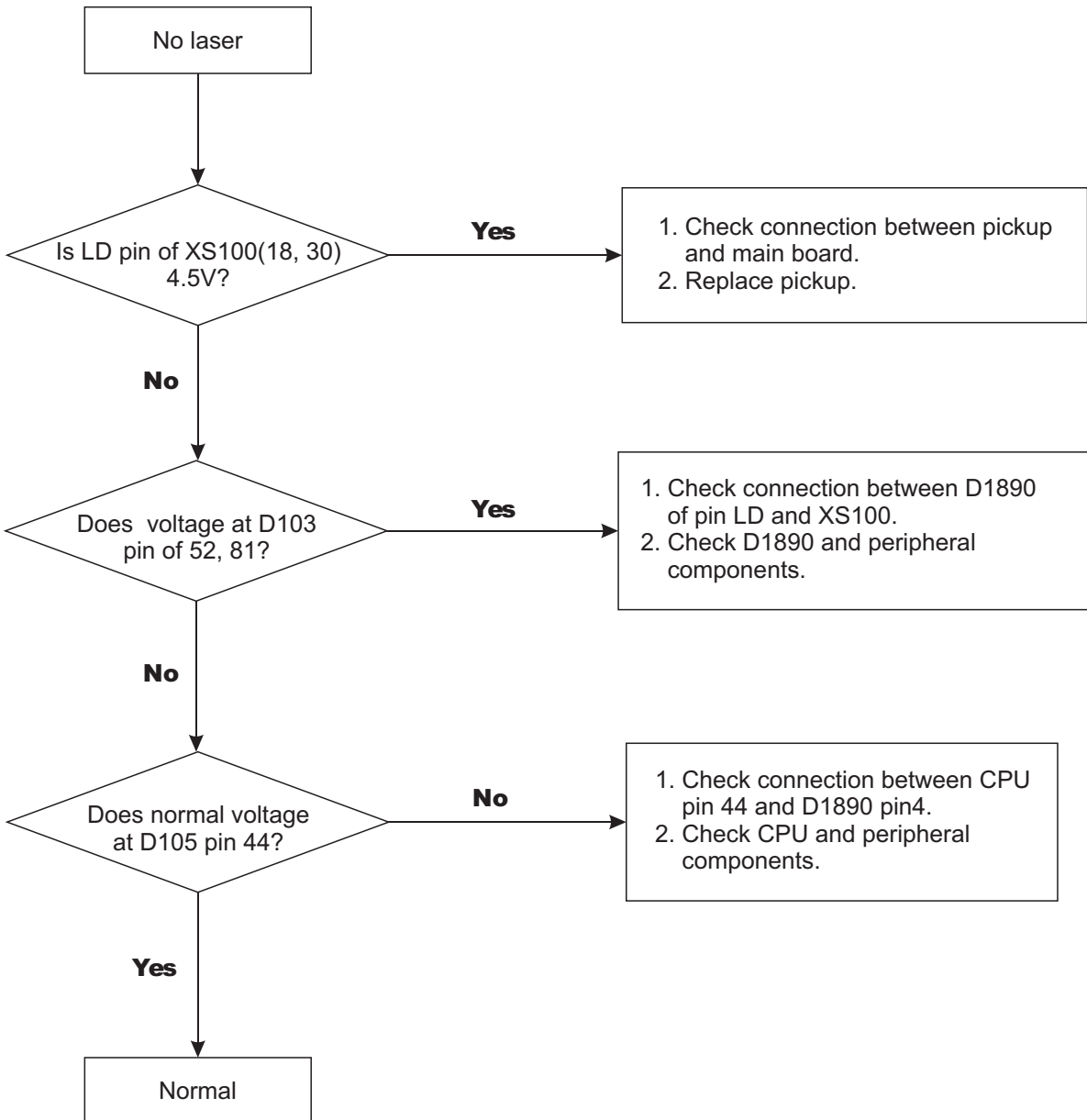
F Audio abnormal



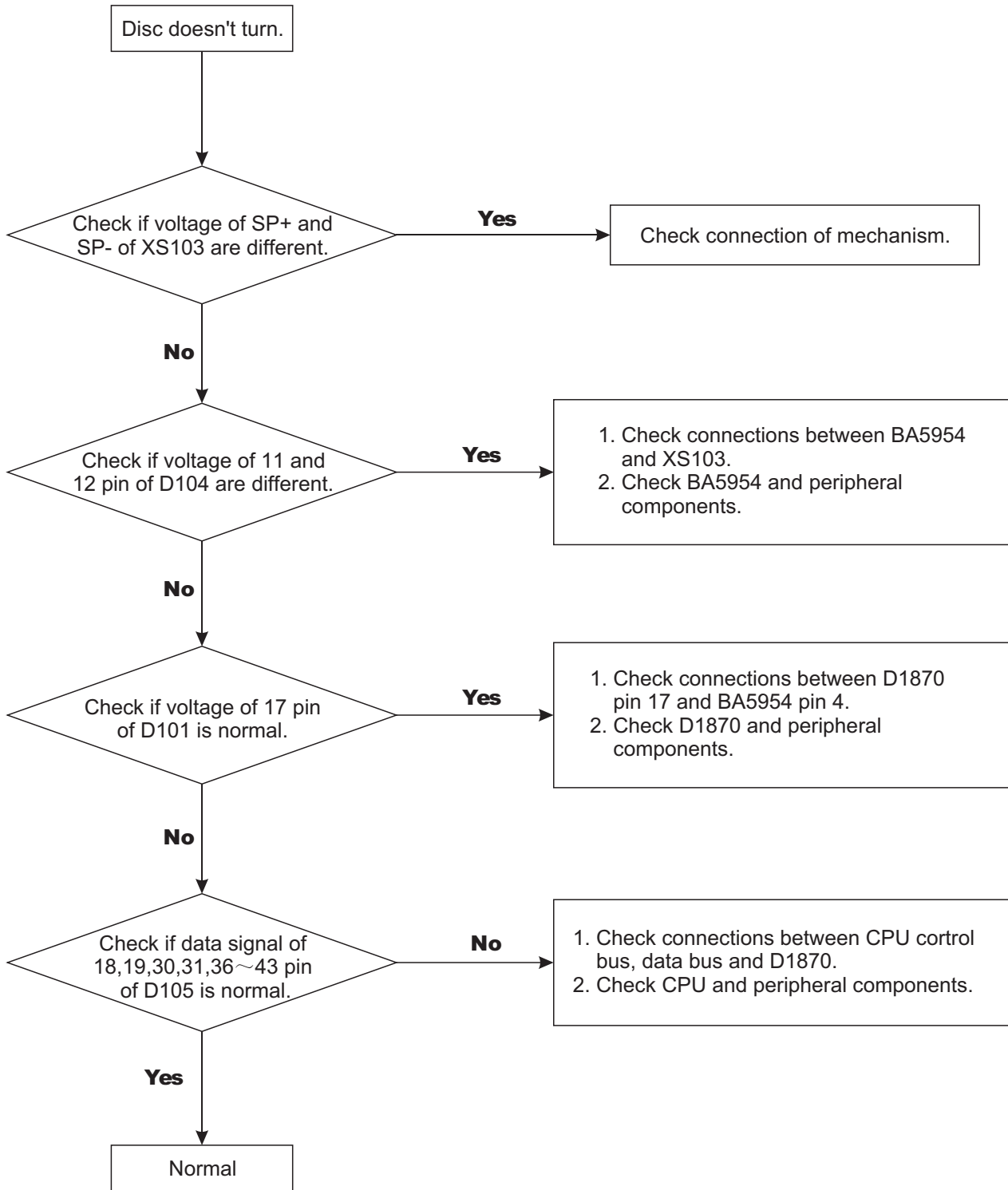
G Focus abnormal



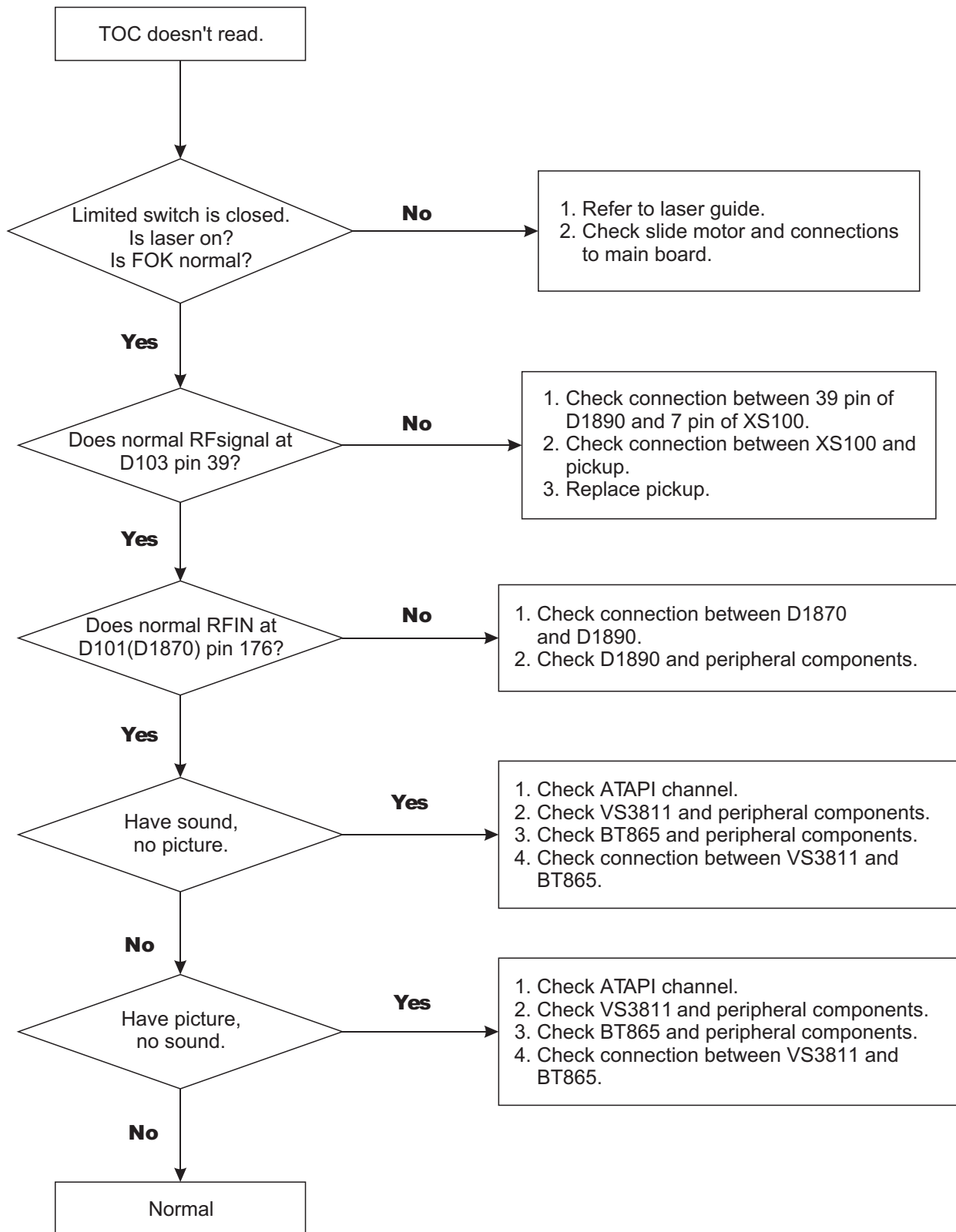
H Laser abnormal

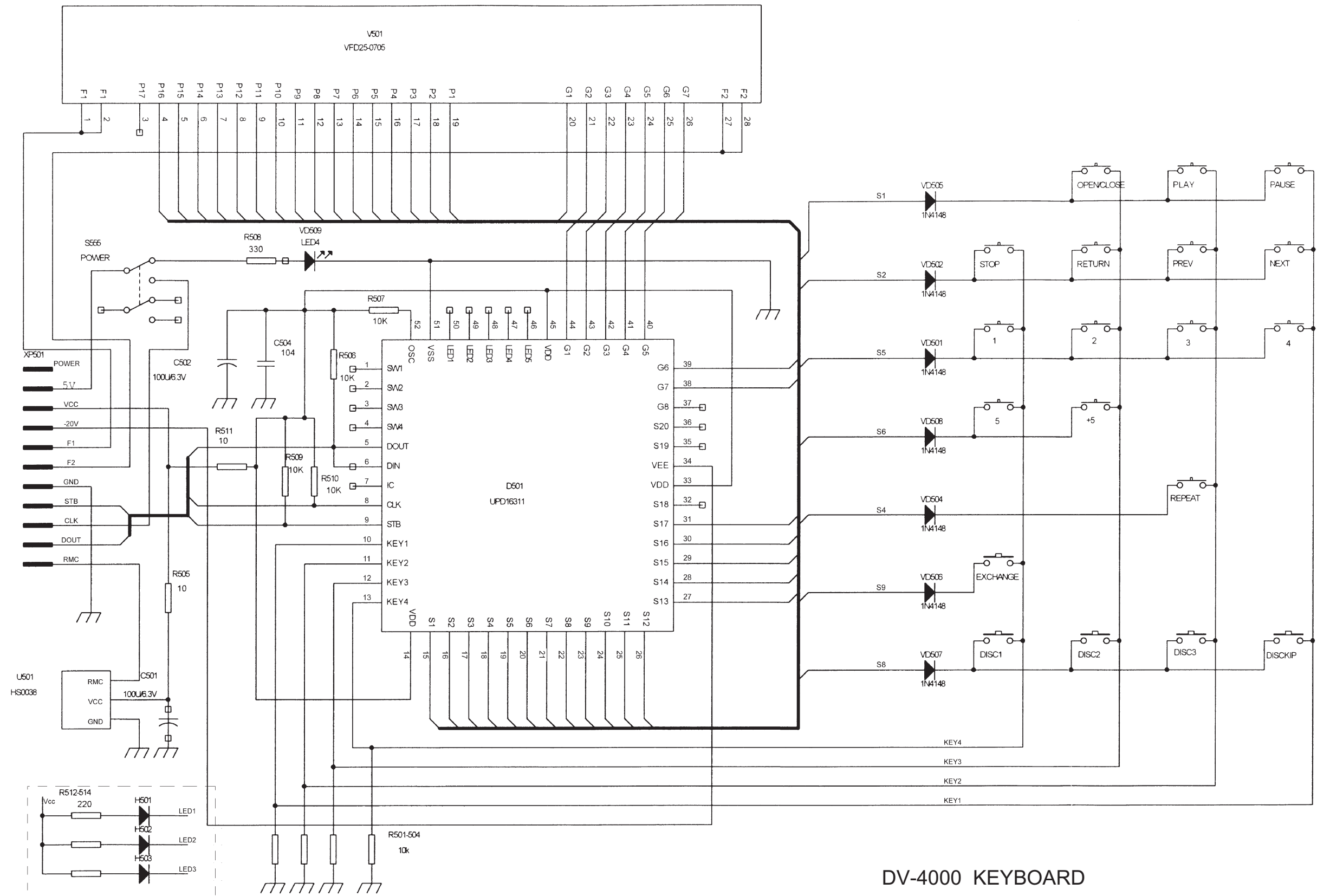


I Turn abnormal

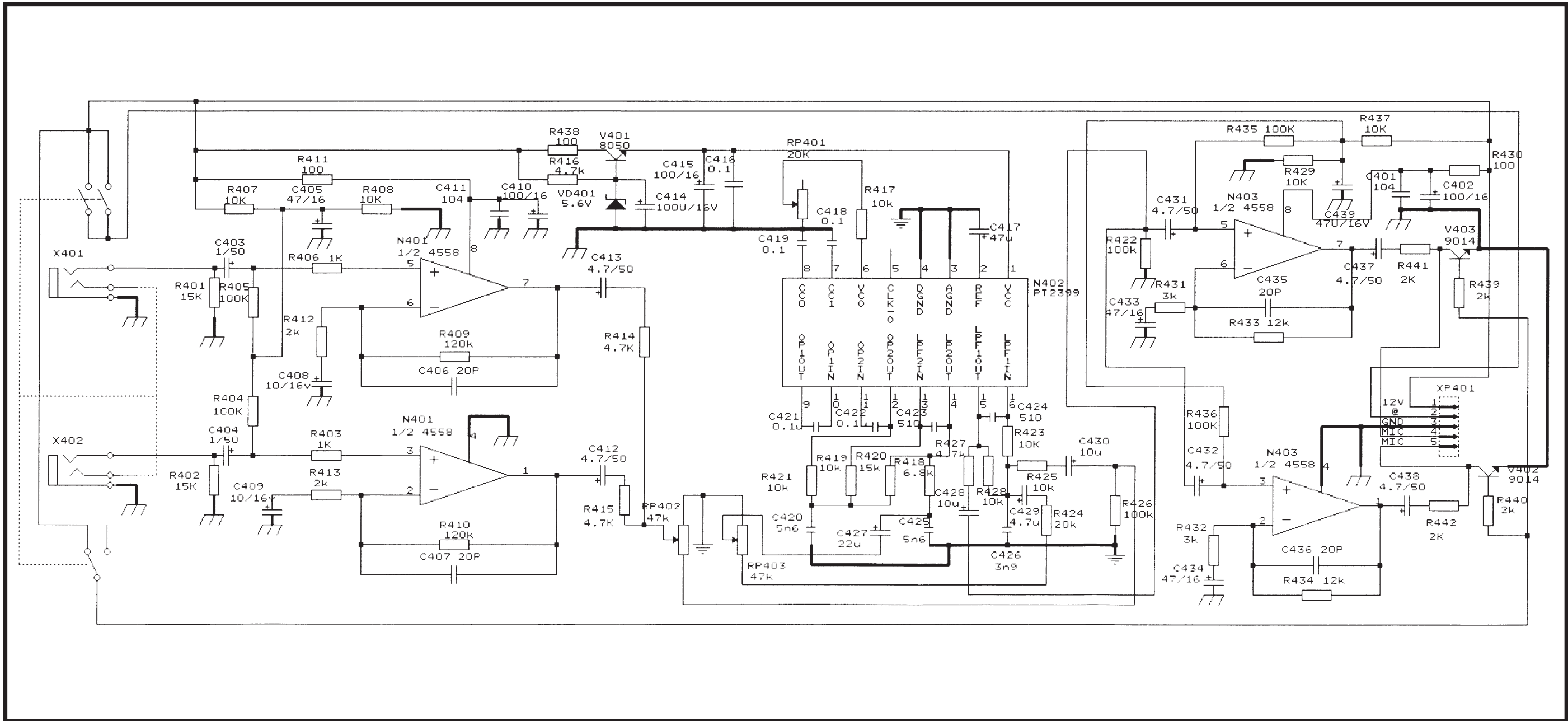


J TOC abnormal

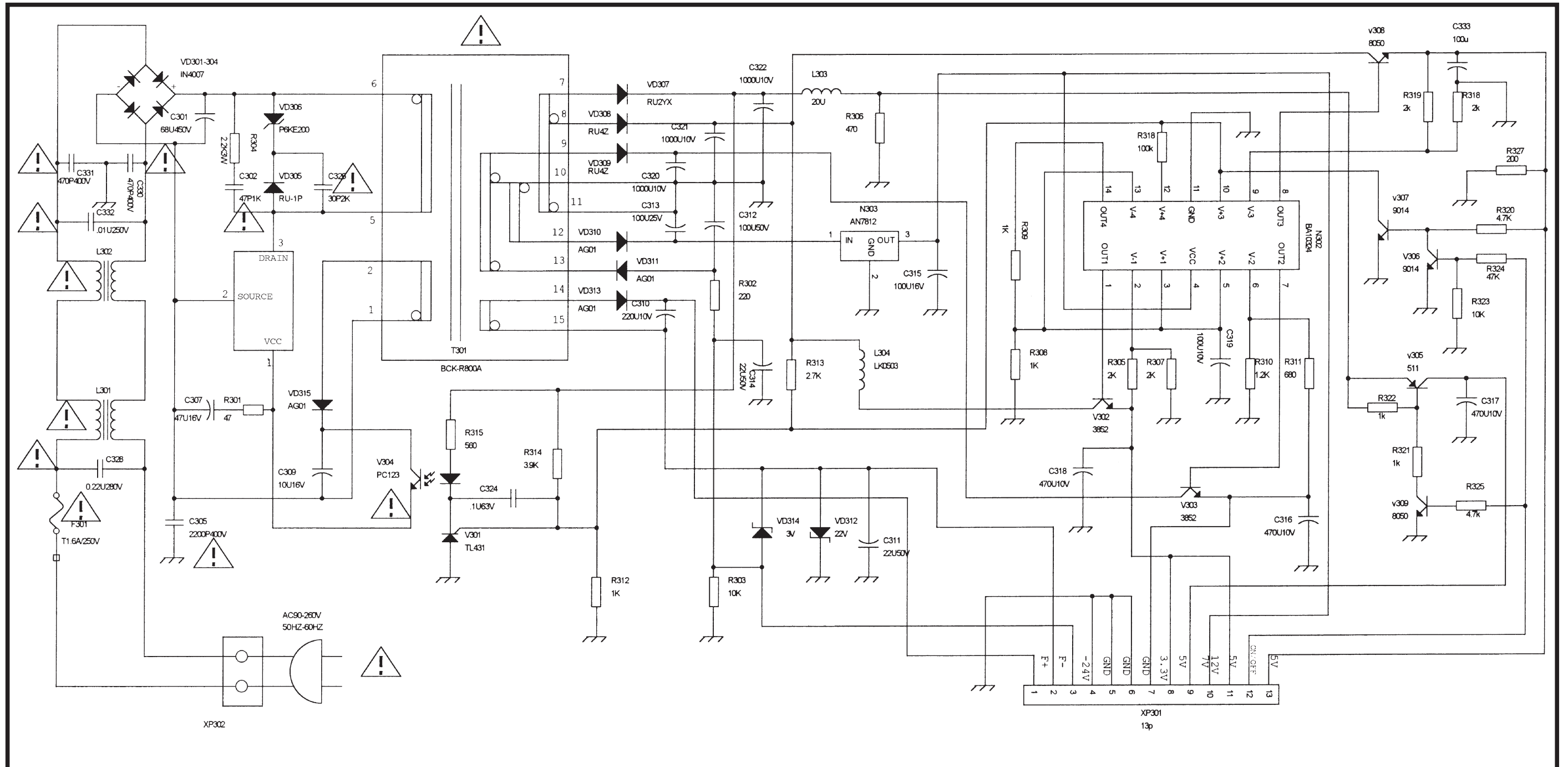




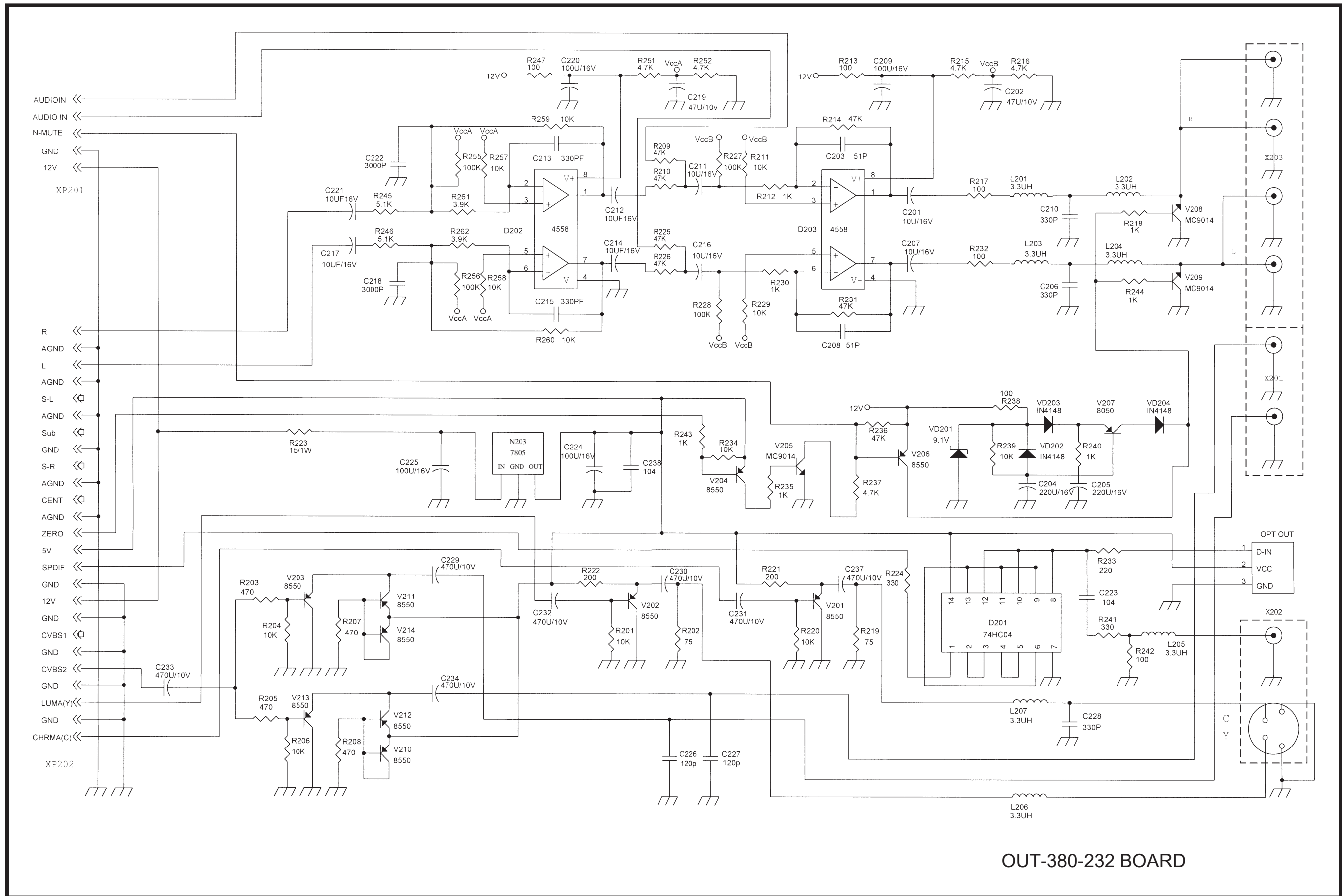
DV-4000 KEYBOARD



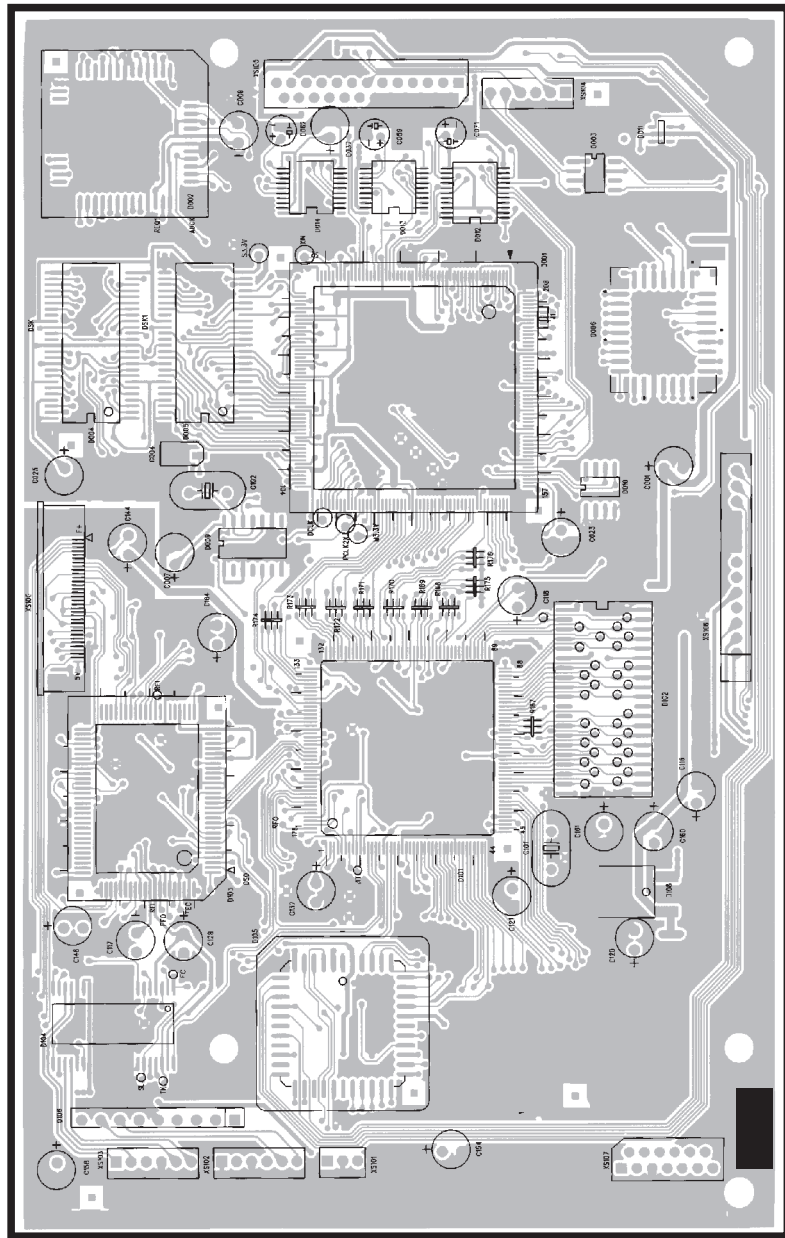
DV-4000 MICPHONE BOARD



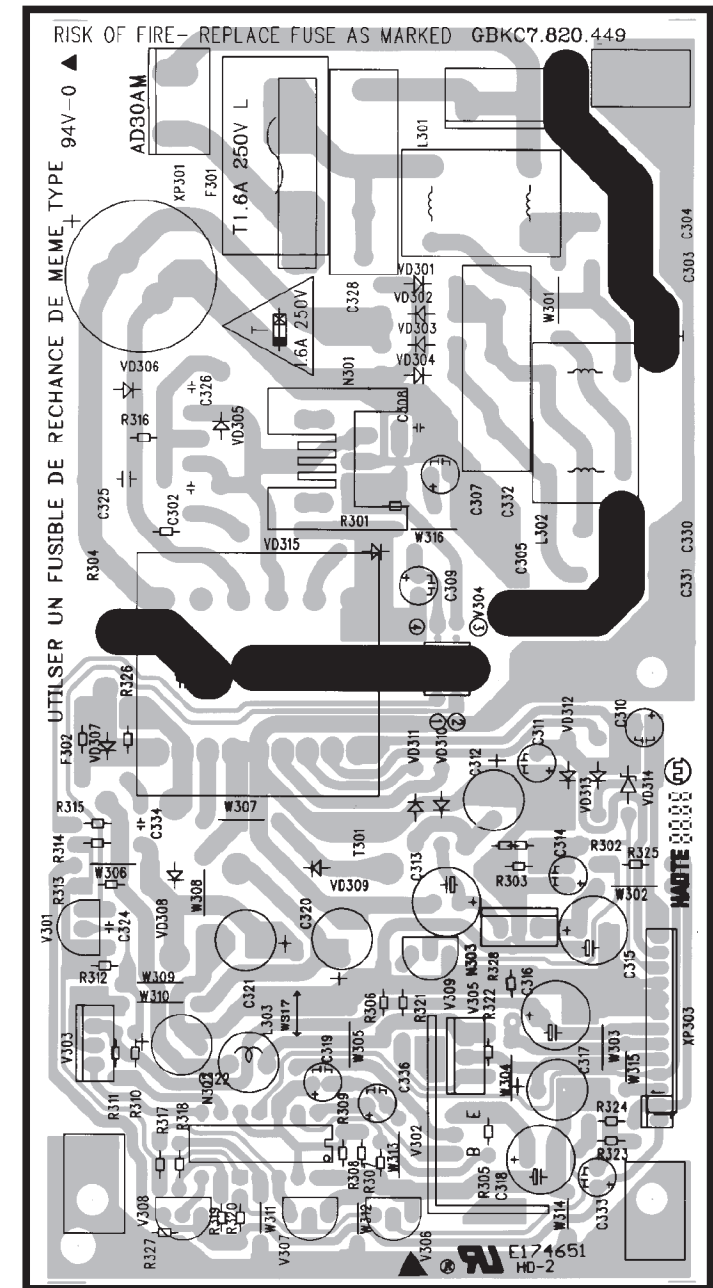
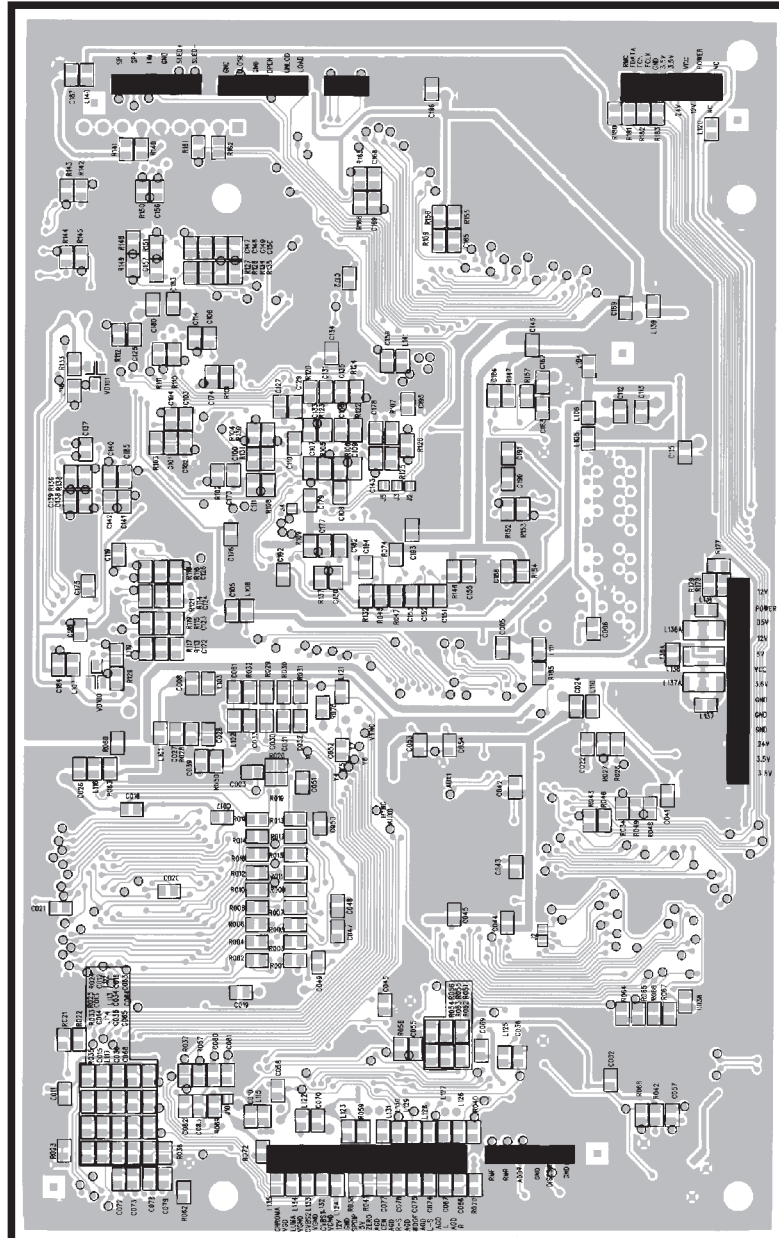
AD30 POWER BOARD



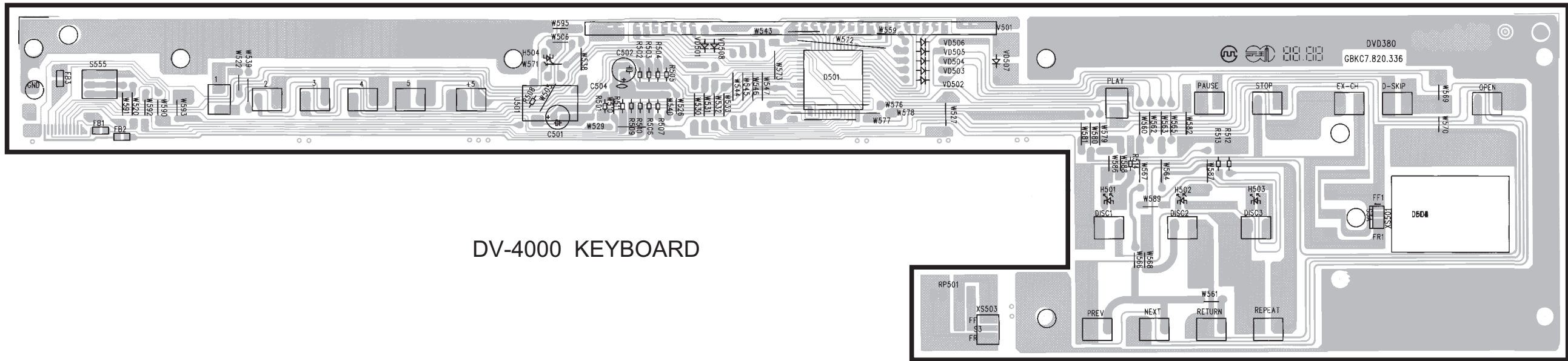
OUT-380-232 BOARD



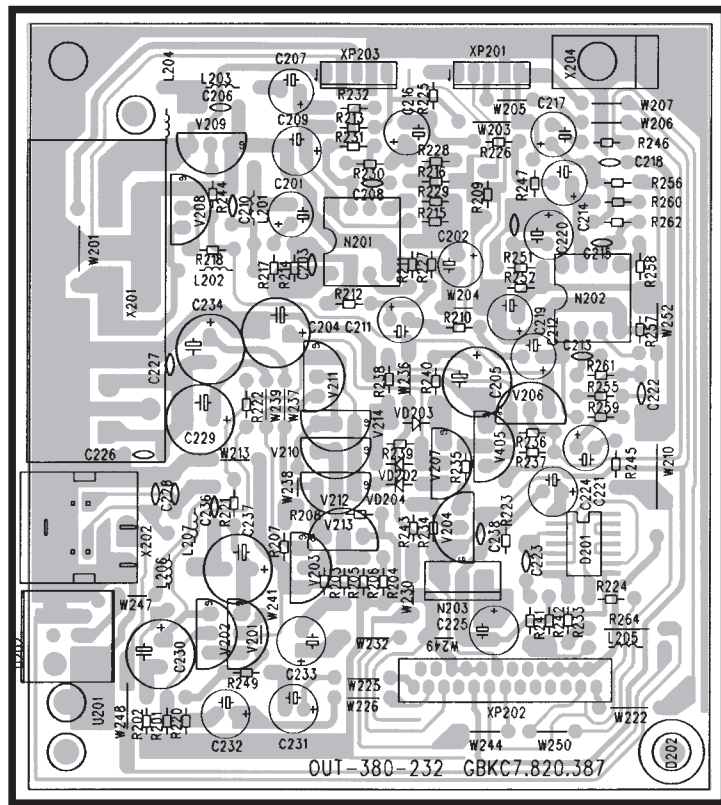
DSM2032 MAIN UNIT



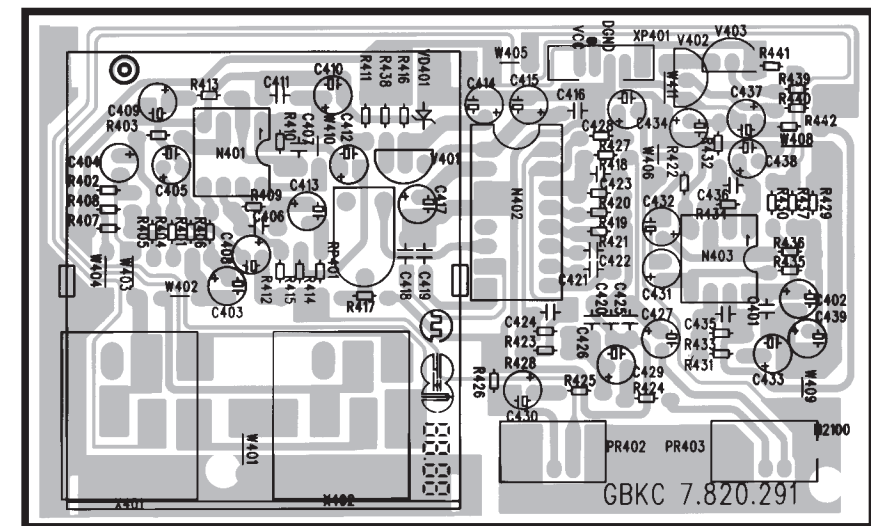
AD30 POWER BOARD



DV-4000 KEYBOARD

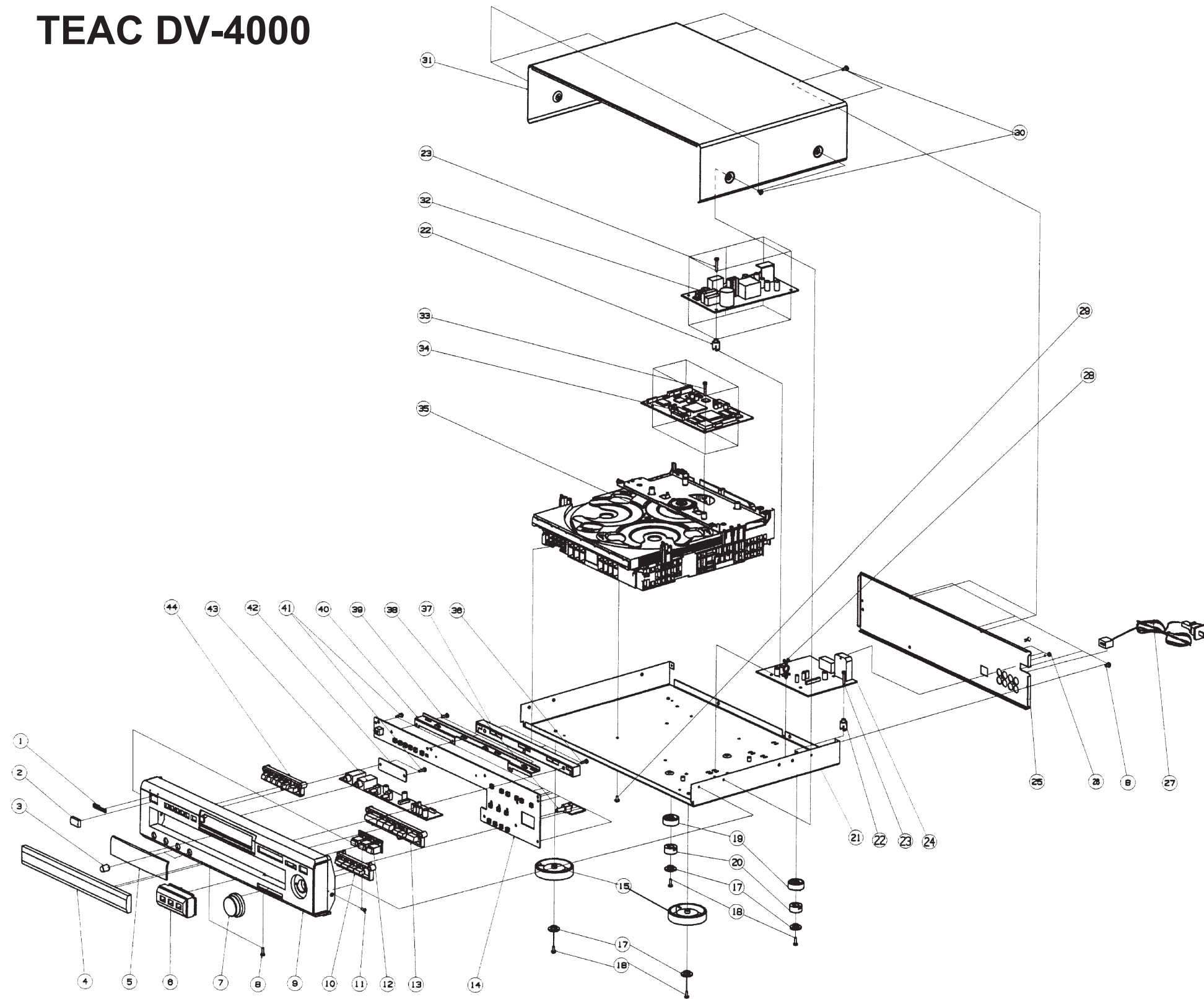


OUT-380-232 OUTPUT BOARD



DV-4000 MICPHONE BOARD

TEAC DV-4000



No.	REF No.	SPECIFICATION
1		TEAC CHARACTER
2	b3414j	POWER BUTTON
3	b3416j	ECHO KNOB
4	b5659j	DOOR
5	b3417	TRANSPARENT WINDOW
6	b3418j	ADORN PANEL
7	b3422j	KNOB
8	a2817	SCREW M3×6
9	b5657j	FRONT PANEL
10	b3412j	FUNCTION BUTTON C
11	a2768	SCREW ST3×8F
12	b3413	FUNCTION BUTTON D
13	b3411j	FUNCTION BUTTON B
14	0556	KEY UNIT
15	b6033	FOOT D
17	b1632	FOOT SPACER
18	a2766	SCREW ST3×12
19	b3019	FOOT B1
20	b3020	FOOT SPACER A1
21	b5658	CHASSIS E
22	b1626	SPACER
23	a2777	SCREW ST3×20
24	S2122	OUTPUT UNIT
25	b3425	REAR PANEL A
26	a2820	SCREW ST3×8
27	S2646	POWER CORD
28	b3183	WIRE CLIP
29	a2773	SCREW ST3×8FT
30	a2819	SCREW ST3×6
31	b3407j	TOP PANEL
32	S2154	POWER UNIT
33	a2722	SCREW M3×6
34	0537	MAIN UNIT
35	S2265	MECHANISM UNIT
36	a2635	SCREW ST3×8C
37	b5663	DOOR BRACKET
38		SEARCH SWITCH UNIT
39	a2637	SCREW ST3×12FT
40	b3402	TOP PANEL BRACKET
41	a2774	SCREW ST3×10FT
42	b1705	MIC SPACER
43	S2083	MIC UNIT

REPLACEMENT PARTS LIST

ELECTRICAL REPLACEMENT PARTS LIST

PARTS No.	PARTS NAME	Q TY PRICE
DV-4000		
0556	DVD380KA KEY UNIT	1
S2265	AT3-231A MECHANISM UNIT	1
S2154	AD30AM POWER UNIT	1
S2122	OUT-380-232 OUTPUT UNIT	1
0537	DSM2032 MAIN UNIT	1
S2083	D380 MIC UNIT	1
S3136	CC-1.0-25-160 FLAT FOIL WIRE	1
S3137	CC-1.0-12-300 FLAT FOIL WIRE	1
S2655	RCA CORD AV	1
S0671	RC804 REMOTER	1
S2646	VDE POWER CORD	1
S3024	POWER CORD HOLE	1
S0872	TEAC GUARANTEE CARD	1
S2701	7# BATTERY	2
S1021	DV4000 INSTRUCTIONS MANUAL	1
DVD380KA KEY UNIT		
a5493	DVD380KA KEY PCB	1
RESISTOR		
G0705	RT13-0.167W-10 \pm 5%	2
G0774	RT13-0.167W-220 \pm 5%	3
G0735	RT13-0.167W-10K \pm 5%	8
a0720	RT13-0.167W-1.2K \pm 5%	1
G0714	RT13-0.167W-180 Ω \pm 5%	1
CAPACITOR		
a3304	CT4-0.1u+50%-63V	1
a3540	CD110X-100u+50%	2
OTHER		
a5004	1N4148	8
a1500	ϕ 3 RED LED	1
a1548	GF4 \times 5 GREEN LED	3
a6873	RFC-W8.5T SWITCH	1
a6765	DISPLAY VFD25-0705	1
G6434	TOUCH EVQ21504M(4.5mm)	19
a6444	HS0038 RECEIVER	1
P4399	UPD16311	1
a6216	KHWX3-3W1D	1
a6508	B-2B-PH	1
a6569	12FPZ-SM-TF	1
a8724	SEARCH SWITCH CORD	1
a8746	GROUND CORD	1
DVD380 MIC UNIT		
a5495	DVD380 MIC PCB	1
RESISTOR		
G0712	RT13-0.167W-100 \pm 5%	3
G0719	RT13-0.167W-1K \pm 5%	2
G0721	RT13-0.167W-2K \pm 5%	6
G0724	RT13-0.167W-3K \pm 5%	2
G0728	RT13-0.167W-4.7K \pm 5%	4
G0731	RT13-0.167W-6.8K \pm 5%	1
G0735	RT13-0.167W-10K \pm 5%	10
G0737	RT13-0.167W-12K \pm 5%	2
G0738	RT13-0.167W-15K \pm 5%	3
G0740	RT13-0.167W-20K \pm 5%	1
G0753	RT13-0.167W-100K \pm 5%	5
G0754	RT13-0.167W-120K \pm 5%	2
a0511	WH0615-22K	1
a0600	WH90111-50K-20S-5	2
CAPACITOR		
a2015	CC1-06-b-20P \pm 10%-63V-S	4
a2038	CC1-06-b-510P \pm 10%-63V-S	2
a3304	CT4-0.1u+50%-63V	3
a3306	CT4-0.22u+50%-63V	2
a3041	CL11-3n9 \pm 10%-63V	1
a3044	CL11-5n6 \pm 10%-63V	1
a3505	CD11-1u+50%-16V	1
a3508	CD11-4.7u+50%-16V	7
a3509	CD110X-16V-10u+50%	4
a3510	CD110X-16V-22u+50%	1
a3512	CD110X-16V-47u+50%	5
a3609	CD110-16V-100u+50%	4

PARTS No.	PARTS NAME	Q TY PRICE
OTHER		
a8768	MIC WIRE	1
a5014	C8050	1
a5009	9014C	2
a4503	PT2399	1
a4042	AN4558	2
a6651	CKX-6.35-7 JACK	2
a1118	2CS-5.6V	1
AD30AM POWER UNIT		
a5607	AD30AM POWER PCB	1
RESISTOR		
G0776	RT13-0.167W-560 \pm 5%	1
G0903	RT13-0.167W-620 \pm 1%	1
G0719	RT13-0.167W-1K \pm 5%	4
G0904	RT13-0.167W-1.1K \pm 1%	1
G0721	RT13-0.167W-2K \pm 5%	2
G0726	RT13-0.167W-3.9K \pm 5%	1
G0028	RT14-0.25W-220 \pm 5%	1
G0735	RT13-0.167W-10K \pm 5%	2
G0748	RT13-0.167W-47K \pm 5%	1
G0053	RT14-0.25W-2.7K \pm 5%	1
G0017	RT14-0.25W-47K \pm 5%	1
G0028	RT14-0.25W-220 \pm 5%	1
G0036	RT14-0.25W-470 \pm 5%	1
G0053	RT14-0.25W-2.7K \pm 5%	1
G0059	RT14-0.25W-4.7K \pm 5%	1
a0514	RY28-3W-2.2K \pm 5%	1
G0044	RT14-0.25W-1K \pm 5%	1
G0024	RT14-0.25W-120 \pm 5%	1
DIODE		
a5005	IN4007	4
a1205	RU1P	1
a1225	P6KE200	1
a1560	11EFS2	1
a1204	RU4Z	2
a1203	RU2YX	1
a1102	2CW-3W	1
CAPACITOR		
a2063	CT81-1KV-2B4-470K	1
a3312	CT81-AC400V-2B4-471K-YA	2
a3313	CT81-AC400V-2E-222M-YA	1
a2064	CT81-2KV-2B4-300K	1
a3350	CIS-280VAC-X2-0.01K	1
a3447	CIS-280VAC-0.22M	1
a3304	CT4-63V-0.1u+50%	1
a3558	CD11-10V-100u \pm 20%	1
a3512	CD11-16V-47u \pm 20%	1
a3558	CD11-10V-100u \pm 20%	1
a3559	CD11-10V-220u \pm 20%	1
a3513	CD11-16V-100u \pm 20%	1
a3519	CD11-25V-100u \pm 20%	1
a3543	CD11-50V-100u \pm 20%	1
a3607	CD11-50V-220u \pm 20%	2
a3561	CD11-10V-470u \pm 20%	3
a3676	CD263-10V-1000u \pm 20%	3
a3645	CD295-450V-68u \pm 20%	1
TRIODE, IC, PHOTO		
a1570	10ELS4	3
a5063	3DA3852	2
a4031	KA7812	1
a4584	TOP223Y	1
a4557	KA431LZ	1
a5094	PC123FY2	1
a4026	LM324	1
a5055	2SB772	1
a5009	9014C	2
a5014	C8050	1
INDUCTOR		
a6686	LV-R1487 POWER FILTER	23
a6629	VF2327L-253YOR7	1

PARTS No.	PARTS NAME	Q TY PRICE
a6621	COIL-0.02MH	1
SWITCH TRANSFORMER		
a6764	BCK-R800A	1
FUSE		
a6763	RT1-20-1.6(T1.6A/250V)	1
OTHER		
a6826	3951P03V	1
a6929	FUSE HOLDER	2
a8698	2×12-250 DC POWER CORD	1
OUT-380-232 OUTPUT UNIT		
a5564	OUT-380-232 OUTPUT PCB	1
RESISTOR		
a0519	RY28-1W-15±5%	1
G0712	RT13-0.167W-100±5%	7
G0773	RT13-0.167W-200±5%	3
G0717	RT13-0.167W-330±5%	1
G0814	RT13-0.167W-390±5%	1
G0718	RT13-0.167W-470±5%	2
G0719	RT13-0.167W-1K±5%	8
G0724	RT13-0.167W-3K±5%	2
G0728	RT13-0.167W-4.7K±5%	5
G0729	RT13-0.167W-5.1K±5%	2
G0735	RT13-0.167W-10K±5%	11
G0748	RT13-0.167W-47K±5%	7
G0753	RT13-0.167W-100K±5%	4
CAPACITOR		
a2308	CT1-50V-680P±5%	1
a2014	CC1-63V-18P±10%	1
a2024	CC1-63V-51P±10%	2
a2032	CC1-63V-220P±10%	2
a2307	CC1-50V-330p±5%	4
a3009	CL11-63V-3000p±20%	2
a3336	CT1-63V-0.1u±20%	2
a3509	CD110X-16V-10u±20%	8
a3512	CD110X-16V-47u±20%	2
a3513	CD110X-16V-100u+80%	7
a3514	CD110X-16V-220u+80%	2
a3561	CD110X-16V-470u+80%	3
INDUCTOR		
a6452	3.3uH	5
a6552	1.8uH	1
DIODE		
a5004	IN4148	3
TRIODE		
a5104	8550D(β:200~300)	4
a5014	C8050	3
a5011	9015C	2
IC		
P4516	74HCU04A	1
a4707	TOT×178A	1
a4042	AN4558	2
a4571	CW7805	1
OTHER		
a6774	CKX06-C JACK	1
a6762	CS-01 JACK	1
a6510	B-5B-PH SOCKET	1
a6613	52806-2510 FLAT FOIL SOCKET	1