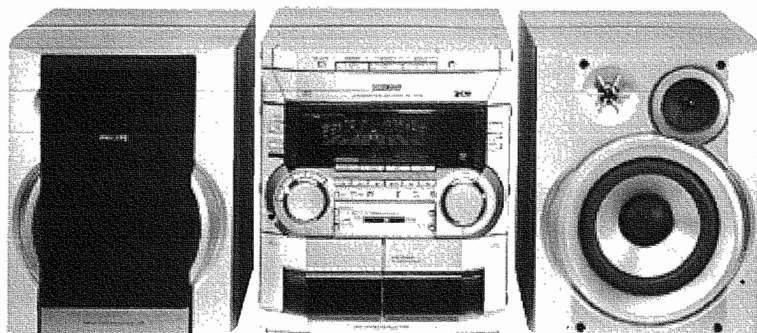


Service
Service
Service



Service Manual



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3139 785 22290

PCS 103 647



PHILIPS

SPECIFICATIONS

GENERAL:

Mains voltage : 110-127V/220-240V Switchable for /21/21M
 120V for /37
 220V for /33
 220-230V for /22/34
 230-240V for /30

Mains frequency : 50/60Hz
 Power consumption : < 2W at Low Power Standby
 : < 20W at Standby
 170W at 1/8 rated power out
 Clock accuracy : < 4 seconds per day
 Dimension centre unit : 265 x 310 x 390mm

TUNER:

FM

Tuning range : 87.5-108MHz
 65.81-74MHz for /34 1)
 Grid : 50kHz (& 30kHz for /34)
 100kHz for /37
 IF frequency : 10.7MHz ± 25kHz
 Aerial input : 75ohm coaxial
 300ohm click fit for /37

Sensitivity at 26dB S/N : < 7µV
 Selectivity at 600kHz bandwidth : > 25dB
 Image rejection : > 25dB [> 75dB]
 Distortion at RF=1mV, dev. 75kHz : < 3%
 -3dB Limiting point : < 8µV
 Crosstalk at RF=1mV, dev. 40kHz : > 18dB

MW

Tuning range : 531-1602kHz
 530-1700kHz for /21/21M/37
 Grid : 9kHz
 10kHz for /21/21M/37

IF frequency : 450kHz ± 1kHz
 Aerial input : Frame aerial
 Sensitivity at 26dB S/N : < 4.0mV/M
 Selectivity at 18kHz bandwidth : > 18dB
 IF rejection : > 45dB
 Image rejection : > 28dB
 Distortion at RF=50mV, m=80% : < 5%

LW

Tuning range : 153-279kHz
 Grid : 3kHz
 IF frequency : 450kHz ± 1kHz
 Aerial input : Frame aerial
 Sensitivity at 26dB S/N : [< 7.0mV/M]
 Selectivity at 18kHz bandwidth : [> 24dB]
 IF rejection : [> 26dB]
 Image rejection : [> 35dB]
 Distortion at RF=50mV, m=80% : [< 5%]

AMPLIFIER:

Output power (6ohms, 1kHz, 10% THD)
 L & R : 2 x 100W
 Frequency response at -3dB : 60Hz-16kHz
 Digital Sound Control (DSC) :
 Optimal, Classic, Techno, Jazz, Rock, Vocal
 Virtual Environment Control (VEC) :
 Hall, Disco, Concert, Club, Cinema, Arcade
 Dynamic Bass Boost (DBB) :
 BEAT, PUNCH, BLAST, DBB OFF

Headphone output at 32 ohms : 18mW ± 1dB

Input sensitivity

Aux in : 500mV ± 2dB, 1kHz
 Microphone : 4mV ± 2dB
 Output sensitivity
 Line out (Left/Right) : 500mV ± 2dB at 22 kohms
 Subwoofer out (100Hz) : 1.3V ± 2dB at 22 kohms
 at maximum volume

CASSETTE RECORDER:

Number of track : 2 x 2 stereo
 Tape speed : 4.76 cm/sec ± 2%
 Wow and flutter : < 0.4% (DIN)
 Fast-wind/Rewind time C60 : 130 sec
 Bias system : 75kHz ± 10kHz
 Rec/Pb frequency response within 8dB : 80Hz - 12.5kHz
 Signal to noise ratio (unweighted): > 44dB

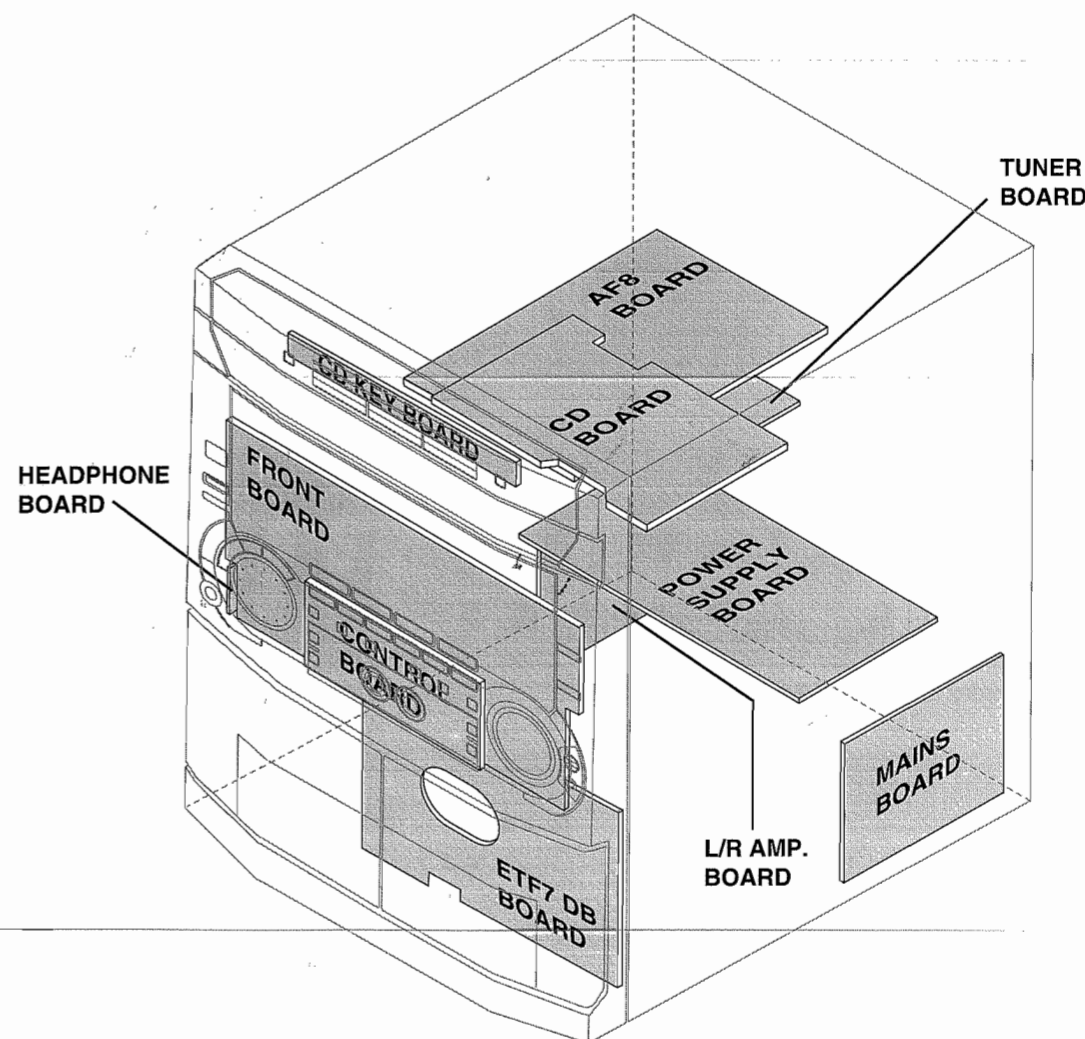
COMPACT DISC:

Measurement done at Set level at 6 ohms speaker loads.
 Frequency response : < ±3dB for 63Hz-14kHz
 Signal to Noise ratio (Unweighted) : 60dBA
 Signal to Noise ratio (A-weighted) : 67dBA
 THD (30Hz-16kHz) : 1.5%
 Channel difference (250Hz-10kHz) : < ±2dB
 Channel separation (20Hz-20kHz) : 30dB
 (1kHz) : 40dB

[...] Values indicated are for "Tuner 95 Board" only.

1) Default setting is OFF, to switch on please refer page 3-4.

LOCATION OF PRINTED CIRCUIT BOARDS



VERSION VARIATIONS:

Type /Versions:	FW-C90						
	/22						
Features & Board in used:							
Aux In	x						
Line Out	x						
Surround Out							
Subwoofer Out	x						
Digital Out	x						
Matrix Surround							
CD Text	x						
Dolby B	x						
RDS	x						
News	x						
Dolby Prologic (DPL)							
Incredible Surround							
Karaoke Features							
Voltage Selector							
Low Power Standby (Clock Display Off)	x						
Tuner board - EGO5 Sys							
Tuner board - Tuner 95	x						

SERVICE AIDS

Service Tools:

Universal Torx driver holder	4822 395 91019
Torx bit T10 150mm	4822 395 50456
Torx driver set T6 - T20	4822 395 50145
Torx driver T10 extended	4822 395 50423

Cassette:

SBC419 Test cassette CrO2	4822 397 30069
SBC420 Test cassette Fe	4822 397 30071
MTT150 Dolby level 200nWb/M	4822 397 30271

Compact Disc:

SBC426/426A Test disc 5 + 5A	4822 397 30096
SBC442 Audio Burn-in Test disc 1kHz	4822 397 30155
SBC429 Audio Signals disc	4822 397 30184
Dolby Pro-logic Test Disc	4822 395 10216

ESD Equipment:

Anti-static table mat - large 1200x650x1.25mm ...	4822 466 10953
Anti-static table mat - small 600x650x1.25mm	4822 466 10958
Anti-static wristband	4822 395 10223
Connector box (1M Ω)	4822 320 11307
Extension cable (to connect wristband to conn. box)	4822 320 11305
Connecting cable (to connect table mat to conn. box)	4822 320 11306
Earth cable (to connect product to mat or box)	4822 320 11308
Complete kit ESD3 (combining all above products)	4822 320 10671
Wristband tester	4822 344 13999

HANDLING CHIP COMPONENTS

GENERAL

SCALE 1:1

SERVICE PACKAGE

DISMOUNTING

VACUUM PISTON
4822 395 10082

SOLDERING IRON
e.g. WELLER
SOLDER TIP PT-H7

OR

SOLDERING IRON
SOLDER WICK
4822 321 40042

e.g. A PAIR OF TWEEZERS

HEATING HEATING

SOLDERING IRON
SOLDER WICK
CLEANING

MOUNTING

e.g. A PAIR OF TWEEZERS

SOLDER
 \varnothing 0.5 - 0.8 mm

SOLDERING IRON
PRESSURE

SOLDERING TIME
< 3 sec/side

SOLDER
 \varnothing 0.5 - 0.8 mm

PRESSURE SOLDERING IRON

PRECAUTIONS

SOLDERING IRON RIGHT

COPPER TRACK

SOLDERING IRON CHIP COMPONENT

EXAMPLES

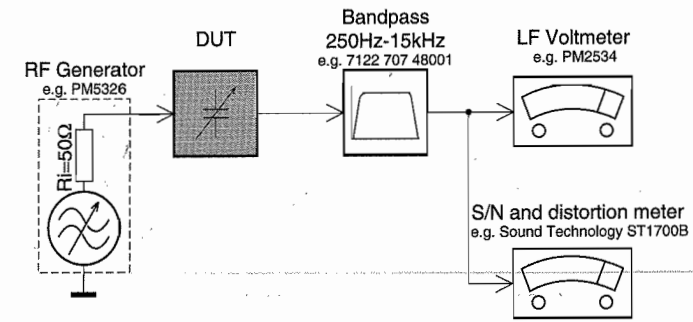
RIGHT

NO!

27 012C12

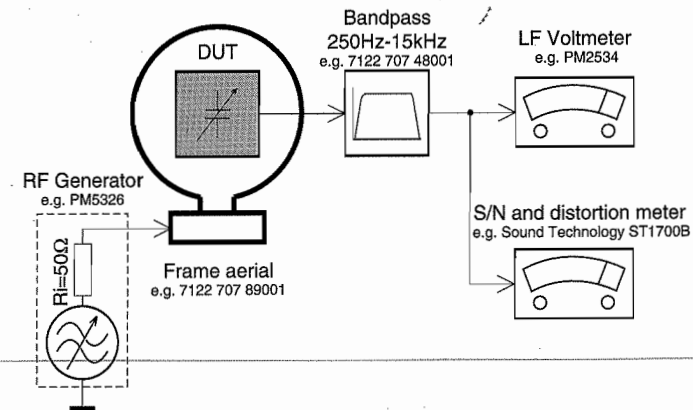
MEASUREMENT SETUP

Tuner FM



Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilotone (19kHz, 38kHz).

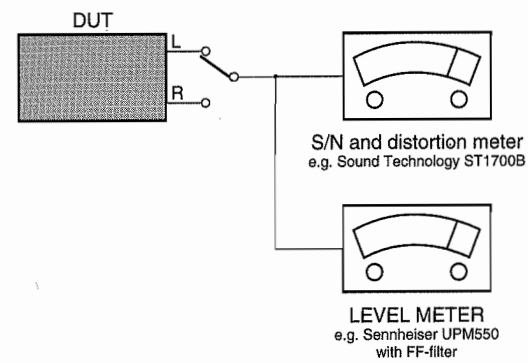
Tuner AM (MW,LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage. Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).

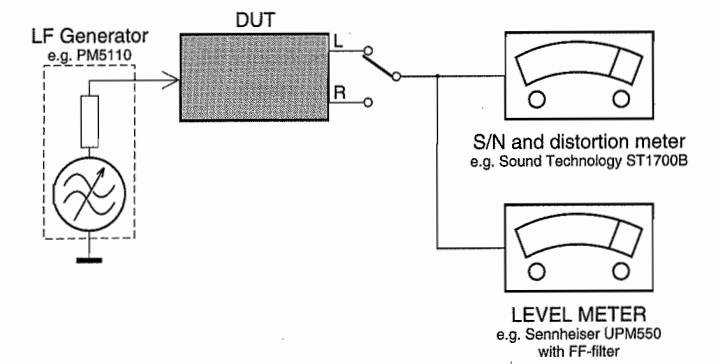
CD

Use Audio Signal Disc SBC429 4822 397 30184
(replaces test disc 3)



Recorder

Use Universal Test Cassette CrO2 SBC419 4822 397 30069
or Universal Test Cassette Fe SBC420 4822 397 30071



(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).

Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.

Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.

Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisés les pièces de rechange identiques à celles spécifiées.

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

"After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist. The leakage current must not exceed 0.5mA."

ESD**(NL) WAARSCHUWING**

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).

Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.

Houd componenten en hulpmiddelen ook op hetzelfde potentiaal.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).

La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.

Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.

Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).

Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.

Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.

Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

**(GB) Warning !**

Invisible laser radiation when open. Avoid direct exposure to beam.

(S) Varning !

Osynlig laserstrålning när apparaten är öppnad och spårren är urkopplad. Betrakta ej strålen.

(SF) Varoitus !

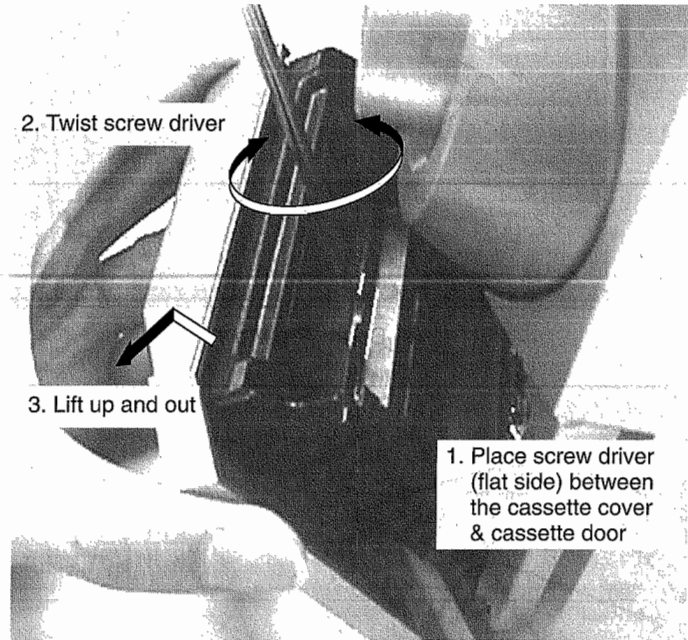
Avatussa laitteessa ja suoalukituksen ohitettaessa olet alltiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

(DK) Advarsel !

Usynlig laserstrålning ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for strålning.

DISMANTLING INSTRUCTIONS

Dismantling of the Cassette Cover

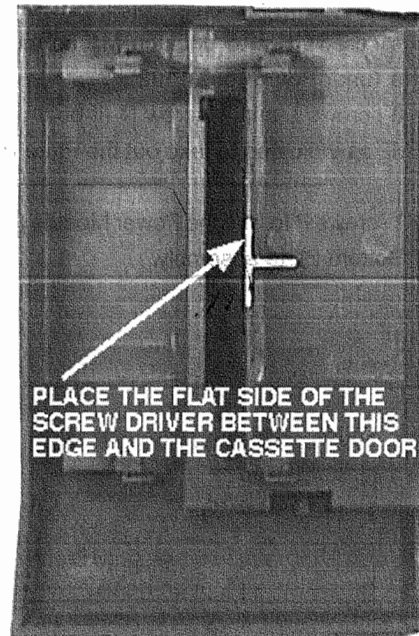


2. Twist screw driver

3. Lift up and out

1. Place screw driver (flat side) between the cassette cover & cassette door

Remove Cassette Cover

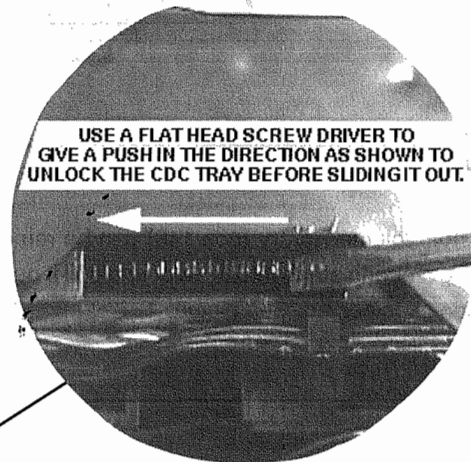
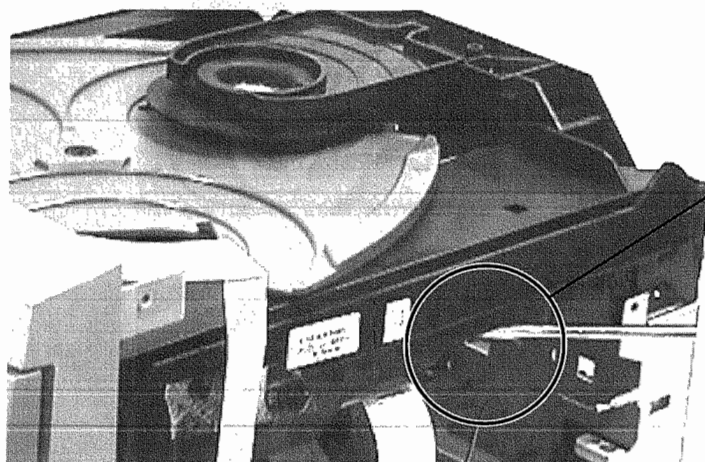


PLACE THE FLAT SIDE OF THE SCREW DRIVER BETWEEN THIS EDGE AND THE CASSETTE DOOR

Cassette Cover

Dismantling of the CDC Module and Front Panel

- 1) Loosen 16 screws to remove the Cabinet Rear (pos 259) of the set :-
 - 5 screws each on the left side & right side of the Cabinet Rear.
 - 6 screws at the rear of the Cabinet Rear.
- 2) Slide out the CDC Tray as shown in the diagram below with the help of a flat head screw driver.

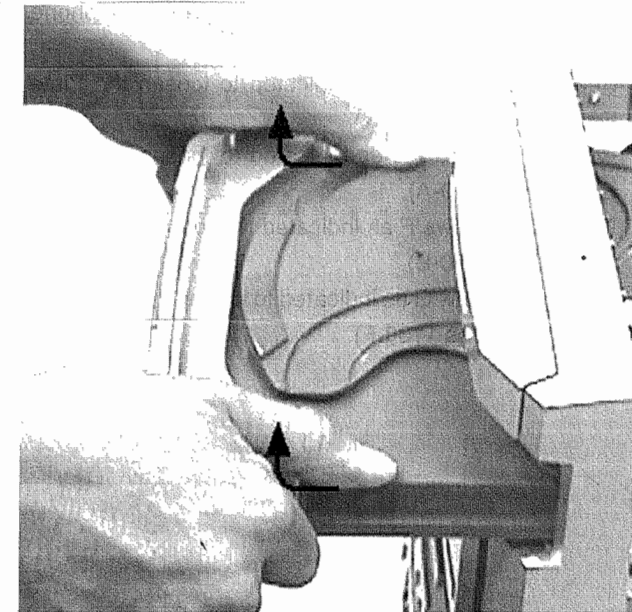


USE A FLAT HEAD SCREW DRIVER TO GIVE A PUSH IN THE DIRECTION AS SHOWN TO UNLOCK THE CDC TRAY BEFORE SLIDING IT OUT.

Sliding Out The CDC Tray -

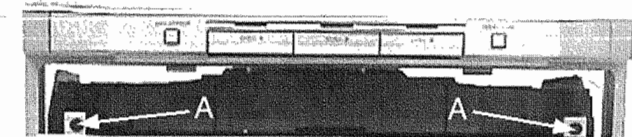
Dismantling of the CDC Module and Front Panel

- 3) Remove the Cover Tray CDC (pos 106) as indicated.

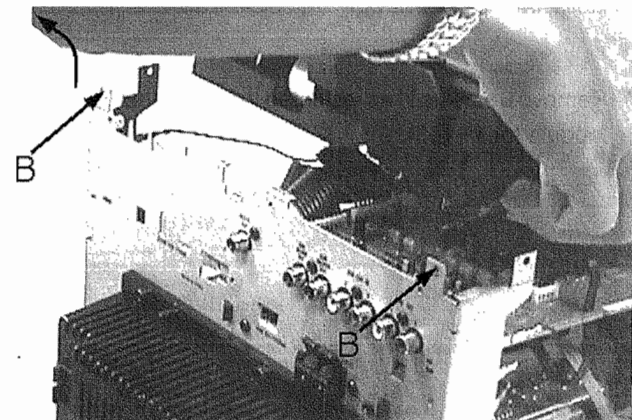


Remove Cover Tray CDC

- 4) Loosen 2 screws A and 2 screws B to remove the CDC Module (pos 1104) as indicated.
- 5) Remove 1 screw (pos 305) at the bottom to separate the Front Panel Assembly from the Plate Bottom (pos 236).



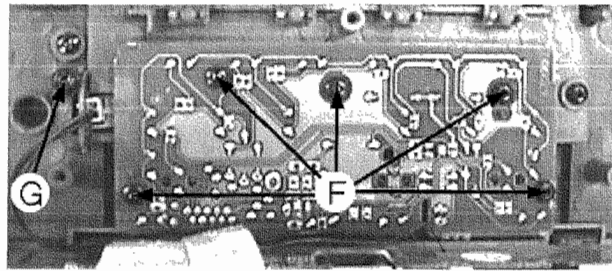
Front View CDC



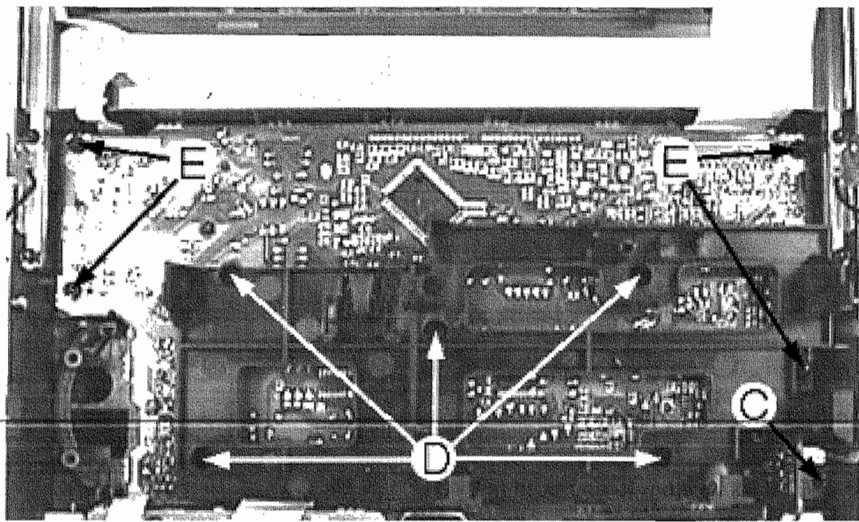
Remove CDC Module

Dismantling of the Front Board

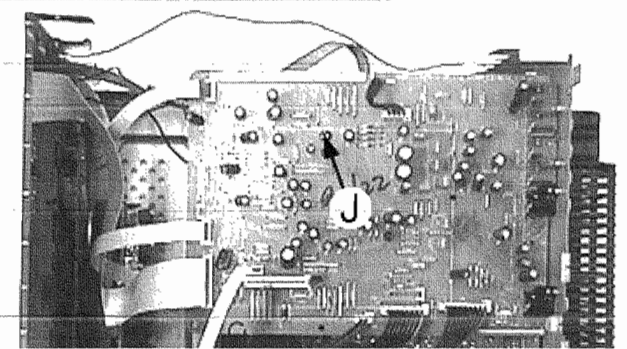
- 1) Remove 1 screw C as indicated to loosen the Headphone Board (pos 1100-E).
- 2) Remove 5 screws D as indicated to loosen the Plate Front (pos 254).
- 3) Remove 4 screws E as indicated to loosen the Front Board (pos 1100-A).
- 4) Remove 5 screws F as indicated to loosen the Control Board (pos 1100-B).
- 5) Remove 1 screw G as indicated to loosen the Blue Strip LED Board (pos 1100-F).



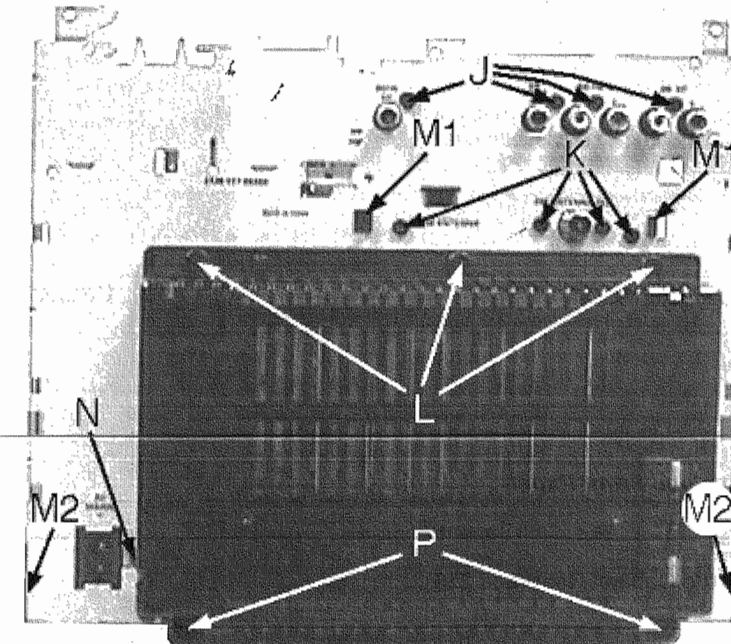
Remove Control and Blue Strip LED Boards

**Dismantling of Rear Portion**

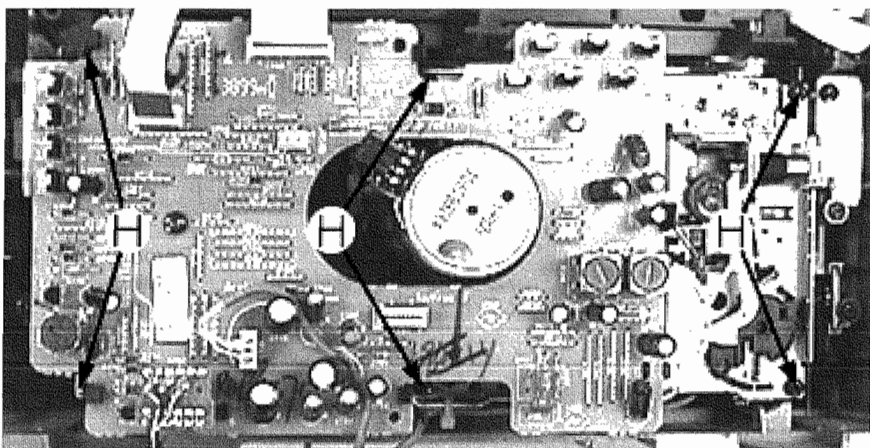
- 1) Remove 5 screws J as indicated to loosen the AF Board (pos 1101).
- 2) Remove 4 screws K and uncatch M1 as indicated to loosen the Tuner Board (pos 1102).
- 3) Remove 3 screws L and 1 screw N (if obstructed) and uncatch M2 as indicated to take out the Plate Rear (pos 234).
- 4) Remove 2 screws P to free the Power Module (pos 1105) from the Bottom Plate assembly.



AF Board Top View

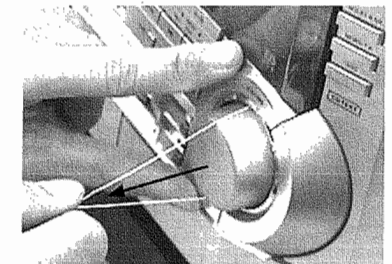
**Dismantling of the ETF Tape Module**

- 1) Remove 6 screws H as indicated to loosen the ETF Tape Module (pos 1103).

**Repair Hints**

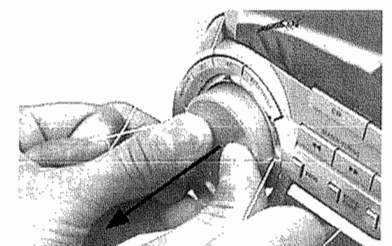
- 1) The Knob Volume Rotary (pos 149) can be removed by inserting a strong string into the slot and pulling it out in the direction as indicated. See picture 1.

Picture 1



- 2) The Knob Jog Rotary (pos 138) can be removed by inserting a strong string into the slot and pulling it out in the direction as indicated. See picture 2.

Picture 2



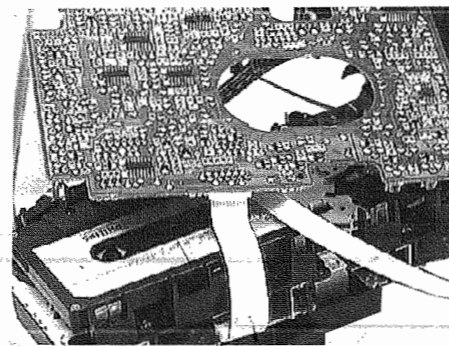
Repair Hints

3) Due to the short flex cable wires in the ETF Module, the pc board should be disconnected and reconnected on the reverse side of the tape mechanism to keep it electrically connected during repair. See picture 3.

4) During repair it is possible to disconnect the Tuner board and CDC Module completely unless the fault is suspected to be in that area. This will not affect the performance of the rest of the set.

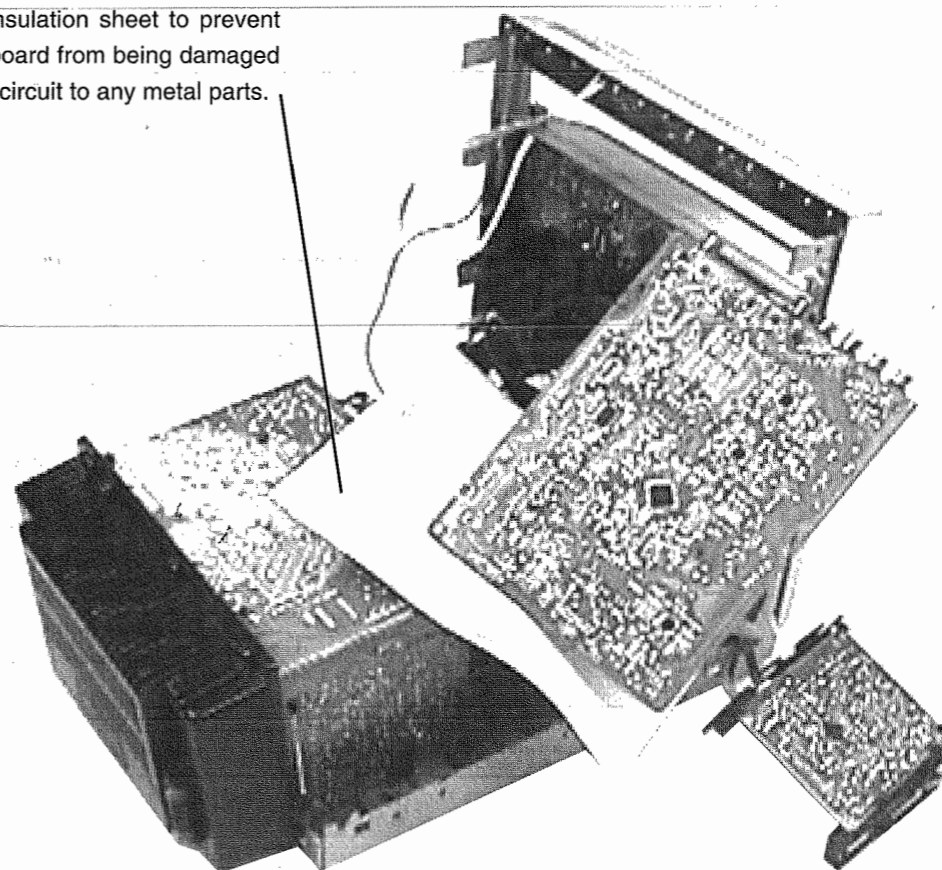
Note: The flex cables are very fragile, care should be taken not to damage them during repair. After repair, be very sure that the flex cables are inserted properly into the flex sockets before encasing, otherwise faults may occurs.

Picture 3

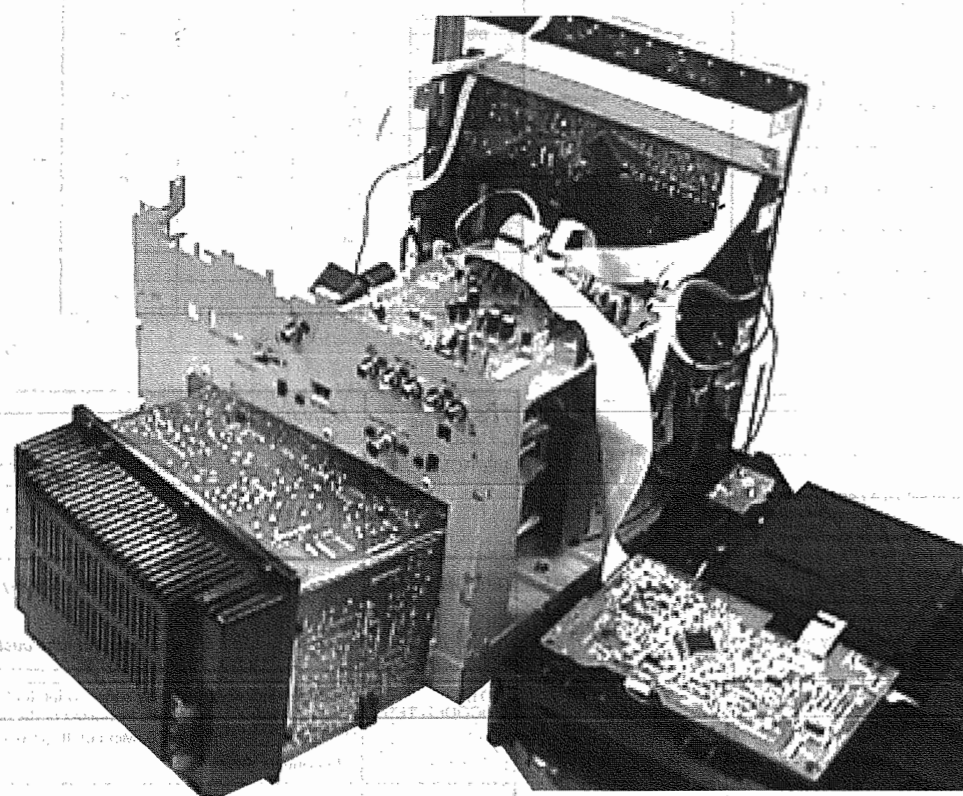


Service pos B

Use a insulation sheet to prevent the AF board from being damaged or short-circuit to any metal parts.

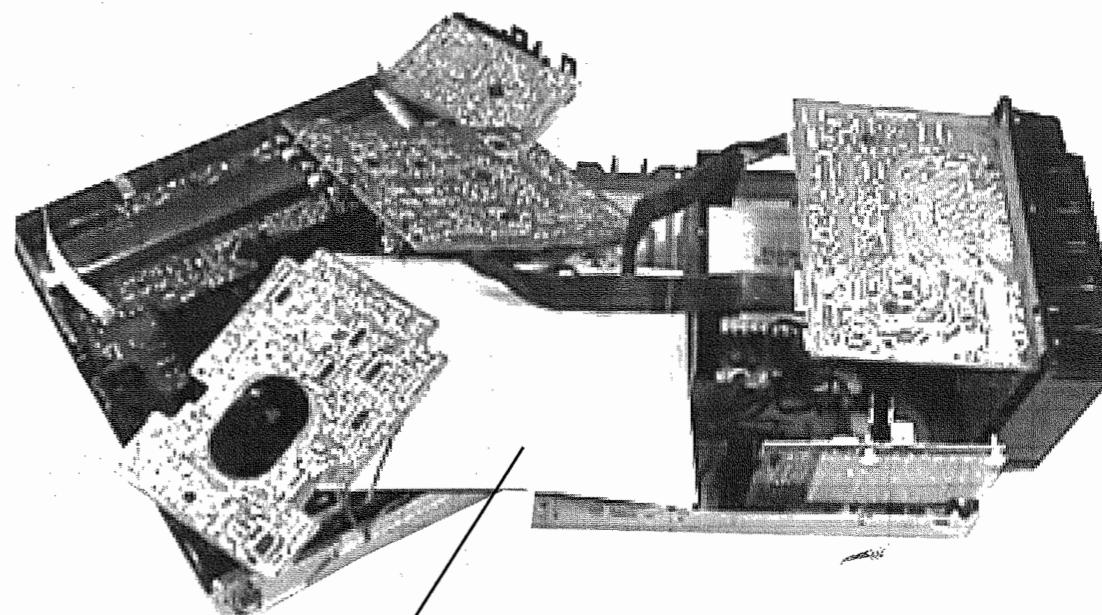


Service pos A

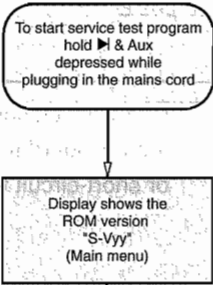


Service pos C

Use a insulation sheet to prevent the ETF board from being damaged or short-circuit to any metal parts.



SERVICE TEST PROGRAM



S refers to Service Mode
 V refers to Version
 yy refers to Software version number of the μ Processor (counting up from 01 to 99)

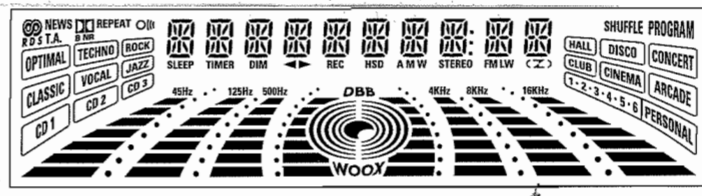
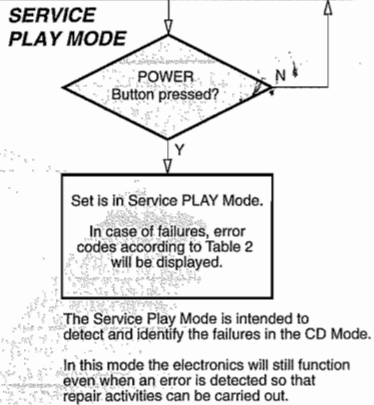
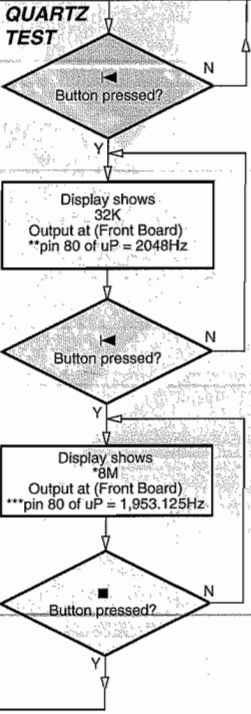
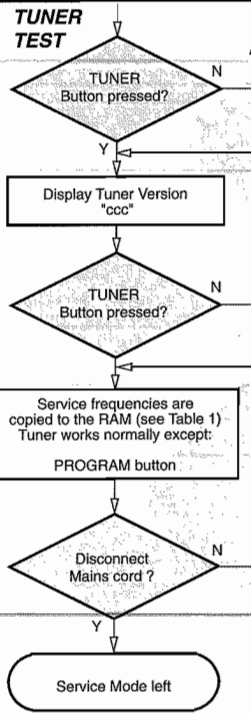


Figure 1

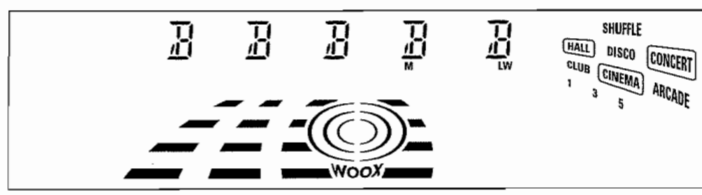
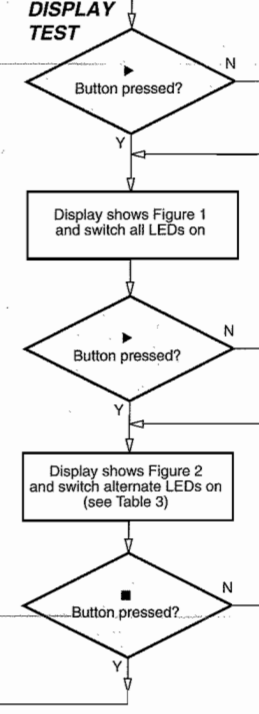


Figure 2



PRESET	Europe "EUR"	East Eur. "EAS"	East Eur. Extended-band "EAS"	USA "USA"	Oversea "OSE"
1	87.5MHz	87.5MHz	65.81MHz	87.5MHz	87.5MHz
2	108MHz	108MHz	108MHz	108MHz	108MHz
3	531kHz	531kHz	74MHz	530kHz	531/530kHz*
4	1602kHz	1602kHz	87.5MHz	1700kHz	1602/1700kHz*
5	558kHz	558kHz	531kHz	560kHz	558/560kHz*
6	1494kHz	1494kHz	1602kHz	1500kHz	1494/1500kHz*
7	153kHz	87.5MHz	558kHz	98MHz	87.5/98MHz*
8	279kHz	87.5MHz	1494kHz	87.5MHz	87.5MHz
9	198kHz	87.5MHz	98MHz	87.5MHz	87.5MHz
10	98MHz	87.5MHz	70.01MHz	87.5MHz	87.5MHz
11	87.5MHz	98MHz	65.81MHz	87.5MHz	98/87.5MHz*

Table 1

Note: * Depending on the selected grid frequency (9 or 10kHz)
 By holding the TUNER and **▶▶** buttons depressed while switching on the Mains supply, one of the undermentioned features will be activated:
 - the tuning grid frequency is toggled between 9kHz and 10kHz for the Oversea (/21) version.
 - the extended FM1 (65.81MHz - 74MHz) is toggled on and off for East Eur. (/34) version.

Error code	Error Description
E1000	Focus Error Triggered when the focus could not be found within a certain time when starting up the CD or when the focus is lost for a certain time during play.
E1001	Radial Error Triggered when the radial servo is off-track for a certain time during play.
E1002	Sledge In Error The sledge did not reach its inner position (inner-switch is still close) before approximately 6 Sec. have passed by. Inner-switch or sledge motor problem.
E1003	Sledge Out Error The sledge did not come out of its inner position (inner-switch is still open) before approximately 250 mSec. have passed by. Inner-switch or sledge motor problem.
E1005	Jump-offtrack error Triggered in normal play when the jump destination could not be found within a certain time. When this error occurred, software will try to recover by initiating the jump command again. If it is recoverable, the disc will continue to play.
E1006	Subcode Error Triggered when a new subcode was missing for a certain time during play.
E1007	PLL Error The Phase Lock Loop could not lock within a certain time.
E1008	Turntable Motor Error Generated when the CD could not reached 75% of speed during startup within a certain time. Discmotor problem.
E1020	Focus Search Error The focus point has not been found within a certain time.
E1070	The carousel switch is not open within certain time. This can happen when either the switch is defective and closed all the time, or when the carousel is blocked when located exactly at a disc position.
E1071	The carousel position switch did not close within a certain time. This can happen when the switch is defective and never closes electrically, or when the carousel is blocked in between two disc positions. The time-out is approximately 5 Sec.
E1079	The drawer could not enter the inside position is opening again. This can be caused because the drawer is blocked by something and cannot go fully inside, or the drawer switch is defective and does not close.

Table 2

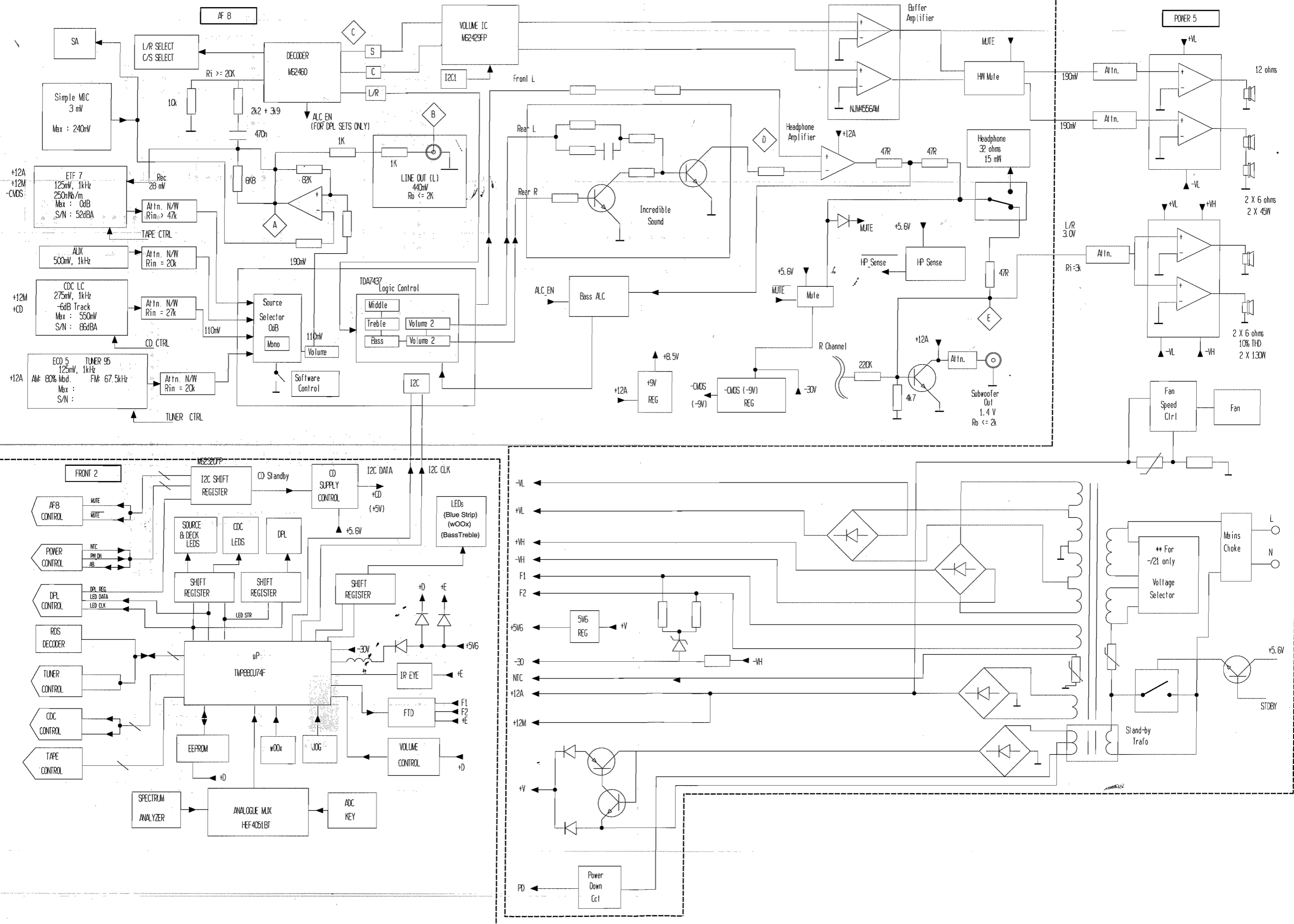
LEDs	FW-C80	FW-C83, FW-C85 FW-C90	FW-P88
DISC 1	On	On	On
DISC 3	On	On	On
CD	On	On	On
TUNER	On		
TAPE		On	On
DECOR		On	On
BASS	On		
WOOX	On		
DPL CENTRE			On
STEREO RIGHT			On

Table 3

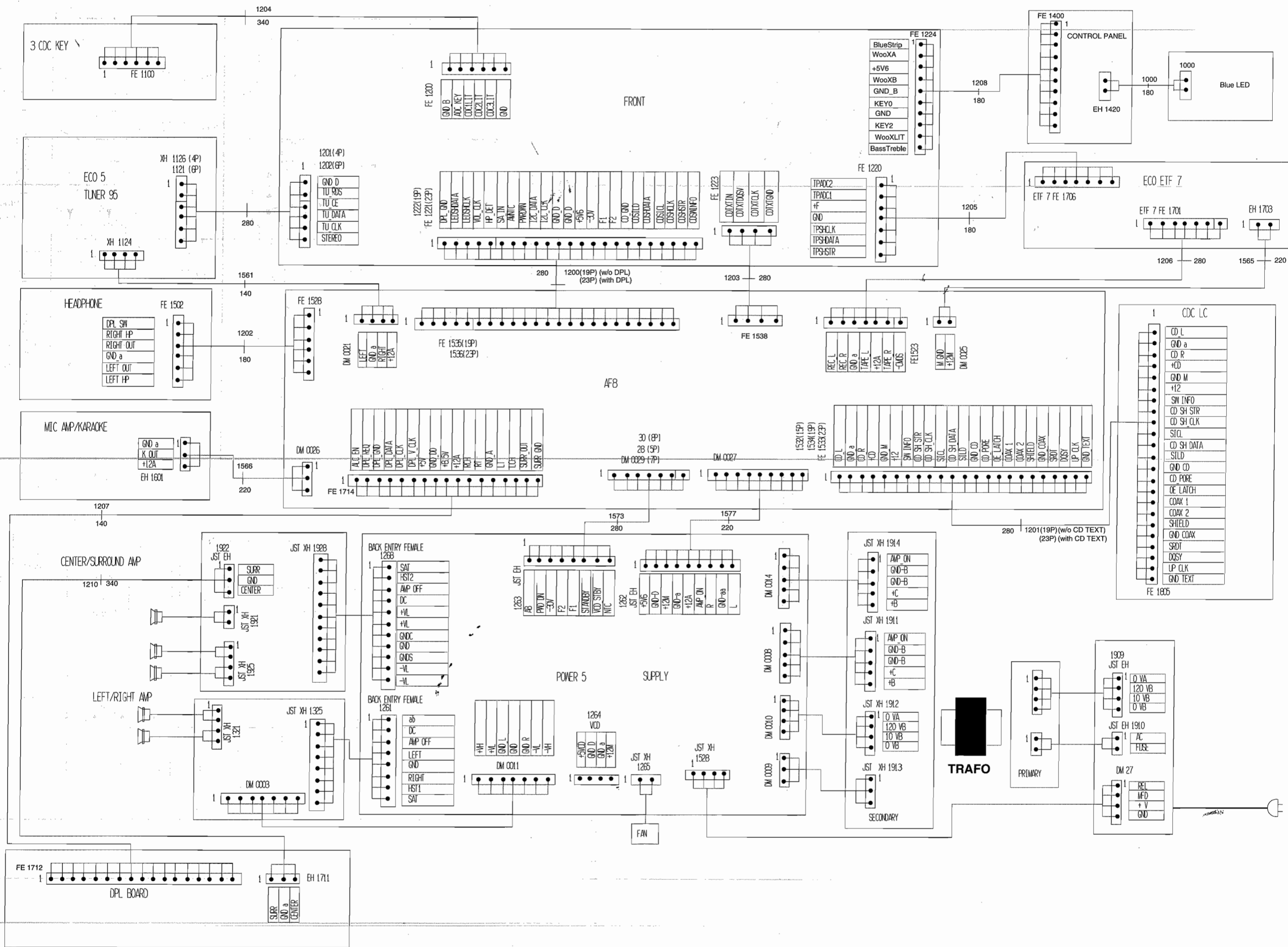
TEST	Activated with	ACTION
EEPROM TEST	▶▶ ■ to Exit	A test pattern will be sent to the EEPROM. "PASS" is displayed if the μ Processor read back the test pattern correctly, otherwise "ERROR" will be displayed.
EEPROM FORMAT	◀◀	Load default data. Display shows "NEW" for 1 second. Caution! All presets from the customer will be lost!!
ROTARY ENCODER TEST	Rotary Volume Knob or Rotary WOOX Knob or Jog Shuttle Knob	Display shows value for 2 seconds. Values increases or decreases in steps of 1 until 0 (Min.) or 40 (Max.) is reached.
LEAVE SERVICE TESTPROGRAM	Disconnect mains cord	

Various other Tests

SET BLOCK DIAGRAM

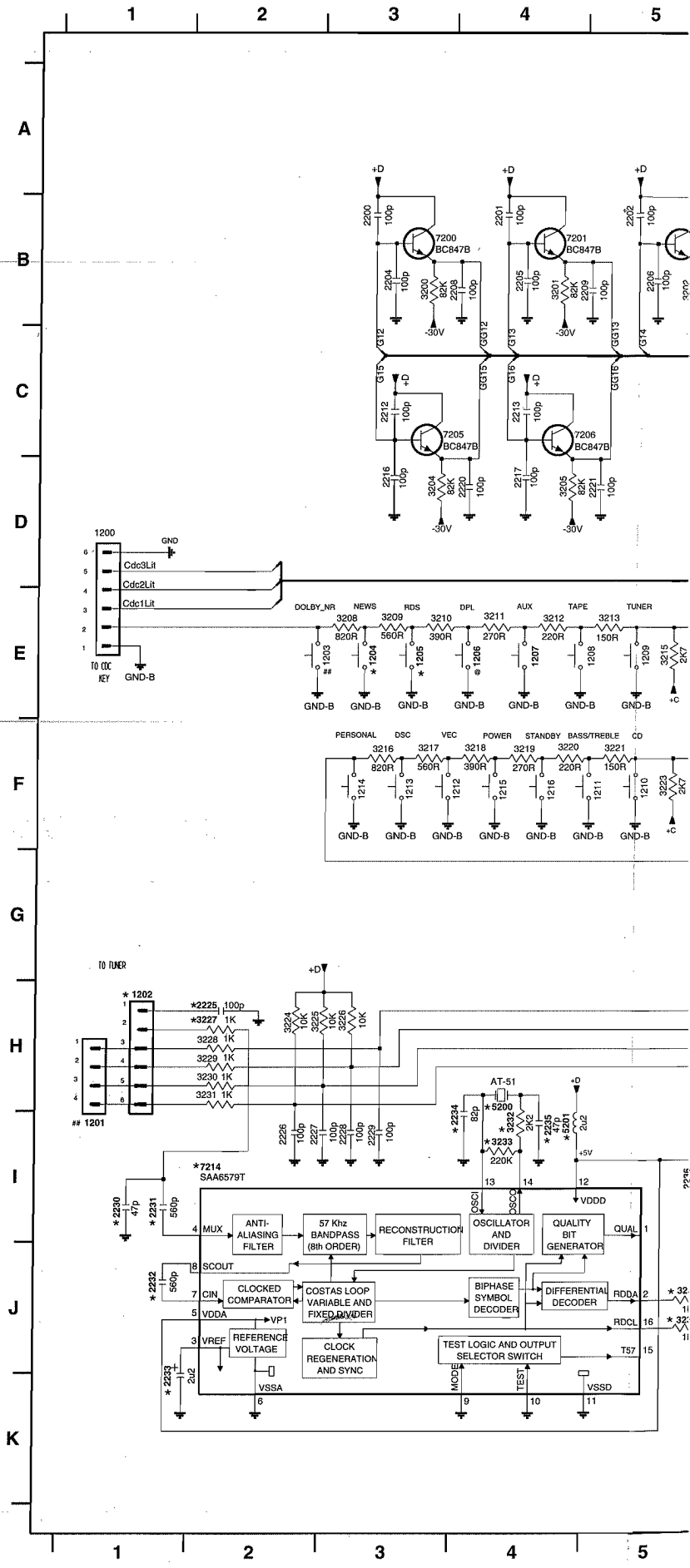


SET WIRING DIAGRAM



FRONT BOARD - CIRCUIT DIAGRAM

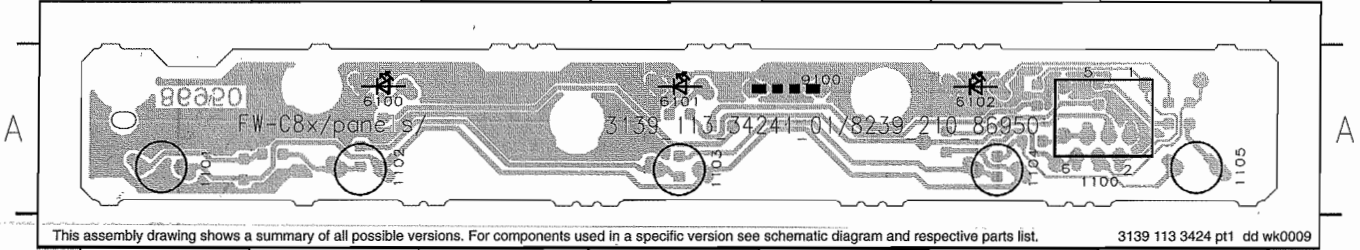
1200 D1	1207 E4	1214 F3	1221 D21	1902 K20	2205 B4	2216 D3	2226 I3	2235 I4	2242 J8	2249 G13	2256
1201 I1	1208 E5	1215 F4	1222 E21	1903 K20	2206 B5	2217 D4	2229 I3	2236 I5	2243 J8	2250 G12	2257
1202 H1	1209 E5	1216 F4	1223 H21	1904 K11	2208 B3	2220 D4	2230 I3	2237 E7	2244 J7	2251 G12	2258
1203 E3	1210 F5	1217 B10	1224 I21	2200 B3	2209 B4	2221 D5	2231 I1	2238 H8	2245 J8	2252 H12	2259
1204 E3	1211 F5	1218 J13	1225 C8	2201 B4	2210 B6	2225 H2	2232 J1	2239 I7	2246 D9	2253 H13	2260
1205 E3	1212 F4	1219 J15	1226 D7	2202 B5	2212 C3	2226 I2	2233 K1	2240 I8	2247 D10	2254 F14	2261
1206 E4	1213 F3	1220 C21	1227 D8	2204 B3	2213 C4	2227 I2	2234 I4	2241 J7	2248 D6	2255 H14	2262



KEY-CDC BOARD - COMPONENT LAYOUT

1100 A6 1101 A1 1102 A2 1103 A4 1104 A6 1105 A7 6100 A2 6101 A4 6102 A6 9100 A5

1 2 3 4 5 6 7



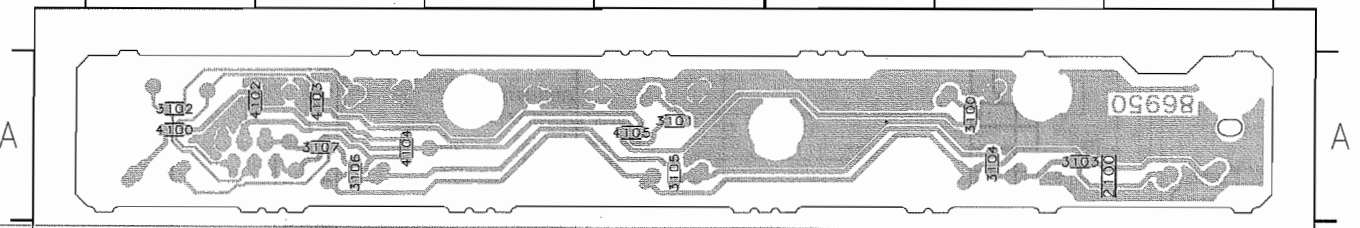
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list. 3139 113 3424 pt1 dd wk0009

1 2 3 4 5 6 7

KEY-CDC BOARD - CHIP LAYOUT

2100 A7 3101 A4 3103 A6 3105 A4 3107 A2 4102 A2 4104 A2
 3100 A6 3102 A1 3104 A6 3106 A2 4100 A1 4103 A2 4105 A4

1 2 3 4 5 6 7

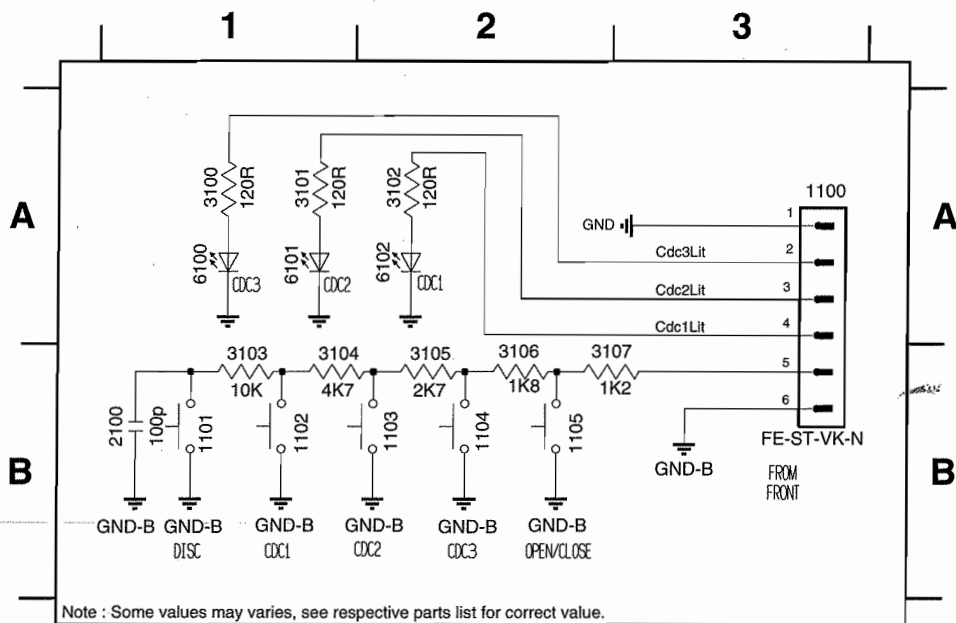


This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list. 3139 113 3424 pt1 dd wk0009

1 2 3 4 5 6 7

KEY-CDC PART - CIRCUIT DIAGRAM

1100 A3 1102 B1 1104 B2 2100 B1 3101 A1 3103 B1 3105 B2 3107 B3 6101 A1
 1101 B1 1103 B2 1105 B2 3100 A1 3102 A2 3104 B1 3106 B2 6100 A1 6102 A2

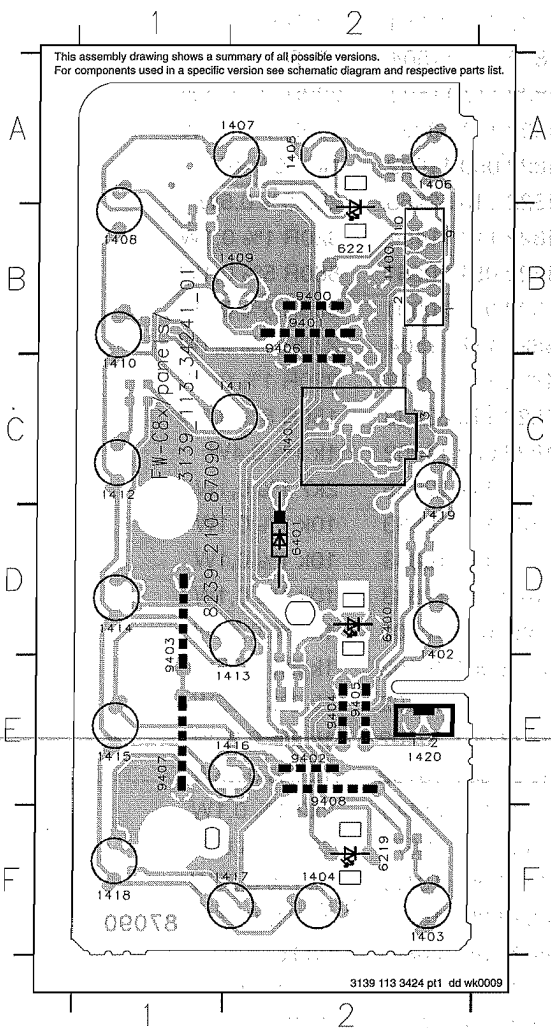


Note : Some values may varies, see respective parts list for correct value.

1 2 3

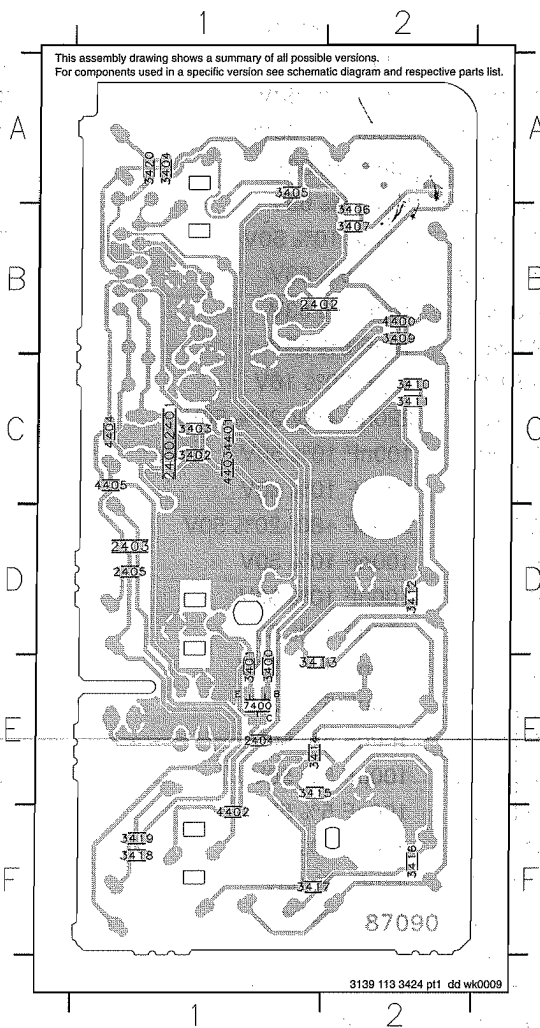
CONTROL BOARD - COMPONENT LAYOUT

1400 B2	1407 A2	1414 D1	6219 F2	9403 E1
1401 C2	1408 B2	1415 E1	6221 B2	9404 E2
1402 D2	1409 B2	1416 F1	6400 D2	9405 E1
1403 F2	1410 C2	1417 F2	9401 D2	9406 E1
1404 F2	1411 C2	1418 F1	9400 D2	9407 E1
1405 A2	1412 C1	1419 D2	9401 B2	9408 E2
1406 A2	1413 E2	1420 E2	9402 E2	



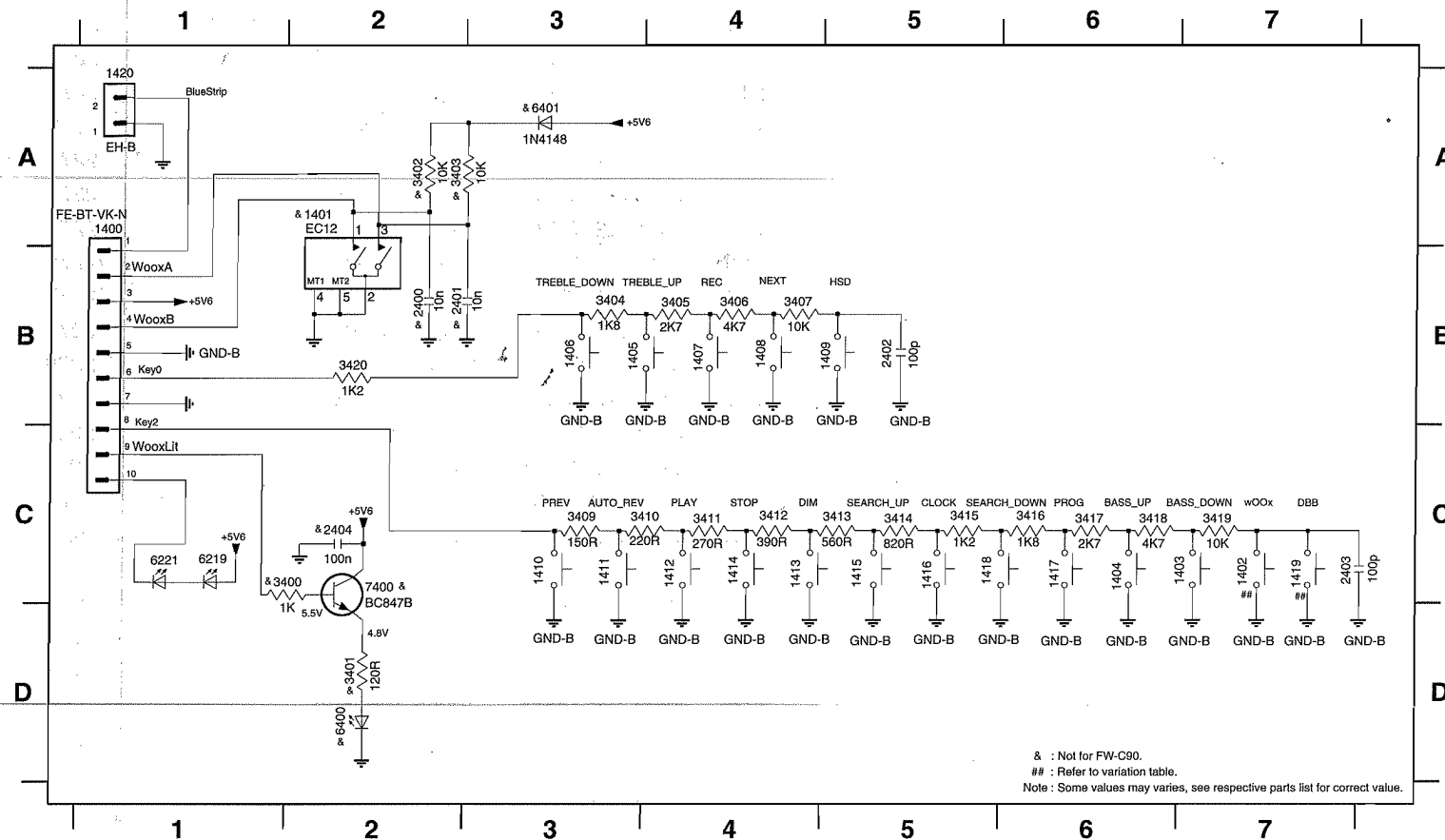
CONTROL BOARD - CHIP LAYOUT

2400 C1	3401 E1	3409 B2	3416 F2	4402 F1
2401 C1	3402 C1	3410 C2	3417 F1	4403 C1
2402 D1	3403 C1	3411 C2	3418 F1	4404 C1
2403 D1	3404 A1	3412 D2	3418 F1	4405 C1
2404 F1	3405 A1	3413 E1	3420 A1	7400 F1
2405 D1	3406 B2	3414 F1	4400 B2	
3400 E1	3407 B2	3415 E1	4401 C1	



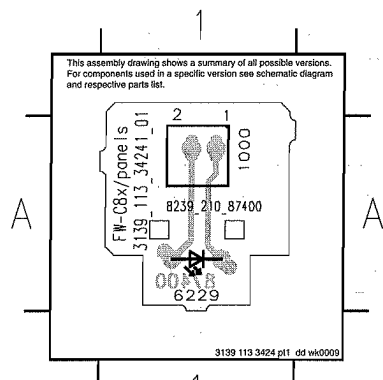
CONTROL PART - CIRCUIT DIAGRAM

1400 A1	1403 C6	1406 B3	1409 B4	1412 C4	1415 C5	1418 C5	2400 B2	2403 C7	3401 D2	3404 B3	3407 B4	3411 C4	3414 C5	3417 C6	3420 B2	6400 D2
1401 A2	1404 C6	1407 B4	1410 C3	1413 C4	1416 C5	1419 C7	2401 B2	2404 C2	3402 A2	3405 B4	3409 C3	3412 C4	3415 C5	3418 C6	6219 C1	6401 A3
1402 C7	1405 B3	1408 B4	1411 C3	1414 C4	1417 C6	1420 A1	2402 B5	3400 C2	3403 A2	3406 B4	3410 C4	3413 C5	3416 C6	3419 C7	6221 C1	7400 C2



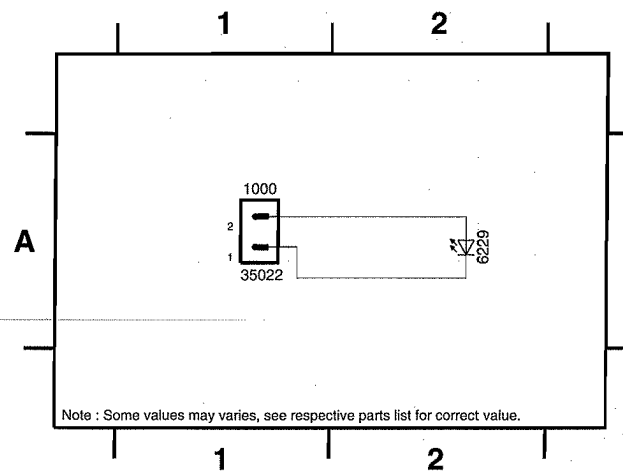
BLUE STRIP LED BOARD - COMPONENT LAYOUT

1000 A1	6229 A1
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BLUE STRIP LED PART - CIRCUIT DIAGRAM

1000 A1	6229 A2
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ELECTRICAL PARTS LIST - FRONT BOARD

MISCELLANEOUS

1100	4822 265 11207	Flex Connector 6P	2202	5322 122 32531	100pF 5% 50V
1101	4822 276 13775	Tact Switch	2204	5322 122 32531	100pF 5% 50V
1102	4822 276 13775	Tact Switch	2205	5322 122 32531	100pF 5% 50V
1103	4822 276 13775	Tact Switch	2206	5322 122 32531	100pF 5% 50V
1104	4822 276 13775	Tact Switch	2208	5322 122 32531	100pF 5% 50V
1105	4822 276 13775	Tact Switch	2209	5322 122 32531	100pF 5% 50V
1200	4822 265 11207	Flex Connector 6P	2210	5322 122 32531	100pF 5% 50V
1203	4822 276 13775	Tact Switch	2212	5322 122 32531	100pF 5% 50V
1204	4822 276 13775	Tact Switch	2213	5322 122 32531	100pF 5% 50V
1205	4822 276 13775	Tact Switch	2216	5322 122 32531	100pF 5% 50V
1207	4822 276 13775	Tact Switch	2217	5322 122 32531	100pF 5% 50V
1208	4822 276 13775	Tact Switch	2220	5322 122 32531	100pF 5% 50V
1209	4822 276 13775	Tact Switch	2221	5322 122 32531	100pF 5% 50V
1210	4822 276 13775	Tact Switch	2225	5322 122 32531	100pF 5% 50V
1211	4822 276 13775	Tact Switch	2226	5322 122 32531	100pF 5% 50V
1212	4822 276 13775	Tact Switch	2227	5322 122 32531	100pF 5% 50V
1213	4822 276 13775	Tact Switch	2228	5322 122 32531	100pF 5% 50V
1214	4822 276 13775	Tact Switch	2229	5322 122 32531	100pF 5% 50V
1215	4822 276 13775	Tact Switch	2230	4822 126 13692	47pF 1% 63V
1216	4822 276 13775	Tact Switch	2231	4822 122 33173	560pF 10% 50V
1217	3139 110 52250	FTD Display	2232	4822 122 33173	560pF 10% 50V
1218	4822 273 10365	Rotary Encoder 24P	2233	4822 124 22652	2,2μF 20% 50V
1219	2422 129 16385	Rotary Encoder 12P	2234	4822 126 13695	82pF 1% 63V
1220	4822 267 10953	Flex Connector 7P	2235	4822 126 13692	47pF 1% 63V
1222	4822 265 11545	Flex Connector 19P	2236	4822 126 14585	100nF 10% 50V
1223	4822 267 10733	Flex Connector 4P	2237	4822 126 14585	100nF 10% 50V
1224	4822 267 10729	Flex Connector 10P	2238	4822 122 33806	820pF 10% 63V
1400	4822 267 10729	Flex Connector 10P	2239	4822 126 14076	220nF +80/-20% 25V
1403	4822 276 13775	Tact Switch	2240	5322 122 31866	6,8nF 10% 63V
1404	4822 276 13775	Tact Switch	2241	4822 126 14076	220nF +80/-20% 25V
1405	4822 276 13775	Tact Switch	2242	4822 126 14585	100nF 10% 50V
1406	4822 276 13775	Tact Switch	2243	4822 126 13751	47nF 10% 63V
1407	4822 276 13775	Tact Switch	2244	4822 126 14076	220nF +80/-20% 25V
1408	4822 276 13775	Tact Switch	2245	4822 126 14043	1μF +80/-20% 16V
1409	4822 276 13775	Tact Switch	2246	4822 124 81286	47μF 20% 16V
1410	4822 276 13775	Tact Switch	2247	4822 126 14585	100nF 10% 50V
1411	4822 276 13775	Tact Switch	2248	4822 124 81286	47μF 20% 16V
1412	4822 276 13775	Tact Switch	2249	5322 122 32658	22pF 5% 50V
1413	4822 276 13775	Tact Switch	2250	5322 122 32658	22pF 5% 50V
1414	4822 276 13775	Tact Switch	2251	5322 122 32658	22pF 5% 50V
1415	4822 276 13775	Tact Switch	2252	4822 122 33216	270pF 5% 50V
1416	4822 276 13775	Tact Switch	2253	4822 126 13486	15pF 2% 63V
1417	4822 276 13775	Tact Switch	2254	4822 126 13838	100nF +80/-20% 50V
1418	4822 276 13775	Tact Switch	2255	4822 126 14043	1μF +80/-20% 16V
1419	4822 276 13775	Tact Switch	2256	4822 126 14585	100nF 10% 50V
1500	4822 265 11529	Headphonr Socket	2257	4822 122 33575	220pF 5% 63V
1502	4822 267 10731	Flex Connector 6P	2258	4822 126 14585	100nF 10% 50V
			2259	4822 122 33575	220pF 5% 63V
			2261	4822 126 14585	100nF 10% 50V
			2262	4822 126 13751	47nF 10% 63V
			2263	4822 122 33127	2,2nF 10% 63V
			2264	4822 122 33177	10nF 20% 50V

CAPACITORS

2100	5322 122 32531	100pF 5% 50V
2200	5322 122 32531	100pF 5% 50V
2201	5322 122 32531	100pF 5% 50V

ELECTRICAL PARTS LIST - FRONT BOARD

2265	4822 122 33177	10nF 20% 50V	3204	4822 117 11149	82k 1% 0,1W
2266	4822 122 33177	10nF 20% 50V	3205	4822 117 11149	82k 1% 0,1W
2267	4822 122 33177	10nF 20% 50V	3208	4822 117 11454	820R 1% 0,1W
2268	4822 122 33177	10nF 20% 50V	3209	4822 051 20561	560R 5% 0,1W
2269	4822 126 14076	220nF +80/-20% 25V	3210	4822 051 20391	390R 5% 0,1W
2270	4822 122 33575	220pF 5% 63V	3211	4822 117 11504	270R 1% 0,1W
2271	4822 122 33575	220pF 5% 63V	3212	4822 117 11503	220R 1% 0,1W
2272	4822 122 33575	220pF 5% 63V	3213	4822 117 10353	150R 1% 0,1W
2273	5322 122 32448	10pF 5% 63V	3214	4822 050 11002	1k 1% 0,4W
2274	5322 122 32448	10pF 5% 63V	3215	4822 116 52263	2k7 5% 0,5W
2275	4822 126 14585	100nF 10% 50V	3216	4822 117 11454	820R 1% 0,1W
2276	5322 122 32448	10pF 5% 63V	3217	4822 051 20561	560R 5% 0,1W
2277	5322 122 32448	10pF 5% 63V	3218	4822 051 20391	390R 5% 0,1W
2278	5322 122 32448	10pF 5% 63V	3219	4822 117 11504	270R 1% 0,1W
2279	4822 124 81286	47μF 20% 16V	3220	4822 117 11503	220R 1% 0,1W
2280	4822 126 13473	220nF +80/-20% 50V	3221	4822 116 83868	150R 5% 0,5W
2281	4822 126 14585	100nF 10% 50V	3222	4822 050 11002	1k 1% 0,4W
2282	4822 126 14585	100nF 10% 50V	3223	4822 117 12955	2k7 1% 0,1W
2283	4822 126 13473	220nF +80/-20% 50V	3224	4822 117 10833	10k 1% 0,1W
2284	4822 126 14585	100nF 10% 50V	3225	4822 117 10833	10k 1% 0,1W
2285	4822 126 14585	100nF 10% 50V	3226	4822 117 10833	10k 1% 0,1W
2286	4822 126 14585	100nF 10% 50V	3227	4822 051 10102	1k 2% 0,25W
2287	4822 126 14585	100nF 10% 50V	3228	4822 051 10102	1k 2% 0,25W
2288	4822 122 33575	220pF 5% 63V	3229	4822 051 10102	1k 2% 0,25W
2292	5322 122 32531	100pF 5% 50V	3230	4822 051 10102	1k 2% 0,25W
2294	5322 122 32531	100pF 5% 50V	3231	4822 051 10102	1k 2% 0,25W
2296	5322 122 32531	100pF 5% 50V	3232	4822 117 11449	2k2 1% 0,1W
2297	4822 126 13751	47nF 10% 63V	3233	4822 117 13579	220k 1% 0,1W
2298	4822 126 13692	47pF 1% 63V	3234	4822 051 10102	1k 2% 0,25W
2299	4822 126 13692	47pF 1% 63V	3235	4822 051 10102	1k 2% 0,25W
2300	4822 126 13692	47pF 1% 63V	3238	4822 051 20684	680k 5% 0,1W
2301	4822 126 12882	100nF +80/-20% 50V	3239	4822 117 11139	1k5 1% 0,1W
2402	5322 122 32531	100pF 5% 50V	3240	4822 051 20474	470k 5% 0,1W
2403	5322 122 32531	100pF 5% 50V	3241	4822 117 10834	47k 1% 0,1W
2404	4822 126 13838	100nF +80/-20% 50V	3242	4822 051 20684	680k 5% 0,1W
2500	5322 122 32654	22nF 10% 63V	3243	4822 117 11139	1k5 1% 0,1W
2502	5322 122 32654	22nF 10% 63V	3244	4822 051 20474	470k 5% 0,1W
2503	4822 126 14585	100nF 10% 50V	3245	4822 117 10834	47k 1% 0,1W
2504	4822 126 13838	100nF +80/-20% 50V	3246	4822 051 20684	680k 5% 0,1W
			3247	4822 117 11139	1k5 1% 0,1W
			3248	4822 051 20474	470k 5% 0,1W
			3249	4822 117 10834	47k 1% 0,1W
			3250	4822 051 10102	1k 2% 0,25W
			3251	4822 051 10102	1k 2% 0,25W
			3252	4822 051 10102	1k 2% 0,25W
			3253	4822 116 52234	100k 5% 0,5W
			3254	4822 051 10102	1k 2% 0,25W
			3255	4822 051 10102	1k 2% 0,25W
			3256	4822 051 10102	1k 2% 0,25W
			3257	4822 051 10102	1k 2% 0,25W
			3258	4822 051 10102	1k 2% 0,25W
			3259	4822 051 10102	1k 2% 0,25W

RESISTORS

3100	4822 051 20121	120R 5% 0,1W
3101	4822 051 20121	120R 5% 0,1W
3102	4822 051 20121	120R 5% 0,1W
3103	4822 117 10833	10k 1% 0,1W
3104	4822 051 20472	4k7 5% 0,1W
3105	4822 117 12955	2k7 1% 0,1W
3106	4822 051 20182	1k8 5% 0,1W
3107	4822 051 20122	1k2 5% 0,1W
3200	4822 117 11149	82k 1% 0,1W
3201	4822 117 11149	82k 1% 0,1W
3202	4822 117 11149	82k 1% 0,1W

ELECTRICAL PARTS LIST - FRONT BOARD

ELECTRICAL PARTS LIST - FRONT BOARD

RESISTORS

3260	4822 051 10102	1k 2% 0,25W	3312	4822 051 10102	1k 2% 0,25W	3374	4822 051 10102	1k 2% 0,25W	4227	4822 051 20008	OR Jumper 0805
3261	4822 051 10102	1k 2% 0,25W	3313	4822 051 10102	1k 2% 0,25W	3376	4822 117 11149	82k 1% 0,1W	4228	4822 051 20008	OR Jumper 0805
3262	4822 051 20105	1M 5% 0,1W	3314	4822 051 10102	1k 2% 0,25W	3377	4822 117 10833	10k 1% 0,1W	4229	4822 051 20008	OR Jumper 0805
3263	4822 051 10102	1k 2% 0,25W	3315	4822 051 10102	1k 2% 0,25W	3378	4822 117 11449	2k2 1% 0,1W	4230	4822 051 20008	OR Jumper 0805
3264	4822 051 10102	1k 2% 0,25W	3316	4822 051 10102	1k 2% 0,25W	3400	4822 051 10102	1k 2% 0,25W	4231	4822 051 20008	OR Jumper 0805
3265	4822 051 10102	1k 2% 0,25W	3317	4822 051 10102	1k 2% 0,25W	3401	4822 051 20121	120R 5% 0,1W	4232	4822 051 20008	OR Jumper 0805
3266	4822 051 10102	1k 2% 0,25W	3318	4822 051 10102	1k 2% 0,25W	3404	4822 051 20182	1k8 5% 0,1W	4233	4822 051 20008	OR Jumper 0805
3267	4822 051 10102	1k 2% 0,25W	3320	4822 117 10833	10k 1% 0,1W	3405	4822 117 12955	2k7 1% 0,1W	4234	4822 051 20008	OR Jumper 0805
3268	4822 051 10102	1k 2% 0,25W	3321	4822 117 10833	10k 1% 0,1W	3406	4822 051 20472	4k7 5% 0,1W	4235	4822 051 20008	OR Jumper 0805
3269	4822 051 10102	1k 2% 0,25W	3322	4822 051 10102	1k 2% 0,25W	3407	4822 117 10833	10k 1% 0,1W	4236	4822 051 20008	OR Jumper 0805
3270	4822 051 10102	1k 2% 0,25W	3323	4822 051 10102	1k 2% 0,25W	3409	4822 117 10353	150R 1% 0,1W	4237	4822 051 20008	OR Jumper 0805
3271	4822 051 10102	1k 2% 0,25W	3324	4822 117 11503	220R 1% 0,1W	3410	4822 117 11503	220R 1% 0,1W	4238	4822 051 20008	OR Jumper 0805
3272	4822 051 10102	1k 2% 0,25W	3325	4822 051 20101	100R 5% 0,1W	3411	4822 117 11504	270R 1% 0,1W	4239	4822 051 20008	OR Jumper 0805
3273	4822 051 10102	1k 2% 0,25W	3326	4822 116 52175	100R 5% 0,5W	3412	4822 051 20391	390R 5% 0,1W	4240	4822 051 20008	OR Jumper 0805
3274	4822 051 10102	1k 2% 0,25W	3327	4822 116 52175	100R 5% 0,5W	3413	4822 051 20561	560R 5% 0,1W	4241	4822 051 20008	OR Jumper 0805
3275	4822 051 10102	1k 2% 0,25W	3328	4822 116 52175	100R 5% 0,5W	3414	4822 117 11454	820R 1% 0,1W	4242	4822 051 20008	OR Jumper 0805
3276	4822 051 10102	1k 2% 0,25W	3329	4822 117 10833	10k 1% 0,1W	3415	4822 051 20122	1k2 5% 0,1W	4243	4822 051 20008	OR Jumper 0805
3277	4822 051 10102	1k 2% 0,25W	3330	4822 116 52186	22R 5% 0,5W	3416	4822 051 20182	1k8 5% 0,1W	4244	4822 051 20008	OR Jumper 0805
3278	4822 051 10102	1k 2% 0,25W	3335	4822 116 52263	2k7 5% 0,5W	3417	4822 117 12955	2k7 1% 0,1W	4245	4822 051 20008	OR Jumper 0805
3279	4822 051 10102	1k 2% 0,25W	3336	4822 051 10102	1k 2% 0,25W	3418	4822 051 20472	4k7 5% 0,1W	4246	4822 051 20008	OR Jumper 0805
3280	4822 051 10102	1k 2% 0,25W	3337	4822 051 20101	100R 5% 0,1W	3419	4822 117 10833	10k 1% 0,1W	4247	4822 051 20008	OR Jumper 0805
3281	4822 051 10102	1k 2% 0,25W	3338	4822 117 10833	10k 1% 0,1W	3420	4822 051 20122	1k2 5% 0,1W	4248	4822 051 20008	OR Jumper 0805
3282	4822 051 10102	1k 2% 0,25W	3339	4822 117 10833	10k 1% 0,1W	4100	4822 051 20008	OR Jumper 0805	4249	4822 051 20008	OR Jumper 0805
3283	4822 051 10102	1k 2% 0,25W	3340	4822 117 10833	10k 1% 0,1W	4102	4822 051 20008	OR Jumper 0805	4250	4822 051 20008	OR Jumper 0805
3284	4822 051 10102	1k 2% 0,25W	3341	4822 117 10833	10k 1% 0,1W	4103	4822 051 20008	OR Jumper 0805	4251	4822 051 20008	OR Jumper 0805
3285	4822 051 10102	1k 2% 0,25W	3342	4822 051 20684	680k 5% 0,1W	4104	4822 051 20008	OR Jumper 0805	4252	4822 051 20008	OR Jumper 0805
3286	4822 051 10102	1k 2% 0,25W	3343	4822 117 10833	10k 1% 0,1W	4105	4822 051 20008	OR Jumper 0805	4253	4822 051 20008	OR Jumper 0805
3287	4822 051 10102	1k 2% 0,25W	3344	4822 116 52207	1k2 5% 0,5W	4202	4822 051 20008	OR Jumper 0805	4254	4822 051 20008	OR Jumper 0805
3288	4822 051 10102	1k 2% 0,25W	3345	4822 051 10102	1k 2% 0,25W	4203	4822 051 20008	OR Jumper 0805	4255	4822 051 20008	OR Jumper 0805
3289	4822 051 10102	1k 2% 0,25W	3346	4822 117 10837	100k 1% 0,1W	4204	4822 051 20008	OR Jumper 0805	4256	4822 051 20008	OR Jumper 0805
3290	4822 051 10102	1k 2% 0,25W	3347	4822 051 20101	100R 5% 0,1W	4205	4822 051 20008	OR Jumper 0805	4257	4822 051 20008	OR Jumper 0805
3291	4822 051 10102	1k 2% 0,25W	3348	4822 051 20101	100R 5% 0,1W	4206	4822 051 20008	OR Jumper 0805	4258	4822 051 20008	OR Jumper 0805
3292	4822 051 10102	1k 2% 0,25W	3351	4822 117 10833	10k 1% 0,1W	4207	4822 051 20008	OR Jumper 0805	4259	4822 051 20008	OR Jumper 0805
3293	4822 051 10102	1k 2% 0,25W	3353	4822 050 11002	1k 1% 0,4W	4208	4822 051 20008	OR Jumper 0805	4260	4822 051 20008	OR Jumper 0805
3294	4822 051 10102	1k 2% 0,25W	3354	4822 051 20334	330k 5% 0,1W	4209	4822 051 20008	OR Jumper 0805	4261	4822 051 20008	OR Jumper 0805
3295	4822 051 10102	1k 2% 0,25W	3355	4822 116 83872	220R 5% 0,5W	4210	4822 051 20008	OR Jumper 0805	4262	4822 051 20008	OR Jumper 0805
3296	4822 051 10102	1k 2% 0,25W	3356	4822 116 83872	220R 5% 0,5W	4211	4822 051 20008	OR Jumper 0805	4263	4822 051 20008	OR Jumper 0805
3297	4822 051 10102	1k 2% 0,25W	3357	4822 051 20471	470R 5% 0,1W	4212	4822 051 20008	OR Jumper 0805	4264	4822 051 20008	OR Jumper 0805
3298	4822 051 10102	1k 2% 0,25W	3358	4822 051 20471	470R 5% 0,1W	4213	4822 051 20008	OR Jumper 0805	4265	4822 051 20008	OR Jumper 0805
3299	4822 051 10102	1k 2% 0,25W	3359	4822 051 20471	470R 5% 0,1W	4214	4822 051 20008	OR Jumper 0805	4266	4822 051 20008	OR Jumper 0805
3300	4822 051 10102	1k 2% 0,25W	3360	4822 051 20471	470R 5% 0,1W	4215	4822 051 20008	OR Jumper 0805	4267	4822 051 20008	OR Jumper 0805
3301	4822 051 10102	1k 2% 0,25W	3361	4822 051 20471	470R 5% 0,1W	4216	4822 051 20008	OR Jumper 0805	4268	4822 051 20008	OR Jumper 0805
3302	4822 051 10102	1k 2% 0,25W	3362	4822 051 20471	470R 5% 0,1W	4217	4822 051 20008	OR Jumper 0805	4269	4822 051 20008	OR Jumper 0805
3303	4822 051 20472	4k7 5% 0,1W	3363	4822 051 10102	1k 2% 0,25W	4218	4822 051 20008	OR Jumper 0805	4270	4822 051 20008	OR Jumper 0805
3304	4822 051 10102	1k 2% 0,25W	3364	4822 051 10102	1k 2% 0,25W	4219	4822 051 20008	OR Jumper 0805	4271	4822 051 20008	OR Jumper 0805
3305	4822 051 10102	1k 2% 0,25W	3367	4822 117 10833	10k 1% 0,1W	4220	4822 051 20008	OR Jumper 0805	4272	4822 051 20008	OR Jumper 0805
3306	4822 051 10102	1k 2% 0,25W	3368	4822 117 10833	10k 1% 0,1W	4221	4822 051 20008	OR Jumper 0805	4273	4822 051 20008	OR Jumper 0805
3307	4822 051 10102	1k 2% 0,25W	3369	4822 117 11449	2k2 1% 0,1W	4222	4822 051 20008	OR Jumper 0805	4274	4822 051 20008	OR Jumper 0805
3308	4822 051 10102	1k 2% 0,25W	3370	4822 117 11449	2k2 1% 0,1W	4223	4822 051 20008	OR Jumper 0805	4400	4822 051 20008	OR Jumper 0805
3309	4822 051 10102	1k 2% 0,25W	3371	4822 051 10102	1k 2% 0,25W	4224	4822 051 20008	OR Jumper 0805	4401	4822 051 20008	OR Jumper 0805
3310	4822 051 10102	1k 2% 0,25W	3372	4822 051 20121	120R 5% 0,1W	4225	4822 051 20008	OR Jumper 0805	4402	4822 051 20008	OR Jumper 0805
3311	4822 051 10102	1k 2% 0,25W	3373	4822 116 52263	2k7 5% 0,5W	4226	4822 051 20008	OR Jumper 0805	4403	4822 051 20008	OR Jumper 0805

ELECTRICAL PARTS LIST - FRONT BOARD**RESISTORS**

4404	4822 051 20008	OR Jumper 0805
4405	4822 051 20008	OR Jumper 0805
4500	4822 051 20008	OR Jumper 0805
4501	4822 051 20008	OR Jumper 0805

COILS & FILTERS

5200	4822 242 72195	QUARZ 4,332MHZ
5201	4822 157 62552	Coil 2,2μH 5%
5202	4822 157 51462	Coil 10μH 10%
5203	4822 157 51462	Coil 10μH 10%
5204	4822 157 62552	Coil 2,2μH 5%
5205	5322 242 73686	RES CER 12MHZ
5206	4822 242 70938	RES XTL 32,768kHz
5207	4822 157 62552	Coil 2,2μH 5%
5208	4822 157 11228	Coil 100μH 5%
5209	4822 157 11228	Coil 100μH 5%
5500	4822 157 62552	Coil 2,2μH 5%
5501	4822 157 62552	Coil 2,2μH 5%
5502	4822 157 10586	Coil 2,2μH 10%

DIODES

6100	4822 130 10791	LTL-1CHGE
6101	4822 130 10791	LTL-1CHGE
6102	4822 130 10791	LTL-1CHGE
6201	4822 130 30621	1N4148
6203	4822 130 30621	1N4148
6204	4822 130 30621	1N4148
6205	4822 130 30621	1N4148
6206	4822 130 30621	1N4148
6207	4822 130 31878	1N4003G
6208	4822 130 31878	1N4003G
6209	4822 130 30621	1N4148
6210	4822 130 30621	1N4148
6211	4822 130 30621	1N4148
6212	4822 130 30621	1N4148
6213	4822 130 30621	1N4148
6214	4822 130 82978	LTL-1CHPE
6215	4822 130 10791	LTL-1CHGE
6216	4822 130 10791	LTL-1CHGE
6217	4822 130 10791	LTL-1CHGE
6218	4822 130 10791	LTL-1CHGE
6219	4822 130 10791	LTL-1CHGE
6221	4822 130 10791	LTL-1CHGE
6226	4822 130 31878	1N4003G
6229	9322 153 37676	LED VS LB3333RT-E7898
6401	4822 130 30621	1N4148

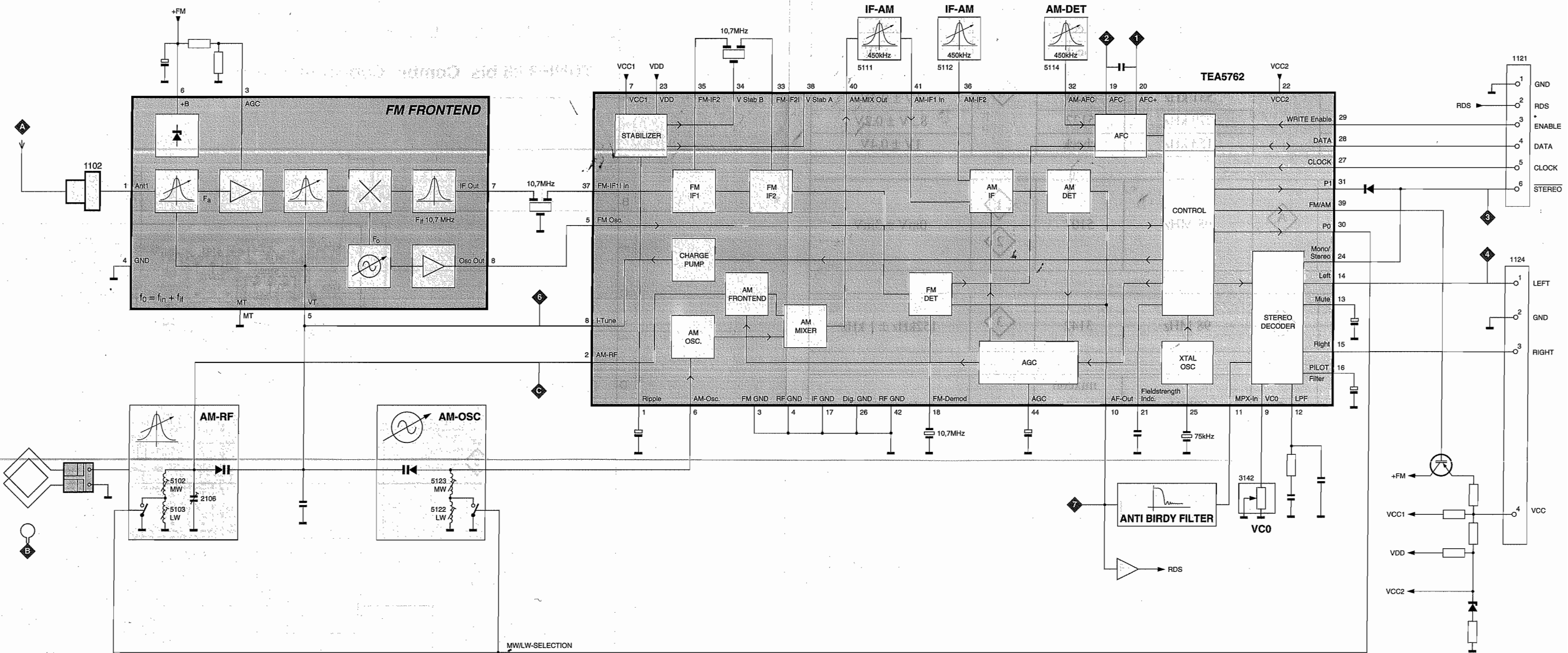
TRANSISTORS & INTEGRATED CIRCUITS

7200	4822 130 60511	BC847B
7201	4822 130 60511	BC847B
7202	4822 130 60511	BC847B
7204	4822 209 15449	74HC4094D

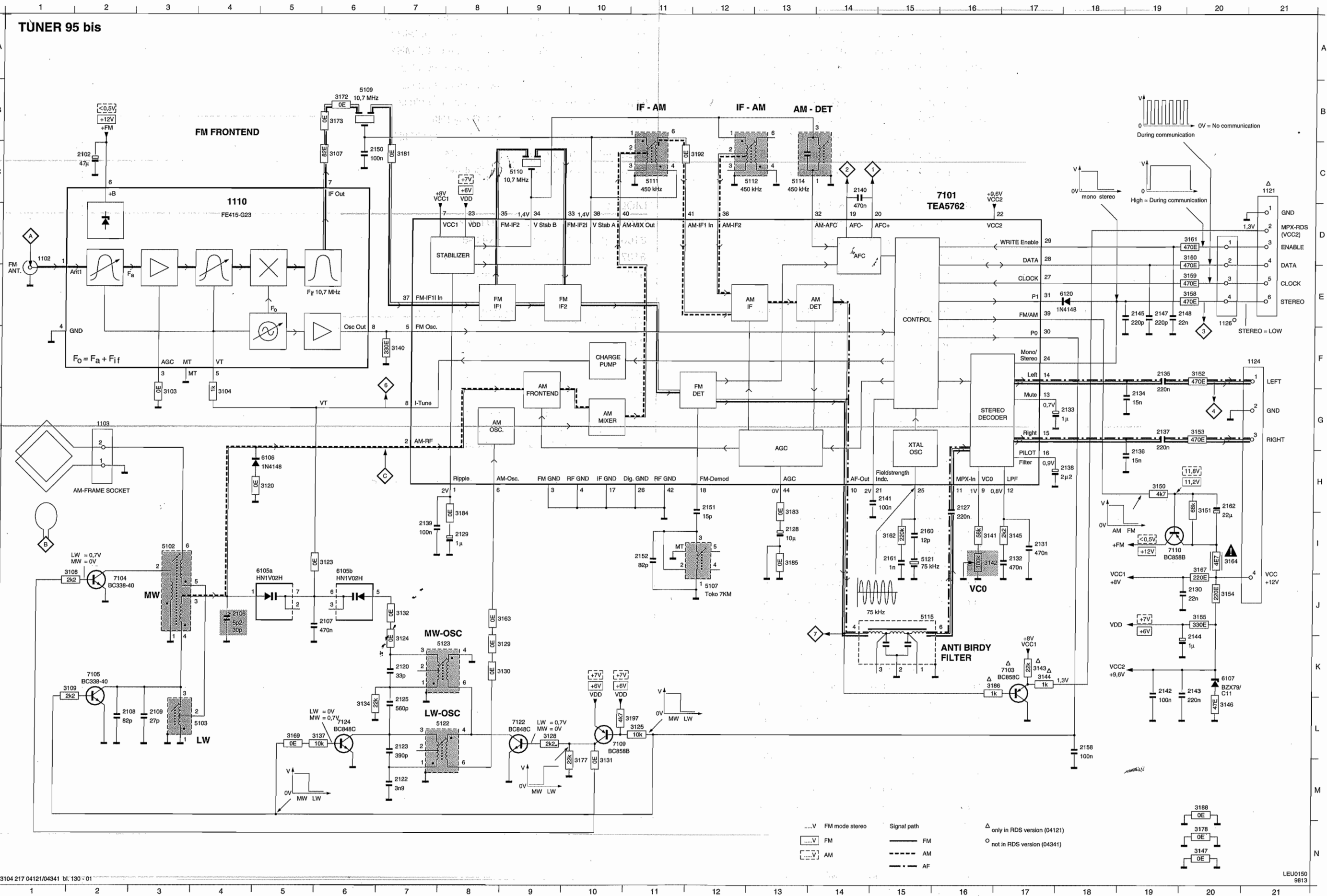
7205	4822 130 60511	BC847B
7206	4822 130 60511	BC847B
7209	3139 110 52290	TMP88CU74YF-C83S52291
7210	4822 209 15449	74HC4094D
7211	5322 209 11446	HEF4051BT
7212	4822 130 60511	BC847B
7213	9322 145 26668	M24C02-WMN6
7214	4822 209 31981	SAA6579T/V1
7215	4822 130 60511	BC847B
7216	4822 130 10165	GR1U28XP
7217	4822 130 60511	BC847B
7220	4822 130 60511	BC847B
7400	4822 130 60511	BC847B

Note : Only the parts mentioned in this list are normal service spare parts.

BLOCKDIAGRAM



1102	D1	1124	F21	2107	J6	2122	M7	2128	I13	2132	I17	2136	H19	2140	C14	2144	K20	2150	C6	2160	I15	3104	G4	3120	H5	3128	L9	3132	J7	3141	I16	3145	I17	3151	I20	3155	J20	3161	D19	3167	I20	3177	M10	3184	I8	3192	C12	5107	J12	5112	C12	5122	L7	6106	H5	7103	K17	7110	I19
1103	G2	1126	E20	2108	L2	2123	L7	2129	I8	2133	G18	2137	G19	2141	H15	2145	E19	2151	H12	2161	I15	3107	C6	3123	I6	3129	K8	3134	L6	3142	I16	3146	L20	3152	F20	3158	E19	3162	I15	3172	B6	3181	C7	3186	K16	5102	I3	5110	C9	5115	J15	6105a	I5	6120	E17	7105	K2	7122	L9
1110	D4	2102	C2	2109	L3	2125	L7	2130	J20	2134	G19	2138	H18	2142	K19	2147	E19	2152	I11	2162	H20	3108	J1	3124	K7	3130	K8	3137	L5	3143	K17	3147	N20	3153	G20	3159	E19	3163	J8	3172	B6	3181	C7	3186	K16	5102	I3	5110	C9	5115	J15	6105a	I5	6120	E17	7105	K2	7124	L6
1121	C21	2106	J4	2120	K7	2127	H16	2131	I17	2135	F19	2139	I7	2143	K20	2148	E19	2158	L18	3103	G3	3109	K1	3125	L11	3131	M10	3140	F7	3144	K17	3150	H19	3154	J20	3160	D19	3164	I20	3173	B6	3183	I13	3188	M20	5103	L4	5111	C11	5121	I5	6105b	I6	7101	C15	7109	L10		



ELECTRICAL PARTS LIST - TUNER 95 BOARD**MISCELLANEOUS**

1102	4822 267 10283	Socket Coaxial IEC 75R
1103	4822 265 31184	JST Connector 2 pin
1110	4822 210 10739	Frontend Assembly FE415-G23

CAPACITORS

2102	4822 124 40433	47μF 20% 25V
2106	4822 125 60102	Trimmer 5,2-30pF 100V
2107	4822 121 51252	470nF 5% 63V
2108	4822 126 13695	82pF 1% 63V
2109	4822 126 13691	27pF 1% 63V
2120	5322 122 32659	33pF 5% 50V
2122	5322 126 10465	3,9nF 10% 50V
2123	4822 121 10766	390pF 1% 630V
2125	4822 121 10578	560pF 1% 630V
2127	4822 122 32927	220nF +80/-20% 50V
2128	4822 124 41579	10μF 20% 50V
2129	4822 124 40242	1μF 20% 63V
2130	4822 126 11585	22nF +80/-20% 25V
2131	4822 122 33325	470nF 16V
2132	4822 122 33325	470nF 16V
2133	4822 124 40242	1μF 20% 63V
2134	4822 126 13188	15nF 5% 63V
2135	4822 122 32927	220nF +80/-20% 50V
2136	4822 126 13188	15nF 5% 63V
2137	4822 122 32927	220nF +80/-20% 50V
2138	4822 124 41576	2,2μF 20% 50V
2139	4822 126 10002	100nF 20% 25V
2140	4822 121 51252	470nF 5% 63V
2141	4822 122 31947	100nF 20% 63V
2142	4822 122 31947	100nF 20% 63V
2143	4822 122 32927	220nF +80/-20% 50V
2144	4822 124 40242	1μF 20% 63V
2145	4822 122 33575	220pF 5% 50V
2147	4822 122 33575	220pF 5% 50V
2148	4822 122 33809	22nF 20% 50V
2150	4822 122 31947	100nF 20% 63V
2151	4822 126 14236	15pF 5% 50V
2152	4822 126 13695	82pF 1% 63V
2158	4822 122 31947	100nF 20% 63V
2160	4822 122 32139	12pF 2% 63V
2161	5322 122 34123	1nF 10% 50V
2162	4822 124 81151	22μF 50V

RESISTORS

3103	4822 051 20008	0R Jumper 0805
3104	4822 051 10102	1k 2% 0,25W
3107	4822 051 20829	82R 5% 0,1W
3108	4822 117 11449	2k2 1% 0,1W
3109	4822 117 11449	2k2 1% 0,1W
3120	4822 051 20008	0R Jumper 0805
3123	4822 051 10008	0R Jumper 1206
3124	4822 051 10008	0R Jumper 1206

3125	4822 116 83864	10k 5% 0,5W
3128	4822 116 52256	2k2 5% 0,5W
3129	4822 051 20008	0R Jumper 0805
3130	4822 051 10008	0R Jumper 1206
3131	4822 051 10008	0R Jumper 1206
3132	4822 051 20008	0R Jumper 0805
3134	4822 051 20223	22k 5% 0,1W
3137	4822 117 10833	10k 1% 0,1W
3138	4822 051 20008	0R Jumper 0805
3139	4822 051 10008	0R Jumper 1206
3140	4822 051 20331	330R 5% 0,1W
3141	4822 117 11148	56k 1% 0,1W
3142	4822 100 11163	Trimmer 100k 30% 0,1W
3143	4822 051 20223	22k 5% 0,1W
3144	4822 051 10102	1k 2% 0,25W
3145	4822 117 11449	2k2 1% 0,1W
3146	4822 051 20479	47R 5% 0,1W
3147	4822 051 10008	0R Jumper 1206
3150	4822 051 20472	4k7 5% 0,1W
3151	4822 051 20683	68k 5% 0,1W
3152	4822 051 20471	470R 5% 0,1W
3153	4822 051 20471	470R 5% 0,1W
3154	4822 116 83872	220R 5% 0,5W
3155	4822 116 52219	330R 5% 0,5W
3158	4822 116 83883	470R 5% 0,5W
3159	4822 116 83883	470R 5% 0,5W
3160	4822 116 83883	470R 5% 0,5W
3161	4822 116 83883	470R 5% 0,5W
3162	4822 117 13579	220k 1% 0,1W
3163	4822 051 10008	0R Jumper 1206
3164	4822 052 10478	Δ 4R7 5% 0,33W
3165	4822 051 10008	0R Jumper 1206
3167	4822 116 83872	220R 5% 0,5W
3169	4822 051 20008	0R Jumper 0805
3171	4822 051 20008	0R Jumper 0805
3172	4822 051 10008	0R Jumper 1206
3173	4822 051 20008	0R Jumper 0805
3176	4822 051 20008	0R Jumper 0805
3177	4822 051 20223	22k 5% 0,1W
3178	4822 051 10008	0R Jumper 1206
3181	4822 051 10008	0R Jumper 1206
3183	4822 051 10008	0R Jumper 1206
3184	4822 051 10008	0R Jumper 1206
3185	4822 051 10008	0R Jumper 1206
3186	4822 051 10102	1k 2% 0,25W
3188	4822 051 10008	0R Jumper 1206
3192	4822 051 20008	0R Jumper 0805
3197	4822 051 20472	4k7 5% 0,1W

COILS & FILTERS

5102	4822 157 71634	MW Aerial
5103	4822 157 71635	LW Aerial

ELECTRICAL PARTS LIST - TUNER 95 BOARD

5107	4822 157 11443	FM Discriminator 10,7MHz
5109	4822 157 71639	Ceram Filter 10,7MHz
5110	4822 242 70665	Ceram Filter 10,7MHz
5111	4822 158 60511	AM-IF Filter 450kHz
5112	4822 157 70302	AM-IF Filter 450kHz
5114	4822 157 70302	AM_IF Filter 450kHz
5115	4822 157 71636	Anti-Birdy Filter
5121	4822 242 10261	X'tal Resonator 75kHz
5122	4822 157 60517	RF Coil AM
5123	4822 157 60517	RF Coil AM

DIODES

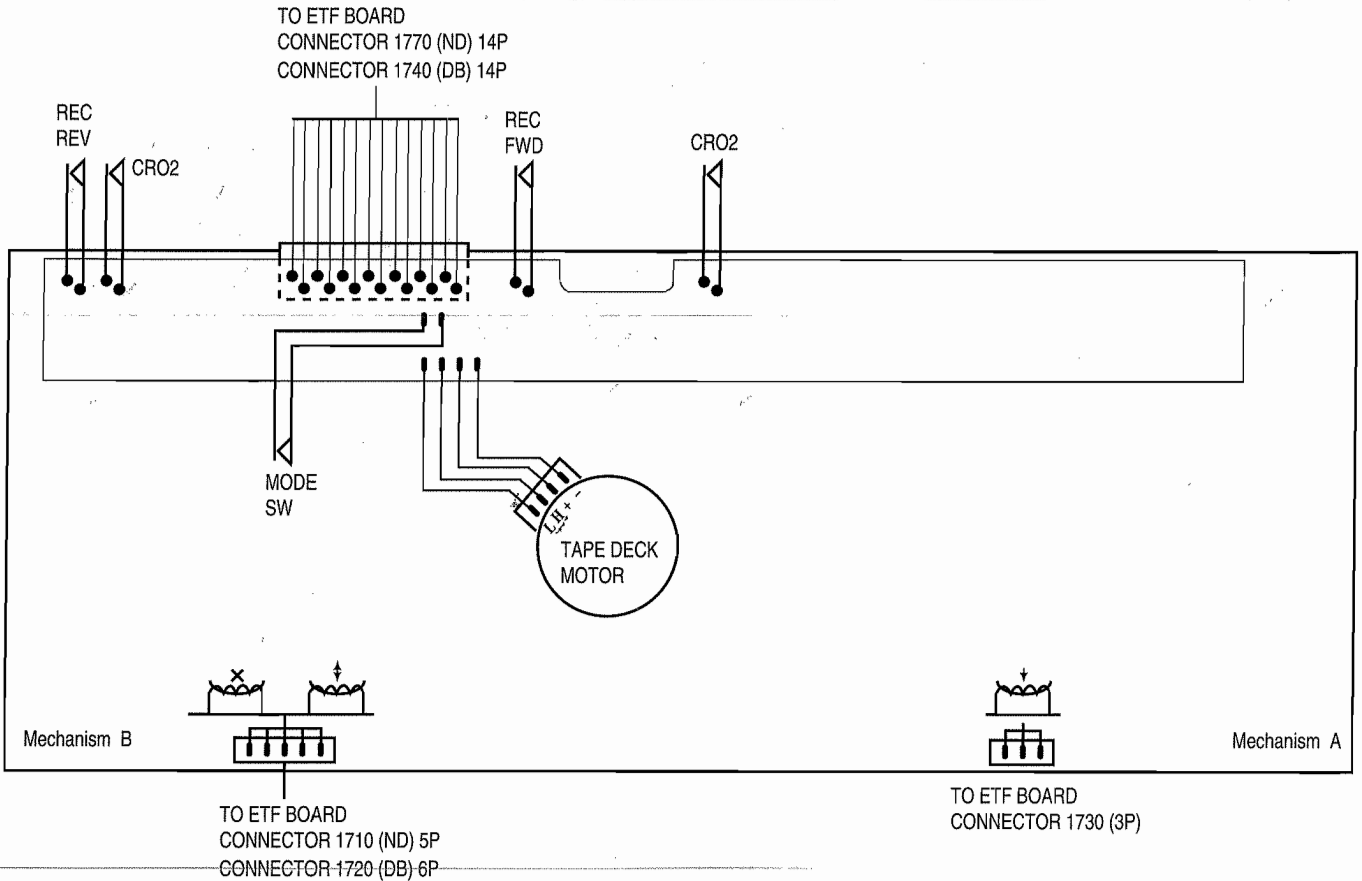
6105	4822 130 83075	HN1V02H-B
6106	4822 130 30621	1N4148
6107	4822 130 34488	BZX79-C11
6120	4822 130 30621	1N4148

TRANSISTORS & INTEGRATED CIRCUITS

7101	4822 209 90315	TEA5762H/V1
7103	4822 130 42513	BC858C
7104	5322 130 44779	BC338-40
7105	5322 130 44779	BC338-40
7109	5322 130 41983	BC858B
7110	5322 130 41983	BC858B
7122	5322 130 42136	BC848C
7124	5322 130 42136	BC848C

Note : Only the parts mentioned in this list are normal service spare parts.

Tapedeck wiring (Double deck)

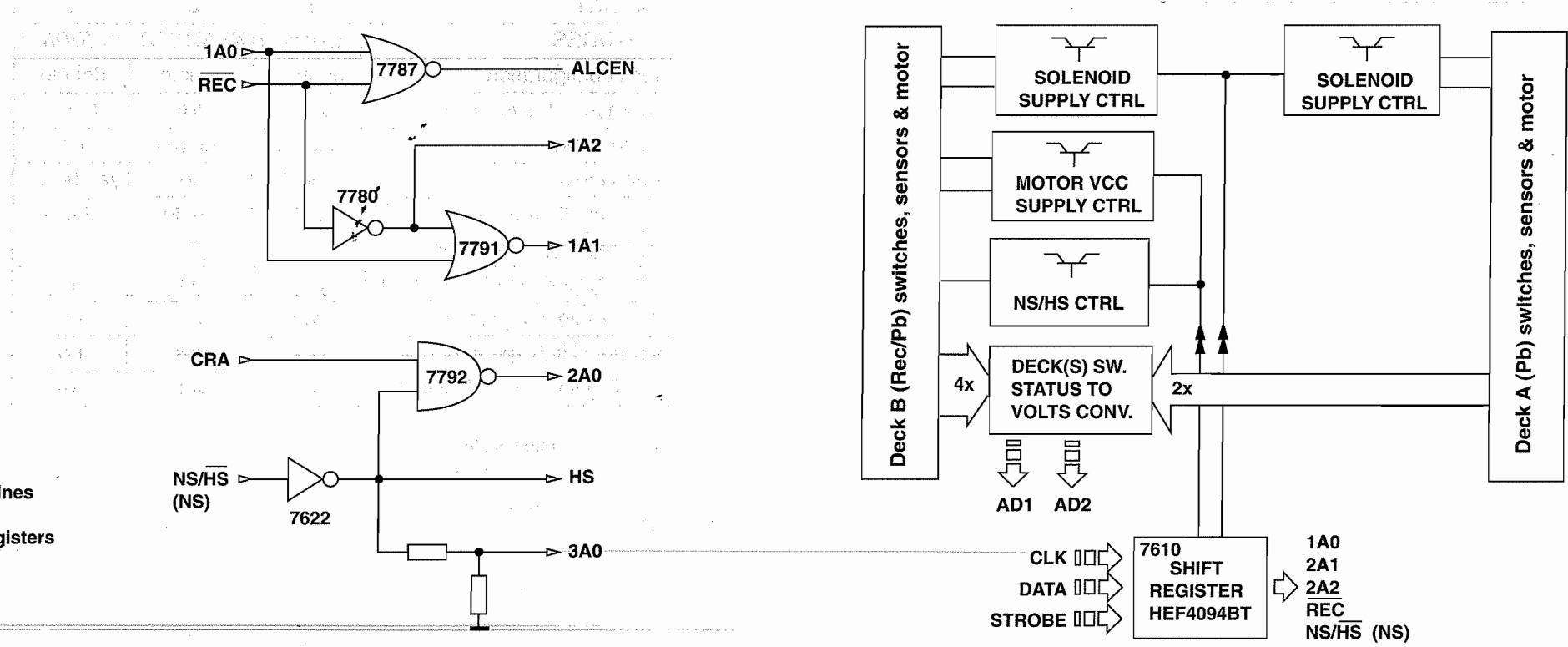
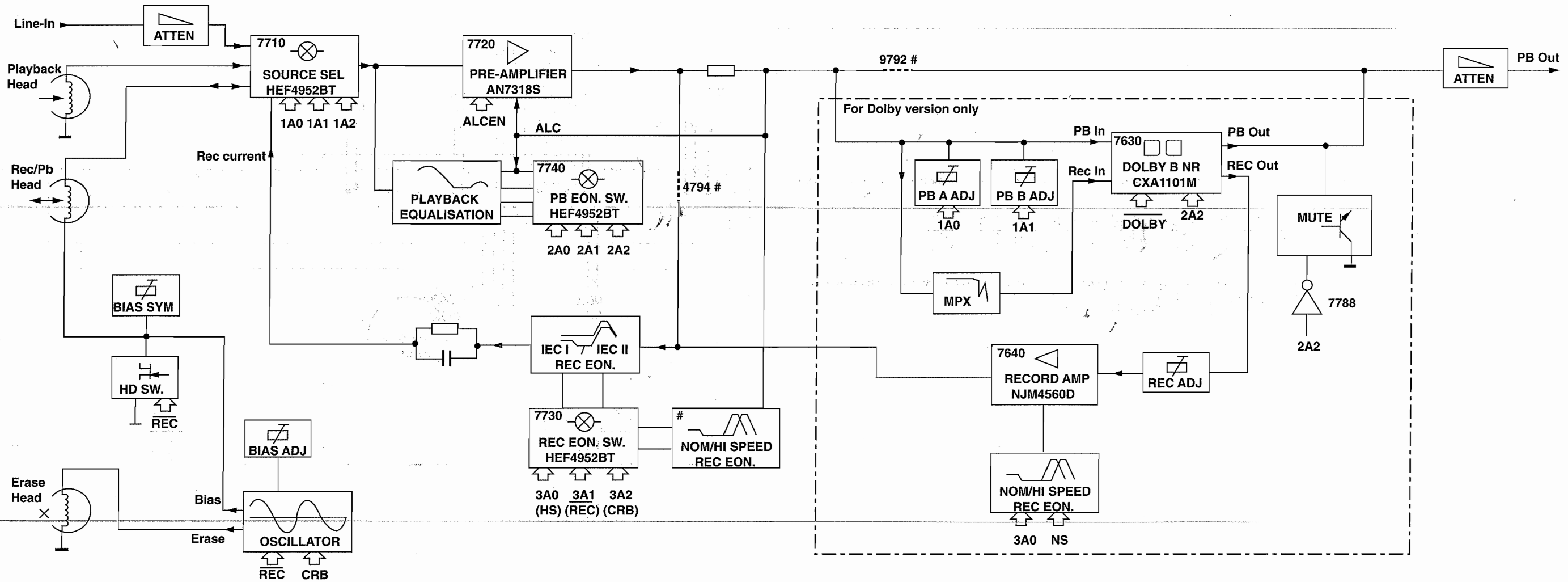


OPTIONS / VARIANTS TABLE

MODULE	ETF7		
	1	2	3
VARIANT			
FEATURES	DB/DD/FR	ND/DD/FR	ND/DD/FF
Deck configuration	double	double	double
Deck type (Tokyo Pigeon)	CWE	CWE	CWE
Autoreverse	yes (B)	yes (B)	no
Auto Replay	no	no	yes (A+B)
Motor configuration	single	single	single
Auto tape type selection	yes	yes	yes
Dolby type B Noise Reduction	yes	no	no
19 kHz pilot suppression	yes	no	no
Normal / High speed dubbing	yes	yes	no
Cue/Review & Fwd/Rewind	yes	yes	yes

- DB = Dolby B NR
- DD = Double Deck
- FF = Non-Autoreverse
- FR = Autoreverse Deck B
- ND = Non-Dolby
- SD = Single Deck

BLOCK DIAGRAM



NOTE: # For Non-dolby version only
Only 1 channel is presented.

□ □ □ MicroProcessor Control / Communication lines
⇒ Direct / Indirect Control lines from Shift Registers

Brief introduction

General

1. Playback Mode

Signal from the playback head Deck A or Deck B is selected and fed through by the Mode Selector IC7710 (HEF4952BT). The signal is amplified by amplifier IC7720 (AN7323S) before feeding to the IC7740 (HEF4952BT) and out to the AF Board via connector 1701.

2. Recording Mode

Recording Signal is selected and fed through by the Mode Selector IC7710 (HEF4952BT) which is then amplified by the amplifier IC7720 (AN7323S). The amplified output signal will pass through IC7730 (HEF4952BT) for record equalization and back to IC7710 (HEF4952BT) before registered into the Rec/PB Head of Deck B.

3. Dubbing Mode

In Dubbing mode, signal from the playback head Deck A is selected and fed through by the Mode Selector IC7710 (HEF4952BT) which is then equalised for playback mode by the amplifier IC7720 (AN7323S) so that a flat response is obtained after the pre-amp. The equalised signal will then follow the same path as in the Recording mode.

4. Mode Selector

The Mode Selector IC7710 (HEF4952BT) caters for 4 inputs signal, namely Playback Signal from Deck A, Playback Signal from Deck B, Recording Signal and Dubbing Signal.

5. Amplifier PB/REC

Amplifier IC7720 (AN7323S) is for the purpose of amplifying the Playback and Recording signal from the Mode Selector.

6. Automatic Level Control (ALC)

ALC circuit consists of resistors (3760, 3765, 3766, 3767), capacitors (2762, 2763) and control by transistor 7787 (BC847B). ALC limits the amplifier output to a constant value when input signal becomes too large, thus limiting recording current to below saturation level, to prevent recording distortion.

7. Muting Circuit (For Non-Dolby version only)

Switch S4 of the IC7740 (HEF4952BT) is for the purpose of muting the output during Recording mode. During Recording mode, S4 is closed and shorted to the ground.

8. IC7740 (HEF4952BT)

The function of the IC7740 (HEF4952BT) is to change time constant between 120us Ferro (IEC I) and 70us Chrome (IEC II) during playback mode. It will automatically determined whether the tape type is 120us Ferro (IEC I) or 70us Chrome (IEC II). This IC will switch to Flat Gain during the Recording mode.

9. IC7730 (HEF4952BT)

The function of the IC7730 (HEF4952BT) is to change gain and time constant according to tape type and recording speed to boost recording current at higher frequency during recording to compensate for head loss. It will automatically determined whether the tape type is 120us Ferro (IEC I) or 70us Chrome (IEC II).

10. Bias Level

Bias Level making use of the Variable resistor (3773) for adjusting the optimal level of the bias current for Ferro or Chrome.

11. Bias Symm (For Dolby B NR version only)

Bias Symm making use of the Variable resistor (3785) to adjust the bias current for the left and the right channel to be equal.

12. PB Switch

Playback Switch which consists of the FETs 7785 (For Dolby B NR version only) & 7786 (J111) is for the purpose of providing a virtual ground for the Rec/PB Head (Deck B) during Playback mode. During the Playback mode, the FETs are turn on and shorted pin 2 and 4 of connector 1720 to the ground. During Recording mode, the FETs are turn off to allow the oscillator signal to be superposition onto the Recording signal for recording.

13. Motor Speed (For FR versions only)

During High speed dubbing, a feedback signal from the uP through pin 03 of the IC7610 (HEF4094BT) will trigger the transistors 7622 (BC847B) and 7616 (BC857B) to cause a change in the voltage level between High and Low, thus changing the speed of the motor.

14. IC7610 (HEF4094BT)

IC7610 (HEF4094BT) is a Shift Register use for issues the logic for cmos switch ICs (HEF4952BT) via 1A0, 2A1 and 2A2. It also issues logic to On/Off SOL_A, SOL_B and MOT. Recording speed is controlled via NS/HS.

Dolby Circuit (For sets with Dolby B NR version only)

15. IC7630 (CXA1551M)

IC7630 (CXA1551M) in the Dolby circuit is a Dolby Noise Reduction Type B IC for the Playback and Recording signal. Noise Reduction ON/OFF are controlled by DOLBY, which is from CLK, direct from uP. After clocking in DATA, CLK is set to HIGH/LOW for NR OFF/ON.

16. 19kHz Filter

The 19kHz filters 5631 & 5632 (LXD-210) in the Dolby circuit is for the purpose of filtering the 19kHz Pilot Tone (for Tuner signal only) of the Recording signal.

17. Level Adjust

The Variable resistor 3635, 3636, 3641 and 3642 in the Dolby circuit is for adjusting the playback level of the Dolby reference (400Hz, 200nWb/m). Transistor 7631, 7632 are ON to enable adjustment of 3641, 3642 during Playback Deck A. Transistor 7633, 7634 and 3635, 3636 are active for Playback Deck B.

18. Amplifier IC7640 (NJM4560M)

The Amplifiers 7640A & 7640B (NJM4560M) in the Dolby circuit is for the purpose of amplified the Recording signal.

19. Muting Circuit

The muting circuit which consists of transistors 7788, 7789 and 7790 (BC847B) is for the purpose of muting the output during Recording mode.

NOTATIONS & ABBREVIATIONS USED IN THIS DOCUMENT

CR	Chrome (IEC type II)
DB	Dolby NR type B
DD	Double Deck
DM	Double Motor
FE	Ferro (IEC type I)
FF	Non-Autoreverse
FR	Autoreverse Deck B
Gnd x	Ground x
HSD	High speed dubbing
ND	Non Dolby
NR	Noise Reduction
NSD	Normal speed dubbing
PB	Playback
REC	Record
S/A	Sub-assy
SD	Single Deck
SM	Single Motor

CONNECTORS ASSIGNMENTS:**CONNECTOR 1701 INTERCONNECTION TO AF BOARD**

○ 1	REC-L	Record input left
○ 2	REC-R	Record input right
○ 3	GND A	AF Ground
○ 4	TAPE-L	Playback output left
○ 5	+12V	D.C. supply (+12V) for AF electronics
○ 6	TAPE-R	Playback output right
○ 7	-CMOS	Negative d.c. supply (-9V) for CMOS ICs

CONNECTOR 1703 INTERCONNECTION TO AF BOARD

○ 1	GND M	Motor Ground
○ 2	+MOTOR	D.C. supply (+12V) for tape deck motor & solenoid

CONNECTOR 1706 INTERCONNECTION TO FRONT BOARD

○ 1	AD2	Deck sensing switches output voltage / Deck A EOT
○ 2	AD1	Deck sensing switches output voltage / Deck B EOT
○ 3	+5V	DC supply +5V for ADC network
○ 4	GND P	Control & Oscillator Ground
○ 5	CLK	HEF4094BT shift register Clock line
○ 6	DATA	HEF4094BT shift register Data line
○ 7	STROBE	HEF4094BT shift register Strobe line

CONNECTOR 1710 DECK B HEADS CONNECTOR (For Non-Dolby version only)

○ 1	B R/P HD L+	R/P Head left channel positive
○ 2	GND A	R/P Head return ground
○ 3	B R/P HD R+	R/P Head right channel positive
○ 4	ERASE HEAD	Erase Head
○ 5	GND A	Erase Head ground

CONNECTOR 1720 DECK B HEADS CONNECTOR (For Dolby B NR version only)

○ 1	B R/P HD L+	R/P Head left channel positive
○ 2	B R/P HD L-	R/P Head left channel negative
○ 3	B R/P HD R+	R/P Head right channel positive
○ 4	B R/P HD R-	R/P Head right channel negative
○ 5	ERASE HEAD	Erase Head
○ 6	GND A	Erase Head ground

CONNECTOR 1730 DECK A HEAD CONNECTIONS (For Double Deck versions only)

○ 1	A PB HD L+	Pb Head left channel positive
○ 2	GND A	Pb Head return ground shield
○ 3	A PB HD R+	Pb Head right channel positive

CONNECTOR 1740

○ 1	REC REW
○ 2	CrO2 B
○ 3	REC FWD
○ 4	PHOTO B
○ 5	SOL B
○ 6	Vcc
○ 7	MODE B
○ 8	GND M
○ 9	SOLA
○ 10	PHOTO A
○ 11	MODE A
○ 12	L
○ 13	CrO2 A
○ 14	H

DECK A & B CONTROL INTERFACE (For Dolby B NR version only)

○ 1	REC REW	Record tab protection status switch (reverse)	[open=on: close=off]
○ 2	CrO2 B	Chrome tape detection switch deck B	[open=Cr: close=Fe]
○ 3	REC FWD	Record tab protection status switch (forward)	[open=on: close=off]
○ 4	PHOTO B	Photo sensor output (tape movement indication)	
○ 5	SOL B	Solenoid supply for deck B	
○ 6	Vcc	Deck / Motor supply	
○ 7	MODE B	Mode switch (head engagement)	[open=off: close=engaged]
○ 8	GND M	Deck / Motor ground	
○ 9	SOLA	Solenoid supply for deck A	
○ 10	PHOTO A	Photo sensor output (tape movement indication)	
○ 11	MODE A	Mode switch (head engagement)	[open=off: close=engaged]
○ 12	L	L pin for motor	
○ 13	CrO2 A	Chrome tape detection switch deck A	[open=Cr: close=Fe]
○ 14	H	H pin for motor	

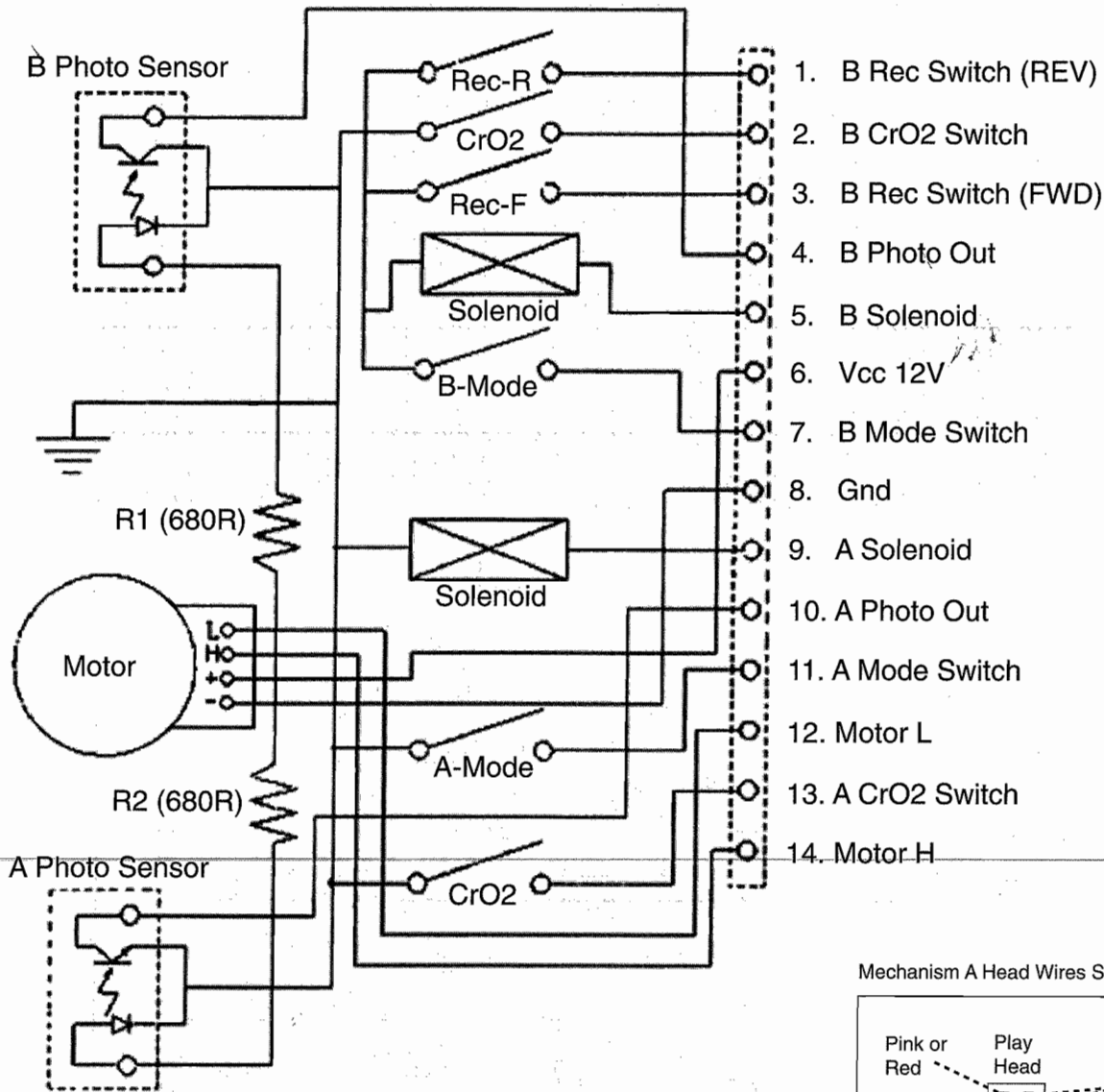
CONNECTOR 1770

○ 1	REC REW
○ 2	CrO2 B
○ 3	REC FWD
○ 4	PHOTO B
○ 5	SOL B
○ 6	Vcc
○ 7	MODE B
○ 8	GND M
○ 9	SOLA
○ 10	PHOTO A
○ 11	MODE A
○ 12	L
○ 13	CrO2 A
○ 14	H

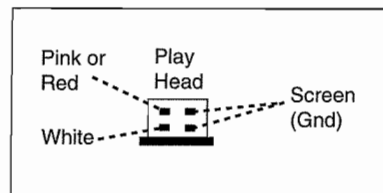
DECK A & B CONTROL INTERFACE (For Non-Dolby version only)

○ 1	REC REW	Record tab protection status switch (reverse)	[open=on: close=off]
○ 2	CrO2 B	Chrome tape detection switch deck B	[open=Cr: close=Fe]
○ 3	REC FWD	Record tab protection status switch (forward)	[open=on: close=off]
○ 4	PHOTO B	Photo sensor output (tape movement indication)	
○ 5	SOL B	Solenoid supply for deck B	
○ 6	Vcc	Deck / Motor supply	
○ 7	MODE B	Mode switch (head engagement)	[open=off: close=engaged]
○ 8	GND M	Deck / Motor ground	
○ 9	SOLA	Solenoid supply for deck A	
○ 10	PHOTO A	Photo sensor output (tape movement indication)	
○ 11	MODE A	Mode switch (head engagement)	[open=off: close=engaged]
○ 12	L	L pin for motor	
○ 13	CrO2 A	Chrome tape detection switch deck A	[open=Cr: close=Fe]
○ 14	H	H pin for motor	

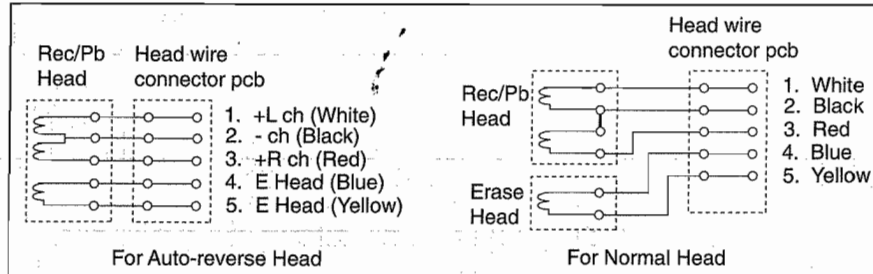
TAPE MECHANISM ELECTRONICS



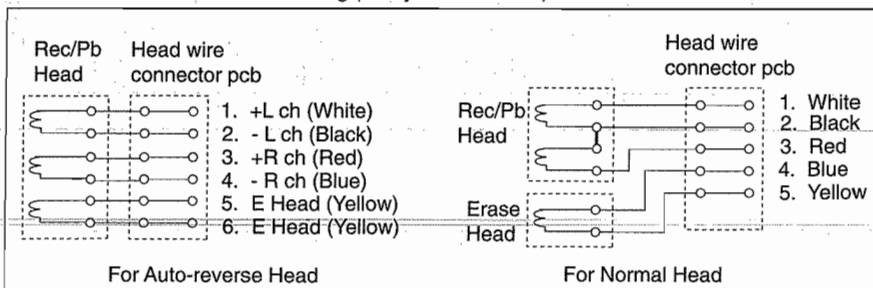
Mechanism A Head Wires Soldering



Mechanism B Head Wires Soldering (Non-Dolby version)



Mechanism B Head Wires Soldering (Dolby B NR version)



General

	TEST CASSETTE	RECORDER MODE	MEASURE ON	READ ON	ADJUST	
					with	to
ADJUST MOTOR SPEED						
HIGH SPEED	SBC420 (4822 397 30071)	DUBBING	1 or 2 LEFT RIGHT	frequency counter	3622 *	5040Hz ± 0.5%
NORMAL SPEED	3150Hz	PLAY B	1 or 2 LEFT RIGHT	frequency counter	3620	3150Hz ± 0.5%
		PLAY A			check	3150Hz -0.8/+1.8%
CHECK WOW & FLUTTER						
DECK A & B	SBC420 (4822 397 30071)	PLAY	1 or 2 LEFT RIGHT	W&F-meter	check only	≤0.4 % DIN or ≤0.35 % CCIR *
ADJUST AZIMUTH						
DECK A & B	SBC420 (4822 397 30071)	PLAY FWD PLAY REV #	1 or 2 LEFT RIGHT	mV-meter	left hand screw right hand screw	max. output level & left=right

Playback

	TEST CASSETTE	RECORDER MODE	MEASURE ON	READ ON	ADJUST	
					with	to
ADJUST DOLBY PLAYBACK LEVEL *						
DECK A	TCC-130 (4822 397 30269) 200nWb/m	PLAY	7 or 8 LEFT RIGHT	mV-meter	3641(L), 3642(R)	548mV ±0.5dB
DECK B		PLAY FWD			3635(L), 3636(R)	
		PLAY REV #			Check	548mV ±1dB
CHECK PLAYBACK FREQUENCY RESPONSE						
PB. FREQ. RESP.	SBC420 (4822 397 30071)	PLAY	1 or 2 LEFT RIGHT	mV-meter	Check	limits see fig.1

* For Dolby version only

For Auto-reverse version only

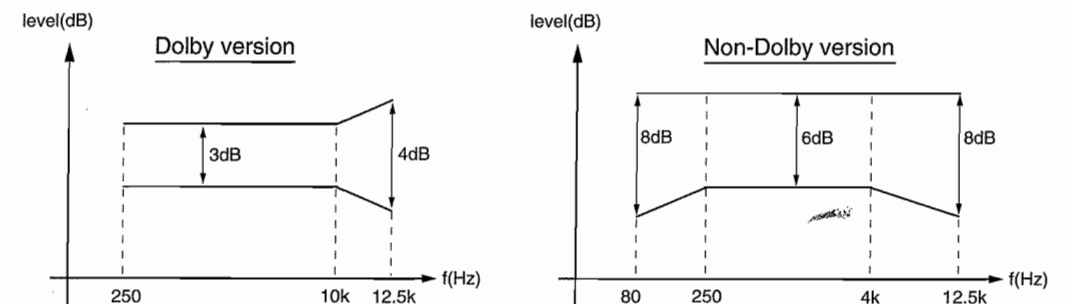


figure. 1

Recording

	TEST CASSETTE	RECORDER MODE	MEASURE ON	READ ON	ADJUST	
					with	to
PRE-ADJUST BIAS AND BIAS-SYMMETRY						
DECK B	CrO ₂	RECORD	5 or 6 LEFT RIGHT	mV-meter	3773	995mV
	FERRO				3785 *	left = right
						check only
CHECK OVERALL FREQUENCY RESPONSE AND DISTORTION						
Inject 3mV signals 100Hz, 250Hz, 1kHz, 10kHz, 12.5kHz via 3 or 4	CrO ₂	RECORD				
	RECORDED CASSETTE	PLAY	1 or 2 LEFT RIGHT	mV-meter	check only	limits see fig.2
Inject 1kHz 8.85mV via 3 or 4	CrO ₂	RECORD				
	RECORDED CASSETTE	PLAY	1 or 2 LEFT RIGHT	THD-meter	check only	≤3%
Remark: If high frequencies are not within limits, decrease bias and re-measure. If distortion is too high increase bias and re-measure.						
ADJUST DOLBY RECORD LEVEL *						
Inject 400Hz 8.85mV via 3 or 4	CrO ₂	RECORD	9 or 10 LEFT RIGHT	mV-meter	3655 & 3556	420mV
	RECORDED CASSETTE	PLAY	7 or 8 LEFT RIGHT	mV-meter	check	170mV ± 1dB
Remark: If measured value is out, re-adjust record level up or down slightly to attain play level.						

* For Dolby version only

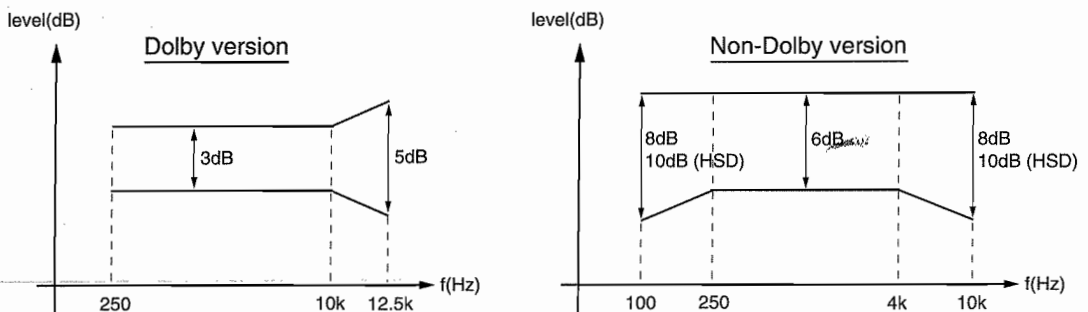
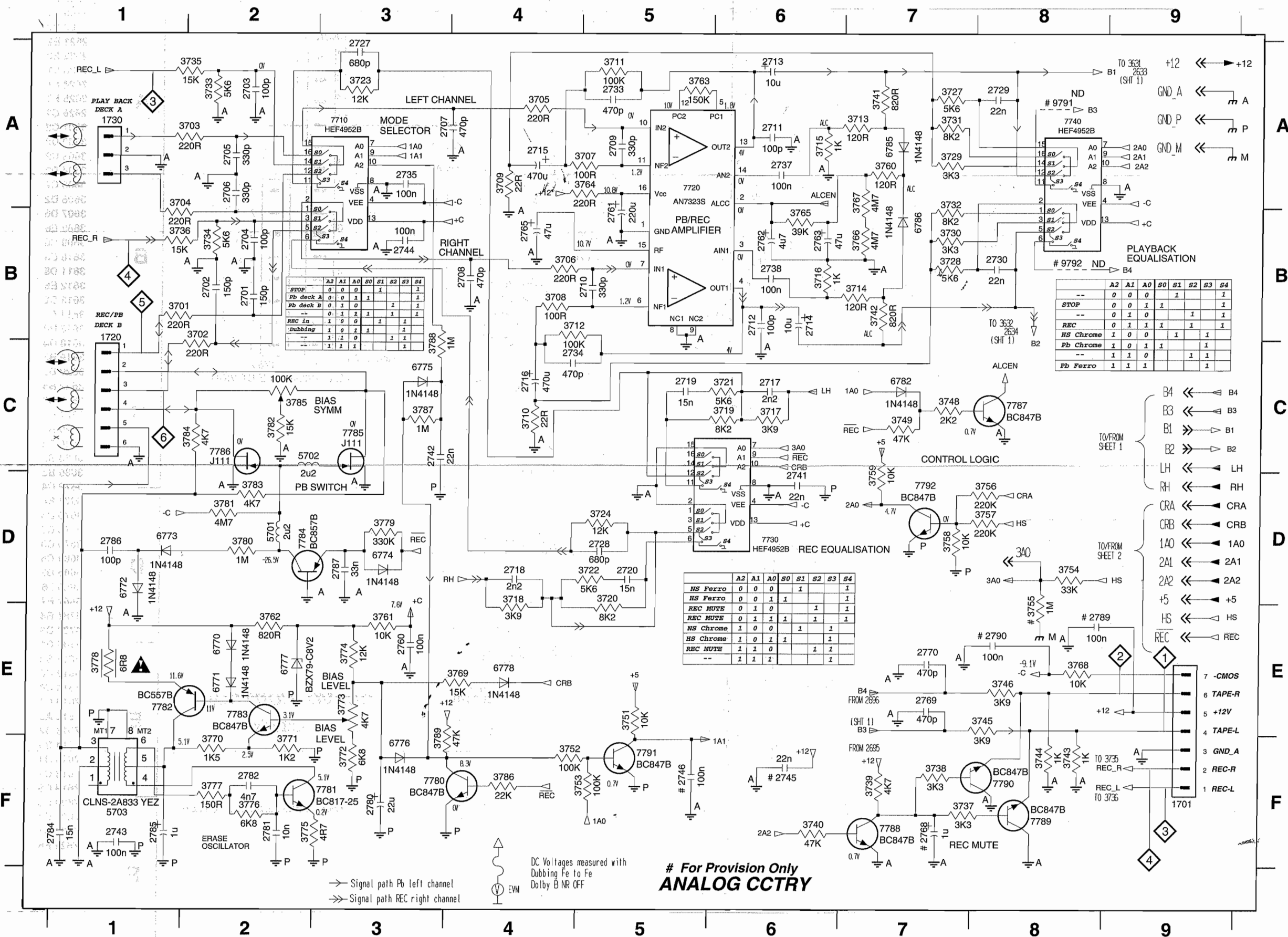


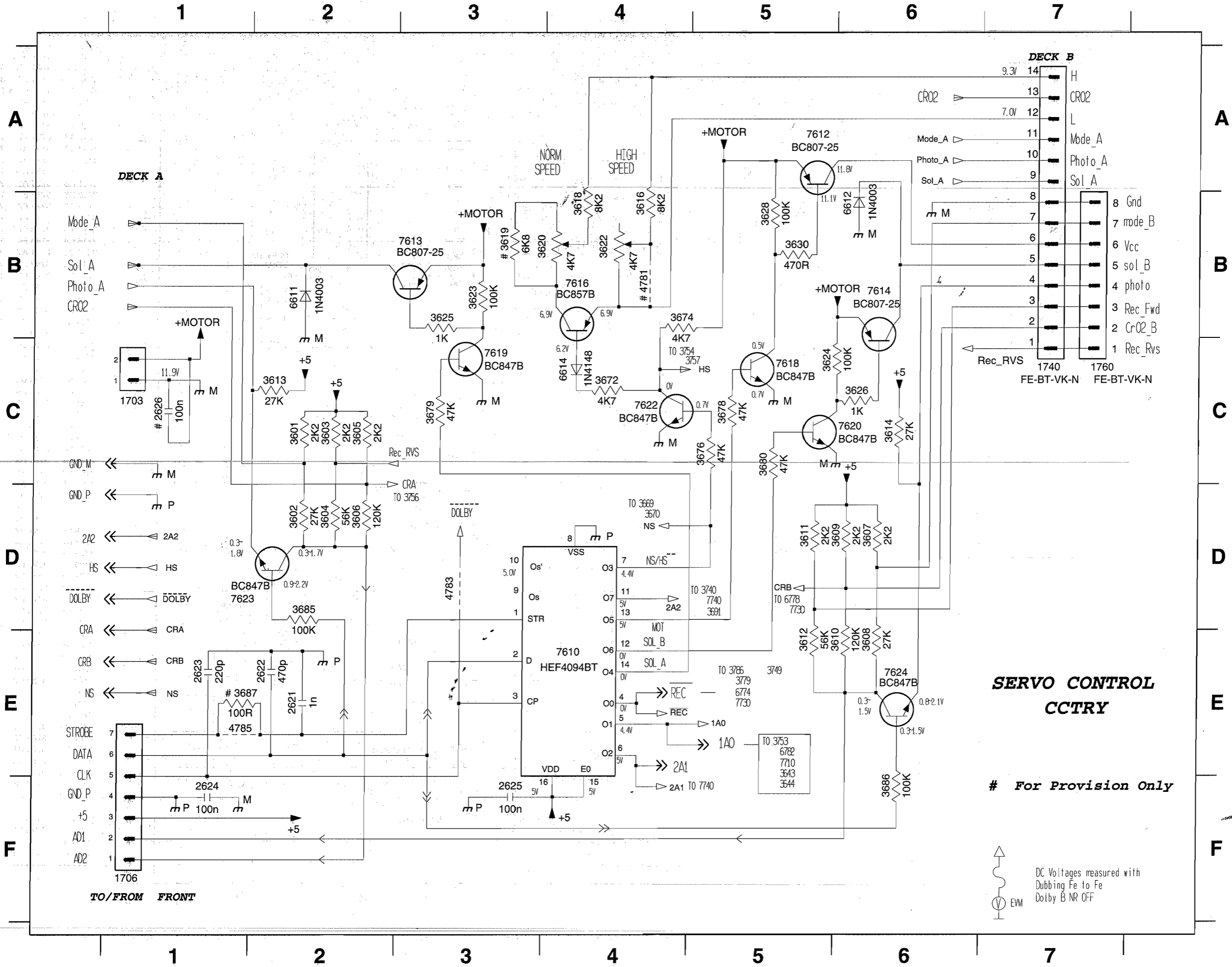
figure. 2

ANALOG CIRCUIT



- 1701 F9
- 1720 C1
- 1730 A1
- 2701 B2
- 2702 B2
- 2703 A2
- 2704 A2
- 2705 A2
- 2706 A2
- 2707 A3
- 2708 B4
- 2709 A5
- 2710 B5
- 2711 A6
- 2712 B6
- 2713 A6
- 2714 B6
- 2715 A4
- 2716 C4
- 2717 C6
- 2718 D4
- 2719 C5
- 2720 D5
- 2727 A3
- 2728 D5
- 2729 A8
- 2730 B8
- 2733 A5
- 2734 C4
- 2735 A3
- 2737 A6
- 2738 B6
- 2741 D6
- 2742 C3
- 2743 F1
- 2744 B3
- 2745 F6
- 2746 F5
- 2760 E3
- 2761 B5
- 2762 B6
- 2763 B6
- 2765 B4
- 2768 F7
- 2769 E7
- 2770 E7
- 2780 F3
- 2781 F2
- 2782 F2
- 2784 F1
- 2785 F1
- 2786 D1
- 2787 D3
- 2789 E8
- 2790 E8
- 3701 B1
- 3702 B2
- 3703 A2
- 3704 A1
- 3705 A4
- 3706 B4
- 3707 A5
- 3709 A4
- 3711 A5
- 3712 A5
- 3713 A7
- 3714 B7
- 3715 A6
- 3716 B6
- 3717 A7
- 3718 D4
- 3719 C6
- 3720 D5
- 3721 C6
- 3722 D5
- 3723 A3
- 3724 D5
- 3727 A7
- 3728 B7
- 3729 A7
- 3730 B7
- 3731 A7
- 3732 A7
- 3733 A2
- 3734 B2
- 3735 A2
- 3736 B1
- 3737 F7
- 3738 F7
- 3739 F7
- 3740 F6
- 3741 A7
- 3742 B7
- 3743 F8
- 3744 F8
- 3745 E8
- 3746 E8
- 3747 C7
- 3748 C7
- 3751 E5
- 3752 F4
- 3753 F5
- 3754 D8
- 3755 E8
- 3756 D8
- 3757 D8
- 3758 D7
- 3759 D7
- 3760 A7
- 3761 E3
- 3762 E2
- 3763 A5
- 3764 A5
- 3765 B6
- 3766 B7
- 3767 A7
- 3768 E8
- 3769 E4
- 3770 F2
- 3771 F2
- 3772 F3
- 3773 E3
- 3774 E3
- 3775 F2
- 3776 F2
- 3777 F2
- 3778 D3
- 3779 D3
- 3780 D2
- 3781 D2
- 3782 C2
- 3783 D2
- 3784 C2
- 3785 C2
- 3786 F4
- 3787 C3
- 3788 C3
- 3789 F3
- 3790 D2
- 3791 A7
- 3792 C2
- 3793 F1
- 3794 E2
- 3795 E2
- 3796 E2
- 3797 D1
- 3798 D1
- 3799 D1
- 6775 C3
- 6776 F3
- 6777 E2
- 6782 C7
- 6785 A7
- 6786 B7
- 6787 A5
- 6788 F4
- 6789 F3
- 6790 F3
- 6791 F5
- 6792 D7
- 6793 A8
- 6794 B8
- 6795 B8
- 6796 B8
- 6797 B8
- 6798 B8
- 6799 B8
- 6799 A8
- 6799 B8
- 6799 C8
- 6799 D8
- 6799 E8
- 6799 F8
- 6799 G8
- 6799 H8
- 6799 J8
- 6799 K8
- 6799 L8
- 6799 M8
- 6799 N8
- 6799 O8
- 6799 P8
- 6799 Q8
- 6799 R8
- 6799 S8
- 6799 T8
- 6799 U8
- 6799 V8
- 6799 W8
- 6799 X8
- 6799 Y8
- 6799 Z8



SERVO CONTROL CIRCUIT



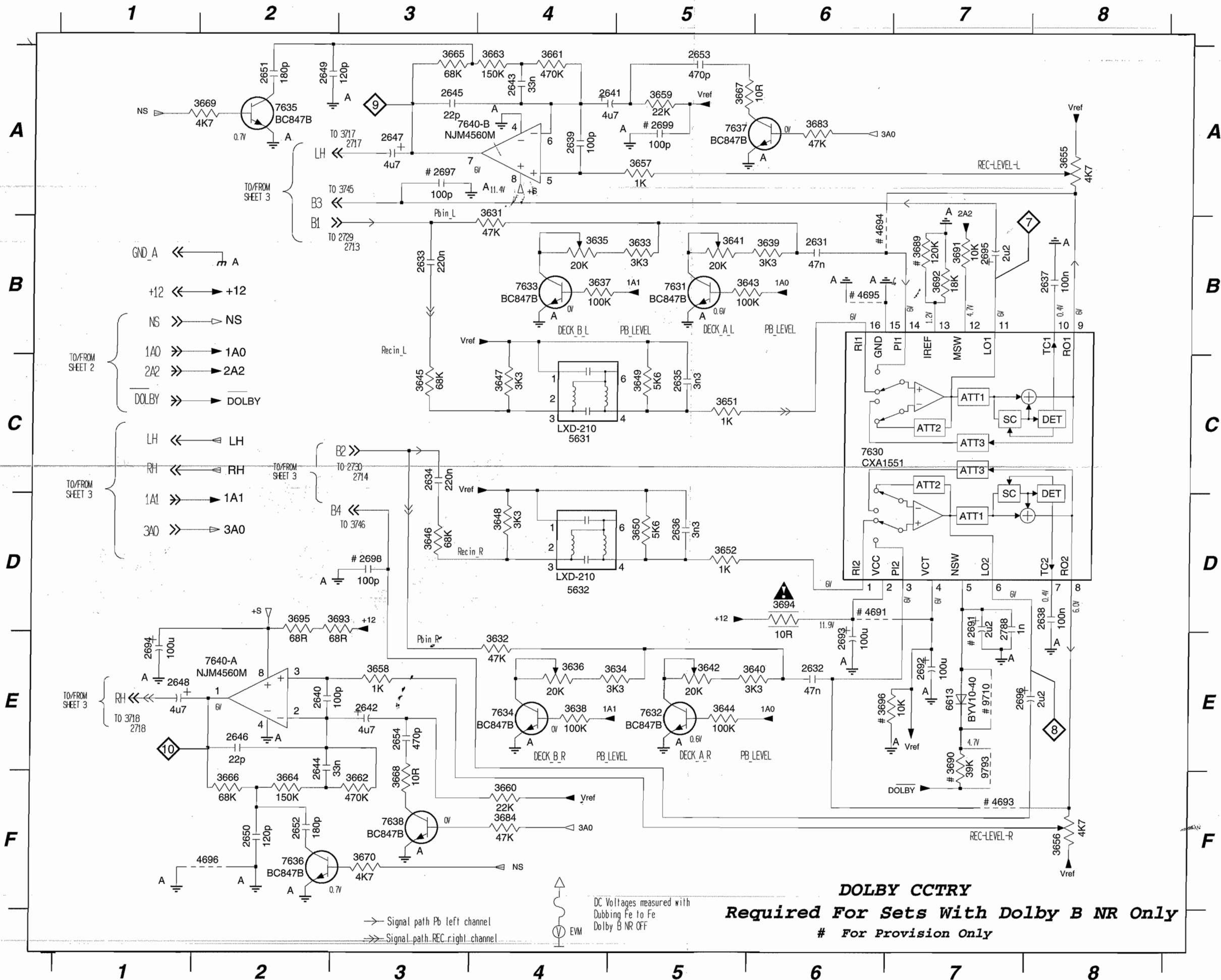
- 1703 C1
- 1706 F1
- 1740 C7
- 1760 C7
- 2621 E2
- 2622 E2
- 2623 E1
- 2624 F1
- 2625 F3
- 2626 C1
- 3601 C2
- 3602 D2
- 3603 C2
- 3604 D2
- 3605 C2
- 3606 D2
- 3607 D6
- 3608 E6
- 3609 D6
- 3610 E6
- 3611 D5
- 3612 E5
- 3613 C2
- 3614 C6
- 3616 B4
- 3618 B4
- 3619 B3
- 3620 B3
- 3622 B4
- 3623 B3
- 3624 C5
- 3625 B3
- 3626 C6
- 3628 B5
- 3630 B5
- 3672 C4
- 3674 B4
- 3676 C5
- 3678 C5
- 3679 C3
- 3680 C5
- 3685 D2
- 3686 F6
- 3687 E1
- 4781 B4
- 4783 D3
- 4785 E1
- 6611 B2
- 6612 B6
- 6614 C4
- 7610 E4
- 7612 A5
- 7613 B2
- 7614 B6
- 7616 B4
- 7618 C5
- 7619 C3
- 7620 C6
- 7622 C4
- 7623 D1
- 7624 E6

SERVO CONTROL CCTRY

For Provision Only

 DC Voltages measured with
 Dubbing Fe to Fe
 EVM
 Dolby B NR OFF

DOLBY CIRCUIT



- 2631 B6
- 2632 E6
- 2633 B3
- 2634 C3
- 2635 C5
- 2636 D5
- 2637 B8
- 2638 D8
- 2639 A4
- 2640 E2
- 2641 A4
- 2642 E3
- 2643 A4
- 2644 E2
- 2645 A3
- 2646 E2
- 2647 A3
- 2648 E1
- 2649 A2
- 2650 F2
- 2651 A2
- 2652 F2
- 2653 A5
- 2654 E3
- 2691 D7
- 2692 E7
- 2693 E6
- 2694 E1
- 2695 B7
- 2696 E7
- 2697 A3
- 2698 D3
- 2699 A5
- 2788 D7
- 3631 B4
- 3632 E4
- 3633 B5
- 3634 E5
- 3635 B4
- 3636 E4
- 3637 B4
- 3638 E4
- 3639 B6
- 3640 E6
- 3641 B5
- 3642 E5
- 3643 B5
- 3644 E5
- 3645 C3
- 3646 D3
- 3647 C4
- 3648 D4
- 3649 C5
- 3650 D5
- 3651 C5
- 3652 D5
- 3655 A8
- 3656 F8
- 3657 A5
- 3658 E3
- 3659 A5
- 3660 F4
- 3661 A4
- 3662 F3
- 3663 A4
- 3664 F2
- 3665 A3
- 3666 F2
- 3667 A5
- 3668 F3
- 3669 A2
- 3670 F3
- 3683 A6
- 3684 F4
- 3689 B7
- 3690 E7
- 3691 B7
- 3692 B7
- 3693 D3
- 3694 D6
- 3695 D2
- 3696 E6
- 4691 D6
- 4693 F7
- 4694 B6
- 4695 B6
- 4696 F2
- 5631 C4
- 5632 D4
- 6613 E7
- 7630 C6
- 7631 B5
- 7632 E5
- 7633 B4
- 7634 E4
- 7635 A2
- 7636 F2
- 7637 A5
- 7638 F3
- 7640-A E2
- 7640-B A4
- 9710 E7
- 9793 E7

DC Voltages measured with
Dubbing Fe to Fe
Dolby B NR OFF

DOLBY C CTRY
Required For Sets With Dolby B NR Only
For Provision Only

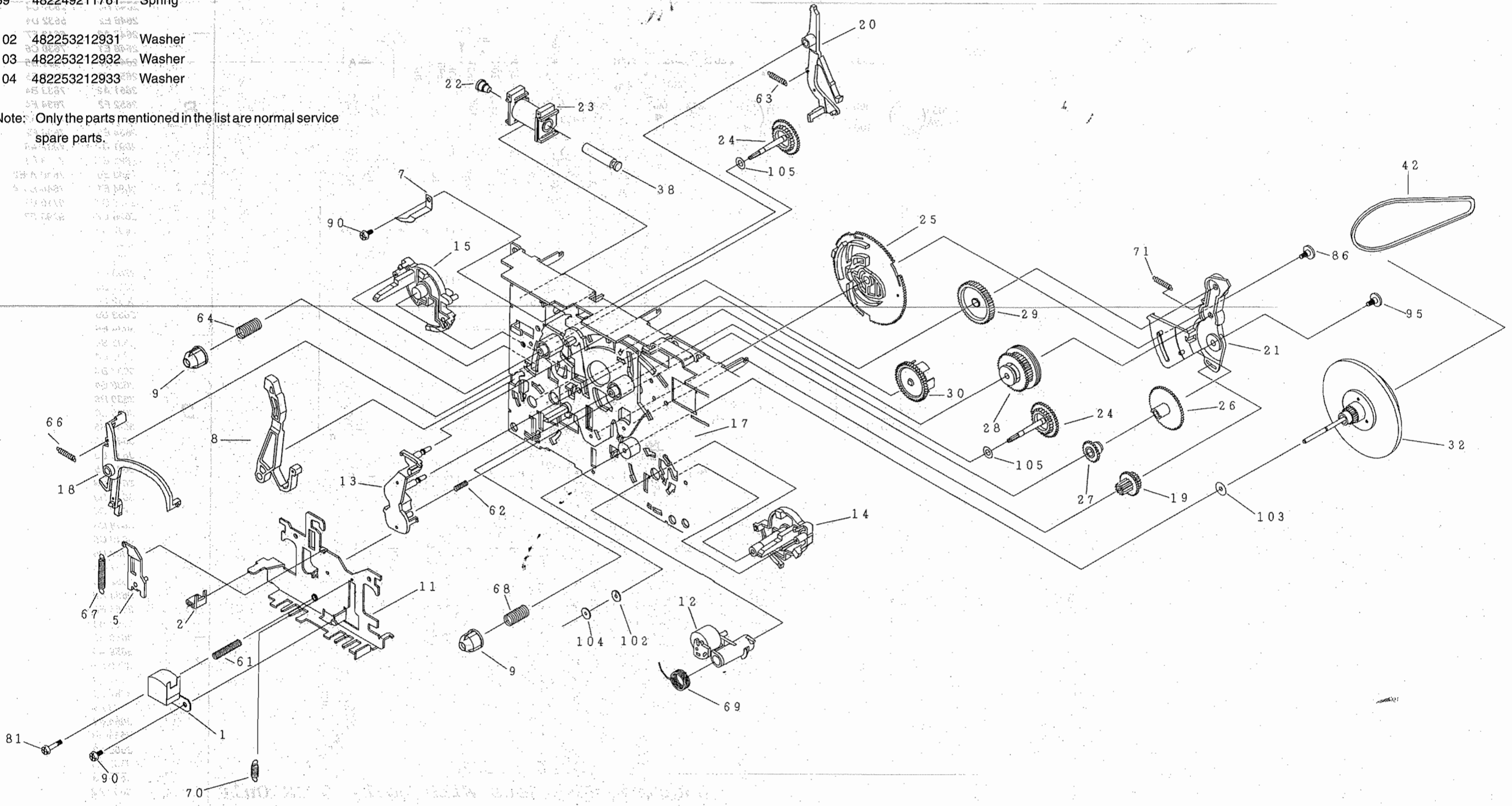
→ Signal path Pb left channel
⇒ Signal path REC right channel

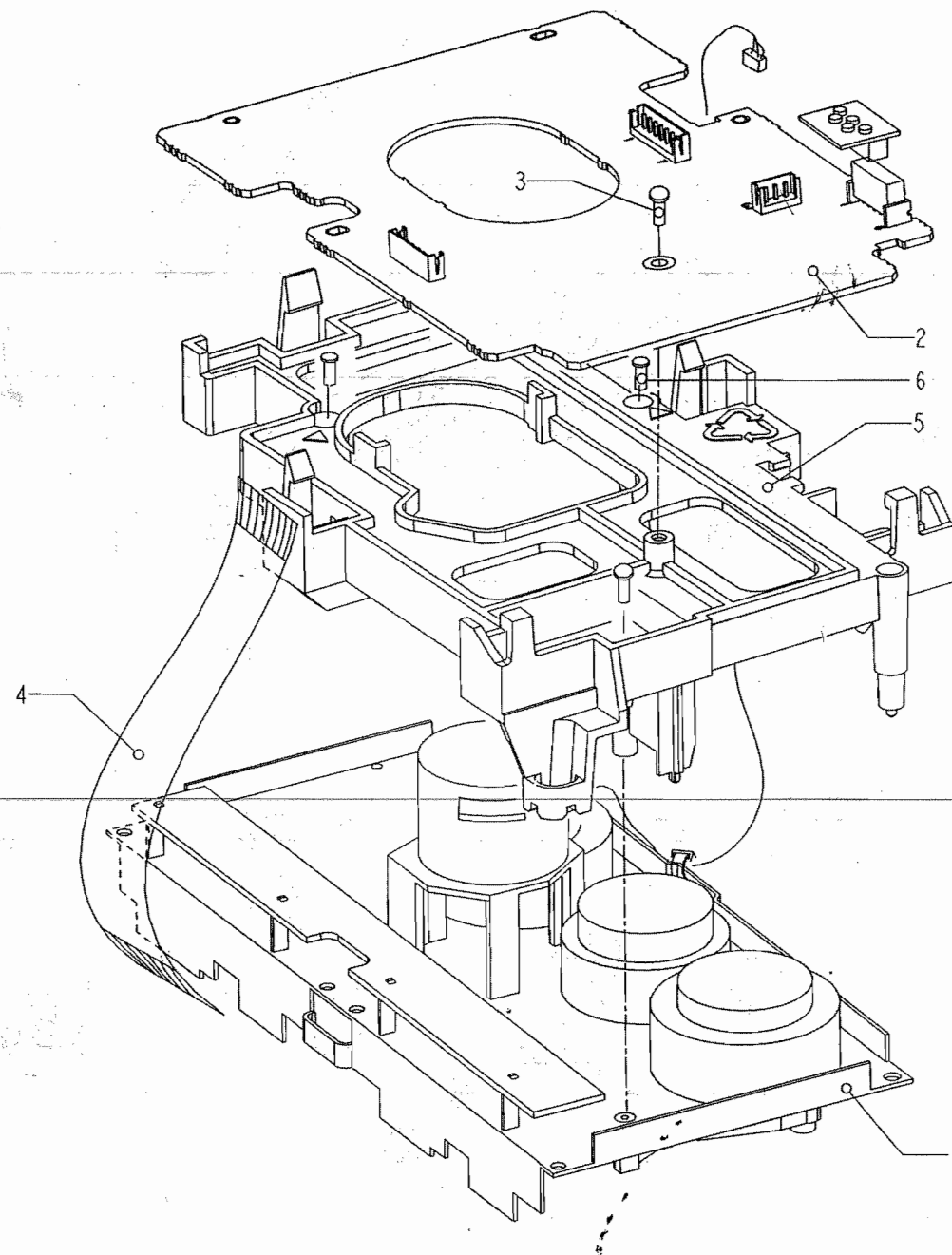
TAPE MECHANISM A - PLAY

MECHANICAL PARTS - PLAY MECHANISM

- 1 996500002313 Play Head (Non-Autoreverse deck)
- 1 996500002321 Play Head (Autoreverse deck)
- 12 482240210972 Pinch Arm Assembly R
- 23 996500002314 Coil Assembly
- 32 482252811209 Flywheel Assembly RV
- 42 996500002315 Belt AF (Autoreverse deck)
- 42 996500002718 Belt AF (Non-autoreverse deck)
- 69 482249211761 Spring
- 102 482253212931 Washer
- 103 482253212932 Washer
- 104 482253212933 Washer

Note: Only the parts mentioned in the list are normal service spare parts.

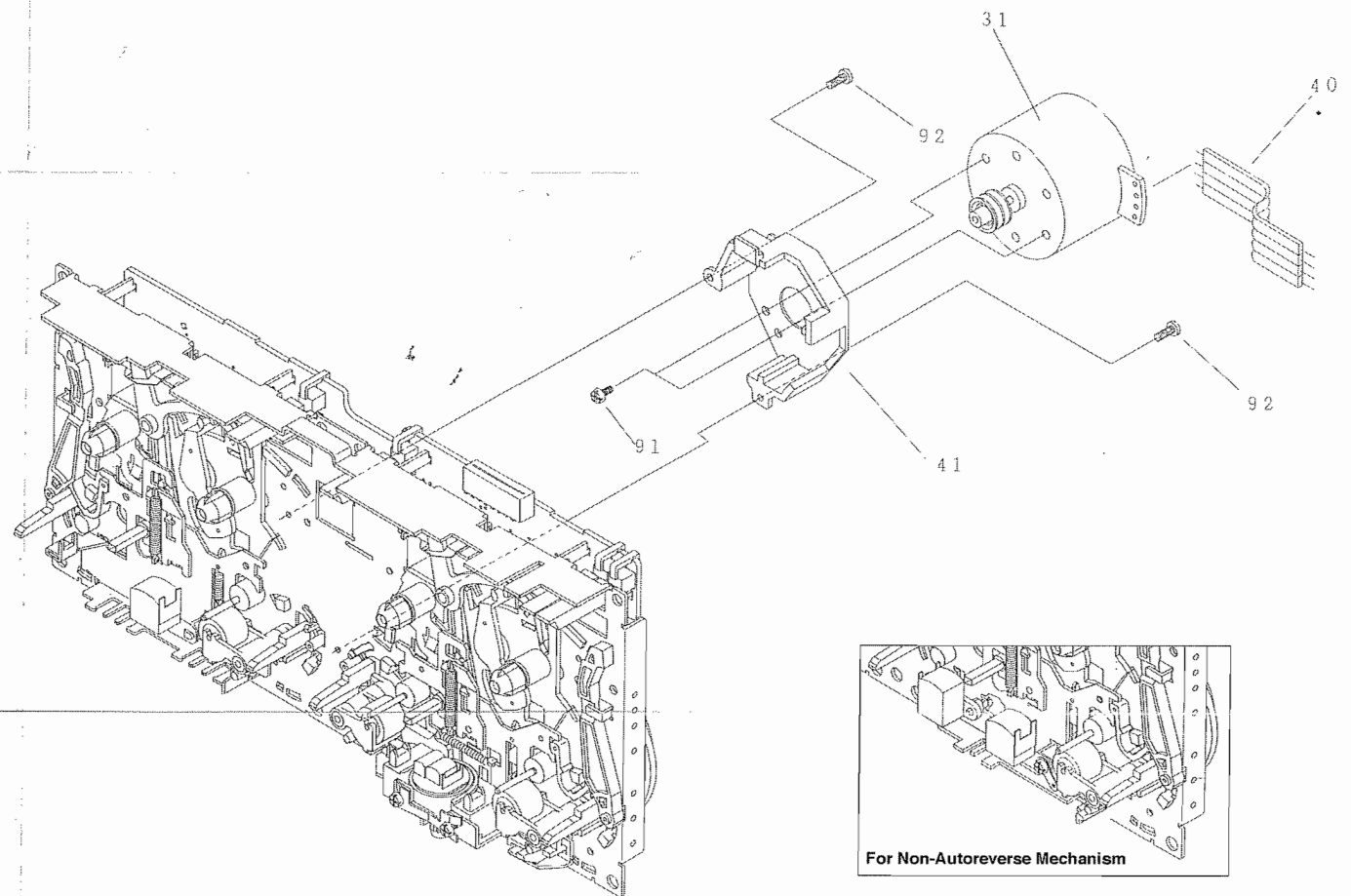




TAPE MODULE EXPLODED VIEW

1	313911877150	Autoreverse Mech. CWE44FR03
3	-	Screw D3 x 10
4	313911034080	Flex Cable 14 pin 7,5 cm
6	-	Screw M2 x 16

Note: Only the parts mentioned in this list are normal service spare parts.



TAPE MECHANISM - MOTOR EXPLODED VIEW

31	996500003006	Motor Assembly
91	-	Screw M2,6 x 5
92	-	Screw M2 x 5

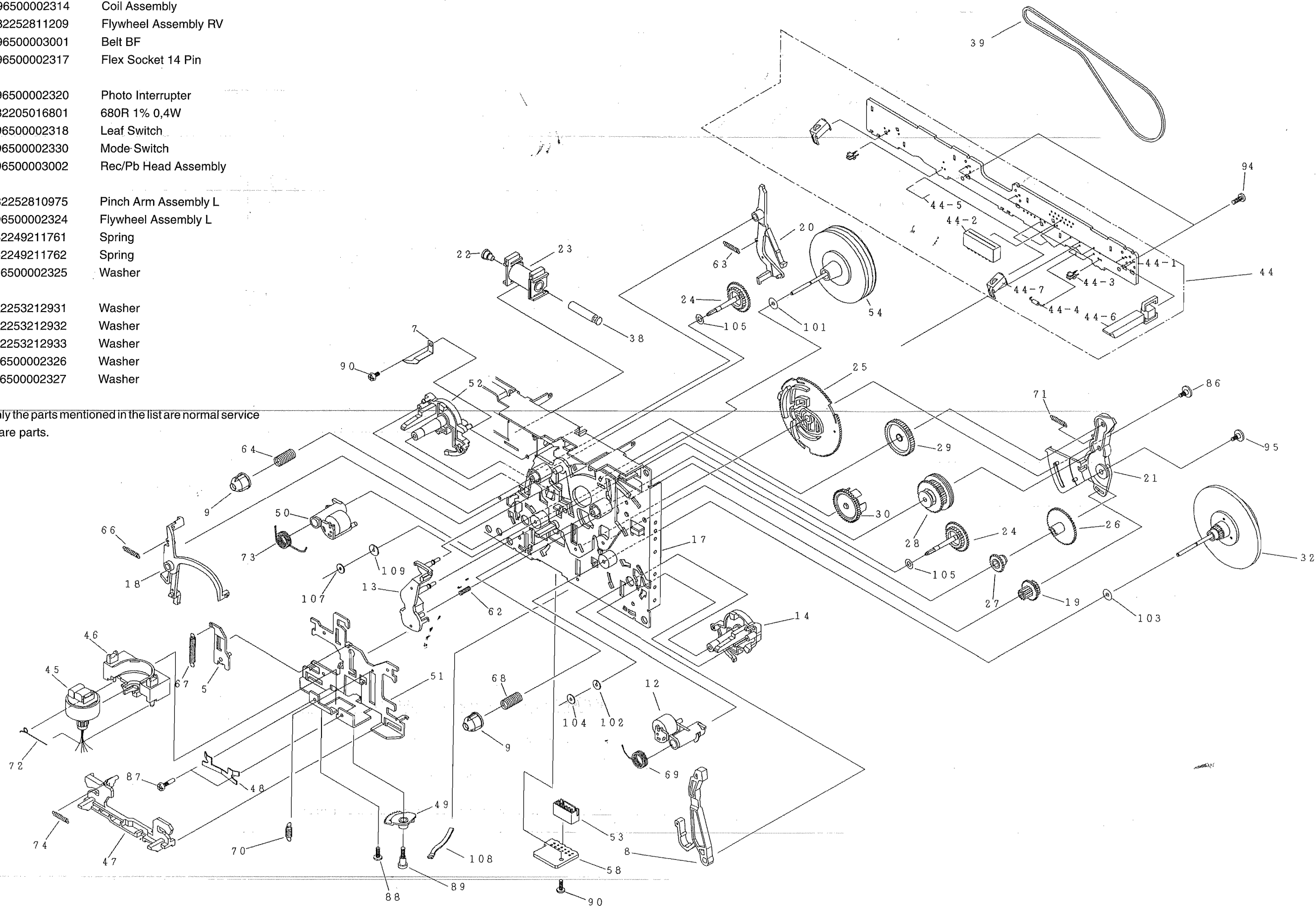
Note: Only the parts mentioned in this list are normal service spare parts.

TAPE MECHANISM B - RECORD/PLAYBACK (Autoreverse version)

MECHANICAL PARTS - REC/PB MECHANISM

12	482240210972	Pinch Arm Assembly R
23	996500002314	Coil Assembly
32	482252811209	Flywheel Assembly RV
39	996500003001	Belt BF
44-2	996500002317	Flex Socket 14 Pin
44-3	996500002320	Photo Interrupter
44-4	482205016801	680R 1% 0,4W
44-6	996500002318	Leaf Switch
44-7	996500002330	Mode Switch
45	996500003002	Rec/Pb Head Assembly
50	482252810975	Pinch Arm Assembly L
54	996500002324	Flywheel Assembly L
69	482249211761	Spring
73	482249211762	Spring
101	996500002325	Washer
102	482253212931	Washer
103	482253212932	Washer
104	482253212933	Washer
107	996500002326	Washer
109	996500002327	Washer

Note: Only the parts mentioned in the list are normal service spare parts.



ELECTRICAL PARTS LIST - ETF7 DOLBY BOARD

ELECTRICAL PARTS LIST - ETF7 DOLBY BOARD

MISCELLANEOUS

1701	482226710953	Flex Connector 7P
1706	482226710953	Flex Connector 7P
1740	482226751255	Flex Connector 14P

CAPACITORS

2621	532212231647	1nF 10% 63V
2622	532212234099	470pF 10% 63V
2623	482212233575	220pF 5% 63V
2624	482212614585	100nF 10% 50V
2625	482212614585	100nF 10% 50V
2631	482212613751	47nF 10% 63V
2632	482212613751	47nF 10% 63V
2633	482212613473	220nF +80/-20% 50V
2634	482212613473	220nF +80/-20% 50V
2635	482212233891	3,3nF 10% 63V
2636	482212233891	3,3nF 10% 63V
2637	532212142386	100nF 5% 63V
2638	532212142386	100nF 5% 63V
2639	532212232531	100pF 5% 50V
2640	532212232531	100pF 5% 50V
2641	482212440769	4,7μF 20% 100V
2642	482212440769	4,7μF 20% 100V
2643	482212612105	33nF 5% 50V
2644	482212612105	33nF 5% 50V
2645	532212232658	22pF 5% 50V
2646	532212232658	22pF 5% 50V
2647	482212440769	4,7μF 20% 100V
2648	482212440769	4,7μF 20% 100V
2649	532212233861	120pF 10% 50V
2650	532212233861	120pF 10% 50V
2651	482212610326	180pF 5% 63V
2652	482212610326	180pF 5% 63V
2653	532212234099	470pF 10% 63V
2654	532212234099	470pF 10% 63V
2692	482212441584	100μF 20% 10V
2693	482212440207	100μF 20% 25V
2694	482212440207	100μF 20% 25V
2695	482212422652	2,2μF 20% 50V
2696	482212422652	2,2μF 20% 50V
2701	532212233538	150pF 2% 63V
2702	532212233538	150pF 2% 63V
2703	532212232531	100pF 5% 50V
2704	532212232531	100pF 5% 50V
2705	532212231863	330pF 5% 63V
2706	532212231863	330pF 5% 63V
2707	532212234099	470pF 10% 63V
2708	532212234099	470pF 10% 63V
2709	532212231863	330pF 5% 63V
2710	532212231863	330pF 5% 63V
2711	532212232531	100pF 5% 50V
2712	532212232531	100pF 5% 50V
2713	482212440248	10μF 20% 63V

2714	482212440248	10μF 20% 63V
2715	482212480195	470μF 20% 10V
2716	482212480195	470μF 20% 10V
2717	482212233127	2,2nF 10% 63V
2718	482212233127	2,2nF 10% 63V
2719	482212613188	15nF 5% 63V
2720	482212613188	15nF 5% 63V
2727	482212232535	680pF 10% 63V
2728	482212232535	680pF 10% 63V
2729	532212232654	22nF 10% 63V
2730	532212232654	22nF 10% 63V
2733	532212234099	470pF 10% 63V
2734	532212234099	470pF 10% 63V
2735	482212614585	100nF 10% 50V
2737	482212614585	100nF 10% 50V
2738	482212614585	100nF 10% 50V
2741	482212611585	22nF +80/-20% 25V
2742	532212232654	22nF 10% 63V
2743	482212614585	100nF 10% 50V
2744	482212614585	100nF 10% 50V
2760	482212614585	100nF 10% 50V
2761	482212480144	220μF 20% 25V
2762	482212440769	4,7μF 20% 100V
2763	482212440433	47μF 20% 25V
2765	482212440433	47μF 20% 25V
2769	532212234099	470pF 10% 63V
2770	532212234099	470pF 10% 63V
2780	482212481151	22μF 50V
2781	482212233177	10nF 20% 50V
2782	532212610223	4,7nF 10% 63V
2784	482212151305	15nF 10% 50V
2785	482212421913	1μF 20% 63V
2786	532212232531	100pF 5% 50V
2787	482212612105	33nF 5% 50V
2788	532212231647	1nF 10% 63V

RESISTORS

3601	482211711449	2k2 1% 0,1W
3602	482205120273	27k 5% 0,1W
3603	482211711449	2k2 1% 0,1W
3604	482211711148	56k 1% 0,1W
3605	482211711449	2k2 1% 0,1W
3606	482205120124	120k 5% 0,1W
3607	482211652256	2k2 5% 0,5W
3608	482205120273	27k 5% 0,1W
3609	482211652256	2k2 5% 0,5W
3610	482205120124	120k 5% 0,1W
3611	482211652256	2k2 5% 0,5W
3612	482211711148	56k 1% 0,1W
3613	482205120273	27k 5% 0,1W
3614	482205120273	27k 5% 0,1W
3616	482205120822	8k2 5% 0,1W

3618	482205120822	8k2 5% 0,1W
3620	482210012227	4k7 30% 0,1W
3622	482210012227	4k7 30% 0,1W
3623	482211710837	100k 1% 0,1W
3624	482211710837	100k 1% 0,1W
3625	482205110102	1k 2% 0,25W
3626	482205110102	1k 2% 0,25W
3628	482211710837	100k 1% 0,1W
3630	482205120471	470R 5% 0,1W
3631	482211710834	47k 1% 0,1W
3632	482211710834	47k 1% 0,1W
3633	482205120332	3k3 5% 0,1W
3634	482205120332	3k3 5% 0,1W
3635	482210011771	20k 30% 0,1W
3636	482210011771	20k 30% 0,1W
3637	482211710837	100k 1% 0,1W
3638	482211710837	100k 1% 0,1W
3639	482205120332	3k3 5% 0,1W
3640	482205120332	3k3 5% 0,1W
3641	482210011771	20k 30% 0,1W
3642	482210011771	20k 30% 0,1W
3643	482211710837	100k 1% 0,1W
3644	482211710837	100k 1% 0,1W
3645	482205120683	68k 5% 0,1W
3646	482205120683	68k 5% 0,1W
3647	482205120332	3k3 5% 0,1W
3648	482205120332	3k3 5% 0,1W
3649	482205120562	5k6 5% 0,1W
3650	482205120562	5k6 5% 0,1W
3651	482205110102	1k 2% 0,25W
3652	482205011002	1k 1% 0,4W
3655	482210012227	4k7 30% 0,1W
3656	482210012227	4k7 30% 0,1W
3657	482205110102	1k 2% 0,25W
3658	482205110102	1k 2% 0,25W
3659	482205120223	22k 5% 0,1W
3660	482205120223	22k 5% 0,1W
3661	482205120474	470k 5% 0,1W
3662	482205120474	470k 5% 0,1W
3663	482205120154	150k 5% 0,1W
3664	482205120154	150k 5% 0,1W
3665	482205120683	68k 5% 0,1W
3666	482205120683	68k 5% 0,1W
3667	482205120109	10R 5% 0,1W
3668	482205120109	10R 5% 0,1W
3669	482205120472	4k7 5% 0,1W
3670	482205120472	4k7 5% 0,1W
3672	482205120472	4k7 5% 0,1W
3674	482211652283	4k7 5% 0,5W
3676	482211710834	47k 1% 0,1W
3678	482211710834	47k 1% 0,1W
3679	482211710834	47k 1% 0,1W

3680	482211710834	47k 1% 0,1W
3683	482211710834	47k 1% 0,1W
3684	482211710834	47k 1% 0,1W
3685	482211652234	100k 5% 0,5W
3686	482211710837	100k 1% 0,1W
3691	482211710833	10k 1% 0,1W
3692	482211710965	18k 1% 0,1W
3693	482211652199	68R 5% 0,5W
3694	482205210109	10R 5% 0,33W
3695	482211712521	68R 1% 0,1W
3701	482211711503	220R 1% 0,1W
3702	482211711503	220R 1% 0,1W
3703	482211711503	220R 1% 0,1W
3704	482211711503	220R 1% 0,1W
3705	482211711503	220R 1% 0,1W
3706	482211711503	220R 1% 0,1W
3707	482205120101	100R 5% 0,1W
3708	482205120101	100R 5% 0,1W
3709	482205120229	22R 5% 0,1W
3710	482205120229	22R 5% 0,1W
3711	482211710837	100k 1% 0,1W
3712	482211710837	100k 1% 0,1W
3713	482205120121	120R 5% 0,1W
3714	482205120121	120R 5% 0,1W
3715	482205110102	1k 2% 0,25W
3716	482205110102	1k 2% 0,25W
3717	482205120392	3k9 5% 0,1W
3718	482205120392	3k9 5% 0,1W
3719	482205120822	8k2 5% 0,1W
3720	482205120822	8k2 5% 0,1W
3721	482205120562	5k6 5% 0,1W
3722	482205120562	5k6 5% 0,1W
3723	482211711383	12k 1% 0,1W
3724	482211711383	12k 1% 0,1W
3727	482205120562	5k6 5% 0,1W
3728	482205120562	5k6 5% 0,1W
3729	482205120332	3k3 5% 0,1W
3730	482205120332	3k3 5% 0,1W
3731	482205120822	8k2 5% 0,1W
3732	482205120822	8k2 5% 0,1W
3733	482205120562	5k6 5% 0,1W
3734	482205120562	5k6 5% 0,1W
3735	482211683933	15k 1% 0,1W
3736	482211683933	15k 1% 0,1W
3737	482205120332	3k3 5% 0,1W
3738	482205120332	3k3 5% 0,1W
3739	482205120472	4k7 5% 0,1W
3740	482211710834	47k 1% 0,1W
3741	482211711454	820R 1% 0,1W
3742	482211711454	820R 1% 0,1W
3743	482205110102	1k 2% 0,25W
3744	482205110102	1k 2% 0,25W

ELECTRICAL PARTS LIST - ETF7 DOLBY BOARD

ELECTRICAL PARTS LIST - ETF7 DOLBY BOARD

RESISTORS

3745	482205120392	3k9 5% 0,1W	4697	482205120008	OR Jumper 0805
3746	482205120392	3k9 5% 0,1W	4701	482205120008	OR Jumper 0805
3748	482211711449	2k2 1% 0,1W	4702	482205120008	OR Jumper 0805
3749	482211710834	47k 1% 0,1W	4703	482205120008	OR Jumper 0805
3751	482211710833	10k 1% 0,1W	4704	482205120008	OR Jumper 0805
3752	482211710837	100k 1% 0,1W	4705	482205120008	OR Jumper 0805
3753	482211710837	100k 1% 0,1W	4706	482205120008	OR Jumper 0805
3754	482205120333	33k 5% 0,1W	4707	482205120008	OR Jumper 0805
3756	482211713579	220k 1% 0,1W	4708	482205120008	OR Jumper 0805
3757	482211713579	220k 1% 0,1W	4709	482205120008	OR Jumper 0805
3758	482211710833	10k 1% 0,1W	4710	482205120008	OR Jumper 0805
3759	482211710833	10k 1% 0,1W	4711	482205120008	OR Jumper 0805
3760	482205120121	120R 5% 0,1W	4712	482205120008	OR Jumper 0805
3761	482205021003	10k 1% 0,6W	4713	482205120008	OR Jumper 0805
3762	482211711454	820R 1% 0,1W	4714	482205120008	OR Jumper 0805
3763	482205120154	150k 5% 0,1W	4715	482205120008	OR Jumper 0805
3764	482211683872	220R 5% 0,5W	4716	482205120008	OR Jumper 0805
3765	482205120393	39k 5% 0,1W	4717	482205120008	OR Jumper 0805
3766	482205120475	4M7 5% 0,1W	4718	482205120008	OR Jumper 0805
3767	482205120475	4M7 5% 0,1W	4719	482205120008	OR Jumper 0805
3768	482211710833	10k 1% 0,1W	4720	482205120008	OR Jumper 0805
3769	482211683933	15k 1% 0,1W	4721	482205120008	OR Jumper 0805
3770	482211711139	1k5 1% 0,1W	4722	482205120008	OR Jumper 0805
3771	482205120122	1k2 5% 0,1W	4723	482205120008	OR Jumper 0805
3772	482211711507	6k8 1% 0,1W	4724	482205120008	OR Jumper 0805
3773	482210012227	4k7 30% 0,1W	4725	482205120008	OR Jumper 0805
3774	482211711383	12k 1% 0,1W	4726	482205120008	OR Jumper 0805
3775	482205120478	4R7 5% 0,1W	4727	482205120008	OR Jumper 0805
3776	482211711507	6k8 1% 0,1W	4728	482205120008	OR Jumper 0805
3777	482211710353	150R 1% 0,1W	4729	482205120008	OR Jumper 0805
3778	482205210688	△ 6R8 5% 0,33W	4730	482205120008	OR Jumper 0805
3779	482205120334	330k 5% 0,1W	4731	482205120008	OR Jumper 0805
3780	482205120105	1M 5% 0,1W	4732	482205120008	OR Jumper 0805
3781	482205120475	4M7 5% 0,1W	4733	482205120008	OR Jumper 0805
3782	482211683933	15k 1% 0,1W	4734	482205120008	OR Jumper 0805
3783	482205120472	4k7 5% 0,1W	4735	482205120008	OR Jumper 0805
3784	482205120472	4k7 5% 0,1W	4736	482205120008	OR Jumper 0805
3785	532210011539	100k 30% 0,1W	4737	482205120008	OR Jumper 0805
3786	482205120223	22k 5% 0,1W	4738	482205120008	OR Jumper 0805
3787	482205120105	1M 5% 0,1W	4739	482205120008	OR Jumper 0805
3788	482205120105	1M 5% 0,1W	4740	482205120008	OR Jumper 0805
3789	482211710834	47k 1% 0,1W	4741	482205120008	OR Jumper 0805
4601	482205120008	OR Jumper 0805	4742	482205120008	OR Jumper 0805
4602	482205120008	OR Jumper 0805	4743	482205120008	OR Jumper 0805
4603	482205120008	OR Jumper 0805	4783	482205120008	OR Jumper 0805
4604	482205120008	OR Jumper 0805	4785	482205120008	OR Jumper 0805
4605	482205120008	OR Jumper 0805	4786	482205120008	OR Jumper 0805
4606	482205120008	OR Jumper 0805	4787	482205120008	OR Jumper 0805
4607	482205120008	OR Jumper 0805	4788	482205120008	OR Jumper 0805
4608	482205120008	OR Jumper 0805			
4610	482205120008	OR Jumper 0805			
4696	482205120008	OR Jumper 0805			

COILS & FILTERS

5631 482215711865 Filter MPX 20kHz

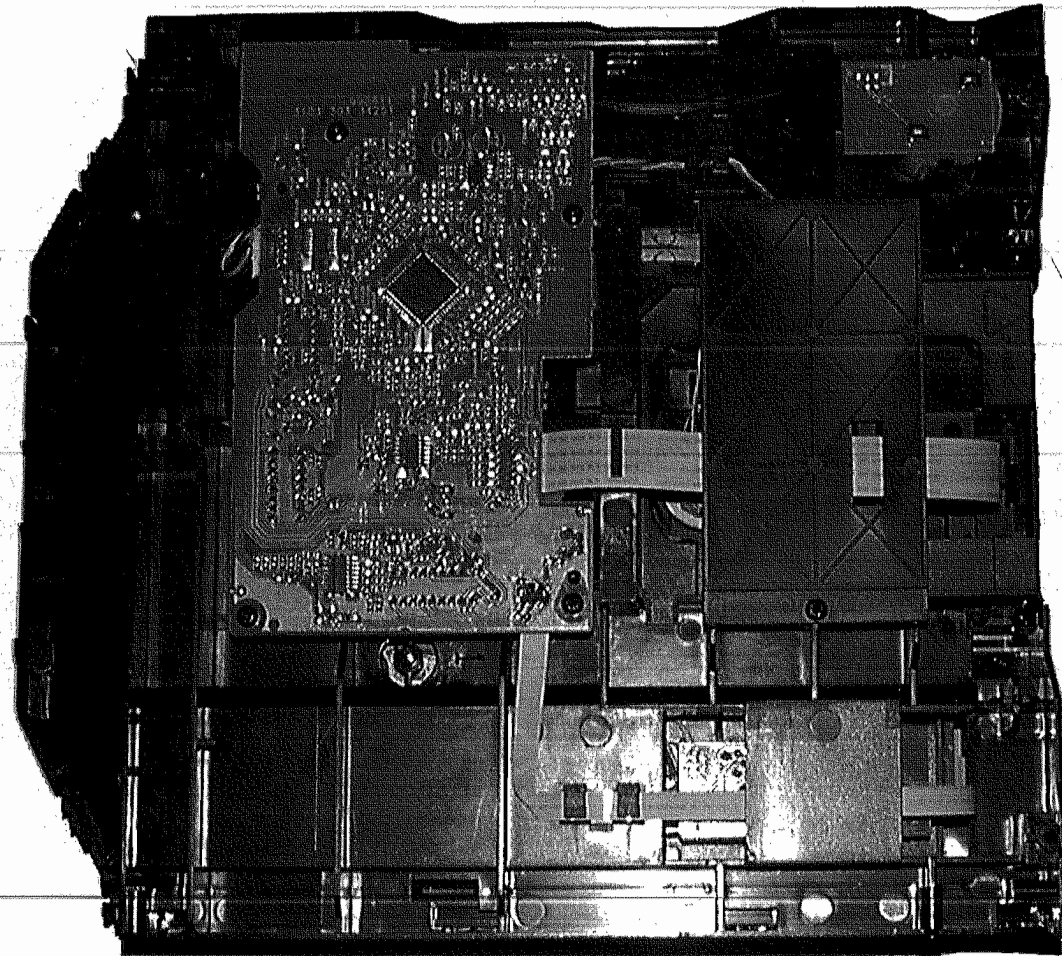
DIODES

5632	482215711865	Filter MPX 20kHz
5701	482215711477	Coil 2,2μH 5%
5702	482215711477	Coil 2,2μH 5%
5703	482215620946	Osc. Coil 100kHz
6611	482213031878	1N4003G
6612	482213031878	1N4003G
6613	482213032245	BYV10-40
6614	482213030621	1N4148
6770	482213030621	1N4148
6771	482213030621	1N4148
6772	482213030621	1N4148
6773	482213030621	1N4148
6774	482213030621	1N4148
6775	482213030621	1N4148
6776	482213030621	1N4148
6777	482213034382	BZX79-C8V2
6778	482213030621	1N4148
6782	482213030621	1N4148
6785	482213030621	1N4148
6786	482213030621	1N4148

TRANSISTORS & INTEGRATED CIRCUITS

7610	532220911306	HEF4094BT
7612	532213060845	BC807-25
7613	532213060845	BC807-25
7614	532213060845	BC807-25
7616	482213060373	BC857B
7618	482213060511	BC847B
7619	482213060511	BC847B
7620	482213060511	BC847B
7622	482213060511	BC847B
7623	482213060511	BC847B
7624	482213060511	BC847B
7630	482220917322	CXA1551M
7631	482213060511	BC847B
7632	482213060511	BC847B
7633	482213060511	BC847B
7634	482213060511	BC847B
7635	482213060511	BC847B
7636	482213060511	BC847B
7637	482213060511	BC847B
7638	482213060511	BC847B
7640	482220983357	NJM4560M
7710	482220932919	HEF4952BT
7720	932214000668	AN7323S
7730	482220932919	HEF4952BT
7740	482220932919	HEF4952BT
7780	482213060511	BC847B
7781	482213042804	BC817-25
7782	482213044568	BC557B

Note : Only the parts mentioned in this list are normal service spare parts.



WARNING

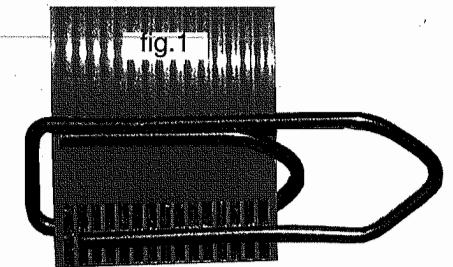
CHARGED CAPACITORS ON THE SERVO BOARD MAY DAMAGE THE CD DRIVE ELECTRONICS WHEN CONNECTING A NEW CDM MECHANISM. THAT'S WHY, BESIDES THE SAFETY MEASURES LIKE

- SWITCH OFF POWER SUPPLY
- ESD PROTECTION

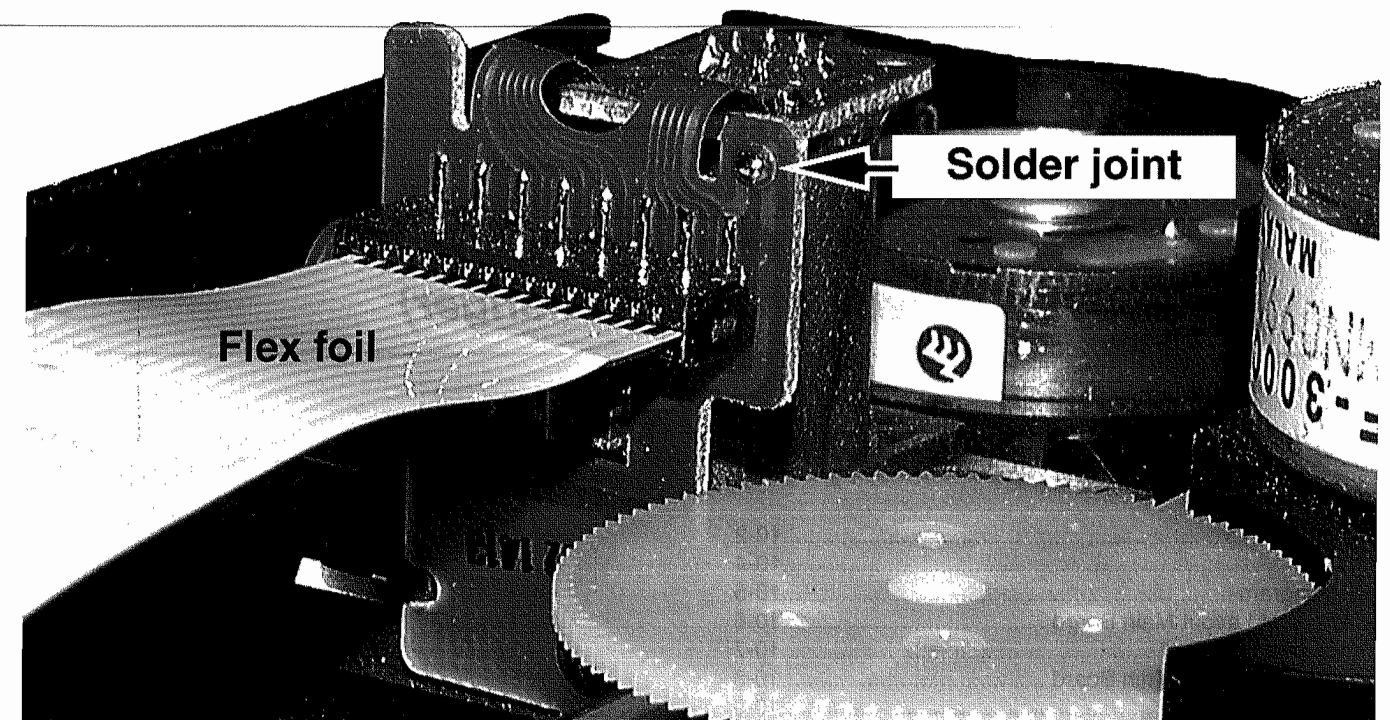
ADDITIONAL ACTIONS MUST BE TAKEN BY THE REPAIR TECHNICIAN.

The following steps have to be done when replacing the CD mechanism:

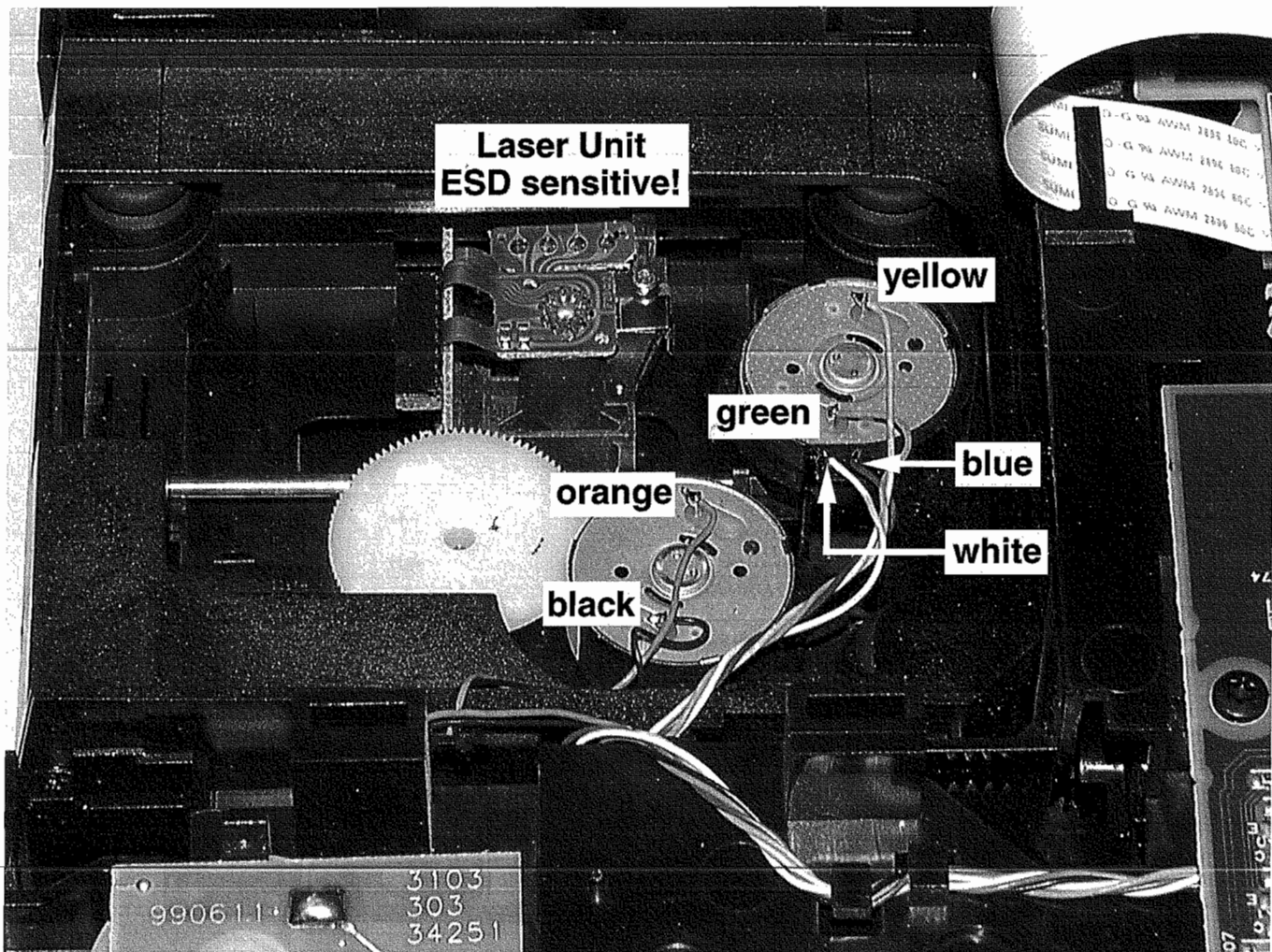
1. Disconnect CD drive flexfoil from old CD drive
2. Connect paperclip to CD drive flexfoil to short-circuit flexfoil (fig.1)
3. Remove old CD drive
4. Remove short-circuit from flexfoil
5. Connect flexfoil to new CD drive
6. Position new CD drive in its studs
7. Remove short-circuit from Laserunit



Attention: The laser diode of this CD drive is protected against ESD by a solder joint which shortcircuits the laserdiode to ground.
For proper functionality of the CD drive this solder joint must be removed **after** connection the drive to the set.



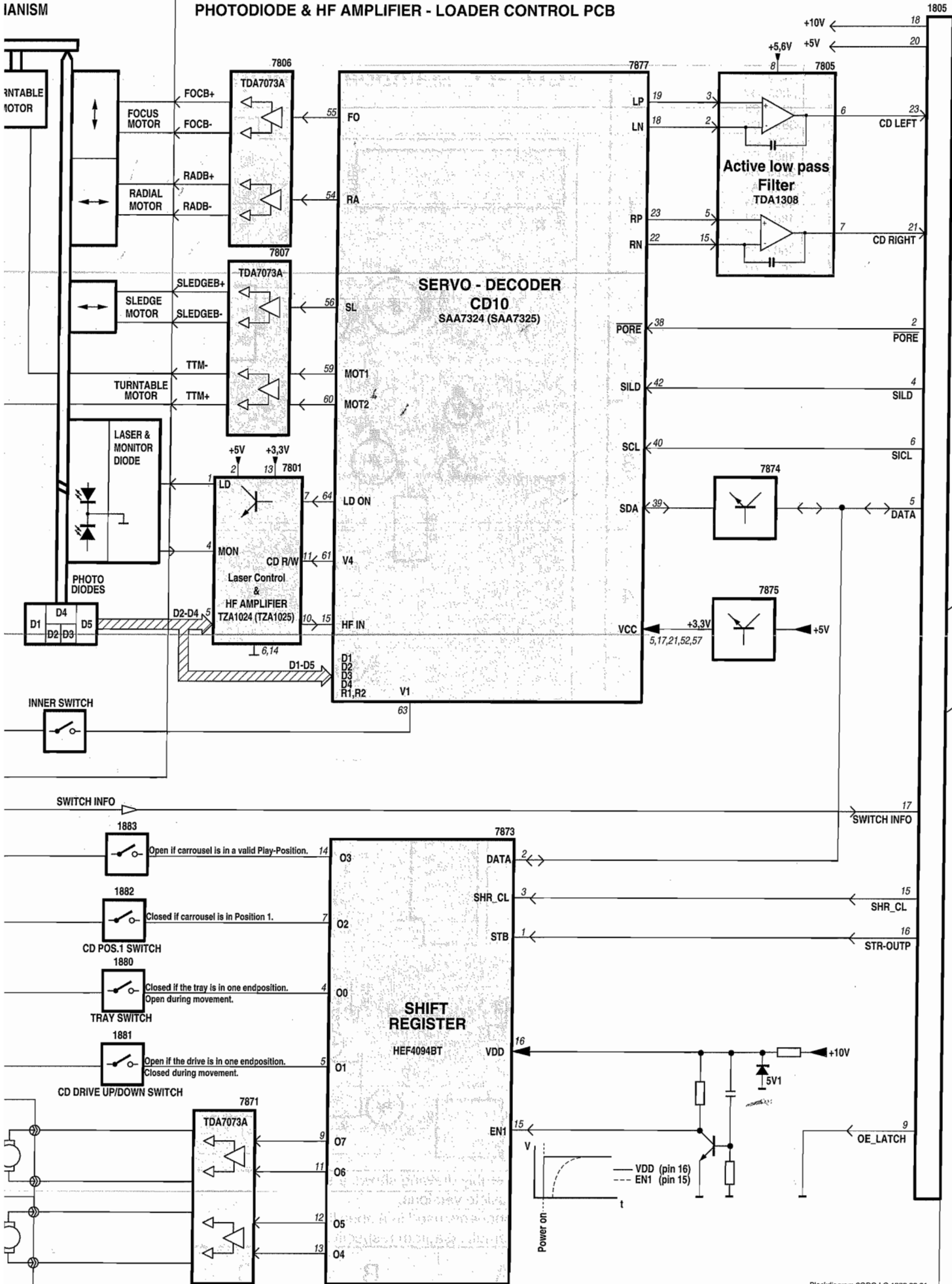
Wiring



ram

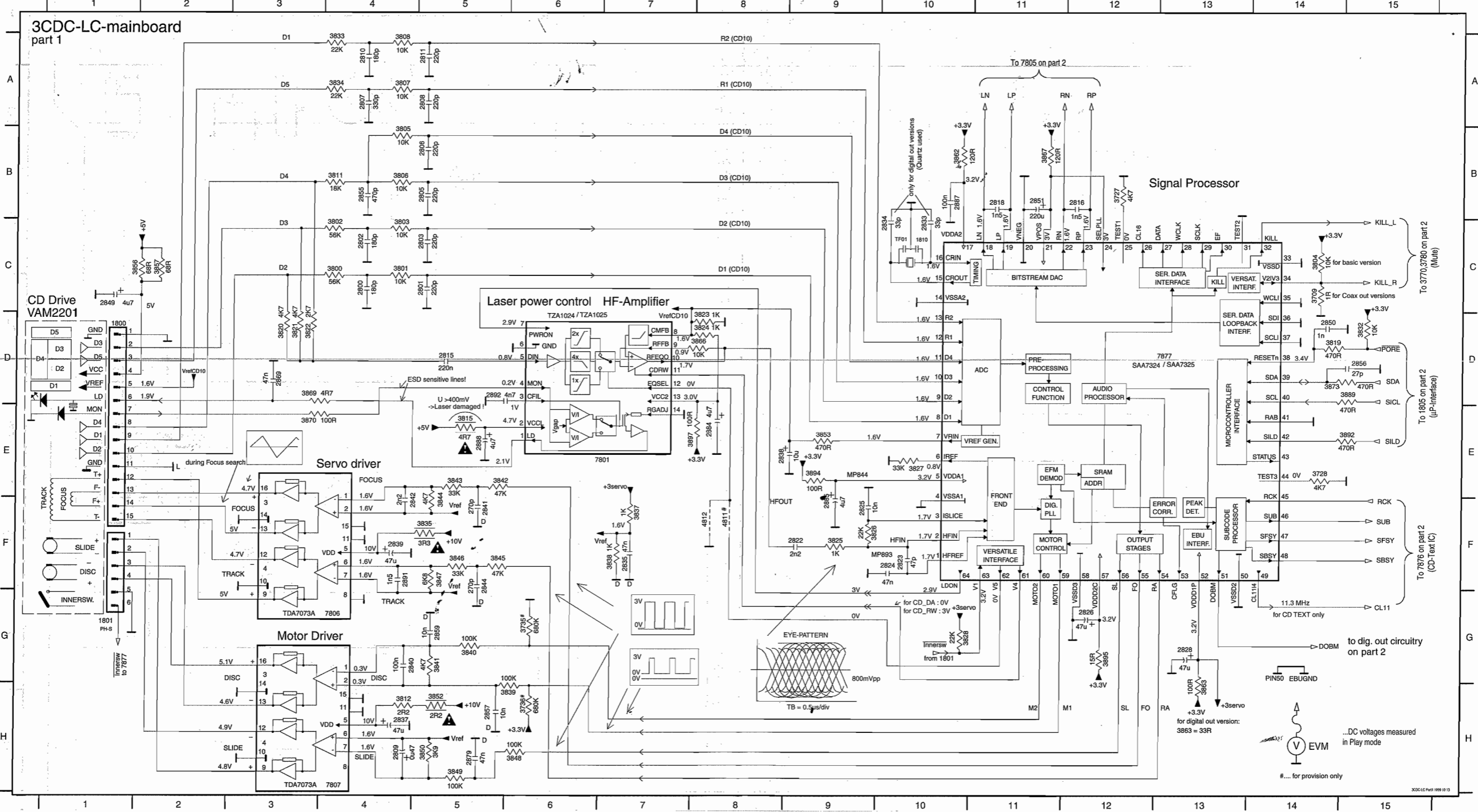
IANISM

PHOTODIODE & HF AMPLIFIER - LOADER CONTROL PCB

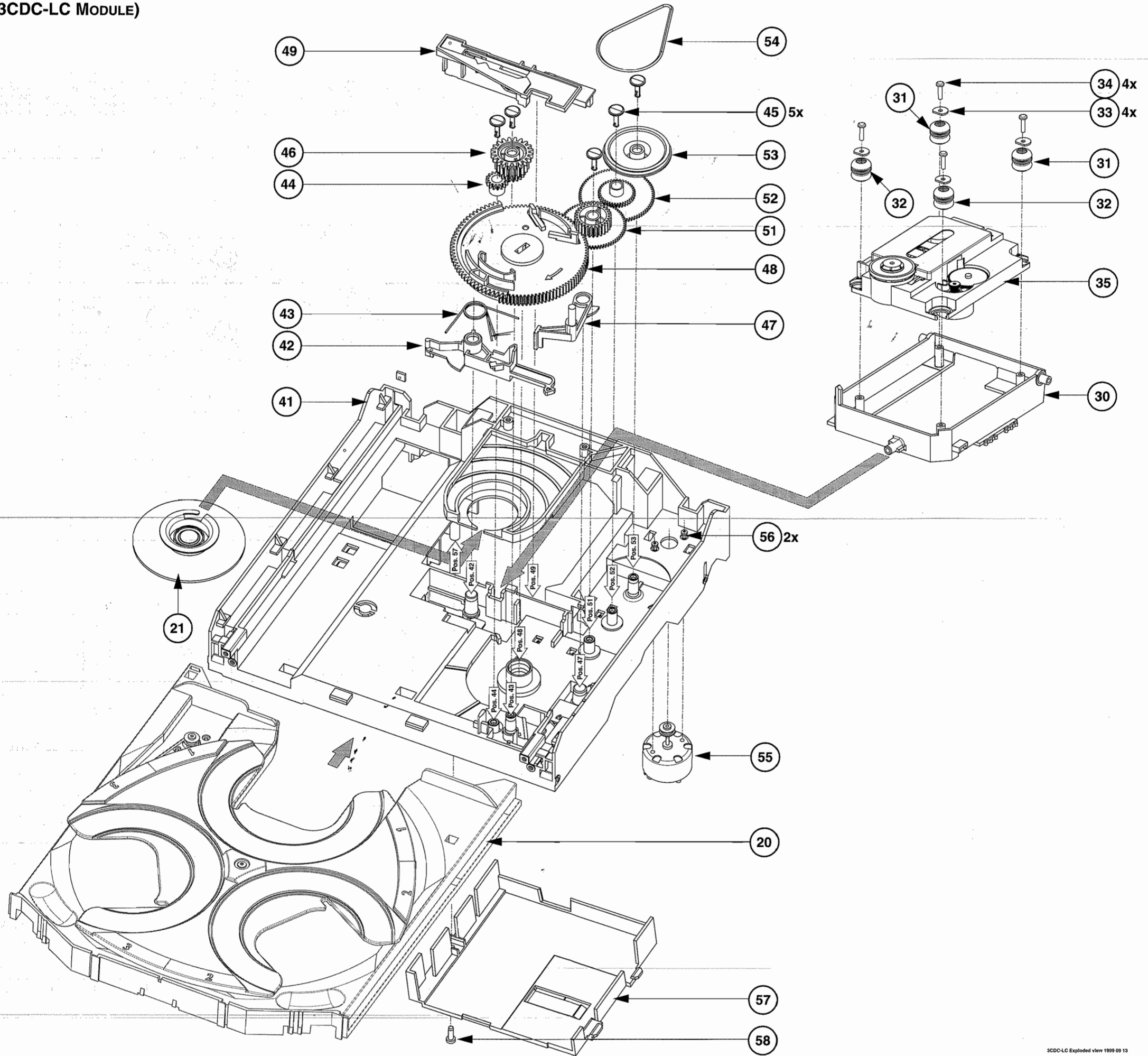


FLEX-FOIL 8001

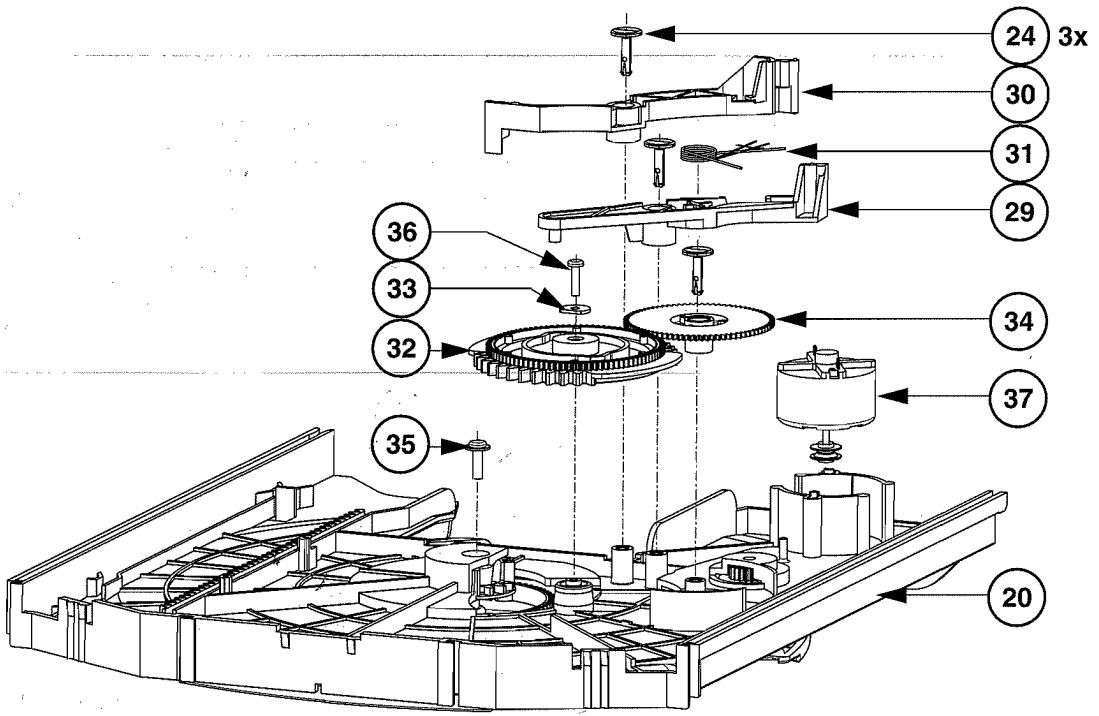
1800 D1	2802 C4	2808 A5	2816 B12	2825 F9	2835 F7	2841 F5	2851 B11	2869 D3	2888 E5	3728 E14	3802 C4	3807 A4	3819 D14	3824 D8	3832 D15	3838 F7	3843 E5	3848 H6	3856 C1	3867 B11	3892 E15	4812 F8	MP713 C5	MP730 B5	MP800 E3	MP814 F2	MP819 G9	MP829 B3	MP841 F6	MP846 G1	MP851 E2	MP859 F10	MP873 H4	MP883 E5
1801 G1	2803 C5	2809 H4	2818 B11	2826 G12	2837 H4	2842 F5	2855 B4	2879 H5	2891 F4	3735 G6	3803 C4	3808 A4	3820 D3	3825 F9	3833 A4	3839 H6	3844 F5	3849 H5	3857 C2	3869 D3	3894 E9	7801 E7	MP715 C5	MP731 B13	MP802 B15	MP815 C3	MP820 F8	MP837 E3	MP842 H6	MP847 G2	MP852 F2	MP860 C2	MP875 G13	MP884 E5
1810 C10	2805 B5	2810 A4	2822 F9	2828 G13	2838 E8	2844 F5	2856 D15	2884 E8	2892 D5	3736 H6	3804 C14	3811 B4	3821 D3	3826 F9	3834 A4	3840 G5	3845 F5	3850 H5	3862 B10	3870 E3	3895 G12	7806 G4	MP716 A5	MP743 D2	MP809 E10	MP816 A3	MP821 D15	MP838 G6	MP843 F6	MP848 E2	MP853 F2	MP861 E8	MP877 E4	MP893 F10
2800 C4	2806 B5	2811 A5	2823 F10	2833 C10	2839 F4	2849 C1	2857 H5	2885 F9	3709 C14	3800 C4	3805 B4	3812 H4	3822 D3	3827 E10	3835 F5	3841 G5	3846 F5	3852 H5	3863 H13	3873 D14	3897 E7	7807 H4	MP717 A5	MP744 D2	MP812 F2	MP817 A3	MP826 B10	MP839 G6	MP844 E9	MP849 F2	MP855 E10	MP870 D8	MP878 B13	MP895 E14
2801 C5	2807 A4	2815 D5	2824 F10	2834 C10	2840 G4	2850 D14	2859 G5	2867 B10	3727 B12	3801 C4	3806 B4	3815 E5	3823 D8	3828 G10	3837 F7	3842 E5	3847 F5	3853 E9	3866 D8	3869 D15	4811 F8	7877 D12	MP729 B5	MP745 E2	MP813 C3	MP818 D3	MP828 G9	MP840 E6	MP845 F4	MP850 F2	MP858 F9	MP872 C15	MP879 B11	MP896 B12



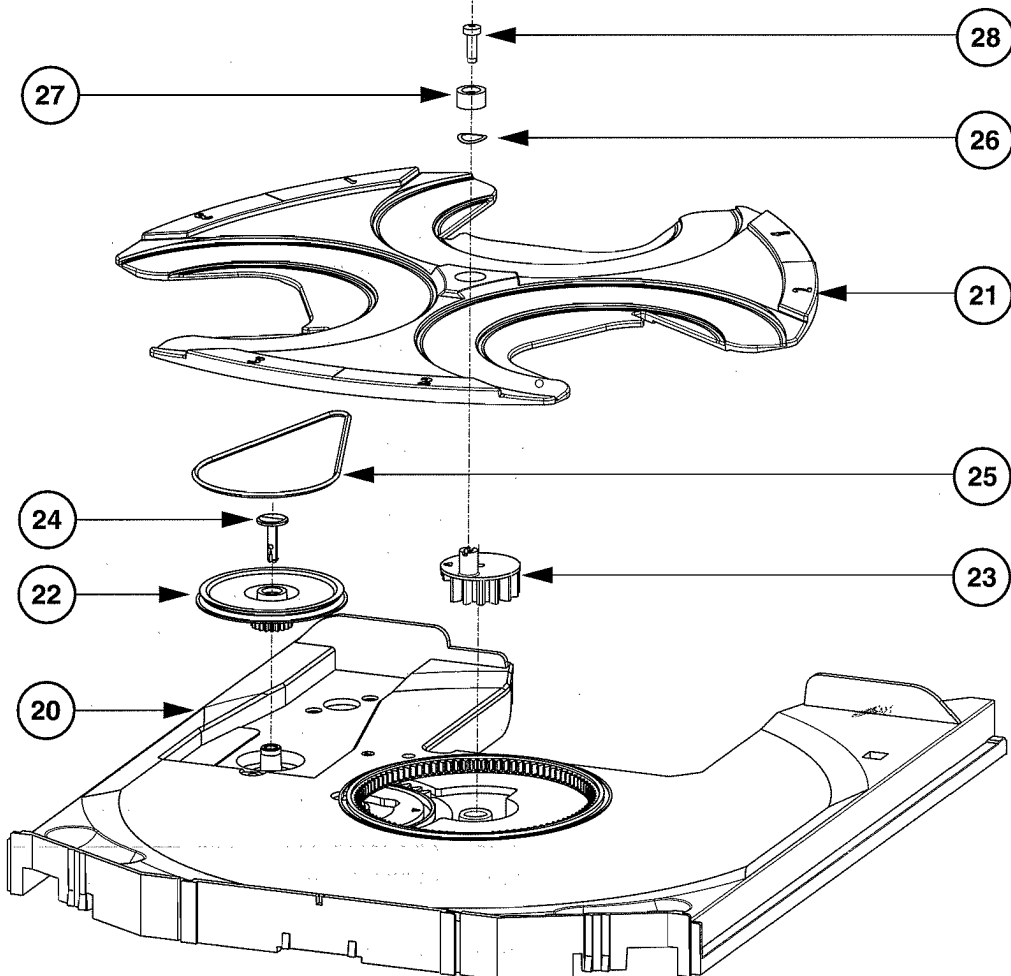
EXPLODED VIEW (3CDC-LC MODULE)



Drawer bottom view



Drawer top view



ELECTRICAL PARTS LIST - 3CDC-LC MODULE**CAPACITORS**

2840	482212614585	100nF 10% 50V	3718	482205120472	4k7 5% 0,1W
2841	482212233216	270pF 5% 50V	3727	482205120472	4k7 5% 0,1W
2842	482212233127	2,2nF 10% 63V	3728	482205120472	4k7 5% 0,1W
2844	482212233216	270pF 5% 50V	3730	482205120333	33k 5% 0,1W
2849	482212440769	4,7µF 20% 100V	3731	482211710833	10k 1% 0,1W
2850	532212231647	1nF 10% 63V	3732	482205120471	470R 5% 0,1W
2851	482212442383	220µF 20% 4V	3733	482205120471	470R 5% 0,1W
2852	482212613751	47nF 10% 63V	3734	482205120471	470R 5% 0,1W
2853	532212232654	22nF 10% 63V	3740	482205120223	22k 5% 0,1W
2854	482212613751	47nF 10% 63V	3741	482205120223	22k 5% 0,1W
2855	532212234099	470pF 10% 63V	3742	482205120223	22k 5% 0,1W
2856	482212613691	27pF 1% 63V	3743	482205120223	22k 5% 0,1W
2857	482212233177	10nF 20% 50V	3744	482211710833	10k 1% 0,1W
2858	482212412245	220µF 20%	3746	482211710833	10k 1% 0,1W
2859	482212233177	10nF 20% 50V	3750	482205110102	1k 2% 0,25W
2860	482212411947	10µF 20% 16V	3751	482205110102	1k 2% 0,25W
2861	482212411947	10µF 20% 16V	3800	482211711148	56k 1% 0,1W
2862	482212233575	220pF 5% 63V	3801	482211710833	10k 1% 0,1W
2863	482212233575	220pF 5% 63V	3802	482211711148	56k 1% 0,1W
2864	532212232658	22pF 5% 50V	3803	482211710833	10k 1% 0,1W
2865	532212232654	22nF 10% 63V	3804	482211710833	10k 1% 0,1W
2867	482212233575	220pF 5% 63V	3805	482211710833	10k 1% 0,1W
2869	482212613751	47nF 10% 63V	3806	482211710833	10k 1% 0,1W
2872	482212613751	47nF 10% 63V	3807	482211710833	10k 1% 0,1W
2873	482212480231	47µF 20% 16V	3808	482211710833	10k 1% 0,1W
2875	482212411947	10µF 20% 16V	3809	482211713577	330R 1% 1,25W
2876	482212412245	220µF 20%	3811	482211710965	18k 1% 0,1W
2877	482212613692	47pF 1% 63V	3812	482205310228	2R2 5% 1W
2878	482212233575	220pF 5% 63V	3814	482205120339	33R 5% 0,1W
2879	482212613751	47nF 10% 63V	3815	482205210478	Δ 4R7 5% 0,33W
2881	482212440769	4,7µF 20% 100V	3819	482205120471	470R 5% 0,1W
2882	482212233575	220pF 5% 63V	3820	482205120472	4k7 5% 0,1W
2884	482212440769	4,7µF 20% 100V	3821	482205120472	4k7 5% 0,1W
2885	482212440769	4,7µF 20% 100V	3822	482211712955	2k7 1% 0,1W
2887	482212614585	100nF 10% 50V	3823	482205110102	1k 2% 0,25W
2888	482212440769	4,7µF 20% 100V	3824	482205110102	1k 2% 0,25W
2891	532212231865	1,5nF 10% 63V	3825	482205110102	1k 2% 0,25W
2892	532212610223	4,7nF 10% 63V	3826	482205120223	22k 5% 0,1W
2893	482212233575	220pF 5% 63V	3827	482205120333	33k 5% 0,1W
			3828	482205120223	22k 5% 0,1W
			3831	482205120101	100R 5% 0,1W
			3832	482211710833	10k 1% 0,1W
			3833	482205120223	22k 5% 0,1W
			3834	482205120223	22k 5% 0,1W
			3835	482205210338	Δ 3R3 5% 0,33W
			3837	482205110102	1k 2% 0,25W
			3838	482205110102	1k 2% 0,25W
			3839	482211710837	100k 1% 0,1W
			3840	482211710837	100k 1% 0,1W
			3841	482205120472	4k7 5% 0,1W
			3842	482211710834	47k 1% 0,1W
			3843	482205120333	33k 5% 0,1W
			3844	482205120472	4k7 5% 0,1W

RESISTORS

3700	482205120471	470R 5% 0,1W
3705	482211711503	220R 1% 0,1W
3706	482205120471	470R 5% 0,1W
3707	482205120471	470R 5% 0,1W
3708	482205120471	470R 5% 0,1W
3709	482205120108	1R 5% 0,1W
3711	482211710833	10k 1% 0,1W
3712	482205120109	10R 5% 0,1W
3713	482205120223	22k 5% 0,1W
3714	482211710833	10k 1% 0,1W
3715	482211710837	100k 1% 0,1W
3716	482205120471	470R 5% 0,1W

MECHANICAL PARTS LIST - 3CDC-LC DRAWER ASSEMBLY (Page 10-11)

0020	310330466500	DRAWER	0029	310330466550	BRACKET-DISC
0021	310330466490	CARROUSELL	0030	310330466520	TUMBLER
0022	310330406860	PULLEY-DRAWER	0031	310330106470	SPRING-DISC
0023	310330406850	ECCENTRIC	0032	310330406920	CONTROL-DISC
0024	310330406980	NAIL	0033	310330406970	WASHER
0025	310330466850	DRIVING-BELT-CARROUSEL	0034	310330406870	GEAR-1
0027	482253212365	BUSH DRAWER	0037	482236110753	MOTOR ASSY
0027	310330407100	BUSH DRAWER / BWC Version			

MECHANICAL PARTS LIST - 3CDC-LC MODULE (Page 10-10)

0021	314011758650	CLAMPER ASSY-VAM	0047	310330466530	BRACKET-LOAD
0030	310330466560	SUPPORT	0048	310330406910	CAM
0031	482252910431	DAMPER - RUBBER (25DEG)	0049	310330466510	GUIDING
0032	482252910431	DAMPER - RUBBER (25DEG)	0051	310330406900	GEAR-4
0033	310330406970	WASHER	0052	310330406870	GEAR-1
0035	482269110772	VAM2201/01	0053	310330406960	PULLEY-FRAME
0041	310330466480	FRAME	0054	310330466910	DRIVING-BELT-DRAWER
0042	310330466540	BRACKET-GUIDING	0055	482236110753	MOTOR ASSY
0043	310330106460	SPRING-GUIDING	0056	482250212548	SCREW M2,6X2,9
0044	310330406890	GEAR-3	0057	310330468890	COVER-VAM
0045	310330406980	NAIL	0059	482246612146	RUBBER
0046	310330406880	GEAR-2			

ELECTRICAL PARTS LIST - 3CDC-LC MODULE**MISCELLANEOUS**

1800	482226510925	Flex Foil Connector 15P	2808	482212233575	220pF 5% 63V
1805	482226510979	Flex Foil Connector 15P	2809	532212441948	470nF 20% 50V
1805	482226511545	Flex Foil Connector 19P	2810	482212610326	180pF 5% 63V
1805	482226511182	Flex Foil Connector 23P	2811	482212233575	220pF 5% 63V
1810	482224210849	RES XTL 8MHz4672	2815	482212614076	220nF +80/-20% 25V
1810	482224273557	RES CER 8MHz467	2816	482212613344	1,5nF 5% 63V
1875	482226710958	Flex Foil Connector 5P	2818	482212613344	1,5nF 5% 63V
1876	242202508332	Flex Foil Connector 5P	2822	222286115222	2,2nF 5% 50V
1880	482227613503	Switch	2823	482212613692	47pF 1% 63V
1881	482227613503	Switch	2824	482212613751	47nF 10% 63V
1882	482227613503	Switch	2825	482212233177	10nF 20% 50V
1883	482227613503	Switch	2826	482212412362	47µF 20% 4V
8002	310330891990	Flex Foil 5P 200mm	2828	482212412362	47µF 20% 4V
8005	310330891980	Flex Foil 15P 170mm	2829	532212232654	22nF 10% 63V
			2830	482212613751	47nF 10% 63V

CAPACITORS

2800	482212610326	180pF 5% 63V	2831	532212232531	100pF 5% 50V
2801	482212233575	220pF 5% 63V	2832	532212232531	100pF 5% 50V
2802	482212610326	180pF 5% 63V	2833	532212232659	33pF 5% 50V
2803	482212233575	220pF 5% 63V	2834	532212232659	33pF 5% 50V
2805	482212233575	220pF 5% 63V	2835	482212613751	47nF 10% 63V
2806	482212233575	220pF 5% 63V	2837	482212440433	47µF 20% 25V
2807	532212231863	330pF 5% 63V	2838	482212440248	10µF 20% 63V
			2839	482212440433	47µF 20% 25V

ELECTRICAL PARTS LIST - 3CDC-LC MODULE**DIODES**

6879 482213011366 BZX284-C3V9

TRANSISTORS & INTEGRATED CIRCUITS

7801 935262236118 IC SM TZA1025T/V2
 7805 482220933165 TDA1308T/N1
 7806 482220932852 TDA7073A/N2
 7807 482220932852 TDA7073A/N2
 7812 482213060511 BC847B
 7871 482220932852 TDA7073A/N2
 7873 532220911306 HEF4094BT
 7874 482213060511 BC847B
 7875 482213060511 BC847B
 7876 482220916143 LC89170M
 7877 482220917324 SAA7325H

Note: Only the parts mentioned in this list are normal
 service spare parts.

ELECTRICAL PARTS LIST - 3CDC-LC MODULE**RESISTORS**

3845	482211710834	47k 1% 0,1W	4802	482205120008	OR Jumper 0805
3846	482205120333	33k 5% 0,1W	4804	482205120008	OR Jumper 0805
3847	482211711507	6k8 1% 0,1W	4805	482205120008	OR Jumper 0805
3848	482211710837	100k 1% 0,1W	4806	482205120008	OR Jumper 0805
3849	482211710837	100k 1% 0,1W	4807	482205120008	OR Jumper 0805
3850	482205120392	3k9 5% 0,1W	4808	482205120008	OR Jumper 0805
3851	482205210338	△ 3R3 5% 0,33W	4810	482205120008	OR Jumper 0805
3852	482205210228	△ 2R2 5% 0,33W	4812	482205120008	OR Jumper 0805
3853	482205120471	470R 5% 0,1W	4817	482205120008	OR Jumper 0805
3854	482205120101	100R 5% 0,1W	4818	482205120008	OR Jumper 0805
3855	482205120101	100R 5% 0,1W	4819	482205120008	OR Jumper 0805
3856	482211712521	68R 1% 0,1W	4820	482205120008	OR Jumper 0805
3857	482211712521	68R 1% 0,1W	4821	482205120008	OR Jumper 0805
3858	482205120223	22k 5% 0,1W	4822	482205120008	OR Jumper 0805
3859	482205120223	22k 5% 0,1W	4823	482205120008	OR Jumper 0805
3860	482211710833	10k 1% 0,1W	4824	482205120008	OR Jumper 0805
3861	482211710833	10k 1% 0,1W	4825	482205120008	OR Jumper 0805
3862	482205120121	120R 5% 0,1W	4826	482205120008	OR Jumper 0805
3863	482205120101	100R 5% 0,1W	4827	482205120008	OR Jumper 0805
3863	482205120339	33R 5% 0,1W	4828	482205120008	OR Jumper 0805
3864	482205120101	100R 5% 0,1W	4830	482205120008	OR Jumper 0805
3866	482211710833	10k 1% 0,1W	4831	482205120008	OR Jumper 0805
3867	482205120121	120R 5% 0,1W	4832	482205120008	OR Jumper 0805
3869	482205120478	4R7 5% 0,1W	4833	482205120008	OR Jumper 0805
3870	482205120101	100R 5% 0,1W	4834	482205120008	OR Jumper 0805
3871	482211710833	10k 1% 0,1W	4835	482205120008	OR Jumper 0805
3873	482205120471	470R 5% 0,1W	4836	482205120008	OR Jumper 0805
3875	482211710833	10k 1% 0,1W	4837	482205120008	OR Jumper 0805
3876	482211710837	100k 1% 0,1W	4838	482205120008	OR Jumper 0805
3877	482211710833	10k 1% 0,1W	4839	482205120008	OR Jumper 0805
3878	482211710833	10k 1% 0,1W	4840	482205120008	OR Jumper 0805
3879	482211710837	100k 1% 0,1W	4841	482205120008	OR Jumper 0805
3880	482205120392	3k9 5% 0,1W	4842	482205120008	OR Jumper 0805
3881	482211710837	100k 1% 0,1W	4843	482205120008	OR Jumper 0805
3882	482211710834	47k 1% 0,1W	4844	482205120008	OR Jumper 0805
3883	482211710833	10k 1% 0,1W	4845	482205120008	OR Jumper 0805
3884	482211711504	270R 1% 0,1W	4846	482205120008	OR Jumper 0805
3885	482211710833	10k 1% 0,1W	4847	482205120008	OR Jumper 0805
3886	482211710834	47k 1% 0,1W	4848	482205120008	OR Jumper 0805
3887	482211711503	220R 1% 0,1W	4849	482205120008	OR Jumper 0805
3888	482211710833	10k 1% 0,1W	4876	482205120008	OR Jumper 0805
3889	482205120471	470R 5% 0,1W			
3890	482205110102	1k 2% 0,25W			
3891	482205110102	1k 2% 0,25W			
3892	482205120471	470R 5% 0,1W			
3893	482205120471	470R 5% 0,1W			
3894	482205120101	100R 5% 0,1W			
3895	482205120159	15R 5% 0,1W			
3897	482205120101	100R 5% 0,1W			
3898	482211711503	220R 1% 0,1W			
3899	482205120101	100R 5% 0,1W			
4800	482205120008	OR Jumper 0805			
4801	482205120008	OR Jumper 0805			

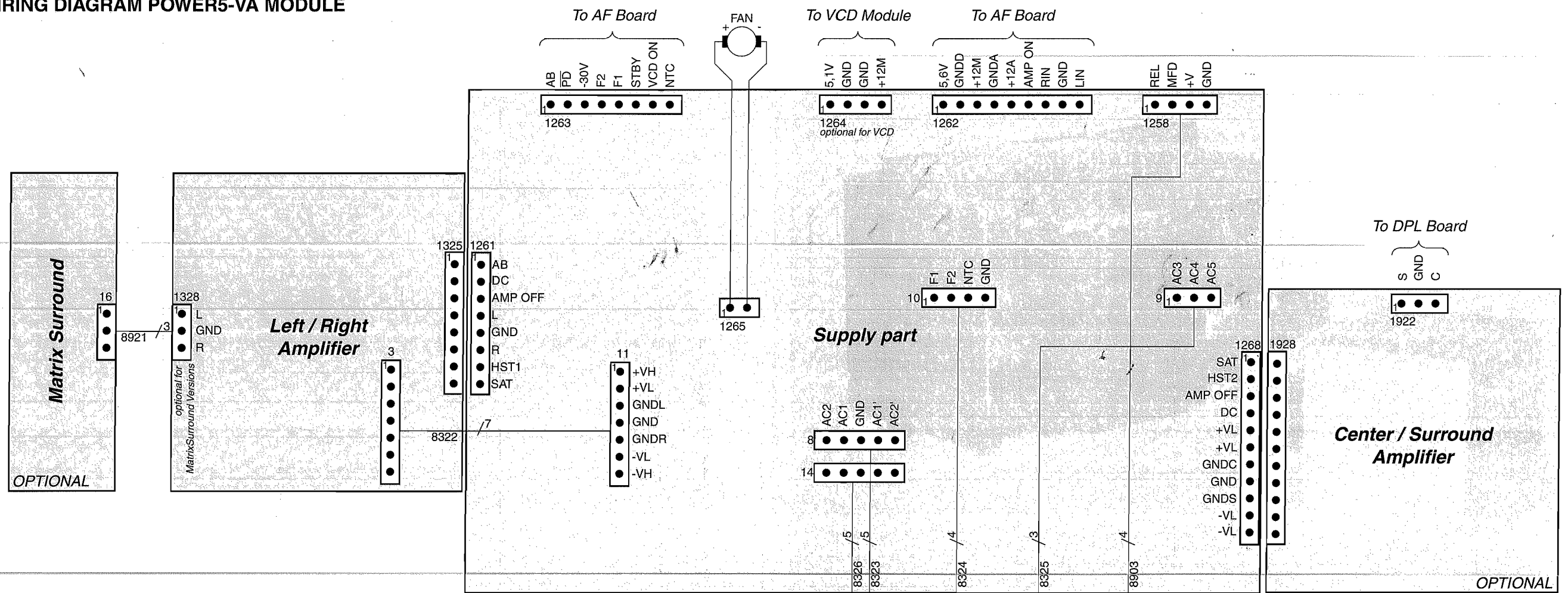
COILS & FILTERS

5802 482215631058 100μH

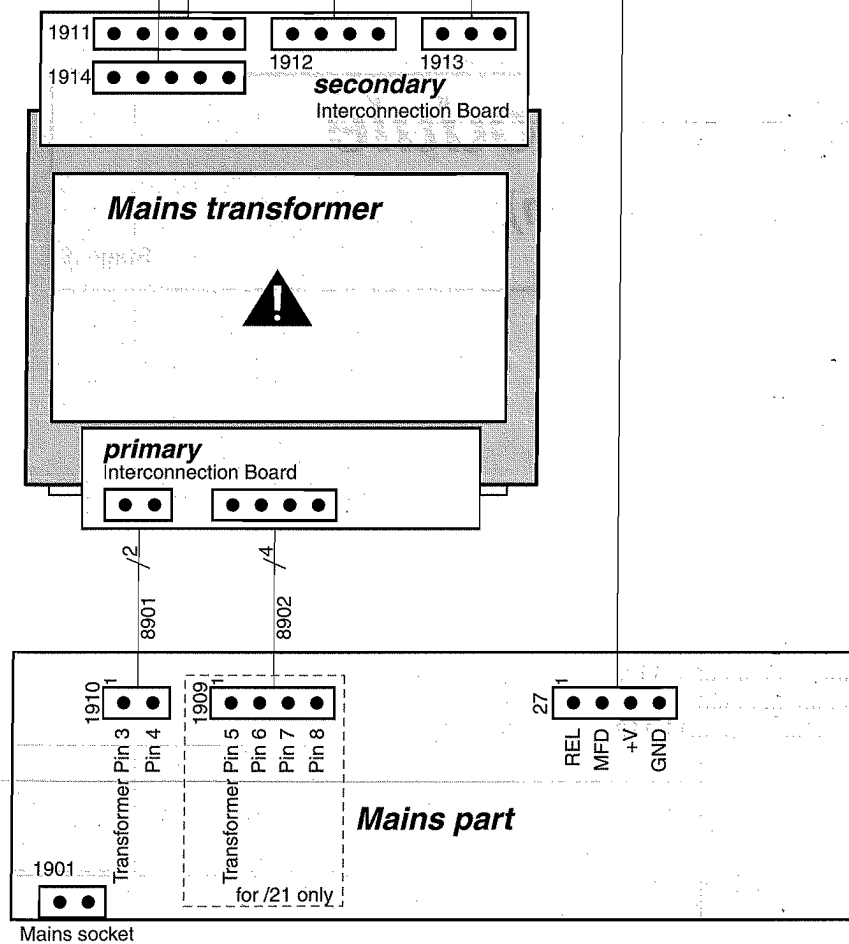
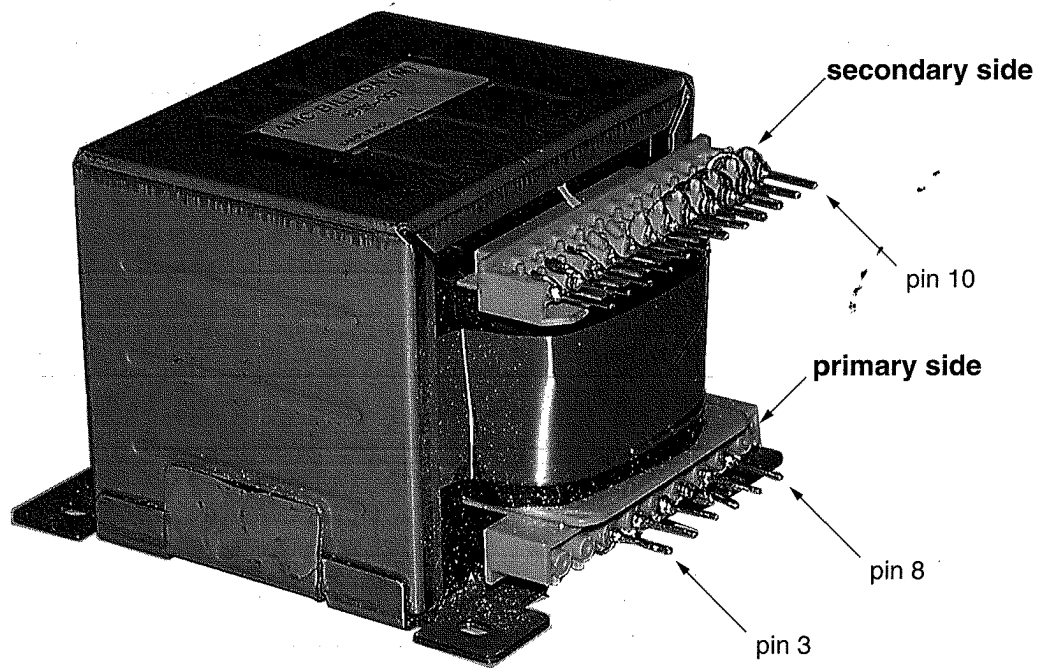
DIODES

6871 482213083757 BAS216
 6872 482213083757 BAS216
 6873 482213083757 BAS216
 6874 482213083757 BAS216
 6875 482213011383 BZX284-C5V1
 6877 482213011366 BZX284-C3V9
 6878 482213083757 BAS216

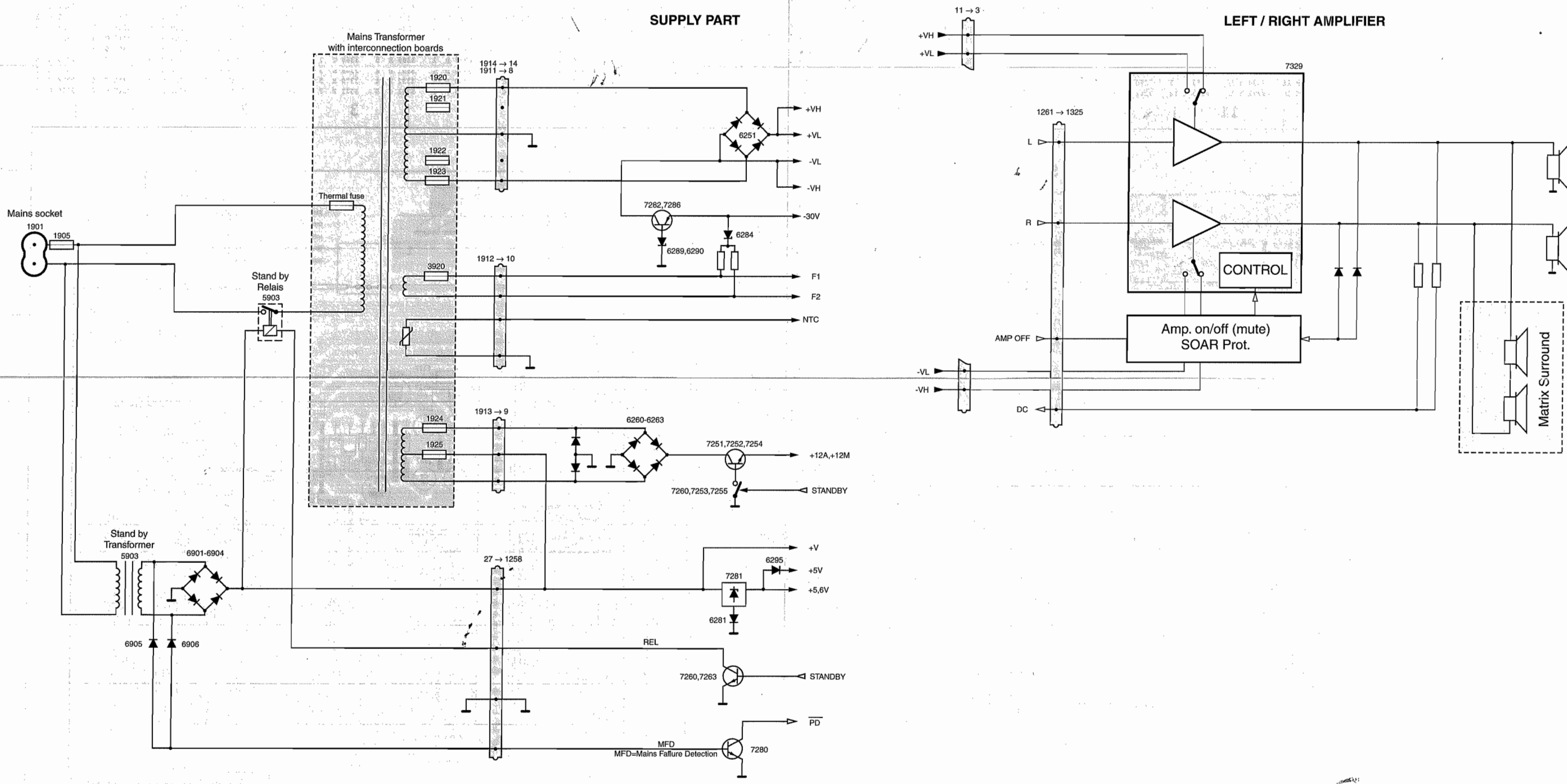
WIRING DIAGRAM POWER5-VA MODULE



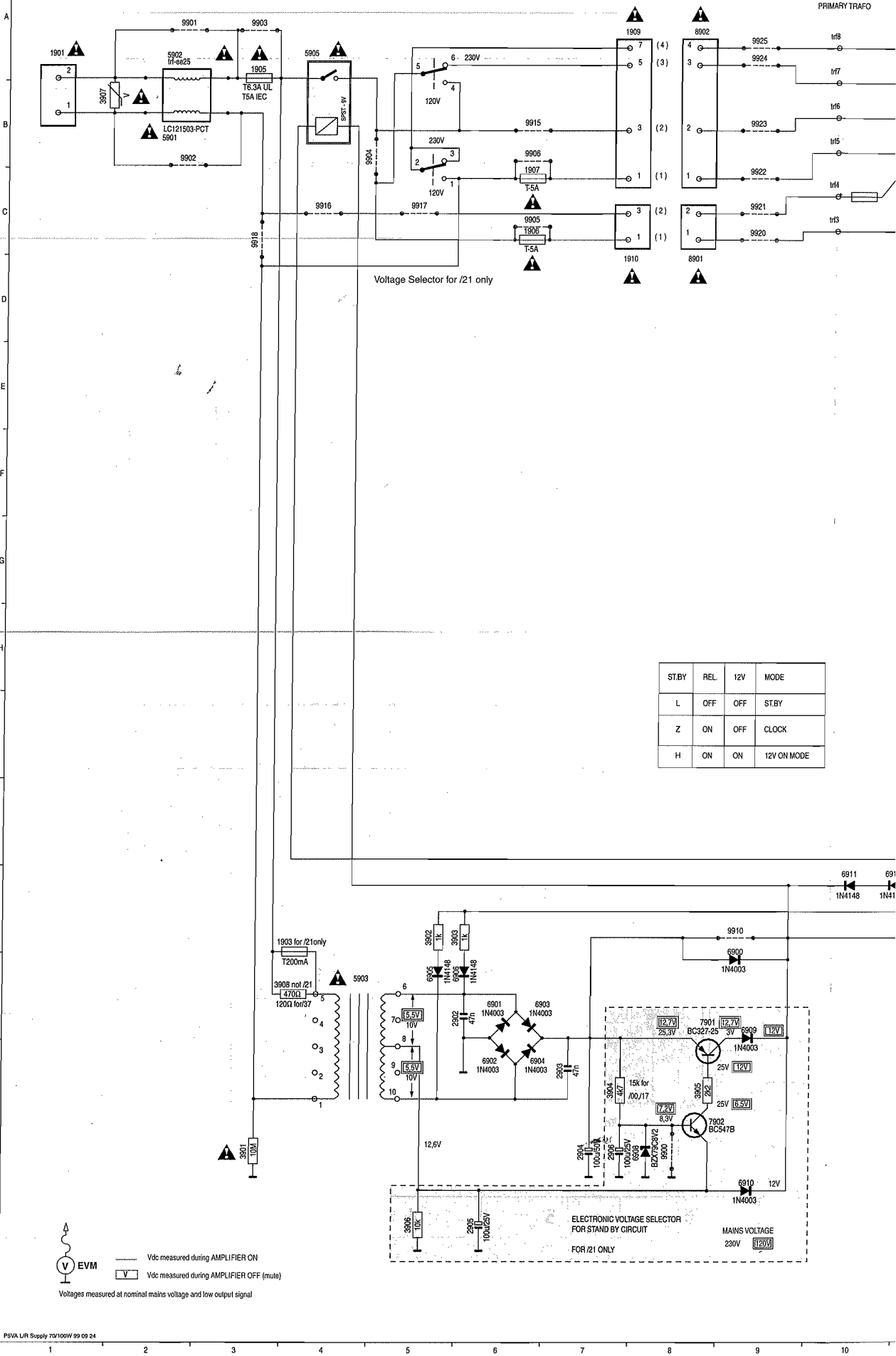
Mains Transformer /21

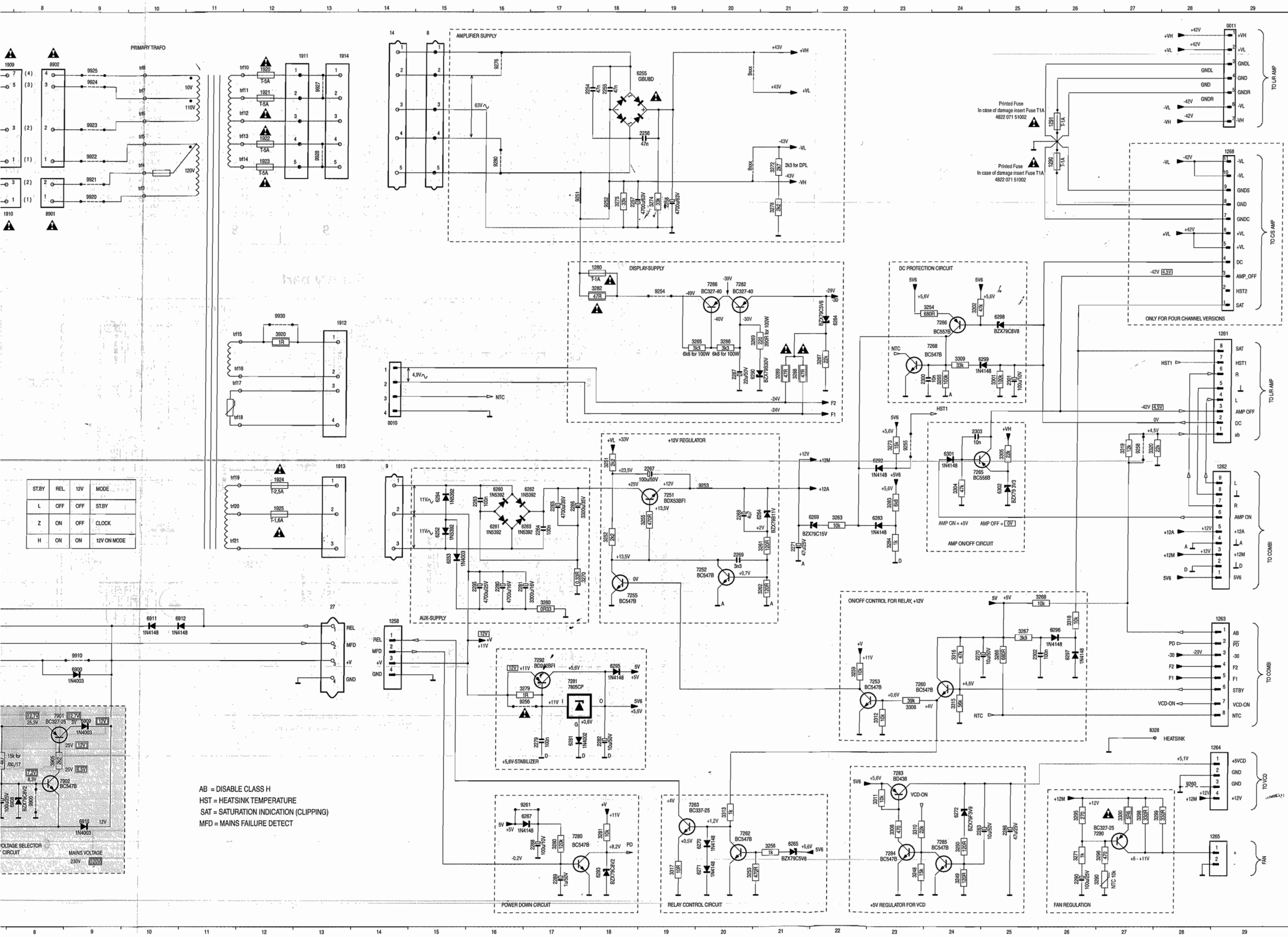


BLOCK DIAGRAM 70/100W VERSION



POWER 5-VA SUPPLY PART 70/100W Version





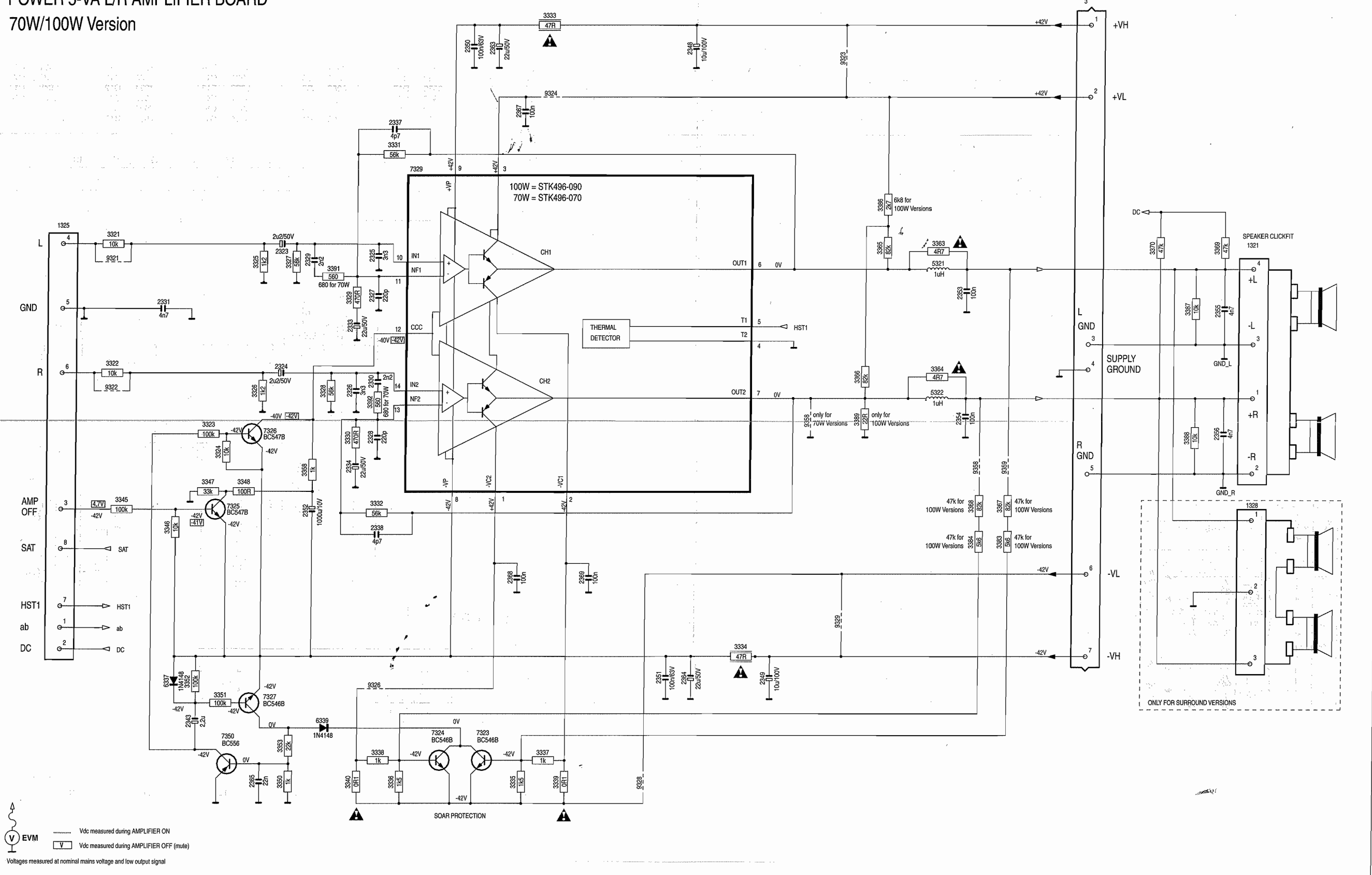
ST.BY	REL	12V	MODE
L	OFF	OFF	ST.BY
Z	ON	OFF	CLOCK
H	ON	ON	12V ON MODE

AB = DISABLE CLASS H
 HST = HEATSINK TEMPERATURE
 SAT = SATURATION INDICATION (CLIPPING)
 MFD = MAINS FAILURE DETECT



- 0011 G14
- 0011 B29
- 1258 K14
- 1261 F29
- 1262 H29
- 1263 M29
- 1264 M29
- 1265 M29
- 1266 B29
- 1268 E18
- 1269 C26
- 1291 B26
- 14 A14
- 1903 J15
- 1905 A3
- 1906 C6
- 1907 C6
- 1909 A7
- 1910 D7
- 1911 A13
- 1912 E13
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- 1921 A12
- 1922 B12
- 1923 C12
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- 1925 H12
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- 2264 I17
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- 2279 M17
- 2280 J16
- 2281 J16
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- 3318 K26
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- 3903 K6
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- 3905 M8
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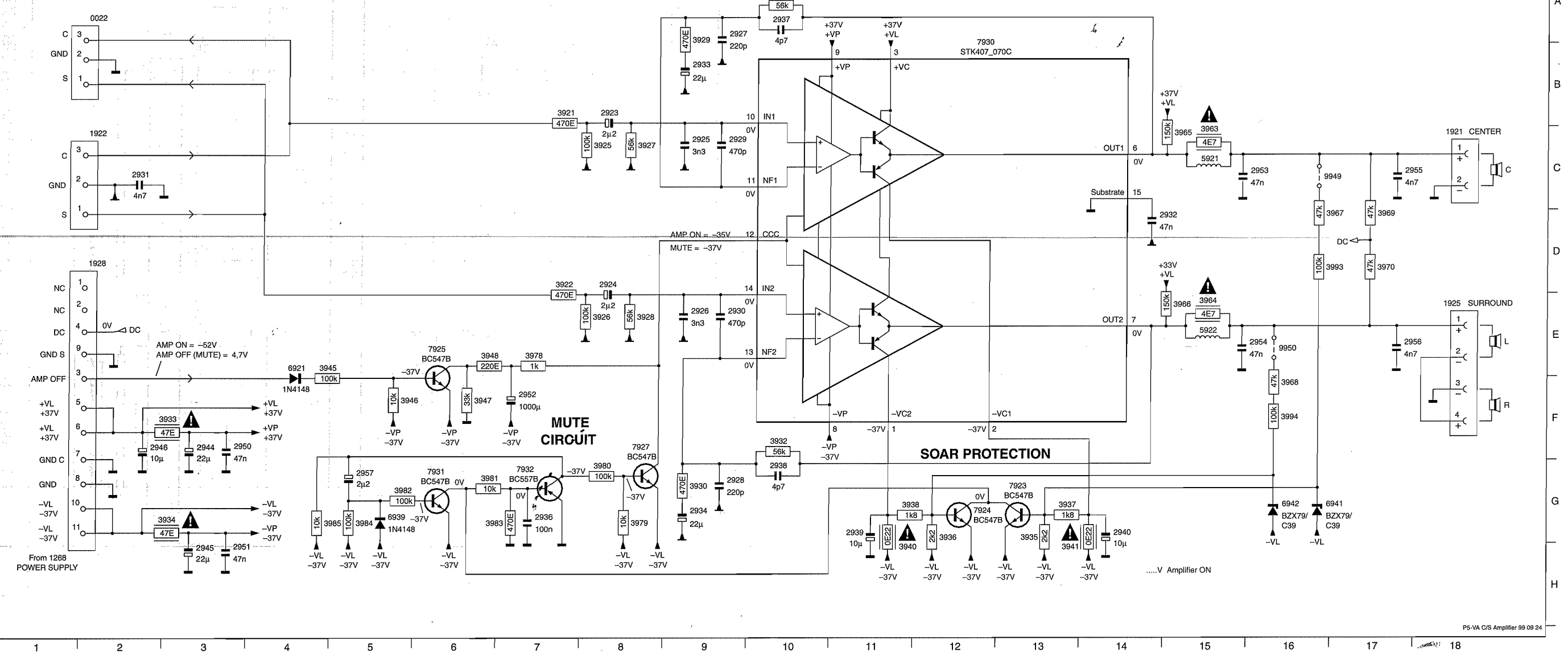
POWER 5-VA L/R AMPLIFIER BOARD 70W/100W Version



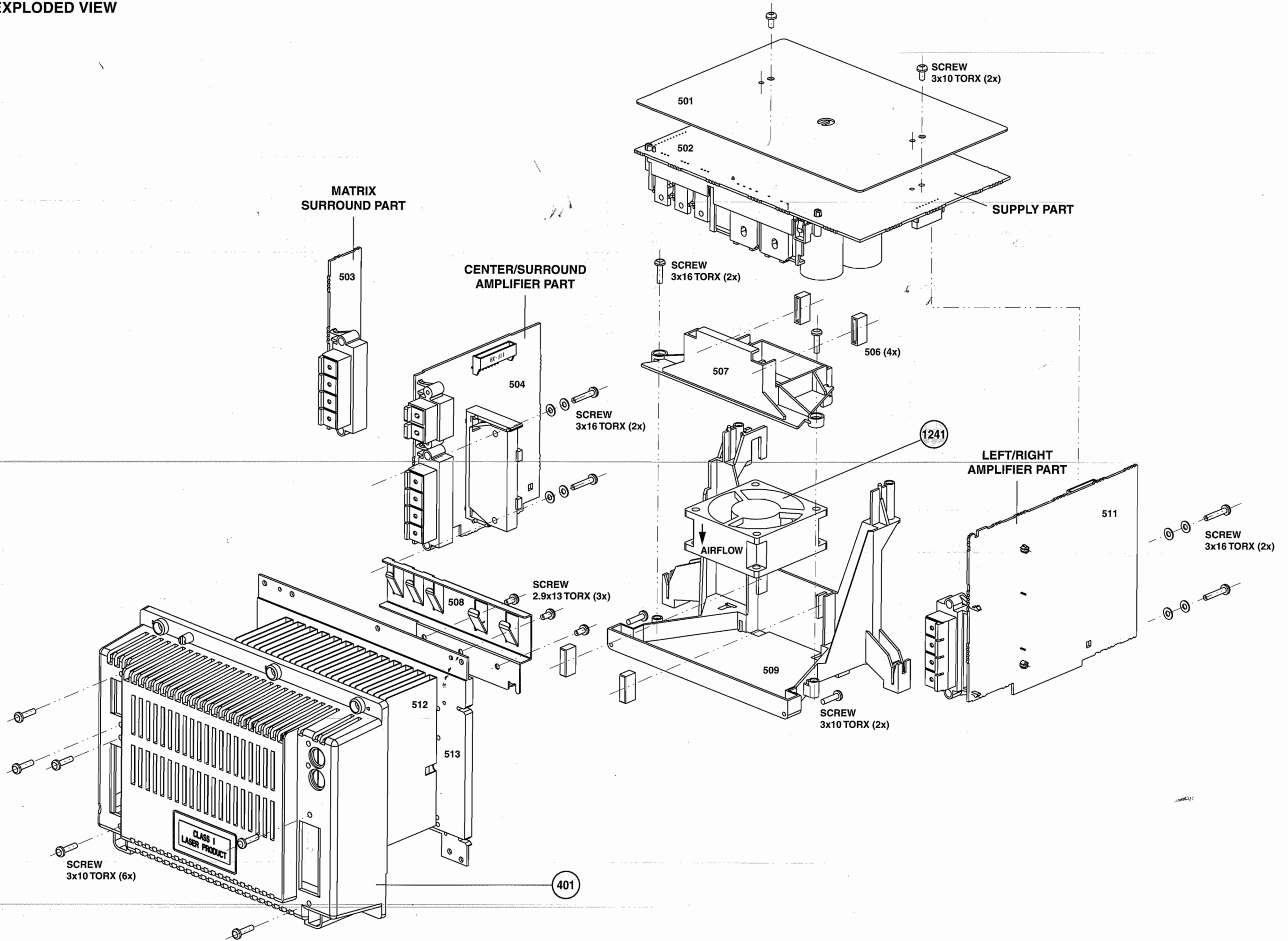
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- 1328 G18
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- 2322 H 6
- 2323 D 4
- 2324 F 4
- 2325 D 5
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- 2327 E 6
- 2328 G 6
- 2329 D 6
- 2330 F 6
- 2331 E 3
- 2333 E 5
- 2334 G 5
- 2335 B 6
- 2336 H 6
- 2337 B 6
- 2338 H 6
- 2341 K 7
- 2342 K 6
- 2343 K 3
- 2344 A 3
- 2345 J10
- 2346 B10
- 2347 I11
- 2348 A10
- 2349 J11
- 2350 A 7
- 2351 J10
- 2352 H 5
- 2353 E14
- 2354 F14
- 2355 E18
- 2356 G18
- 2363 A 7
- 2364 J10
- 2365 K 4
- 2366 C12
- 2367 B8
- 2368 B 8
- 2369 I 9
- 2370 A 16
- 3321 D 2
- 3322 F 2
- 3323 F 3
- 3324 G 4
- 3325 D 4
- 3326 F 4
- 3327 D 5
- 3328 F 5
- 3329 E 5
- 3330 G 5
- 3331 C 6
- 3332 H 6
- 3333 A 8
- 3334 J11
- 3335 K 8
- 3336 K 6
- 3337 K 8
- 3338 K 6
- 3339 K 8
- 3340 K 5
- 3341 C 6
- 3342 H 3
- 3343 G 3
- 3344 G 4
- 3345 K 5
- 3346 H 3
- 3347 G 3
- 3348 G 4
- 3349 K 5
- 3350 K 5
- 3351 I 4
- 3352 J 3
- 3353 K 5
- 3354 C12
- 3355 I 2
- 3356 I 2
- 3357 G 5
- 3358 D14
- 3359 E14
- 3360 D13
- 3361 F13
- 3362 H15
- 3363 H14
- 3364 D18
- 3365 D17
- 3366 H15
- 3367 H14
- 3368 H14
- 3369 D18
- 3370 D17
- 3371 H15
- 3372 H14
- 3373 D12
- 3374 D13
- 3375 E17
- 3376 G17
- 3377 F13
- 3378 D14
- 3379 F14
- 3380 D14
- 3381 F14
- 3382 B12
- 3383 H12
- 3384 A13
- 3385 I13
- 3386 I13
- 3387 G14
- 3388 J14
- 3389 G14
- 3390 J 3
- 3391 K 5
- 3392 C12
- 3393 K 7
- 3394 K 7
- 3395 H 4
- 3396 G 4
- 3397 J 4
- 3398 G 6
- 3399 K 4
- 3400 D 2
- 9321 D 2
- 9322 F 2
- 9323 A12
- 9324 J 6
- 9325 J 6
- 9326 J 6
- 9327 K 9
- 9328 K10
- 9329 I12
- 9330 F12
- 9331 D12
- 9332 G14
- 9333 G14
- 9334 G14
- 9335 J 3
- 9336 K 5
- 9337 C12
- 9338 K 7
- 9339 K 7
- 9340 K 7
- 9341 K 7
- 9342 K 7
- 9343 K 7
- 9344 K 7
- 9345 K 7
- 9346 K 7
- 9347 K 7
- 9348 K 7
- 9349 K 7
- 9350 K 7
- 9351 K 7
- 9352 K 7
- 9353 K 7
- 9354 K 7
- 9355 K 7
- 9356 K 7
- 9357 K 7
- 9358 K 7
- 9359 K 7

0022	A2	2924	D8	2930	E9	2937	A10	2946	F2	2955	C17	3926	E8	3932	F10	3938	G11	3948	E6	3968	F16	3981	G6	3994	F16	6942	G16	7931	G5
1921	C18	2925	C9	2931	C2	2938	G10	2950	F3	2956	E17	3927	C8	3933	F2	3940	H11	3963	C15	3969	D17	3982	G5	5921	C15	7923	G13	7932	G7
1922	C2	2926	E9	2932	D14	2939	G11	2951	H3	2957	G5	3928	E8	3934	G2	3941	H14	3964	E15	3970	D17	3983	G6	5922	E15	7924	G12	9949	C16
1925	E18	2927	A9	2933	B9	2940	H14	2952	F6	2958	B7	3929	A9	3935	H13	3945	E4	3965	C15	3978	E7	3984	G5	6921	E4	7925	E6	9950	E16
1928	D2	2928	G9	2934	G9	2944	F3	2953	C15	2959	D7	3930	G9	3936	H12	3946	F5	3966	E15	3979	G8	3985	G4	6939	G5	7927	G8		
2923	B8	2929	C9	2936	G7	2945	H3	2954	E15	3925	C8	3931	A10	3937	G13	3947	F6	3967	D16	3980	G8	3993	D16	6941	G16	7930	B12		

CENTER & SURROUND AMPLIFIER (40W + 40W)



EXPLODED VIEW



MECHANICAL PARTS LIST

0047	482225610555	Rucksack - L/R and Matrix Surr.	1241	482236111161	DC Brushless Fan
0047	482225610557	Rucksack - L/R and C/S	0002	482225610556	Holder STK47/P5-VA
0047	482225610558	Rucksack - L/R	0029	482246693148	Spacer 5mm

ELECTRICAL PARTS LIST - MAINS BOARD

MISCELLANEOUS

1901	482226531015	△ Mains Socket
1901#	482226531016	△ Mains Socket
1902*	482227210269	△ Voltage Selector
1903*	482207152001	△ Fuse T200mA 250V
1905^	482207155002	△ Fuse T5A 250V
1905#	482225251123	△ Fuse T6,3A 250V
1906*	482207155002	△ Fuse T5A 250V
1907*	482207155002	△ Fuse T5A 250V
1909*	482226710728	△ Primary Connector
1910	482226520723	△ Primary Connector
1920	482207155002	△ Fuse T5A 250V
1923	482207155002	△ Fuse T5A 250V
1924	482207152502	△ Fuse T2,5A 250V
1925	482207151602	△ Fuse T1,6A 250V

CAPACITORS

2902	482212143526	47nF 5% 250V
2903	482212143526	47nF 5% 250V
2904*	482212440255	100µF 20% 63V
2905*	482212481029	100µF 20% 25V

RESISTORS

3901#	482205321106	△ 10M 5% 0,5W
3902	482205011002	1k 1% 0,4W
3903	482205011002	1k 1% 0,4W
3904^	482211652244	15k 5% 0,5W
3904*	482211652283	4k7 5% 0,5W
3905*	482211652256	2k2 5% 0,5W
3906*	482211683864	10k 5% 0,5W
3908^	482205310471	470R 5% 1W
3920*	482205210108	△ 1R 5% 0,33W

COILS & FILTERS

5901^	482215711832	△ 400µH 3A
5902*	482215711628	△ Mains Choke
5903*	482214611144	△ Standby Transformer
5903^	482214611143	△ Standby Transformer
5903#	482214611142	△ Standby Transformer
5905	482228010382	△ Relay

DIODES

6900^	482213031878	1N4003G
6901	482213031878	1N4003G
6902	482213031878	1N4003G
6903	482213031878	1N4003G
6904	482213031878	1N4003G
6905	482213030621	1N4148
6906	482213030621	1N4148
6908*	482213034382	BZX79-C8V2
6909*	482213032245	BYV10-40
6910*	482213031878	1N4003G
6911	482213030621	1N4148
6912	482213030621	1N4148

TRANSISTORS & INTEGRATED CIRCUITS

7901*	482213041246	BC327-25
7902*	482213040959	BC547B

* For /21/21M*only

^ Except for /21/21M

For /37 only

Note : Only the parts mentioned in this list are normal service spare parts.

ELECTRICAL PARTS LIST - SUPPLY & LEFT/RIGHT AMPLIFIER BOARD

CAPACITORS

2269	482212210577	3,3nF 10% 16V	3267	482211652276	3k9 5% 0,5W
2270	482212440248	10µF 20% 63V	3268	482205021003	10k 1% 0,6W
2271	482212440433	47µF 20% 25V	3269	482211683872	220R 5% 0,5W
2279	532212142386	100nF 5% 63V	3269	482211683881	390R 5% 0,5W
2280	482212412328	6800µF 16V	3270	482211711342	0R33 5% 2W
2282	482212440248	10µF 20% 63V	3271	482205011002	1k 1% 0,4W
2289	482212421913	1µF 20% 63V	3272	482211652263	2k7 5% 0,5W
2290	482212440207	100µF 20% 25V	3273	482211652244	15k 5% 0,5W
2300	482212151387	10nF 20% 16V	3274	482205023303	33k 1% 0,6W
2301	482212441584	100µF 20% 10V	3275	482205023303	33k 1% 0,6W
2303	482212141857	10nF 5% 250V	3278	482211652256	2k2 5% 0,5W
2323	482212422652	2,2µF 20% 50V	3280	482211652239	120k 5% 0,5W
2324	482212422652	2,2µF 20% 50V	3281	482205021003	10k 1% 0,6W
2325	482212233532	3,3nF 5% 50V	3282	482205210479	△ 47R 5% 0,33W
2326	482212233532	3,3nF,5% 50V	3285	482211652269	3k3 5% 0,5W
2329	532212232818	2,2nF 10% 100V	3285	482211683961	6k8 5%
2330	532212232818	2,2nF 10% 100V	3286	482211652269	3k3 5% 0,5W
2331	532212232261	4,7nF 10% 100V	3286	482211683961	6k8 5%
2333	482212481151	22µF 50V	3287	482211652257	22k 5% 0,5W
2334	482212481151	22µF 50V	3288	482205210479	△ 47R 5% 0,33W
2337	482212210465	4,7pF 10% 50V	3289	482205210479	△ 47R 5% 0,33W
2338	482212210465	4,7pF 10% 50V	3290	482211712063	NTC DC 5W 10k 5%
2341	482212611585	22nF +80/-20% 25V	3295	482211683876	270R 5% 0,5W
2342	482212611585	22nF +80/-20% 25V	3296	482211683883	470R 5% 0,5W
2343	482212422652	2,2µF 20% 50V	3298	482211652219	330R 5% 0,5W
2344	482212440764	22µF 100V	3299	482211652219	330R 5% 0,5W
2345	482212440764	22µF 100V	3300	482205210568	△ 5R6 5% 0,33W
2348	482212481043	10µF 20% 100V	3302	482211683884	47k 5% 0,5W
2349	482212481043	10µF 20% 100V	3304	482211683884	47k 5% 0,5W
2350	532212142386	100nF 5% 63V	3305	482211652257	22k 5% 0,5W
2351	532212142386	100nF 5% 63V	3306	482211683882	39k 5% 0,5W
2352	482212440181	220µF 20% 10V	3309	482205023303	33k 1% 0,6W
2353	532212142386	100nF 5% 63V	3312	482205021003	10k 1% 0,6W
2354	532212142386	100nF 5% 63V	3313	482205011002	1k 1% 0,4W
2355	532212232261	4,7nF 10% 100V	3315	482211652291	56k 5% 0,5W
2356	532212232261	4,7nF 10% 100V	3316	482211683884	47k 5% 0,5W
2365	482212612785	47nF 50V	3317	482205210109	△ 10R 5% 0,33W
2367	532212142386	100nF 5% 63V	3321	482205021003	10k 1% 0,6W
2368	532212142386	100nF 5% 63V	3322	482205021003	10k 1% 0,6W
2369	532212142386	100nF 5% 63V	3323	482211652234	100k 5% 0,5W

RESISTORS

3251	482211652256	2k2 5% 0,5W
3252	482211652256	2k2 5% 0,5W
3254	482211652228	680R 5% 0,5W
3255	482211683883	470R 5% 0,5W
3259	482205021003	10k 1% 0,6W
3260	482211711342	0R33 5% 2W
3261	482211652206	120R 5% 0,5W
3262	482211652206	120R 5% 0,5W
3263	482205021003	10k 1% 0,6W
3265	482211652234	100k 5% 0,5W
3266	482211652228	680R 5% 0,5W

ELECTRICAL PARTS LIST - SUPPLY & LEFT/RIGHT AMPLIFIER BOARD

MISCELLANEOUS

1321	482226731176	L/R Loudspeaker Terminal
1327	482226510912	Matrix Surround Terminal

CAPACITORS

2254	482212143526	47nF 5% 250V
2255	482212143526	47nF 5% 250V
2256	482212143526	47nF 5% 250V

2257	482212480415	4700µF 20% 50V
2258	482212480415	4700µF 20% 50V
2263	532212142386	100nF 5% 63V
2264	532212142386	100nF 5% 63V
2265	482212480563	4700µF 20% 35V
2267	482212440255	100µF 20% 63V
2268	482212440769	4,7µF 20% 100V

ELECTRICAL PARTS LIST - SUPPLY & LEFT/RIGHT AMPLIFIER BOARD

RESISTORS

3335	482211652243	1k5 5% 0,5W
3336	482211652243	1k5 5% 0,5W
3337	482205011002	1k 1% 0,4W
3338	482205011002	1k 1% 0,4W
3339	482211380633	△ 0R1 5% 3W
3340	482211380633	△ 0R1 5% 3W
3345	482211652234	100k 5% 0,5W
3346	482205021003	10k 1% 0,6W
3347	482205023303	33k 1% 0,6W
3348	482211683872	220R 5% 0,5W
3350	482205011002	1k 1% 0,4W
3351	482211652234	100k 5% 0,5W
3352	482211652234	100k 5% 0,5W
3353	482211652257	22k 5% 0,5W
3358	482205011002	△ 1k 1% 0,4W
3363	482205310478	△ 4R7 5% 1W
3364	482205310478	△ 4R7 5% 1W
3365	482211652304	82k 5% 0,5W
3366	482211652304	82k 5% 0,5W
3367	482211652304	82k 5% 0,5W
3367	482211683884	47k 5% 0,5W
3368	482211652304	82k 5% 0,5W
3368	482211683884	47k 5% 0,5W
3369	482211683884	47k 5% 0,5W
3370	482211683884	47k 5% 0,5W
3383	482211652289	5k6 5% 0,5W
3383	482211683884	47k 5% 0,5W
3384	482211652289	5k6 5% 0,5W
3384	482211683884	47k 5% 0,5W
3386	482211652263	2k7 5% 0,5W
3386	482211683961	6k8 5%
3387	482205021003	10k 1% 0,6W
3388	482205021003	10k 1% 0,6W
3389	482205210229	22R 5% 0,33W
3391	482211683872	220R 5% 0,5W
3392	482211683872	220R 5% 0,5W

COILS & FILTERS

5321	482215770599	IND FXD BEAD EMI
5322	482215770599	IND FXD BEAD EMI

DIODES

6252	532213080686	1N5392
6253	482213031878	1N4003G
6255	482213011139	△ GBU8D
6260	532213080686	1N5392
6261	532213080686	1N5392
6262	532213080686	1N5392
6263	532213080686	1N5392
6264	933166880133	BZX79-B11
6269	482213034281	BZX79-C15
6270	482213030621	1N4148
6271	482213030621	1N4148

6281	482213031878	1N4003G
6284	482213034173	BZX79-C5V6
6290	933166980133	BZX79-B30
6292	482213030621	1N4148
6293	482213034382	BZX79-C8V2
6294	532213080686	1N5392
6295	482213030621	1N4148
6298	482213034278	BZX79-C6V8
6299	482213030621	1N4148
6301	482213030621	1N4148
6302	532213031504	BZX79-C3V3
6337	482213030621	1N4148
6339	482213030621	1N4148

TRANSISTORS & INTEGRATED CIRCUITS

7251	932213923687	BDX53BFP
7252	482213040959	BC547B
7253	482213040959	BC547B
7255	482213040959	BC547B
7260	482213040959	BC547B
7263	482213040981	BC337-25
7265	482213041691	BC556B
7266	482213044568	BC557B
7268	482213040959	BC547B
7280	482213040959	BC547B
7281	482220931841	L7805CP
7282	482213041327	BC327-40
7286	482213041327	BC327-40
7290	482213041246	BC327-25
7323	482213044461	BC546B
7324	482213044461	BC546B
7325	482213040959	BC547B
7326	482213040959	BC547B
7327	482213044461	BC546B
7329	482220917383	STK496-090
7329	482220917385	STK496-070
7329	932214856682	STK496-070C
7350	482213041691	BC556B

Note : Only the parts mentioned in this list are normal service spare parts.

ELECTRICAL PARTS LIST - CENTER/SURROUND AMPLIFIER BOARD

MISCELLANEOUS

1921	482226510464	Center Speaker Terminal
1925	482226510912	Surround Speaker Terminal

CAPACITORS

2923	482212422652	2,2μF 20% 50V
2924	482212422652	2,2μF 20% 50V
2925	482212233532	3,3nF 5% 50V
2926	482212233532	3,3nF 5% 50V
2927	532212232334	220pF 10% 100V
2928	532212232334	220pF 10% 100V
2929	532212232311	470pF 10% 100V
2930	532212232311	470pF 10% 100V
2931	532212232261	4,7nF 10% 100V
2932	482212233449	47nF 30% 50V
2933	482212481151	22μF 50V
2934	482212481151	22μF 50V
2936	482212612882	100nF +80/-20% 50V
2937	482212210465	4,7pF 10% 50V
2938	482212210465	4,7pF 10% 50V
2939	482212440248	10μF 20% 63V
2940	482212440248	10μF 20% 63V
2944	482212481151	22μF 50V
2945	482212481151	22μF 50V
2946	482212440248	10μF 20% 63V
2950	482212233449	47nF 30% 50V
2951	482212233449	47nF 30% 50V
2952	482212440181	220μF 20% 10V
2953	482212233449	47nF 30% 50V
2954	482212233449	47nF 30% 50V
2955	532212232261	4,7nF 10% 100V
2956	532212232261	4,7nF 10% 100V
2957	482212422652	2,2μF 20% 50V

RESISTORS

3921	482211683883	470R 5% 0,5W
3922	482211683883	470R 5% 0,5W
3925	482211652234	100k 5% 0,5W
3926	482211652234	100k 5% 0,5W
3927	482211652291	56k 5% 0,5W
3928	482211652291	56k 5% 0,5W
3929	482211683883	470R 5% 0,5W
3930	482211683883	470R 5% 0,5W
3931	482211652291	56k 5% 0,5W
3932	482211652291	56k 5% 0,5W
3933	482205210479	△ 47R 5% 0,33W
3934	482205210479	△ 47R 5% 0,33W
3935	482211652256	2k2 5% 0,5W
3936	482211652256	2k2 5% 0,5W
3937	482211652249	1k8 5% 0,5W
3938	482211652249	1k8 5% 0,5W
3940	482211711744	△ 0R22 5% 1W
3941	482211711744	△ 0R22 5% 1W
3945	482211652234	100k 5% 0,5W

3946	482205021003	10k 1% 0,6W
3947	482205023303	33k 1% 0,6W
3948	482211683872	220R 5% 0,5W
3963	482205310478	△ 4R7 5% 1W
3964	482205310478	△ 4R7 5% 1W
3965	482211652245	150k 5% 0,5W
3966	482211652245	150k 5% 0,5W
3967	482211683884	47k 5% 0,5W
3968	482211683884	47k 5% 0,5W
3969	482211683884	47k 5% 0,5W
3970	482211683884	47k 5% 0,5W
3978	482205011002	1k 1% 0,4W
3979	482205021003	10k 1% 0,6W
3980	482211652234	100k 5% 0,5W
3981	482205021003	10k 1% 0,6W
3982	482211652234	100k 5% 0,5W
3983	482211683883	470R 5% 0,5W
3984	482211652234	100k 5% 0,5W
3985	482205021003	10k 1% 0,6W
3993	482211652234	100k 5% 0,5W
3994	482211652234	100k 5% 0,5W

COILS & FILTERS

5921	482215762255	Coil 18,5 Turns
5922	482215762255	Coil 18,5 Turns

DIODES

6921	482213030621	1N4148
6939	482213030621	1N4148
6941	482213034145	BZX79-C39
6942	482213034145	BZX79-C39

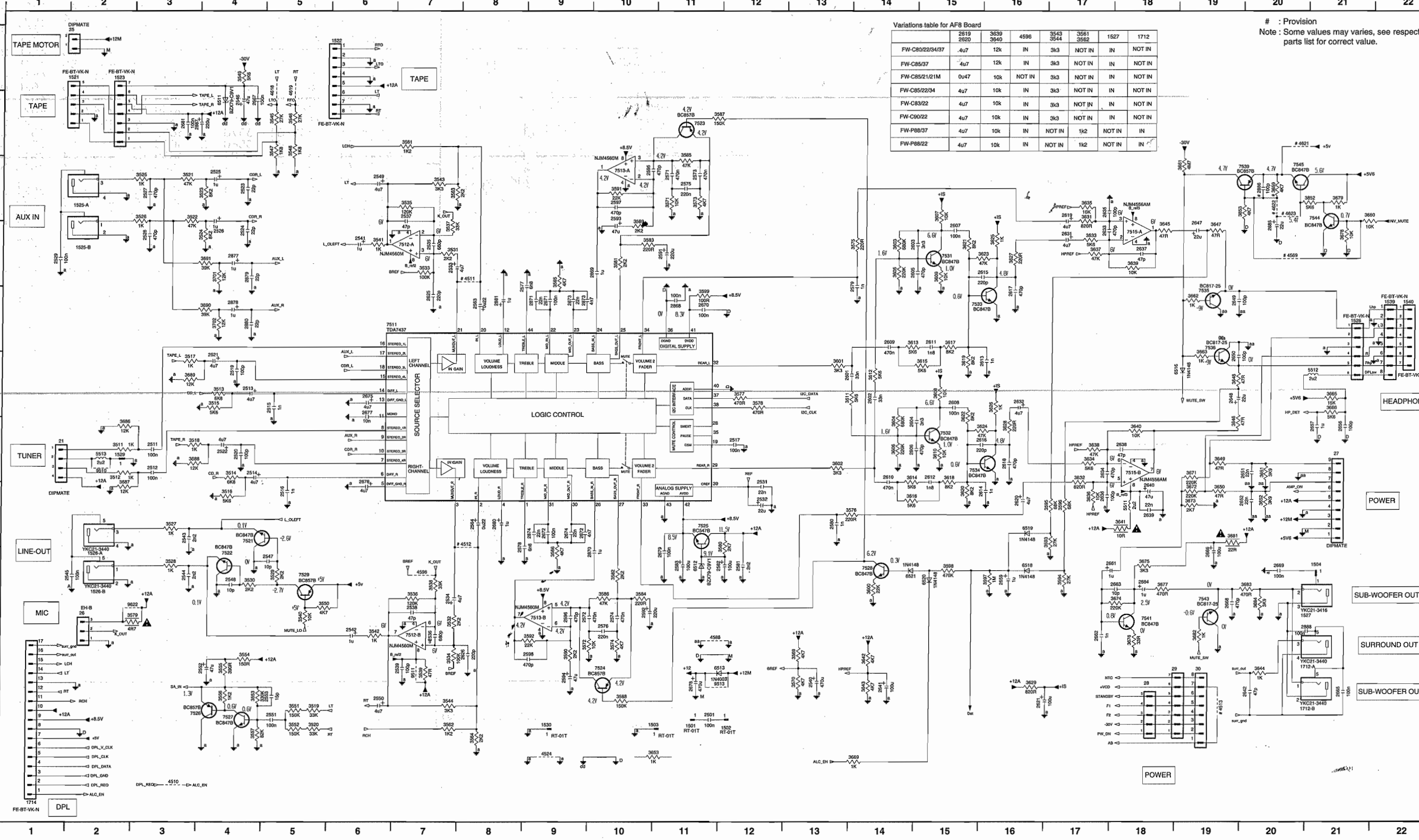
TRANSISTORS & INTEGRATED CIRCUITS

7923	482213040959	BC547B
7924	482213040959	BC547B
7925	482213040959	BC547B
7927	482213040959	BC547B
7930	932214856682	STK496-070C
7931	482213040959	BC547B
7932	482213044568	BC557B

Note: Only the parts mentioned in this list are normal service spare parts.

AF8 BOARD - CIRCUIT DIAGRAM (PART 1)

21 Q1	1554 J21	1529 Q2	2513 F4	2524 D4	2535 D7	2545 I2	2554 H8	2550 H13	2597 C10	2599 E14	2610 C17	2635 H17	2650 F19	2655 K21	2675 F6	2671 E9	2685 C20	3518 G3	3520 I3	3530 I7	3548 B5	3551 B7	3573 C11	3583 D10	3593 H17	3603 D14	3613 E14	3623 D16	3634 G17	3644 J20	3659 C20	3673 H19	3684 I20	3693 C19	4519 B5	4516 F19	7515-A D18	7529 I5	7544 C21	
25 A1	1521 A2	1530 K9	2514 G4	2525 C4	2536 J7	2546 B4	2571 C11	2591 I12	2598 J9	2610 E14	2620 H16	2637 D18	2651 G20	2656 H19	2676 H8	2672 H9	2689 J21	3519 K5	3520 I6	3539 J7	3549 A4	3552 K7	3574 J10	3584 I10	3594 I17	3604 G14	3614 G14	3624 D16	3635 C17	3645 D18	3650 C21	3674 H8	3686 G2	4510 L3	4521 B20	6519 H16	7515-B G10	7531 D15	7545 G20	
26 I2	1522 A6	1539 E22	2516 F5	2526 D4	2537 C7	2547 I5	2572 J9	2592 I12	2601 F13	2611 E15	2621 K16	2638 G18	2652 H20	2667 B4	2677 F6	2673 E9	2689 J21	3520 K5	3530 J5	3540 J5	3550 I5	3563 C7	3575 D14	3585 B11	3595 H17	3605 D14	3615 F15	3625 D16	3636 H17	3646 D18	3651 C19	3675 H8	3687 H2	4511 D6	4522 C20	6519 H16	7521 H4	7532 G15	7545 G20	
27 Q21	1523 A3	1540 E22	2516 H5	2527 C3	2538 I7	2548 I4	2573 C11	2593 H11	2602 F14	2612 D16	2625 E7	2639 H18	2656 G21	2668 I19	2678 K11	2674 H9	2691 J21	3521 G2	3532 C3	3541 D9	3551 K6	3564 K9	3576 H14	3586 H10	3596 H17	3606 G14	3616 H14	3626 F16	3637 D17	3647 D19	3662 E19	3675 J18	3688 G3	4512 H8	4523 C20	6520 I15	7522 H4	7533 G15	7545 G20	
28 K16	1525-A C2	1712-A J20	2517 D12	2528 G3	2539 J7	2549 C6	2574 J10	2591 D11	2600 D14	2613 F16	2626 J9	2640 H16	2657 G21	2668 I20	2679 H11	2677 D4	2692 J21	3522 G2	3533 I3	3542 I6	3552 K5	3565 D9	3577 F12	3587 D11	3597 H16	3607 D16	3617 E15	3627 D16	3638 G17	3648 F19	3653 D17	3677 H18	3689 F3	4513 K19	4511 H18	6521 I14	7523 D11	7534 G15	7545 G20	
29 J19	1525-B D2	1712-B K30	2519 F4	2529 D1	2540 K13	2550 K6	2575 C11	2592 J10	2604 G14	2614 H16	2627 D17	2641 K14	2659 H16	2670 E11	2680 H8	2679 E4	2693 J21	3523 C4	3533 D7	3543 C7	3553 K4	3566 I8	3578 F12	3588 K10	3598 H16	3608 F15	3618 G15	3628 G16	3639 D18	3649 G19	3655 F21	3678 D21	3690 E4	4524 L9	5512 F21	7511 E6	7524 J10	7535 E19	7545 G20	
30 J19	1525-A I2	1714 L1	2520 G4	2531 H12	2541 D6	2551 K5	2576 J10	2593 C10	2605 D14	2615 D16	2632 F16	2642 K20	2661 H8	2671 E9	2681 B3	2679 D4	2694 J21	3524 G4	3524 D4	3534 J7	3544 K7	3554 J4	3569 J13	3579 J3	3589 D10	3599 E11	3609 D15	3619 F15	3629 K16	3640 G18	3650 H19	3666 F21	3679 G21	3691 D4	4529 D20	5513 G2	7512-A D7	7528 H11	7536 E19	
1501 K11	1526-B I2	2501 K11	2521 F4	2532 H12	2542 J6	2552 J4	2577 E8	2594 K9	2609 G14	2619 G16	2636 D17	2647 D19	2662 J17	2672 H9	2680 E4	2680 E4	2695 J21	3525 F4	3525 C3	3535 C7	3545 B5	3555 J4	3570 K13	3580 H2	3590 J9	3600 H4	3610 D18	3620 H15	3631 C17	3641 H18	3651 G20	3669 L14	3681 H19	3701 D4	4538 J11	4508 J7	6512 H11	7512-B J7	7526 K4	7539 C19
1502 K12	1527 J20	2511 G3	2522 G4	2533 D7	2543 H5	2553 K5	2578 I9	2595 C10	2607 D15	2617 E16	2634 G17	2645 D19	2663 I18	2673 E9	2683 D10	2681 E5	2696 J21	3526 G3	3526 G3	3536 I7	3546 B5	3556 K4	3571 C11	3581 D10	3591 C10	3601 F13	3611 F15	3621 D15	3632 D17	3642 J14	3652 H20	3671 G18	3682 J19	3702 G4	4509 J7	6512 H11	7513-B J9	7527 K4	7541 J18	
1503 K11	1528 E21	2512 G3	2523 C4	2534 I7	2544 I3	2554 E8	2579 E14	2596 J9	2608 F15	2618 G16	2635 C17	2646 E19	2664 I18	2674 H9	2687 H10	2685 D20	2697 J21	3527 F3	3527 H3	3537 D7	3547 B5	3557 K4	3572 J9	3582 I10	3592 J9	3602 D13	3612 F14	3622 G15	3633 D17	3643 K14	3653 L11	3672 H19	3683 I20	3852 C21	4518 B5	5513 J12	7513-B J9	7528 H14	7543 I19	



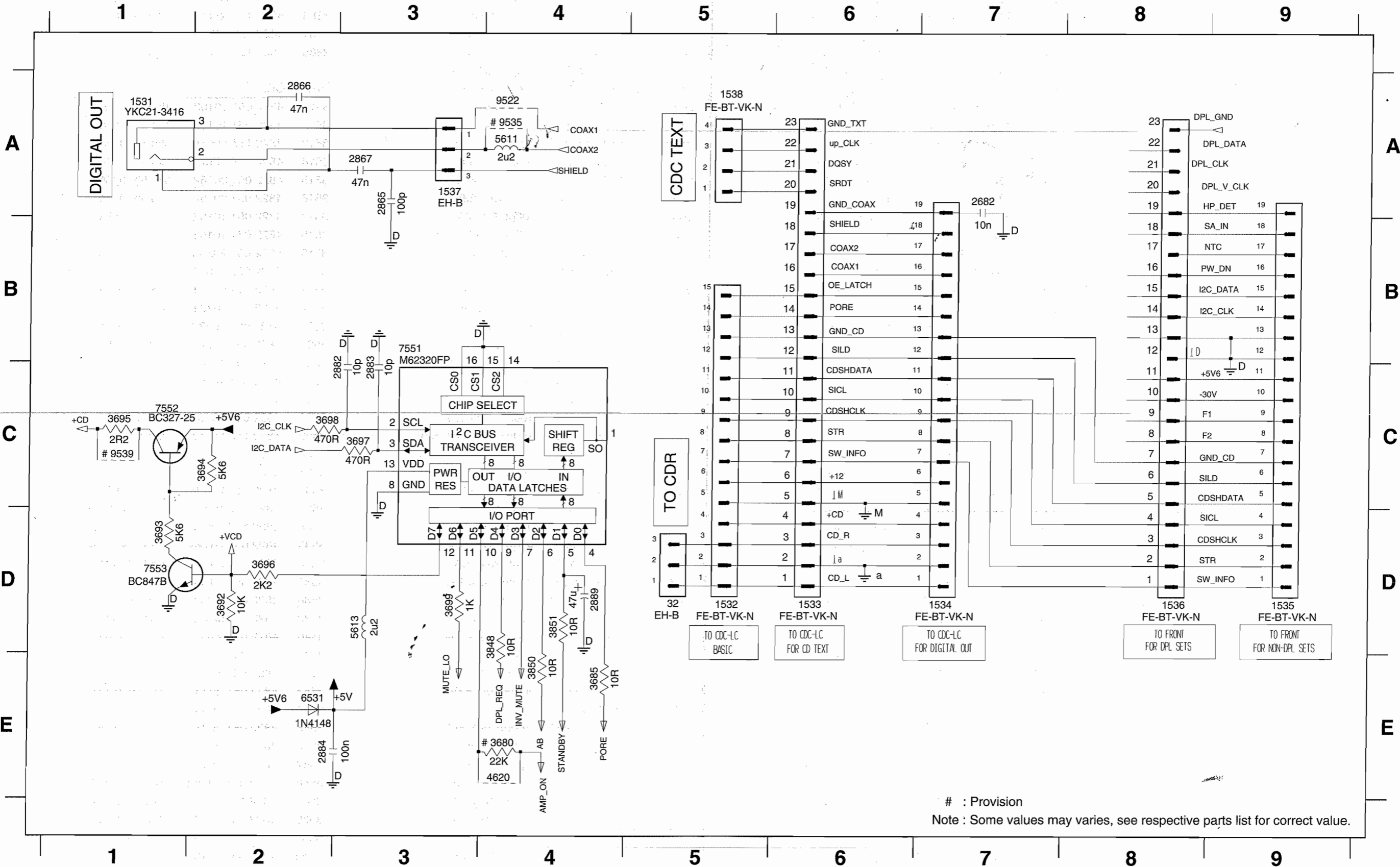
Variations table for AF8 Board

	2510 2520	3639 3640	4596	3543 3544	3561 3562	1527	1712
FW-C80/22/34/37	4u7	12k	IN	3k3	NOT IN	IN	NOT IN
FW-C85/37	4u7	12k	IN	3k3	NOT IN	IN	NOT IN
FW-C85/21/21M	0u47	10k	NOT IN	3k3	NOT IN	IN	NOT IN
FW-C85/22/34	4u7	10k	IN	3k3	NOT IN	IN	NOT IN
FW-C83/22	4u7	10k	IN	3k3	NOT IN	IN	NOT IN
FW-C90/22	4u7	10k	IN	3k3	NOT IN	IN	NOT IN
FW-P88/37	4u7	10k	IN	NOT IN	1k2	NOT IN	IN
FW-P88/22	4u7	10k	IN	NOT IN	1k2	NOT IN	IN

: Provision
 Note : Some values may varies, see respective parts list for correct value.

AF8 BOARD - CIRCUIT DIAGRAM (PART 2)

32 D5 1532 D5 1534 D7 1536 D8 1538 A5 2865 A3 2867 A3 2883 C3 2889 D4 3685 E4 3693 D1 3695 C1 3697 C3 3699 D3 3850 E4 4620 E4 5613 D3 7551 B3 7553 D1 9535 A4
 1531 A1 1533 D6 1535 D9 1537 A3 2682 A7 2866 A2 2882 C3 2884 E2 3680 E4 3692 D2 3694 C2 3696 D2 3698 C2 3848 D4 3851 D4 5611 A4 6531 E2 7552 C1 9522 A4 9539 C1



: Provision
 Note : Some values may varies, see respective parts list for correct value.

ELECTRICAL PARTS LIST - AF8 BOARD

ELECTRICAL PARTS LIST - AF8 BOARD

MISCELLANEOUS

1523	4822 267 10953	Flex Connector 7P	2553	4822 126 13486	15pF 2% 63V
1525	4822 267 20452	Cinch Socket - Aux in	2563	4822 124 40746	0,22μF 20% 63V
1526	4822 267 20452	Cinch Socket - Line-out	2564	4822 124 40746	0,22μF 20% 63V
1527	4822 267 31729	Cinch Socket - Sub-Woofer out	2571	4822 121 51252	470nF 5% 63V
1528	4822 267 10731	Flex Connector 6P	2572	4822 121 51252	470nF 5% 63V
1531	4822 267 31729	Cinch Socket - Digital out	2573	4822 121 51252	470nF 5% 63V
1533	4822 267 10757	Flex Connector 23P	2574	4822 121 51252	470nF 5% 63V
1535	4822 265 11553	Flex Connector 19P	2575	4822 121 42408	220nF 5% 63V
1538	4822 267 10733	Flex Connector 4P	2576	4822 121 42408	220nF 5% 63V

CAPACITORS

2501	4822 126 13838	100nF +80/-20% 50V	2577	5322 122 31866	6,8nF 10% 63V
2511	4822 126 13838	100nF +80/-20% 50V	2578	5322 122 31866	6,8nF 10% 63V
2512	4822 126 13838	100nF +80/-20% 50V	2579	5322 122 31647	1nF 10% 63V
2513	4822 124 40769	4,7μF 20% 100V	2580	5322 122 31647	1nF 10% 63V
2514	4822 124 40769	4,7μF 20% 100V	2581	4822 122 33127	2,2nF 10% 63V
2515	5322 122 31647	1nF 10% 63V	2582	4822 124 40207	100μF 20% 25V
2516	5322 122 31647	1nF 10% 63V	2583	4822 124 40207	100μF 20% 25V
2517	4822 126 14585	100nF 10% 50V	2591	4822 124 80144	220μF 20% 25V
2519	5322 122 32531	100pF 5% 50V	2592	4822 124 80144	220μF 20% 25V
2520	5322 122 32531	100pF 5% 50V	2593	4822 124 40433	47μF 20% 25V
2521	4822 124 40769	4,7μF 20% 100V	2594	4822 124 40433	47μF 20% 25V
2522	4822 124 40769	4,7μF 20% 100V	2595	5322 122 34099	470pF 10% 63V
2523	5322 122 32658	22pF 5% 50V	2596	5322 122 34099	470pF 10% 63V
2524	5322 122 32658	22pF 5% 50V	2597	5322 122 32268	470pF 10% 50V
2525	4822 124 21913	1μF 20% 63V	2598	5322 122 32268	470pF 10% 50V
2526	4822 124 21913	1μF 20% 63V	2601	4822 126 12105	33nF 5% 50V
2527	5322 122 34099	470pF 10% 63V	2602	4822 126 12105	33nF 5% 50V
2528	5322 122 34099	470pF 10% 63V	2603	4822 122 33891	3,3nF 10% 63V
2529	4822 126 14585	100nF 10% 50V	2604	4822 122 33891	3,3nF 10% 63V
2531	5322 122 32654	22nF 10% 63V	2605	5322 122 34099	470pF 10% 63V
2532	4822 124 81151	22μF 50V	2606	5322 122 34099	470pF 10% 63V
2533	4822 124 40769	4,7μF 20% 100V	2607	4822 126 14585	100nF 10% 50V
2534	4822 124 40769	4,7μF 20% 100V	2608	4822 126 14585	100nF 10% 50V
2535	4822 122 32535	680pF 10% 63V	2609	4822 121 51252	470nF 5% 63V
2536	4822 122 32535	680pF 10% 63V	2610	4822 121 51252	470nF 5% 63V
2537	4822 126 13692	47pF 1% 63V	2611	4822 126 10847	1,8nF 10% 63V
2538	4822 126 13692	47pF 1% 63V	2612	4822 126 10847	1,8nF 10% 63V
2539	5322 122 32531	100pF 5% 50V	2613	5322 122 31647	1nF 10% 63V
2540	4822 124 80195	470μF 20% 10V	2614	5322 122 31647	1nF 10% 63V
2541	4822 124 21913	1μF 20% 63V	2615	4822 122 33575	220pF 5% 63V
2542	4822 124 21913	1μF 20% 63V	2616	4822 122 33575	220pF 5% 63V
2543	4822 122 33127	2,2nF 10% 63V	2617	5322 122 34099	470pF 10% 63V
2544	4822 122 33127	2,2nF 10% 63V	2618	5322 122 34099	470pF 10% 63V
2545	4822 126 14585	100nF 10% 50V	2619	4822 124 40769	4,7μF 20% 100V
2546	4822 124 41751	47μF 20% 50V	2620	4822 124 40769	4,7μF 20% 100V
2547	5322 122 32448	10pF 5% 63V	2621	4822 124 40207	100μF 20% 25V
2548	5322 122 32448	10pF 5% 63V	2625	4822 122 33575	220pF 5% 63V
2549	4822 124 40769	4,7μF 20% 100V	2626	4822 122 33575	220pF 5% 63V
2550	4822 124 40769	4,7μF 20% 100V	2631	4822 124 40769	4,7μF 20% 100V
2551	4822 126 14585	100nF 10% 50V	2632	4822 124 40769	4,7μF 20% 100V
2552	4822 124 40433	47μF 20% 25V	2633	5322 122 34099	470pF 10% 63V
			2634	5322 122 34099	470pF 10% 63V
			2635	5322 122 32531	100pF 5% 50V

2636	5322 122 32531	100pF 5% 50V	2881	4822 124 40756	1μF 20% 100V
2637	4822 126 13692	47pF 1% 63V	2882	5322 122 32448	10pF 5% 63V
2638	4822 126 13692	47pF 1% 63V	2883	5322 122 32448	10pF 5% 63V
2639	5322 122 32654	22nF 10% 63V	2884	4822 126 14585	100nF 10% 50V
2640	4822 124 40433	47μF 20% 25V	2885	4822 124 81151	22μF 50V
2641	4822 124 40207	100μF 20% 25V			
2642	4822 126 13692	47pF 1% 63V			
2647	4822 124 81151	22μF 50V			
2648	4822 124 81151	22μF 50V			
2649	5322 122 32531	100pF 5% 50V			
2650	5322 122 32531	100pF 5% 50V			
2651	5322 122 32654	22nF 10% 63V			
2652	5322 122 32654	22nF 10% 63V			
2656	5322 122 32531	100pF 5% 50V			
2657	4822 126 14043	1μF +80/-20% 16V			
2659	4822 124 40756	1μF 20% 100V			
2661	4822 124 21913	1μF 20% 63V			
2662	5322 122 31647	1nF 10% 63V			
2663	5322 122 32448	10pF 5% 63V			
2664	4822 124 21913	1μF 20% 63V			
2665	4822 126 14585	100nF 10% 50V			
2666	4822 124 40207	100μF 20% 25V			
2667	4822 126 14585	100nF 10% 50V			
2668	5322 122 34099	470pF 10% 63V			
2669	4822 126 14585	100nF 10% 50V			
2670	4822 126 13838	100nF +80/-20% 50V			
2671	4822 126 13838	100nF +80/-20% 50V			
2672	4822 126 13838	100nF +80/-20% 50V			
2673	5322 122 32654	22nF 10% 63V			
2674	5322 122 32654	22nF 10% 63V			
2675	4822 124 12032	4,7μF 20% 50V			
2676	4822 124 12032	4,7μF 20% 50V			
2677	4822 122 33177	10nF 20% 50V			
2678	4822 124 80791	470μF 20% 16V			
2679	4822 126 14585	100nF 10% 50V			
2680	4822 124 40756	1μF 20% 100V			
2681	4822 126 14585	100nF 10% 50V			
2682	5322 122 34098	10nF 10% 63V			
2865	5322 122 32531	100pF 5% 50V			
2866	4822 126 13751	47nF 10% 63V			
2867	4822 126 13751	47nF 10% 63V			
2868	4822 126 14585	100nF 10% 50V			
2869	4822 126 14043	1μF +80/-20% 16V			
2870	4822 126 14043	1μF +80/-20% 16V			
2871	5322 122 32654	22nF 10% 63V			
2872	5322 126 10223	4,7nF 10% 63V			
2873	5322 126 10223	4,7nF 10% 63V			
2874	5322 122 32654	22nF 10% 63V			
2877	4822 124 22651	1μF 20% 50V			
2878	4822 124 22651	1μF 20% 50V			
2879	5322 122 32658	22pF 5% 50V			
2880	5322 122 32658	22pF 5% 50V			

RESISTORS

3511	4822 051 10102	1k 2% 0,25W
3512	4822 051 10102	1k 2% 0,25W
3513	4822 117 11507	6k8 1% 0,1W
3514	4822 117 11507	6k8 1% 0,1W
3515	4822 051 20562	5k6 5% 0,1W
3516	4822 051 20562	5k6 5% 0,1W
3517	4822 051 10102	1k 2% 0,25W
3518	4822 051 10102	1k 2% 0,25W
3519	4822 051 20333	33k 5% 0,1W
3520	4822 050 23303	33k 1% 0,6W
3521	4822 117 10834	47k 1% 0,1W
3522	4822 117 10834	47k 1% 0,1W
3523	4822 051 20822	8k2 5% 0,1W
3524	4822 051 20822	8k2 5% 0,1W
3525	4822 051 10102	1k 2% 0,25W
3526	4822 051 10102	1k 2% 0,25W
3527	4822 051 10102	1k 2% 0,25W
3528	4822 051 10102	1k 2% 0,25W
3529	4822 117 11449	2k2 1% 0,1W
3530	4822 117 11449	2k2 1% 0,1W
3531	4822 117 11449	2k2 1% 0,1W
3532	4822 117 11449	2k2 1% 0,1W
3533	4822 117 10837	100k 1% 0,1W
3534	4822 117 10837	100k 1% 0,1W
3535	4822 051 20124	120k 5% 0,1W
3536	4822 051 20124	120k 5% 0,1W
3537	4822 051 20333	33k 5% 0,1W
3538	4822 051 20333	33k 5% 0,1W
3539	4822 116 52195	47R 5% 0,5W
3540	4822 050 21003	10k 1% 0,6W
3541	4822 051 10102	1k 2% 0,25W
3542	4822 051 10102	1k 2% 0,25W
3543	4822 051 20332	3k3 5% 0,1W
3544	4822 051 20332	3k3 5% 0,1W
3545	4822 051 20273	27k 5% 0,1W
3546	4822 051 20273	27k 5% 0,1W
3547	4822 051 20182	1k8 5% 0,1W
3548	4822 051 20182	1k8 5% 0,1W
3549	4822 116 52289	5k6 5% 0,5W
3550	4822 051 20472	4k7 5% 0,1W
3551	4822 051 20154	150k 5% 0,1W
3552	4822 051 20154	150k 5% 0,1W
3553	4822 051 20334	330k 5% 0,1W
3554	4822 116 83868	150R 5% 0,5W
3555	4822 051 20391	390R 5% 0,1W

ELECTRICAL PARTS LIST - AF8 BOARD

RESISTORS

3556	4822 051 20122	1k2 5% 0,1W	3615	4822 051 20562	5k6 5% 0,1W
3557	4822 117 11149	82k 1% 0,1W	3616	4822 051 20562	5k6 5% 0,1W
3563	4822 117 11449	2k2 1% 0,1W	3617	4822 051 20822	8k2 5% 0,1W
3564	4822 117 11449	2k2 1% 0,1W	3618	4822 051 20822	8k2 5% 0,1W
3565	4822 051 20472	4k7 5% 0,1W	3619	4822 051 20822	8k2 5% 0,1W
3566	4822 051 20472	4k7 5% 0,1W	3620	4822 051 20822	8k2 5% 0,1W
3569	4822 051 20472	4k7 5% 0,1W	3621	4822 051 20822	8k2 5% 0,1W
3570	4822 051 20472	4k7 5% 0,1W	3622	4822 051 20822	8k2 5% 0,1W
3571	4822 117 10833	10k 1% 0,1W	3623	4822 117 10834	47k 1% 0,1W
3572	4822 117 10833	10k 1% 0,1W	3624	4822 117 10834	47k 1% 0,1W
3573	4822 051 20472	4k7 5% 0,1W	3625	4822 051 10102	1k 2% 0,25W
3574	4822 051 20472	4k7 5% 0,1W	3626	4822 051 10102	1k 2% 0,25W
3575	4822 117 11503	220R 1% 0,1W	3627	4822 117 11503	220R 1% 0,1W
3576	4822 117 11503	220R 1% 0,1W	3628	4822 117 11503	220R 1% 0,1W
3577	4822 051 20471	470R 5% 0,1W	3629	4822 116 52231	820R 5% 0,5W
3578	4822 051 20471	470R 5% 0,1W	3631	4822 117 11454	820R 1% 0,1W
3579	4822 052 10478	4R7 5% 0,33W	3632	4822 117 11454	820R 1% 0,1W
3580	4822 117 12955	2k7 1% 0,1W	3633	4822 051 20562	5k6 5% 0,1W
3581	4822 117 11449	2k2 1% 0,1W	3634	4822 051 20562	5k6 5% 0,1W
3582	4822 117 11449	2k2 1% 0,1W	3635	4822 117 10833	10k 1% 0,1W
3583	4822 117 11503	220R 1% 0,1W	3636	4822 117 10833	10k 1% 0,1W
3584	4822 117 11503	220R 1% 0,1W	3637	4822 117 10834	47k 1% 0,1W
3585	4822 117 10834	47k 1% 0,1W	3638	4822 117 10834	47k 1% 0,1W
3586	4822 117 10834	47k 1% 0,1W	3639	4822 117 10833	10k 1% 0,1W
3587	4822 051 20154	150k 5% 0,1W	3640	4822 117 10833	10k 1% 0,1W
3588	4822 051 20154	150k 5% 0,1W	3641	4822 052 10109	10R 5% 0,33W
3589	4822 117 11449	2k2 1% 0,1W	3642	4822 051 20472	4k7 5% 0,1W
3590	4822 117 11449	2k2 1% 0,1W	3643	4822 051 20472	4k7 5% 0,1W
3591	4822 051 20223	22k 5% 0,1W	3644	4822 051 10102	1k 2% 0,25W
3592	4822 051 20223	22k 5% 0,1W	3645	4822 051 20479	47R 5% 0,1W
3593	4822 051 20273	27k 5% 0,1W	3646	4822 051 20479	47R 5% 0,1W
3594	4822 051 20273	27k 5% 0,1W	3647	4822 051 20479	47R 5% 0,1W
3595	4822 051 20683	68k 5% 0,1W	3648	4822 051 20479	47R 5% 0,1W
3596	4822 051 20683	68k 5% 0,1W	3649	4822 051 20479	47R 5% 0,1W
3597	4822 051 20105	1M 5% 0,1W	3650	4822 051 20479	47R 5% 0,1W
3598	4822 051 20474	470k 5% 0,1W	3651	4822 051 20392	3k9 5% 0,1W
3599	4822 116 52175	100R 5% 0,5W	3652	4822 051 20392	3k9 5% 0,1W
3600	4822 051 20223	22k 5% 0,1W	3653	4822 051 10102	1k 2% 0,25W
3601	4822 051 20332	3k3 5% 0,1W	3660	4822 117 10833	10k 1% 0,1W
3602	4822 051 20332	3k3 5% 0,1W	3661	4822 053 20475	4M7 5% 0,25W
3603	4822 051 20684	680k 5% 0,1W	3662	4822 051 10102	1k 2% 0,25W
3604	4822 051 20684	680k 5% 0,1W	3663	4822 051 10102	1k 2% 0,25W
3605	4822 117 13579	220k 1% 0,1W	3665	4822 116 83933	15k 1% 0,1W
3606	4822 117 13579	220k 1% 0,1W	3666	4822 051 20562	5k6 5% 0,1W
3607	4822 117 10833	10k 1% 0,1W	3669	4822 051 10102	1k 2% 0,25W
3608	4822 117 10833	10k 1% 0,1W	3671	4822 117 13579	220k 1% 0,1W
3609	4822 117 10833	10k 1% 0,1W	3672	4822 117 13579	220k 1% 0,1W
3610	4822 117 10833	10k 1% 0,1W	3673	4822 117 12955	2k7 1% 0,1W
3611	4822 051 20562	5k6 5% 0,1W	3674	4822 117 13579	220k 1% 0,1W
3612	4822 051 20562	5k6 5% 0,1W	3675	4822 051 20332	3k3 5% 0,1W
3613	4822 051 20562	5k6 5% 0,1W	3676	4822 051 20339	33R 5% 0,1W
3614	4822 051 20562	5k6 5% 0,1W	3677	4822 051 20471	470R 5% 0,1W

ELECTRICAL PARTS LIST - AF8 BOARD

3678	4822 117 10833	10k 1% 0,1W	4545	4822 051 20008	OR Jumper 0805
3679	4822 051 10102	1k 2% 0,25W	4546	4822 051 20008	OR Jumper 0805
3681	4822 052 10229	22R 5% 0,33W	4547	4822 051 20008	OR Jumper 0805
3682	4822 051 10102	1k 2% 0,25W	4548	4822 051 20008	OR Jumper 0805
3683	4822 051 20471	470R 5% 0,1W	4549	4822 051 20008	OR Jumper 0805
3684	4822 051 20392	3k9 5% 0,1W	4550	4822 051 20008	OR Jumper 0805
3685	4822 051 20109	10R 5% 0,1W	4551	4822 051 20008	OR Jumper 0805
3686	4822 117 11383	12k 1% 0,1W	4552	4822 051 20008	OR Jumper 0805
3687	4822 117 11383	12k 1% 0,1W	4553	4822 051 20008	OR Jumper 0805
3688	4822 117 11383	12k 1% 0,1W	4554	4822 051 20008	OR Jumper 0805
3689	4822 117 11383	12k 1% 0,1W	4555	4822 051 20008	OR Jumper 0805
3690	4822 051 20393	39k 5% 0,1W	4556	4822 051 20008	OR Jumper 0805
3691	4822 051 20393	39k 5% 0,1W	4557	4822 051 20008	OR Jumper 0805
3692	4822 117 10833	10k 1% 0,1W	4558	4822 051 20008	OR Jumper 0805
3693	4822 051 20562	5k6 5% 0,1W	4559	4822 051 20008	OR Jumper 0805
3694	4822 051 20562	5k6 5% 0,1W	4560	4822 051 20008	OR Jumper 0805
3695	4822 116 81154	2R2 5% 0,5W	4561	4822 051 20008	OR Jumper 0805
3696	4822 117 11449	2k2 1% 0,1W	4562	4822 051 20008	OR Jumper 0805
3697	4822 051 20471	470R 5% 0,1W	4563	4822 051 20008	OR Jumper 0805
3698	4822 051 20471	470R 5% 0,1W	4564	4822 051 20008	OR Jumper 0805
3699	4822 051 10102	1k 2% 0,25W	4565	4822 051 20008	OR Jumper 0805
3701	4822 117 11383	12k 1% 0,1W	4566	4822 051 20008	OR Jumper 0805
3702	4822 117 11383	12k 1% 0,1W	4567	4822 051 20008	OR Jumper 0805
3848	4822 051 20109	10R 5% 0,1W	4568	4822 051 20008	OR Jumper 0805
3850	4822 051 20109	10R 5% 0,1W	4570	4822 051 20008	OR Jumper 0805
3851	4822 051 20109	10R 5% 0,1W	4571	4822 051 20008	OR Jumper 0805
3852	4822 051 20562	5k6 5% 0,1W	4572	4822 051 20008	OR Jumper 0805
3853	4822 051 20472	4k7 5% 0,1W	4573	4822 051 20008	OR Jumper 0805
4506	4822 051 20008	OR Jumper 0805	4574	4822 051 20008	OR Jumper 0805
4510	4822 051 20008	OR Jumper 0805	4575	4822 051 20008	OR Jumper 0805
4514	4822 051 20008	OR Jumper 0805	4576	4822 051 20008	OR Jumper 0805
4515	4822 051 20008	OR Jumper 0805	4577	4822 051 20008	OR Jumper 0805
4516	4822 051 20008	OR Jumper 0805	4578	4822 051 20008	OR Jumper 0805
4517	4822 051 20008	OR Jumper 0805	4579	4822 051 20008	OR Jumper 0805
4518	4822 051 20008	OR Jumper 0805	4580	4822 051 20008	OR Jumper 0805
4519	4822 051 20008	OR Jumper 0805	4581	4822 051 20008	OR Jumper 0805
4520	4822 051 20008	OR Jumper 0805	4582	4822 051 20008	OR Jumper 0805
4521	4822 051 20008	OR Jumper 0805	4583	4822 051 20008	OR Jumper 0805
4522	4822 051 20008	OR Jumper 0805	4584	4822 051 20008	OR Jumper 0805
4523	4822 051 20008	OR Jumper 0805	4585	4822 051 20008	OR Jumper 0805
4524	4822 051 20008	OR Jumper 0805	4586	4822 051 20008	OR Jumper 0805
4534	4822 051 20008	OR Jumper 0805	4587	4822 051 20008	OR Jumper 0805
4535	4822 051 20008	OR Jumper 0805	4588	4822 051 20008	OR Jumper 0805
4536	4822 051 20008	OR Jumper 0805	4589	4822 051 20008	OR Jumper 0805
4537	4822 051 20008	OR Jumper 0805	4590	4822 051 20008	OR Jumper 0805
4538	4822 051 20008	OR Jumper 0805	4591	4822 051 20008	OR Jumper 0805
4539	4822 051 20008	OR Jumper 0805	4592	4822 051 20008	OR Jumper 0805
4540	4822 051 20008	OR Jumper 0805	4593	4822 051 20008	OR Jumper 0805
4541	4822 051 20008	OR Jumper 0805	4594	4822 051 20008	OR Jumper 0805
4542	4822 051 20008	OR Jumper 0805	4595	4822 051 20008	OR Jumper 0805
4543	4822 051 20008	OR Jumper 0805	4596	4822 051 20008	OR Jumper 0805
4544	4822 051 20008	OR Jumper 0805	4597	4822 051 20008	OR Jumper 0805

ELECTRICAL PARTS LIST - AF8 BOARD**RESISTORS**

4598	4822 051 20008	0R Jumper 0805	7539	4822 130 60373	BC857B
4599	4822 051 20008	0R Jumper 0805	7541	4822 130 60511	BC847B
4600	4822 051 20008	0R Jumper 0805	7543	4822 130 42804	BC817-25
4601	4822 051 20008	0R Jumper 0805	7544	4822 130 60511	BC847B
4602	4822 051 20008	0R Jumper 0805	7545	4822 130 60511	BC847B
4603	4822 051 20008	0R Jumper 0805	7551	4822 209 17345	M62320FP
4604	4822 051 20008	0R Jumper 0805	7552	4822 130 41246	BC327-25
4605	4822 051 20008	0R Jumper 0805	7553	4822 130 60511	BC847B
4606	4822 051 20008	0R Jumper 0805			
4618	4822 051 20008	0R Jumper 0805			
4619	4822 051 20008	0R Jumper 0805			
4620	4822 051 20008	0R Jumper 0805			
4623	4822 051 20008	0R Jumper 0805			

Note : Only the parts mentioned in this list are normal service spare parts.

COILS & FILTERS

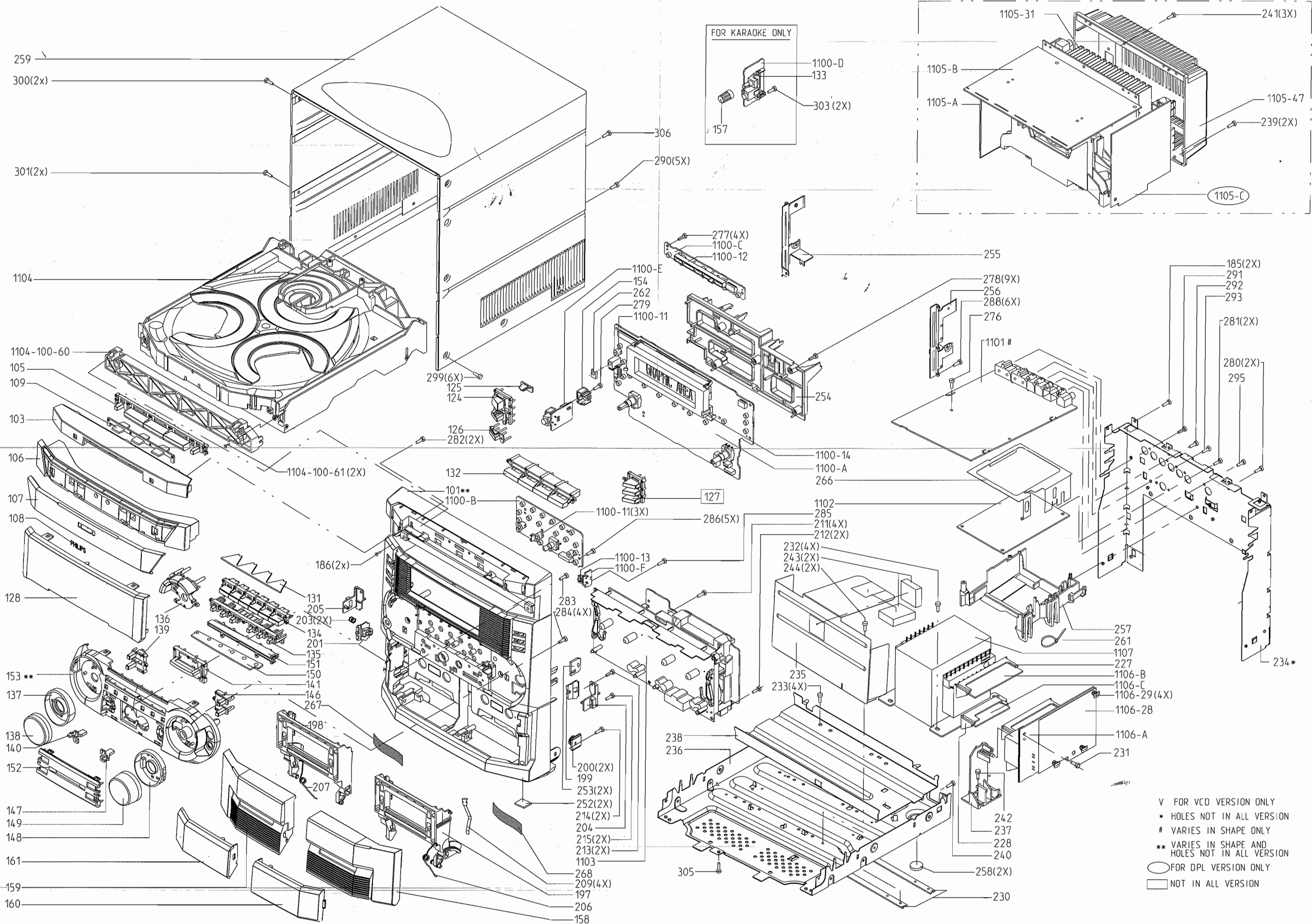
5511	4822 157 62552	Coil 2,2 μ H 5%
5512	4822 157 10586	Coil 2,2 μ H 10%
5513	4822 157 62552	Coil 2,2 μ H 5%
5611	4822 157 62552	Coil 2,2 μ H 5%
5613	4822 157 62552	Coil 2,2 μ H 5%

DIODES

6511	4822 130 30862	BZX79-C9V1
6512	4822 130 30862	BZX79-C9V1
6513	4822 130 31878	1N4003G
6516	4822 130 30621	1N4148
6518	4822 130 30621	1N4148
6519	4822 130 30621	1N4148
6520	4822 130 30621	1N4148
6521	4822 130 30621	1N4148
6531	4822 130 30621	1N4148

TRANSISTORS & INTEGRATED CIRCUITS

7511	4822 209 17386	TDA7437T
7512	4822 209 83357	NJM4560M
7513	4822 209 83357	NJM4560M
7515	4822 209 31378	NJM4556AM
7521	4822 130 60511	BC847B
7522	4822 130 60511	BC847B
7523	4822 130 60373	BC857B
7524	4822 130 60373	BC857B
7525	4822 130 40959	BC547B
7526	4822 130 60373	BC857B
7527	4822 130 60511	BC847B
7528	4822 130 60511	BC847B
7529	4822 130 60373	BC857B
7531	4822 130 60511	BC847B
7532	4822 130 60511	BC847B
7533	4822 130 60511	BC847B
7534	4822 130 60511	BC847B
7535	4822 130 42804	BC817-25
7536	4822 130 42804	BC817-25



V FOR VCD VERSION ONLY
 * HOLES NOT IN ALL VERSION
 # VARIES IN SHAPE ONLY
 ** VARIES IN SHAPE AND HOLES NOT IN ALL VERSION
 ○ FOR DPL VERSION ONLY
 □ NOT IN ALL VERSION

MECHANICAL & ACCESSORIES PARTS LIST - MAIN UNIT**SCREW LISTS - MAIN UNIT**

0101	3139 118 12610	Cabinet Front	0356	3139 228 84380	Remote Control	185	D3 x 10
0103	3139 118 11050	Cover Orn CDC	0384	4822 303 50082	AM Frame Aerial	186	D3 x 25
0105	3139 118 11060	Button Set CDC Sel	0385	4822 321 10249	△ Mains Cord	211	D3 x 12
0106	3139 118 11070	Cover Tray CDC	0387	3139 116 19700	Instruction For Use	212	D3 x 12
0107	3139 118 11080	Cover Orn CDC Tray	1107	4822 146 11145	△ Mains Transformer	213	D3 x 12
0108	4822 454 13408	Badge Philips	1200	3139 110 34560	FFC Foil 19P/280/19P BD	214	M3 x 12
0124	3139 118 11090	Button Power/Standby	1201	3139 110 34570	FFC Foil 23P/280/23P BD	215	M3 x 12
0126	3139 114 69060	Window IR	1202	3139 110 34330	FFC Foil 06P/180/06P BD	231	D3 x 10
0127	3139 118 11100	But RDS/NEWS/DOLBY	1203	3139 110 34580	FFC Foil 04P/280/04P AD	232	M3 x 10
0128	3139 118 11400	Window Display	1204	3139 110 34680	FFC Foil 06P/340/06P BD	233	M3 x 6
0132	3139 118 11130	Button Set Source	1205	4822 320 12752	FFC Foil 07P/180/07P AD	239	M3 x 10
0134	3139 118 11140	Button Set Control	1206	3139 110 34600	FFC Foil 07P/280/07P AD	240	D3 x 12
0135	3139 118 11150	Button Tape/Mode	1208	3139 110 34630	FFC Foil 10P/180/10P AD	241	M3 x 10
0136	3139 118 11160	Button BT/VEC/DSC/Personal				242	M3 x 10
0137	3139 118 11170	Ring Orn Jog Rotary				276	D3 x 12
LEFT/RIGHT LOUDSPEAKER BOX BREAKDOWN							
0138	3139 118 11110	Knob Jog Rotary				277	D3 x 12
0139	3139 118 11180	Button Set Bass	9965 000 04247	Tweeter 2,5" 50W 12R		278	D3 x 12
0141	3139 118 11470	Button Set DBB	9965 000 04248	Woofer 6,5" 100W 6R		279	D3 x 12
0146	3139 118 11210	Button Set Treble	9965 000 04249	Wire And Piezo Assembly		280	D3 x 12
0148	3139 118 11220	Ring Orn Volume Rotary	9965 000 04250	Woofer Ring		281	D3 x 12
			9965 000 04251	Grille Assembly			
0149	3139 118 11230	Knob Volume Rotary	9965 000 04252	Logo Cover		282	D3 x 12
0151	3139 114 69070	Holder Lightguide Bar	9965 000 04253	Grommet		283	D3 x 20
0152	3139 118 11460	Cover Orn DBB				284	D3 x 12
0153	3139 118 11260	Cover Orn Control				285	M3 x 12
0158	3139 118 12180	Cover Cassette Right DOLBY	Note :	Only the parts mentioned in this list are normal service spare parts.		286	D3 x 12
0159	3139 118 12620	Cover Cassette Left Estar				288	D3 x 12
0160	3139 114 69120	Lens Cassette Right				290	M3 x 10
0161	3139 114 69130	Lens Cassette Left				291	D3 x 12
0197	3139 114 68630	Door Cassette Right				292	D3 x 12
0198	3139 114 68620	Door Cassette Left				293	D3 x 12
0199	4822 402 10621	Push-Catch				295	D3 x 12
0200	4822 529 10322	Damper Assembly				299	M3 x 10
0201	3139 114 68640	Push Catch Left				300	M3 x 10
0203	4822 492 11344	Spring Compression				301	M3 x 10
0204	4822 402 11246	Bracket Right				305	M3 x 6
0205	4822 402 11245	Bracket Left				306	M3 x 10
0206	3139 111 01380	Spring Torsion Right					
0207	3139 111 01390	Spring Torsion Left					
0209	4822 492 42787	Spring Cassette					
0252	4822 462 40683	Foot Rubber (SQ)					
0254	3139 114 69140	Plate Front					
0258	4822 462 40683	Plate (Foot)					
0259	3139 114 69230	Cabinet Rear					
0350	3139 118 77540	L/R Loudspeaker Box					
0351	4822 303 50063	FM Aerial					

Service Service Service

Product Service Group CE Audio

Service Information

Already published Service Informations :

CORRECTION TO SERVICE MANUAL

* Correction of parts list (Page 13-2) for **MAIN UNIT**:
Change 0350 9073 100 09858 L/R Loudspeaker Box
Delete 0254

* Correction of circuit drawing and parts list for **FRONT Board**:
Delete 3400, 3401, 7400

* Correction of circuit drawing and parts list for **AF8 Board**:
Add 4525 4822 051 20008 0R Jumper 0805
4526 4822 051 20008 0R Jumper 0805
Change 2532 4822 124 40248 10 μ F 20% 63V
2885 4822 124 40769 4,7 μ F 20% 100V
3674 4822 051 20334 330k 5% 0,1W
3677 4822 117 10353 150R 1% 0,1W

* Correction of Mechanical parts list (Page 11-11).
Below are the correct Item No. and Description:
401 4822 256 10555 Rucksack - L/R and Matrix Surr.
401 4822 256 10557 Rucksack - L/R and C/S
401 4822 256 10558 Rucksack - L/R
0002 4822 256 10556 Holder STK407/P5-VA

CHANGES DURING PRODUCTION

FRONT BOARD

* From production week 0014 onwards the following has been changed to remove oscillator shift circuit.

Delete 2252, 7212

* From production week 0017 onwards pt.2 Board (identified by the last digit of the 12NC - 3139 113 34242) is introduced. For this reason new layout and circuit drawing are enclosed.

Reason : To create +F for Tape module and for ESD solution.

Add 2302 5322 126 10733 680pF 5% 50V
4406 4822 051 20008 0R Jumper 0805
6227 4822 130 30621 1N4148
Change 3315 4822 051 20471 470R 5% 0,1W

* From production week 0026 onwards the following has been changed to solve CD Text cannot read problem.

Delete 3364

* From production week 0035 onwards pt.3 Board (identified by the last digit of the 12NC - 3139 113 34243) is introduced. For this reason new layout are enclosed. For service existing pt.2 circuit drawing can be used.

Reason : Process improvement for 0603 SMC.

Add 3379 4822 116 52195 47R 5% 0,5W
Delete 3303

AF8 BOARD

* From production week 0012 onwards the following has been changed for ESD solution.

Change 2865 4822 122 33177 10nF 20% 50V

* From production week 0014 onwards pt.2 Board (identified by the last digit of the 12NC - 3139 113 34252) is introduced. For this reason new layout and circuit drawing are enclosed.

Reason : To reduce Tape hum.

Add 2887 4822 124 80144 220 μ F 20% 25V
2889 4822 124 40248 10 μ F 20% 63V

* From production week 0038 onwards pt.3 Board (identified by the last digit of the 12NC - 3139 113 34253) is introduced. For this reason new layout are enclosed. For service existing pt.2 circuit drawing can be used.

Reason : Process improvement for 0603 SMC.

3CDC-LC MODULE

* From production week 0016 onwards a new CD board (3103 303 34522) is introduced as an alternative to supplement for the shortage of Servo IC TDA7073A. For this reason new layout , circuit drawing and electrical parts list are enclosed (Page 10A-1 to 10A-7).

(P.T.O.)

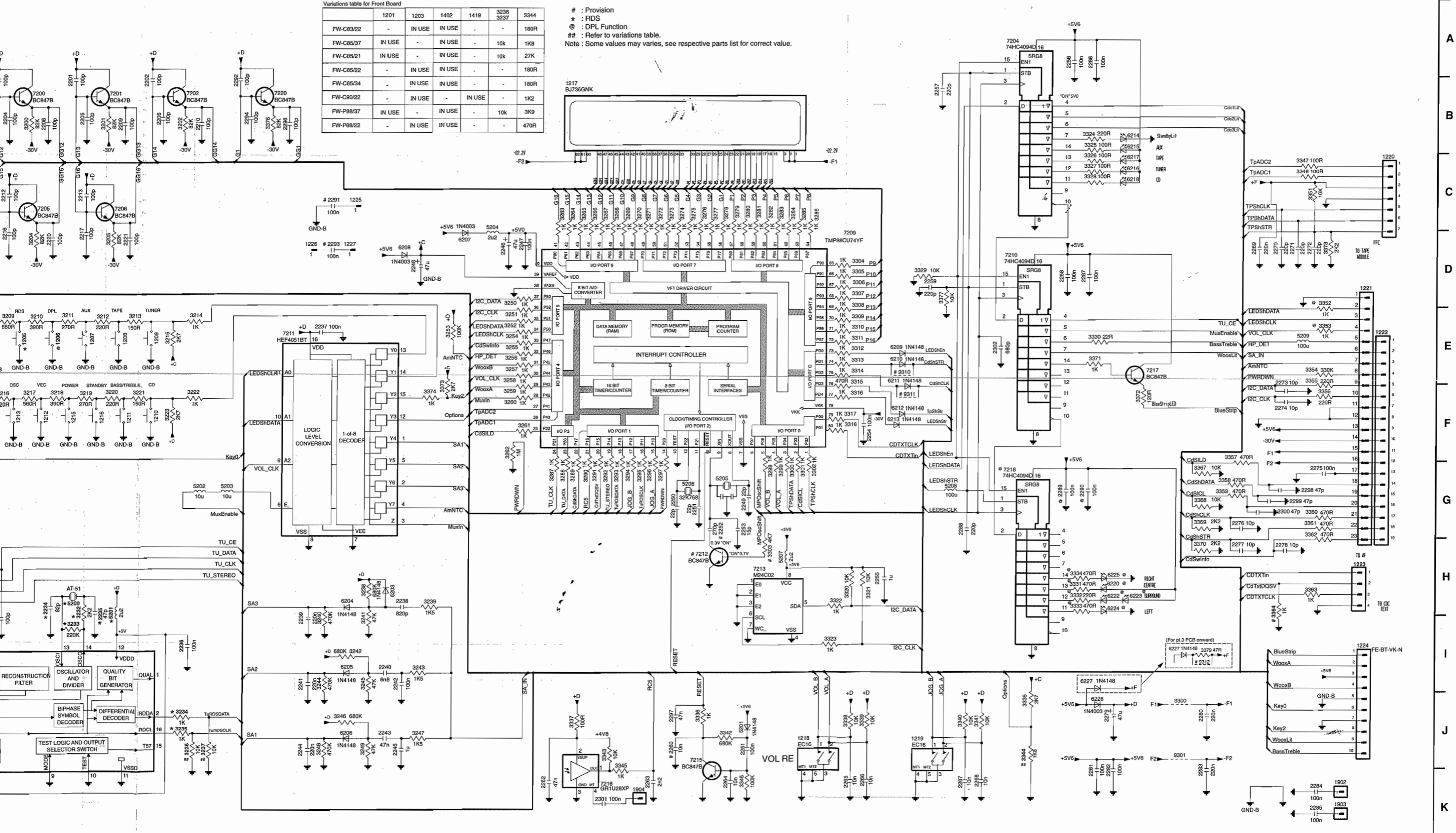
ETF7 TAPE MODULE

* From production week 0021 onwards the following has been changed to improve ESD.

Add 3687, 4822, 117, 11503, 220R 1% 0,1W
Delete 2624, 4785

2216 D3 2228 I3 2235 H4 2242 I6 2249 G13 2256 A17 2263 K11 2270 D20 2277 H19 2284 K20 2291 C7 2299 G20 3204 D3 3213 E5 3220 F4 3227 H2 3234 J5 3241 I8 3248 J7 3255 E10 3262 F10 3269 C11 3276 C12 3283 C13 3290 G11 3297 G12 3304 D14 3311 E14 3318 F14 3326 C17 3333 H17 3340 J16 3347 C20 3356 F20 3363 H20 3372 F18 5201 H4 5208 G15 6207 D9 6214 B18 6223 H18 7202 B5 7212 H12 720 B6
 2217 D4 2229 I3 2236 I5 2243 J8 2250 G12 2257 B15 2264 K12 2271 D20 2278 H20 2285 K20 2292 B6 2300 G20 3205 D4 3214 E5 3221 F5 3228 H2 3235 J5 3242 I8 3249 J8 3256 E10 3263 C10 3270 C11 3277 C12 3284 C13 3291 G11 3298 G13 3305 D14 3312 E14 3319 H14 3327 C17 3334 H17 3341 J16 3348 C20 3357 F19 3364 H20 3373 F9 5202 G6 5209 E20 6208 D8 6215 B18 6224 H17 7204 A16 7213 H13 800 J18
 2220 D4 2230 I1 2237 E7 2244 J7 2251 G12 2258 D17 2265 K14 2272 D20 2279 J17 2286 A17 2293 D7 2301 K11 3208 E3 3215 E5 3222 F5 3229 H2 3236 J5 3243 I8 3250 D10 3257 E10 3264 C10 3271 C11 3278 C12 3285 C13 3292 G11 3299 G13 3306 D14 3313 E14 3321 H14 3328 C17 3335 J16 3342 J12 3351 C20 3358 F19 3367 G19 3374 F9 5203 G6 6201 J18 6209 E15 6216 B18 6225 H17 7205 C3 7214 I2 801 J18
 2221 D5 2231 I1 2238 H8 2245 J8 2252 G12 2259 D15 2266 K14 2273 F20 2280 J19 2287 D17 2294 B6 2302 E16 3209 E3 3216 F3 3223 F5 3230 H2 3237 J6 3244 I7 3251 E10 3258 E10 3265 C11 3272 C12 3279 C13 3286 C14 3293 G11 3300 G13 3307 D14 3314 E14 3322 H14 3329 D15 3336 J12 3343 J11 3352 D20 3359 G19 3368 G19 3376 B6 5204 C9 6203 H8 6210 E15 6217 C18 6226 J17 7206 C4 7215 J2 810 E15
 2225 H2 2232 J1 2239 I7 2246 D9 2253 G13 2260 J12 2267 K16 2274 F20 2281 K17 2288 G15 2296 F7 3200 B3 3210 E3 3217 F3 3224 H2 3231 H2 3238 H8 3245 I8 3252 E10 3259 F10 3266 C11 3273 C12 3280 C13 3287 G10 3294 G11 3301 G13 3308 D14 3315 E14 3323 H14 3330 E17 3337 J10 3344 J16 3353 E20 3360 G20 3369 G19 3377 D15 5205 G12 6204 H7 6211 E15 6218 C18 6227 I17 7209 D14 7216 K11 811 F15
 2226 I2 2233 J1 2240 I8 2247 D10 2254 F14 2261 J13 2268 K16 2275 G20 2282 K17 2289 G17 2297 J12 3201 B4 3211 E4 3218 F4 3225 H3 3232 H4 3239 H9 3246 J7 3253 E9 3260 F10 3267 C11 3274 C12 3281 C13 3288 G10 3295 G11 3302 G14 3309 E14 3316 F14 3324 B17 3331 H17 3338 J14 3345 J11 3354 J11 3362 G20 3371 E17 5200 H4 5207 H13 6206 J7 6213 F15 6222 H17 7201 B4 7211 E7 7218 G16
 2227 I3 2234 H4 2241 I7 2248 D8 2255 H14 2262 K10 2269 D19 2276 G19 2283 K19 2290 G17 2298 G20 3202 B5 3212 E4 3219 F4 3226 H3 3233 I4 3240 I7 3247 J8 3254 E10 3261 F10 3268 C11 3275 C12 3282 C13 3289 G10 3296 G11 3303 H13 3310 E14 3317 F14 3325 B17 3332 H17 3339 J14 3346 K13 3355 E20 3362 G20 3371 E17 5200 H4 5207 H13 6206 J7 6213 F15 6222 H17 7201 B4 7211 E7 7218 G16

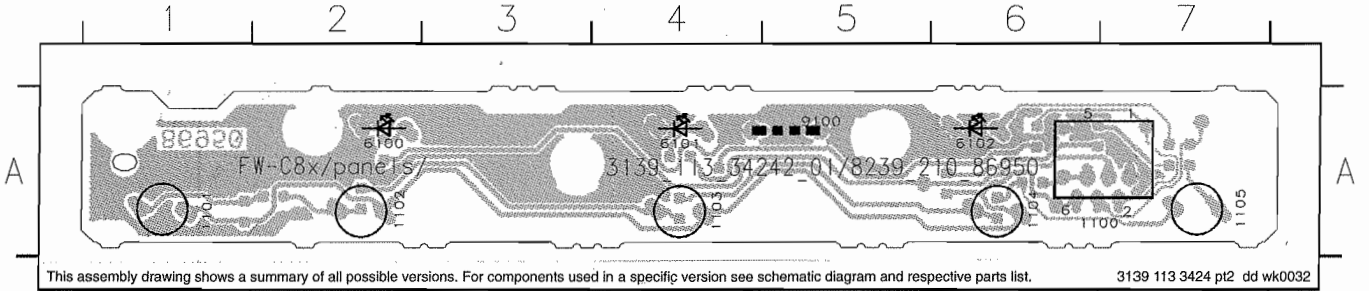
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21



3139 118 53120...86940 for...3424 pl2 dd wk032

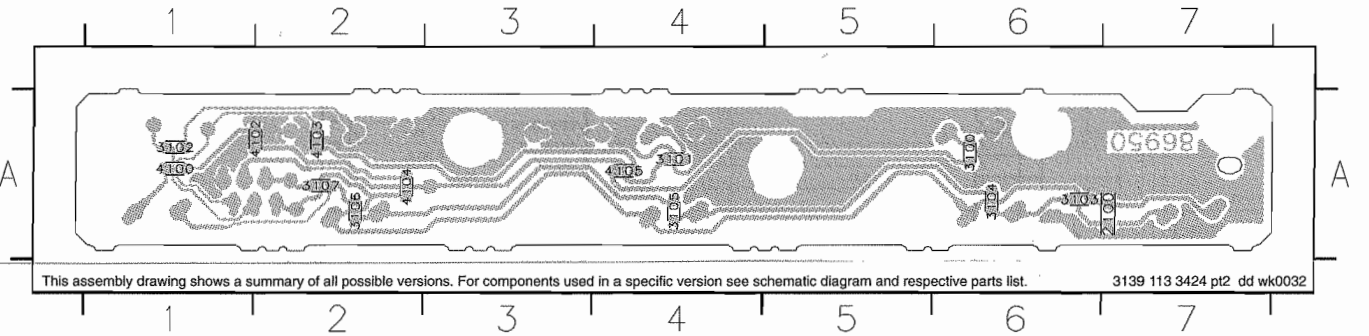
KEY-CDC BOARD - COMPONENT LAYOUT

1100 A6 1101 A1 1102 A2 1103 A4 1104 A6 1105 A7 6100 A2 6101 A4 6102 A6 9100 A5



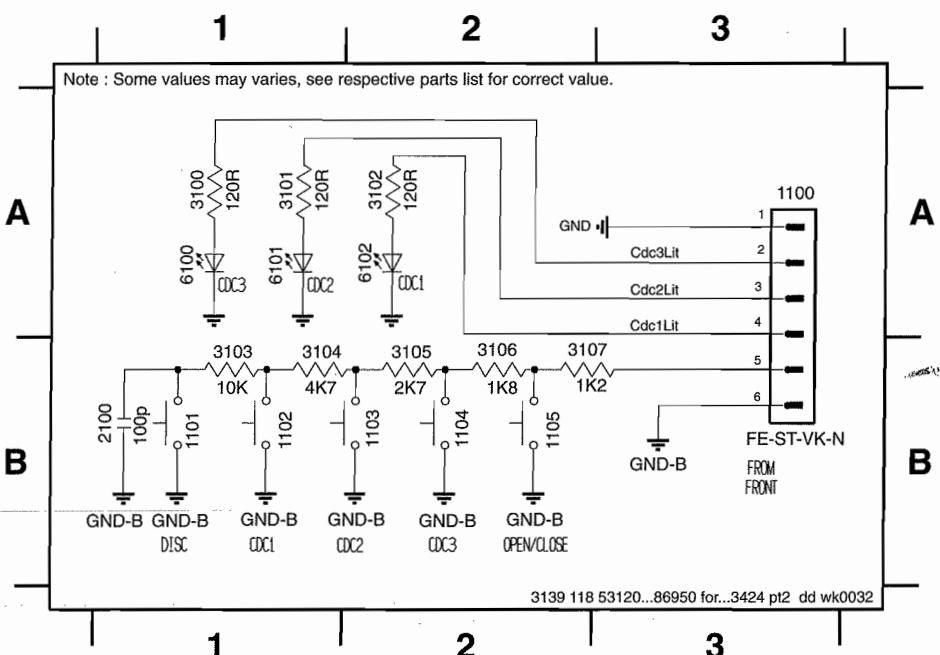
KEY-CDC BOARD - CHIP LAYOUT

2100 A7 3101 A4 3103 A6 3105 A4 3107 A2 4102 A2 4104 A2
 3100 A6 3102 A1 3104 A6 3106 A2 4100 A1 4103 A2 4105 A4



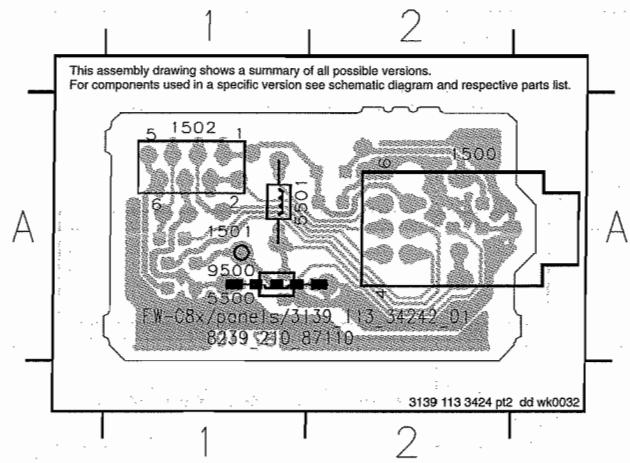
KEY-CDC PART - CIRCUIT DIAGRAM

1100 A3 1102 B1 1104 B2 2100 B1 3101 A1 3103 B1 3105 B2 3107 B2 6101 A1
 1101 B1 1103 B2 1105 B2 3100 A1 3102 A2 3104 B1 3106 B2 6100 A1 6102 A2



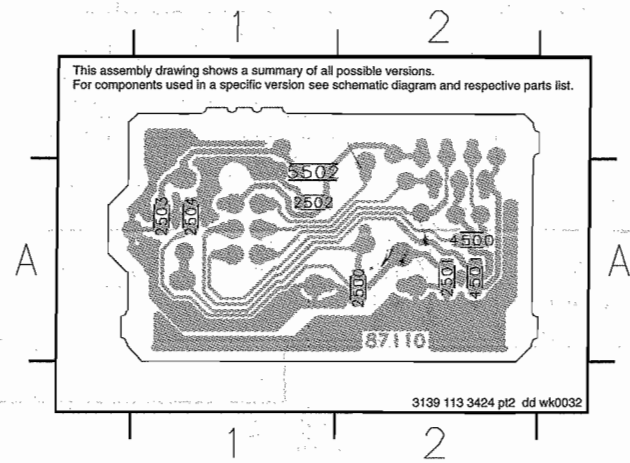
HEADPHONE BOARD - COMPONENT LAYOUT

1500 A2 1502 A1 5501 A1
1501 A1 5500 A1 9500 A1



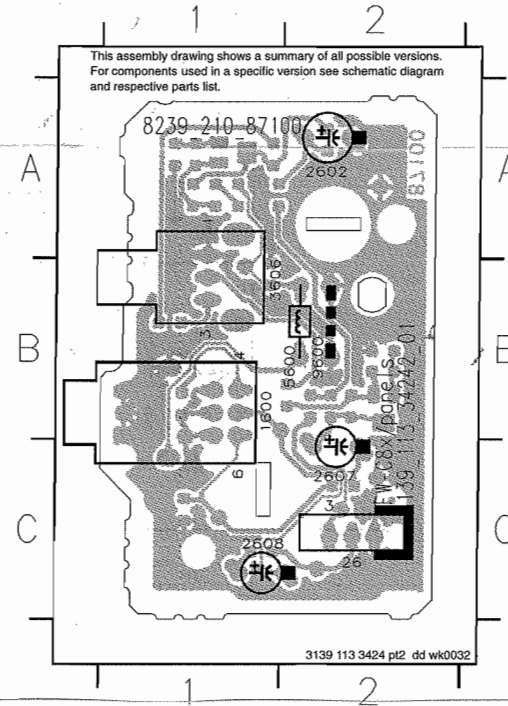
HEADPHONE BOARD - CHIP LAYOUT

2500 A2 2502 A1 2504 A1 4501 A2
2501 A2 2503 A1 4500 A2 5502 A1



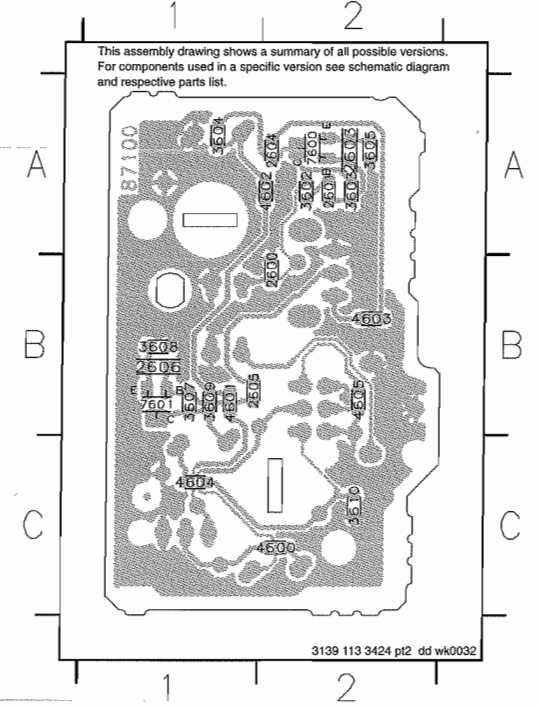
KARAOKE BOARD - COMPONENT LAYOUT

26 C2 2607 C2 5600 B2
1600 B1 2608 C1 9600 B2
2602 A2 3606 B1



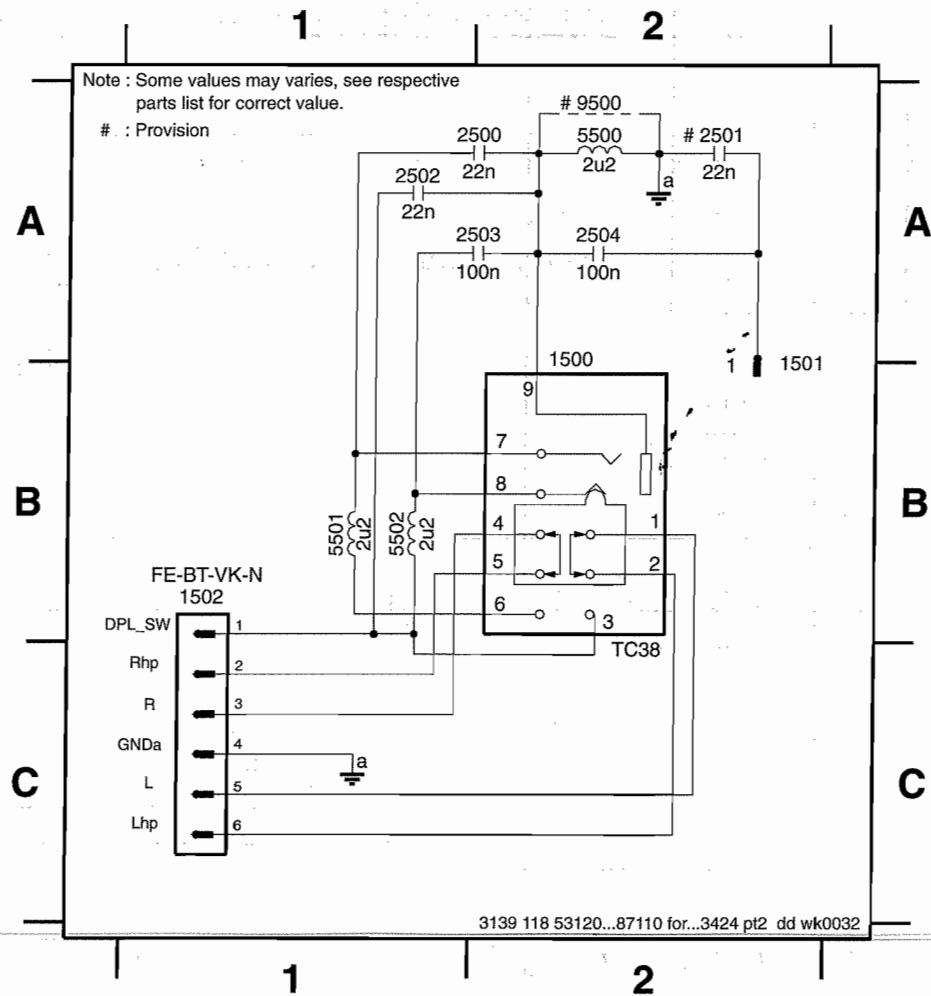
KARAOKE BOARD - CHIP LAYOUT

2600 B2 3604 A1 4602 A2
2601 A2 3605 A2 4603 B2
2603 A2 3607 B1 4604 C1
2604 A2 3608 B1 4605 B2
2605 B1 3609 B1 7600 A2
2606 B1 3610 C2 7601 B1
3602 A2 4600 C2
3603 A2 4601 B1



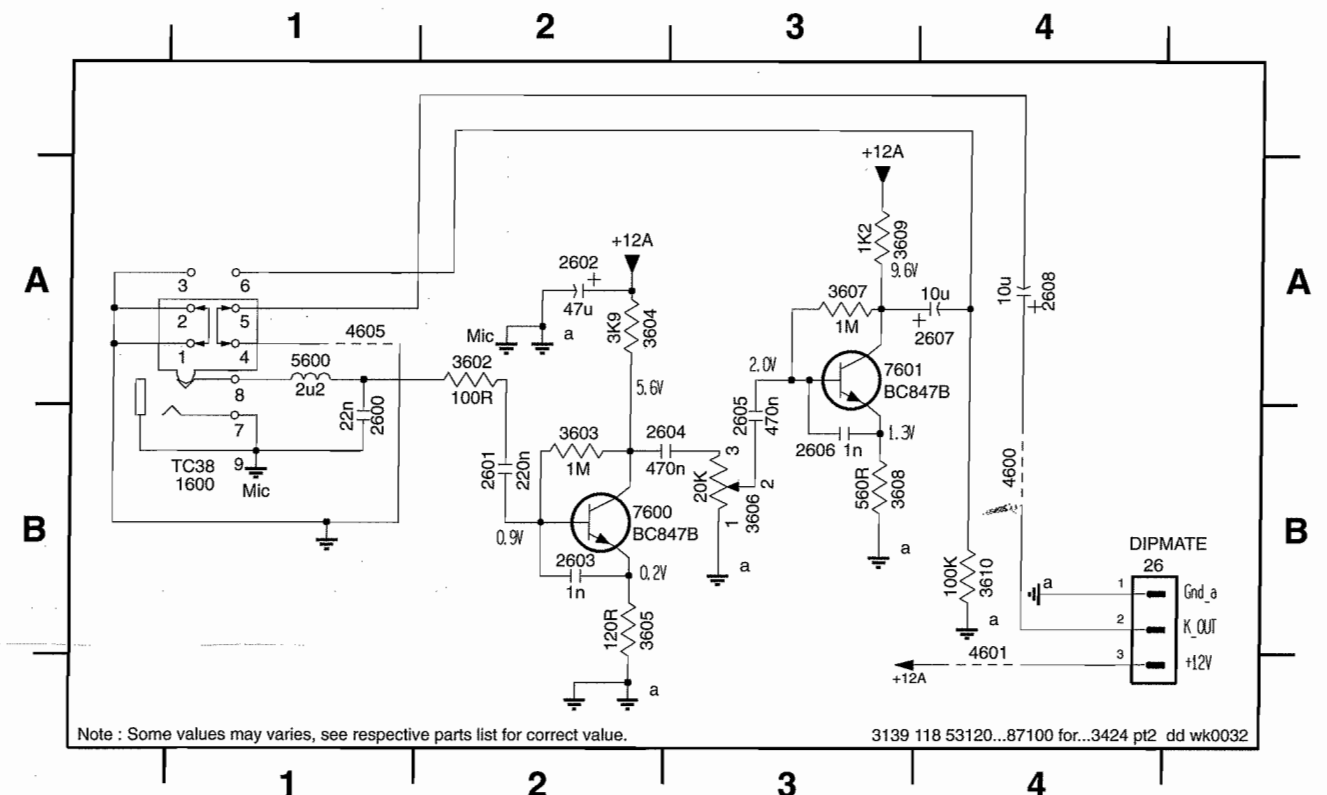
HEADPHONE PART - CIRCUIT DIAGRAM

1500 B2 1502 B1 2501 A2 2503 A2 5500 A2 5502 B1
1501 A2 2500 A2 2502 A1 2504 A2 5501 B1 9500 A2



KARAOKE PART - CIRCUIT DIAGRAM

26 B4 2600 B1 2602 A2 2604 B2 2606 B3 2608 A4 3603 B2 3605 B2 3607 A3 3609 A3 4600 B4 4605 A1 7600 B
1600 B1 2601 B2 2603 B2 2605 B3 2607 A4 3602 A2 3604 A2 3606 B3 3608 B3 3610 B4 4601 B4 5600 A1 7601 A



CONTROL BOARD - COMPONENT LAYOUT

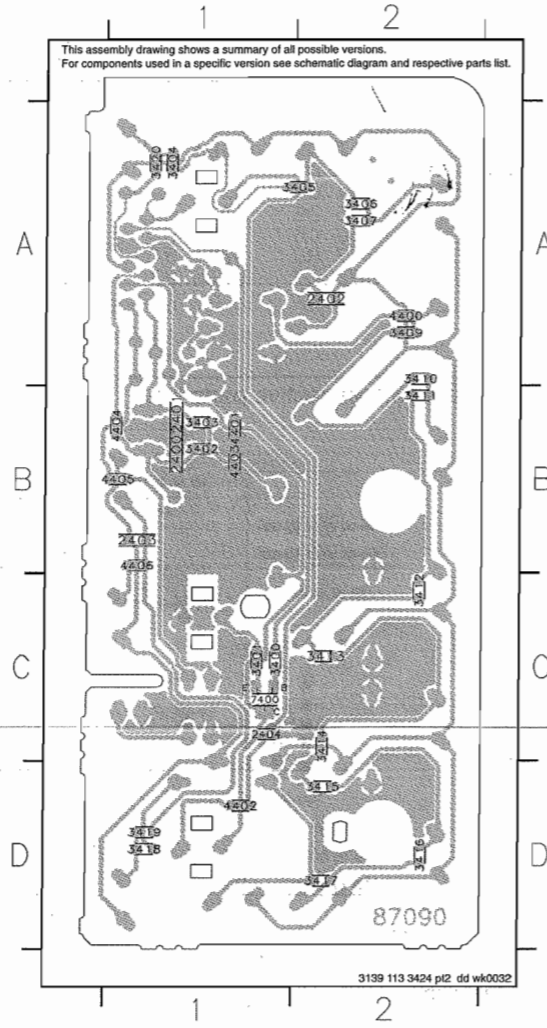
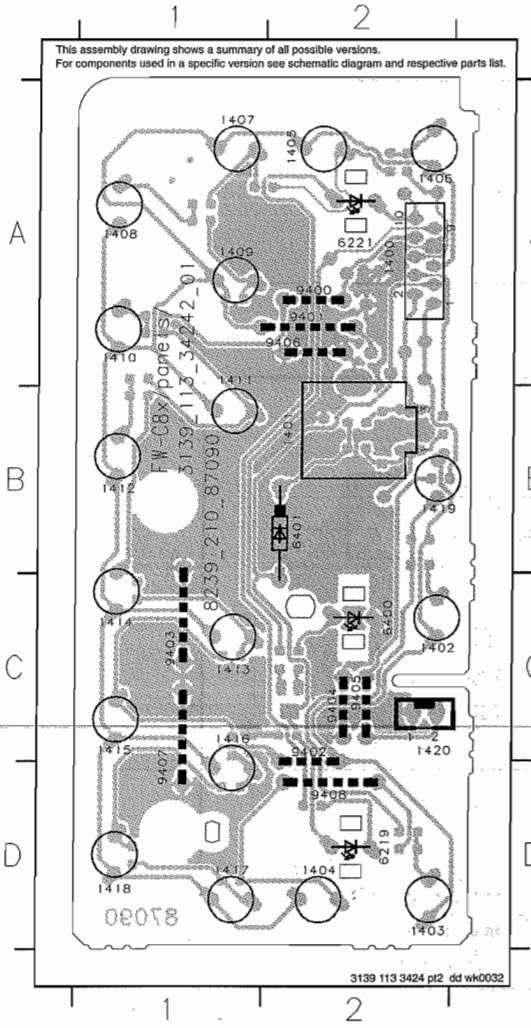
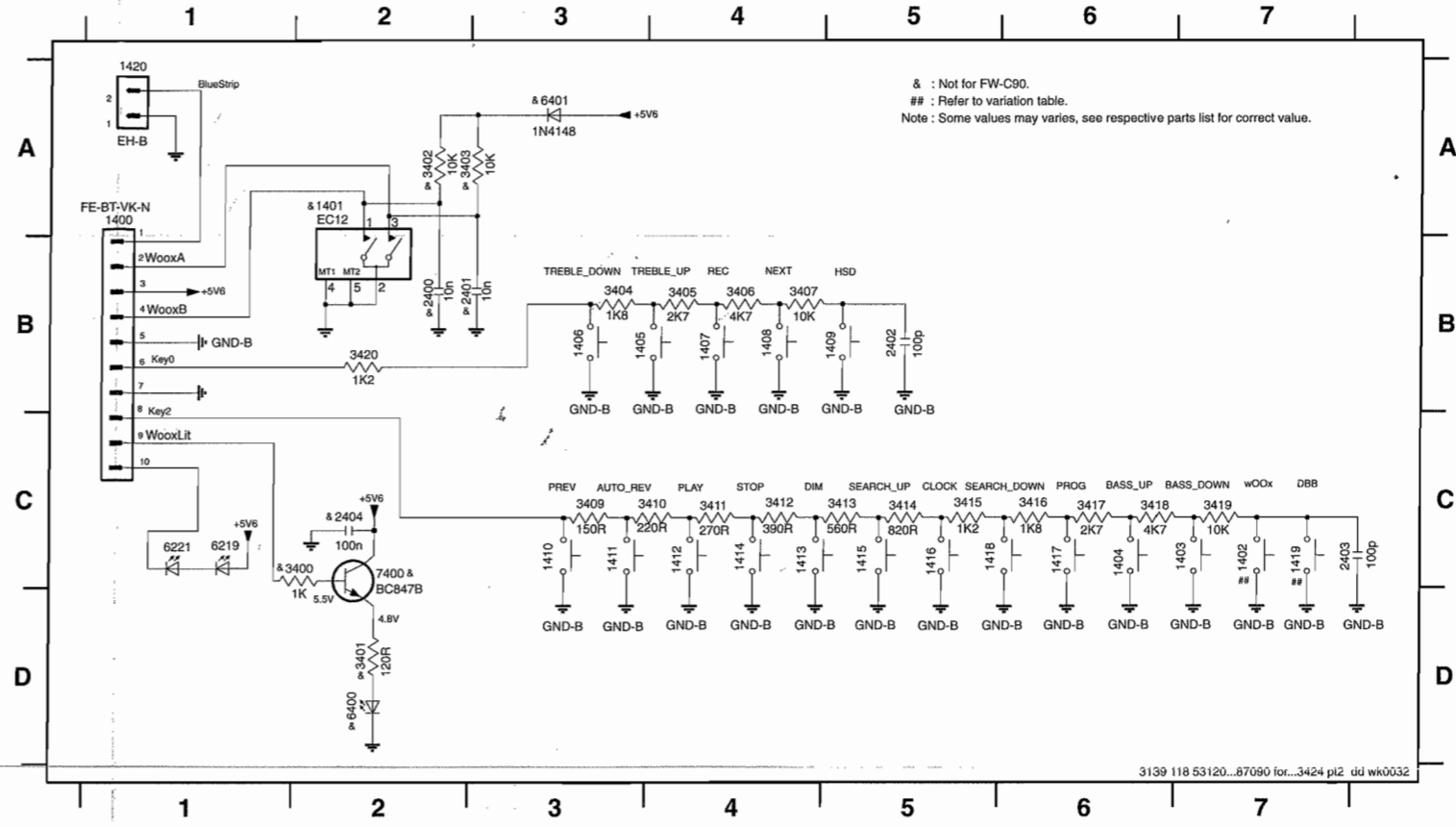
1400 A2	1407 A1	1414 C1	6219 D2	9403 C1
1401 B2	1408 A1	1415 C1	6221 A2	9404 C2
1402 C2	1409 A1	1416 C1	6400 C2	9405 C2
1403 D2	1410 A1	1417 D1	6401 B2	9406 A2
1404 D2	1411 A1	1418 D1	9400 A2	9407 D1
1405 A2	1412 B1	1419 B2	9401 A2	9408 D2
1406 A2	1413 C1	1420 C2	9402 C2	

CONTROL BOARD - CHIP LAYOUT

2400 B1	3402 B1	3410 A2	3417 D2	4403 B1
2401 B1	3403 B1	3411 B2	3418 D1	4404 B1
2402 A2	3404 A1	3412 C2	3419 D1	4405 B1
2403 B1	3405 A2	3413 C2	3420 A1	4406 B1
2404 C1	3406 A2	3414 C2	4400 A2	7400 C1
3400 C1	3407 A2	3415 D2	4401 B1	
3401 C1	3409 A2	3416 D2	4402 D1	

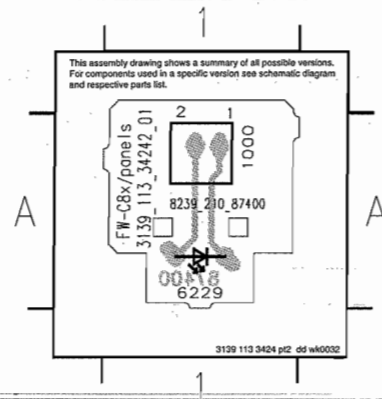
CONTROL PART - CIRCUIT DIAGRAM

1400 A1	1403 C7	1406 B3	1409 B5	1412 C4	1415 C5	1418 C5	2400 B2	2403 C7	3401 D2	3404 B3	3407 B4	3411 C4	3414 C5	3417 C6	3420 B2	6400 D2
1401 A2	1404 C6	1407 B4	1410 C3	1413 C4	1416 C5	1419 C7	2401 B2	2404 C2	3402 A2	3405 B4	3409 C3	3412 C4	3415 C5	3418 C6	6219 C1	6401 A3
1402 C7	1405 B3	1408 B4	1411 C3	1414 C4	1417 C6	1420 A1	2402 B5	3400 C2	3403 A2	3406 B4	3410 C4	3413 C5	3416 C6	3419 C7	6221 C1	7400 C2



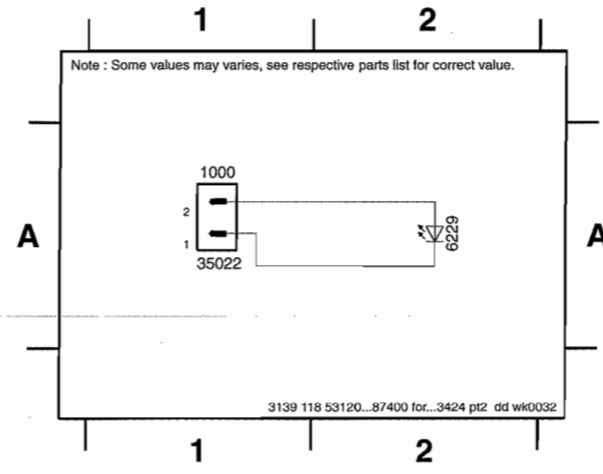
BLUE STRIP LED BOARD - COMPONENT LAYOUT

1000 A1	6229 A1
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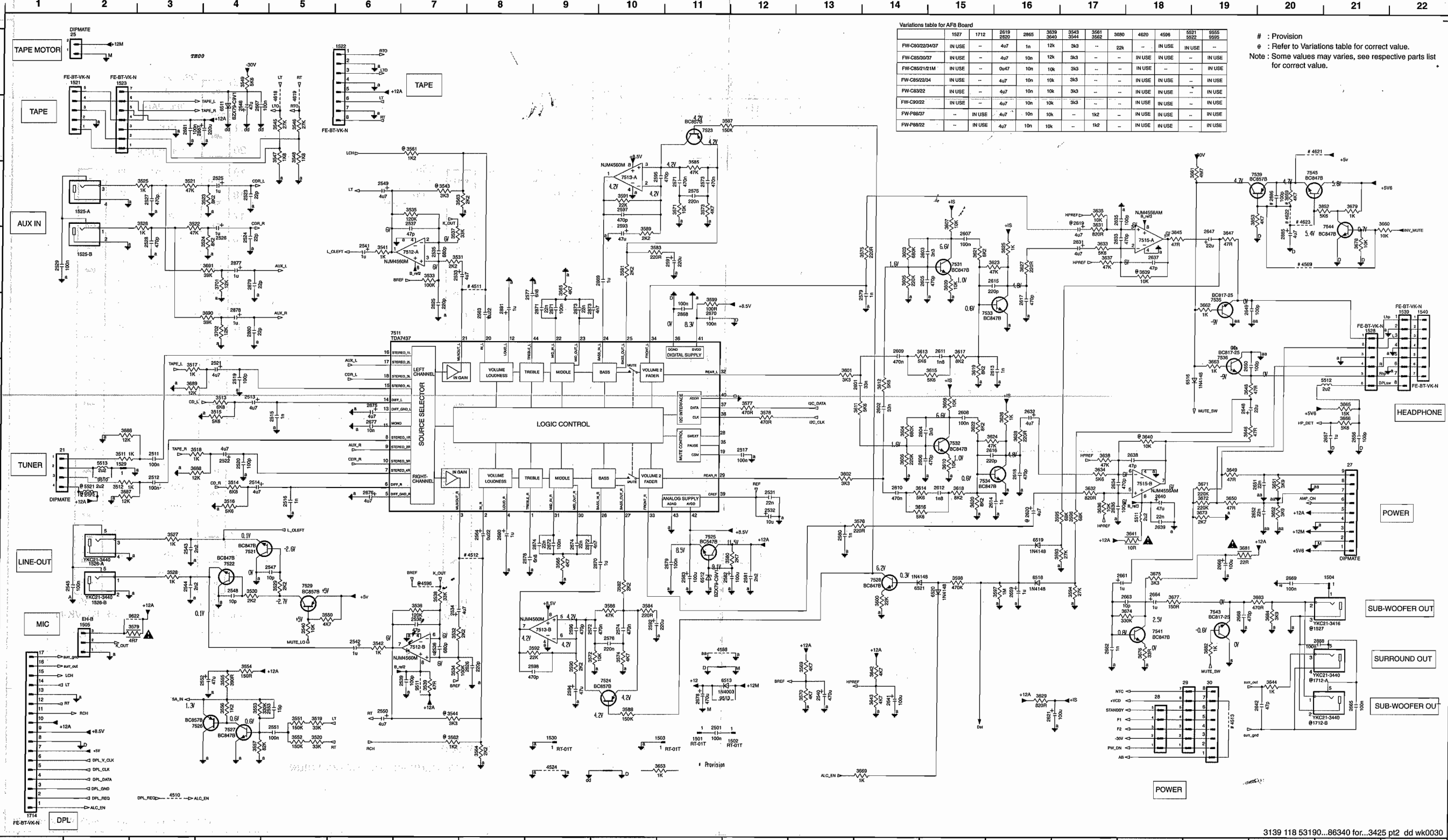
BLUE STRIP LED PART - CIRCUIT DIAGRAM

1000 A1	6229 A2
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AF8 BOARD - CIRCUIT DIAGRAM (PART 1)

21 Q1	1505 J2	1529 G2	2513 F4	2524 D4	2535 D7	2545 I2	2584 H8	2590 H3	2597 C10	2609 E14	2619 C17	2636 H17	2650 F19	2655 K21	2675 F6	2671 E9	2686 C20	3518 G3	3528 I3	3538 I7	3548 B5	3561 B7	3573 C11	3583 D10	3593 H17	3603 D14	3613 E14	3623 D16	3634 G17	3644 J20	3659 C20	3673 H19	3684 I20	3683 C19	4619 B5	6513 J12	7513-B J9	7528 J14	7543 I19	
25 A1	1521 A2	1530 K3	2514 G4	2525 G4	2539 J7	2548 B4	2571 C11	2581 I12	2589 J9	2610 G14	2620 H16	2637 D18	2651 G20	2666 H19	2676 H6	2672 H9	2687 B3	3519 K5	3529 I5	3539 J5	3549 A4	3562 K7	3574 J10	3584 I10	3594 I17	3604 G14	3614 G14	3624 G16	3635 C17	3645 D18	3656 C21	3674 H18	3686 G2	4510 L3	4521 B20	6516 F19	7515-A D18	7529 I5	7544 C21	
27 G21	1522 A5	1540 E22	2515 F5	2527 C3	2538 J7	2548 I4	2572 J9	2582 I11	2591 F13	2612 G15	2625 E7	2639 H18	2656 G21	2668 I10	2677 F5	2674 H9	2687 J1	3520 I5	3533 H7	3540 I5	3551 K5	3564 K8	3576 H14	3588 I10	3598 H17	3608 G14	3618 H14	3628 F16	3638 D17	3647 D19	3658 E19	3676 J18	3688 G3	4512 H8	4523 C20	6519 H16	7515-B G18	7521 H4	7532 G15	7545 C20
28 K18	1523 A2	1528-B C2	2517 G12	2528 C3	2539 J7	2549 I4	2573 J9	2583 I11	2592 D11	2613 G15	2626 J8	2640 H18	2657 G21	2668 I10	2678 H11	2677 D4	2688 D2	3521 C3	3532 D7	3542 I6	3552 K5	3565 D9	3577 F12	3587 B11	3597 H6	3607 C15	3617 E15	3627 D16	3638 D17	3648 F19	3659 F19	3677 H18	3689 F3	4513 K19	4524 C21	6520 H15	7522 H4	7533 E16	7546 C20	
30 J19	1525-B D2	1712-B K20	2519 F4	2529 D1	2540 K13	2550 K6	2575 C11	2586 J10	2595 D10	2614 H15	2627 F16	2642 K20	2661 I18	2671 E9	2681 B3	2679 D4	2690 H8	3522 K5	3533 D7	3543 I6	3553 K4	3566 J9	3578 J12	3588 K10	3598 E11	3608 D15	3618 F15	3628 G18	3639 G18	3649 G18	3659 F19	3678 J18	3689 E4	4514 H14	4525 C21	6521 H16	7523 H4	7534 G15	7547 C20	
1501 K11	1526-A I2	1714 L1	2521 G4	2531 H12	2541 D6	2551 K5	2576 J10	2587 D10	2596 D10	2615 G16	2628 D17	2647 D19	2662 H17	2672 H9	2682 E11	2684 E4	2695 D10	3523 C3	3534 D7	3544 I6	3554 J4	3569 J13	3579 J3	3589 D10	3599 E11	3609 D15	3619 F15	3629 K16	3640 G18	3650 H19	3660 F21	3679 C21	3691 D4	4526 D20	4527 D20	6522 H16	7524 J10	7535 E19	7548 C20	
1502 K12	1528-B I2	2511 K11	2521 F4	2532 H12	2542 I8	2552 I4	2577 E9	2588 K9	2597 E9	2616 G16	2629 D17	2648 D19	2663 H17	2673 H9	2683 E11	2685 E4	2696 D10	3524 C3	3535 D7	3545 I6	3555 J4	3570 K13	3580 H12	3590 J9	3600 H4	3610 D15	3620 H15	3631 C17	3641 H18	3651 G20	3661 L14	3681 H16	3702 E4	4528 I7	4529 I7	6523 H16	7525 H11	7536 C19	7549 C20	
1503 K11	1527 J20	2511 G3	2522 G4	2533 D7	2543 H3	2553 K5	2578 I9	2589 C10	2598 J9	2617 E16	2634 G17	2648 F19	2664 H18	2674 H9	2670 I10	2685 D20	2697 F3	3525 K5	3536 D7	3546 I6	3556 J4	3571 K13	3581 D10	3591 C10	3601 G13	3611 F14	3621 D15	3632 D17	3643 K14	3653 L11	3672 H19	3683 I20	3703 D4	4529 J7	4530 J7	6524 H16	7526 H11	7537 C19	7550 C20	
1504 I21	1528 E21	2512 G3	2523 C4	2534 I7	2544 I3	2554 E8	2579 E14	2589 J9	2598 J9	2618 G16	2635 C17	2649 E19	2664 H18	2674 H9	2670 I10	2685 D20	2697 F3	3526 K5	3537 H3	3547 B5	3557 K4	3572 J9	3582 I10	3592 J9	3602 G13	3612 F14	3622 G15	3633 D17	3644 K14	3654 L11	3673 H19	3684 I20	3704 D4	4531 J7	4532 J7	6525 H16	7527 K4	7538 C19	7551 H2	



Variations table for AF8 Board

	1527	1712	2519	2825	3539	3543	3561	3680	4620	4506	5521	5522	5523	5524
FW-C80/2234G7	IN USE	-	4u7	1n	12k	3k3	-	22k	-	-	IN USE	IN USE	-	-
FW-C85/3037	IN USE	-	4u7	10n	12k	3k3	-	-	-	-	IN USE	IN USE	-	-
FW-C85/1212M	IN USE	-	0u47	10n	10k	3k3	-	-	-	-	IN USE	IN USE	-	-
FW-C85/2234	IN USE	-	4u7	10n	10k	3k3	-	-	-	-	IN USE	IN USE	-	-
FW-C83/22	IN USE	-	4u7	10n	10k	3k3	-	-	-	-	IN USE	IN USE	-	-
FW-C90/22	IN USE	-	4u7	10n	10k	3k3	-	-	-	-	IN USE	IN USE	-	-
FW-P88/37	-	IN USE	4u7	10n	10k	-	-	1k2	-	-	IN USE	IN USE	-	-
FW-P88/22	-	IN USE	4u7	10n	10k	-	-	1k2	-	-	IN USE	IN USE	-	-

: Provision
 @ : Refer to Variations table for correct value.
 Note : Some values may varies, see respective parts list for correct value.

AF8 BOARD - CIRCUIT DIAGRAM (PART 2)

32 D5 1532 D5 1534 D7 1536 D8 1538 A5 2865 A3 2867 A3 2883 C3 2889 D4 3685 E4 3693 D1 3695 C1 3697 C3 3699 D3 3850 E4 4620 E4 5523 A4 5613 D3 7551 B3 7553 D1 9535 A4 9555 A4
 1531 A1 1533 D6 1535 D9 1537 A3 2862 A7 2866 A2 2882 C3 2884 E2 3680 E4 3692 D2 3694 C2 3696 D2 3698 C2 3848 E4 3851 D4 5522 A4 5611 A4 6531 E2 7552 C1 9522 A4 9539 C1

1 2 3 4 5 6 7 8 9

A

B

C

D

E

A

B

C

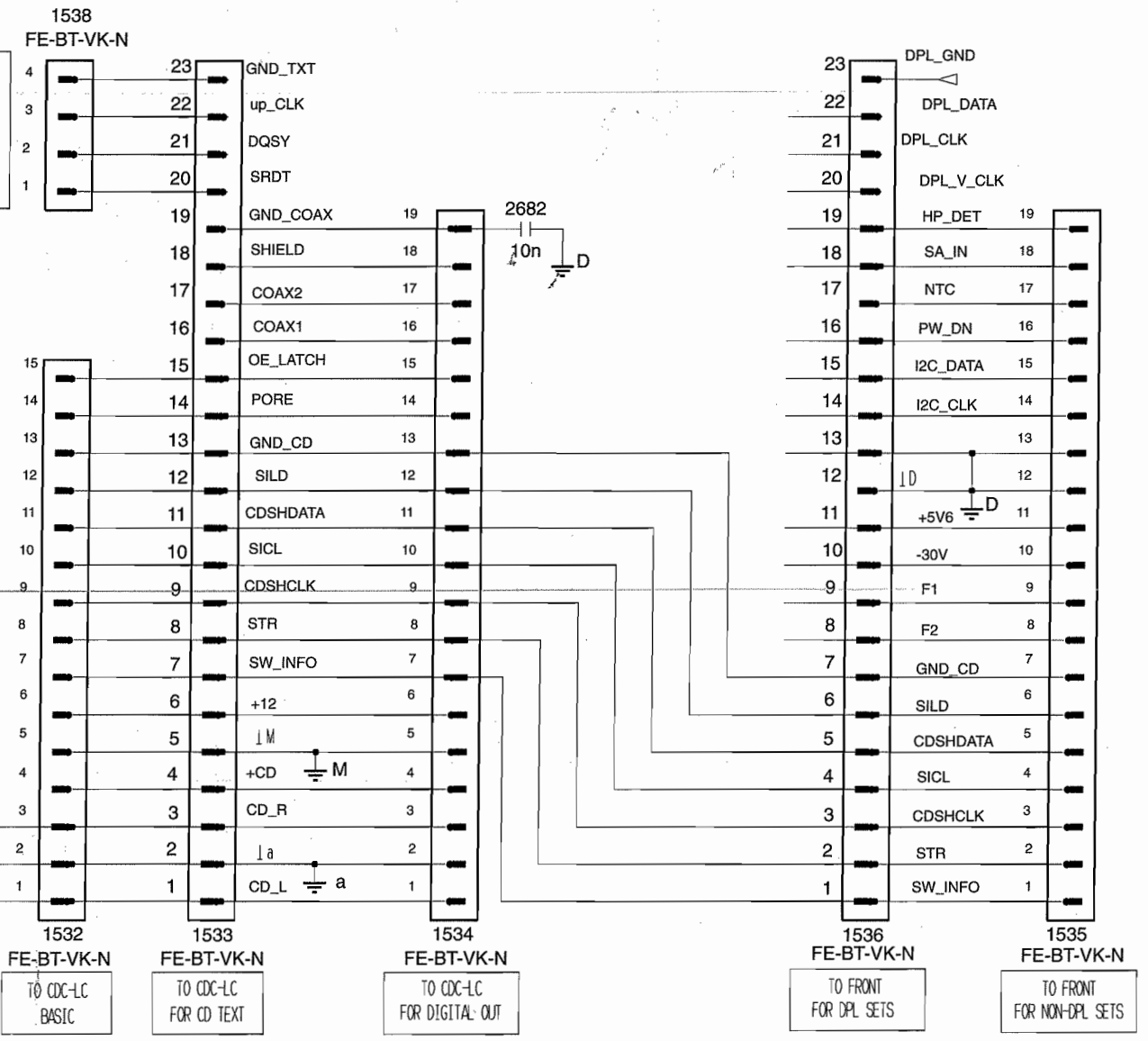
D

E

DIGITAL OUT

CDC TEXT

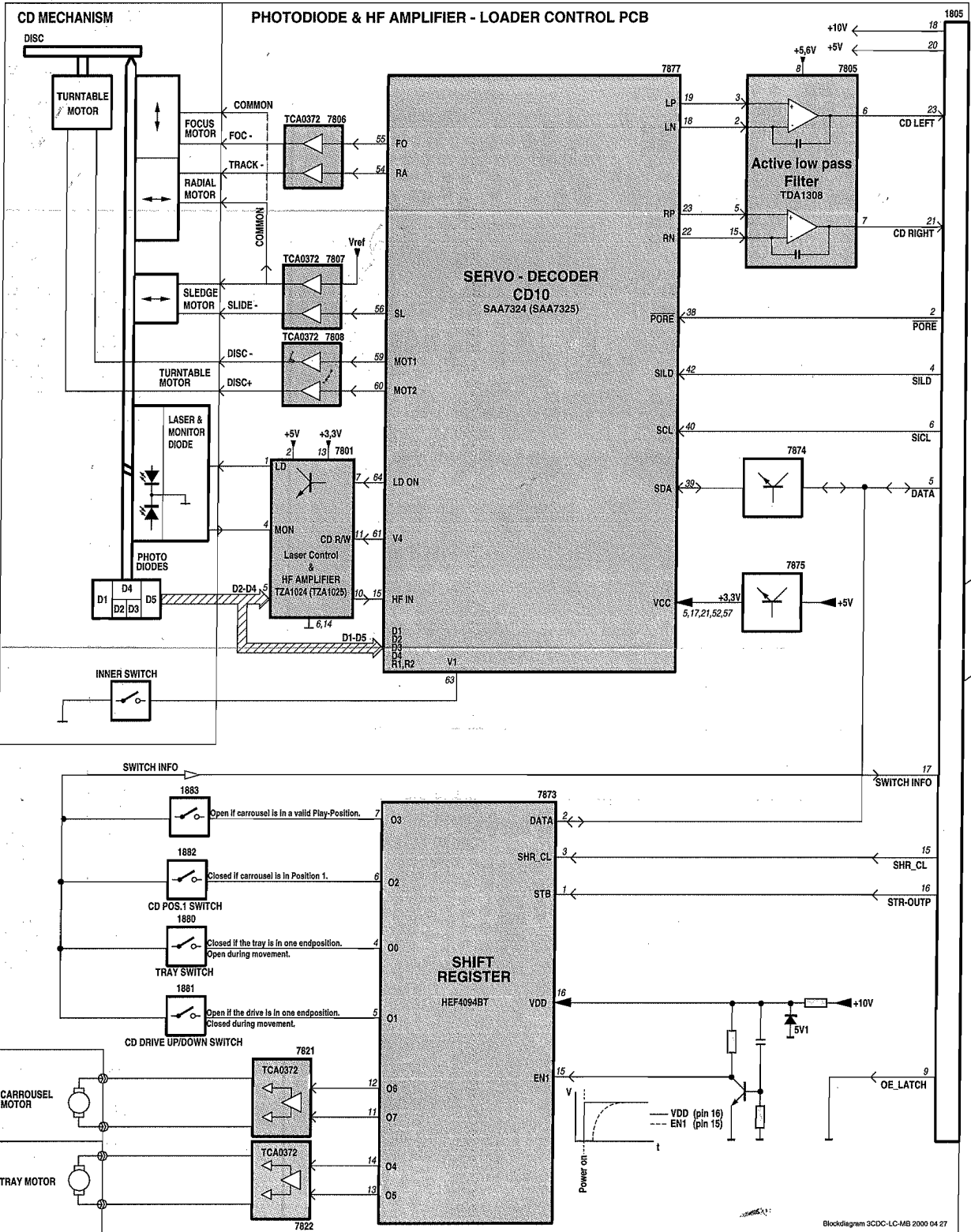
TO CDR



: Provision
 @ : Refer to Variations table for correct value.
 Note : Some values may varies, see respective parts list for correct value.

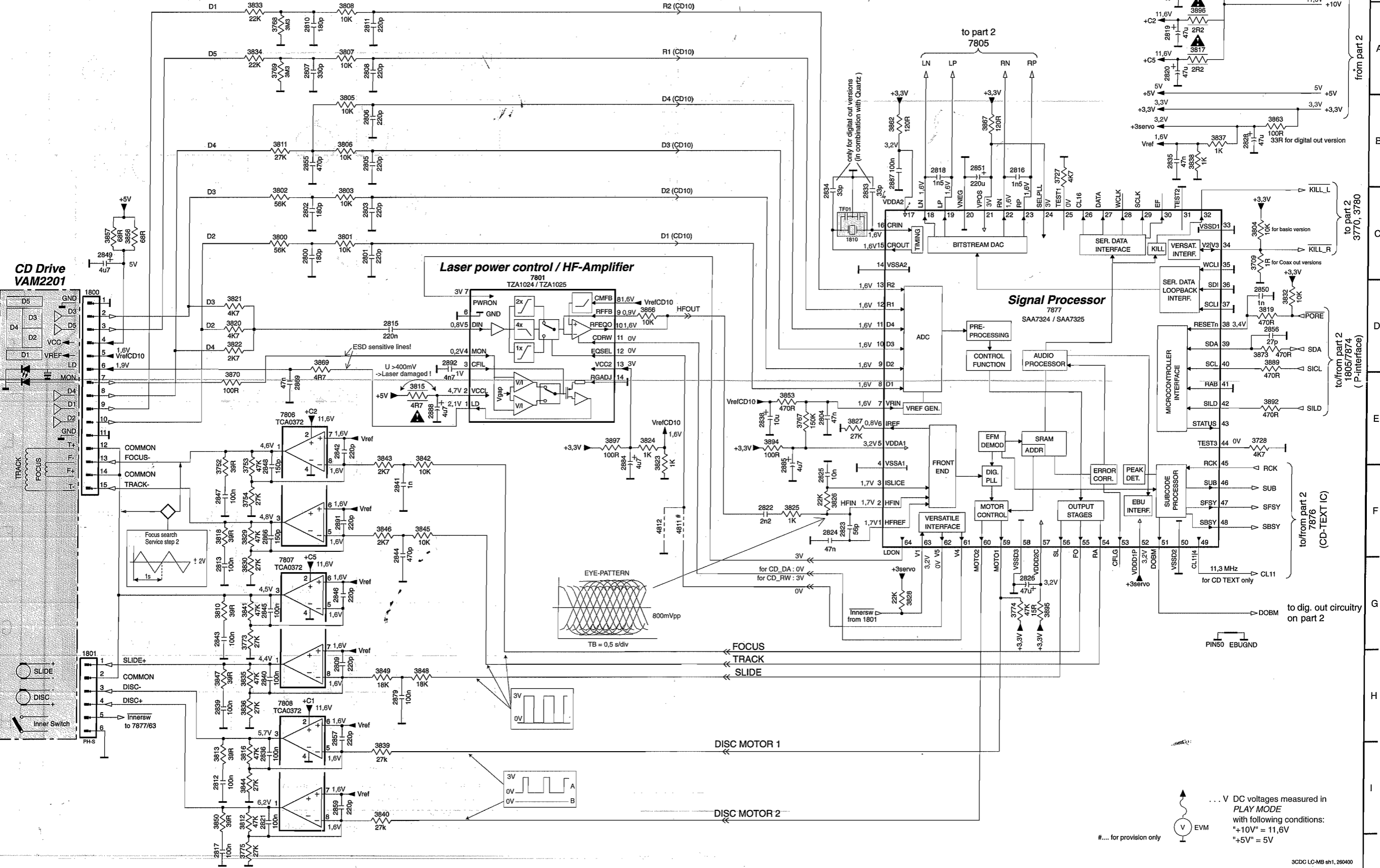
1 2 3 4 5 6 7 8 9

3CDC-LC-MB BLOCK DIAGRAM

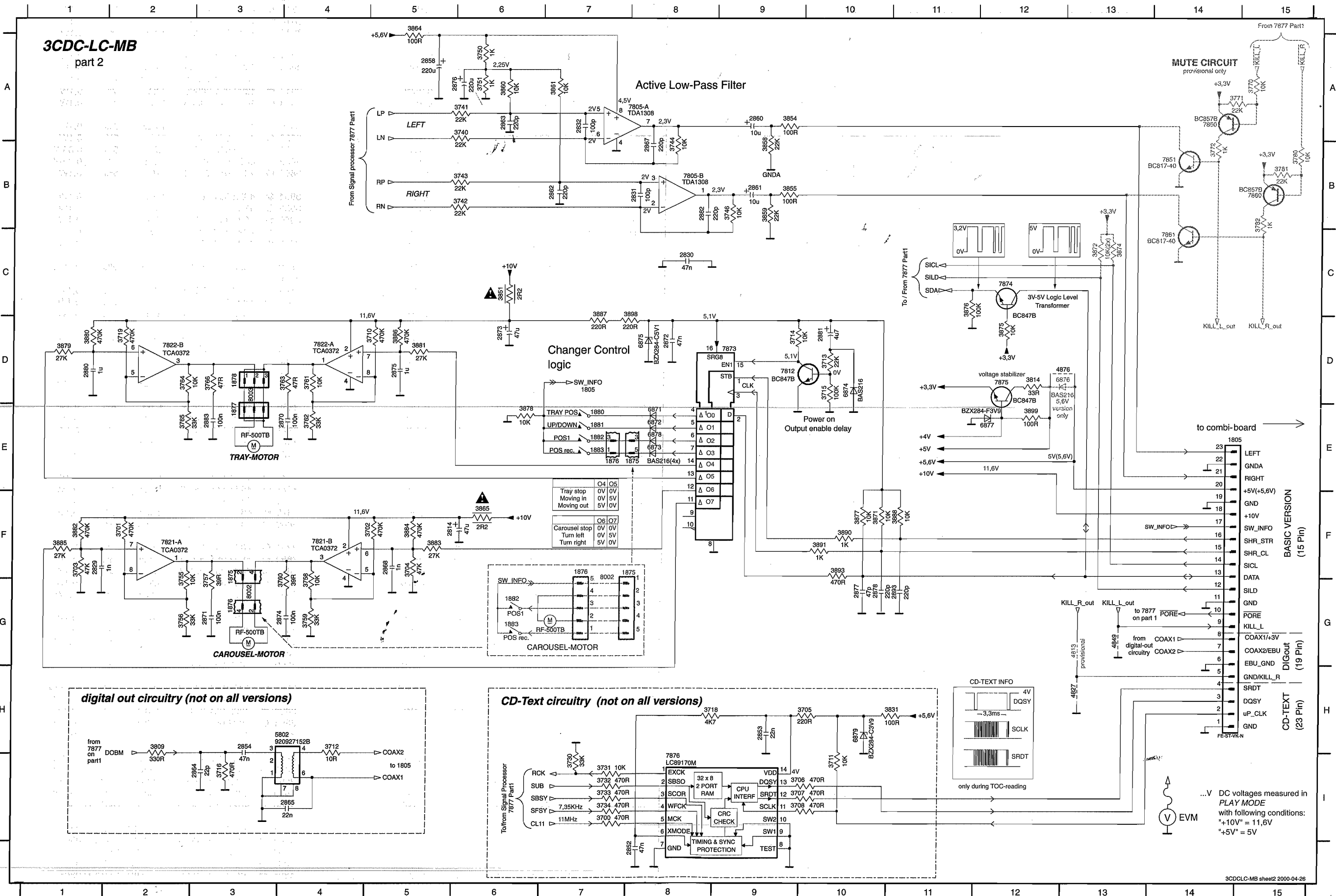


1800 D1 2801 C5 2805 B5 2809 H4 2813 G3 2818 B11 2822 F9 2826 G12 2835 B13 2839 H3 2843 G3 2847 F3 2851 B11 2859 I4 2864 E7 2891 F4 3728 E14 3767 E9 3774 G12 3802 C4 3806 B4 3811 B4 3816 I3 3820 D3 3824 E8 3828 G10 3833 A3 3837 B14 3841 G3 3845 F5 3849 H5 3856 C2 3866 D8 3873 D14 3895 G12 4812 F8 7808 H4
 1801 G1 2802 C4 2806 B5 2810 A4 2815 D5 2819 A13 2823 F10 2828 B14 2836 I4 2844 F5 2848 F4 2855 B4 2866 F4 2885 F9 2892 D5 3752 F3 3768 A4 3775 I3 3803 C4 3807 A4 3812 I3 3817 A14 3821 D3 3825 F10 3829 F10 3830 G3 3835 H3 3839 I5 3843 E5 3847 H3 3852 A14 3862 B10 3869 D4 3892 E14 3897 E7 7806 E4
 1810 C10 2803 C5 2807 A4 2811 A5 2816 B12 2820 A13 2824 F10 2833 C10 2837 A13 2841 F5 2845 G4 2849 C2 2856 D14 2869 E4 2887 B10 3709 C14 3753 F3 3769 A4 3800 C4 3804 C14 3808 A4 3813 I3 3818 F3 3822 D3 3826 F9 3830 G3 3835 H3 3839 I5 3843 E5 3847 H3 3852 A14 3862 B10 3869 D4 3892 E14 3897 E7 7806 E4
 2800 C4 2804 E10 2808 A5 2812 I3 2817 I3 2821 I4 2825 F10 2834 C10 2838 E8 2842 E4 2846 G4 2850 D14 2857 H4 2879 H5 2888 E5 3727 B12 3754 F3 3773 G3 3801 C4 3805 B4 3810 G3 3815 E5 3819 D14 3823 E8 3827 E10 3832 D15 3836 H3 3840 I5 3844 I3 3848 H5 3853 E9 3863 B14 3870 E3 3894 E9 4811 F8 7807 G4

3CDC-LC-MB
part 1



1805	E14	1880	E7	2831	B8	2861	B9	2870	E4	2877	G10	3372	C13	3705	H10	3713	D10	3730	I7	3743	B6	3757	G3	3764	D2	3781	B15	3855	B9	3871	F10	3881	D5	3888	F11	4827	H13	6874	D10	7805-B	B8	7851	B14
1850	G3	1881	E7	2832	A7	2862	B7	2871	G3	2878	G10	3374	C13	3706	I10	3714	D9	3732	I7	3744	B8	3758	G4	3765	E2	3782	B15	3858	B9	3875	D12	3882	F1	3890	F10	4849	G13	6875	D8	7812	D9	7860	B15
1875	E8	1882	E7	2852	I8	2863	A6	2872	D8	2880	D1	3700	I7	3707	I10	3715	D10	3733	I7	3746	B9	3759	G4	3766	D3	3809	H2	3859	B9	3876	C11	3883	F5	3891	F10	4876	D12	6876	D12	7821-A	D2	7861	C14
1876	E7	1883	E7	2853	H9	2864	I3	2873	D6	2881	D10	3701	F2	3708	I10	3716	I3	3734	I7	3750	A6	3760	G4	3770	A15	3814	D12	3860	A6	3877	F10	3884	F5	3893	F10	5802	H4	6877	E12	7821-B	D4	7873	D9
1877	E3	2814	F6	2854	H3	2865	I4	2874	G4	2882	B8	3702	F5	3710	D5	3718	H8	3740	A6	3751	A6	3761	D4	3771	A14	3831	H11	3861	A7	3878	E6	3885	F1	3898	D7	6871	E8	6878	E8	7822-A	D4	7874	C12
1878	D3	2829	F2	2858	A5	2867	B8	2875	D5	2883	E3	3703	F1	3711	I10	3719	D2	3741	A6	3755	G2	3762	E4	3772	B14	3851	C6	3864	A5	3879	D1	3886	D5	3899	E12	6872	E8	6879	H10	7822-B	D2	7875	D12
1878	G3	2830	C8	2860	A9	2868	F5	2876	A6	2883	G11	3704	F5	3712	H4	3730	I7	3742	B6	3756	G2	3763	D4	3780	B15	3854	A9	3865	F6	3880	D1	3887	D7	4813	G13	6873	E8	7805-A	A7	7850	A14	7876	I6



ELECTRICAL PARTS LIST 3CDC-LC-MB MODULE**RESISTORS**

4807	©	4822 051 20008	CHIP JUMPER 0805
4808	©	4822 051 20008	CHIP JUMPER 0805
4809	©	4822 051 20008	CHIP JUMPER 0805
4810	©	4822 051 20008	CHIP JUMPER 0805
4812	©	4822 051 20008	CHIP JUMPER 0805
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4894	©	4822 051 20008	CHIP JUMPER 0805
4896	©	4822 051 20008	CHIP JUMPER 0805
4897	©	4822 051 20008	CHIP JUMPER 0805

DIODES

6871	©	4822 130 11397	BAS316
6872	©	4822 130 11397	BAS316
6873	©	4822 130 11397	BAS316
6874	©	4822 130 11397	BAS316
6875	©	9340 548 52115	BZX284-C5V1
6877	©	9322 129 34685	BZX284-C3V9
6878	©	4822 130 11397	BAS316
6879	©	9322 129 34685	BZX284-C3V9

TRANSISTORS

7812	©	5322 130 60159	BC846B
7874	©	5322 130 60159	BC846B
7875	©	5322 130 60159	BC846B

INTEGRATED CIRCUITS

7801	©	9352 622 36118	TZA1025T/V2, HF-Amplifier
7805	©	4822 209 33165	TDA1308T/N1, OPAMP
7806		4822 209 62059	TCA0372DP1, Motor driver
7807		4822 209 62059	TCA0372DP1, Motor driver
7808		4822 209 62059	TCA0372DP1, Motor driver
7821		4822 209 62059	TCA0372DP1, Motor driver
7822		4822 209 62059	TCA0372DP1, Motor driver
7873		5322 209 11306	HEF4094BT, Shift register
7876		4822 209 16143	LC89170M, CD TEXT IC
7877	©	9352 642 17557	SAA7325H/M2B Signal processor CD10

COILS

1810	2422 543 01068	RESONATOR 8MHZ
1810	4822 242 73557	CERAMIC RES. 8.46MHZ
5802	4822 156 31058	FILTER DIGITAL OUT