Service Manual

PIONEER®
The Art of Entertainment
TOYOTA

ORDER NO.
CRT2088

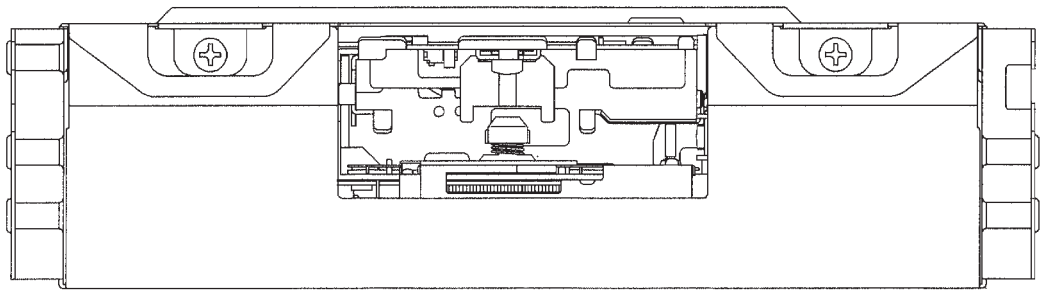
LEXUS RX300
AUDIO SYSTEM
HEAD UNIT

VEHICLE	DESTINATION	PRODUCED AFTER	TOYOTA PART No.	ID No.	PIONEER MODEL No.
LEXUS RX300	U.S.A. , CANADA	February 1998	86120-48050	P1714	KEX-M9086ZT/UC
LEXUS RX300	U.S.A. , CANADA	February 1998	86120-48050	P1714	KEX-M9086ZT-91/UC

Manufactured for TOYOTA
by PIONEER ELECTRONIC CORPORATION

PUB. NO. CRT2088

KEX-M9086ZT/UC, KEX-M9086ZT-91/UC



ID No. P1714

NOTE:

- The KEX-M9086ZT-91/UC is supplementary genuine part for a TOYOTA vehicle, and a Pioneer product for recycling stock.
- As for the structure and electrical system, there is no difference between the KEX-M9086ZT/UC and KEX-M9086ZT-91/UC.
- Supplementally model is identical to the original except for the addition of following items.

Description	Part No.
Carton	CHA1721
Contain Box	CHD1721
Cover	CEG1045
Polyethylene Bag	CEG-162

- **Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.**
- **See the separate manual CX-529 (CRT1507) for the cassette mechanism description.**
- **The cassette mechanism employed in this model is one of 2L mechanism description.**
- **KEX-M9086ZT/UC has adopted AVC-LAN.**

CONTENTS

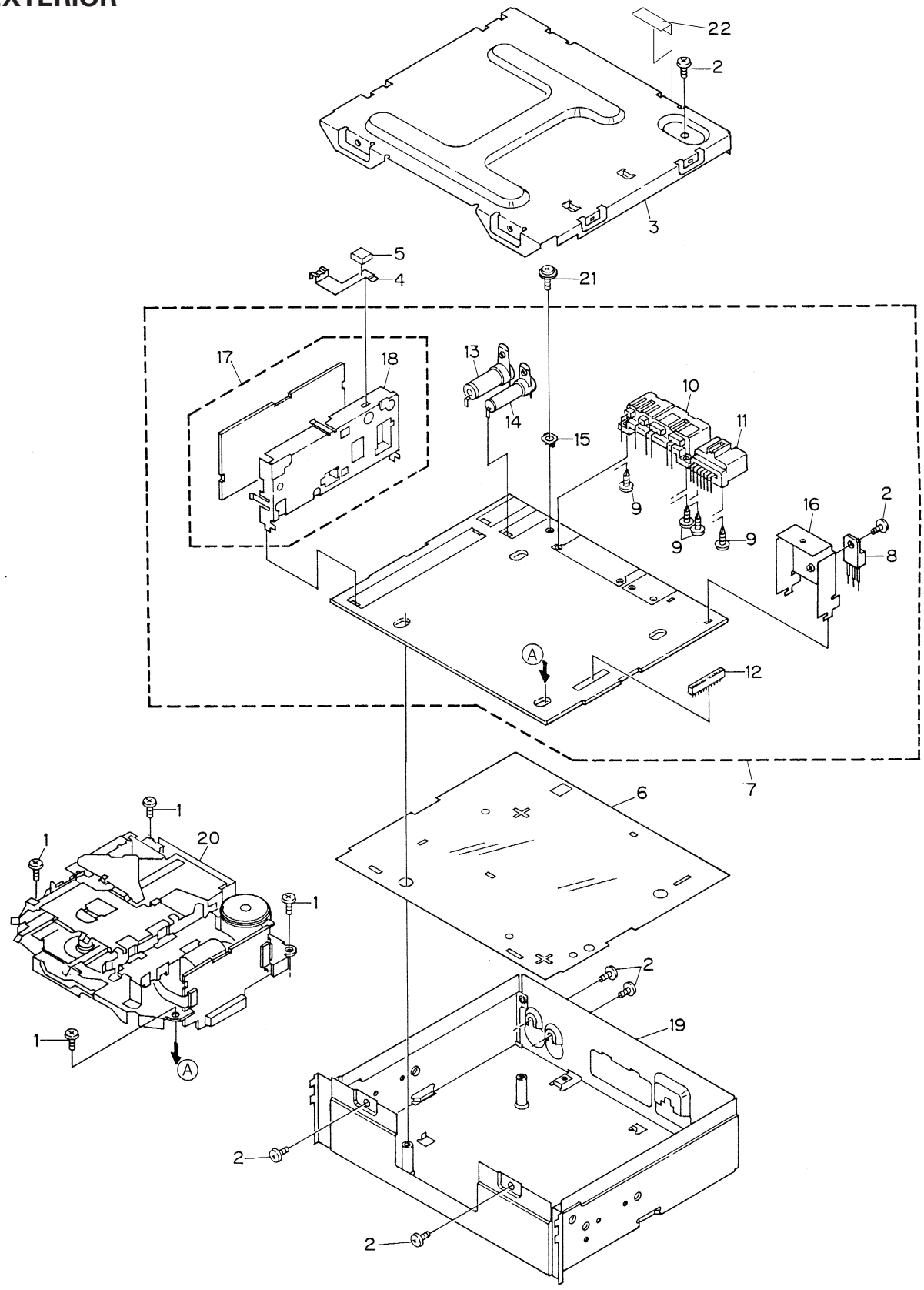
1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

2. EXPLODED VIEWS AND PARTS LIST

2.1 EXTERIOR



g. 1

NOTE:

- Parts marked by "*" are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ∇ mark on the product are used for disassembly.

● EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	BMZ26P050FMC
	2	Screw	BMZ30P060FMC
	3	Case	CNB2187
*	4	Earth	CNC6739
	5	Spacer	CNM4305
	6	Insulator	CNM5314
	7	Main Unit	CWM5423
	8	Transistor(Q813)	2SB1185
	9	Screw	CBA1393
	10	Connector(CN801)	CKM1222
	11	Connector(CN802)	CKM1238
	12	Connector(CN702)	CKS1730
	13	Antenna Jack(CN501)	CKX1057
	14	Antenna Jack(CN502)	CKX1058
	15	Holder	CNC2218
	16	Holder	CNC7149
	17	Tuner Unit	CWE1455
	18	Holder	CNC6774
	19	Chassis Unit	CXB1408
	20	Cassette Mechanism Module	EXK3240
	21	Screw	IMS30P050FMC
	22	Nonwoven Fabric	CNM5798

2.2 CASSETTE MECHANISM MODULE

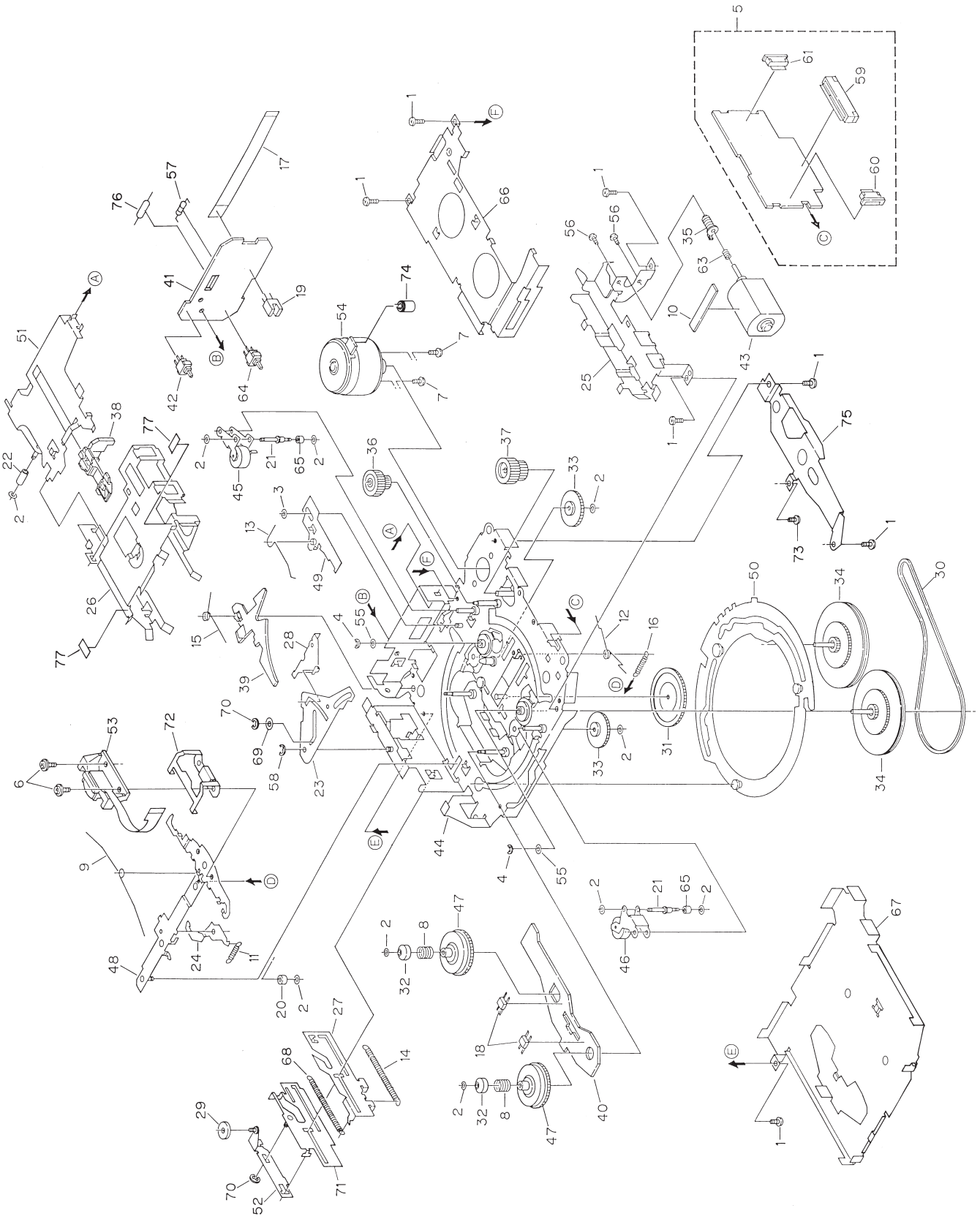


Fig. 2

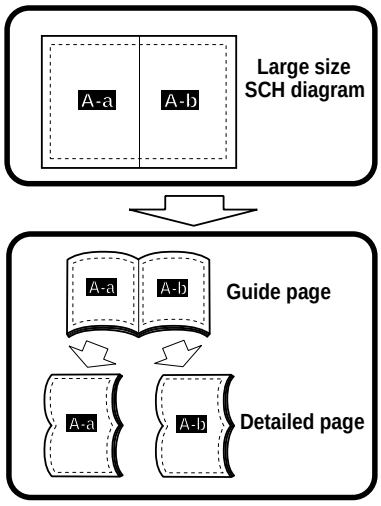
● CASSETTE MECHANISM MODULE SECTION PARTS LIST

Mark No.	Description	Part No.
1	Screw	BSZ20P040FMC
2	Washer	CBF1037
3	Washer	CBF1038
4	Washer	CBG1003
5	Deck Unit	EWM1008
6	Screw(M2×5)	EBA1028
7	Screw(M2×2.5)	EBA1037
8	Spring	EBH1531
9	Spring	EBH1589
10	Cushion	ENM1034
11	Spring	EBH1515
12	Spring	EBH1587
13	Spring	EBH1517
14	Spring	EBH1547
15	Spring	EBH1519
16	Spring	EBH1537
17	Cord	EDD1015
18	Photo-Reflector(EGN2, 3)	EGN1004
19	Photo-Interrupter(EGN1)	EGN1005
20	Roller	ENR1031
21	Shaft	ELA1362
22	Roller	ELA1348
23	Arm	ENC1416
24	Arm	ENC1397
25	Guide	ENC1398
26	Holder	ENC1417
27	Lever	ENC1449
28	Arm	ENC1401
29	Roller	ENR1027
30	Belt	ENT1027
31	Gear	ENV1347
32	Collar	ENV1508
33	Gear	ENV1350
34	Flywheel	ENV1410
35	Worm Gear	ENV1439
36	Worm Wheel	ENV1440
37	Gear	ENR1028
38	Lever	ENV1455
39	Arm	ENV1445
40	Gathering PCB	ENX1029
41	Gathering PCB	ENX1041
42	Switch(S1)	ESG1004
43	Motor Unit(M2)	EXA1485
44	Chassis Unit	EXA1494
45	Pinch Roller Unit	EXA1472
46	Pinch Roller Unit	EXA1473
47	Reel Unit	EXA1484
48	Head Base Unit	EXA1434
49	Lever Unit	EXA1438
50	Gear Unit	EXA1436
51	Frame Unit	EXA1476
52	Lever Unit	EXA1425
53	Head Assy(HD1)	EXA1481
54	Motor Unit(M1)	EXA1497
55	Washer	HBF-179
56	Screw	BMZ20P022FMC
57	Resistor(R1)	RD1/4HM181J
58	Washer	YE20FUC
59	Connector(CN251)	CKS1711
60	Connector(CN252)	CKS2127
61	Connector(CN253)	CKS2129
62	•••••	
63	Spring	EBH1545
64	Switch(S2)	ESG1004
65	Roller	ENR1023
66	Cover	ENC1412
67	Cover	ENC1413
68	Spring	EBH1546
69	Washer	EBE1008
70	Washer	YE15FUC
71	Lever Unit	EXA1424
72	Spring	EBL1026
73	Screw(M2×2)	CBA1250
74	Capacitor(C1)	CEA4R7M35LS2
75	Bracket	ENC1472
76	Inductor(L1)	ETH0001
77	Cushion	ENM1036

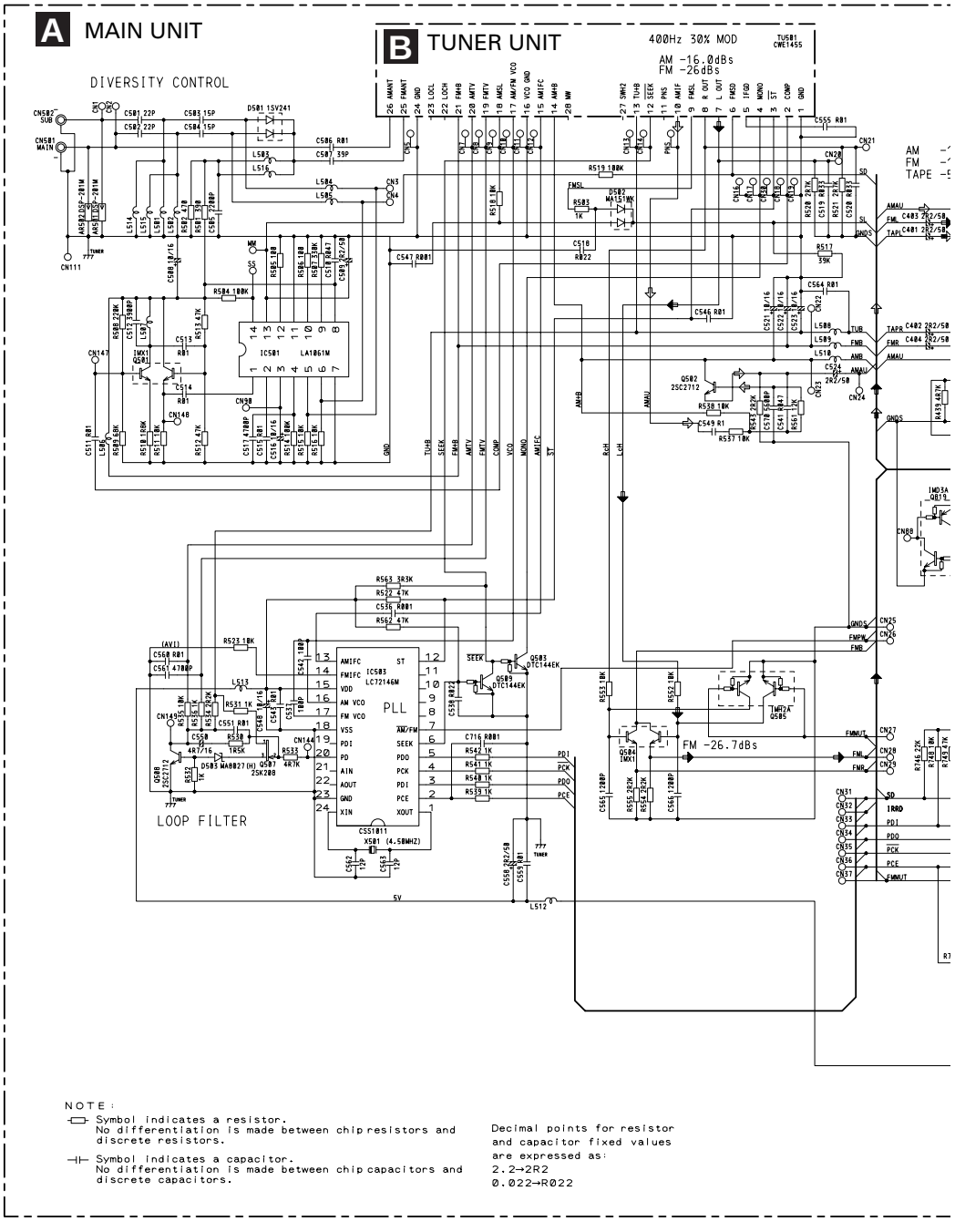
3. SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTION DIAGRAM(GUIDE PAGE)

Note: When ordering service parts,be sure to refer to "EXPLODED VIEWS AND PARTS LIST"or"ELECTRICAL PARTS LIST".



A-a



A

A-b

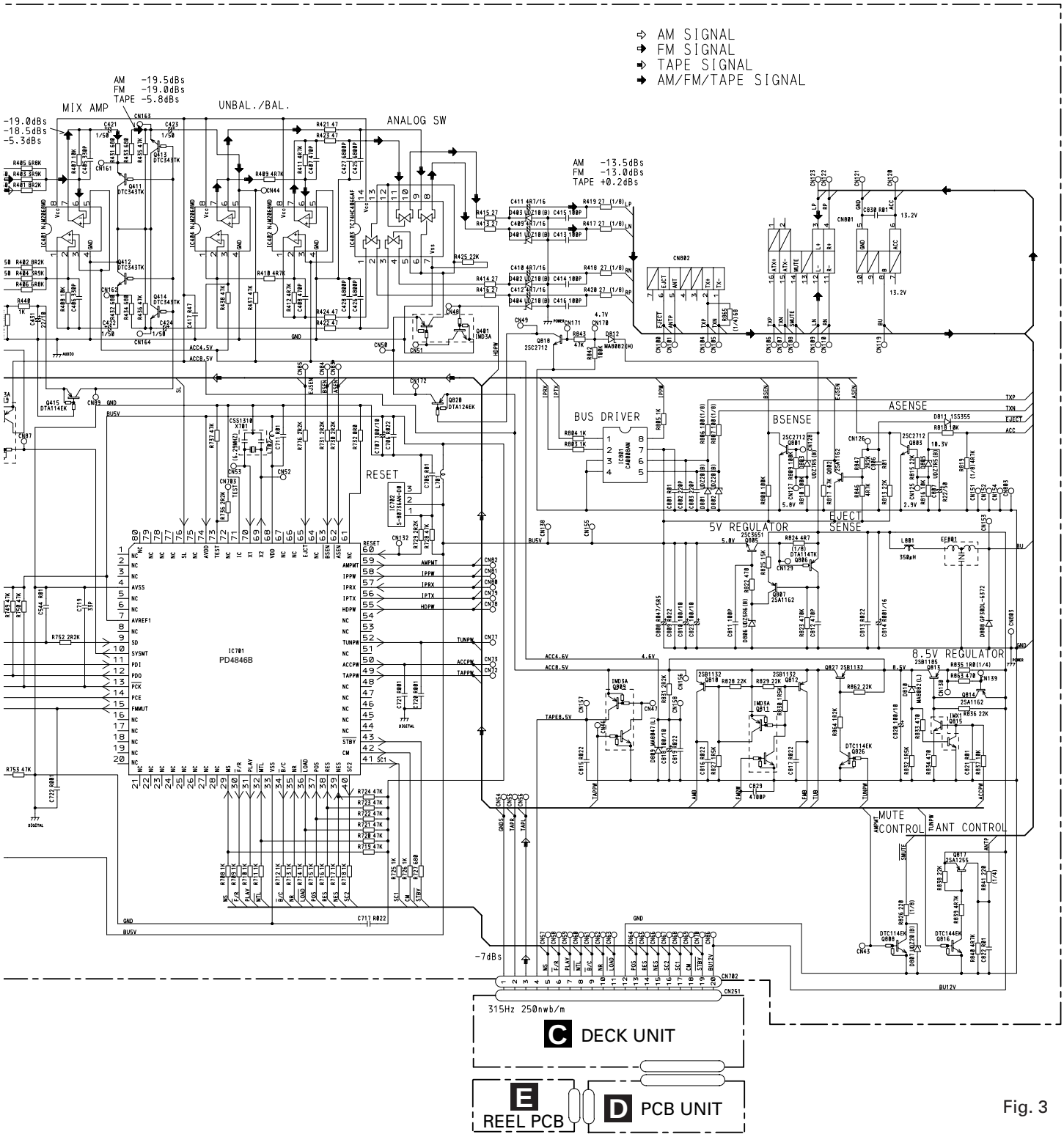
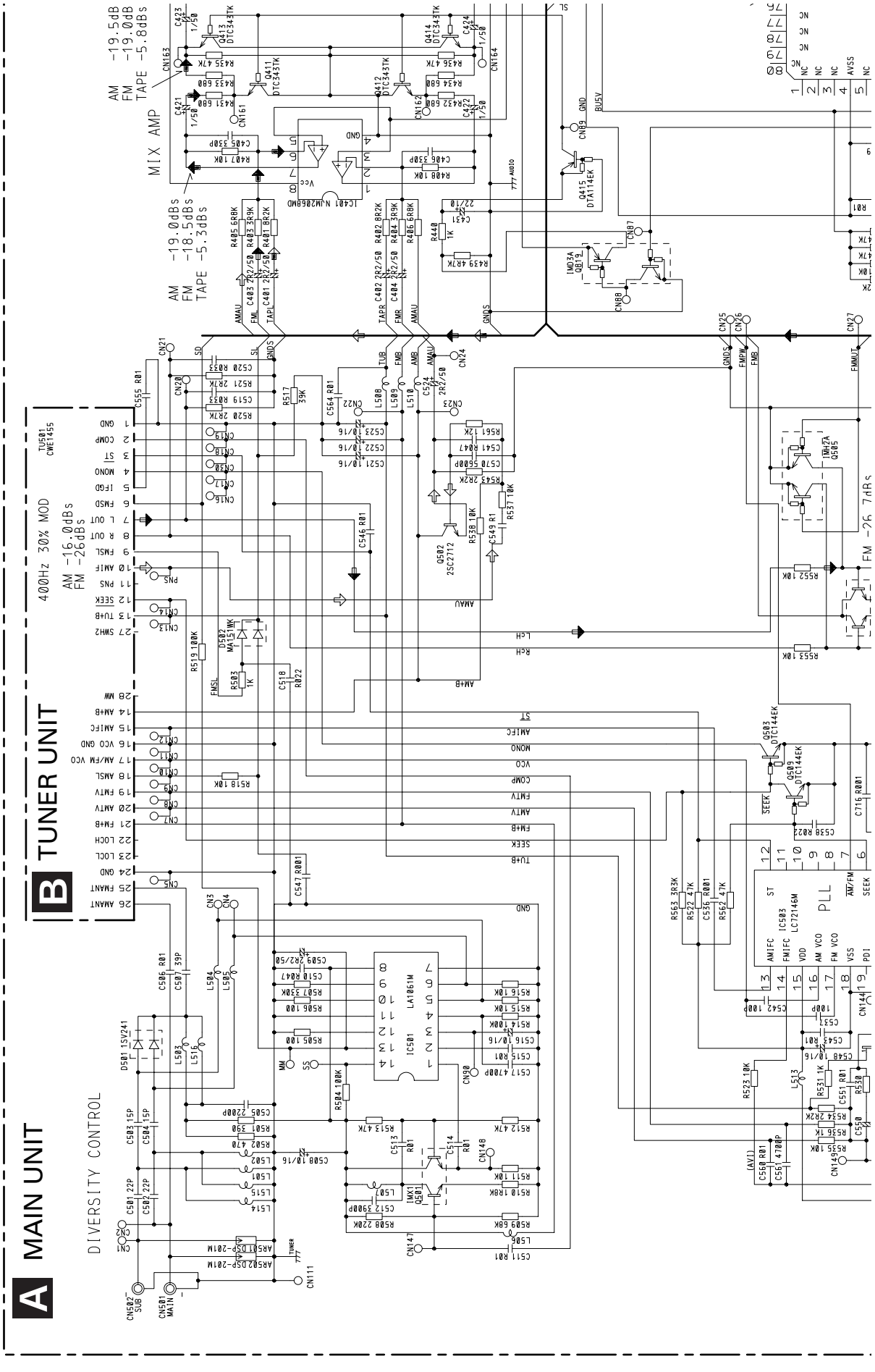

AM SIGNAL
FM SIGNAL
TAPE SIGNAL
AM/FM/TAPE SIGNAL
MIX AMP
UNBAL./BAL.
ANALOG SW
BUS DRIVER
BSENSE
ASENSE
EJECT SENSE
RESET
5V REGULATOR
8.5V REGULATOR
MUTE CONTROL
ANT CONTROL
IC7B1
PD4846B
315Hz 250nwb/m
C DECK UNIT
E REEL PCB
D PCB UNIT

Fig. 3


A MAIN UNIT
DIVERSITY CONTROL
B TUNER UNIT
400Hz 30% MOD
AM -16.0dBs
FM -26dBs
MIX AMP
AM -19.5dB
FM -19.0dB
TAPE -5.8dBs
AM -19.0dBs
FM -18.5dBs
TAPE -5.8dBs
IC401 NJM2068MD
IC501 LA1061M
IC503 LC72146M
PLL
TU501 CWE1455
Q502 2SC2712
Q503 DTC144EK
Q504 DTC144EK
Q415 DTA114EK
D501 1SV241
D502 MA151WK
FM -26.7dBs

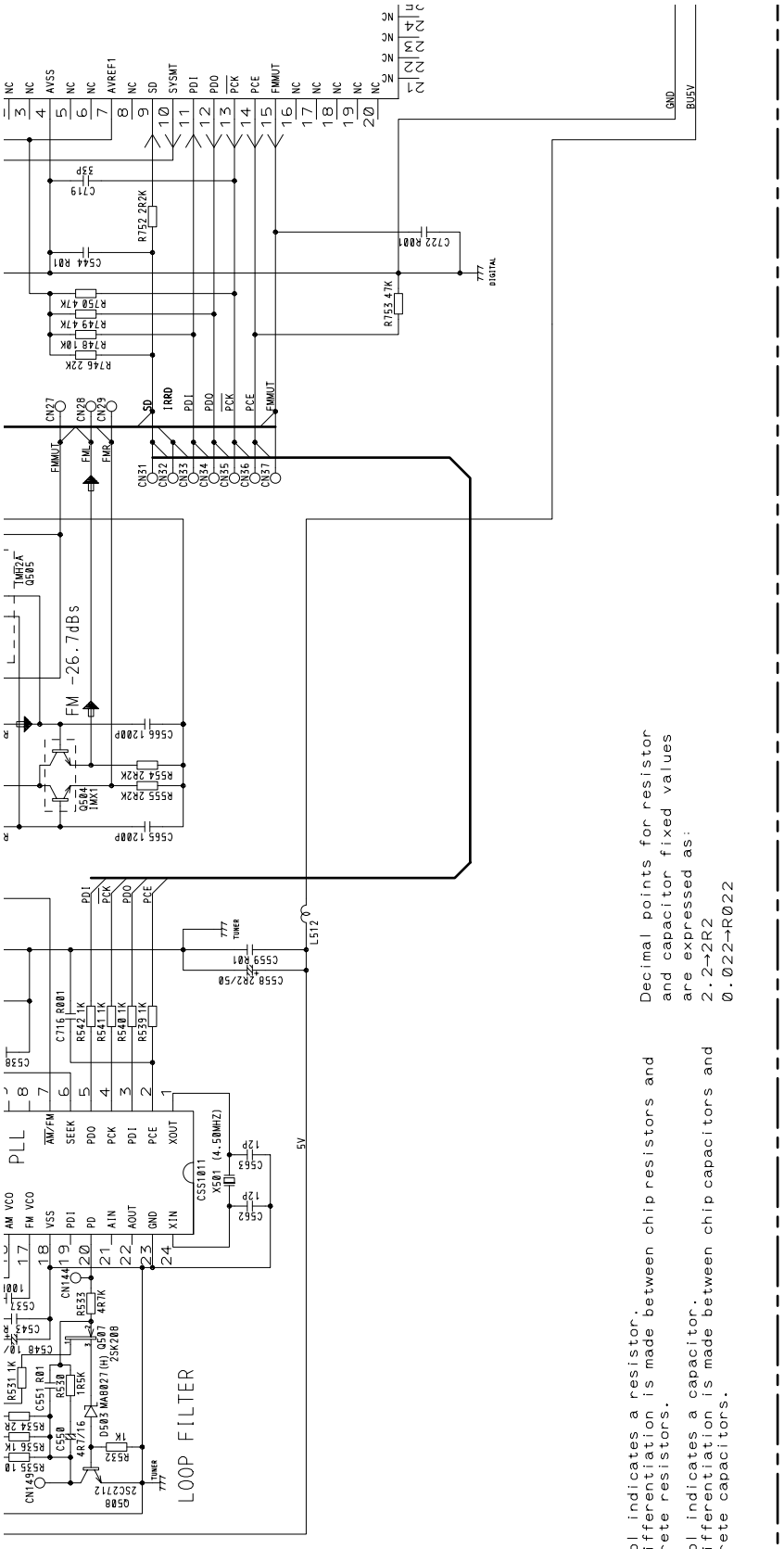
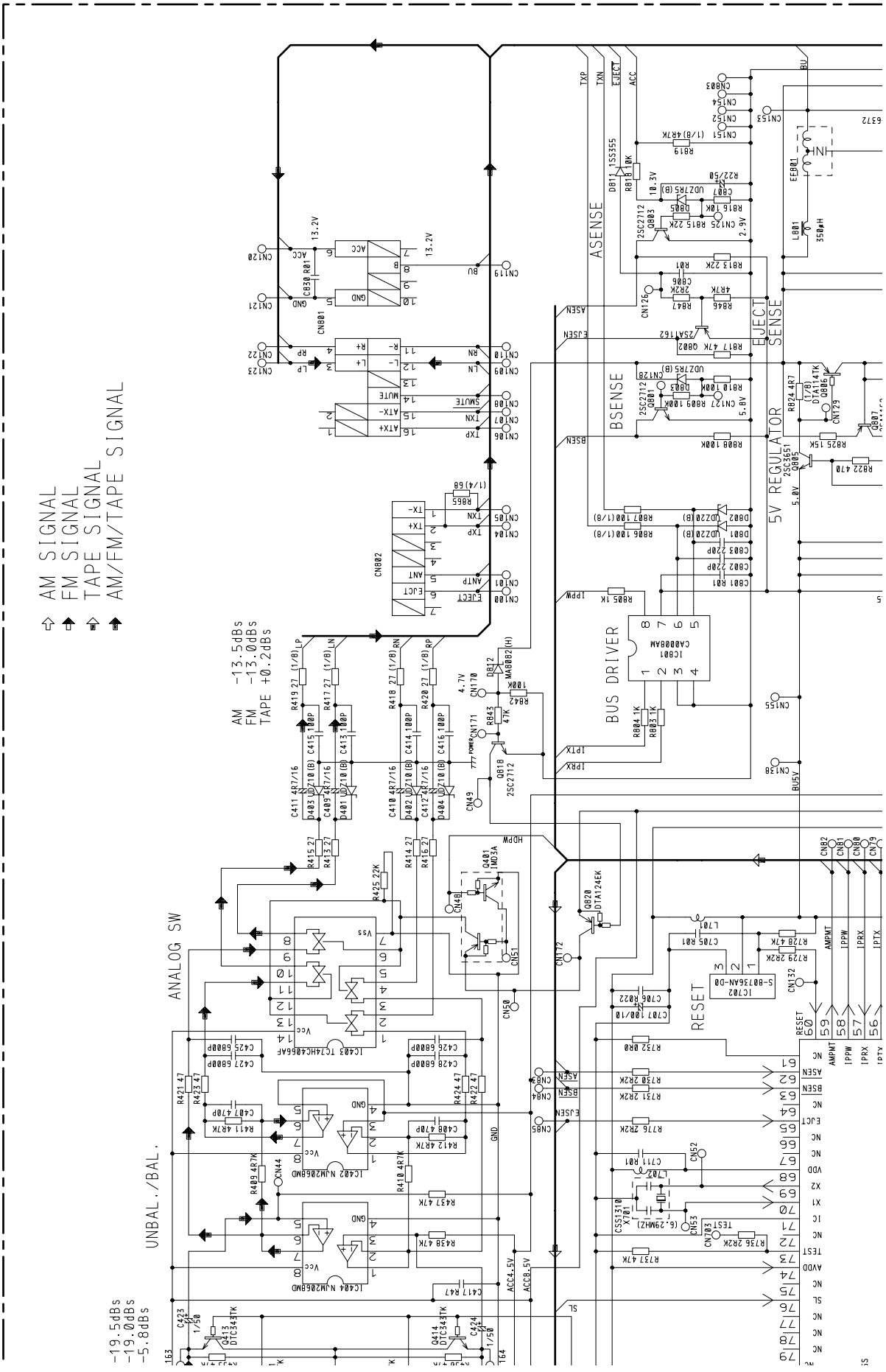

NOTE:
Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.
Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022
PLL
LOOP FILTER
FM -26.7dBS
5V
GND
BUSY

Fig. 4

A-b
A-a A-b


AM SIGNAL
FM SIGNAL
TAPE SIGNAL
AM/FM/TAPE SIGNAL
AM -13.5dBs
FM -13.0dBs
TAPE +0.2dBs
-19.5dBs
-19.0dBs
-5.8dBs
UNBAL./BAL.
ANALOG SW
BUS DRIVER
5V REGULATOR
ASENSE
BSENSE
EJECT SENSE
RESET

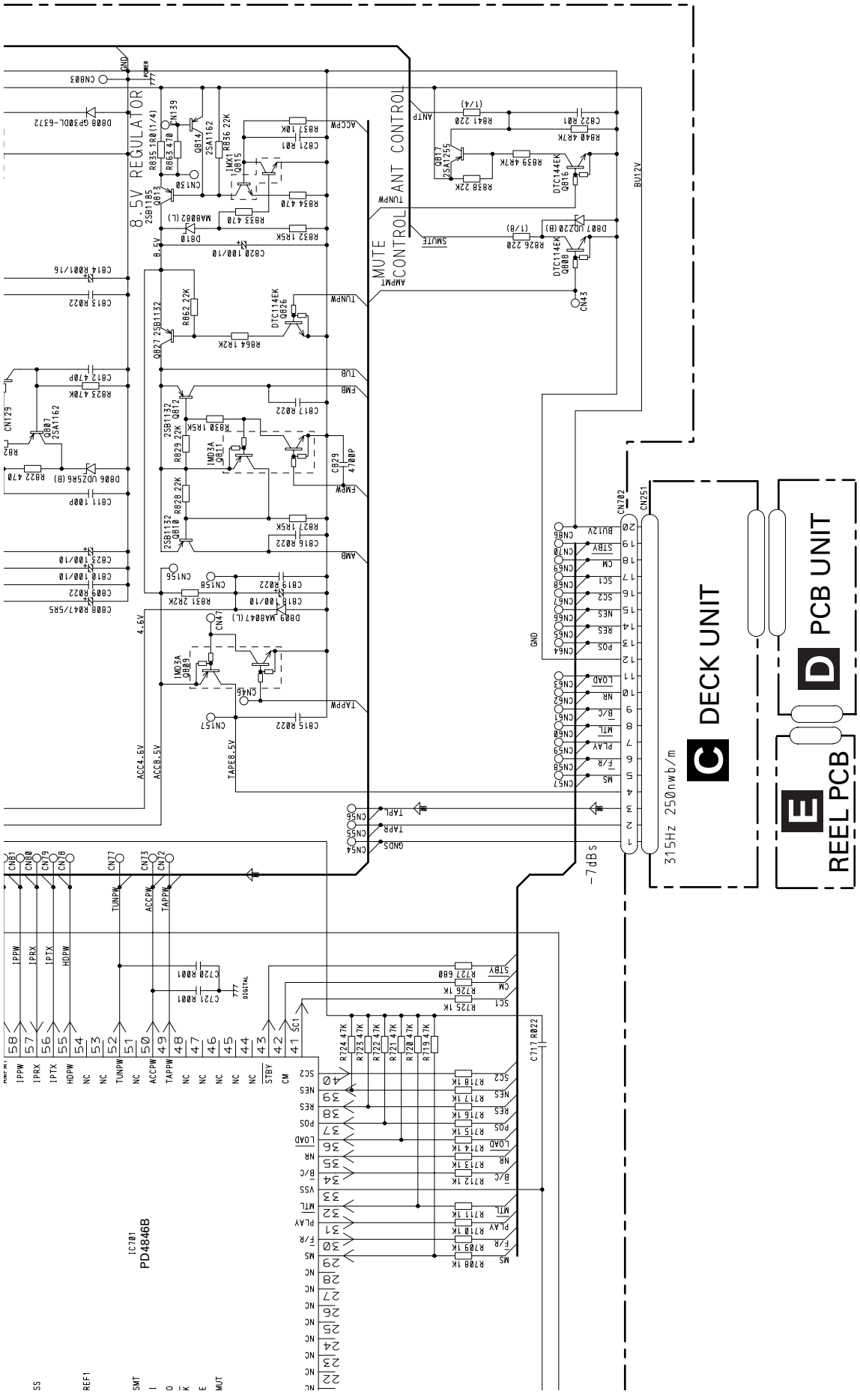
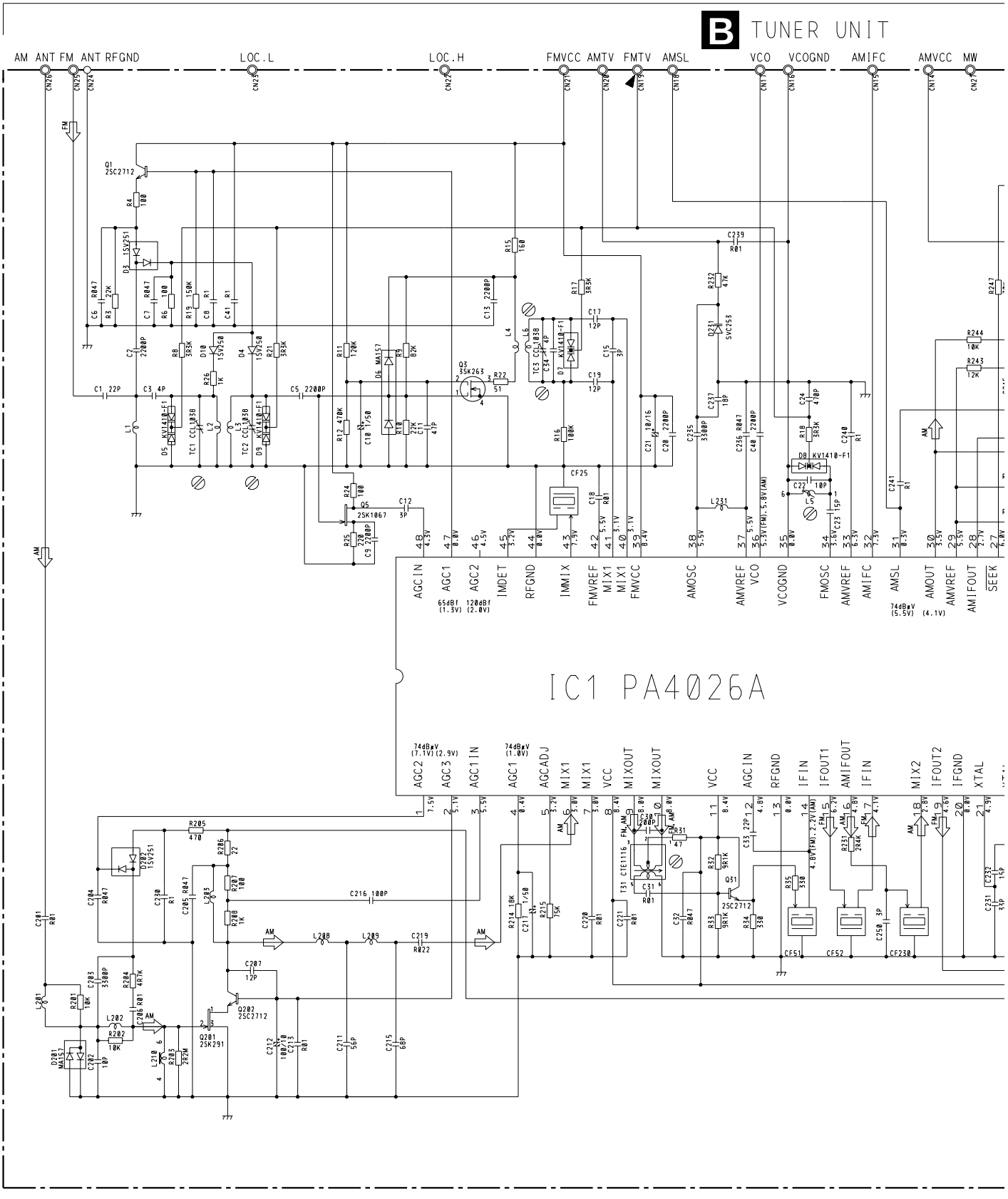

8.5V REGULATOR
MUTE CONTROL
ANT CONTROL
C DECK UNIT
315Hz 250nwb/m
D PCB UNIT
E REEL PCB
IC701
PD4846B
-7dBs

Fig. 5

3.2 TUNER UNIT



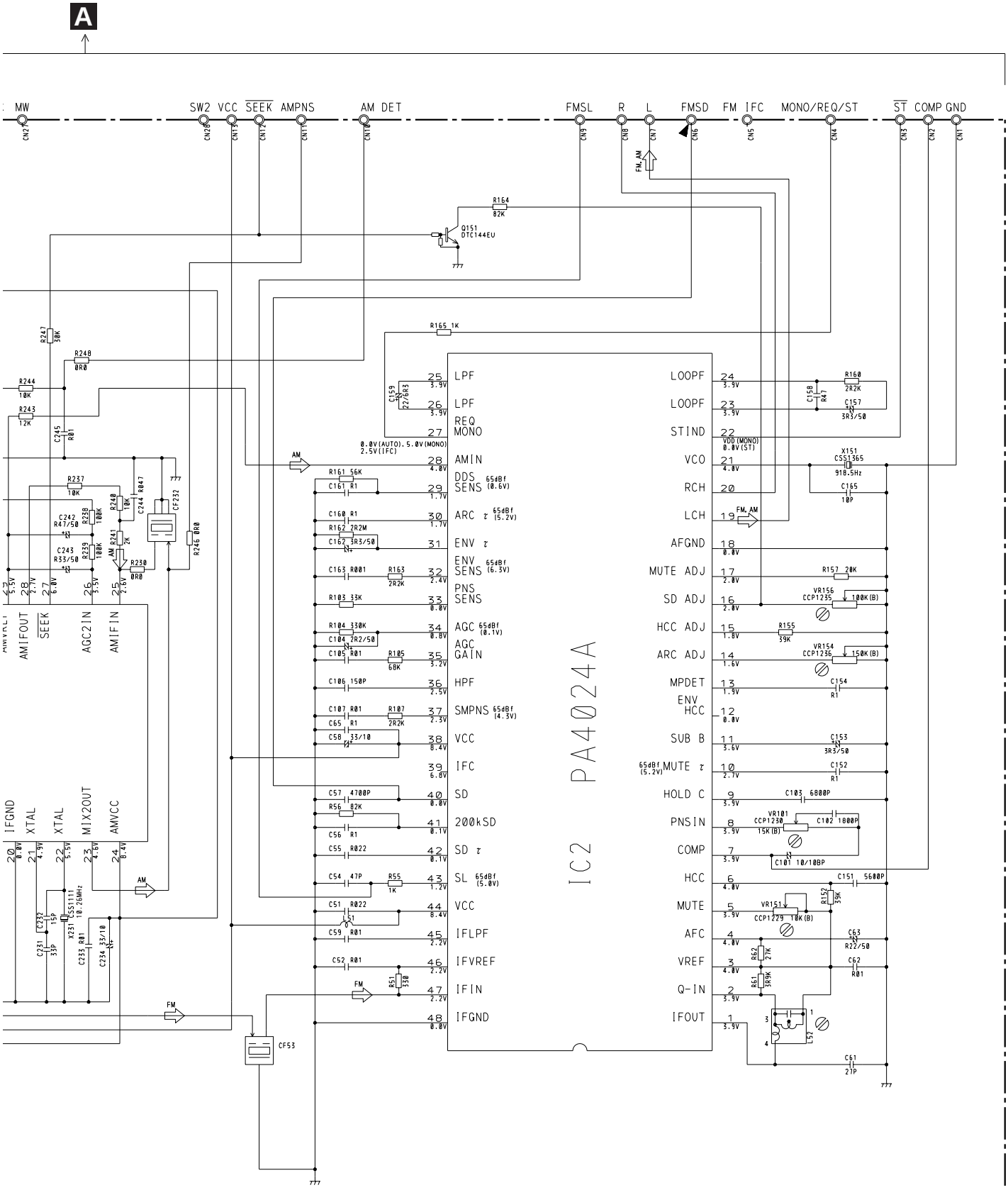
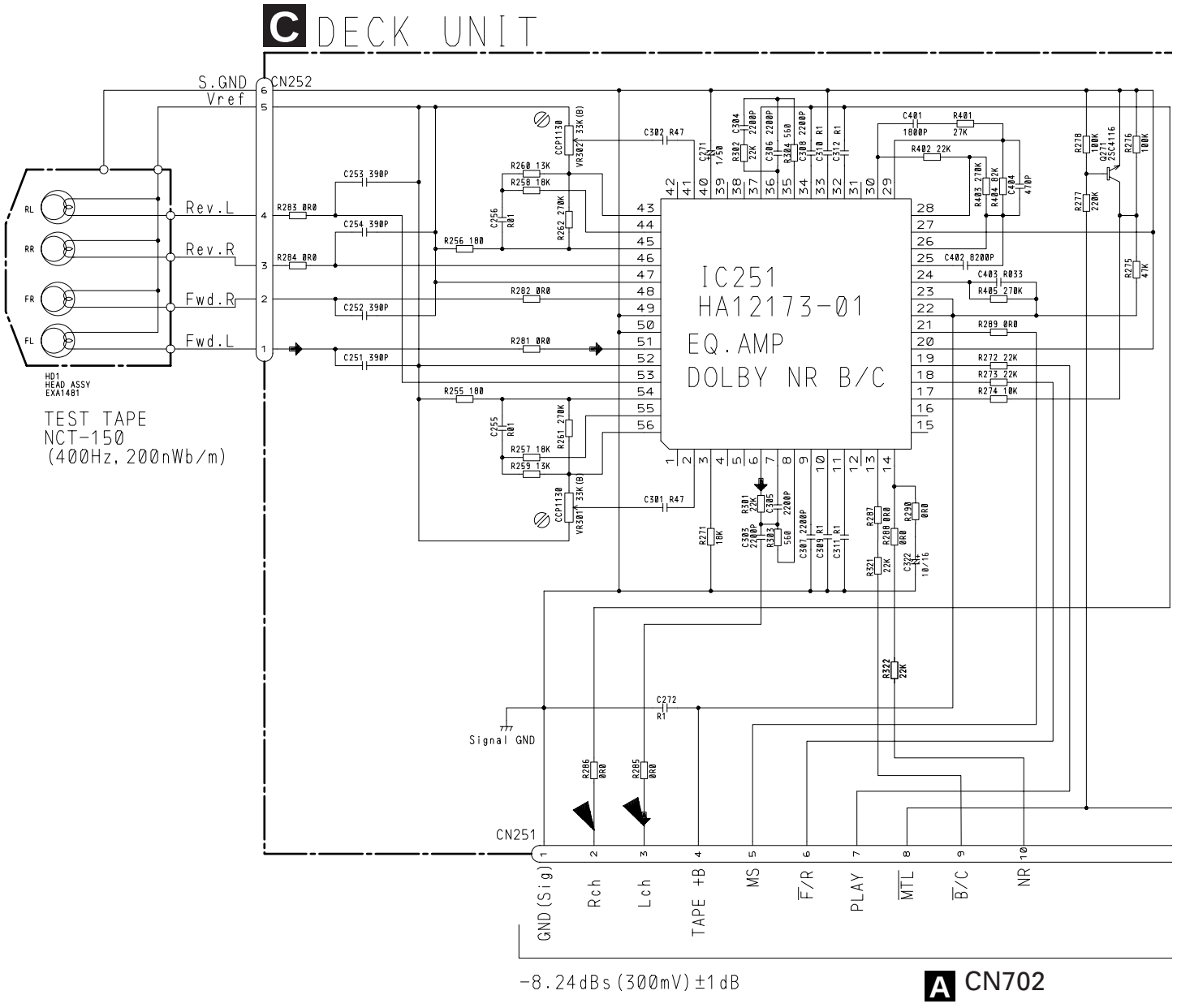
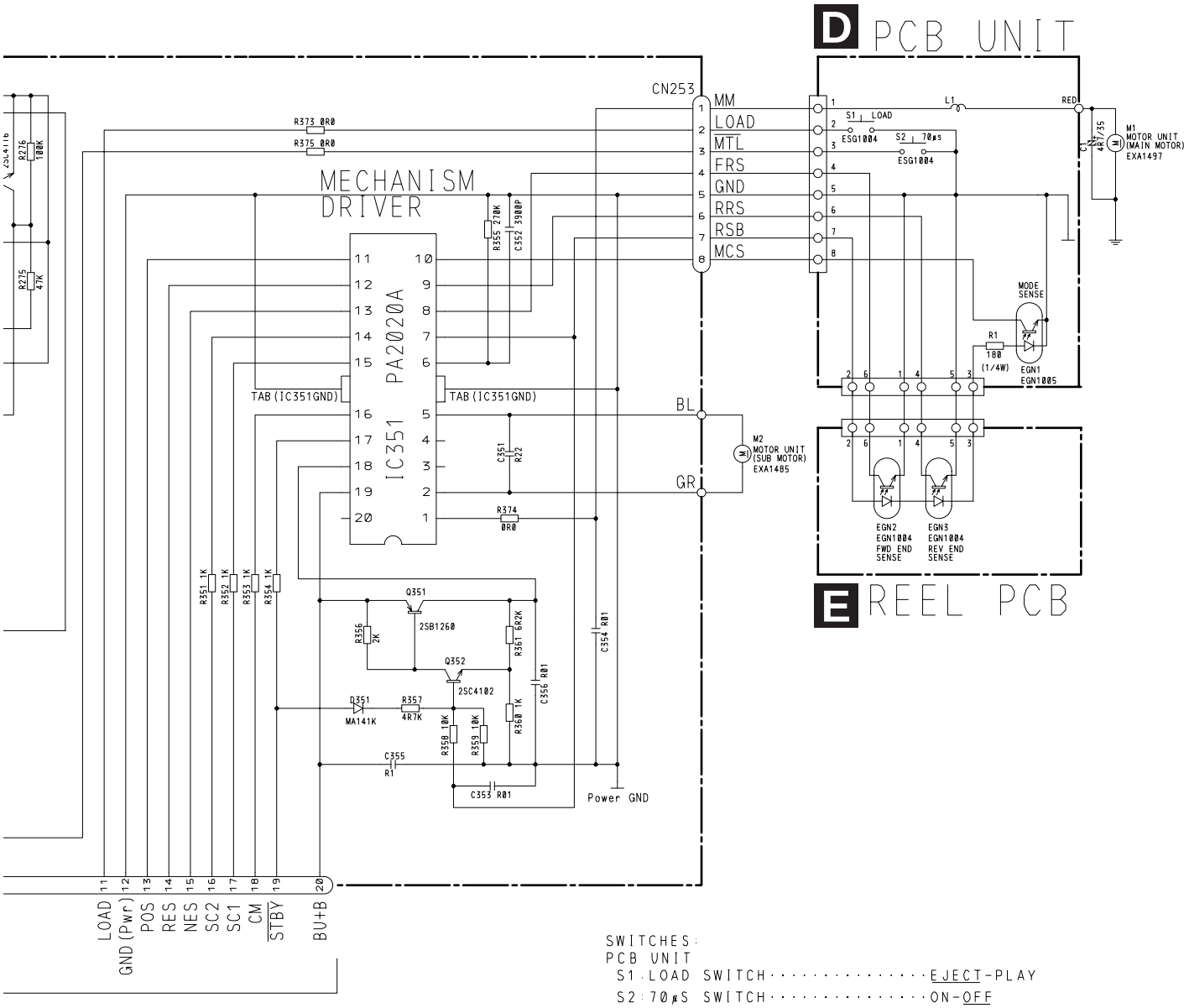

A
MW
SW2 VCC SEEK AMPNS
AM DET
FMSL R L FMSD FM IFC MONO/REQ/ST
ST COMP GND
IC2 PA4024A
LPF
LPF
REQ
MONO
AMIN
DDS SENS
ARC τ
ENV τ
ENV SENS
PNS SENS
AGC GAIN
HPF
SMPNS
VCC
IFC
SD
200kSD
SD τ
SL
VCC
IFLPF
IFVREF
IFIN
IFGND
LOOPF
LOOPF
STIND
VCO
RCH
LCH
AFGND
MUTE ADJ
SD ADJ
HCC ADJ
ARC ADJ
MPDET
ENV HCC
SUB B
MUTE τ
HOLD C
PNSIN
COMP
HCC
MUTE
AFC
VREF
Q-IN
IFOUT
AMIFOUT
SEEK
AGC2IN
AMIFIN
IFGND
XTAL
XTAL
MIX2OUT
AMVCC
Q151 DTC144EU
CF232
CF53
X151 CSS1365 918.5Hz
X231 CSS1111 10.26MHz
VR156 CCP1235 100K(B)
VR154 CCP1236 150K(B)
VR101 CCP1230 15K(B)
VR151 CCP1229 10K(B)
L52
AM
FM
FM.AM

Fig. 6

3.3 CASSETTE MECHANISM MODULE





SWITCHES:
PCB UNIT
S1 LOAD SWITCH ..... EJECT-PLAY
S2 70µS SWITCH ..... ON-OFF
The underlined indicates the switch position.

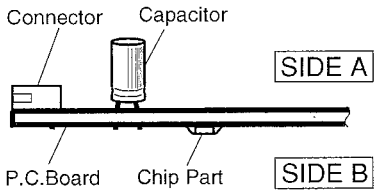
Fig. 7

4. PCB CONNECTION DIAGRAM

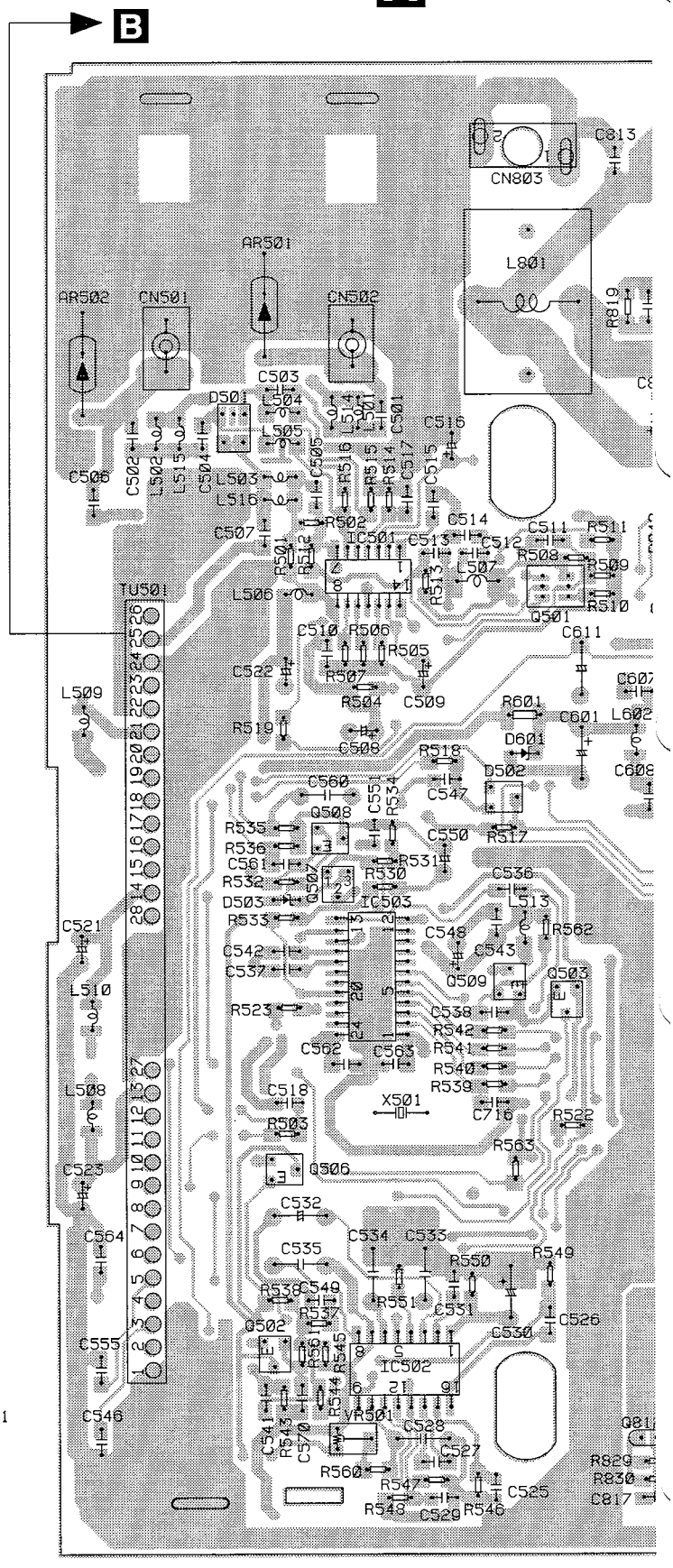
4.1 MAIN UNIT

NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



A MAIN UNIT



SIDE A

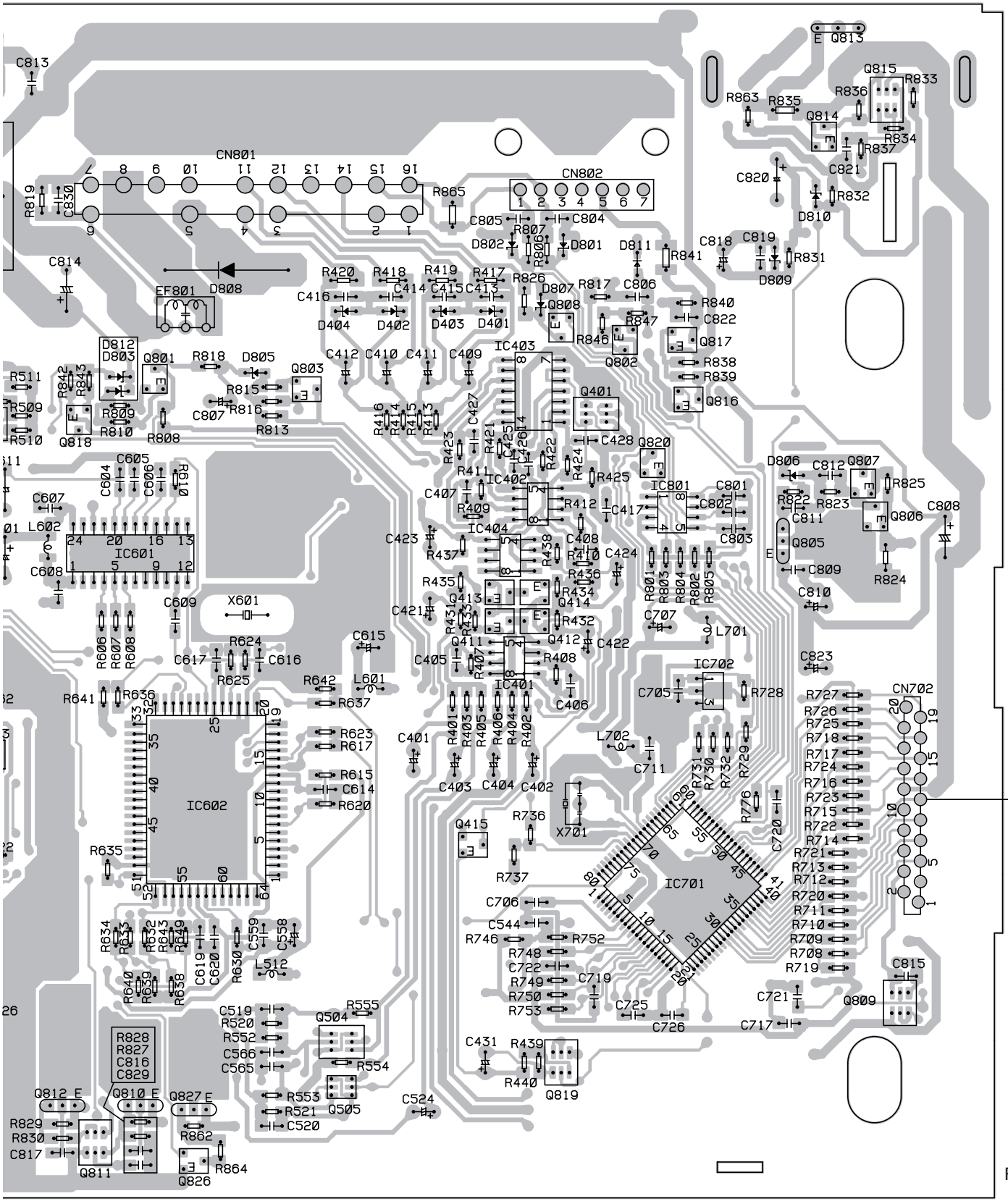
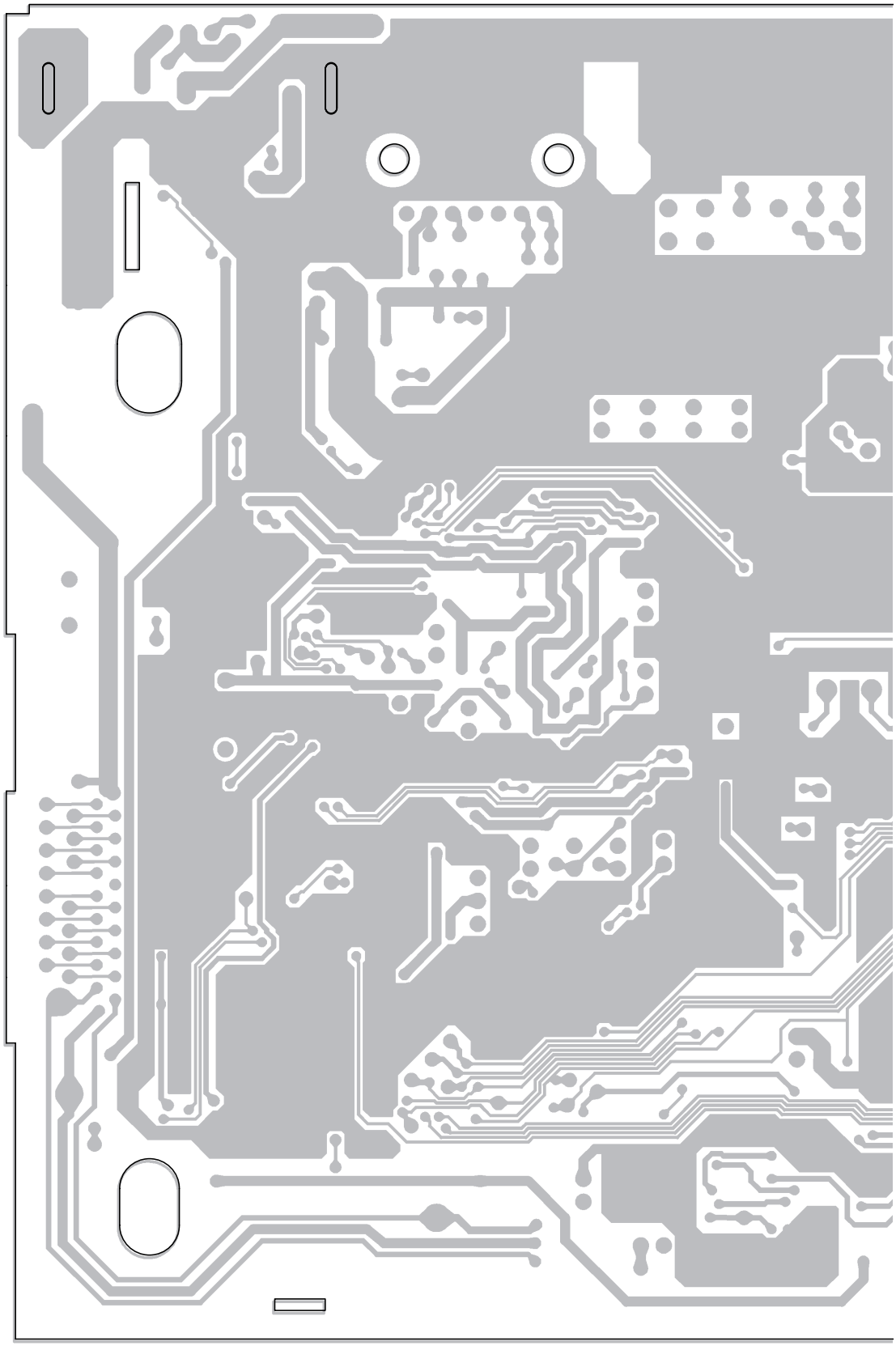

CN801
CN802
IC601
IC602
IC701
IC702
IC401
IC402
IC403
IC404
CN702
CN251
C
Q813
Q815
Q814
Q817
Q816
Q818
Q801
Q803
Q802
Q401
Q820
Q807
Q806
Q805
Q809
Q504
Q505
Q811
Q812
Q810
Q827
Q826
Q819
Q415
Q411
Q412
Q413
Q414
D808
D812
D803
D805
D806
D810
D809
D802
D801
D811
D807
D808
D404
D402
D403
D401
X601
X701
EF801
L601
L602
L701
L702
L512

Fig. 8

A MAIN UNIT



SIDE B

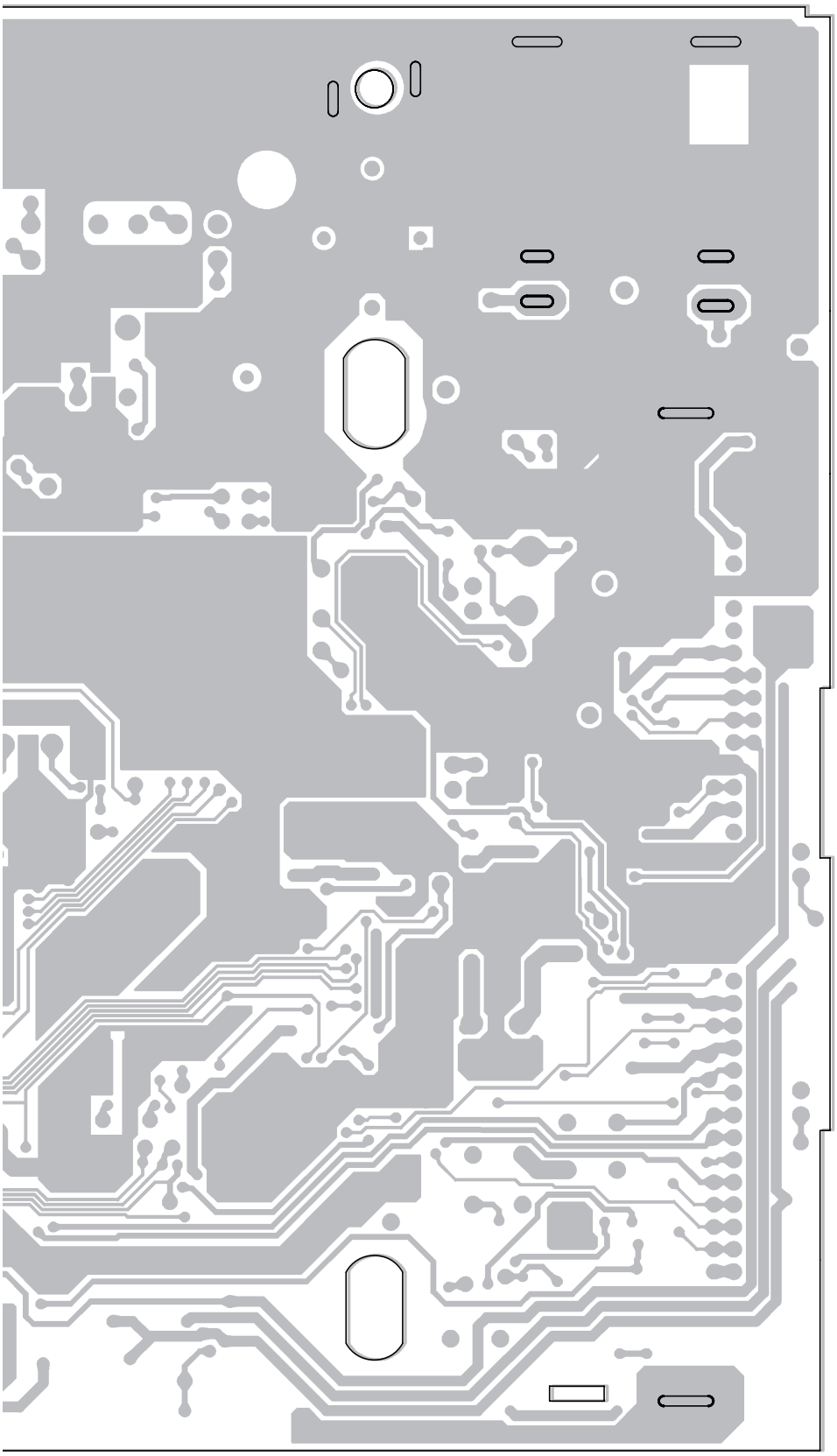


Fig. 9

4.2 TUNER UNIT

SIDE A

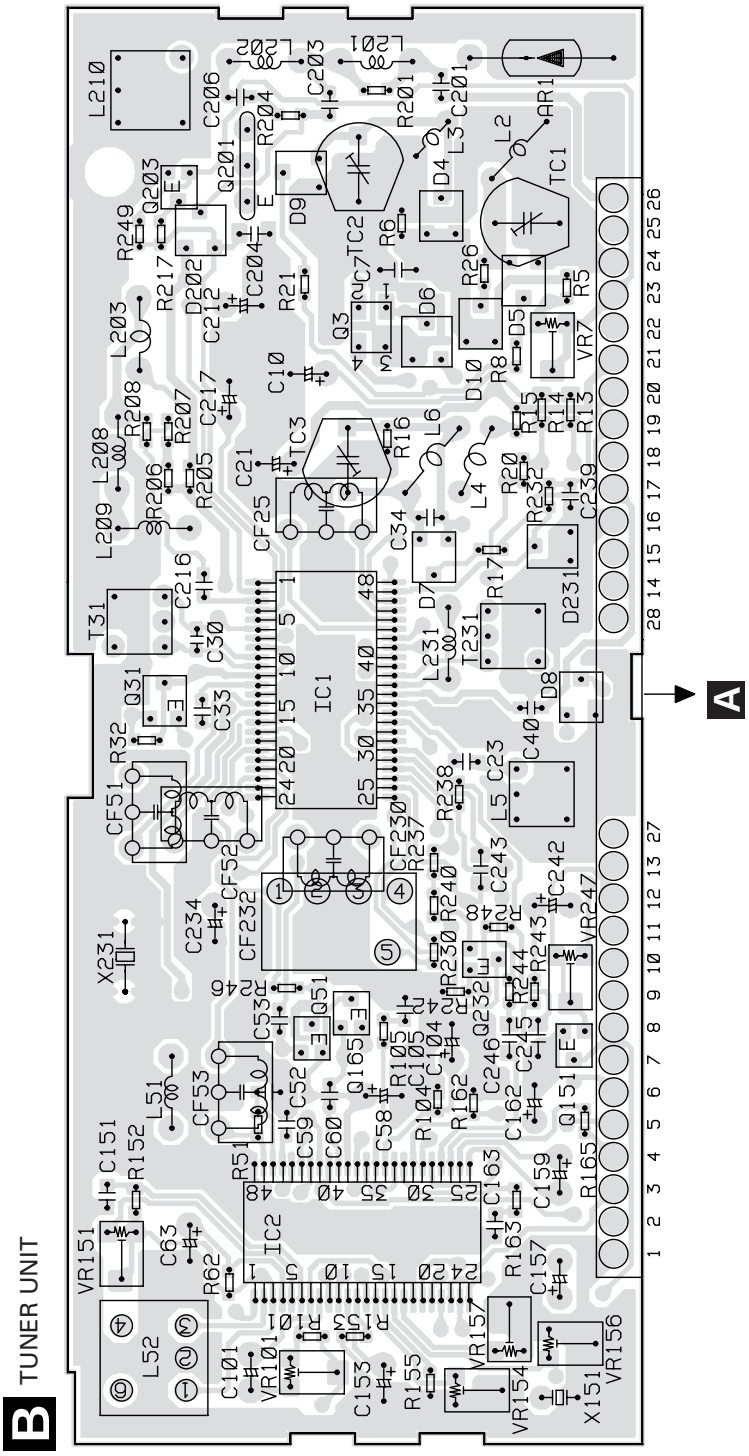


Fig. 10

SIDE B

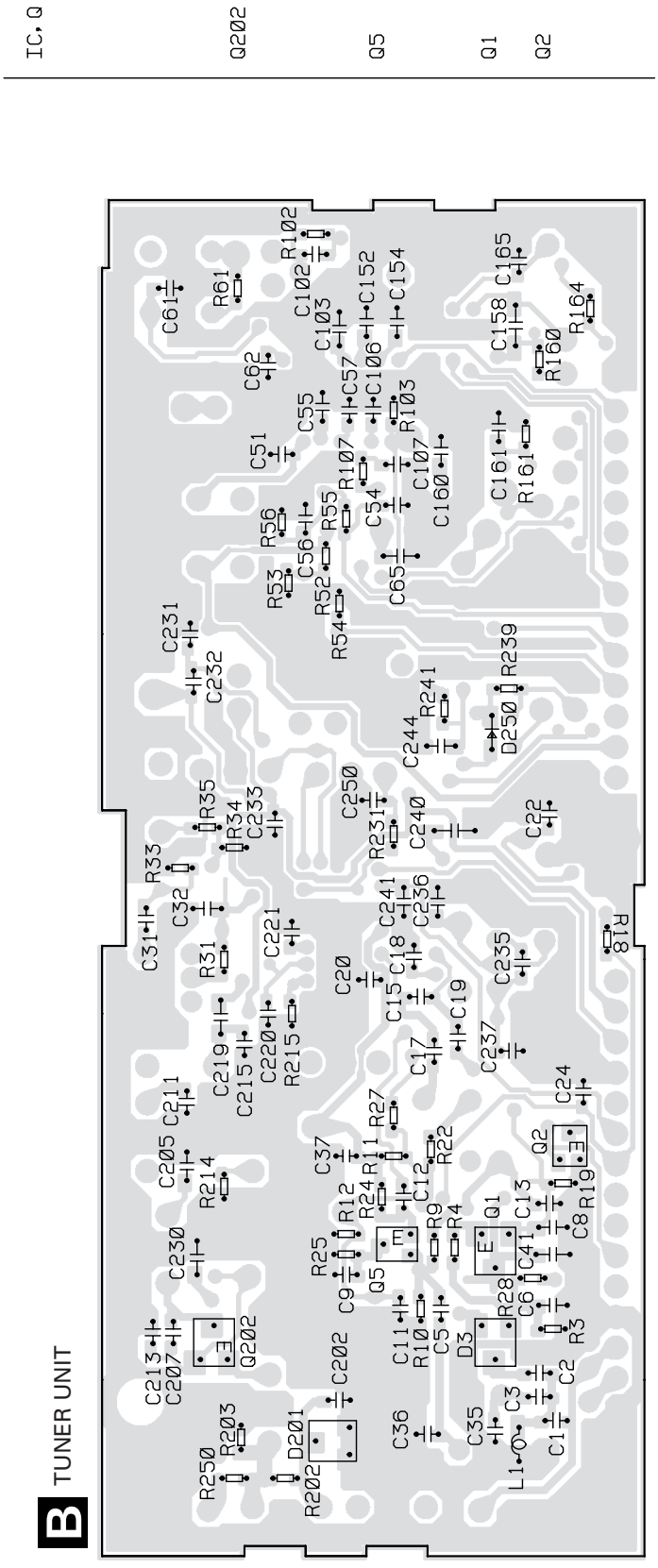


Fig. 11

4.3 CASSETTE MECHANISM MODULE

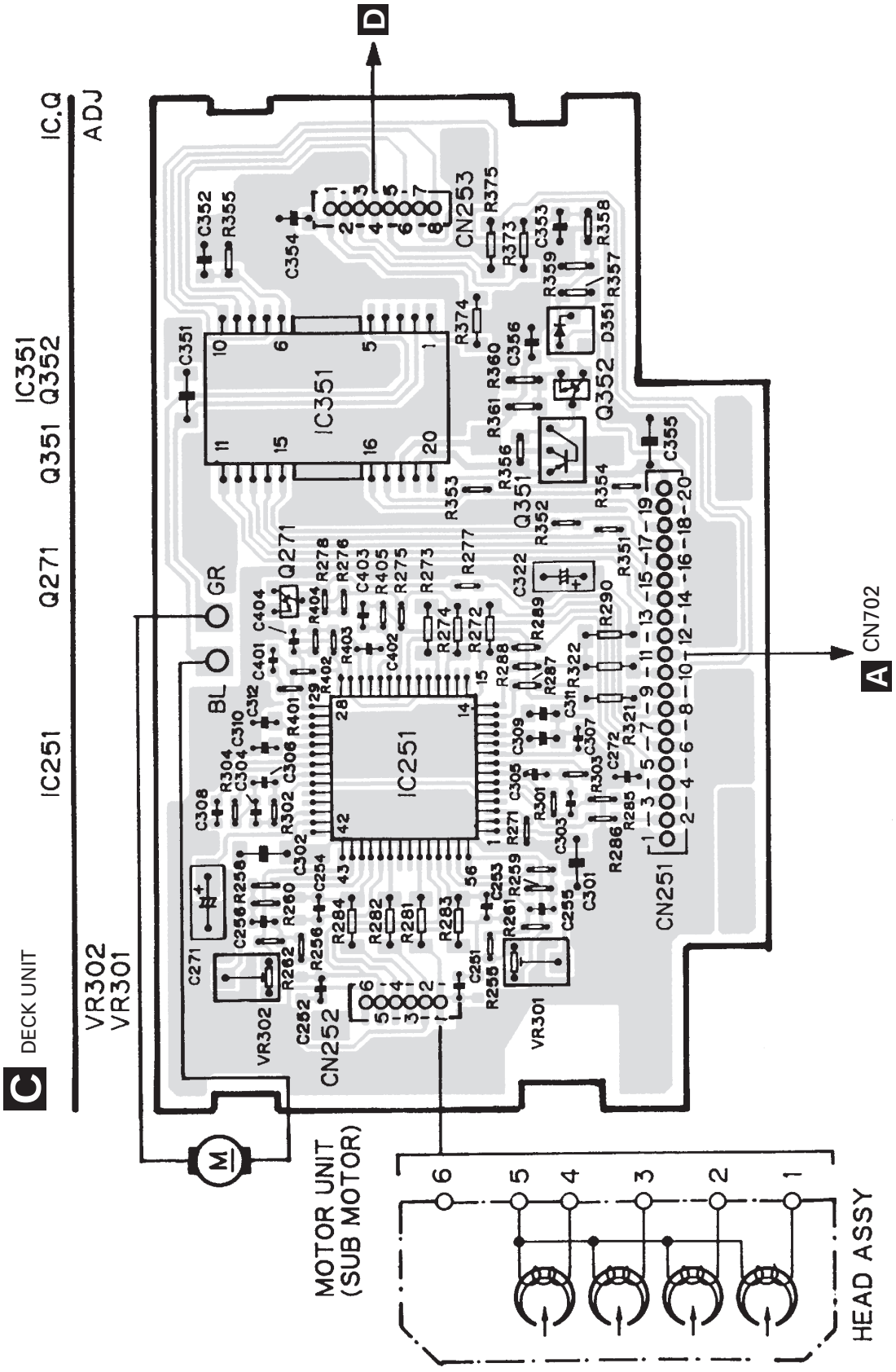


Fig. 12

D PCB UNIT

SIDE A

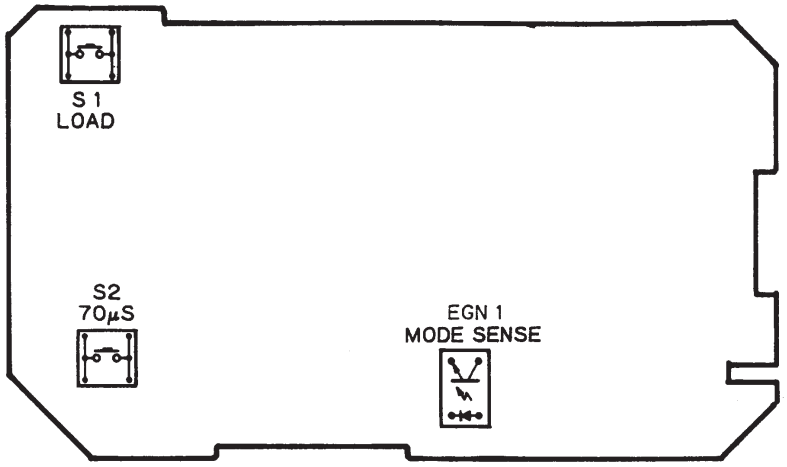


Fig. 13

D PCB UNIT

SIDE B

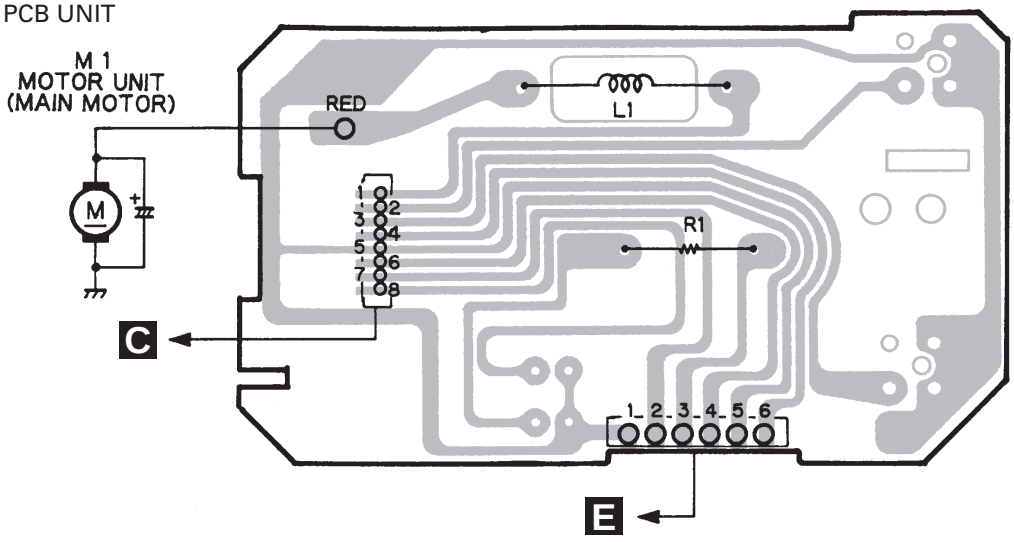


Fig. 14

E REEL PCB

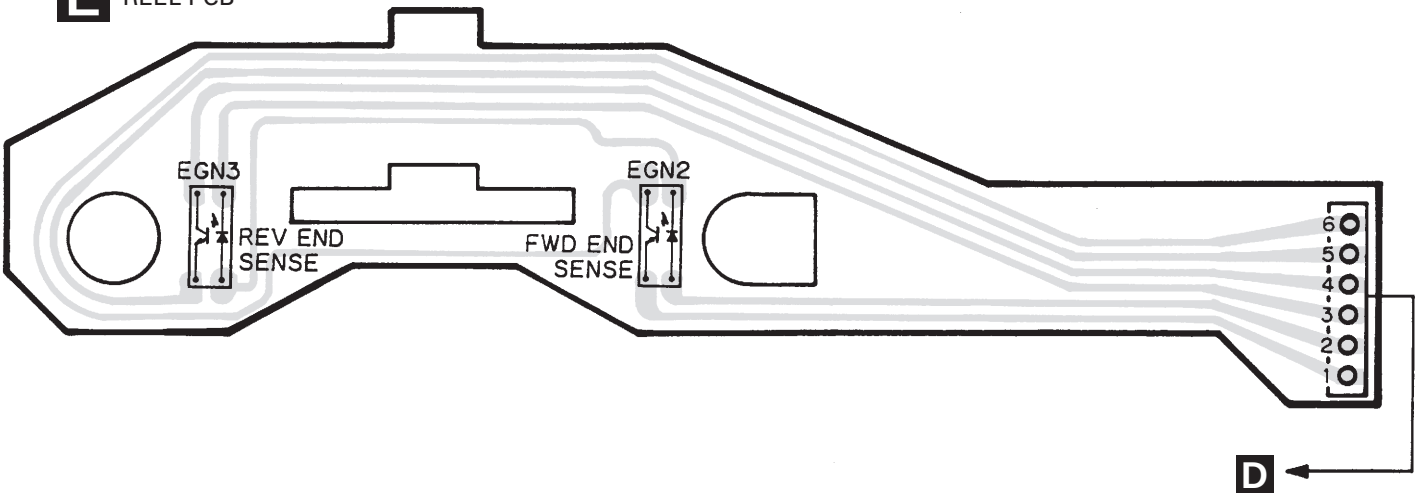


Fig. 15

5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○J,RS1/○○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

B Unit Number: CWE1455
Unit Name : Tuner Unit

MISCELLANEOUS

=====Circuit Symbol and No.		===Part Name	Part No.
IC	1	IC	PA4026A
IC	2	IC	PA4024A
Q	1	Transistor	2SC2712
Q	3	FET	3SK263
Q	5	Transistor	2SK1067
Q	31	Transistor	2SC2712
Q	151	Transistor	DTC144EU
Q	201	FET	2SK291
Q	202	Transistor	2SC2712
D	3	Diode	1SV251
D	4	Diode	1SV250
D	5	Diode	KV1410-F1
D	6	Diode	MA157
D	7	Diode	KV1410-F1
D	8	Diode	KV1410-F1
D	9	Diode	KV1410-F1
D	10	Diode	1SV250
D	201	Diode	MA157
D	202	Diode	1SV251
D	231	Diode	SVC253
L	1	Inductor	LCTBR12K2125
L	2	Coil	CTC1152
L	3	Coil	CTC1152
L	4	Coil	CTC1151
L	5	Coil	CTC1147
L	6	Coil	CTC1153
L	51	Ferri-Inductor	LAU150K
L	52	Coil	CTC1136
L	201	Ferri-Inductor	LAU4R7K
L	202	Ferri-Inductor	LAU330K
L	203	Inductor	CTF1371
L	208	Inductor	LAU390K
L	209	Ferri-Inductor	LAU680K
L	210	Coil	CTB1103
L	231	Inductor	LAU3R3J
T	31	Coil	CTE1116
TC	1	Capacitor	CCL1038
TC	2	Capacitor	CCL1038
TC	3	Capacitor	CCL1038
CF	25	Ceramic Filter	CTF1290
CF	51	Ceramic Filter	CTF1290
CF	52	Ceramic Filter	CTF1144
CF	53	Ceramic Filter	CTF1145
CF	230	Crystal Filter	CTF1262
CF	232	Ceramic Filter	CTF1348
X	151	Resonator 918.5Hz	CSS1365
X	231	Crystal Resonator 10.26MHz	CSS1111
VR	101	Semi-fixed 15kΩ(B)	CCP1230
VR	151	Semi-fixed 10kΩ(B)	CCP1229
VR	154	Semi-fixed 150kΩ(B)	CCP1236Ω
VR	156	Semi-fixed 100kΩ(B)	CCP1235

RESISTORS

R	3		RS1/16S223J
R	4		RS1/16S101J
R	6		RS1/16S101J
R	8		RS1/16S332J
R	9		RS1/16S823J
R	10		RS1/16S223J
R	11		RS1/16S124J
R	12		RS1/16S474J
R	15		RS1/16S161J
R	16		RS1/16S104J
R	17		RS1/16S332J
R	18		RS1/16S332J
R	19		RS1/16S154J
R	21		RS1/16S332J
R	22		RS1/16S510J
R	24		RS1/16S101J
R	25		RS1/16S221J
R	26		RS1/16S102J
R	31		RS1/16S470J
R	32		RS1/16S912J
R	33		RS1/16S912J
R	34		RS1/16S331J
R	35		RS1/16S331J
R	51		RS1/16S331J
R	55		RS1/16S102J
R	56		RS1/16S823J
R	61		RS1/16S392J
R	62		RS1/16S273J
R	103		RS1/16S333J
R	104		RS1/16S334J
R	105		RS1/16S683J
R	107		RS1/16S222J
R	152		RS1/16S393J
R	155		RS1/16S393J
R	157		RS1/10S203J
R	160		RS1/16S222J
R	161		RS1/16S563J
R	162		RS1/16S225J
R	163		RS1/16S222J
R	164		RS1/16S823J
R	165		RS1/16S102J
R	201		RS1/16S103J
R	202		RS1/16S103J
R	203		RS1/16S225J
R	204		RS1/16S472J
R	205		RS1/16S471J
R	206		RS1/16S220J
R	207		RS1/16S101J
R	208		RS1/16S102J
R	214		RS1/16S183J

=====Circuit Symbol and No.	===Part Name	Part No.
R 215		RS1/16S753J
R 230		RS1/16S0R0J
R 231		RS1/16S242J
R 232		RS1/16S473J
R 237		RS1/16S103J
R 238		RS1/16S104J
R 239		RS1/16S104J
R 240		RS1/16S103J
R 241		RS1/16S202J
R 243		RS1/16S123J
R 244		RS1/16S103J
R 246		RS1/16S0R0J
R 247		RS1/10S303J
R 248		RS1/16S0R0J
R 250		RS1/16S0R0J
CAPACITORS		
C 1		CCSRCH220J50
C 2		CKSRYB222K50
C 3		CCSRCH4R0D50
C 5		CKSRYB222K50
C 6		CKSQYB473K16
C 7		CKSQYB473K16
C 8		CKSQYB104K16
C 9		CKSRYB222K50
C 10		CEJA1R0M50
C 11		CCSRCH470J50
C 12		CCSRCJ3R0C50
C 13		CKSRYB222K50
C 15		CCSRCJ3R0D50
C 17		CCSRCH120J50
C 18		CKSRYB103K25
C 19		CCSRCH120J50
C 20		CKSRYB222K50
C 21		CEJA100M16
C 22		CCSRRH100D50
C 23		CCSRRH150J50
C 24		CCSRCH471J50
C 30		CCSRRH201J50
C 31		CKSRYB103K25
C 32		CKSQYB473K16
C 33		CCSRCH220J50
C 34		CCSRCH4R0D50
C 40		CKSRYB222K50
C 41		CKSQYB104K16
C 51		CKSRYB223K25
C 52		CKSRYB103K25
C 54		CCSRCH470J50
C 55		CKSQYB223K25
C 56		CKSQYB104K16
C 57		CKSRYB472K50
C 58		CEJA330M10
C 59		CKSRYB103K25
C 61		CCSRCH270J50
C 62		CKSRYB103K25
C 63		CEJAR22M50
C 65		CKSQYB104K16
C 101		CEJANP100M10
C 102		CKSRYB182K50
C 103		CKSQYB682K50
C 104		CEJA2R2M50
C 105		CKSRYB103K25
C 106		CCSRCH151J50
C 107		CKSRYB103K25
C 151		CKSRYB562K25
C 152		CKSQYB104K16
C 153		CEJA3R3M50

=====Circuit Symbol and No.	===Part Name	Part No.
C 154		CKSQYB104K16
C 157		CEJA3R3M50
C 158		CKSYB474K16
C 159		CEJA220M6R3
C 160		CKSQYB104K16
C 161		CKSQYB104K16
C 162		CEJA3R3M50
C 163		CKSRYB102K50
C 165		CCSRCH100D50
C 201		CKSRYB103K25
C 202		CCSRCH100D50
C 203		CKSRYB332K50
C 204		CKSQYB473K16
C 205		CKSQYB473K16
C 206		CKSRYB103K25
C 207		CCSRCH120J50
C 211		CCSRCH560J50
C 212		CEJA101M10
C 213		CKSRYB103K25
C 215		CCSRCH680J50
C 216		CCSRCH101J50
C 217		CEJA1R0M50
C 219		CKSRYB223K25
C 220		CKSRYB103K25
C 221		CKSRYB103K25
C 230		CKSQYB104K16
C 231		CCSRCH330J50
C 232		CCSRCH150J50
C 233		CKSRYB103K25
C 234		CEJA330M10
C 235		CKSRYB332K50
C 236		CKSQYB473K16
C 237		CCSRTH180J50
C 239		CKSRYB103K25
C 240		CKSYB104K16
C 241		CKSQYB104K16
C 242		CEJAR47M50
C 243		CKSQYB334K16
C 244		CKSQYB473K16
C 245		CKSQYB103K25
C 250		CCSRCJ3R0C50

C Unit Number: EWM1008
Unit Name : Deck Unit

MISCELLANEOUS

IC	251	IC	HA12173-01
IC	351	IC	PA2020A
Q	271	Transistor	2SC4116
Q	351	Transistor	2SB1260
Q	352	Transistor	2SC4102
D	351	Diode	MA141K
VR	301	Semi-fixed 33kΩ(B)	CCP1130
VR	302	Semi-fixed 33kΩ(B)	CCP1130

RESISTORS

R 255		RS1/16S181J
R 256		RS1/16S181J
R 257		RS1/16S183J
R 258		RS1/16S183J
R 259		RS1/16S133J
R 260		RS1/16S133J
R 261		RS1/16S274J
R 262		RS1/16S274J
R 271		RS1/16S183J
R 272		RS1/8S223J

=====Circuit Symbol and No.	===Part Name	Part No.
R 273		RS1/8S223J
R 274		RS1/8S103J
R 275		RS1/16S473J
R 276		RS1/16S104J
R 277		RS1/16S224J
R 278		RS1/16S104J
R 281		RS1/8S0R0J
R 282		RS1/8S0R0J
R 283		RS1/8S0R0J
R 284		RS1/8S0R0J
R 285		RS1/16S0R0J
R 286		RS1/16S0R0J
R 287		RS1/16S0R0J
R 288		RS1/16S0R0J
R 289		RS1/16S0R0J
R 290		RS1/8S0R0J
R 301		RS1/16S223J
R 302		RS1/16S223J
R 303		RS1/16S561J
R 304		RS1/16S561J
R 321		RS1/8S223J
R 322		RS1/8S223J
R 351		RS1/16S102J
R 352		RS1/16S102J
R 353		RS1/16S102J
R 354		RS1/16S102J
R 355		RS1/10S274J
R 356		RS1/10S202J
R 357		RS1/10S472J
R 358		RS1/10S103J
R 359		RS1/10S103J
R 360		RS1/10S102J
R 361		RS1/10S622J
R 373		RS1/8S0R0J
R 374		RS1/8S0R0J
R 375		RS1/8S0R0J
R 401		RS1/16S273J
R 402		RS1/16S223J
R 403		RS1/16S274J
R 404		RS1/16S823J
R 405		RS1/16S274J
CAPACITORS		
C 251		CKSRYB391K50
C 252		CKSRYB391K50
C 253		CKSRYB391K50
C 254		CKSRYB391K50
C 255		CKSRYB103K25
C 256		CKSRYB103K25
C 271		CEV1R0M50
C 272		CKSQYB104K16
C 301		CKSYB474K16
C 302		CKSYB474K16
C 303		CKSRYB222K50
C 304		CKSRYB222K50
C 305		CKSRYB222K50
C 306		CKSRYB222K50
C 307		CKSRYB222K50
C 308		CKSRYB222K50
C 309		CKSQYB104K16
C 310		CKSQYB104K16
C 311		CKSQYB104K16
C 312		CKSQYB104K16
C 322		CEV100M16
C 351		CKSYB224K25
C 352		CKSQYB392K50
C 353		CKSQYB103K50
C 354		CKSQYB103K50

=====Circuit Symbol and No.	===Part Name	Part No.
C 355		CKSYB104K50
C 356		CKSQYB103K50
C 401		CKSRYB182K50
C 402		CKSRYB822K25
C 403		CKSRYB333K16
C 404		CKSRYB471K50

A Unit Number: CWM5423
Unit Name : Main Unit

MISCELLANEOUS

IC	401	IC	NJM2068MD
IC	402	IC	NJM2068MD
IC	403	IC	TC74HC4066AF
IC	404	IC	NJM2068MD
IC	501	IC	LA1061M
IC	503	IC	LC72146M
IC	701	IC	PD4846B
IC	702	IC	S-80736AN-D0
IC	801	IC	CA0008AM
Q	401	Transistor	IMD3A
Q	411	Transistor	DTC343TK
Q	412	Transistor	DTC343TK
Q	413	Transistor	DTC343TK
Q	414	Transistor	DTC343TK
Q	415	Transistor	DTA114EK
Q	501	Transistor	IMX1
Q	502	Transistor	2SC2712
Q	503	Transistor	DTC144EK
Q	504	Transistor	IMX1
Q	505	Transistor	IMH2A
Q	507	Transistor	2SK208
Q	508	Transistor	2SC2712
Q	509	Transistor	DTC144EK
Q	801	Transistor	2SC2712
Q	802	Transistor	2SA1162
Q	803	Transistor	2SC2712
Q	805	Transistor	2SC3651
Q	806	Transistor	DTA114TK
Q	807	Transistor	2SA1162
Q	808	Transistor	DTC114EK
Q	809	Transistor	IMD3A
Q	810	Transistor	2SB1132
Q	811	Transistor	IMD3A
Q	812	Transistor	2SB1132
Q	813	Transistor	2SB1185
Q	814	Transistor	2SA1162
Q	815	Transistor	IMX1
Q	816	Transistor	DTC144EK
Q	817	Transistor	2SA1255
Q	818	Transistor	2SC2712
Q	819	Transistor	IMD3A
Q	820	Transistor	DTA124EK
Q	826	Transistor	DTC114EK
Q	827	Transistor	2SB1132
D	401	Diode	UDZ10(B)
D	402	Diode	UDZ10(B)
D	403	Diode	UDZ10(B)
D	404	Diode	UDZ10(B)
D	501	Diode	1SV241
D	502	Chip Diode	MA151WK
D	503	Diode	MA8027(H)
D	801	Diode	UDZ20(B)
D	802	Diode	UDZ20(B)
D	803	Diode	UDZ7R5(B)
D	805	Diode	UDZ7R5(B)

Circuit Symbol and No.		Part Name	Part No.
D	806	Diode	UDZ5R6(B)
D	807	Diode	UDZ20(B)
D	808	Diode	GP30DL-6372
D	809	Diode	MA8047(L)
D	810	Diode	MA8082(L)
D	811	Diode	1SS355
D	812	Diode	MA8082(H)
L	501	Inductor	LCTBR33K3216
L	502	Inductor	LCTBR33K3216
L	503	Inductor	LCTBR33K3216
L	504	Inductor	LCTB4R7K3216
L	505	Inductor	LCTB4R7K3216
L	506	Inductor	LCTB1R0K2125
L	507	Inductor	LCTA561J4532
L	508	Chip Inductor	LCTA2R2J3225
L	509	Chip Inductor	LCTA2R2J3225
L	510	Chip Inductor	LCTA2R2J3225
L	512	Inductor	LCTB2R2K3216
L	513	Coil	LCTB150K3216
L	514	Inductor	LCTBR33K3216
L	515	Inductor	LCTBR33K3216
L	516	Inductor	LCTBR33K3216
L	701	Inductor	LCTB2R2K3216
L	702	Inductor	LCTB2R2K3216
L	801	Coil 350µH	CTH1092
X	501	Crystal Resonator 4.5MHz	CSS1011
X	701	Ceramic Resonator 6.29MHz	CSS1310
EF	801	EMI Filter	CCG1006
AR	501	Arrester	DSP-201M
AR	502	Arrester	DSP-201M
		Tuner Unit	CWE1455

RESISTORS

R	401		RS1/10S822J
R	402		RS1/10S822J
R	403		RS1/10S392J
R	404		RS1/10S392J
R	405		RS1/10S682J
R	406		RS1/10S682J
R	407		RS1/10S103J
R	408		RS1/10S103J
R	409		RS1/10S472J
R	410		RS1/10S472J
R	411		RS1/10S472J
R	412		RS1/10S472J
R	413		RS1/10S270J
R	414		RS1/10S270J
R	415		RS1/10S270J
R	416		RS1/10S270J
R	417		RS1/8S270J
R	418		RS1/8S270J
R	419		RS1/8S270J
R	420		RS1/8S270J
R	421		RS1/10S470J
R	422		RS1/10S470J
R	423		RS1/10S470J
R	424		RS1/10S470J
R	425		RS1/10S223J
R	431		RS1/10S681J
R	432		RS1/10S681J
R	433		RS1/10S681J
R	434		RS1/10S681J
R	435		RS1/10S473J
R	436		RS1/10S473J
R	437		RS1/10S473J
R	438		RS1/10S473J
R	439		RS1/10S472J
R	440		RS1/10S102J

Circuit Symbol and No.		Part Name	Part No.
R	501		RS1/10S391J
R	502		RS1/10S471J
R	503		RS1/10S102J
R	504		RS1/10S104J
R	505		RS1/10S101J
R	506		RS1/10S101J
R	507		RS1/10S334J
R	508		RS1/10S224J
R	509		RS1/10S683J
R	510		RS1/10S182J
R	511		RS1/10S103J
R	512		RS1/10S473J
R	513		RS1/10S473J
R	514		RS1/10S104J
R	515		RS1/10S103J
R	516		RS1/10S103J
R	517		RS1/10S393J
R	518		RS1/10S103J
R	519		RS1/10S104J
R	520		RS1/10S272J
R	521		RS1/10S272J
R	522		RS1/10S473J
R	523		RS1/10S103J
R	530		RS1/10S152J
R	531		RS1/10S102J
R	532		RS1/10S102J
R	533		RS1/10S472J
R	534		RS1/10S222J
R	535		RS1/10S103J
R	536		RS1/10S102J
R	537		RS1/10S103J
R	538		RS1/10S103J
R	539		RS1/10S102J
R	540		RS1/10S102J
R	541		RS1/10S102J
R	542		RS1/10S102J
R	543		RS1/10S222J
R	552		RS1/10S103J
R	553		RS1/10S103J
R	554		RS1/10S222J
R	555		RS1/10S222J
R	561		RS1/10S123J
R	562		RS1/10S473J
R	563		RS1/10S332J
R	708		RS1/10S102J
R	709		RS1/10S102J
R	710		RS1/10S102J
R	711		RS1/10S102J
R	712		RS1/10S102J
R	713		RS1/10S102J
R	714		RS1/10S102J
R	715		RS1/10S102J
R	716		RS1/10S102J
R	717		RS1/10S102J
R	718		RS1/10S102J
R	719		RS1/10S473J
R	720		RS1/10S473J
R	721		RS1/10S473J
R	722		RS1/10S473J
R	723		RS1/10S473J
R	724		RS1/10S473J
R	725		RS1/10S102J
R	726		RS1/10S102J
R	727		RS1/10S681J
R	728		RS1/10S473J

=====Circuit Symbol and No.	===Part Name	Part No.
R 729		RS1/10S222J
R 730		RS1/10S222J
R 731		RS1/10S222J
R 732		RS1/10S0R0J
R 736		RS1/10S222J
R 737		RS1/10S473J
R 746		RS1/10S223J
R 748		RS1/10S103J
R 749		RS1/10S473J
R 750		RS1/10S473J
R 752		RS1/10S222J
R 753		RS1/10S473J
R 776		RS1/10S222J
R 803		RS1/10S102J
R 804		RS1/10S102J
R 805		RS1/10S102J
R 806		RS1/8S101J
R 807		RS1/8S101J
R 808		RS1/10S104J
R 809		RS1/10S104J
R 810		RS1/10S104J
R 813		RS1/10S223J
R 815		RS1/10S223J
R 816		RS1/10S103J
R 817		RS1/10S473J
R 818		RS1/10S103J
R 819		RS1/8S472J
R 822		RS1/10S471J
R 823		RS1/10S474J
R 824		RS1/8S4R7J
R 825		RS1/10S153J
R 826		RS1/8S221J
R 827		RS1/10S152J
R 828		RS1/10S223J
R 829		RS1/10S223J
R 830		RS1/10S152J
R 831		RS1/10S222J
R 832		RS1/10S152J
R 833		RS1/10S471J
R 834		RS1/10S471J
R 835		RS1/4S1R0J
R 836		RS1/10S223J
R 837		RS1/10S103J
R 838		RS1/10S223J
R 839		RS1/10S472J
R 840		RS1/10S472J
R 841		RS1/4S221J
R 842		RS1/10S104J
R 843		RS1/10S473J
R 846		RS1/10S472J
R 847		RS1/10S222J
R 862		RS1/10S223J
R 863		RS1/10S471J
R 864		RS1/10S122J
R 865		RS1/4S680J
CAPACITORS		
C 401		CEAL2R2M50
C 402		CEAL2R2M50
C 403		CEAL2R2M50
C 404		CEAL2R2M50
C 405		CCSQCH331J50
C 406		CCSQCH331J50
C 407		CCSQCH471J50
C 408		CCSQCH471J50
C 409		CEALNP4R7M16
C 410		CEALNP4R7M16

=====Circuit Symbol and No.	===Part Name	Part No.
C 411		CEALNP4R7M16
C 412		CEALNP4R7M16
C 413		CCSQCH101J50
C 414		CCSQCH101J50
C 415		CCSQCH101J50
C 416		CCSQCH101J50
C 417		CKSQYB474K16
C 421		CEAL1R0M50
C 422		CEAL1R0M50
C 423		CEAL1R0M50
C 424		CEAL1R0M50
C 425		CKSQYB682K50
C 426		CKSQYB682K50
C 427		CKSQYB682K50
C 428		CKSQYB682K50
C 431		CEAL220M10
C 501		CCSQCH220J50
C 502		CCSQCH220J50
C 503		CCSQCH150J50
C 504		CCSQCH150J50
C 505		CKSQYB222K50
C 506		CKSQYB103K50
C 507		CCSQCH390J50
C 508		CEJA100M16
C 509		CEAL2R2M50
C 510		CKSQYB473K25
C 511		CKSQYB103K50
C 512		CKSQYB392K50
C 513		CKSQYB103K50
C 514		CKSQYB103K50
C 515		CKSQYB103K50
C 516		CEJA100M16
C 517		CKSQYB472K50
C 518		CKSQYB223K50
C 519		CKSQYB333K25
C 520		CKSQYB333K25
C 521		CEJA100M16
C 522		CEJA100M16
C 523		CEJA100M16
C 524		CEAL2R2M50
C 536		CKSQYB102K50
C 537		CCSQCH101J50
C 538		CKSQYB223K50
C 541		CKSQYB473K25
C 542		CCSQCH101J50
C 543		CKSQYB103K50
C 544		CKSQYB103K50
C 546		CKSQYB103K50
C 547		CKSQYB102K50
C 548		CEJA100M16
C 549		CKSQYB104K25
C 550	4.7µF/16V	CCH1165
C 551		CKSQYB103K50
C 555		CKSQYB103K50
C 558		CEAL2R2M50
C 559		CKSQYB103K50
C 560		CGCYX103K25
C 561		CKSQYB472K50
C 562		CCSQCH120J50
C 563		CCSQCH120J50
C 564		CKSQYB103K50
C 565		CKSQYB122K50
C 566		CKSQYB122K50
C 570		CKSQYB562K50
C 705		CKSQYB103K50

=====Circuit Symbol and No.		===Part Name	Part No.
C	706		CKSQYB223K50
C	707		CEAL101M10
C	711		CKSQYB103K50
C	716		CKSQYB102K50
C	717		CKSQYB223K50
C	719		CCSQCH330J50
C	720		CKSQYB102K50
C	721		CKSQYB102K50
C	722		CKSQYB102K50
C	801		CKSQYB103K50
C	802		CCSQCH221J50
C	803		CCSQCH221J50
C	806		CKSQYB103K50
C	807		CEALR22M50
C	808	0.047F/5.5V	CCL1040
C	809		CKSQYB223K50
C	810		CEAL101M10
C	811		CCSQCH101J50
C	812		CCSQCH471J50
C	813		CKSQYB223K50
C	814		CEAS102M16
C	815		CKSQYB223K50
C	816		CKSQYB223K50
C	817		CKSQYB223K50
C	818		CEJA101M10

=====Circuit Symbol and No.		===Part Name	Part No.
C	819		CKSQYB223K50
C	820	100µF/10V	CCH1282
C	821		CKSQYB103K50
C	822		CKSQYB103K50
C	823		CEAL101M10
C	829		CKSQYB472K50
C	830		CKSYB103K50

D Unit Number:
Unit Name : PCB Unit

L	1	Inductor	ETH0001
S	1	Switch(Load)	ESG1004
S	2	Switch(70µS)	ESG1004
EGN	1	Photo-Interrupter	EGN1005
R	1		RD1/4HM181J

E Unit Number:
Unit Name : Reel PCB

EGN	2	Photo-Reflector	EGN1004
EGN	3	Photo-Reflector	EGN1004

Miscellaneous Parts List

M	1	Motor Unit(Main)	EXA1497
M	2	Motor Unit(Sub)	EXA1485
HD	1	Head Assy	EXA1481
C	1		CEA4R7M35LS2

6. ADJUSTMENT

● **Audio System Diagram**

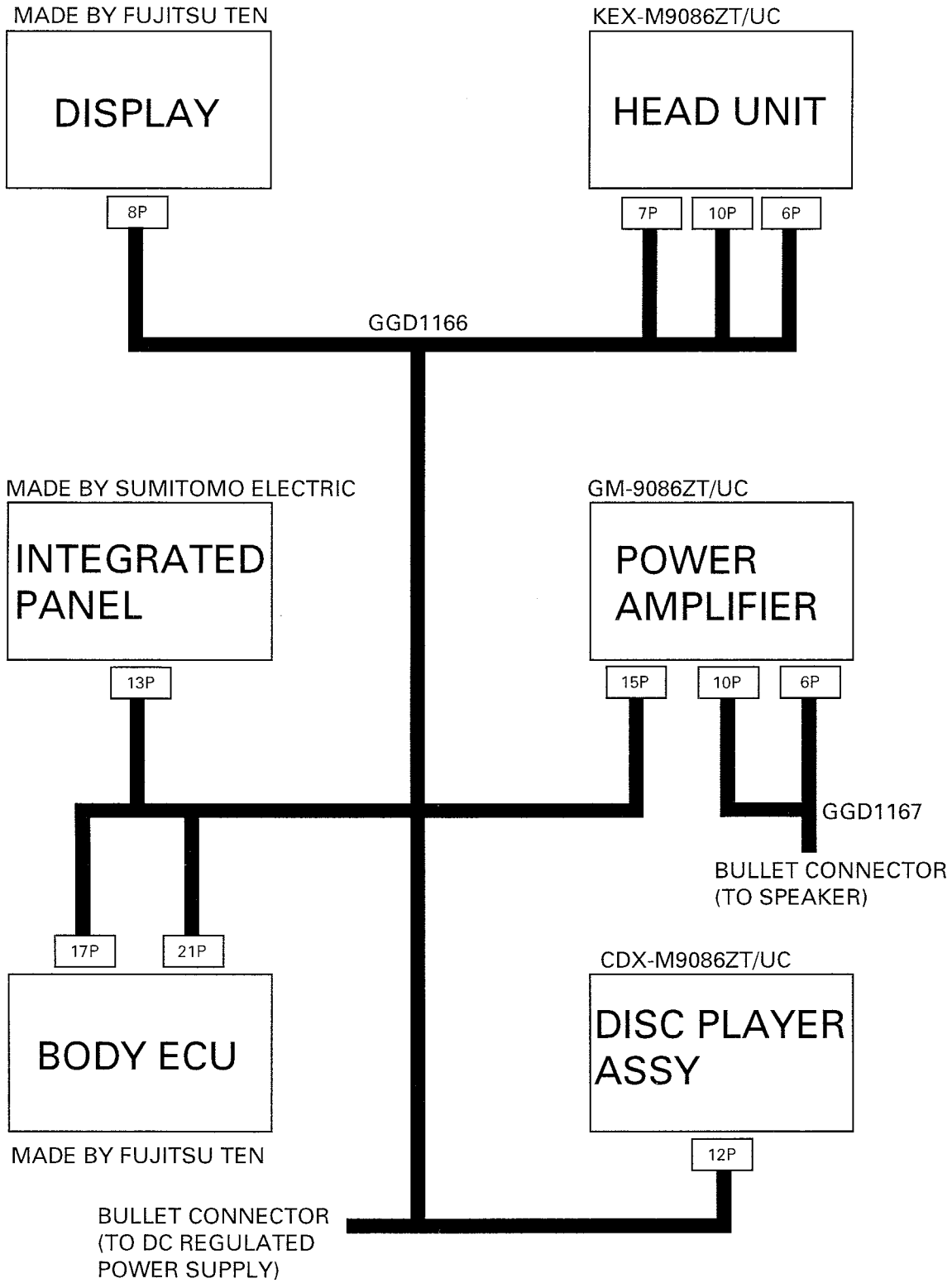


Fig. 16

● Connection Diagram

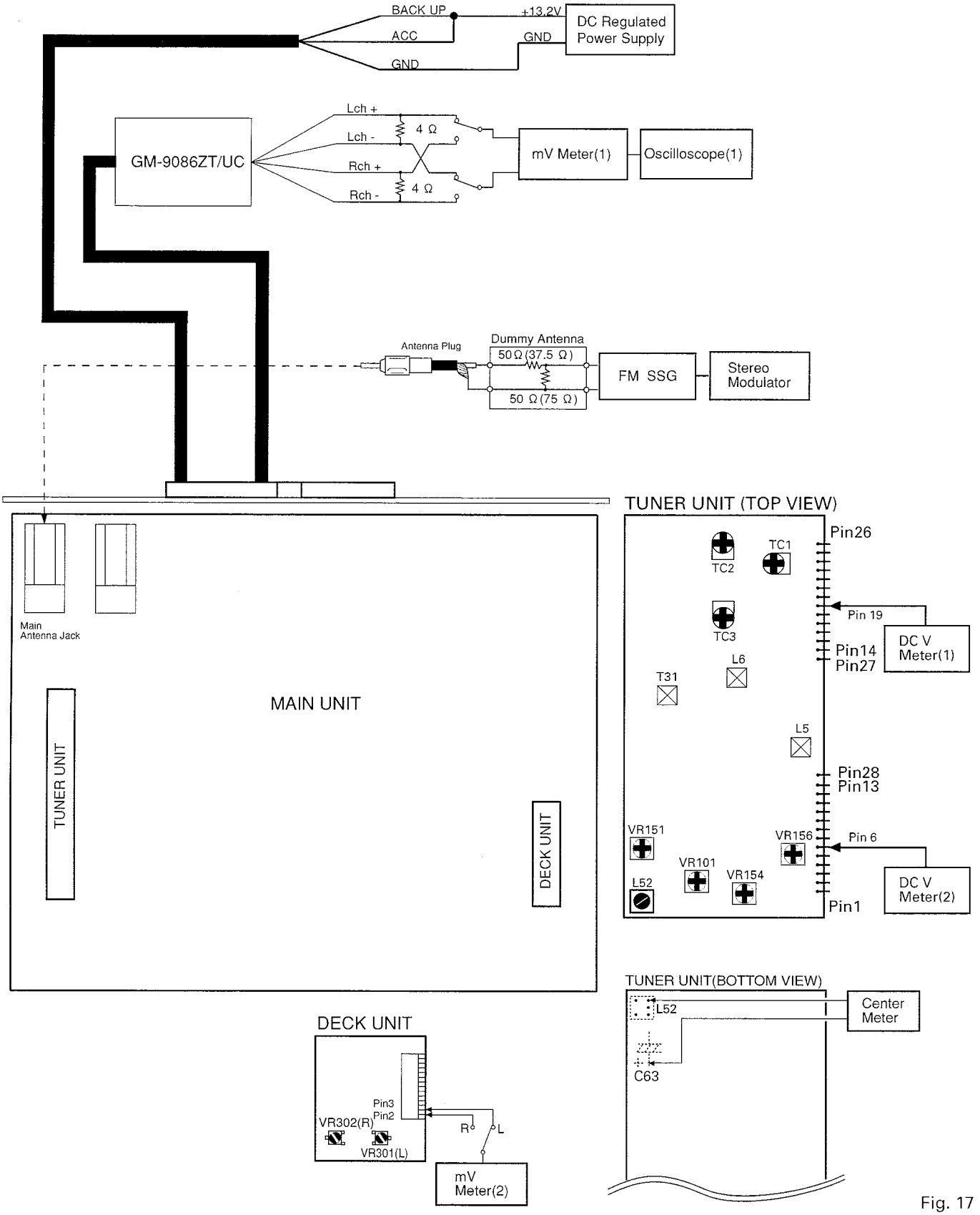


Fig. 17

FM ADJUSTMENT

Modulation M:MONO MOD., 400Hz 30%(22.5kHz Dev.) or 400Hz 100%(75kHz Dev.)
S1:STEREO MOD., 1kHz, L or R=30%(20.25kHz+7.5kHz Dev.)

NOTE:Before proceeding to further adjustments after switching power ON, let the tuner run for ten minutes to allow the circuits to stabilize.

	No.	FM SSG		Displayed	Adjustment	Adjustment Method
		Frequency(MHz)	Level(dBf)	Frequency(MHz)	Point	(Switch Position)
TUN Volt	1	•••••	•••••	108.0	L5	DC V Meter(1) : 6V
Center Meter	1	98.1 M	65-85	98.1	L52	Center Meter : 0
IFT	1	98.1 M	5-15	98.1	T31	mV Meter(1) : Maximum
ANT Trimmer	1	98.1 M	5-15	98.1	TC1,TC2	mV Meter(1) : Maximum
RF Coil	1	89.9 M	5-15	89.9	L6	mV Meter(1) : Maximum
RF Trimmer	1	106.1 M	5-15	106.1	TC3	mV Meter(1) : Maximum
Separation	1	98.1 S	65	98.1	VR101	mV Meter(1) : Maximum
ARC Separation	1	98.1 S	40	98.1	VR154	mV Meter(1) : Separation 5dB
Interstation	1	98.1 M	65	98.1	–	mV Meter(1) : AdB
Noise	2	98.1 M	-∞	98.1	VR151	mV Meter(1) : A-20dB
Search	1	98.1 M	33	98.1	VR156	DC V Meter(2) : more than 3.5V
Sensitivity	2	98.1 M	32	98.1	VR156	DC V Meter(2) : 0
	3	Repeat steps 1 and 2 until the adjustment standards are satisfied.				

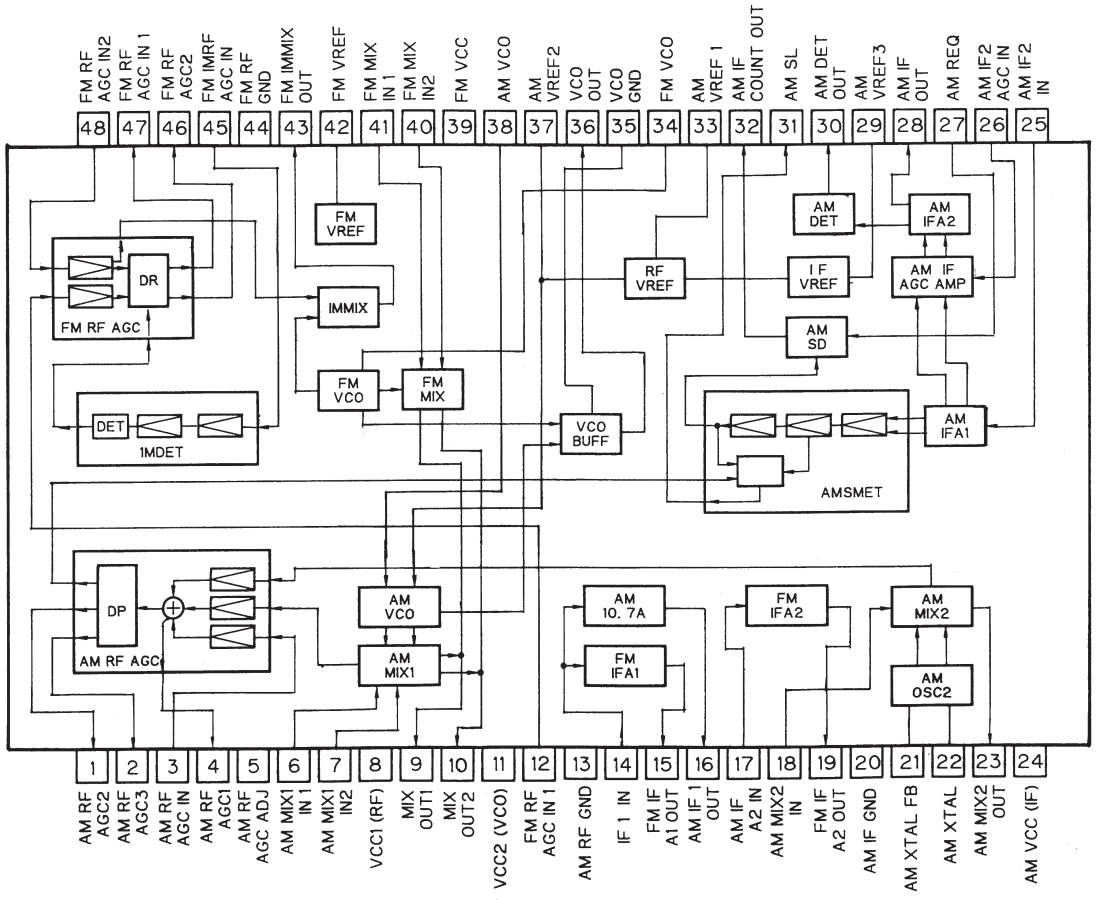
DOLBY B/C NR ADJUSTMENT

No.	Test Tape	Adjustment Point	Adjustment Method (Switch Position)
1	NCT-150 (400Hz,200nwb/m)	VR301(Lch),VR302(Rch)	mV Meter(2) : –8.24dBs+1.5dB,-0.5dB (DOLBY NR Switch : OFF)

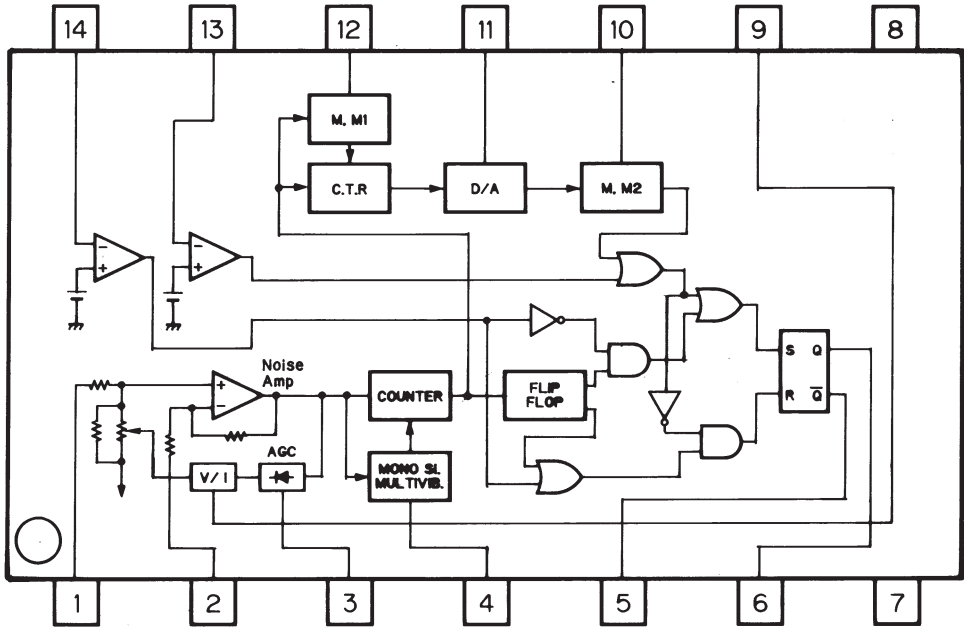
7. GENERAL INFORMATION

7.1 IC

PA4026A



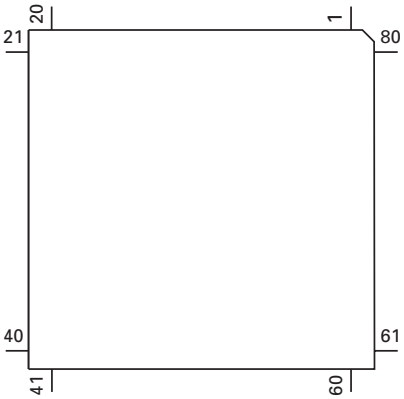
LA1061M



● **Pin Functions (PD4846B)**

Pin No.	Pin Name	I/O	Format	Function and Operation
1–3	NC			Not used
4	AVSS			A/D GND
5,6	NC			Not used
7	AVREF1			(Connect to VDD)
8	NC			Not used
9	SD	I		Station detector input
10	SYSMT	O	C	System mute output
11	PDI	I		Data input from PLL IC
12	PDO	O	C	Data output for PLL IC
13	$\overline{\text{PCK}}$	O	C	Serial clock output for PLL IC
14	PCE	O	C	Chip enable output for PLL IC
15	FMMUT	O	C	FM mute output
16–28	NC			Not used
29	MS	I		MS sense input
30	$\overline{\text{F}}$/R	O	C	Cassette mechanism head forward/reverse select output
31	PLAY	O	C	Tape MS filter select output
32	$\overline{\text{MTL}}$	I		70µ tape detection input
33	VSS			GND
34	$\overline{\text{B}}$/C	O	C	Cassette mechanism dolbyNR B/C select input
35	NR	I		Dolby NR ON/OFF select input
36	$\overline{\text{LOAD}}$	I		Loading detection input
37	POS	I		Position sense input
38	RES	I		Cassette mechanism reverse end sense input
39	NES	I		Cassette mechanism forward end sense input
40	SC2	O	C	Cassette mechanism sub motor control output
41	SC1	O	C	Cassette mechanism sub motor control output
42	CM	O	C	Cassette mechanism capstan motor control output
43	$\overline{\text{STBY}}$	O	C	Stand-by output
44–48	NC			Not used
49	TAPPW	O	C	Tape power
50	ACCPW	O	C	ACC power output
51	NC			Not used
52	TUNPW	O	C	Tuner power control output
53,54	NC			Not used
55	HDPW	O	C	Analog switch control output
56	IPTX	O	C	AVC-LAN driver data output
57	IPRX	I		AVC-LAN driver data input
58	IPPW	O	C	Power supply control output for IP BUS interface IC
59	AMPMT	O	C	Amprifier mute output
60	$\overline{\text{RESET}}$	I		Reset input
61	NC			Not used
62	$\overline{\text{ASEN}}$	I		ACC sense input
63	$\overline{\text{BSEN}}$	I		+B sense input
64	NC			Not used
65	EJECT	I		Eject key input pin
66,67	NC			Not used
68	VDD			Power supply
69	X2	O		Oscillator output
70	X1	I		Oscillator input
71	IC			Connect to GND
72	NC			Not used
73	TEST	I		Test terminal input
74	AVDD			A/D converter analog power supply (VDD)
75	NC			Not used
76	SL	I		Signal level input
77–80	NC			Not used

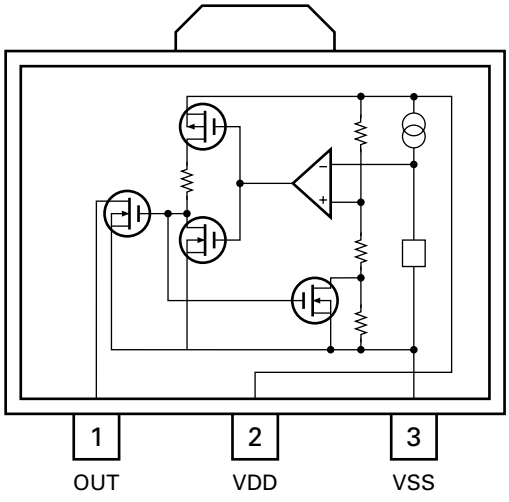
*PD4846B



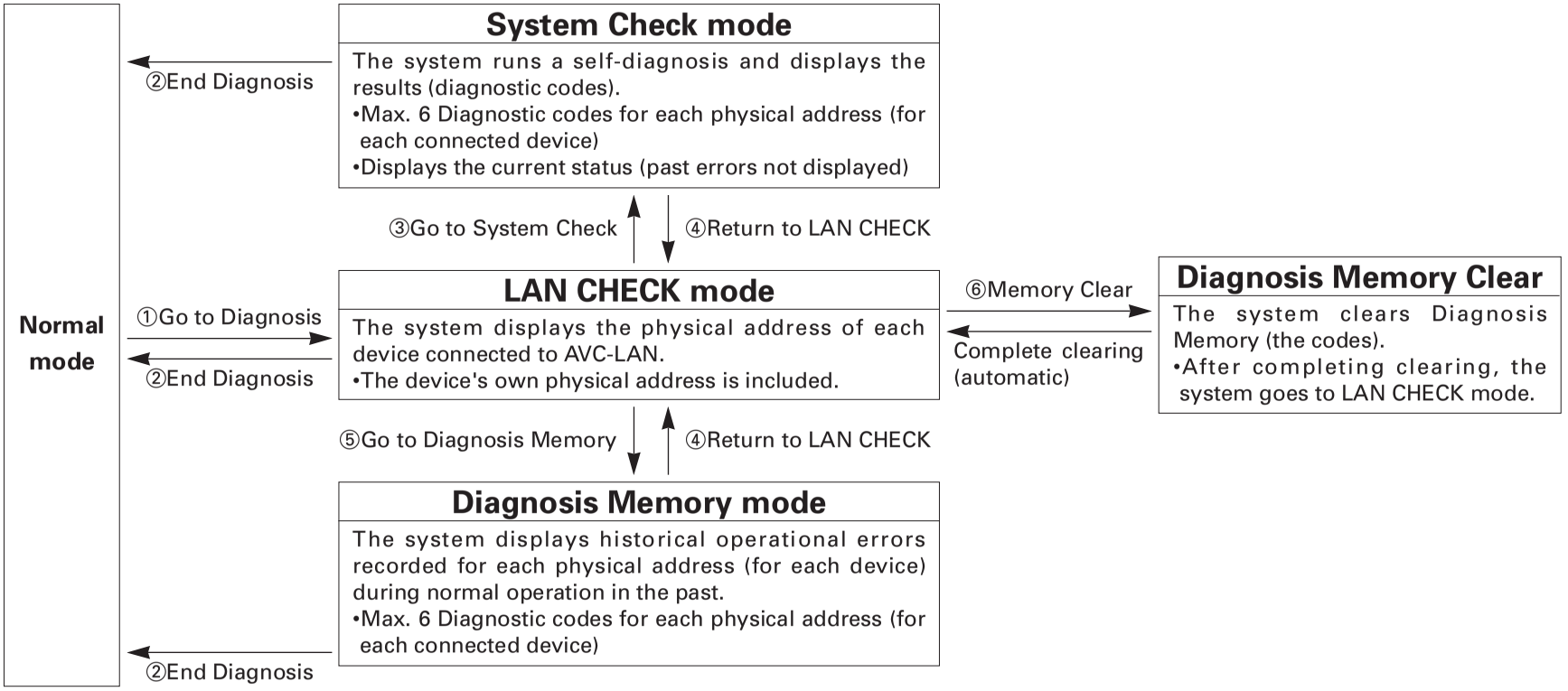
Format	Meaning
C	C MOS

IC's marked by* are MOS type.
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

S-80736AN-D0



● Flowchart and Functions



● Operation Specifications

	Integrated Panel (by Sumitomo Electric)
①Go to Diagnosis	Press the CD key three times, while holding down CH1 or CH6.
②End Diagnosis	CD key (Press and hold for 1.7 seconds.) ACC OFF/ON
③Go to System Check	CH1
④Return to LAN CHECK	CH8
⑤Go to Diagnosis Memory	CH2
⑥Memory Clear	CH5 (Press and hold for 1.7 seconds.)
•Page up	TUNE +
•Page down	TUNE -

● Physical Address Assignment

② →

③ ↓

① 1	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	M.DISP computer				AV machine	1DIN -TV	EMV		Audio ECU	Audio H/U		Rear seat TV	Rear control SW	M-CD decoder	CD-CH commander	
4												1DIN navigation	Integrate -d Panel	LCD		
1-3 5-F																

① 2	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	Navigation computer	ATIS	FM multiple	TV tuner	CD-CH with video											
1-F																

① 3	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	Radio		Cassette	Radio/cas-sette without CH controller	CD-P		CD-CH		MD-P		MD-CH		DAT		DCC	
8																TEL ECU
1-7 9-F																

① 4	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	Equalizer				AMP				H. W AMP							
1-F																

① 5	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	GPS receiver	ATIS decoder	FM multiplex decoder		CD-CH		MD-CH		CD-ROM -CH		MD-ROM -CH					
1-F																

① 6	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	A/C computer								Body computer							
1-F																

Display

1 — ①②③

Serial No. Physical address

Example: 2—190

||

The second device connected is an "audio H/U."

①Device groups

1 : Controllers
2 : Video output devices
3 : Audio output devices
4 : Audio processing devices
5 : Information output devices
6 : Vehicle devices

● Assignment of Diagnostic Codes

① →

② ↓	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	NO ERR	+B error	Micropro-cessor error			Cassette deck error	CD deck or CD-CH error	MD deck or MD-CH error	Amplifier error	EQ error	Switch error	AUDIO ECU error		No response to commu-nications		
1		ACC error	ROM error		AM tuner error	Cassette deck EJT failure	CD, CH EJT failure	MD, CH ←						Commu-nications failure		
2		MUTE error	RAM error		FM tuner error	Tape entan-gled in the cassette deck	Dirt, scar and upside-down in CD, CH	MD, CH ←						No response to periodical communica-tions		
3						Dirt in cassette deck head	Detected P.U tem-perature in CD, CH	MD, CH ←								
4						Broken cassette deck belt	Detected overcur-rent in CD, CH	MD, CH ←						*1		
5					TV tuner error			MD, CH recording function error								
6																
7							CH tray error									
8							CH elevator error	CH ←	DSP error	LCD error	Antenna error					
9							CD, CH clamp error	MD, CH ←			Main antenna error					
A											Sub antenna error					
B											TV antenna error					
C											Antenna selector error					
D/E																
F																No response to Diagnosis

Common Diagnostic code among devices

Diagnostic code specific to a particular device

Diagnostic code for communications

Display

1 – ①②

Serial No. Diagnostic code

Example: 3–D2

||

The third content of Diagnosis is "No response to periodical communications."

NOTES:

*1 Instruction to check for an error in periodical communications is interrupted.

● Items corresponding each model

<During Diagnosis Memory mode>

• KEX-M9086ZT/UC
D1, D2, D4, FF, 50

<During System Check mode>

• KEX-M9086ZT/UC

No Diagnostic code assigned 00

● Go to Diagnosis (Beep and Display)

	LAN-CHECK mode	System Check mode	Diagnosis Memory mode
Beep	• The system beeps three times when starting up Diagnosis.	• The system beeps three times when changing to another mode. • The system beeps once every time a physical address is displayed.	• The system beeps three times when changing to another mode. • The system beeps once every time a physical address is displayed.
Display	• The system displays the physical address of each device connected to AVC-LAN in sequence from the lowest address. Example: 1 — 1E0 Serial No. Physical address (CD commander)	• When changing to another mode Blinking "SYS" is displayed. • After completing System Check Displays a physical address. ••Identifies the device. Example: H 150 Physical address (1DIN-TV) Distinguishes from LAN-CHECK. Displays a Diagnostic code. ••Identifies the type of error. Example: 1 — d2 Serial No. Diagnostic code (no response to periodical communications) Max. 6 for each physical address Displays an auxiliary code ••Identifies the device involved in the error. Example: 1 — 360 Serial No. Physical address (CD-CH) 1DIN-TV has recorded an error indicating there is no response to periodical communications in CD-CH. 1 — ——— When there is no physical address: Displays a physical address. The next lowest physical address • When there is no Diagnostic code after completion of System Check _____ 00 The system changes as shown above, as this unit does not include System Check.	• When changing to another mode Blinking "CODE" is displayed. • Then, "Latest periodical communications number" is displayed. ••Elapsed time at the current point is displayed. Example: _____ 1F Elapsed time (31 minutes) • The system displays a number from 00 to FF (increases a digit every minute). • When 256 minutes are reached, the system returns to 00. • Displays the details of Diagnosis. Displays a physical address. (Same as the left.) Displays a periodical communications number. ••Displays the time when the error occurred. Example: 1 — 02 Serial No. Elapsed time (2 minutes) Displays Diagnostic code. (Same as the left.) Displays an auxiliary code. (Same as the left.) Displays a physical address. • When there is no Diagnostic data: _____ 00

7.2.2 DISASSEMBLY

● Removing the Case(Fig.18)

1. Remove the three screws.
2. Remove the Case.

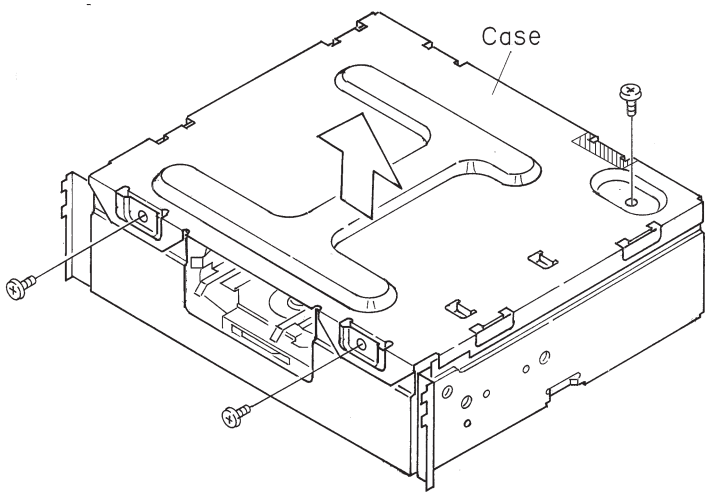


Fig. 18

● Removing the Cassette Mechanism Module(not shown)

1. Remove the four screws.
2. Disconnect the connector.
3. Remove the Cassette Mechanism Module.

● Removing the Main Unit(Fig.19)

1. Remove the two screws A and the one screw B.
2. Straighten the hooks marked with arrows. While sliding the Main Unit forward, lift it up to remove.

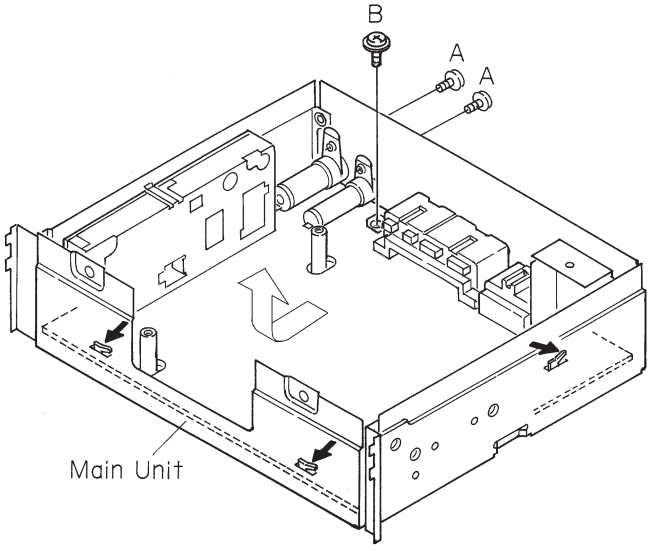


Fig. 19

7.2.3 CONNECTOR FUNCTION DESCRIPTION

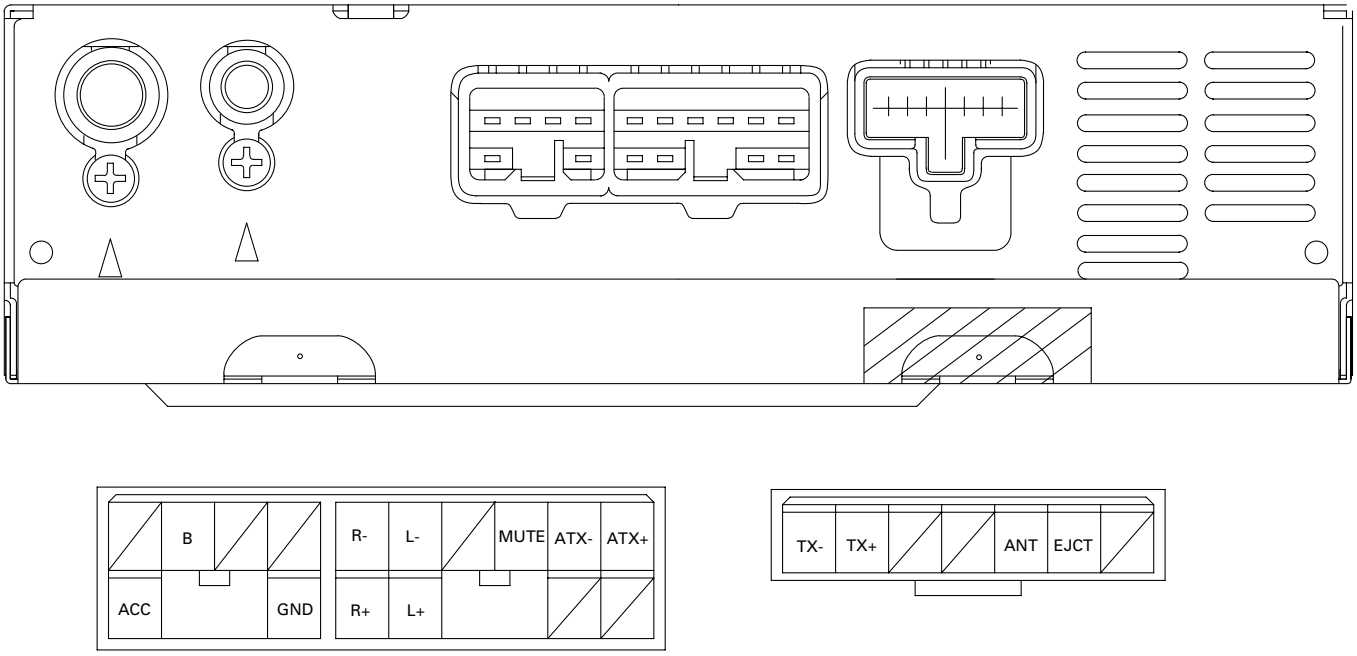


Fig. 20

7.3 EXPLANATION

7.3.1 BLOCK DIAGRAM

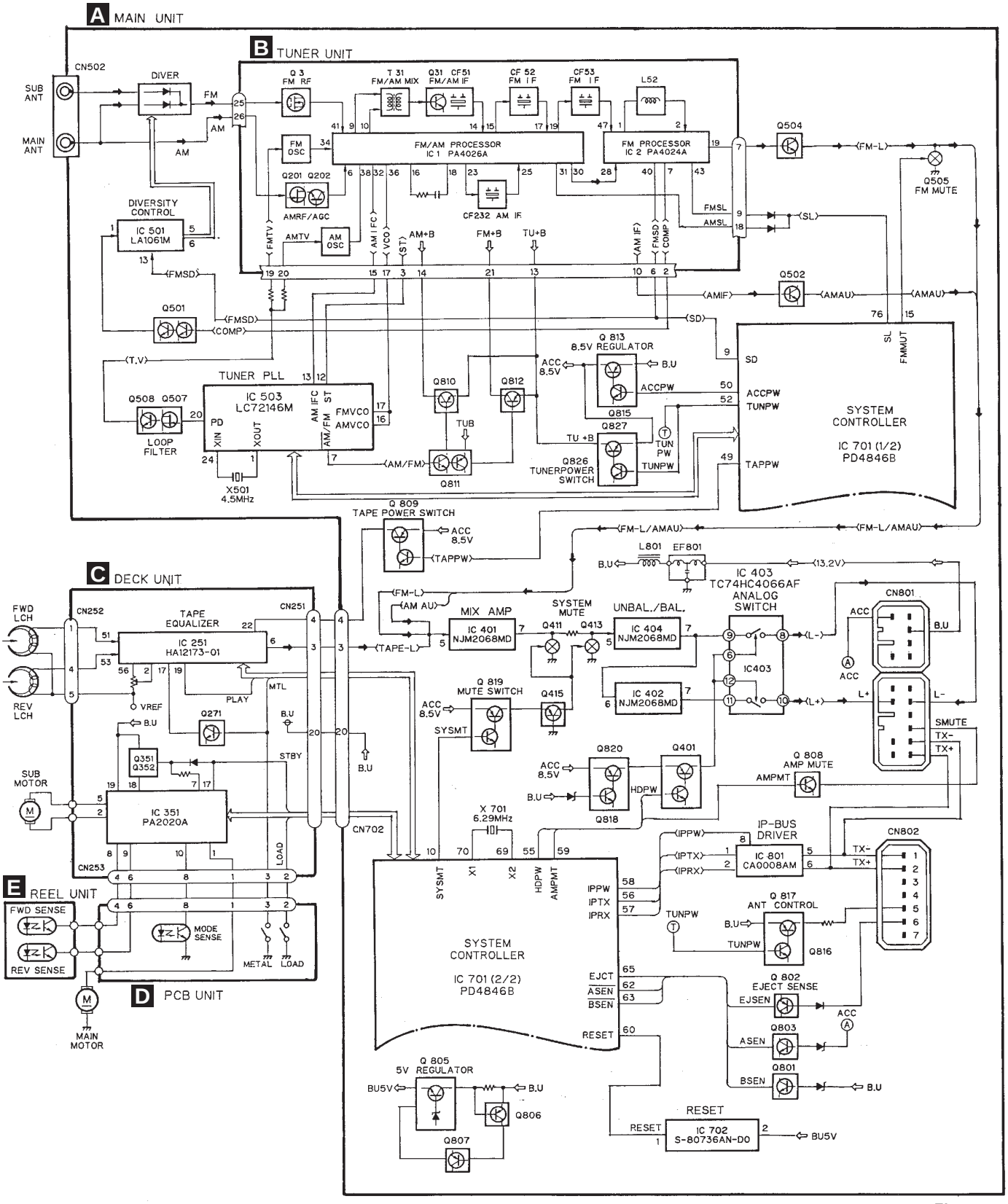


Fig. 21

7.3.2 SYSTEM BLOCK DIAGRAM

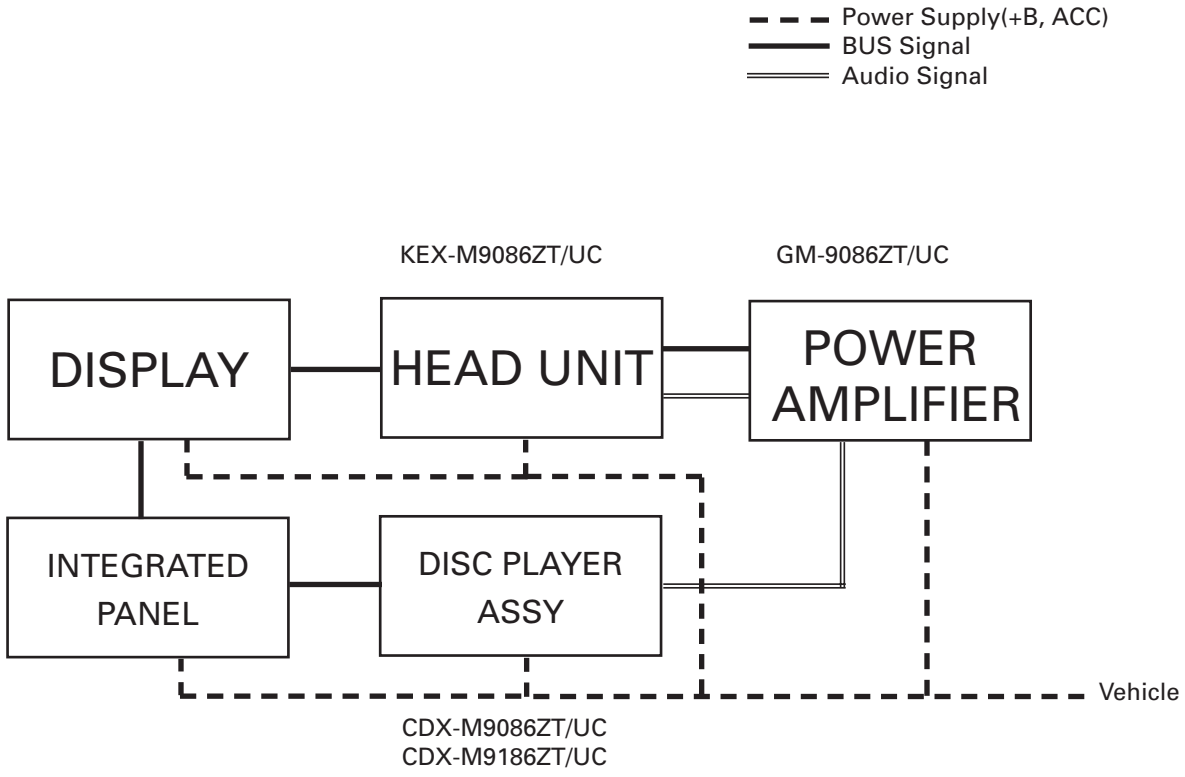


Fig. 22

8. OPERATIONS AND SPECIFICATIONS

8.1 SPECIFICATIONS

General

Power source . . . . . 13.2 V(10.5V—16.0V allowable)
Grounding system . . . . . Negative type
Weight . . . . . 1.125 kg (± 0.6 kg)

Tape player

Tape . . . . . Compact cassette tape (C-30—C-90)
Tape speed . . . . . 4.76 cm/sec.(+0.14 cm/sec.,-0.05 cm/sec.)
Wow & flutter . . . . . less than 0.2 %(WRMS)
Crosstalk . . . . . more than 40 dB
Stereo separation . . . . . more than 30 dB
Signal-to-noise ratio . . . . . more than 45 dB

FM tuner

Frequency range . . . . . 87.7 — 107.9 MHz
Usable sensitivity . . . . . 7 dBμ ± 6dB (S/N: 30 dB)
Signal-to-noise ratio . . . . . more than 50 dB (55 dBμ)
Distortion . . . . . less than 1.5%
Stereo separation . . . . . more than 25 dB (1 kHz : 35 ± 10dB)

MW tuner

Frequency range . . . . . 530 — 1,710 kHz
Usable sensitivity . . . . . 27 dBμ± 5dB (S/N: 20 dB)
Signal-to-noise ratio. . . . . more than 44 dB(74dBμ)
Distortion . . . . . less than 1.0%

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