PIONEER®
The Art of Entertainment

Service Manual

ORDER NO.
RRV1774

STEREO FILE-TYPE CD CASSETTE DECK RECEIVER

XR-P670F

●Refer to the service manual RRV1712 for XR-P670F/KUXJ.

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	XR-P670F		
MYXK	O	AC220V – 230V	
NVXK	O	AC230V	

CONTENTS

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1. SAFETY INFORMATION

VARO !
AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

ADVARSEL:
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHED SAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

VARNING !
OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.

LASER
Kuva 1
Lasersateilyn varoitusmerkki

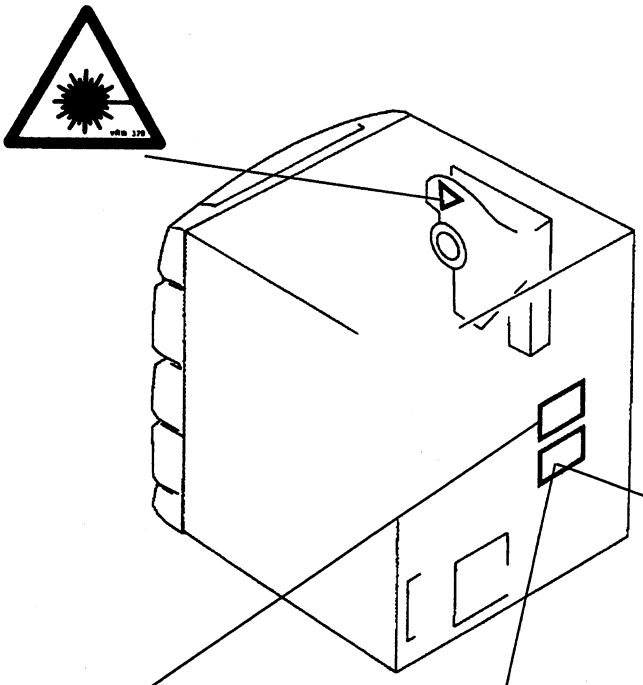
WARNING !
DEVICE INCLUDES LASER DIODE WHICH EMITS INVISIBLE INFRARED RADIATION WHICH IS DANGEROUS TO EYES. THERE IS A WARNING SIGN ACCORDING TO PICTURE 1 INSIDE THE DEVICE CLOSE TO THE LASER DIODE.

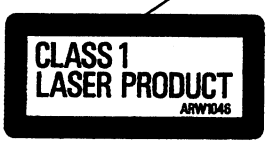
IMPORTANT
THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

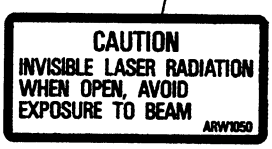
LASER DIODE CHARACTERISTICS
MAXIMUM OUTPUT POWER: 5 mw
WAVELENGTH: 780 – 785 nm

LASER
Picture 1
Warning sign for laser radiation

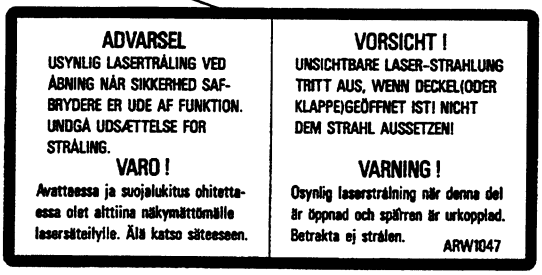
LABEL CHECK







NVXK type only



MYXK type only

Additional Laser Caution

1. Laser Interlock Mechanism
   The position of the switch (S651) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S651) is not on $\overline{\text{CLMP}}$ terminal side ($\overline{\text{CLMP}}$ signal is OFF or high level.) Thus, the interlock will no longer function if the switch (S651) is deliberately set to $\overline{\text{CLMP}}$ terminal side. (low level)
   The interlock also does not function in the test mode*.
   Laser diode oscillation will continue, if pin 1 of M51593FP (IC101) on the PRE-AMP BOARD ASSY mounted on the pickup assembly is connected to GND, or pin 19 is connected to low level (ON), or else the terminals of Q101 are shorted to each other (fault condition).

2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* *Refer to page 70 in the Service Manual RRV1712.*

2. CONTRAST OF MISCELLANEOUS PARTS

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47K ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 × 10¹ → 561 ..... RD1/4PU 5 6 1 J
47 kΩ → 47 × 10³ → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62 kΩ → 562 × 10¹ → 5621 ..... RN1/4PC 5 6 2 1 F

■ CONTRAST OF XR-P670F/MYXK AND NVXK.

XR-P670F/MYXK, NVXK and KUXJ have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		KUXJ	MYXK	NVXK	
	FM/AM TUNER MODULE	AXQ7061	AXQ7078	AXQ7078	
NSP	MAIN ASSY	AWK7371	AWK7370	AWK7370	
	AF ASSY	AWZ8643	AWZ8642	AWZ8642	
	AMP ASSY	AWZ8647	AWZ8646	AWZ8646	*1
	POWER SUPPLY ASSY	AWZ8649	AWZ8648	AWZ8648	*2
	PRIMARY ASSY	AWZ8651	AWZ8650	AWZ8650	
	SECONDARY ASSY	AWZ8656	AWZ8655	AWZ8655	
NSP	TX CONNECT ASSY	AWZ8660	AWZ8659	AWZ8659	*3
	REGULATOR ASSY	AWZ8683	AWZ8682	AWZ8682	*4
NSP	COMPLEX ASSY	AWM7287	AWM7286	AWM7286	
	GM-CD ASSY	AWZ8662	AWZ8661	AWZ8661	
	DISPLAY ASSY	AWZ8667	AWZ8666	AWZ8666	
	MIC & HP ASSY	AWZ8672	AWZ8671	AWZ8671	*5
	CENTER SW ASSY	AWZ8677	AWZ8676	AWZ8676	
NSP	LEFT SW ASSY	AWZ8679	AWZ8678	AWZ8678	
NSP	RIGHT SW ASSY	AWZ8681	AWZ8680	AWZ8680	
NSP	HOME SW ASSY	AWZ8685	AWZ8684	AWZ8684	*6
NSP	MOTOR ASSY	AWZ8687	AWZ8686	AWZ8686	*7
NSP	DOOR SW ASSY	AWZ8689	AWZ8688	AWZ8688	*8
	Screw	Not used	ABA-115	ABA-115	*9, No.1
	Spring L	ABH7102	ABH7028	ABH7028	
	Spring R	ABH7103	ABH7029	ABH7029	
⚠	AC Power Cord	PDG1057	ADG7008	ADG7007	
	FM Antenna	ADH7004	ADH7005	ADH7005	
	Connector Assy 5P	RKP1682	ADX7045	ADX7045	
	Connector Assy 3P	RKP1683	ADX7046	ADX7046	
	Fuse (FU1 : 4A)	REK1082	Not used	Not used	
	Fuse (FU1 : T1.6A)	Not used	AEK1056	AEK1056	
	Packing Case	AHD7381	AHD7385	AHD7385	
	Packing Sheet	AHG7003	AHG7001	AHG7001	
NSP	Polyethylene Bag	AHG7030	AHG1091	AHG1091	
	Eject Arm L	AMR7074	AMR7024	AMR7024	
	Eject Arm R	AMR7075	AMR7025	AMR7025	
	CD Case Stand	AMR7072	AMR7086	AMR7086	
	Rear Panel	ANC7514	ANC7519	ANC7520	

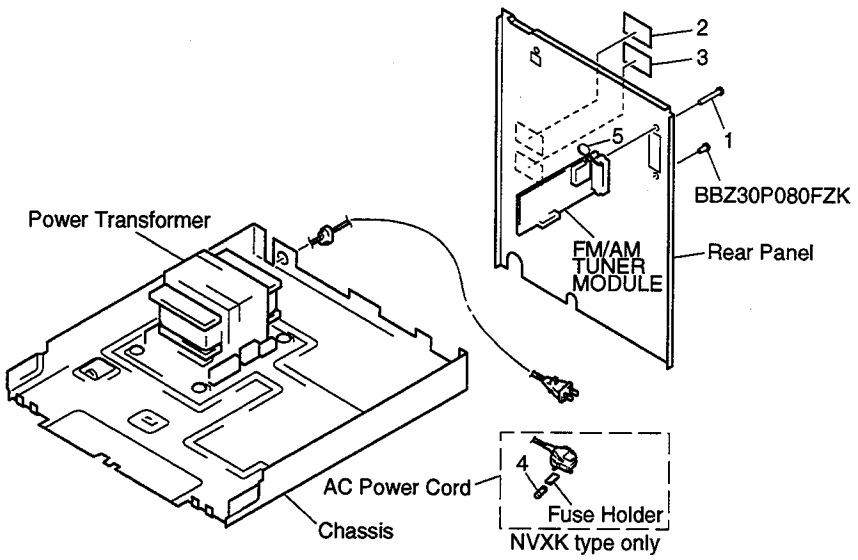
XR-P670F

Mark	Symbol & Description	Part No.			Remarks
		KUXJ	MYXK	NVXK	
	Operating Instructions (English)	ARB7095	Not used	ARB7095	
NSP	Operating Instructions (French/Swedish/Spanish/Portuguese)	Not used	ARC7140	Not used	
	Operating Instructions (English/French/German/Italian)	Not used	ARE7097	Not used	
	Caution Label (F)	Not used	ARW1046	ARW1046	*9, No.2
NSP	Caution Label	Not used	ARW1047	ARW1050	*9, No.3
	AM Loop Antenna	ATB7009	ATB7006	ATB7006	
⚠	Power Transformer (AC 120V)	ATS7151	Not used	Not used	
⚠	Power Transformer (AC 220-230V)	Not used	ATS7150	ATS7150	
⚠	Fuse (T5A) (For AC Power Cord)	Not used	Not used	AEK7001	*9, No.4
	Damper Assy	AXA7051	AXA7021	AXA7021	
	Front Panel	AZA7216	AZA7259	AZA7259	
	Ceramic Capacitor	Not used	CKDYB102K50	CKDYB102K50	*9, No.5
	Cord Stopper	CM-22C	CM-22B	CM-22B	
	UK Cord Protector	Not used	Not used	AHA7130	*9, No.6
	65 Label	ORW1069	Not used	Not used	
	Caution Label (G)	Not used	VRW-329	VRW-329	*10

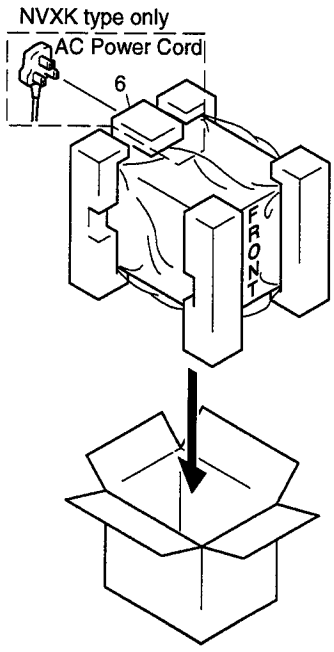
*1 : Although AWZ8646 and AWZ8647 are different in part number, they consist of the same components.
*2 : Although AWZ8648 and AWZ8649 are different in part number, they consist of the same components.
*3 : Although AWZ8659 and AWZ8660 are different in part number, they consist of the same components.
*4 : Although AWZ8682 and AWZ8683 are different in part number, they consist of the same components.
*5 : Although AWZ8671 and AWZ8672 are different in part number, they consist of the same components.
*6 : Although AWZ8684 and AWZ8685 are different in part number, they consist of the same components.
*7 : Although AWZ8686 and AWZ8687 are different in part number, they consist of the same components.
*8 : Although AWZ8688 and AWZ8689 are different in part number, they consist of the same components.
*9 : The numbers in the remarks column correspond to the numbers on the exploded diagram, Refer to "EXPLODED VIEWS"
*10 : This part is used for XR-P670F/DLXJ/NC. Refer to the service manual RRV1712.

■ EXPLODED VIEWS

EXTERIOR SECTION



PACKING SECTION



AF ASSY

AWZ8642 and AWZ8643 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ8643	AWZ8642	
	IC3501	Not used	LA2232M	
	Q1020	2SA1037K	Not used	
	Q3501	Not used	2SA1037K	
	Q3502	Not used	DTC143EK	
	Q3503	Not used	2SC2412K	
	D1014	MTZJ4.3C	Not used	
	D1015, D1029	Not used	1SS254	
	D1027, D1028	S5688G	1SS254	
	L1001, L1002	ATH-133	ATH-059	
	C1049-C1052, C1056	Not used	CKSQYF104Z50	
	C1053, C1054, C3501, C3507	Not used	CKSQYB103K50	
	C1075	CEAS1R0M50	Not used	
	C3503, C3510, C3512	Not used	CEAS4R7M50	
	C3504	Not used	CEAS220M10	
	C3505	Not used	CKSQYB332K50	
	C3508	Not used	CCSQCH271J50	
	C3509, C3511	Not used	CEAS100M50	
	C3513	Not used	CKSQYB223K50	
	C3514, C3515	Not used	CKSQYB333K50	
	C3516	Not used	CKSQYB682K50	
	C3551	Not used	CKSQYB332K50	
	R1063, R1064	Not used	RD1/4PM100J	
	R1090	RS1/10S104J	Not used	
	R1091	RS1/10S152J	Not used	
	R1092	RD1/2PM330J	Not used	
	R3501	Not used	RS1/10S473J	
	R3502	Not used	RD1/4PU102J	
	R3504	Not used	RS1/10S101J	
	R3505	Not used	RS1/10S221J	
	R3506	Not used	RS1/10S472J	
	R3507, R3509, R3515, R3516, R3551	Not used	RS1/10S102J	
	R3508	Not used	RD1/4PU564J	
	R3510	Not used	RS1/10S562J	
	R3511	Not used	RS1/10S332J	
	R3512	Not used	RS1/10S103J	
	R3513	Not used	RS1/10S223J	
	R3514	Not used	RS1/10S104J	
	VR3501 (4.7kΩ)	Not used	RCP1020	
	X3501 CERAMIC RESONATOR (456kHz)	Not used	ASS7001	
	JA1003 2P PIN JACK	VKB1050	Not used	

PRIMARY ASSY

AWZ8650 and AWZ8651 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ8651	AWZ8650	
⚠	L101	Not used	ATF-151	
⚠	C101, C102 (0.01µF/AC250V)	Not used	ACG7020	
⚠	R101 (2.2MΩ, 1/2W)	ACN-208	Not used	
	H101, H102 FUSE CLIP	AKR1004	AKR1003	

SECONDARY ASSY

AWZ8655 and AWZ8656 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ8656	AWZ8655	
⚠	IC5001, IC5002	Not used	AEK7017	
⚠	IC5006, IC5007	AEK7017	Not used	
⚠	C5001, C5006 (0.01µF/AC150V)	Not used	ACG1005	

GM-CD ASSY

AWZ8661 and AWZ8662 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ8662	AWZ8661	
	L8002	PTL1014	Not used	
	C8018, C8019	CCSQCH470J50	Not used	
	R8010	RS1/10S0R0J	RS1/10S102J	
	R8015	Not used	RS1/10S242J	
	R8041	RS1/10S0R0J	Not used	
	R8047, R8048	RS1/10S470J	RS1/10S0R0J	
	R8990	Not used	RS1/10S0R0J	

DISPLAY ASSY

AWZ8666 and AWZ8667 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ8667	AWZ8666	
	S2014-S2017	ASG1034	ASG1029	
	C2990	Not used	CKSQYB473K50	
	R2021	RS1/10S102J	RS1/10S103J	

CENTER SW ASSY

AWZ8676 and AWZ8677 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ8677	AWZ8676	
	D7403	SLR-342VCT31	BR3062X	
	S7401-S7415	ASG1034	ASG1029	

LEFT SW ASSY

AWZ8678 and AWZ8679 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ8679	AWZ8678	
	S7301	ASG1034	ASG1029	

RIGHT SW ASSY

AWZ8680 and AWZ8681 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ8681	AWZ8680	
	S7101, S7102, S7201-S7203	ASG1034	ASG1029	

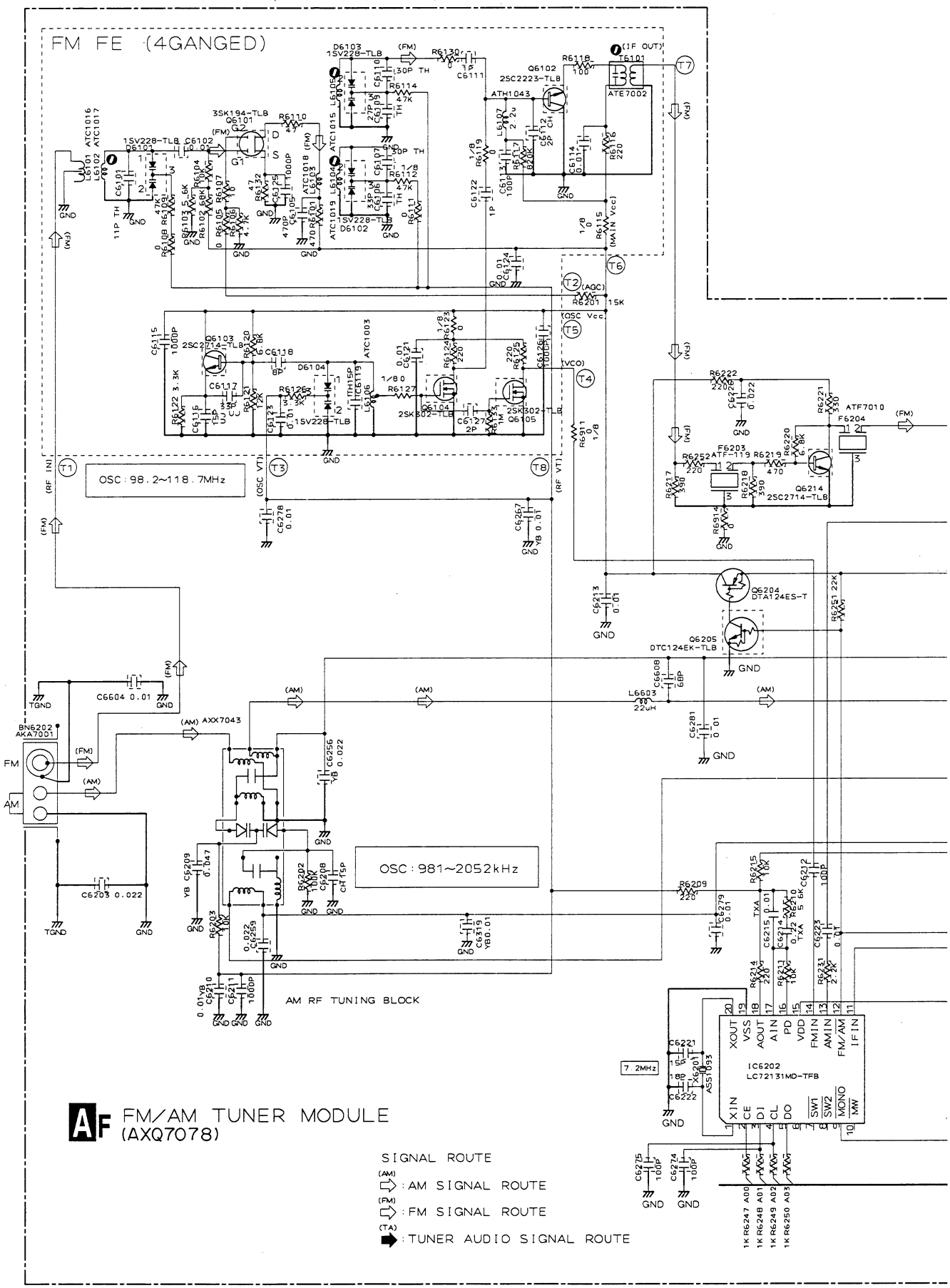
■ PCB PARTS LIST

Mark	No.	Description	Parts No.
AF FM/AM TUNER MODULE			
SEMICONDUCTORS			
	IC6201		LA1832ML
	IC6202		LC72131MD
	Q6102		2SC2223
	Q6203		2SC2705
	Q6201 ,Q6202		2SC2712
	Q6103 ,Q6214 ,Q6601		2SC2714
	Q6104 ,Q6105		2SK302
	Q6101		3SK194
	Q6204		DTA124ES
	Q6205		DTC124EK
	D6202		1SS254
	D6101 -D6104		1SV228
COILS AND FILTERS			
	L6106		ATC1003
	L6105		ATC1015
	L6101		ATC1016
	L6102		ATC1017
	L6103		ATC1018
	L6104		ATC1019
	F6203		ATF-119
	F6206		ATF7008
	F6601		ATF7009
	F6204		ATF7010
	F6202 (455KHz)		ATF7011
	L6107		ATH1043
	L6603		LAU220J
	L6206 ,L6208 ,L6605		LAU2R2J
TRANSFORMERS			
	T6201		ATB7008
	T6101		ATE7002
CAPACITORS			
	C6113 ,C6212 ,C6274 ,C6275 ,C6611		CCSQCH101J50
	C6116 ,C6208 ,C6221		CCSQCH150J50
	C6222		CCSQCH180J50
	C6271		CCSQCH200J50
	C6117		CCSQCH330J50
	C6608		CCSQCH680J50
	C6118		CCSQCH8R0D50
	C6111 ,C6122		CCSQCK1R0C50
	C6112 ,C6127		CCSQCK2R0C50
	C6105		CCSQSL471J50
	C6101		CCSQTH110J50
	C6119		CCSQTH150J50
	C6109		CCSQTH270J50
	C6107 ,C6110		CCSQTH300J50
	C6106		CCSQTH330J50
	C6234 ,C6235		CEAL1R0M50
	C6245		CEAL470M16
	C6224		CEAS100M50
	C6243		CEAS101M16
	C6231		CEAS1R0M50
	C6227		CEAS220M16
	C6236		CEAS2R2M50
	C6216		CEAS330M16
	C6262		CEAS3R3M50
	C6219		CEAS470M10
	C6244		CEAS470M16
	C6249 ,C6250 ,C6265 ,C6266		CEAS4R7M50
	C6258		CEJA470M16
	C6215		CFTXA103J50
	C6214		CFTXA224J50
	C6115 ,C6125 ,C6126 ,C6211 ,C6254		CKSQYB102K50
	C6601		CKSQYB102K50
	C6102 ,C6114 ,C6121 ,C6123 ,C6124		CKSQYB103K50
	C6210 ,C6213 ,C6237 ,C6267 ,C6276		CKSQYB103K50
	C6279 ,C6281 ,C6604		CKSQYB103K50
	C6251 ,C6252		CKSQYB123K50
	C6606 ,C6607		CKSQYB182K50
	C6203 ,C6259		CKSQYB223K50
	C6228		CKSQYB472K50
	C6209		CKSQYB473K50
	C6230		CKSQYB821K50
	C6218 ,C6223 ,C6255		CKSQYF103Z50
	C6220 ,C6226 ,C6242 ,C6256		CKSQYF223Z50
	C6225		CKSQYF473Z50
	C6610		CKSYB103K50
RESISTORS			
	R6602		RD1/4PU221J
	R6115 ,R6119 ,R6123 ,R6127 ,R6129		RS1/8S0R0J
	R6906 ,R6909 ,R6911		RS1/8S0R0J
	R6112		RS1/8S473J
	VR6201 (10KΩ)		RCP1045
	Other Resistors		RS1/10S□□□J
OTHERS			
	BN6202	2P TERMINAL WITH PAL	AKA7001
	X6202	CRYSTAL RESONATOR (456KHz)	ASS1066
	X6201	CRYSTAL RESONATOR (7.2000KHz)	ASS1093
	CN6201	14P SOCKET	KP200IA14L
	AM RF TUNING BLOCK		AXX7043

XR-P670F

3. SCHEMATIC DIAGRAM

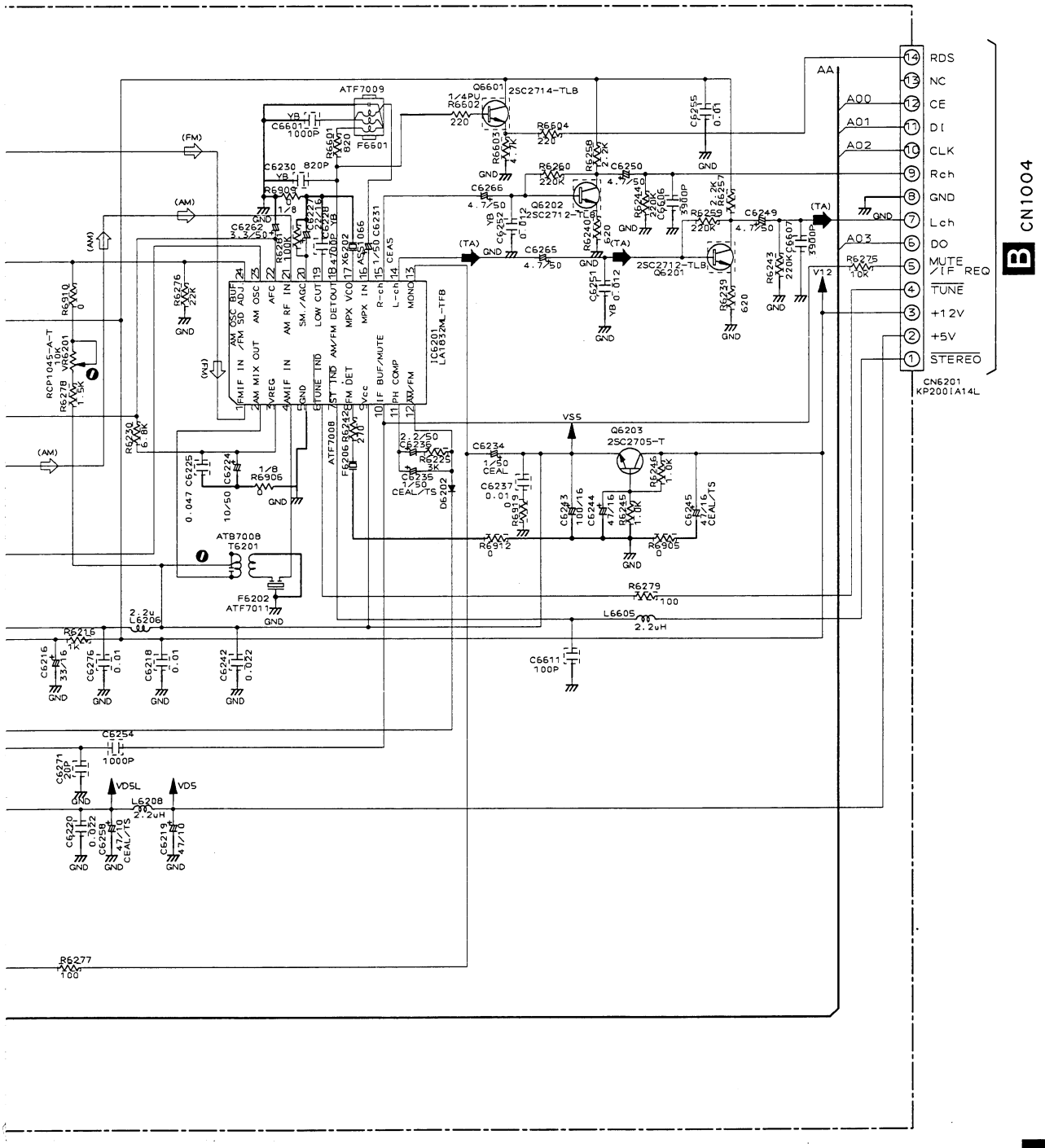
3.1 FM/AM TUNER MODULE



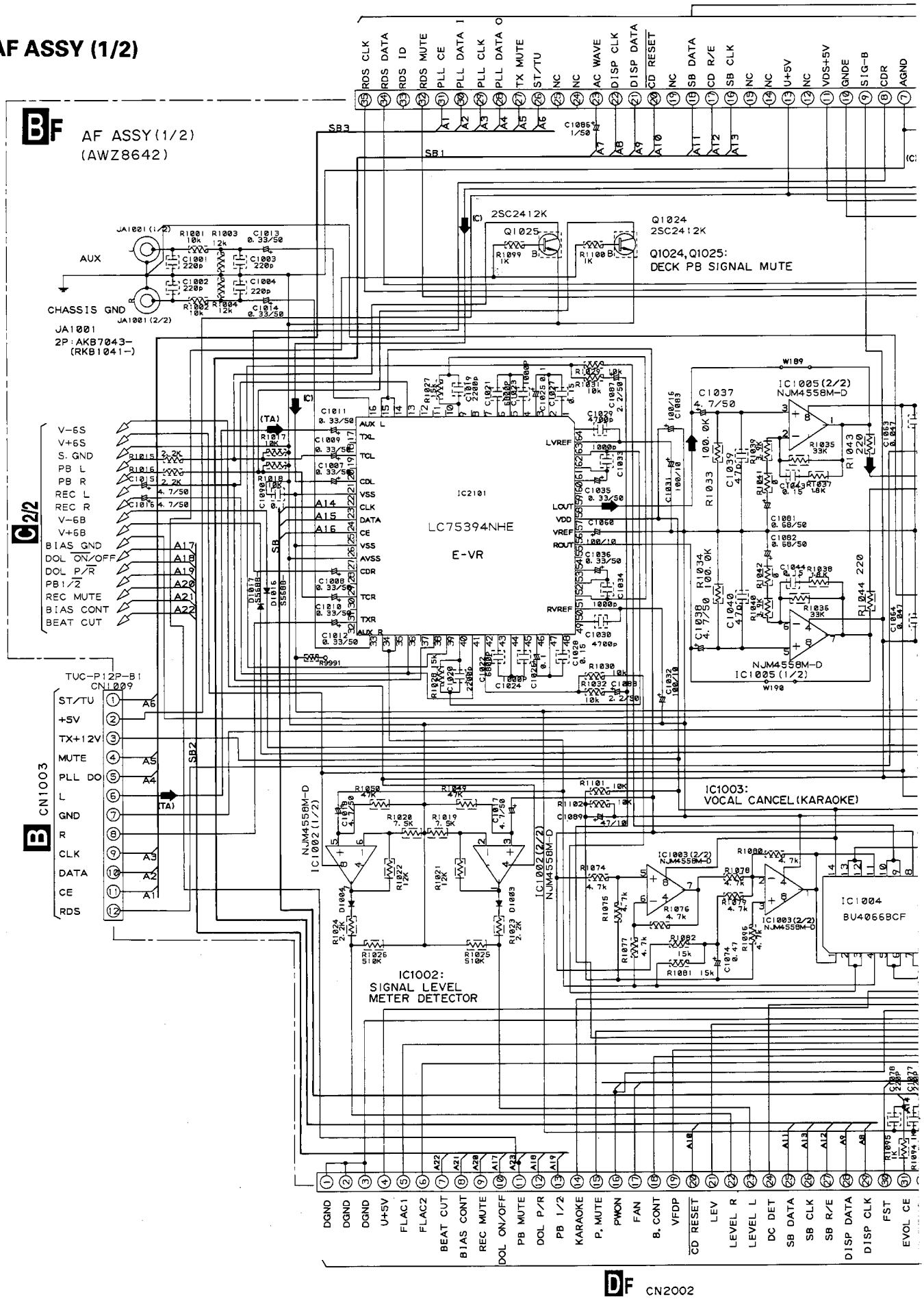
NOTE: When ordering service parts, be sure to refer to "2. CONTRAST OF MISCELLANEOUS PARTS ".

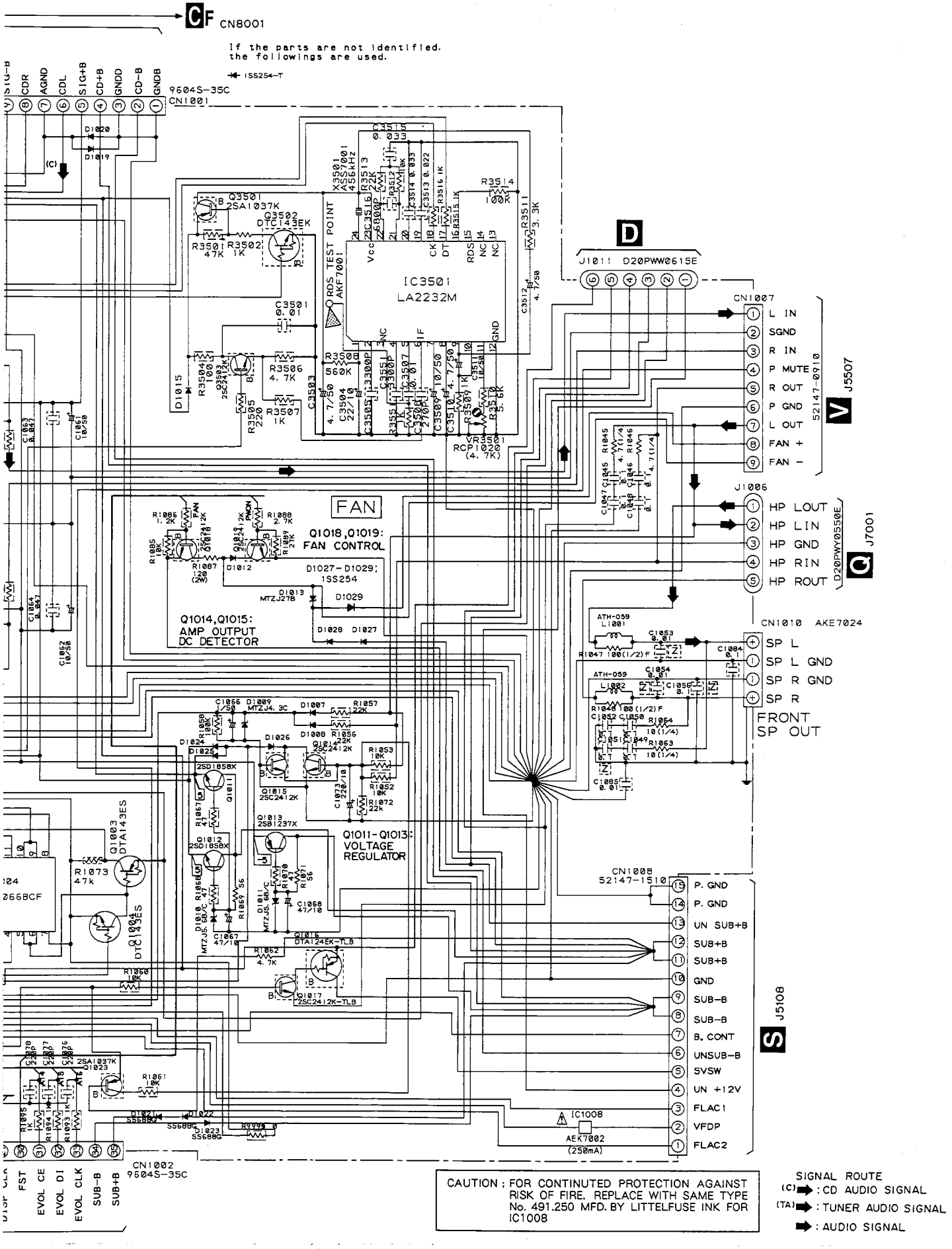
Notes

1. RESISTORS
   Indicated in Ω, 1/10W±5% Tolerance unless otherwise noted K:KΩ, M:MΩ.
2. CAPACITORS
   Indicated in Capacity(μF)/VOLTAGE(V) unless otherwise noted P:PF.
3. DIODES
   No mark diode is 1SS254.



3.2 AF ASSY (1/2)

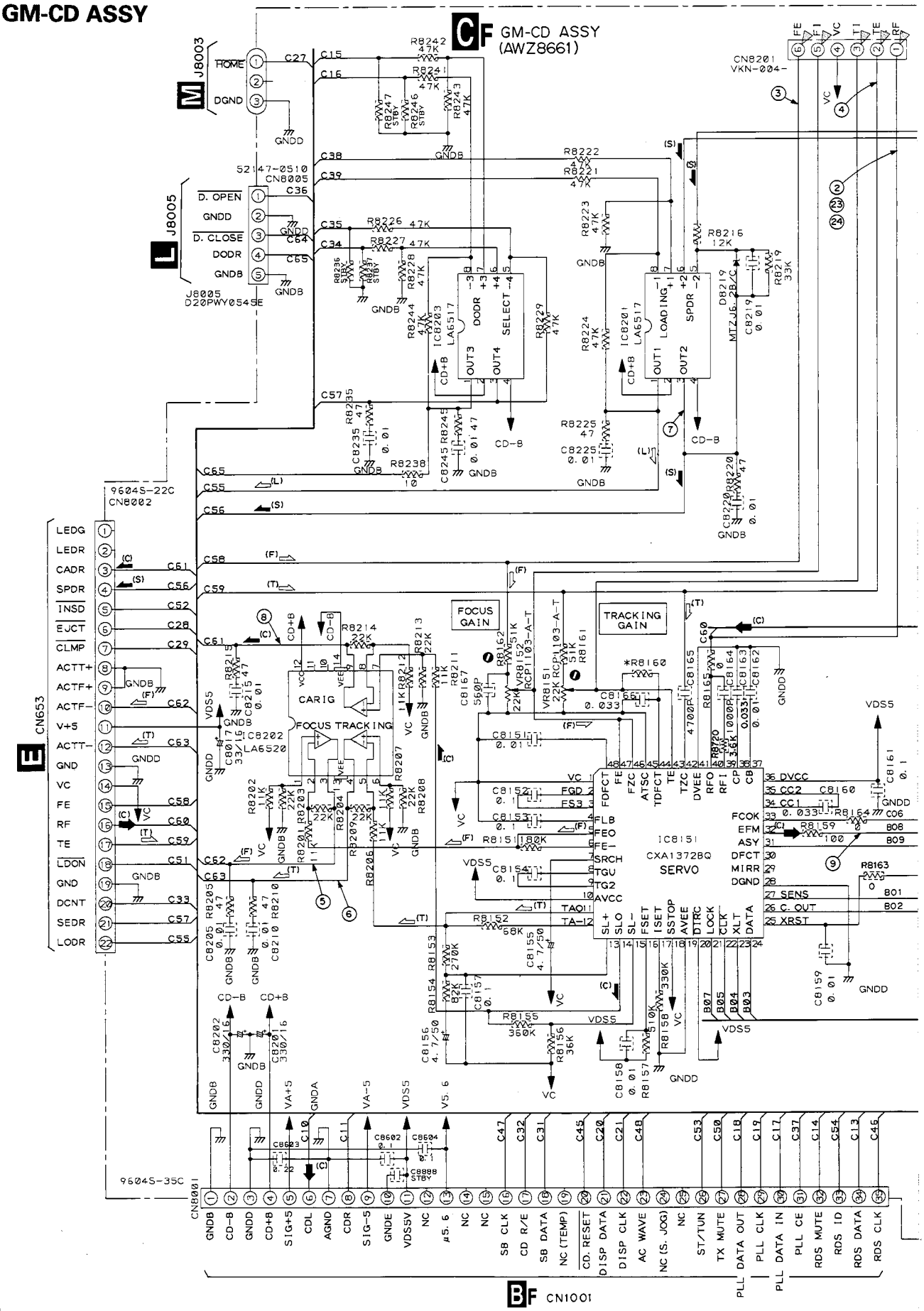

AF ASSY(1/2)
(AWZ8642)
RDS CLK
RDS DATA
RDS ID
RDS MUTE
PLL CE
PLL DATA I
PLL CLK
PLL DATA O
TX MUTE
ST/TU
NC
AC WAVE
DISP CLK
DISP DATA
CD RESET
SB DATA
CD R/E
SB CLK
U+5V
VDS+5V
GNDE
SIG-B
CDR
AGND
SB3
SB1
Q1025
2SC2412K
Q1024
2SC2412K
Q1024,Q1025:
DECK PB SIGNAL MUTE
AUX
CHASSIS GND
JA1001
2P:AKB7043-
(RKB1041-)
C/2
V-6S
V+6S
S. GND
PB L
PB R
REC L
REC R
V-6B
V+6B
BIAS GND
DOL ON/OFF
DOL P/R
PB1/2
REC MUTE
BIAS CONT
BEAT CUT
IC2101
LC75394NHE
E-VR
IC1005(2/2)
NJM4558M-D
IC1005(1/2)
NJM4558M-D
B CN1003
TUC-P12P-B1
CN1009
ST/TU
+5V
TX+12V
MUTE
PLL DO
L
GND
R
CLK
DATA
CE
RDS
IC1002(1/2)
NJM4558M-D
IC1002(2/2)
NJM4558M-D
IC1003:
VOCAL CANCEL(KARAOKE)
IC1003(2/2)
NJM4558M-D
IC1004
BU4066BCF
IC1002:
SIGNAL LEVEL
METER DETECTOR
DGND
DGND
DGND
U+5V
FLAC1
FLAC2
BEAT CUT
BIAS CONT
REC MUTE
DOL ON/OFF
PB MUTE
DOL P/R
PB 1/2
KARAOKE
P. MUTE
PWON
FAN
B. CONT
VFDP
CD RESET
LEV
LEVEL R
LEVEL L
DC DET
SB DATA
SB CLK
SB R/E
DISP DATA
DISP CLK
FST
EVOL CE
DF CN2002

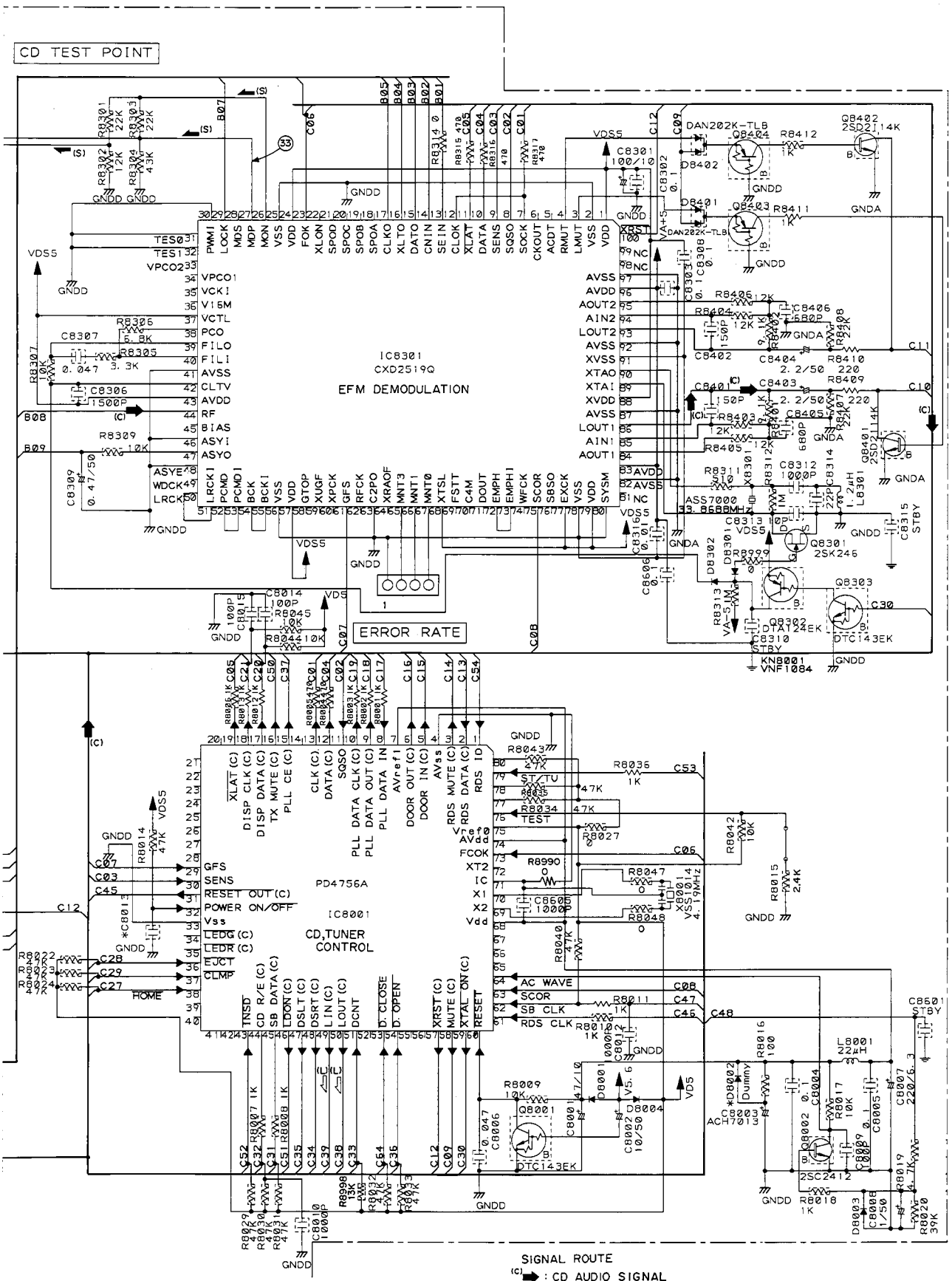


CAUTION ; FOR CONTINUTED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE No. 491.250 MFD. BY LITTELFUSE INK FOR IC1008

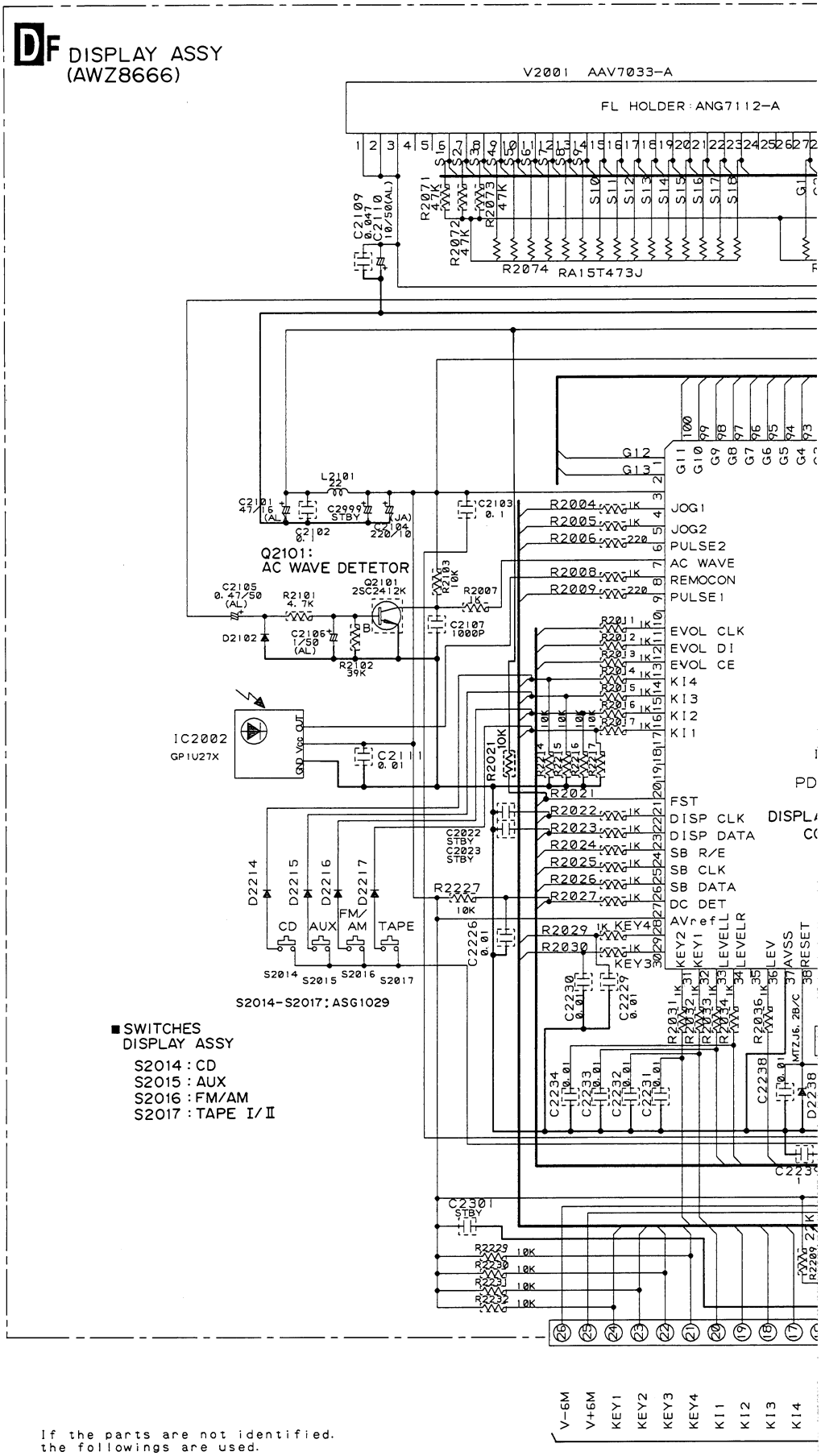
SIGNAL ROUTE
(C) : CD AUDIO SIGNAL
(TA) : TUNER AUDIO SIGNAL
: AUDIO SIGNAL

3.3 GM-CD ASSY


CF GM-CD ASSY
(AWZ8661)
M J8003
HOME
DGND
L J8005
D. OPEN
GNDD
D. CLOSE
DODR
GNDB
CN8005
52147-0510
J8005
D20PWY0545E
CN8201
VKN-004-
FE
FI
VC
TI
TE
RF
IC8203
LA6517
DODR +3
SELECT -4
OUT3
OUT4
IC8201
LOADING -1
SPDR -2
OUT1
OUT2
CD-B
CD+B
9604S-22C
CN8002
LEDG
LEDR
CADR
SPDR
INSD
EJCT
CLMP
ACTT+
ACTF+
ACTF-
V+5
ACTT-
GND
VC
FE
RF
TE
LDON
GND
DCNT
SEDR
LODR
E CN653
FOCUS GAIN
TRACKING GAIN
CARIG
FOCUS TRACKING
IC8202
LA6520
IC8151
CXA1372BQ
SERVO
FDFCT
FE
FZC
ATSC
TDFCT
TE
TZC
DVEE
RFO
RF-I
CP
CB
DVCC
CC2
CC1
FCOK
EFM
ASY
DFCT
MIRR
DGND
SENS
C. OUT
XRST
FGD
FS3
FLB
FEO
FE-
SRCH
TGU
TG2
AVCC
TAO
TA-
SL+
SLO
SL-
FSET
ISET
SSTOP
AVEE
DTRC
LOCK
CLK
XLT
DATA
VDS5
VC
GNDD
GNDB
9604S-35C
CN8001
GNDB
CD-B
GNDD
CD+B
SIG+5
CDL
AGND
CDR
SIG-5
GNDE
VDSSV
NC
µ5. 6
SB CLK
CD R/E
SB DATA
NC (TEMP)
CD. RESET
DISP DATA
DISP CLK
AC WAVE
NC (S. JOG)
ST/TUN
TX MUTE
DATA OUT
PLL CLK
PLL DATA IN
PLL CE
RDS MUTE
RDS ID
RDS DATA
RDS CLK
BF CN1001

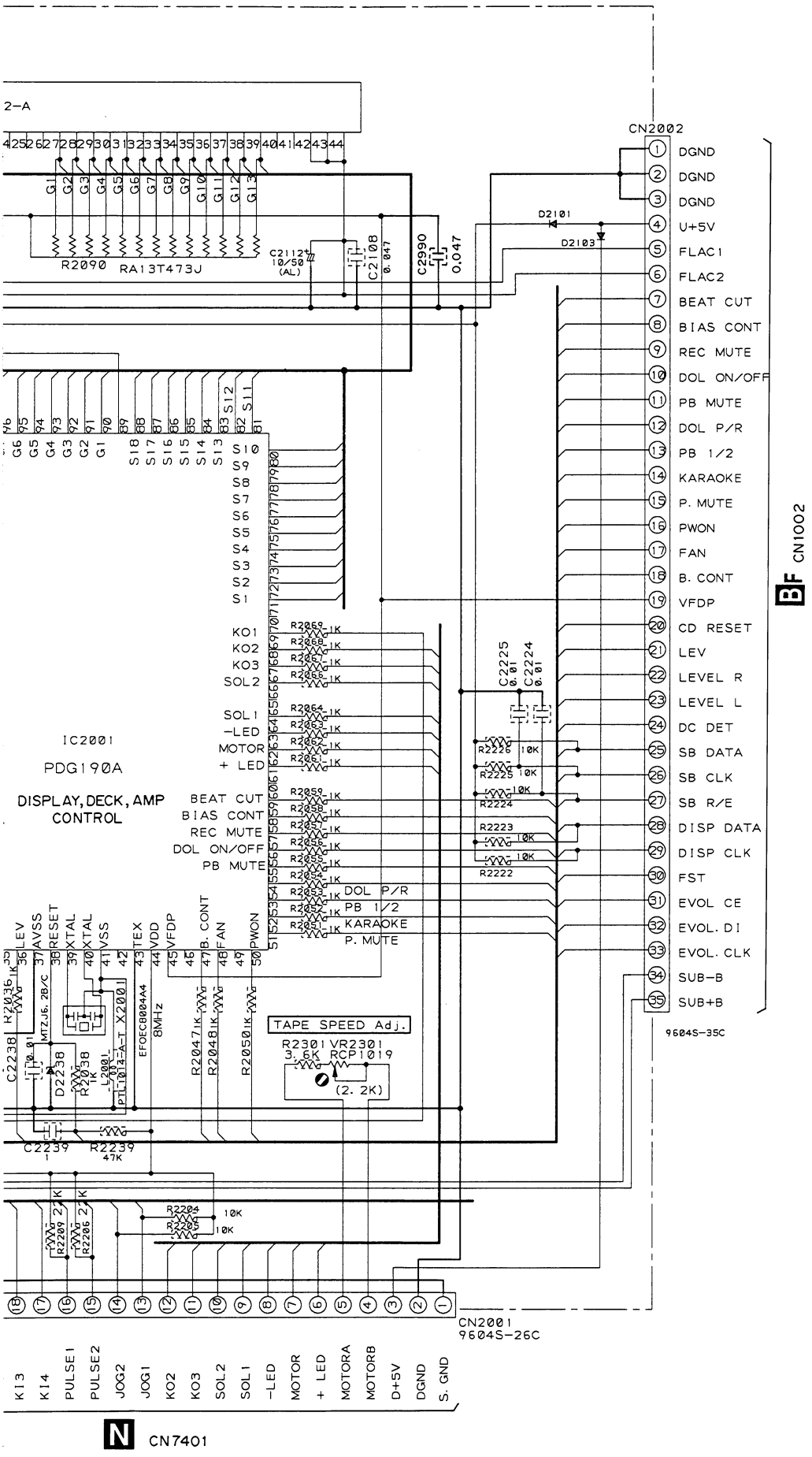

CD TEST POINT
IC8301
CXD2519Q
EFM DEMODULATION
ERROR RATE
IC8001
PD4756A
CD,TUNER
CONTROL
SIGNAL ROUTE
(C) : CD AUDIO SIGNAL
(F) : FOCUS SERVO LOOP LINE
(T) : TRACKING SERVO LOOP LINE
(L) : LOADING MOTOR ROUTE
(S) : SPINDLE MOTOR ROUTE
(C) : CARRIAGE MOTOR ROUTE
If the parts are not identified.
the followings are used.
: 1SS254-T

3.4 DISPLAY ASSY

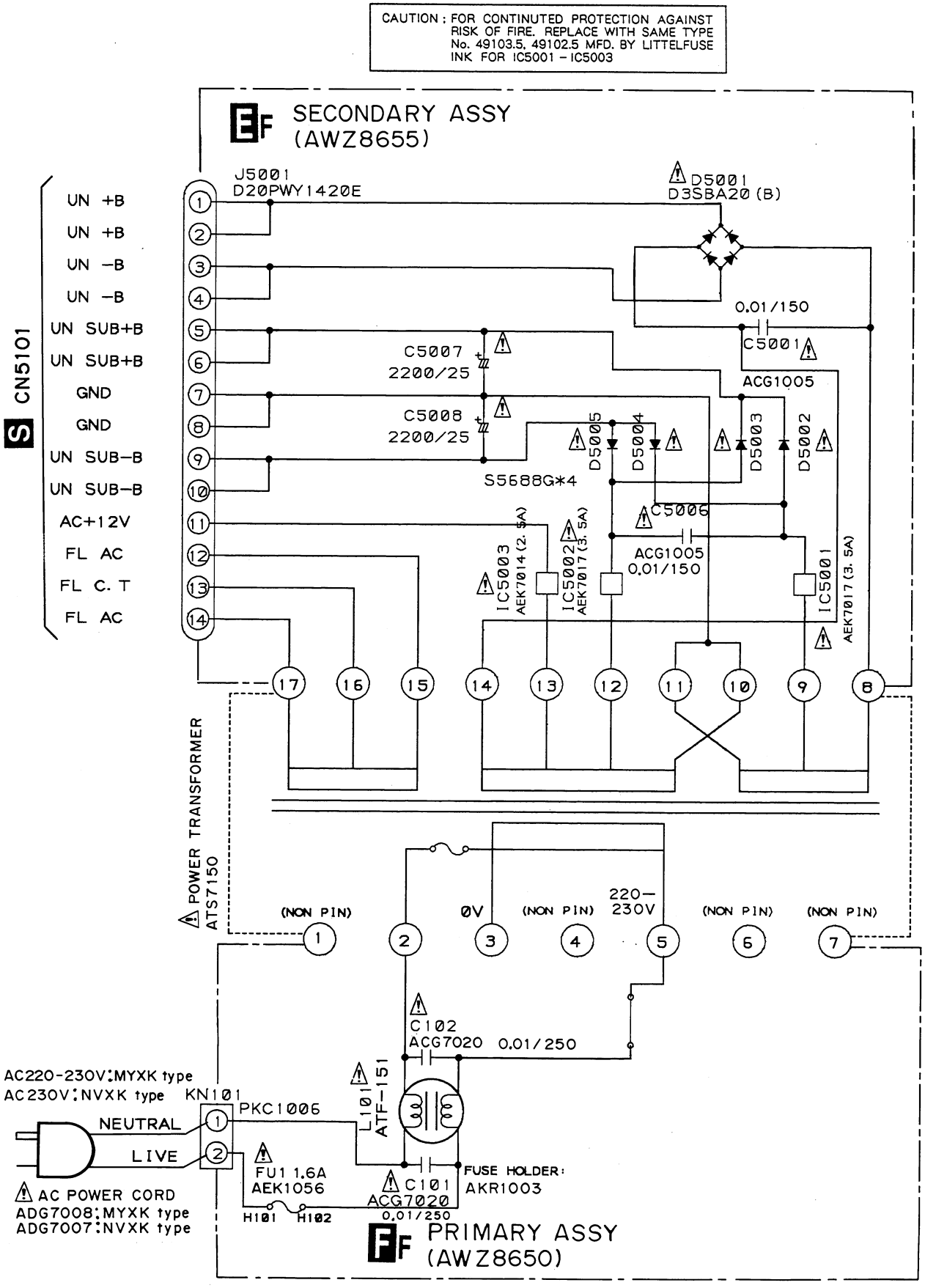


If the parts are not identified.
the followings are used.

1SS254-T


2-A
CN2002
DGND
DGND
DGND
U+5V
FLAC1
FLAC2
BEAT CUT
BIAS CONT
REC MUTE
DOL ON/OFF
PB MUTE
DOL P/R
PB 1/2
KARAOKE
P. MUTE
PWON
FAN
B. CONT
VFDP
CD RESET
LEV
LEVEL R
LEVEL L
DC DET
SB DATA
SB CLK
SB R/E
DISP DATA
DISP CLK
FST
EVOL CE
EVOL. DI
EVOL. CLK
SUB-B
SUB+B
BF CN1002
9604S-35C
D2101
D2103
R2090 RA13T473J
C2112 10/50 (AL)
C2108 0.047
C2990 0.047
IC2001
PDG190A
DISPLAY, DECK, AMP CONTROL
KO1
KO2
KO3
SOL2
SOL1
-LED
MOTOR
+ LED
BEAT CUT
BIAS CONT
REC MUTE
DOL ON/OFF
PB MUTE
DOL P/R
PB 1/2
KARAOKE
P. MUTE
C2225 0.01
C2224 0.01
R2226 10K
R2225 10K
R2224 10K
R2223 10K
R2222 10K
TAPE SPEED Adj.
R2301 VR2301 3.6K RCP1019 (2.2K)
C2238
D2238
R2238 1K
L2001 PTL-1014-A-T
X2001 EFOEC8004A4 8MHz
C2239 1
R2239 47K
R2047 1K
R2048 1K
R2050 1K
R2204 10K
R2205 10K
R2209 22K
R2206 22K
CN2001 9604S-26C
K13
K14
PULSE1
PULSE2
JOG2
JOG1
KO2
KO3
SOL2
SOL1
-LED
MOTOR
+ LED
MOTORA
MOTORB
D+5V
DGND
S. GND
N CN7401

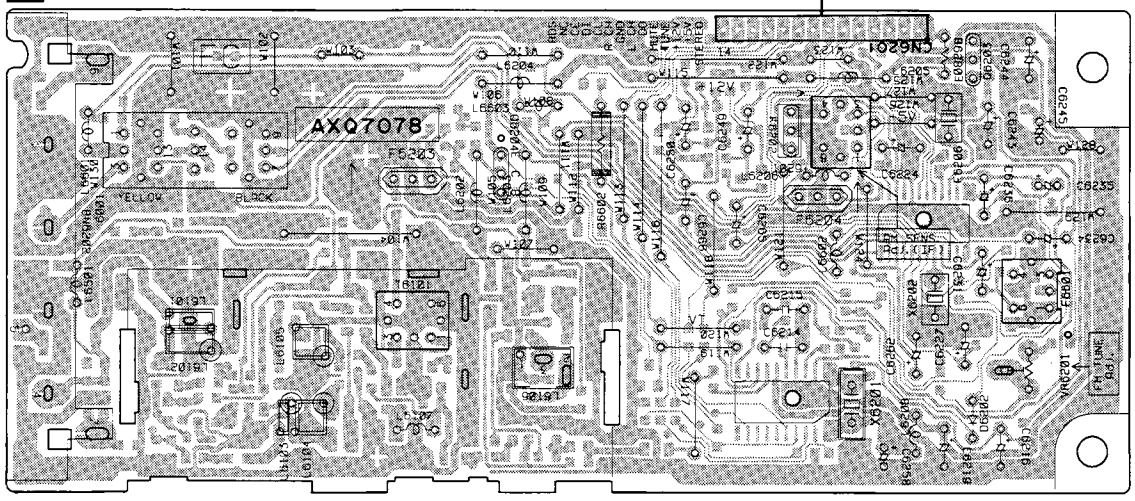
3.5 SECONDARY ASSY AND PRIMARY ASSY



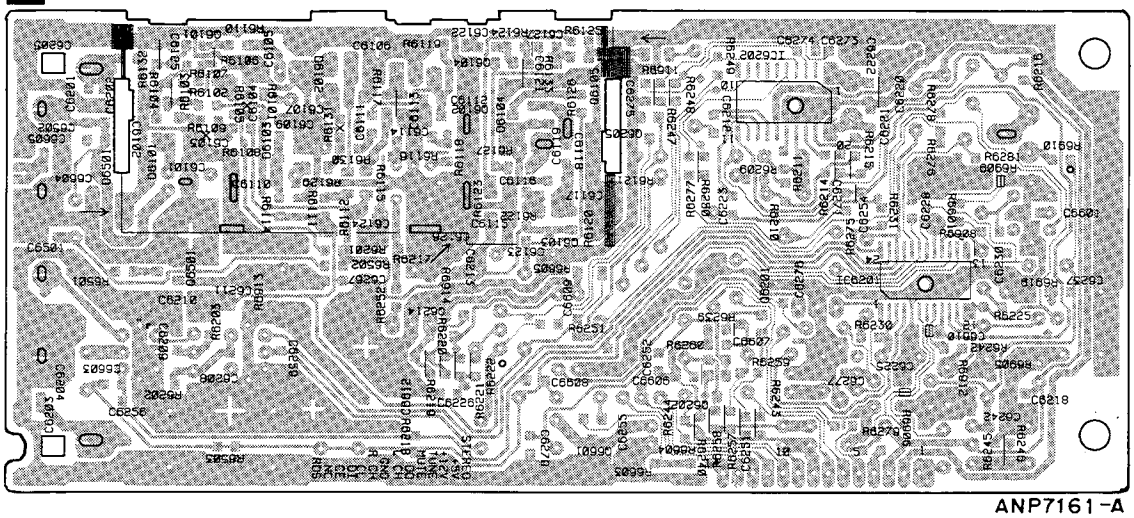
4. PCB CONNECTION DIAGRAM

4.1 FM/AM TUNER MODULE

AF FM/AM TUNER MODULE



AF FM/AM TUNER MODULE



NOTE FOR PCB DIAGRAMS:

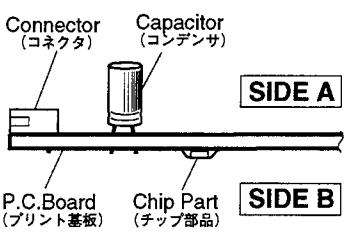
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
● B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor

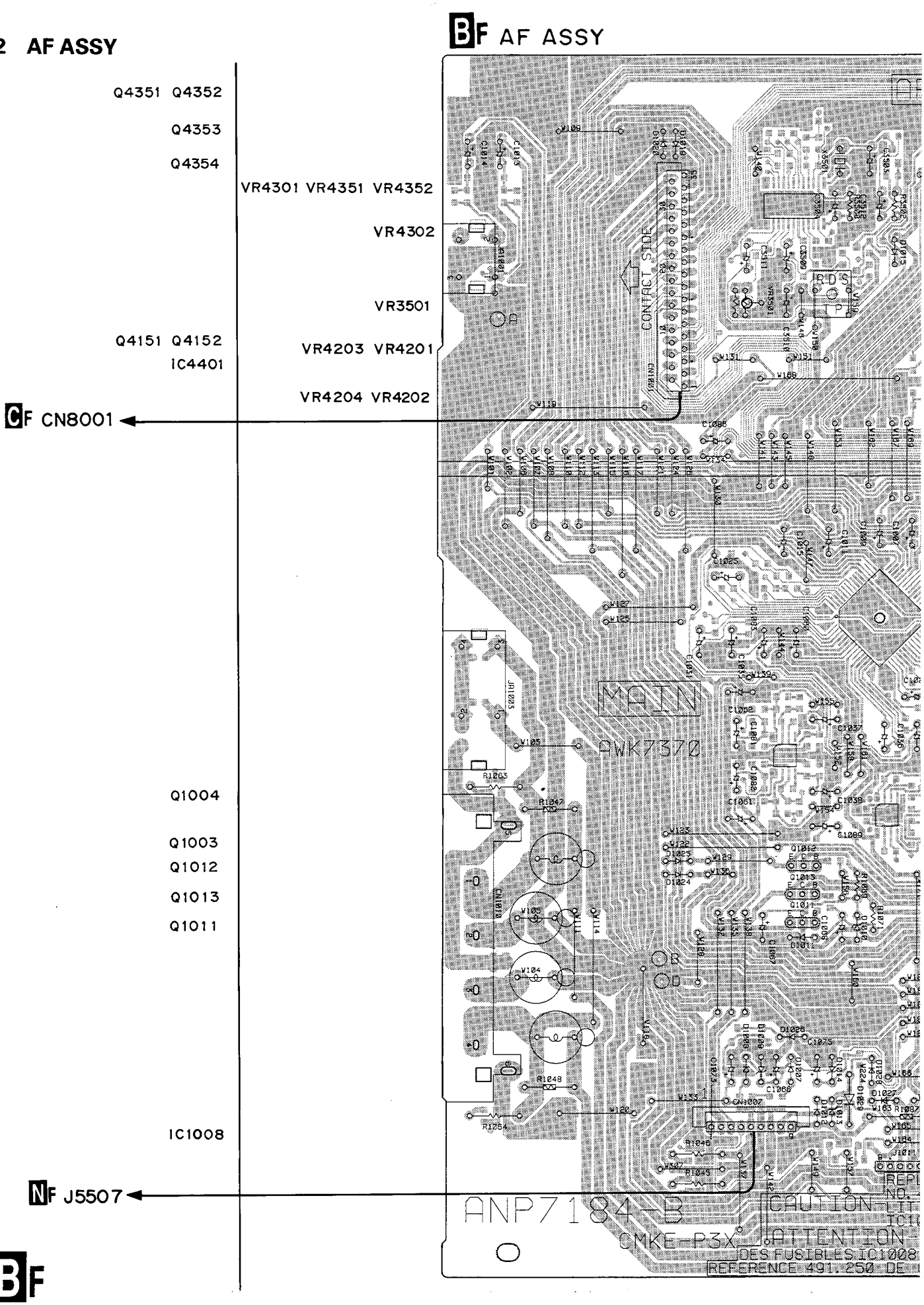
		Resistor array
		3-terminal regulator

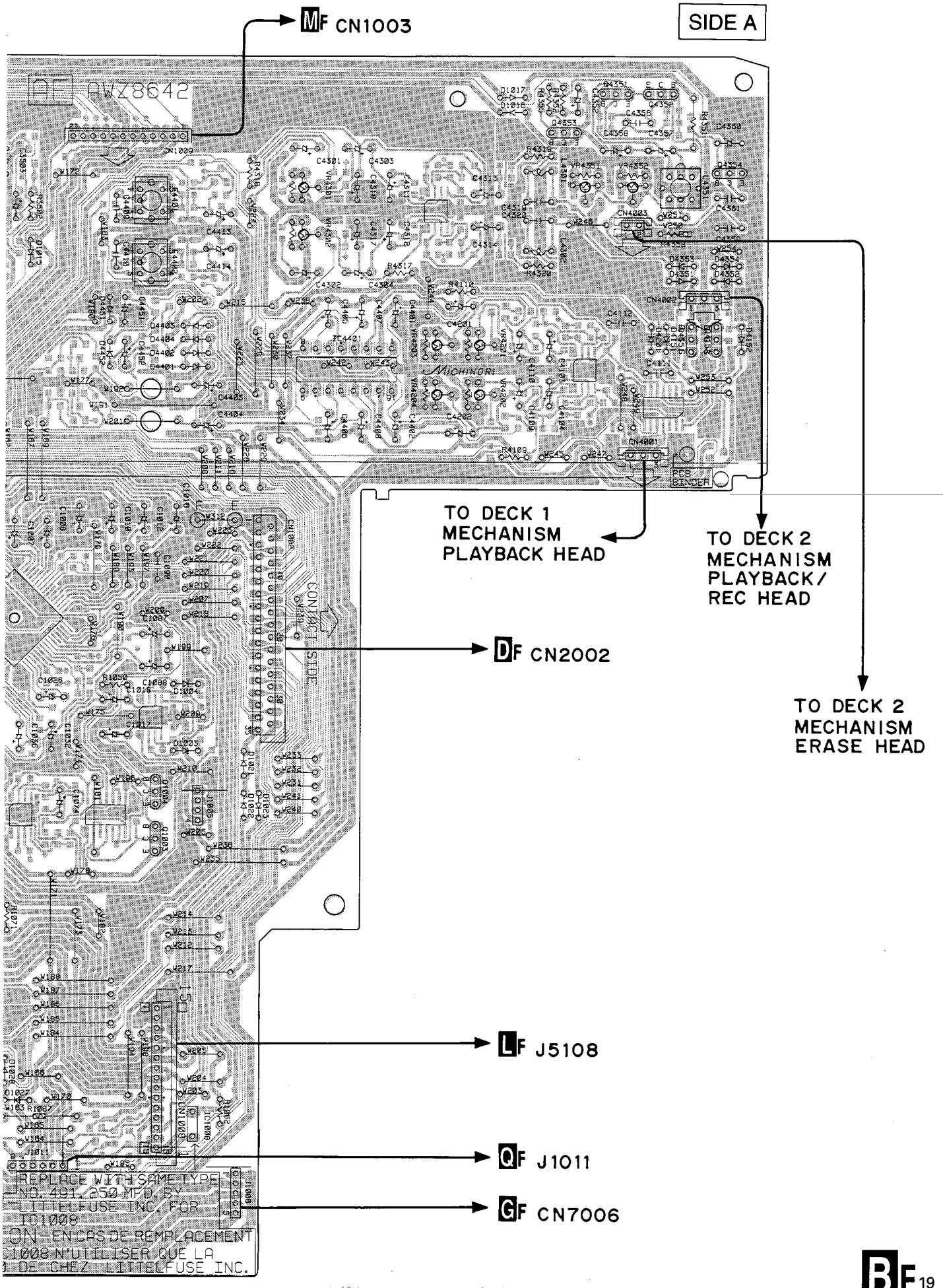
3. The parts mounted on this PCB include all necessary parts for several destinations. For further infromation for respective destinations, be sure to check with the schematic diagram.

4. Viewpoint of PCB diagrams

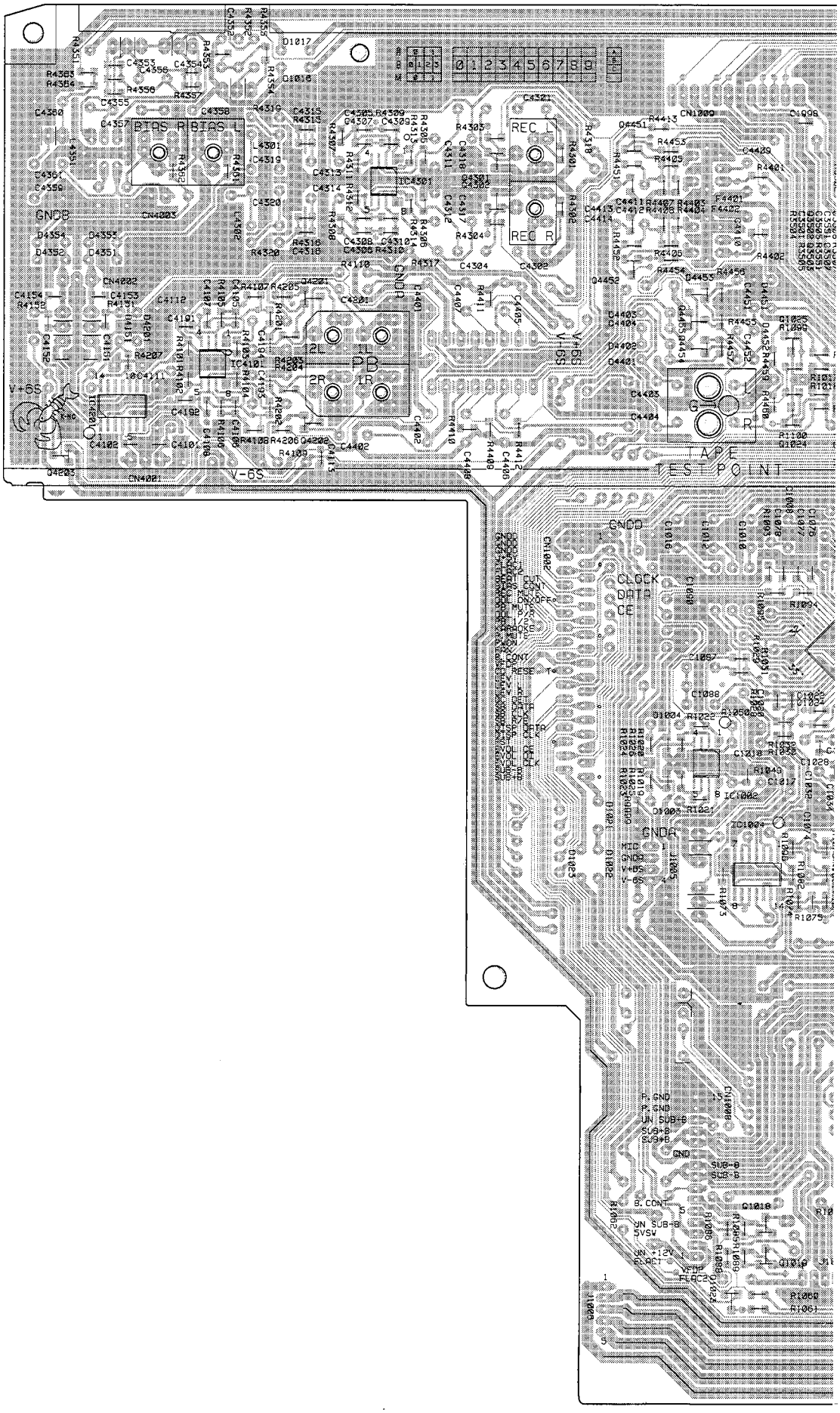


4.2 AF ASSY

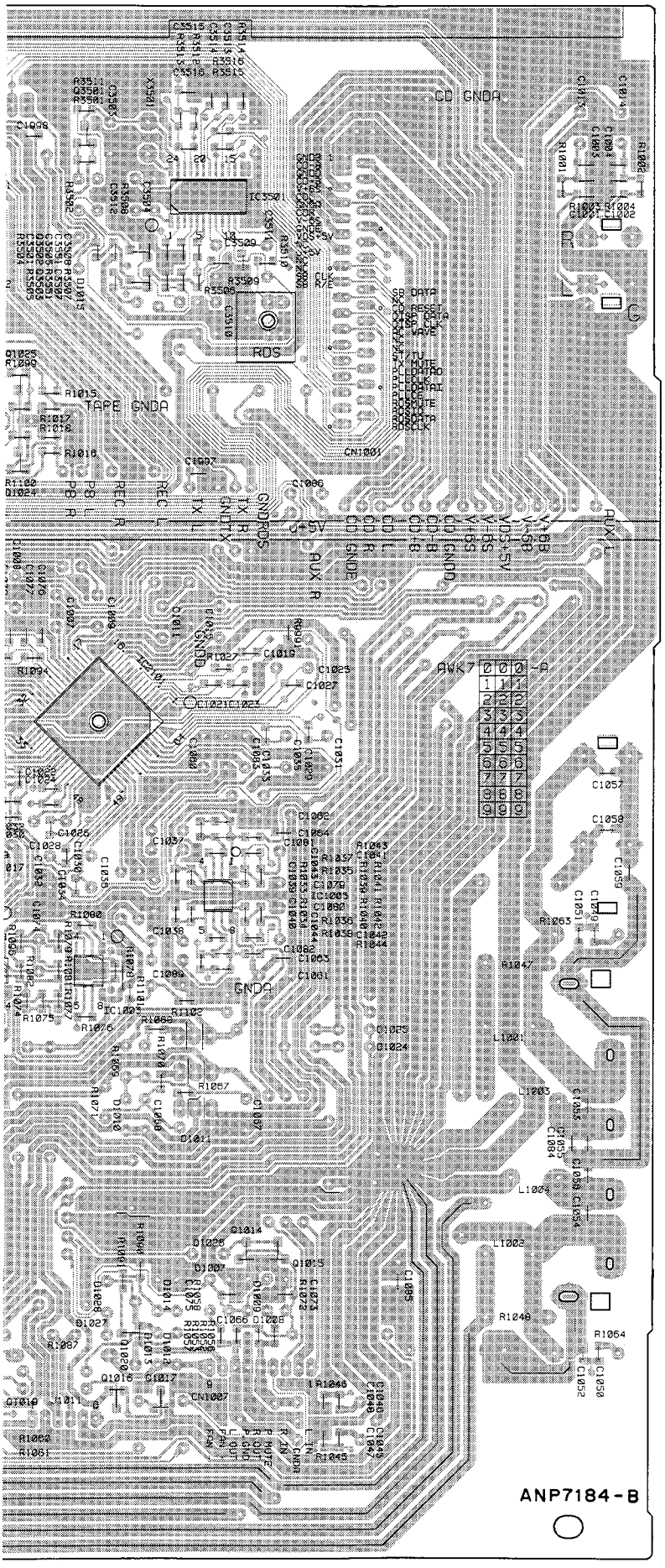

BF AF ASSY
Q4351 Q4352
Q4353
Q4354
VR4301 VR4351 VR4352
VR4302
VR3501
Q4151 Q4152
IC4401
VR4203 VR4201
VR4204 VR4202
CF CN8001
Q1004
Q1003
Q1012
Q1013
Q1011
IC1008
NF J5507
CONTACT SIDE
PWK7370
ANP7184-B
CMKE-P3X
CAUTION-LI
ATTENTION
REFERENCE 491.250 DE


MF CN1003
SIDE A
AWZ8642
TO DECK 1
MECHANISM
PLAYBACK HEAD
TO DECK 2
MECHANISM
PLAYBACK/
REC HEAD
DF CN2002
TO DECK 2
MECHANISM
ERASE HEAD
LF J5108
QF J1011
GF CN7006
CONTACT SIDE
PCB
BINDER
REPLACE WITH SAME TYPE
NO. 491.250 MFD. BY
LITTELFUSE INC. FOR
IC1008
ON - EN CAS DE REMPLACEMENT
C1008 N'UTILISER QUE LA
DE CHEZ LITTELFUSE INC.

AF ASSY


BIAS R
BIAS L
REC L
REC R
GNDB
GNDA
V+6S
V-6S
CLOCK
DATA
CE
TAPE POINT

SIDE B



Q3501

Q4451

IC4301 Q4301 Q4302 IC3501

Q3502

Q4452 Q3503

Q4201 Q4453

Q4455 Q1025

Q4454

IC4101

IC4201

Q4202 Q1024

Q4203

IC2101

IC1002

IC1005

IC1004

IC1003

Q1014 Q1015

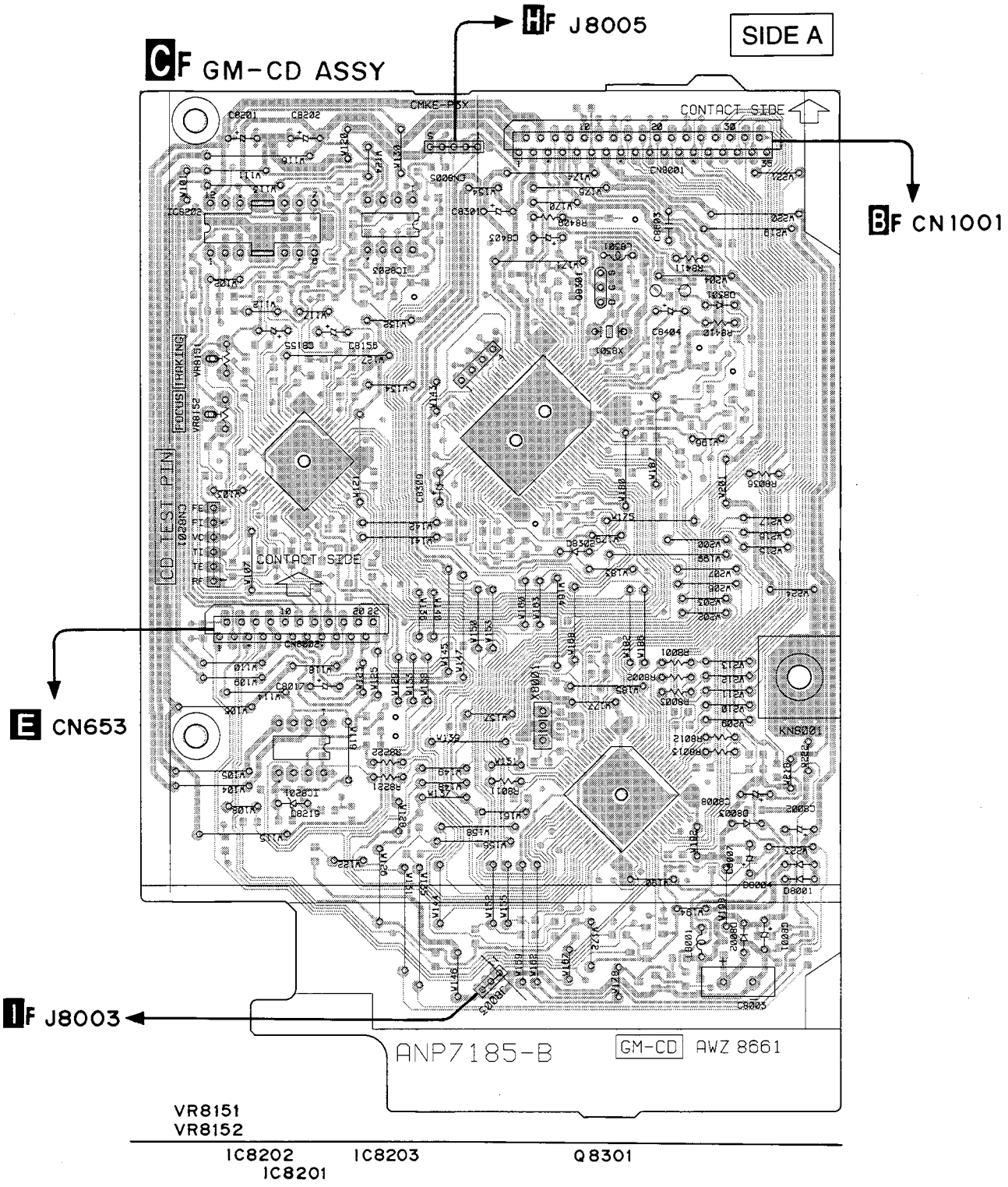
Q1020

Q1018

Q1019 Q1016 Q1017

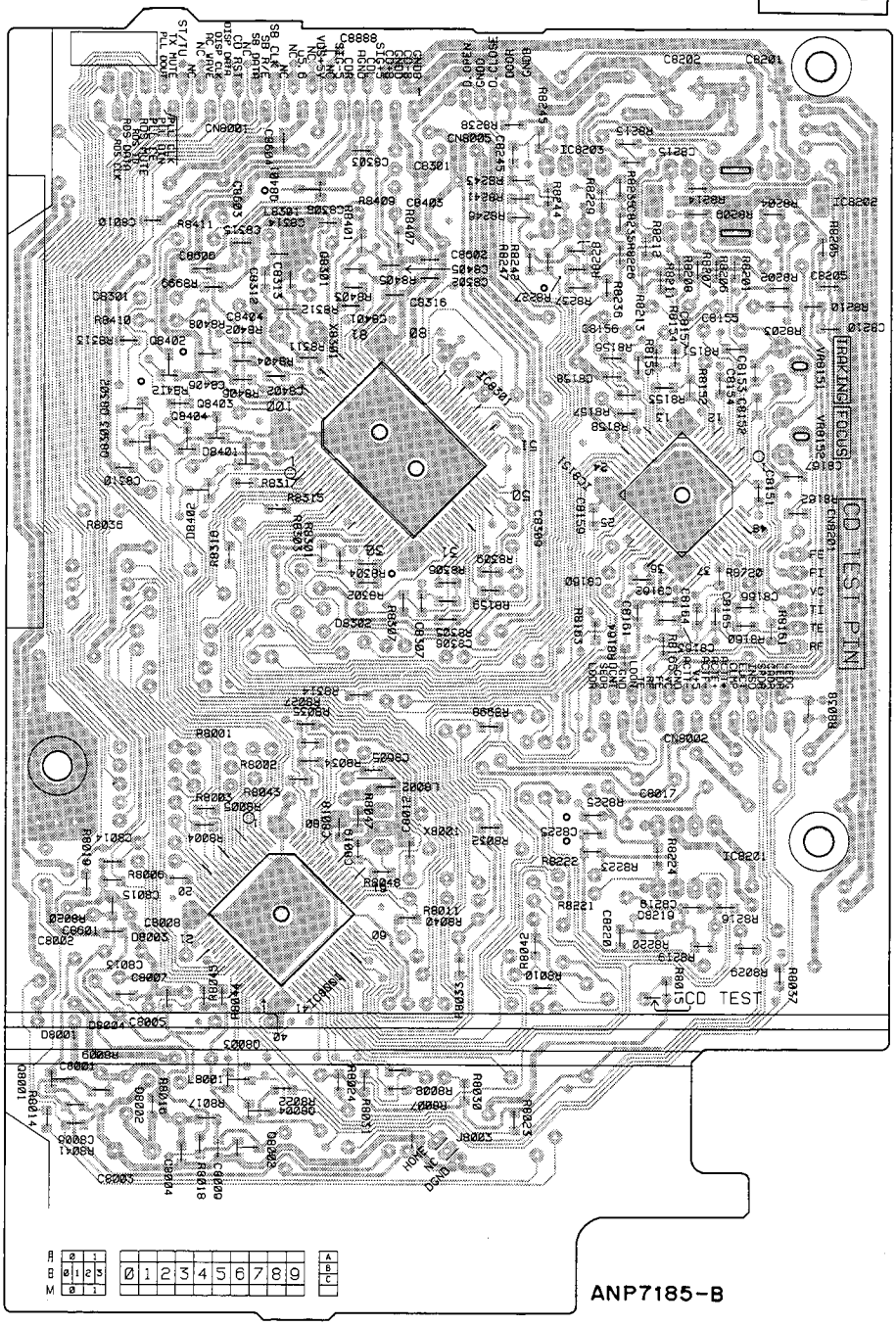
Q1023

4.3 GM-CD ASSY


HF J8005
SIDE A
CF GM-CD ASSY
BF CN1001
E CN653
IF J8003
CONTACT SIDE
CD TEST PIN
FOCUS TRACKING
ANP7185-B
GM-CD AWZ 8661
VR8151
VR8152
IC8202
IC8203
Q8301
IC8201

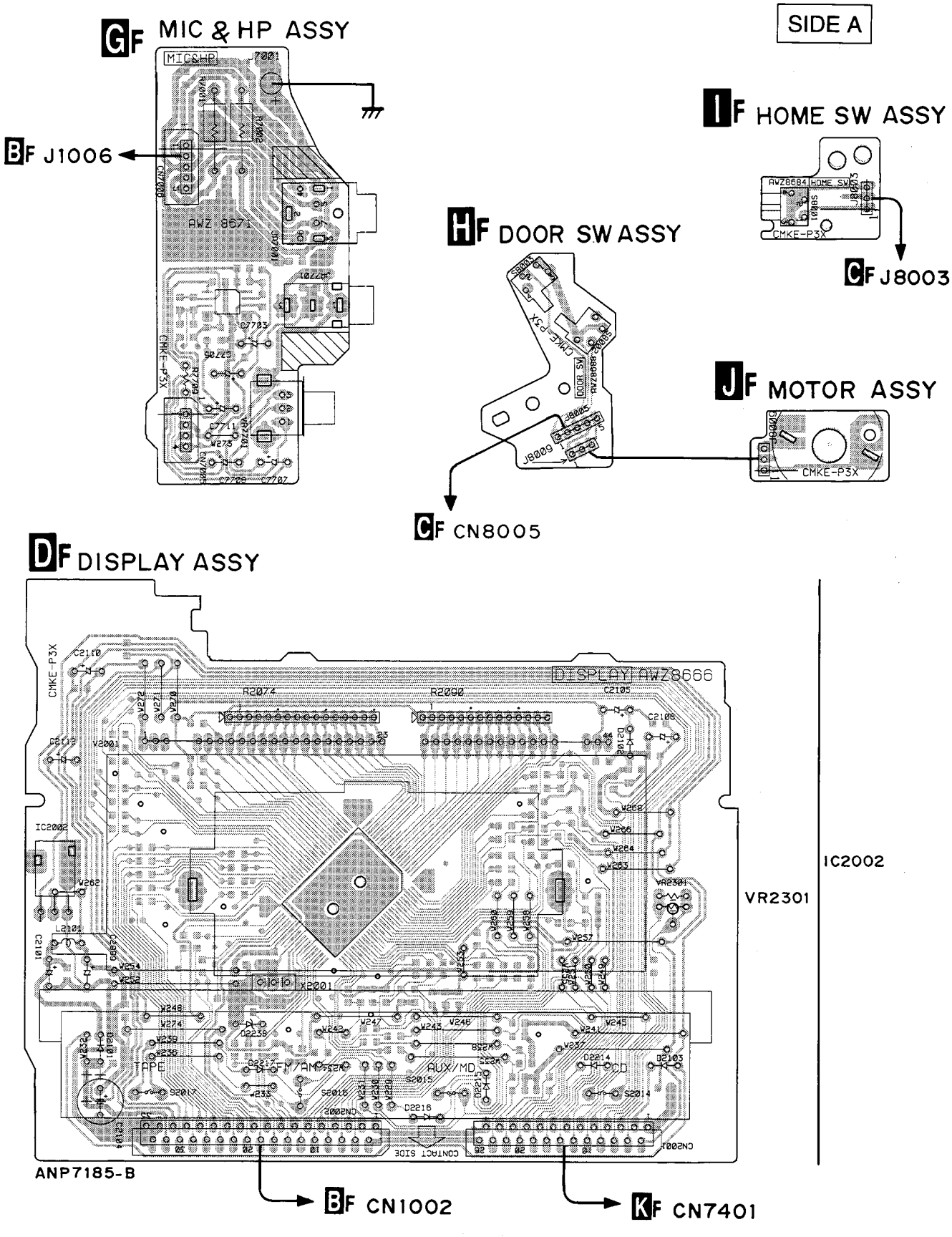
CF GM-CD ASSY

SIDE B



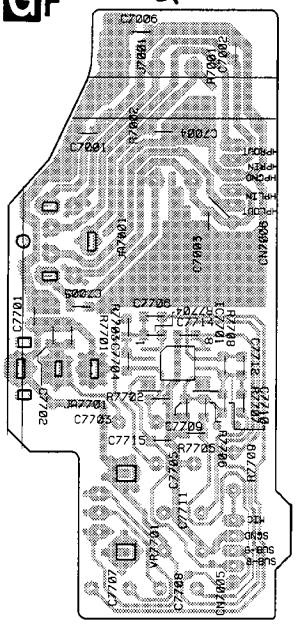
Q8001 Q8402 Q8401 IC8301 IC8151
Q8302 Q8403 IC8001
Q8303 Q8404
Q8003
Q8004
Q8002

4.4 DISPLAY ASSY, MIC & HP ASSY, DOOR SW ASSY, HOME SW ASSY AND MOTOR ASSY



GF MIC & HP ASSY

SIDE B

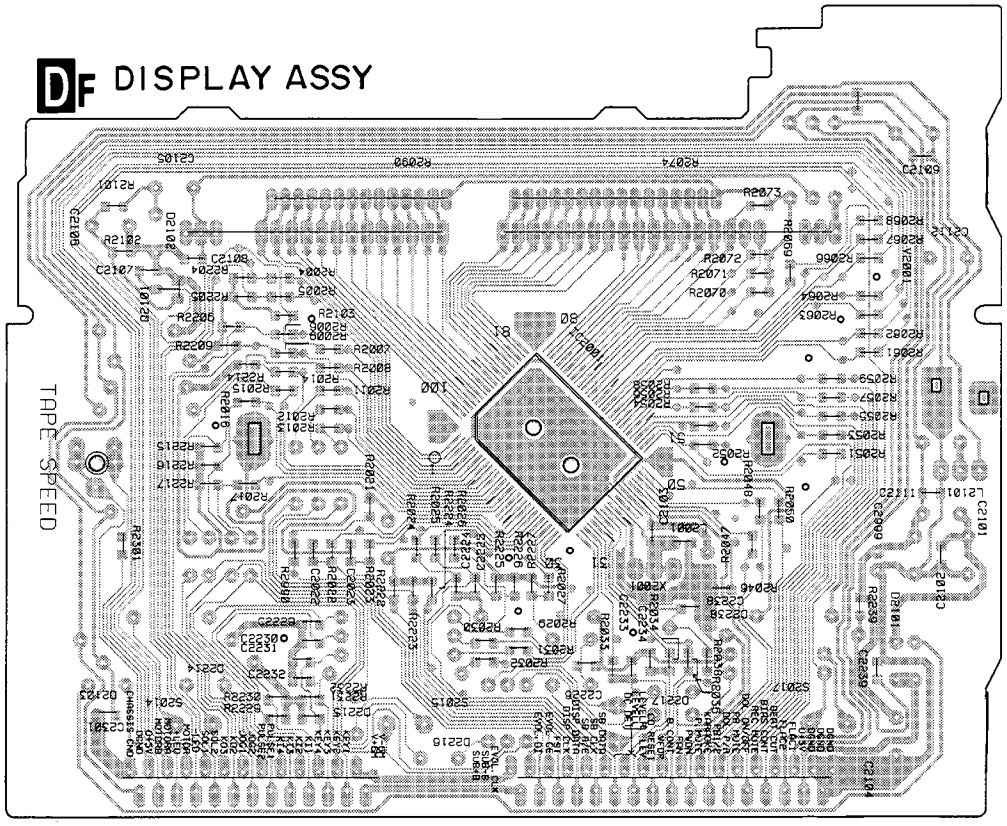


DF DISPLAY ASSY

Q2101

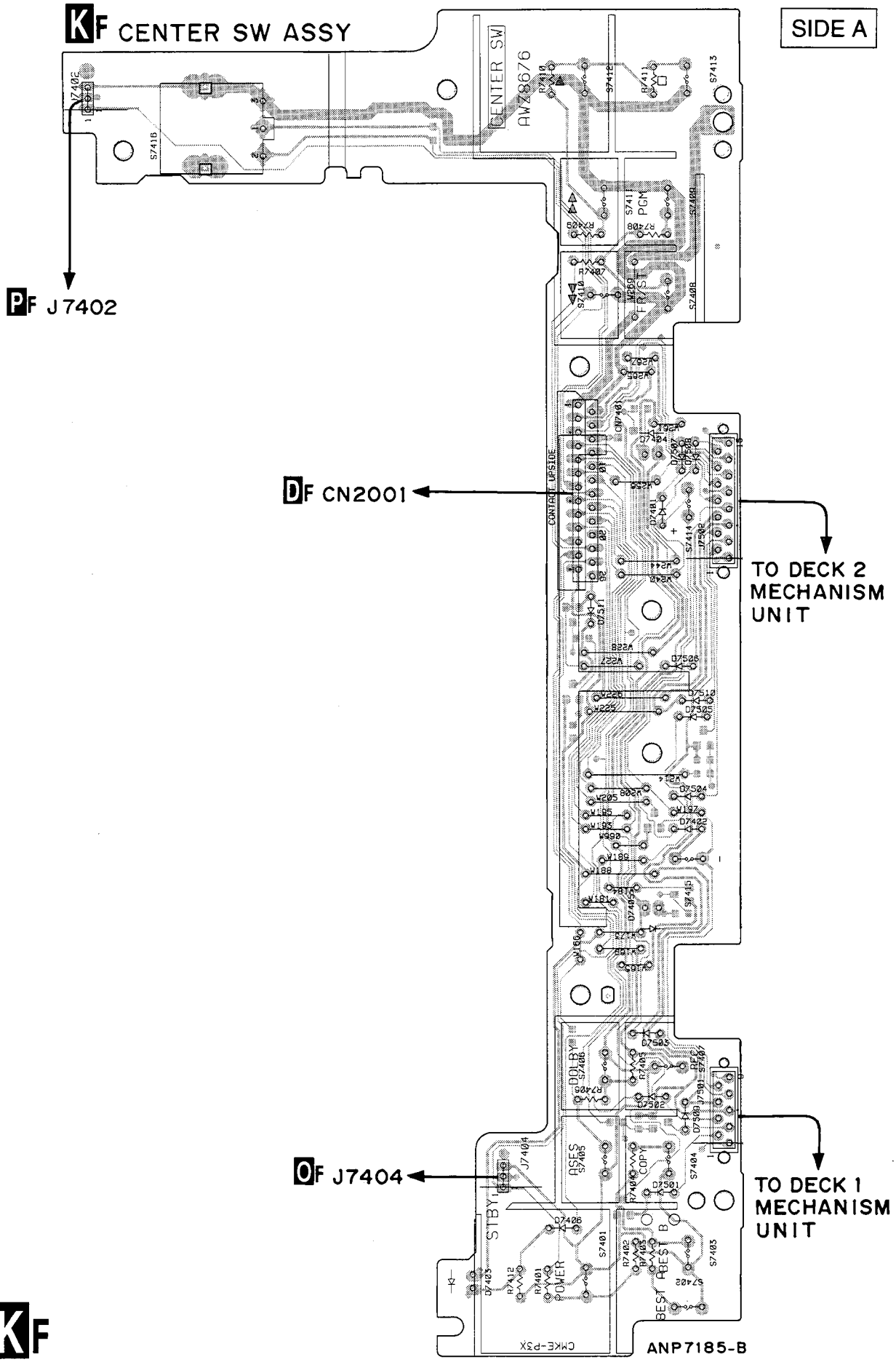
IC2001

TAPE SPEED



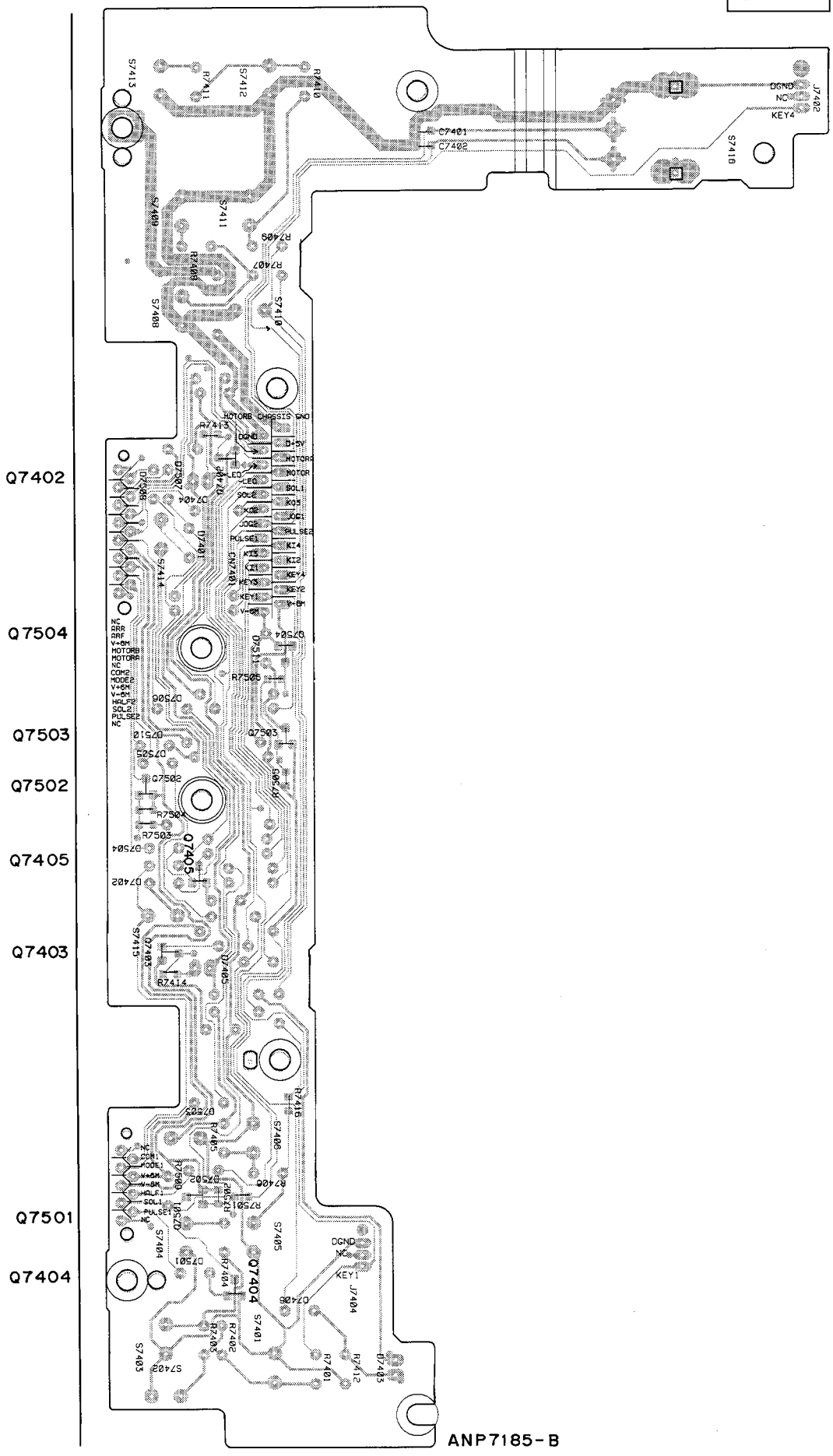
ANP7185-B

4.5 CENTER SW ASSY

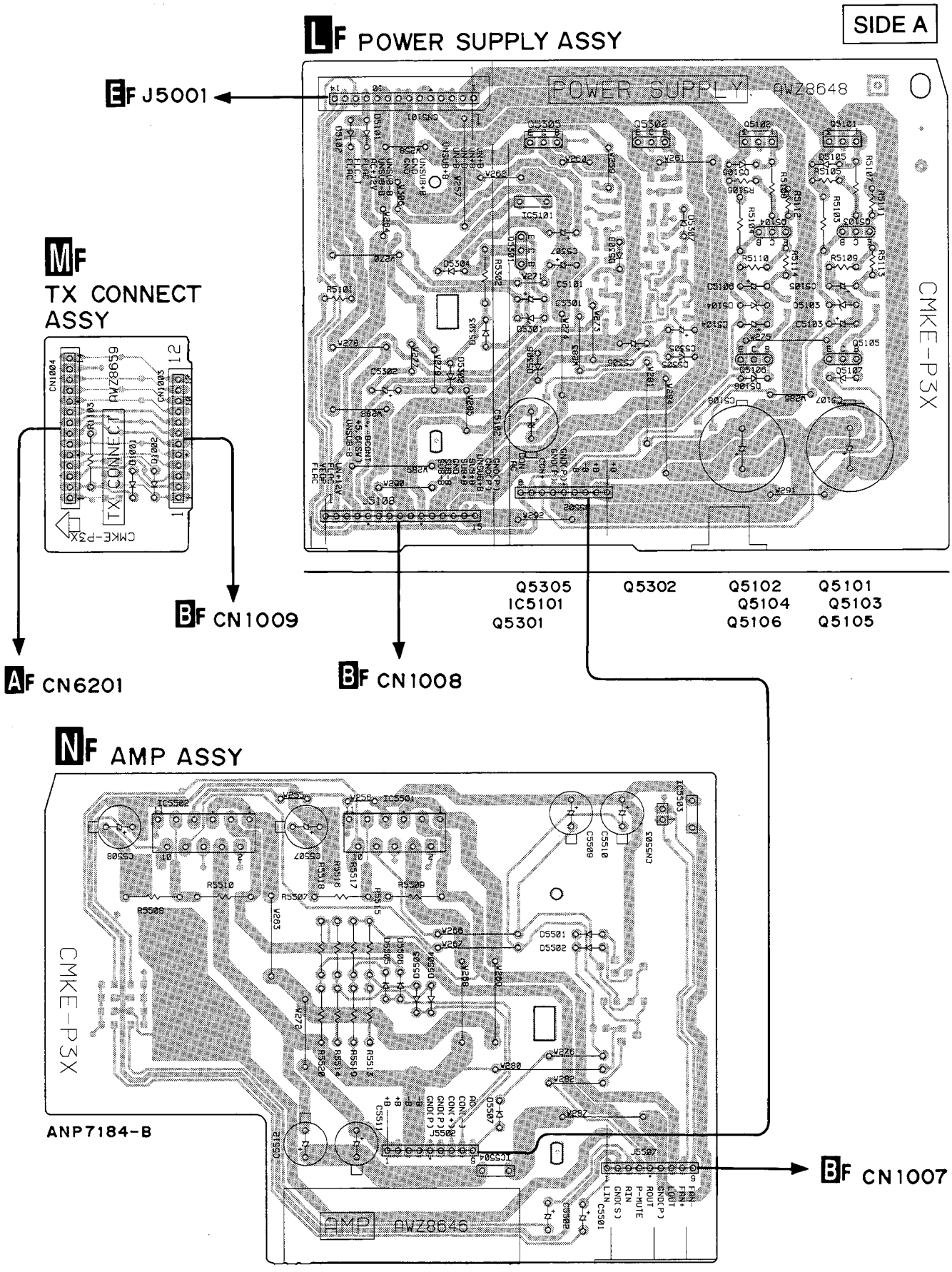


KF CENTER SW ASSY

SIDE B

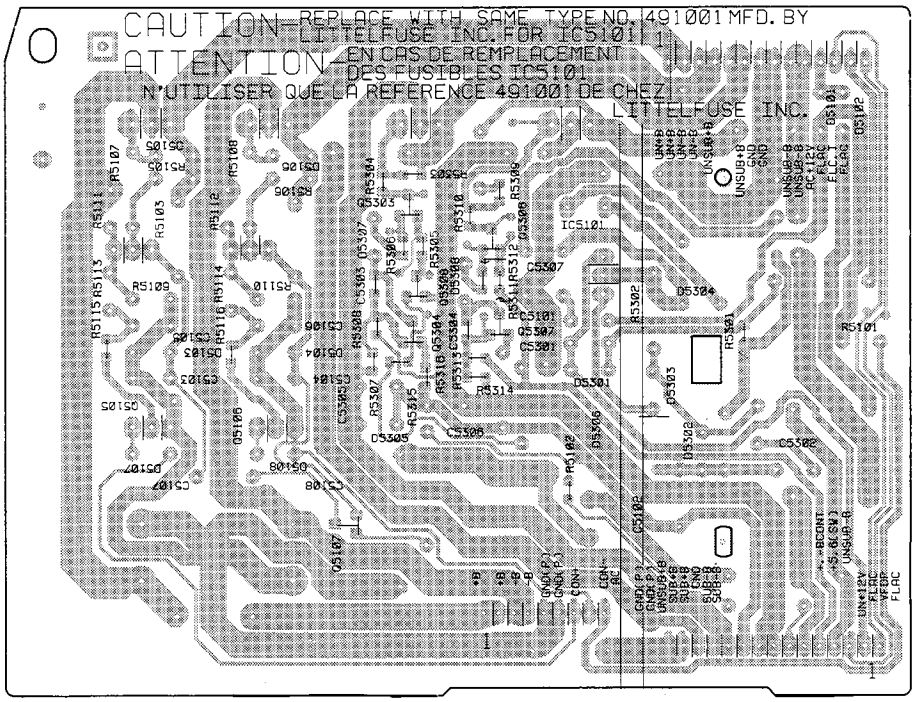


4.6 POWER SUPPLY ASSY, TX CONNECT ASSY AND AMP ASSY

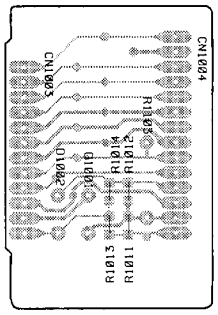


SIDE B

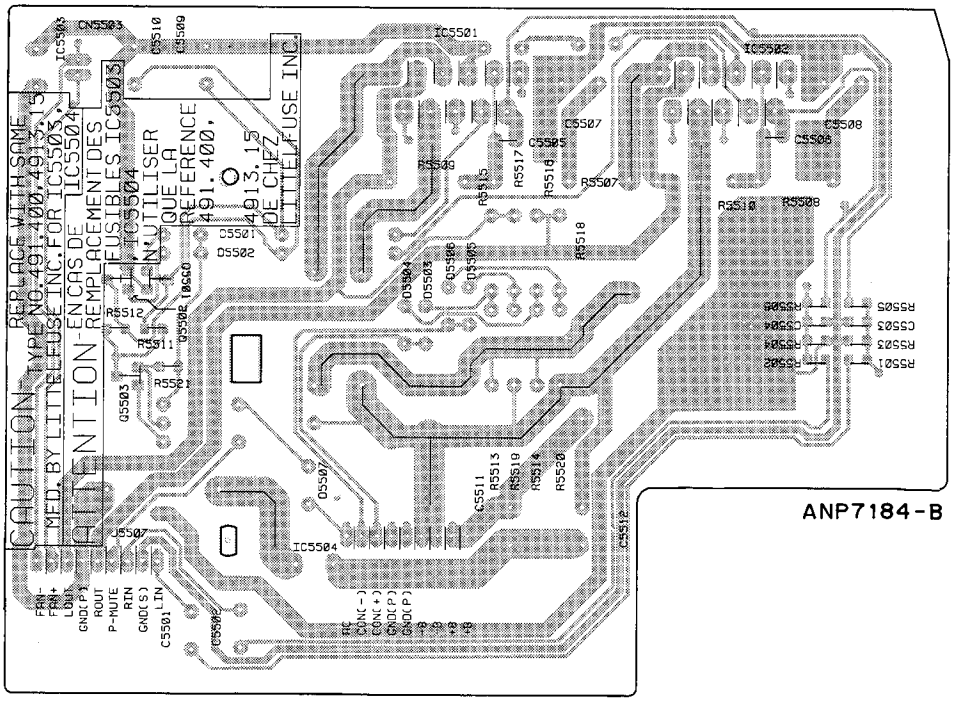
LF POWER SUPPLY ASSY



MF TX CONNECT ASSY

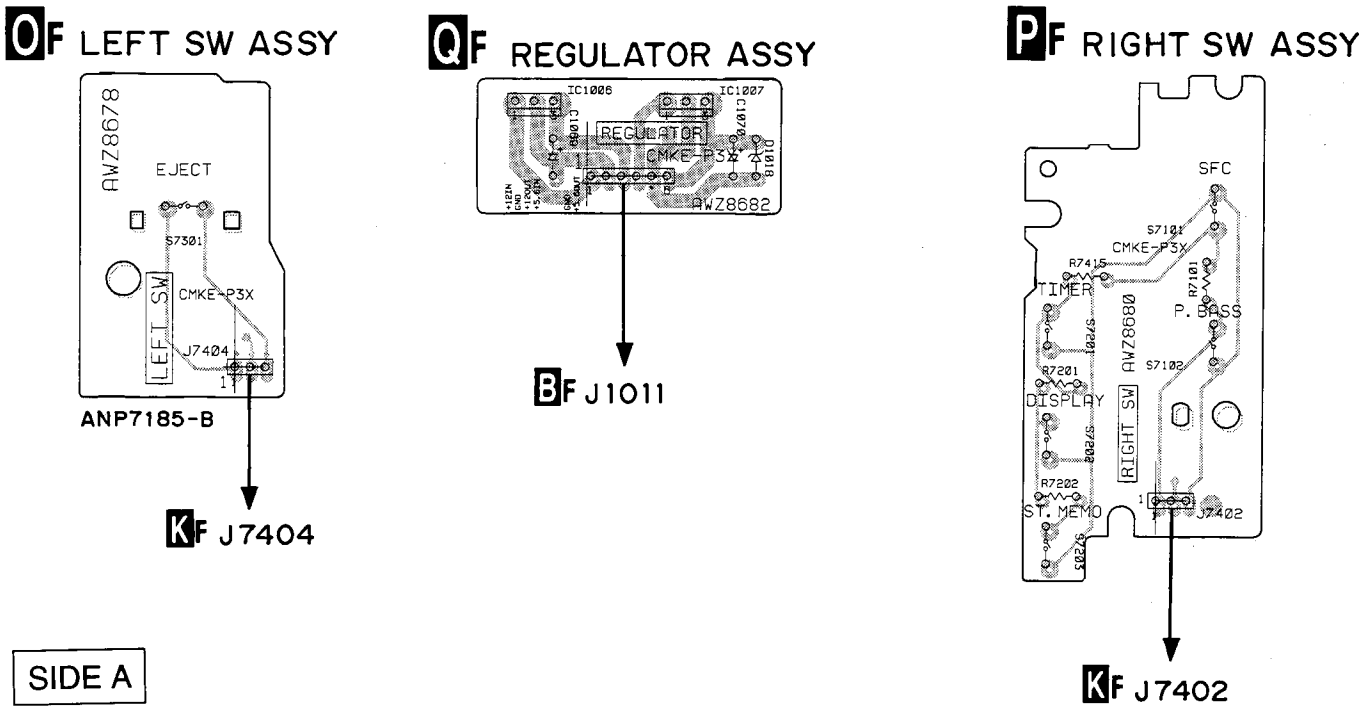


NF AMP ASSY

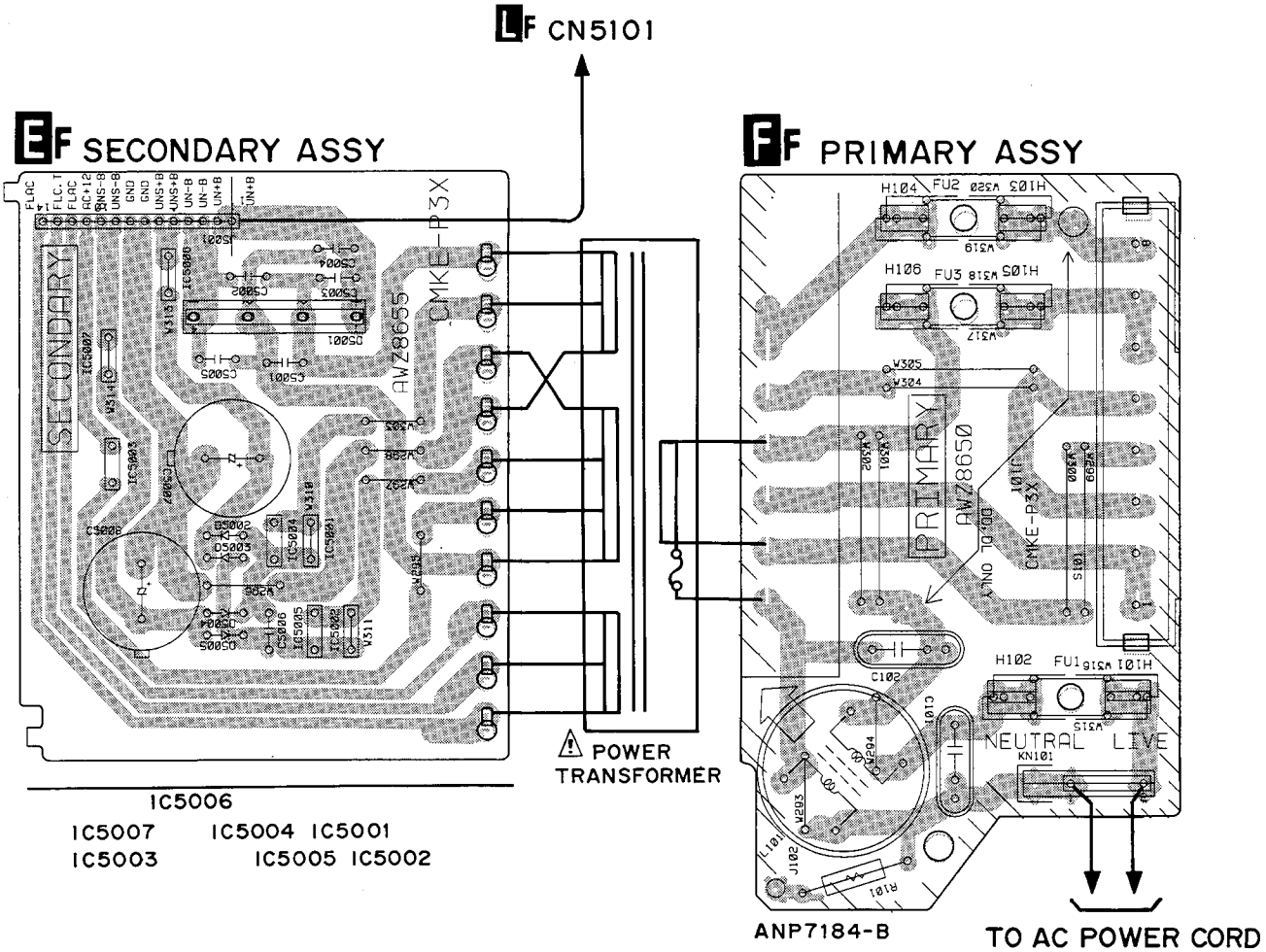


ANP7184-B

4.7 LEFT SW ASSY, REGULATOR ASSY, RIGHT SW ASSY, SECONDARY ASSY AND PRIMARY ASSY



SIDE A



5. ADJUSTMENT

5.1 TUNER SECTION

■ FM Tuner Section

- **Set the mode selector to FM BAND.**
- **Connect the wiring as shown in Fig. 1–1.**

Step No.	Adjustment Title	FM SG (1kHz, ±75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Front End Sensitivity	106	0-30	106MHz	L6104 L6105 L6102 T6101	Adjust so that the DC voltage between the IC6201-Pin 20 becomes at maximum level.
2	Stereo Distortion	98 (ON STEREO)	80	98MHz	T6101	Minimize the distortion with 1/8 rotation of the core.
3	TUNED IND. Lighting Level	98	18±2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

Notes:

- *Before adjusting, make sure there is no gap between L6101 and L6102 as well as between L6103 and L6104. If there is a gap between them, bring them into contact with each other first, and then make adjustments.*

■ AM Tuner Section

- **Set the mode selector to AM BAND.**
- **Connect the wiring as shown in Fig. 1–1.**

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV/m)			
1	Front End Sensitivity	999*1	35–45	999kHz*1	T6201	Adjust so that the DC voltage between the IC6201-Pin 20 becomes at maximum level.

*1: For the area using 10kHz step, frequencies should be 1000kHz

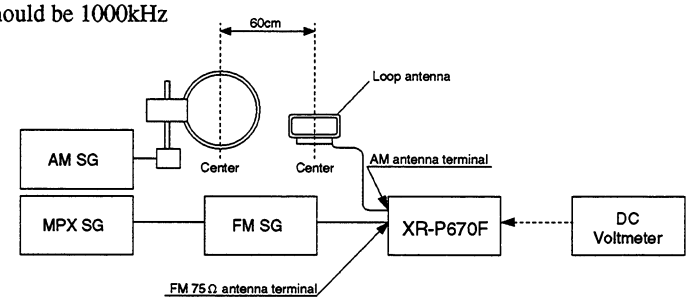


Fig. 1–1 AM and FM Adjustment Wiring Diagram

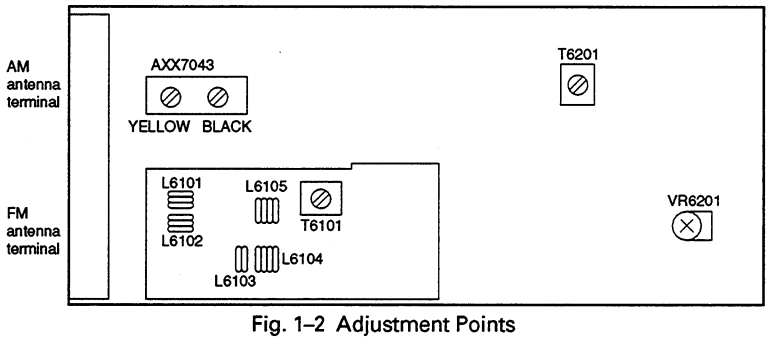


Fig. 1–2 Adjustment Points

5.2 RDS ADJUSTMENT

- **Setting the RDS-Signal generator (*1)**
- **Set the mode selector to FM BAND.**
- **Connect the wiring as shown in Fig. 1–3.**

*Note *1: Audio Main 1 kHz, 85% Pilot 10% RDS 1.6% SK 4.7%.*

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	RDS (BPF) Level	88	60	88 MHz	VR3501	Adjust so that the Waveform of RDS test point becomes at maximum. (Photo 1)

Notes:

●*Entry into RDS mode is done by switching to the FM band and entering an RDS signal from FM (RDS) SG to the FM 75 Ω antenna terminal.*

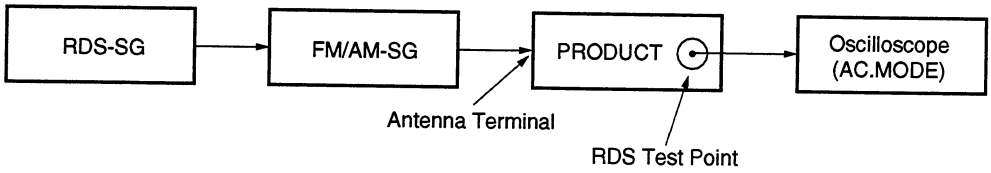


Fig. 1–3 RDS Adjustment Wiring Diagram

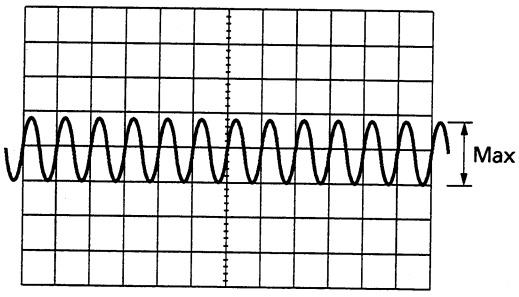


Photo 1

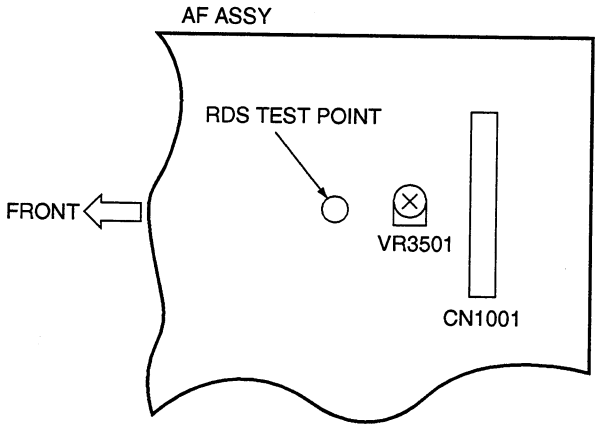


Fig. 1–4 Adjustment Points