



# Technical Manual

# COMPACT DISK PLAYER RCD-951

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## Specification

Total Harmonic Distortion+Noise	0.0045% @1KHz
Intermodulation Distortion	0.0045% @1KHZ
Frequency Responce ( $\pm 0.5$ dB)	20-20,000 Hz
Channel Balance	$\pm 0.5$ dB
Phase Linearity	$\pm 0.5$ degree
ChannelnSeparation	> 100 dB @1KHz
Signal to Noise Ratio	> 105 dB
Dynamic Range	> 100 dB
Digital to Analog Converters	18 Bit, precision DAC
Digital Filter	18 Bit, 8x oversampling
Speed Accuracy, Wow & Flutter	Quartz Crystal to Peak
Output Impedance	100 Ohms
Digital Output	0.5 Volts, Peak to Peak
Load Impedance	75 Ohms
Power requirement	120 volts 60 Hz or 220-240 volts 50 Hz
Power consumption	20 watts
Dimensions, W x H x D	440 x 72 x 316 mm 17 <sup>3</sup> / <sub>8</sub> x 2 <sup>7</sup> / <sub>8</sub> x 12 <sup>7</sup> / <sub>16</sub> inches
Weight (net)	5.4 kg, 11.9 Lb.

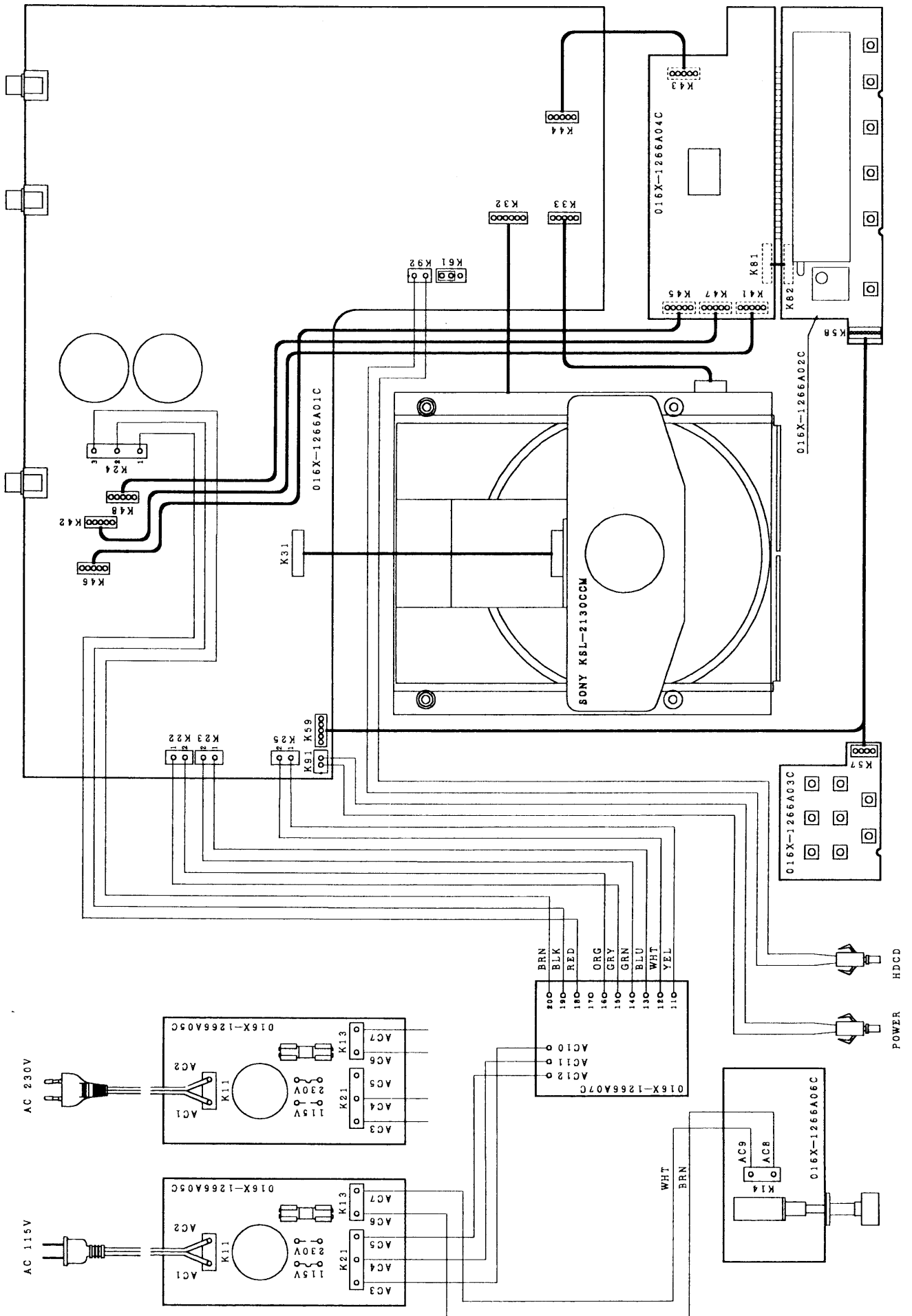
## THE ROTEL CO., LTD

BUNZAN-SHINSEN-BLD. 4F 10-10 SHINSEN-CHO, SHIBUYA-KU,  
TOKYO 150-0045, JAPAN

Serial. NO. Beginning
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Y-316A-99065C/S-S

# Wiring Diagram



# Parts List-1

SYMBOL	PARTS NO.	DESCRIPTION
<b>X-1266-01 PCB ASSEMBLY</b>		
C101	041	TUVX1E101MEA1TA CAP. ELEC.25V100UF
C102	043	TC50V103 CAP. CERA.50V0.01UF
C103,104	044	TBF014D0104J CAP. M.P.63V0.1UF
C105,106	041	TUVX1E470MDA1TA CAP. ELEC.25V47UF
C107	041	TUVX1E101MEA1TA CAP. ELEC.25V100UF
C108	044	TBF014D0102J CAP. M.P.63V1000PF
C109	043	TC50VCH150 CAP. CERA.50V15PF
C151	041	TUVX1E101MEA1TA CAP. ELEC.25V100UF
C152	043	TC50V103 CAP. CERA.50V0.01UF
C153,154	044	TBF014D0104J CAP. M.P.63V0.1UF
C155	043	TC50V471 CAP. CERA.50V470PF
C156	044	TBF014D0104J CAP. M.P.63V0.1UF
C157	044	TBF014D0472J CAP. M.P.63V4700PF
C158	043	TC50V471 CAP. CERA.50V470PF
C159	044	TBF014D0152 JCAP. M.P.63V1500PF
C160	044	TBF014D0473J CAP. M.P.63V0.047UF
C161	043	TC50V101 CAP. CERA.50V100PF
C162	044	TBF074D0474J CAP. M.P.63V0.47UF
C163	044	TBF014D0103J CAP. M.P.63V0.01UF
C164	041	TUVX1E101MEA1TA CAP. ELEC.25V100UF
C165	043	TC50V103 CAP. CERA.50V0.01UF
C167,168	044	TBF074D0105J CAP. M.P.63V1UF
C169-171	043	TC50V103 CAP. CERA.50V0.01UF
C201	041	TUVX1E470MDA1TA CAP. ELEC.25V47UF
C202	043	TC50V103 CAP. CERA.50V0.01UF
C203	041	TUVX1E470MDA1TA CAP. ELEC.25V47UF
C204	044	TBF014D0473J CAP. M.P.63V0.047UF
C205	043	TC50VCH470 CAP. CERA.50V47PF
C206	043	TC50V103 CAP. CERA.50V0.01UF
C207	043	TC50VCH470 CAP. CERA.50V47PF
C251	041	TUVX1C102MPA1TD CAP. ELEC.16V1000UF
C252	043	TC50V103 CAP. CERA.50V0.01UF
C253	044	TBF014D0682J CAP. M.P.63V6800PF
C254	043	TC50VCH270 CAP. CERA.50V27PF
C255	044	TBF014D0152J CAP. M.P.63V1500PF
C256	044	TBF074D0334J CAP. M.P.63V0.33UF
C257	044	TBF014D0104J CAP. M.P.63V0.1UF
C258	043	TC50VCH270 CAP. CERA.50V27PF
C509	043	TC50V103 CAP. CERA.50V0.01UF
C511	041	TUVX1E470MDA1TA CAP. ELEC.25V47UF
C513	044	TBF014D0104J CAP. M.P.63V0.1UF
C514	041	UTSS1H010-FB CAP. ELEC.50V1UF
C601	041	TUVX1C102MPA1TD CAP. ELEC.16V1000UF
C602	046	T50V473K CAP. CERA.50V0.047UF
C631	041	20SG22M+F CAP. ELEC.20V22UF
C632	046	T50V473K CAP. CERA.50V0.047UF
C633,634	043	TC50VCH220 CAP. CERA.50V22PF
C651-654	041	25BGF47M CAP. ELEC.25V47UF
C661-664	046	T50V473K CAP. CERA.50V0.047UF
C701-704	041	ECEA1EFS101 CAP. ELEC.25V100UF

SYMBOL	PARTS NO.	DESCRIPTION
C707,708	044	PP400V1000PF CAP.P.P.400V1000PF
C711,712	044	PP630V560PF CAP.P.P.630V560PF
C713,714	044	PP400V1000PF CAP.P.P.400V1000PF
C717,718	041	16BGF100M CAP.ELEC.16V100UF
C721-724	046	T50V473K CAP.CERA.50V0.047UF
C731,732	044	100UPZ103J CAP.P.P.100V0.01UF
C735	041	20SG22M+F CAP.ELEC.20V22UF
C736	046	T50V473K CAP.CERA.50V0.047UF
C741-744	041	25BGF100M CAP.ELEC.25V100UF
C901	043	TC50V103 CAP.CERA.50V0.01UF
C903	043	TC500V103 CAP.CERA.500V0.01UF
C905	043	TC500V103 CAP.CERA.500V0.01UF
C906	041	UTSS1V101-FB CAP.ELEC.35V100UF
C907	041	UVX1C332MHA1AA CAP.ELEC.16V3300UF
C908	041	TUVX1E101MEA1TA CAP.ELEC.25V100UF
C909	043	LTC50V103 CAP.CERA.50V0.01UF
C910,911	041	UTSS1H100-FB CAP.ELEC.50V10UF
C921,922	043	TC500V103 CAP.CERA.500V0.01UF
C923	041	UTSS1H010-FB CAP.ELEC.50V1UF
C924	041	UTSS1E101-FB CAP.ELEC.25V100UF
C931	041	UTSS1H010-FB CAP.ELEC.50V1UF
C932	041	TUVX1E101MEA1TA CAP.ELEC.25V100UF
C941	043	TC50V103 CAP.CERA.50V0.01UF
C951-954	043	TC500V103 CAP.CERA.500V0.01UF
C955,956	041	50USP4700MA40 CAP.ELEC.50V4700UF
C959,960	046	T50V473K CAP.CERA.50V0.047UF
C963	041	ECEA1EF221 CAP.ELEC.25V220UF
C965	041	ECEA1EF221 CAP.ELEC.25V220UF
C967	046	T50V473K CAP.CERA.50V0.047UF
C981,982	041	25BGF100M CAP.ELEC.25V100UF
C987,988	046	T50V473K CAP.CERA.50V0.047UF
D511	034	TRD4.3EST1 ZENER DIODE
D512-514	034	T1N4148-86 DIODE
D731	034	T1N4148-86 DIODEb
D901	034	T1N4003-TB DIODE
D903,904	034	T1N4003-TB DIODE
D905	034	TRD20JST1 ZENER DIODE
D921.922	034	T1N4003-TB DIODE
D923	034	TRD6.2JST1 ZENER DIODE
D951-954	034	T1N4003-TB DIODE
K31	068	16FMN-BTRK FFC 16P CONNECTOR
L101	021	TRL-395 MICRO INDUCTOR 4.7UH
L151,152	021	TRL-395 MICRO INDUCTOR 4.7UH
L201	021	TRL-395 MICRO INDUCTOR 4.7UH
L202	021	TRL-377 DIGITAL OUTPUT COIL
L601	021	TRL-395 MICRO INDUCTOR 4.7UH
L631	021	TRL-395 MICRO INDUCTOR 4.7UH
L651,652	021	TRL-392 MICRO INDUCTOR 33UH
L701	021	TRL-392 MICRO INDUCTOR 33UH
M5	017	4TR-2792#3 SUB HEAT SINKER

## Parts List-2

SYMBOL	PARTS NO.	DESCRIPTION
M12	017 C-4401A01	SUB HEAT SINKER
R105,106	054 TMF1503	R.METAL 150K
R107	054 TMF4702	R.METAL 47K
R108,109	054 TMF2202	R.METAL 22K
R110	054 TMF1002	R.METAL 10K
R111	054 TMF0100	R.METAL 10R
R112	054 TMF0120	R.METAL 12R
R151	054 TMF1001	R.METAL 1K
R152	054 TMF1000	R.METAL 100R
R153	054 TMF1003	R.METAL 100K
R154	054 TMF1502	R.METAL 15K
R155	054 TMF1003	R.METAL 100K
R156	054 TMF3302	R.METAL 33K
R157	054 TMF1502	R.METAL 15K
R158	054 TMF1002	R.METAL10K
R159,160	054 TMF3301	R.METAL 3.3K
R161	054 TMK2100RFECZ	R.METAL 1% 100R
R162	054 TMF1004	R.METAL 1M
R163	054 TMF1003	R.METAL 100K
R164	054 TMF1002	R.METAL 10K
R165-167	054 TMK2100RFECZ	R.METAL 1% 100R
R168,169	054 TMF1000	R.METAL 100R
R201	054 TMF3300	R.METAL 330R
R202	054 TMK2027RFECZ	R.METAL 1% 27R
R203	054 TMK2075RFECZ	R.METAL 1% 75R
R251	054 TMF3903	R.METAL 390K
R252	054 TMF1503	R.METAL 150K
R254	054 TMF1503	R.META L150K
R255	054 TMF04R7	R.METAL 4.7R
R256	054 1WS2.2JF	R.METAL 1W 2.2R
R511	054 1WS4.7JF	R.METAL 1W 4.7R
R512	053 CR14-472J-A	R.CARBON 4.7K
R513	053 CR14-562J-A	R.CARBON 5.6K
R514	053 CR14-224J-A	R.CARBON 220K
R601	053 CR14-561J-A	R.CARBON 560R
R631	054 TMK2001MFECZ	R.METAL 1% 1M
R633,634	054 TMK2018RFECZ	R.METAL 1% 18R
R635	054 TMK2039RFECZ	R.METAL 1% 39R
R651-654	054 TMK2100RFECZ	R.METAL 1% 100R
R701,702	054 TMF1/4-1501F	R.MRS25 1.5K
R703,704	054 TMF1/4-4700F	R.MRS25 470R
R707,708	054 TMF1/4-1202F	R.MRS25 12K
R711,712	054 TMF1/4-1501F	R.MRS25 1.5K
R713,714	054 TMF1/4-1201F	R.MRS25 1.2K
R715,716	054 TMF1/4-2701F	R.MRS252.7K
R717,718	054 TMF1/4-5603F	R.MRS25 560K
R719,720	054 TMF1/4-1000F	R.MRS25 100R
R731	053 CR14-561J-A	R.CARBON 560R
R732	053 CR14-223J-A	R.CARBON 22K
R901	054 TMF1002	R.METAL 10K

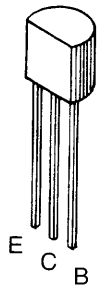
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R902	053 CR14-331J-A	R.CARBON 330R
R921	053 CR14-223J-A	R.CARBON 22K
R922,923	053 CR14-103J-A	R.CARBON 10K
R924	053 CR14-563J-A	R.CARBON 56K
R925	053 CR14-104J-A	R.CARBON 100K
R926	053 CR14-563J-A	R.CARBON 56K
S731	063 EG2-24NU	RELAY
T101	032 T2SB764AE-EF	TRANSISTOR
T731	032 T2SA1016KAA-FG	TRANSISTOR
T901	032 T2SA608KAA-FG	TRANSISTOR
T921-923	032 T2SC536KAA-FG	TRANSISTOR
U101	031 CXA1821M	IC
U151	031 CXD2545Q	IC
U201	031 TC74HCU04AP	IC
U251	031 BA6392FP	IC
U511	031 LB1641	IC
U601	031 PMD100	IC
U631	031 TC74HCU04AP	IC
U651	031 PCM69AP	IC
U701,702	031 OPA2604AP	IC
U901	031 NJM7805FA	IC
U931	031 NJM7805FA	IC
U961	031 NJM7805FA	IC
U981	031 NJM7815FA	IC
U982	031 NJM7915FA	IC
X631	023 HC49U16.9344	CRYSTAL OSC.
	019 TO-126	INSULATION SHEET(S)
	019 TO-220	INSULATION SHEET(L)
<b>X-1266-02 PCB ASSEMBLY</b>		
C352	041 UTSS1A101-FB	CAP. ELEC. 10V100UF
D351	034 TRD6.2JST1	ZENER DIODE
O351	035 6BT209GK	FL TUBE
R351	054 TMF5601	R.METAL 5.6K
R352-354	054 TMF1801	R.METAL 1.8K
S351-356	061 4TR-2343	KEY BOARD SWITCH
U351	031 SBX1910-52	IC
<b>X-1266-03 PCB ASSEMBLY</b>		
R301	054 TMF1002	R.METAL 10K
R302	054 TMF2702	R.METAL 27K
R303	054 TMF1002	R.METAL 10K
R304	054 TMF2702	R.METAL 27K
R305	054 TMF1801	R.METAL 1.8K
R306	054 TMF2702	R.METAL 27K
R307	054 TMF3901	R.METAL3.9K
S301-308	061 4TR-2343	KEY BOARD SWITCH

## Parts List-3

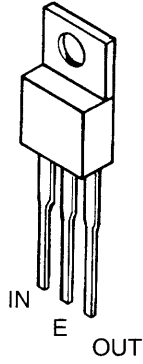
SYMBOL	PARTS NO.	DESCRIPTION
<b>X-1266-04 PCB ASSEMBLY</b>		
C401	043	TC50V103 CAP.CERA.50V0.01UF
C402	041	UTSS1E101-FB CAP.ELEC.25V100UF
C403	043	TC50V103 CAP.CERA.50V0.01UF
C404	041	UTSS1A101-FB CAP.ELEC.10V100UF
C405	041	UTSS1H2R2-FB CAP.ELEC.50V2.2UF
C406,407	043	TC50VCH330 CAP.CERA.50V33PF
C408	043	TC50V103 CAP.CERA.50V0.01UF
D401,402	034	T1N4148-86 DIODE
K81	068	MB9P-90S CONNECTOR WAFER
K83	068	MB2P-90S CONNECTOR WAFER
L401	021	TRL-395 MICRO INDUCTOR 4.7UH
R401,402	053	CR16-104J-A R.CARBON 100K
R403-417	053	CR16-103J-A R.CARBON 10K
R423	054	SE8102J THICK FILM RS NETWORK
R424	054	SE8104J THICK FILM RS NETWORK
R425	054	LTMF4702 R.METAL 47K
U401	031	CXP82440A-166Q IC
X401	023	CSA10.0MHZ CERAMIC RESONATOR
<b>X-1266-05 PCB ASSEMBLY</b>		
F001	036	5ST500 MIN IFUSE 250VT500mA
L001	021	TRL-356 LINE CHOKE COIL
	069	C-3417A FUSE CLIP

SYMBOL	PARTS NO.	DESCRIPTION
<b>X-1266-06 PCB ASSEMBLY</b>		
C001	044	DE1307E472M SPARK KILLER
S001	061	C-3600B-T POWER SWITCH
<b>OTHERS</b>		
	011	FP-485 FRONT PANEL
	012	4TQF-15 POWER BUTTON
	012	RZ3-10A00 TACT BUTTON 8KEY
	012	RZ3-11A00 TACT BUTTON 6KEY
	014	C-4550A03 UPPER COVER
	014	FP-488 PLASTIC DOOR
	014	4TR-2797#1 ORNAMENT SIDE BOARD
	014	RZ3-08A01 BOTTOM BOARD
	019	4TSH-19#2 PLASTIC FOOT
	022	T-1060N01 POWER TRANSFORMER
	072	C-930-T PIN PLUG CORD
	072	C-4572A01 AC CORD for UK
	072	C-3763 AC CORD for AUSTRALIA
	072	4TR-1037 AC CORD for CEE
	072	4TR-670#4 AC CORD for STD
	081	TZ-167 STYROL SIDE MOULDIND
	081	RZ4-12A00 INSIDE CARTON
	092	KSL-2130CCM CD MECHANISM
	092	RR-D91 REMOTE UNIT

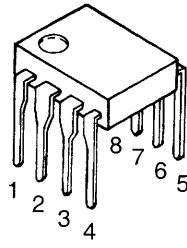
# Case Outlines



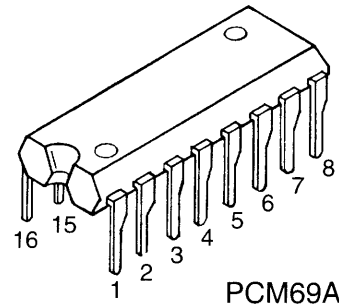
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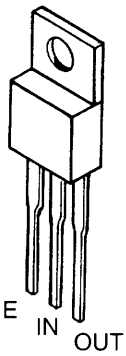
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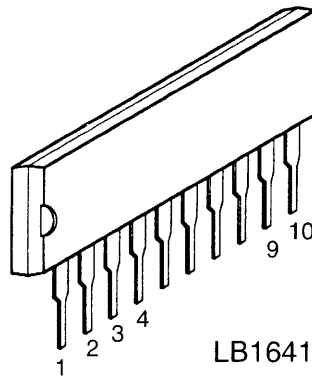
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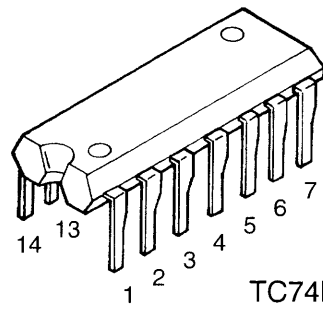
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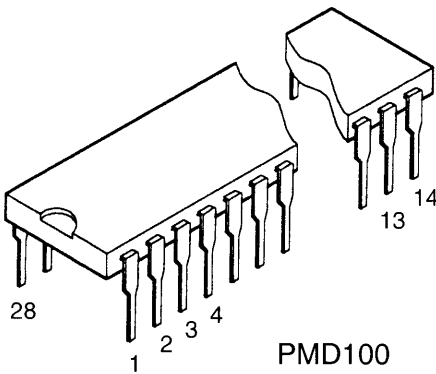
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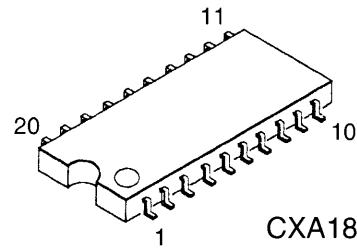
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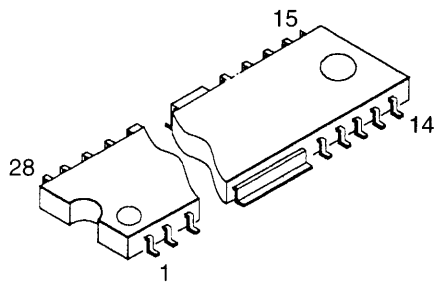
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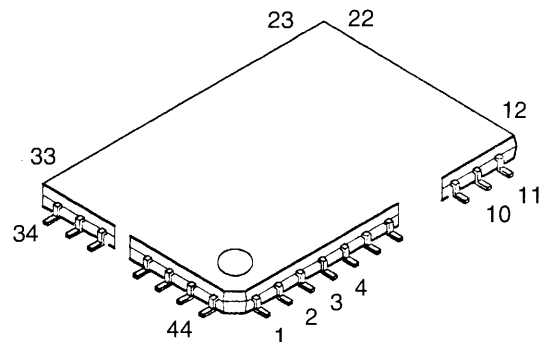
PMD100



CXA1821M

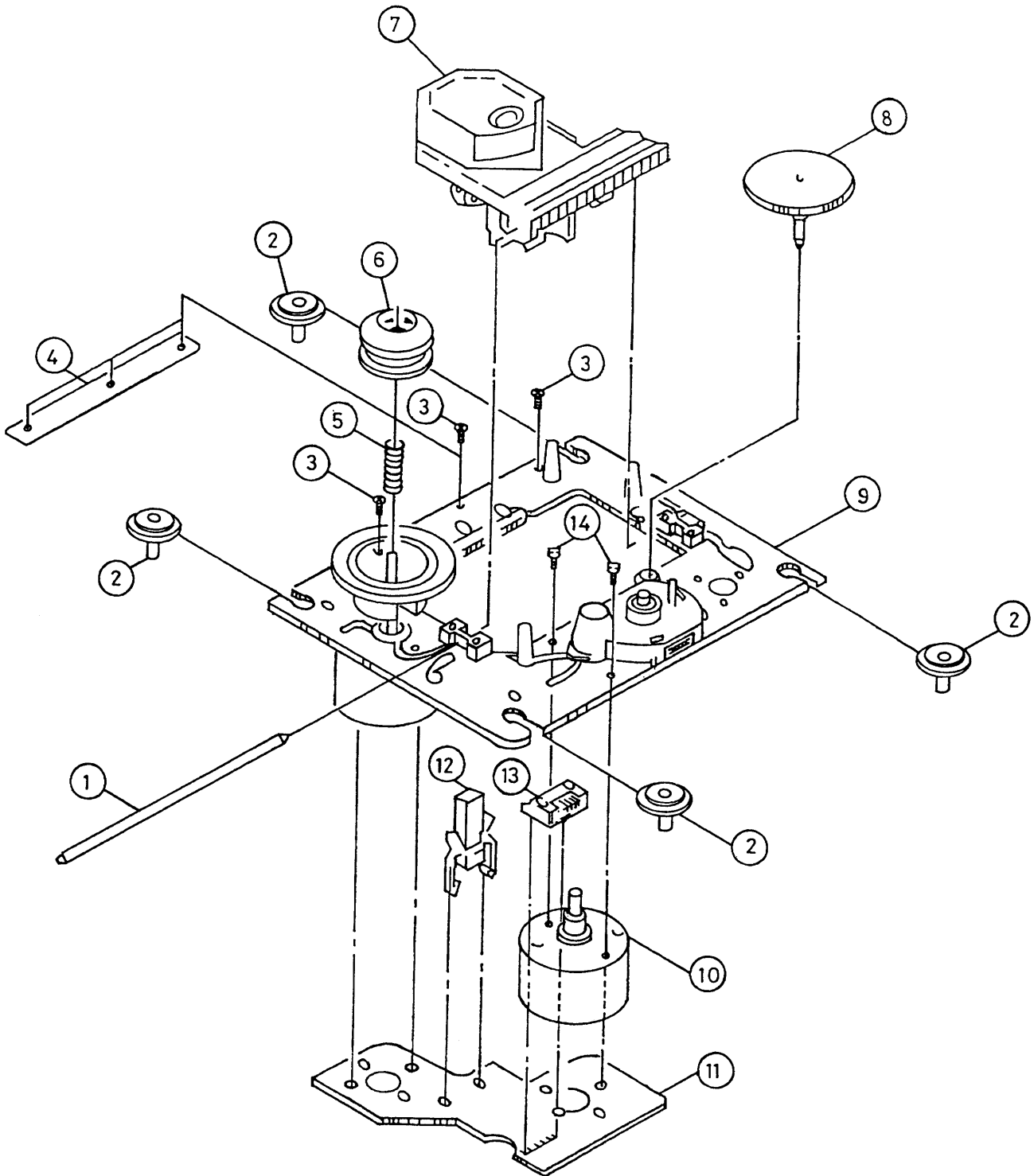


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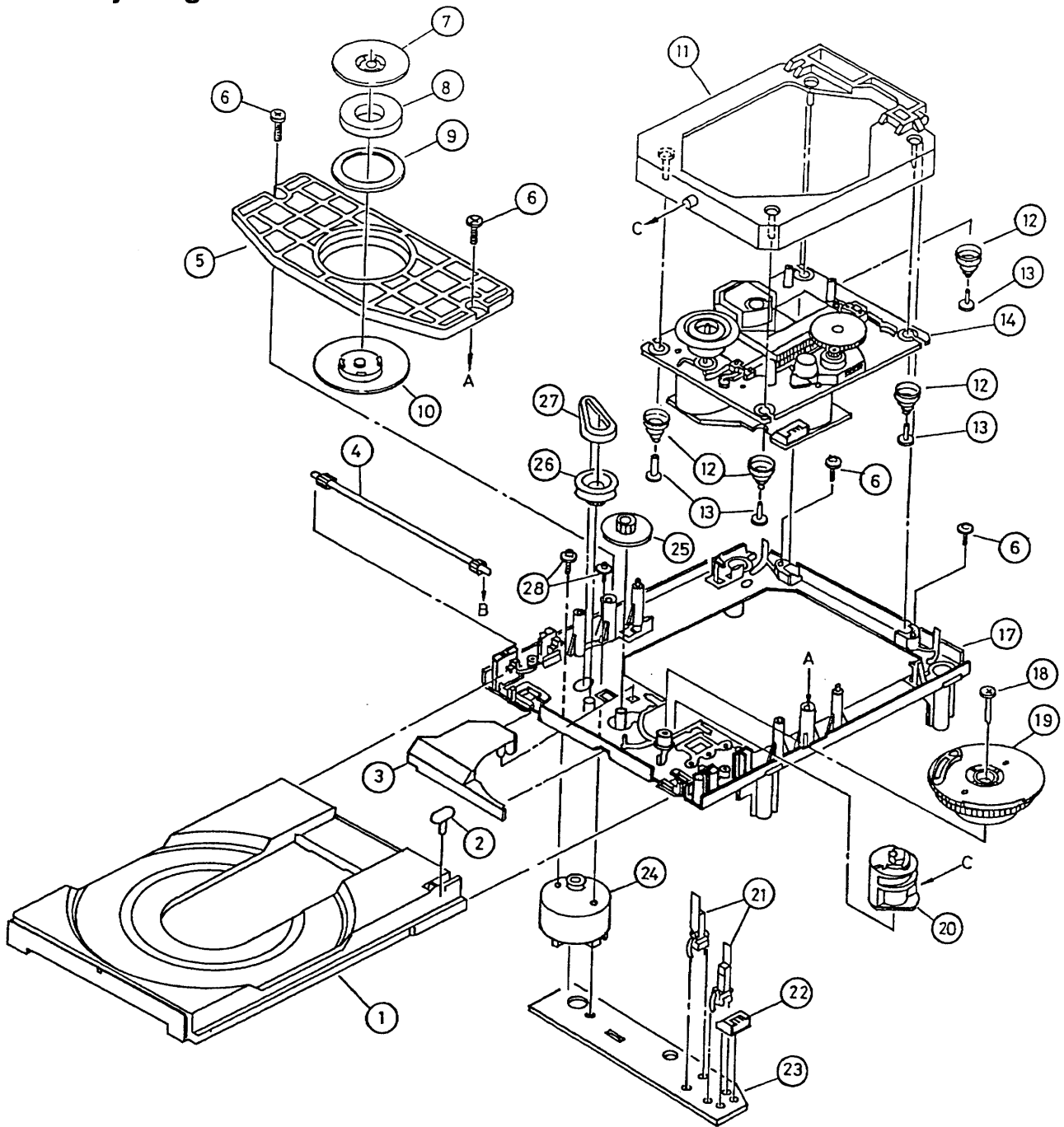
CXD2545Q  
CXP82440A-166Q

# Disassembly Diagram-1



ITEM	DESCRIPTION	SPEC. NO.
1	CHAFT(S). SLED	2-625-464-(01)
2	INSULATOR(S)	2-625-538-(01)
3	SCREW(2X5). TAPPING(S)	2-641-386-(01)
4	REINFORCEMENT(S)	2-625-625-(01)
5	SPRING(S). COMPRESSION	2-626-465-(01)
6	RING(LO)(S). CENTER	2-626-477-(01)
7	PICK UP KSS 213C	
8	GEAR(A)(S)	2-626-462-(01)
9	CHASSIS ASS'Y(MB). TT	X-2625-133-(2)
10	GEARASS'Y(MB). MOTOR	X-2625-132-(1)
11	PC BOARD. MOTOR(6P)(S)	1-639-678-(13)
12	SWITCH LEAF	1-572-085-(12)
13	PIN. CONNECTOR 6P	1-564-722-(11)
14	SCREW+P 2X3	7-621-255-(15)

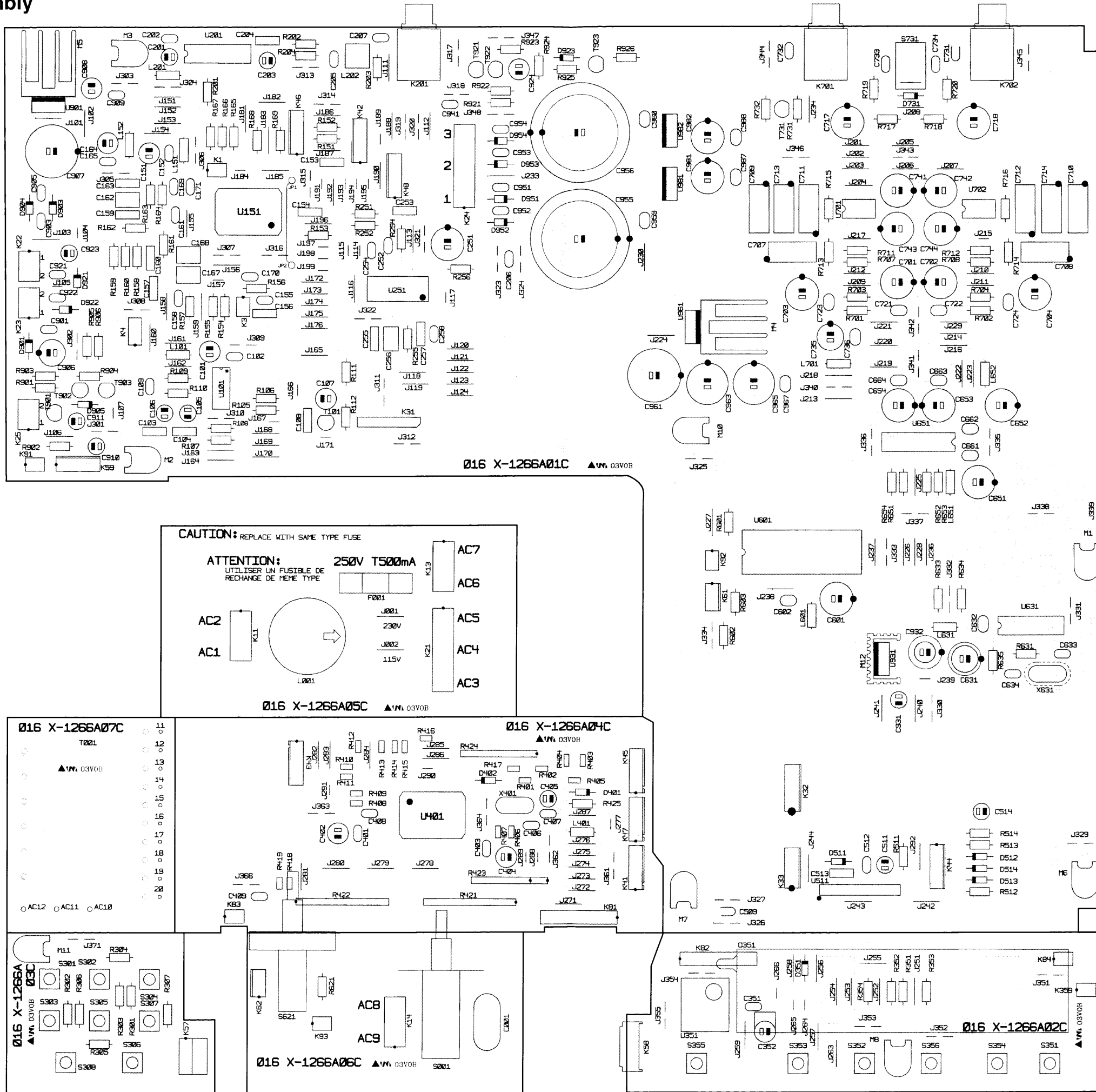
## Disassembly Diagram-2



ITEM	DESCRIPTION	SPEC. NO.	ITEM	DESCRIPTION	SPEC. NO.
1	TRAY(S)	2-625-550-(03)	17	CHASSIS(S). OUTSERT MAIN	2-625-552-(06)
2			18	SCREW+P TP WH 2.D6X16	3-319-501-(51)
3	COVER(S). GEAR	2-625-544-(01)	19	GEAR(S). DRIVE	2-625-547-(03)
4	GEAR(S). TRAY	2-625-535-(01)	20	CAM(S). CONTROL	2-625-545-(04)
5	PLATE(S). CHUCKING	2-626-546-(01)	21	SWITCH. LEAF	1-572-086-(11)
6	SCREW+P TP WH 2.D6X7	2-625-537-(01)	22	PIN. CONNECTOR 5P	1-564-721-(11)
7	YOKE(S). CHUCKING	2-625-537-(01)	23	PC BOARD LOADING	1-640-523-(12)
8	MAGNET	1-452-483-(21)	24	MOTOR ASS'Y. LOADING	X-2625-117-(1)
9	DAMPER(S)	2-625-541-(02)	25	GEAR(S). MIDWAY	2-625-534-(02)
10	PULLEY(G). CHUCKING	2-625-548-(02)	26	PULLEY(S). LOADING	2-625-536-(02)
11	CHASSIS ASS'Y(G). SUB	X-2625-227-(2)	27	BELT. LM	3-653-387-(01)
12	SPRING(S)	2-825-539-(01)	28	SCREW+P 2.D6X2.D5	2-625-279-(01)
13	WASHER BASED SCREW	2-625-730-(01)			
14	DRIVE UNIT KSM-213CCM				



PCB Assembly



Ø16 X-1266A01C ▲VW 03V0B

Ø16 X-1266A05C ▲VW 03V0B

Ø16 X-1266A07C ▲VW 03V0B

Ø16 X-1266A04C ▲VW 03V0B

Ø16 X-1266A03C ▲VW 03V0B

Ø16 X-1266A06C ▲VW 03V0B

Ø16 X-1266A02C ▲VW 03V0B

# Schematic Diagram

