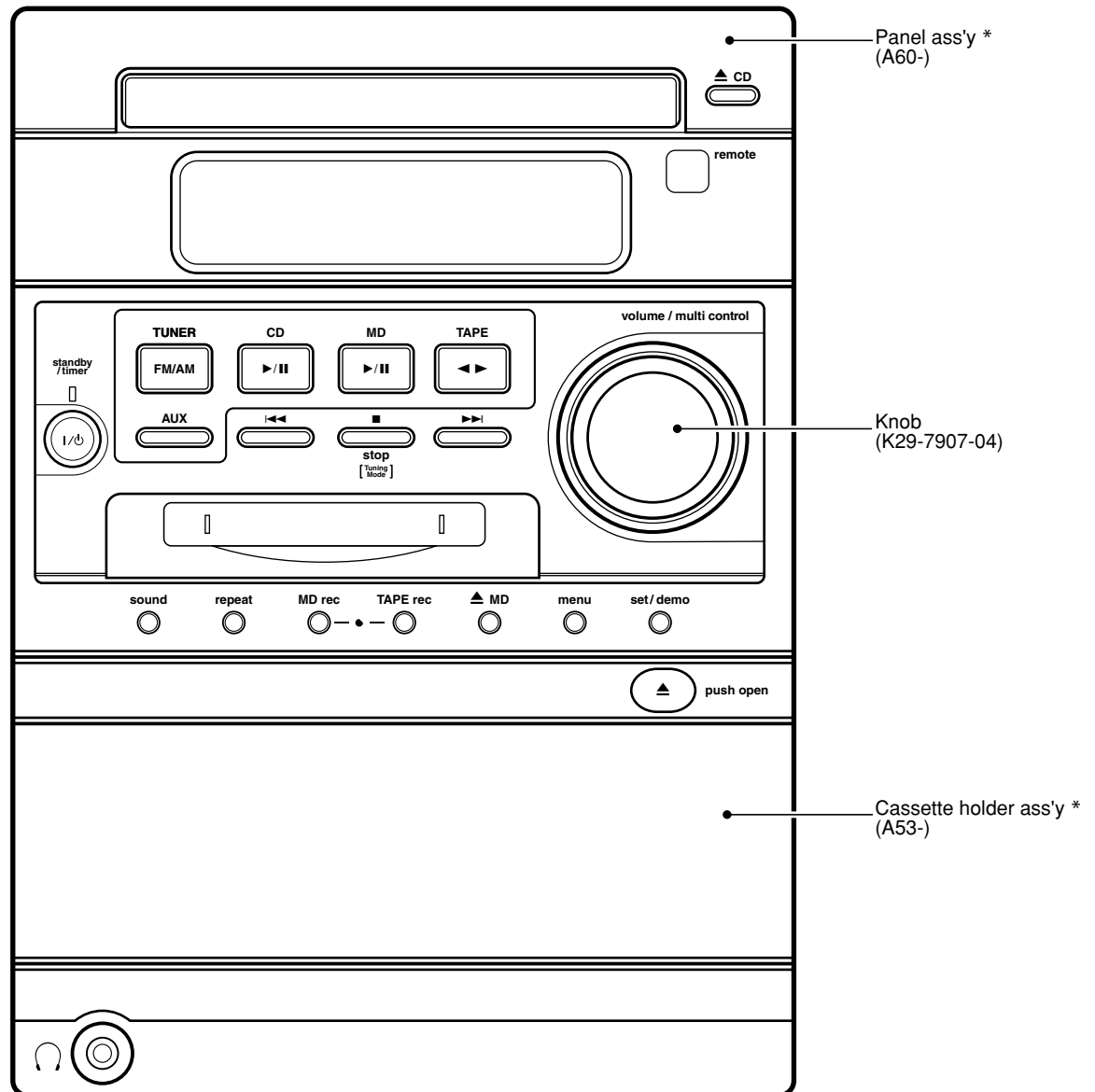


# RXD-M33/M33MD

## SERVICE MANUAL

(HM-333/HM-383MD)\*\*

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\*\*Refer to page 2 if you want to know system configuration.

In compliance with Federal Regulations, following are reproduction of labels on, or inside the product relating to laser product safety.

\* Refer to parts list on page 36.

KENWOOD-Crop. certifies this equipment conforms to DHHS Regulations No.21 CFR 1040. 10, Chapter 1, subchapter J.

**DANGER : Laser radiation when open and interlock defeated. AVOID DIRECT EXPOSURE TO BEAM.**



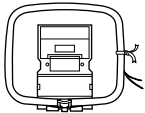

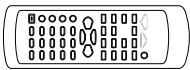
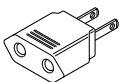
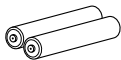
# RXD-M33/M33MD

## CONTENTS / ACCESSORIES / CAUTIONS

### Contents

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### Accessories

<p>AM loop antenna (1) (T90-0852-05)</p> 	<p>FM indoor antenna (1) (T90-0877-05)</p> 	<p>Remote control unit (1)</p> 	<p>AC plug adaptor (1) (E03-0115-05)</p>  <p>Use to adapt the plug on the power cord to the shape of the wall outlet. (Accessory only for regions where use is necessary.)</p>
<p>Batteries (R6/AA) (2)</p> 			

### Remocon & System Configuration

SYSTEM	MAIN UNIT	DESTINATION	SPEAKER	SP CORD-PARTS No	COLOR
HM-383MD-S	RXD-M33MD-S	MIXTE	LS-M33-S	E30-5917-08	SILVER
HM-383MD-LM	RXD-M33MD-L	MTH	LS-M33-LM	E30-5917-08	BLUE(GRAIN CABI)
HM-383MD-N	RXD-M33MD-N	MTV2	LS-M33-N	E30-5917-08	GOLD
HM-333-S	RXD-M33-S	T1H1E1	LS-M33-S	E30-5917-08	SILVER
HM-333-L	RXD-M33-L	T1E1	LS-M33-L	E30-5917-08	BLUE(SILVER CABI)
HM-333-N	RXD-M33-N	T1E1	LS-M33-N	E30-5917-08	GOLD
HM-333-LM	RXD-M33-L	H1	LS-M33-LM	E30-5917-08	BLUE(GRAIN CABI)
HM-333-S	RXD-M33E-S	E2	LS-M33-S	E30-5917-08	SILVER
HM-333E-L	RXD-M33E-L	E2	LS-M33-L	E30-5917-08	BLUE(SILVER CABI)
HM-333E-N	RXD-M33E-N	E2	LS-M33-N	E30-5917-08	GOLD
HM-333-S	RXD-M33-S	KPM111X1	LS-M33-S	E30-5917-08	SILVER
HM-333-L	RXD-M33-L	KPV1	LS-M33-L	E30-5917-08	BLUE(SILVER CABI)
HM-333-LM	RXD-M33-L	M111X1	LS-M33-LM	E30-5917-08	BLUE(GRAIN CABI)
HM-333-N	RXD-M33-N	M1	LS-M33-N	E30-5917-08	GOLD
HM-333-LM(M2)	RXD-M33-L	M2	LS-M33-LM	E30-5917-08	BLUE(GRAIN CABI)
HM-333-N(M2)	RXD-M33-N	M2	LS-M33-N	E30-5917-08	GOLD


		Remote controller		
MODEL	Destinations	Parts number	Model name	Battery cover
RXD-M33MD	THE	A70-1491-05	RC-M0303E	A09-1151-08
RXD-M33MD	MIXV2	A70-1492-05	RC-M0303	A09-1151-08
RXD-M33	KPM111X1V1M2	A70-1493-05	RC-F0303	A09-1151-08
RXD-M33	T1E1H1E2	A70-1494-05	RC-F0303E	A09-1151-08

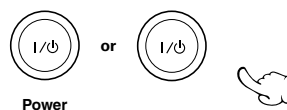
### Cautions

#### Operation to reset

The microcomputer may fall into malfunction (impossibility to operate, erroneous display, etc.) when the power cord is unplugged while unit is ON or due to an external factor. In this case, execute the following procedure to reset the microcomputer and return it to normal condition.

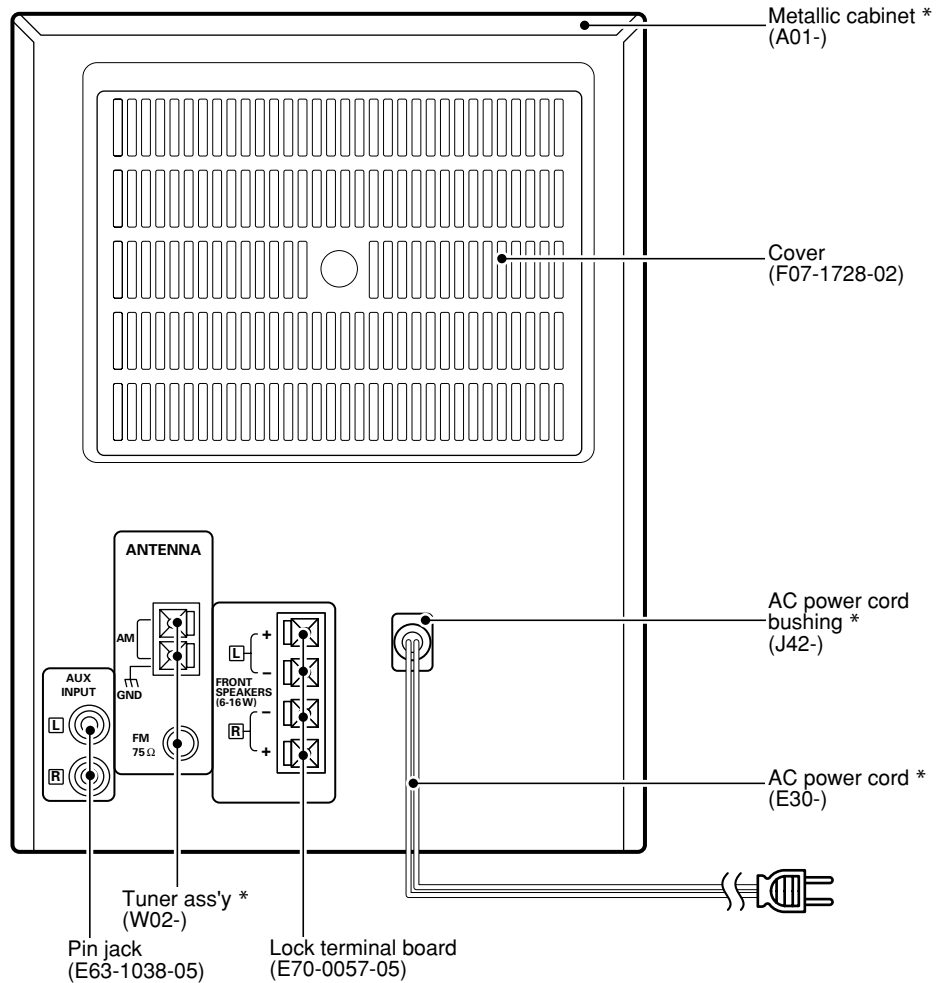
- Please note that resetting the microcomputer clears the contents stored in and it returns to condition when it left the factory.

Unplug the power cord from the power outlet then, while holding the Power  key depressed, plug the power cord again.



# RXD-M33/M33MD

## EXTERNAL VIEW

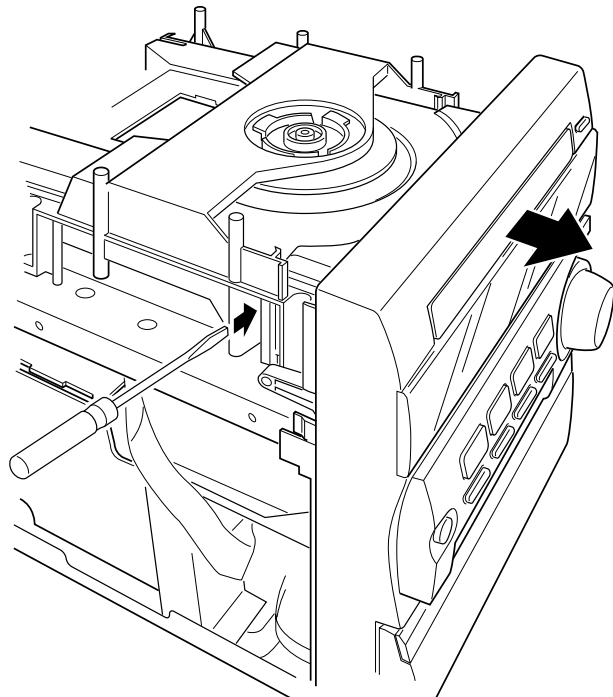


\* Refer to parts list on page 36.

## DISASSEMBLY FOR REPAIR

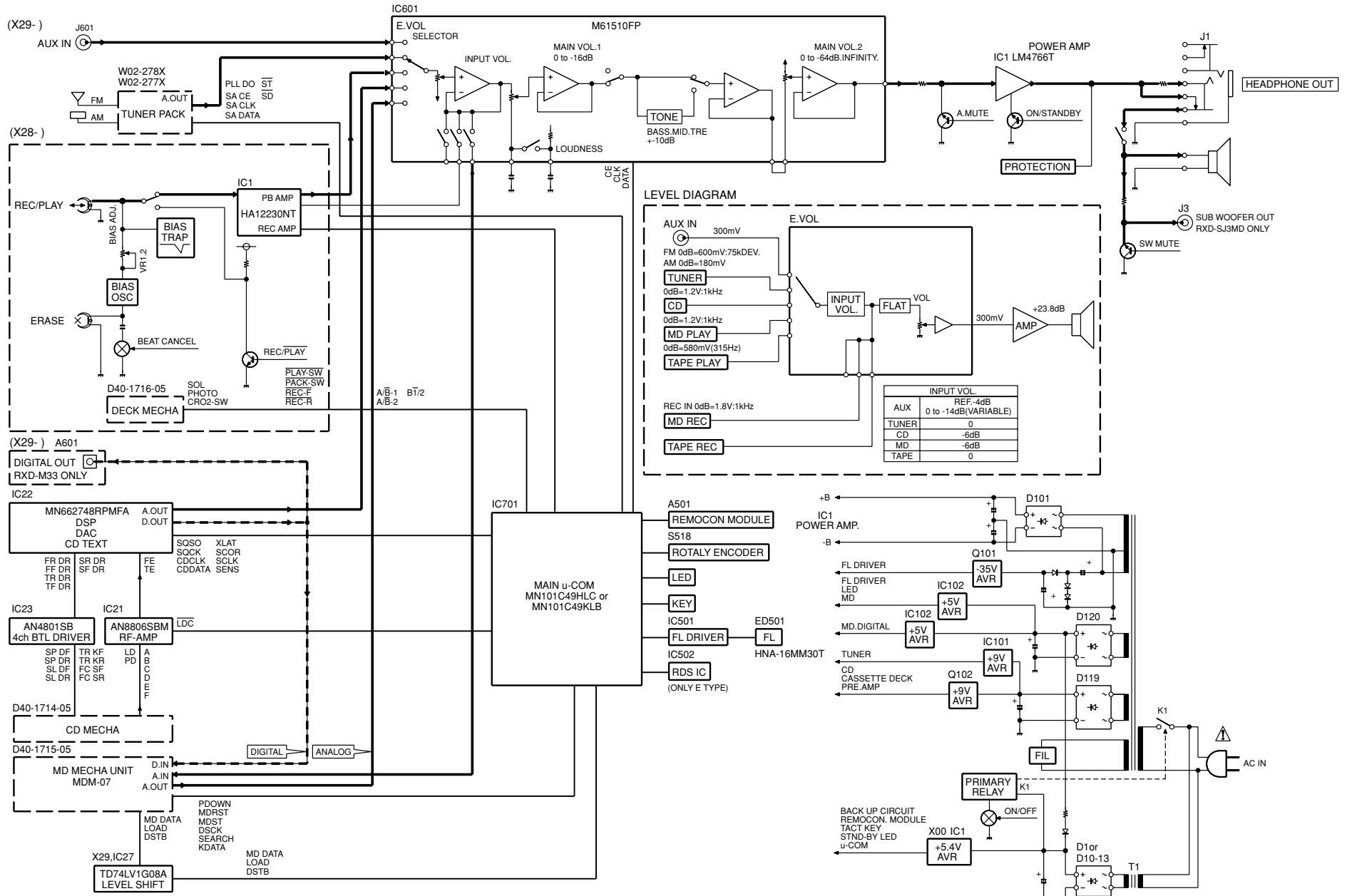
### How to open the CD tray when it does not come out.

1. Insert a flat driver and so on to a square hole in the mechanism as shown in the figure.
2. Push a rack gear in the direction of arrow.  
(At this time, the tray comes out slightly frontward).
3. The tray can be opened with hand.



# RXD-M33/M33MD

## BLOCK DIAGRAM



RXD-M33MD-S/M33MD-L/M33MD-N  
 RXD-M33-S/M33-L/M33-N  
 RXD-M33E-S/M33E-L/M33E-N

# RXD-M33/M33MD

## CIRCUIT DESCRIPTION

### 1. Initializing

#### 1-1 Initialization Method

- While pressing the [POWER] key, turn the AC on.

#### 1-2 Initialization Operation

- During the initial operation, the display shows "INITIALIZE" and after that it will be returned to standby condition.
- If any mechanisms error occurred, the error indication is displayed as "ERR" on the display.

#### 1-3 Mechanism Initializations

- ① CD Mechanism
  - If a mechanism error occurred, the error indication is displayed as "C ERR" on the display.
- ② Deck Mechanism
  - If a mechanism error occurred, the error indication is displayed as "X ERR" on the display.
- ③ MD Mechanism
  - If a mechanism error occurred, the error indication is displayed as "M ERR" on the display.
  - The disc will be unloaded from MD mechanism automatically, if a disc is its in.

### 2. Tuner Destination

Set	Destination	Band	Receiving Frequency Range	Channel Space	IF	RF
K,P	K1	FM	87.5MHz~108.0MHz	100kHz	+10.7MHz	25kHz
		AM	530kHz~1700kHz	10kHz	+450kHz	10kHz
E,T,H E2	E3 RDS	FM	87.5MHz~108.0MHz	50kHz	+10.7MHz	25kHz
		AM	531kHz~1602kHz	9kHz	+450kHz	9kHz
M,Y,X	E1	FM	87.5MHz~108.0MHz	50kHz	+10.7MHz	25kHz
		AM	531kHz~1602kHz	9kHz	+450kHz	9kHz
M,Y	K2	FM	87.5MHz~108.0MHz	100kHz	+10.7MHz	25kHz
		AM	530kHz~1610kHz	10kHz	+450kHz	10kHz

### 3. Tuner Preset Frequency

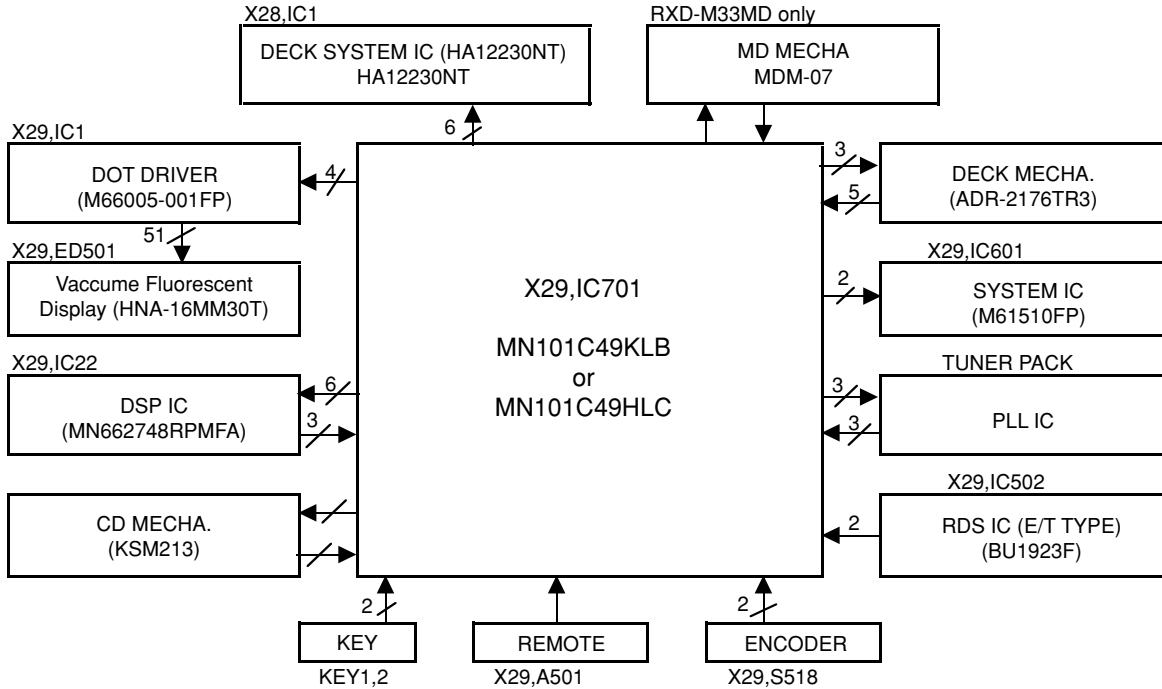
P.CH	Frequency			P.CH	Frequency		
	K1(K,P TYPE)	K2(M,Y TYPE)	E1/E3 (E,E2,T,H,M,Y,X)		K1(K,P TYPE)	K2(M,Y TYPE)	E1/E3 (E,E2,T,H,M,Y,X)
1	FM 98.30MHz	FM 98.30MHz	FM 98.30MHz	16	FM 98.00MHz	FM 98.00MHz	FM 98.00MHz
2	FM 87.50MHz	FM 87.50MHz	FM 98.00MHz	17	FM 98.50MHz	FM 98.50MHz	FM 98.50MHz
3	FM 89.10MHz	FM 89.10MHz	FM 87.50MHz	18	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
4	FM 108.0MHz	FM 108.0MHz	FM 89.10MHz	19	AM 990kHz	AM 990kHz	AM 990kHz
5	FM 90.00MHz	FM 90.00MHz	FM 108.0MHz	20	FM 97.40MHz	FM 97.40MHz	FM 97.70MHz
6	FM 87.50MHz	FM 87.50MHz	FM 90.00MHz	21	AM 530kHz	AM 530kHz	AM 531kHz
7	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz	22	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
8	AM 1610kHz	FM 87.50MHz	FM 87.50MHz	23	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
9	AM 1700kHz	AM 1610kHz	AM 1602kHz	24	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
10	AM 1000kHz	AM 1000kHz	AM 999kHz	25	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
11	AM 630kHz	AM 630kHz	AM 630kHz	26	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
12	AM 1440kHz	AM 1440kHz	AM 1440kHz	27	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
13	FM 106.0MHz	FM 106.0MHz	FM 106.0MHz	28	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
14	AM 530kHz	AM 530kHz	AM 531kHz	29	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz
15	FM 87.50MHz	FM 87.50MHz	FM 87.50MHz	30	FM 106.0MHz	FM 106.0MHz	FM 106.0MHz

# RXD-M33/M33MD

## CIRCUIT DESCRIPTION

### 4. Microprocessor : MN101C49KLB or MN101C49HLC(X29,IC701)

#### 4-1 Microprocessor Peripheral Block Diagram



#### 4-2 Port Description of Microprocessor

Port No.	Port Name	I/O	Description	ACTIVE	
				H	L
1	GND	-	Connected to ground.		
2	PH	I	Deck reel sensor input.		
3	TN TYPE	I	Discrimination of tuner destination.		
4	S LEVEL	I	RDS signal level input. (RDS version only)		
5	CD PROTECT	I	Detection port for CD protection.		
*6	MD BACKV	I	Detection port for MD back up voltage.		
7,8	KEY2,KEY1	I	A/D key (1,2) input.		
9	NO USE	-	Unused.		
10	VREF	-	A/D reference voltage input for the A/D converter.		
11	VDD	I	Power supply input (+5V).		
12	OSC2	O	Main clock output (8.38MHz).		
13	OSC1	I	Main clock input (8.38MHz).		
14	GND	-	Connected to ground.		
15	XI	I	Timer clock input (32kHz).		
16	XO	O	Timer clock output (32kHz).		
17	GND	-	Connected to ground.		
*18	MD TXD	O	MD communication TX .(to mecha. u-com RX)		
*19	MD RXD	I	MD communication RX .(to mecha. u-com TX)		
20	NC	-	Unused.		
21	FL SDATA	O	Data output to FL dot driver.		
22	NC	-	Unused.		
23	FL SCLK	O	Clock output to FL dot driver.		
24	FL RESET	O	Reset output to FL dot driver.		RESET
25	FL CE	O	CE output to FL dot driver.		
26	REM	I	Remote control signal input.		
27	MODEL TYPE	I	Discrimination port for model type.		FIXED
28	CD BLKCK	I	Sub code synchronous signal input. L→H : Interrupt		
29	RDSCLK	I	RDS clock input. (E/T version only)		
30,31	ENC A,B	I	Volume encoder (A/B) input.		
32	VDD2	I	Power supply input (+5V) for flash ROM writing.		
33	RESET	I	Reset signal input for microcomputer.		RESET
34	CE	I	Back up detection input.	AC On	AC Off
35	CL SW	I	Input port of close switch for CD tray.		

8 \*Used for RXD-M33MD only.

# RXD-M33/M33MD

## CIRCUIT DESCRIPTION

### 4-2 Port Description of Microprocessor

Port No.	Port Name	I/O	Description	ACTIVE	
				H	L
36	SLT SW	I	CD start limit switch input.		
37	XRST	O	CD DSP reset output.		RESET
38	OP SW	I	Input port of open switch for CD tray.		
39,40	NC	-	Unused.		
41	VPP	I	Microcomputer power supply (+5v).		
42	MDATA	O	CD DSP command data output.		
43	STAT	I	CD DSP status signal input.		
44	MCLK	O	CD DSP command clock signal output.		
45	MLD	O	CD DSP command load signal output.		
46	SUBQ	I	CD sub code input.		
47	SQCK	O	Clock output for CD sub code.		
48	EEP SDA	-	Unused.		
49	EEP SCL	-	Unused.		
50	HP IN	I	Detection port for headphones jack.		
51	OPEN	O	Control port of CD tray motor.		
52	CLOSE	O	Control port of CD tray motor.		
*53	MD CE	I	Detection port for MD back up.		
*54	MD RST	I	Reset output from MD mechanism.		
55	INI MD SW	-	Unused.		
56	BACK CHK	-	Unused.		
57	BACK ON	-	Unused.		
*58	MD IN SW	I	Load switch input for MD disc.		
59	NC	-	Unused.		
60	PLAY SW	I	Detection switch input of head position for deck.		
61	CrO2 SW	I	Detection switch input of CrO2 tape for deck.		
62	HALF SW	I	Cassette half switch input.		
63	REC F SW	I	Deck forward recording switch input.	OFF	ON
64	CPM	O	Control port of capstan motor for deck.		
65	REC R SW	I	Deck reverse recording switch input.	OFF	ON
66	SOL	O	Control port of solenoid for deck.		
67	LMUTE	O	Deck lien mute control.	ON	
68	A/B-1	O	Deck recording mute & head select control 1.		
69	A/B-2	O	Deck recording mute & head select control 2.		
70	B I / II	O	Control port of recording equalizer for deck.		
71	NOR	O	Switching port of bias (NOR/CrO2) for deck.		
72	BIAS	O	Control port of bias on/off for deck.	ON	OFF
73	R/P	O	Deck recording & playback changeover.	RECORDING	PLAYBACK
74	BEAT C	O	On/off control port of beat cancel for deck.	ON	OFF
75	NC	-	Unused.		
76	EVCLK	O	Sound controller clock output.		
77	EVDATA	O	Sound controller data output.		
78~80	NC	-	Unused.		
81	LED STBY GRN	O	Standby led (green) control port.	OFF	ON
82	LED STBY RED	O	Standby led (red) control port.	OFF	ON
83,84	NC	-	Unused.		
85	CD POWER	O	CD DSP power on/off changeover control.	ON	OFF
86	SP RLY	O	On/off control port for speaker relay.		
87	AMUTE	O	Audio mute output.		
88	POWER	O	Power relay control.		
89	PROTECTION	I	Detection port for power supply protection.		
90	RDS DATA	I	RDS data input. (RDS version only)		
91	TU MUTE	O	Tuner mute control.		
92	EMPHASIS	-	Unused.		
93	ST	I	Stereo detector input.		
94	SD	I	SD detector input.		
95	GND	-	Connected to ground.		
96	PLL DATA	O	PLL IC data output.		
97	PLL CLK	O	PLL IC clock output.		
98	PLL DO	I	PLL IC data input.		
99	PLL CE	O	PLL IC chip enable output.		
100	DAVDD	I	D/A converter positive voltage.		

\*Used for RXD-M33MD only.

# RXD-M33/M33MD

## CIRCUIT DESCRIPTION

### 5. Test Mode

#### 5-1 Setting method of the Test Mode

- While pressing the "below each" key in the table, turn the power switch on.

TEST MODE	SETTING METHOD
CD MODE	CD PLAY key+AC ON
MD MODE (M33MD only)	MD PLAY Key + AC ON
DECK MODE	TAPE PLAY key + AC ON (RXD-M33MD)
	TAPE FWD PLAY + AC ON (RXD-M33)
*SUB CLOCK OSC DIAGNOSIS	STOP key + AC ON

\*The oscillation diagnosis (existence of oscillation and measurement of period) of a sub clock is performed before the test mode is entered. If the diagnosis result is OK, the system enters the test mode.

If the diagnosis result is NG, the oscillation of the sub clock is diagnosed again. If the result is OK, the system enters the test mode. If the diagnosis result is continuously NG 5 times, the system stops with "ERR1" and "ERR2" displayed.

#### 5-2 Cancel of the test mode

- By turning the AC off, the system is initialized and the test mode is canceled.
- Cancel the test mode only if the power switch is turned off.

#### 5-3 Contents of the Test Mode

- The muting during mode selection is not controlled in the test mode.
- During the test mode, it can be operated in a special manner that is different from an ordinary operation by using the keys on the main body, specifically as shown in the following tables.

#### 5-4 CD Test Mode

KEYS	DISPLAY	OPERATION
CD-PLAY/PAUSE  (Cyclically changed the mode 05 and 03 by pressing the key.)	05 * * : * * ( * * : * * )Time Display	Tracking-servo on.
	03 * * : * * ( * * : * * )Time Display	Tracking-servo off.
CD STOP  (Cyclically changed in the stop mode only.)	01 --:--	Stop the CD operation.
	07 FG/FE	Adjustment value/mean value FG value /FE value
	08 FB/FO	FBAL value /FO value
	09 TG/TE	TG value /TE value
	10 TB/TO	TBAL value /TO value
SKIP UP	Ex.01~02	• Track number up.
SKIP DOWN	Ex.02~01	• Track number down.
SKIP UP	Usual Indication	• Play the first track number in the stop mode.
SKIP DOWN	Usual Indication	• Play the last track number in the stop mode.
REPEAT	FF	• CD FF search. • The pickup travels outward in the stop mode.
SOUND	FB	• CD FB search. • The pickup travels inward in the stop mode.

#### 5-5 Deck Test Mode

KEYS	DISPLAY	OPERATION
TAPE REC (RXD-M33MD)	TAPE	• 4 Seconds Recording If the REC/ARM key is pressed, the system record for 4 seconds. Then, it rewinds to the REC starting position and plays back automatically. If the REC/ARM key is pressed, during the 4 seconds REC operation, the system records further for 4 seconds, then returns to the starting position of the first 4 seconds REC operation and plays back.
TAPE O.T.E. (RXD-M33)		
SOUND	Beat-C ON	Beat cancel will be on while pressing the sound key.
MENU	Normal Indication	Changeover the EQ. On/off cyclically.



# RXD-M33/M33MD

## CIRCUIT DESCRIPTION

\*Mechanism half switches indication

The mechanism half switches status are indicated "blank" or "E" on the display.

8th Dot(Display)	1st figure	2nd figure	3rd figure	4th figure
Mechanism Half Switch	FWD REC Inhibit Detection SW	RVS REC Inhibit Detection SW	CrO2(TYPE II) Detection SW	Cassette Half Detection SW
ON	Blank	Blank	Blank	Blank
OFF	E	E	E	E

### 5-6 MD Test Mode

KEYS	DISPLAY	OPERATION
REPEAT	Usual Indication	Hi-speed O.T.E.(CD→MD) operation in the stop mode.
	FF	MD FF search in the play mode.
SOUND	DIGITAL or ANALOG	The digital and analog can be changed cyclically by pressing the "SOUND" key.
	FB	MD FB search in the play mode.
STOP	01 --:--	Stop the MD operation.
MD REC	Usual Indication	Start the MD recording with LP4 mode.
SET	ALL ERASE	Stop the MD operation, and start operation of ALL- ERASE if disc is recordable.

## 6. Initializing the MD Mechanism

### 6-1 Initialization Method

- Turn the AC on while pressing the MD [EJECT] key.

## 7. MD Test Mode for Adjustment

### 7-1 Contents of the Test Mode

### 7-2 Entering the Test Mode

- Turn the AC on while pressing the MD [PLAY/PAUSE] key and MD[REC] key simultaneously.

### 7-3 Canceling the Test Mode

- Turn the AC off.

### 7-4 Key Operations for Adjustment

KEYS	OPERATION
Volume/multi-control	Select the mode or changed the adjustment value.
MD PLAY/PAUSE	Fix the mode or adjustment value.
	Skip to next step.
STOP	Cancel the selected mode and changed to menu page. Return to the state previous before.
MENU	Select servo of PIT or GROOVE.
REPEAT	Changeover the display mode.
SKIP UP	Pickup moves outwards when pressed skip up key.
SKIP DOWN	Pickup moves inwards when pressed skip down key.
SET/DEMO	Changeover the tracking servo on/off.
TAPE REC	Servo on.
SOUND	Changeover the usual mode, key shift mode and EEP mode.

# RXD-M33/M33MD

## CIRCUIT DESCRIPTION

### 7-5 LCD Indication for Mechanism Operation

LCD	DESCRIPTION
[▶]	Servo on.
[  ]	Tracking servo on
[●]	Servo on (laser write power)
[▶]	Servo GROOVE mode
[◀]	Servo PIT mode
[LOUD]	Key shift
[EX. BASS]	EEP mode
[↺]	Spindle lock
[MD]	Recordable disc

### 7-6 Selection of Adjustment Test Mode

- Whenever the [volume/multi-control] knob is turned the adjustment test mode is selected.

No.	LCD	DESCRIPTION	SECTION
1	TEMP ADJU	The work of adjustment is unnecessary in this mode.	4-5
2	LDPWR ADJU	Laser power adjustment.	4-6
3	LDPWR CHEC	Laser power check.	4-6
4	EFBAL ADJU	EF balance adjustment (Traverse adjustment).	4-7
5	TE B. ADJ	Automatic EF balance adjustment.	4-7
6	FBIAS ADJU	Focus bias adjustment.	4-8
7	CPLAY MODE	Continuous playback mode.	3-7
8	CREC MODE	Continuous recording mode.	3-8
*9	STT-LIMIT	Check the mechanism start limit switch position.	-
*10	JUMP MODE	Track jump checking mode.	-
*11	SRV DAT RE	Servo data reading.	-
*12	EEP MODE	E2PPROM data reading or rewrite.	-
*13	EEP INITIAL	E2PPROM data initializing.	-

For more information on each adjustment mode, refer to each section of 4, "Electrical adjustment".

\*The number 9~13 are not used on occasion of service. If you entered them incorrectly, press the "STOP" key immediately to exit the mode. Specially, do not use "EEP INITIAL".(E2PROM data has initialized if used it.)

### 7-7 Continuous Playback Mode

1. Setting of Continuous Playback Mode		
No.	Key	Display/Function
1	Volume/ multi-control	Select [CPLAY MODE]
2		Load disc
3	PLAY	[CPLAY MID] [c=xxxx a=yy] error (xxxx=C1 error, yy=ADIP error)
4	REPEAT	[CPLAY(zzzz)] CPLAY address (MID=0300h, OUT=0700h, IN=0030h cluster)
5	REPEAT	[h****d@@@] address (****=current head address, @@@=ADIP address)

In No.5, Display shows [-] if can't read disc.

2. Change of Playback Points(in continuous playback mode)		
No.	Key	Display/Function
1	PLAY	[CPLAY OUT]
2		Carry out No.4 and 5 in the above table.
3	PLAY	[CPLAY IN]
4		Carry out No.4 and 5 in the above table.
5	STOP	[CPLAY MODE]
6	EJECT	Disc out

### 7-8 Continuous Recording Mode

1. Continuous Recording Setting		
No.	Key	Display/Function
1	Volume/ multi-control	Select [CREC MODE]
2		Load the recordable disc
3	PLAY	[CREC MID]
4	PLAY	[CREC (zzzz)] CREC address (0300h cluster=recording start point)
5	REPEAT	[h****d@@@] address
6	REPEAT	[c=xxxx a=yy] error
7	REPEAT	[CREC (zzzz)]
8	STOP	[CREC MODE]
2. Change and End of Recording Points		
1		Carry out No.1 to 3 in the above table Select[CREC MID]
2	Volume/ multi-control	[CREC OUT]
3	PLAY	[CREC (zzzz)] CREC address (0700h cluster=recording start point) Carry out No.5 to 8 in the above table
4	PLAY	Select [CREC MID]
5	Volume/ multi-control	Select [CREC IN]
6	PLAY	[CREC (zzzz)] CREC address (0300h cluster=recording start point) Carry out No.5 to 8 in the above table
7	EJECT	Disc out

Starting address is the followings.

IN=30h cluster, MID=300h cluster, OUT=700h cluster

- The recording start addresses of IN, MID, and OUT are described below.  
IN 30H cluster  
MID 300H cluster  
OUT 700H cluster
- An erasure prevention control is not detected in the test mode. Be careful not to enter the continuous recording mode using a disc containing the data that should not be erased.
- Do not record continuously for more than five minutes.
- Take care that no vibration is applied during continuous recording.

## 8. Electrical adjustment

### 8-1 Precaution during confirmation of Laser Diode emission

During adjustment, do not view the emission of a laser diode from just above for confirmation. This may damage your eyes.

### 8-2 Precaution on handling of Optical pick-up (KMS-260B)

The laser diode in an optical pick-up is easy to be subject to electrostatic destruction. Therefore, solder-bridge the laser tap on the flexible board when handling the optical pick-up.



# RXD-M33/M33MD

## CIRCUIT DESCRIPTION

1. Recordable Disc		
No.	Key	Display/Function
1		Connect the oscilloscope to TE1 and VC in X33 pcb
2	Volume/ multi-control	Select [EFBAL ADJU]
3		Load the recordable disc
4	PLAY	[EFBAL MO-W]
5	PLAY	[EF=\$::*MOW]
6	Volume/ multi-control	Write power adjustment. Adjust the waveform as follows.
7	PLAY	Display shows [EF=\$::*MOR] after [EFB=\$::*xSAVE] to save the data in E2PROM. <i>Mode changes write to read</i> Focus and disc servo are on. Tracking servo off.
8	Volume/ multi-control	Read power adjustment. Adjust the waveform as follows.
9	PLAY	Save the data in E2PROM. Display shows [EFBAL MO-P]
	PLAY	Display shows [EF=\$::*MOP] (Pickup travels to search pits and tune the servo on.)
10	Volume/ multi-control	Adjust the waveform as follows.
11	PLAY	Display shows [EFB=\$::*xSAVE] to save the data in E2PROM. Display shows [EFBAL CD] disc motor stops.
12	EJECT	Unload disc.
2. Pre Master Test Disc(TGYS-1)		
No.	Key	Display/Function
1		Load the disc(TGYS-1).
2	PLAY	[EF=\$::*CD] servo is on
3	Volume/ multi-control	Adjust the waveform as follows.
4		Save the data in E2PROM. Display shows [EFB=\$::*xSAVE] in brief time. [EF PHASE]
5	EJECT	Unload disc.

During this adjustment, the oscilloscope changes in units of about 2%. Adjust so that the waveform comes nearest to the specified value. (MO groove read power traverse adjustment)

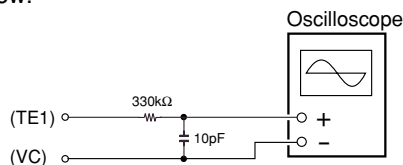
(Traverse waveform)



Specification : A = B

Notes :

1. Data is erased during MO write when a recorded disc is used for this adjustment.
2. If the traverse waveform is difficult to be monitored, connect an oscilloscope as shown in the figure below.



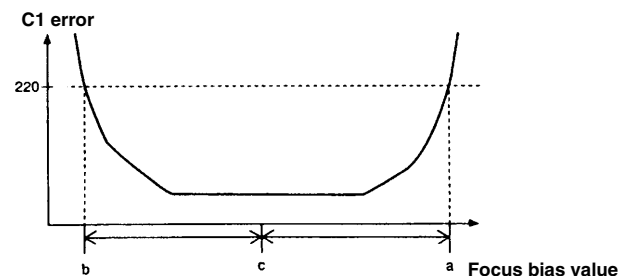
### 8-8 Focus Bias Adjustment

Use the special disc(continuous recorded disc)

No.	Key	Display/Function
1	Volume/ multi-control	Select [FBIAS ADJU]
2		Load the disc.
3	PLAY	[a=xx yyyy/] point a (xx=focus bias, yyyy=C1 error)
4	Volume/ multi-control	Adjust "yyyy" to 220:*
5	PLAY	[b=xx yyyy/] point b
6	Volume/ multi-control	Adjust "yyyy" to 220:*
7	PLAY	[xx yyyy/] point c Check "yyyy" within 50
8	PLAY	Display shows [aa bb cc(xx)] focus bias adjust (aa= point a,bb=b,cc=c )

\* Notes :

1. The relation between the C1 error and focus bias value is shown in the figure below. Points "a" and "b" in the figure are detected by the above adjustment. Focal position "C" is automatically obtained from points "a" and "b" by calculation.
2. The C1 error rate fluctuates. Therefore, perform the adjustment according to the observed mean value.



### 8-9 Error Rate Check

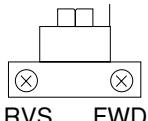
No.	Key	Display/Function
1. CD Error Rate		
1	Volume/ multi-control	[CPLAY MODE]
2		Load the test disc(TGYS-1)
3	PLAY	Display shows [CPLAY MID] Access end [c=xxxx a=yy] xxxx=C1 error (lower 20) yy=AIDP error
4	STOP	[CPLAY MODE]
5	EJECT	Unload disc.
2. MO Error Rate		
No.	Key	Display/Function
1	Volume/ multi-control	[CPLAY MODE]
2		Load the recordable disc
3	PLAY	Display shows [CPLAY MID] Access end [c=xxxx a=yy] xxxx=C1 error (lower 50) yy=AIDP error(00)
4	STOP	[CPLAY MODE]
5	EJECT	Unload disc.

# RXD-M33/M33MD

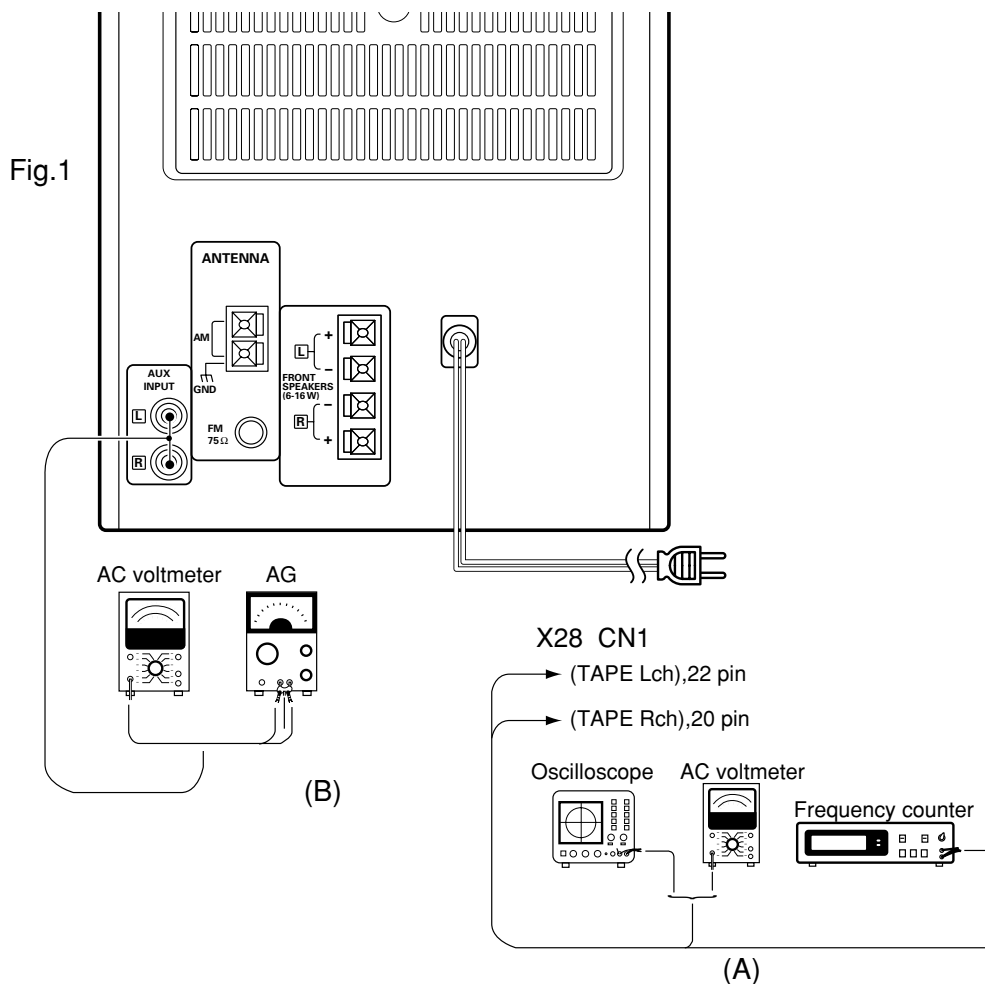
## ADJUSTMENT

### Cassette Deck adjustment

0dBs=0.775V

No	ITEM	INPUT SETTING	OUTPUT SETTING	DECK SETTING	ALIGNMENT POINT	ALIGN FOR	FIG.
I . CASSETTE MECHANISM UNIT							
< 1 >	Demagnetization and cleaning	-	-	Demagnetization: POWER OFF Cleaning: PLAY	Recording head, erase head, capstan pinch roller	Demagnetize the REC / PLAY head with the head eraser. Clean the REC / PLAY head, erase head, capstan and pinch roller using a cotton swab slightly damped with alcohol.	
< 2 >	Azimuth of the REC/PLAY head	SCC-1727 TCC-153 MTT-114 10kHz, - 10dB	(A)	PLAY	 RVS FWD	Adjust the output to maximum and adjust the azimuth adjustment screw for the Lissajours waveform pattern of the oscilloscope to become close to a 45° straight line.	Fig.1
< 3 >	TAPE SPEED (NORMAL)	TCC-110 MTT-111 SCC-1727 3kHz	(A)	PLAY	Trimming pot in the motor.	Check the tape speed so that 3kHz(±2%) is obtained at the center of the tape.	Fig.1
II . PC BOARD ADJUSTMENT							
< 1 >	BIAS CURRENT	(B) Connect the AG to jack. 400Hz: - 20dBs 12.5kHz: - 20dBs	(A)	REC and PLAY	VR 1 (L) VR 2 (R)	Record 400Hz and 12.5kHz alternately, and adjust the bias current adjustment potentiometer for the playback levels to become the same.	Fig.1

### SYSTEM CONNECTIONS



# RXD-M33/M33MD

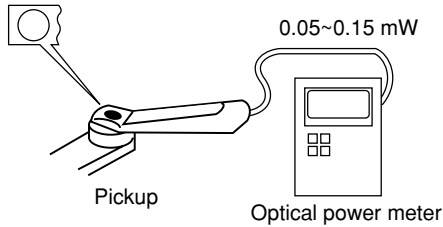
## ADJUSTMENT

### CD player adjustment

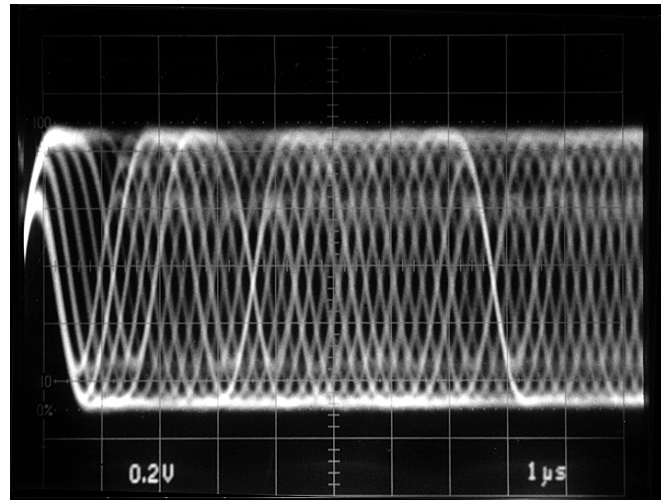
No.	ITEM	INPUT SETTING	OUTPUT SETTING	PLAYER SETTING	ALIGNMENT POINT	ALIGN FOR	FIG.
<b>TEST MODE : While pressing the [CD PLAY/PAUSE] key, turn power on.</b>							
1	LASER POWER	-	Set the sensor section of the optical power meter on the pickup lens.	Short circuit OPEN/CLOSE SW. Press the "PLAY" key to check that the display is "03".	-	On the power from 0.05 to 0.15mw. when the diffraction grating is correctly aligned with the RF level of 0.8Vp-p or more	(a)
2	LASER CURRENT	Test disc Type 4	Connect the DC voltmeter to CN23(#1 and #2) in X29	Press the "PLAY" key to check that the display is "03" or "05"	-	220mV to 550mV	

Note:  
 Type 4disc :SONY YEDS-18 Test Disc or equivalent. (KTD-02)  
 LPF : Around 47kΩ + 390pF or so.

#### (a) Laser Power



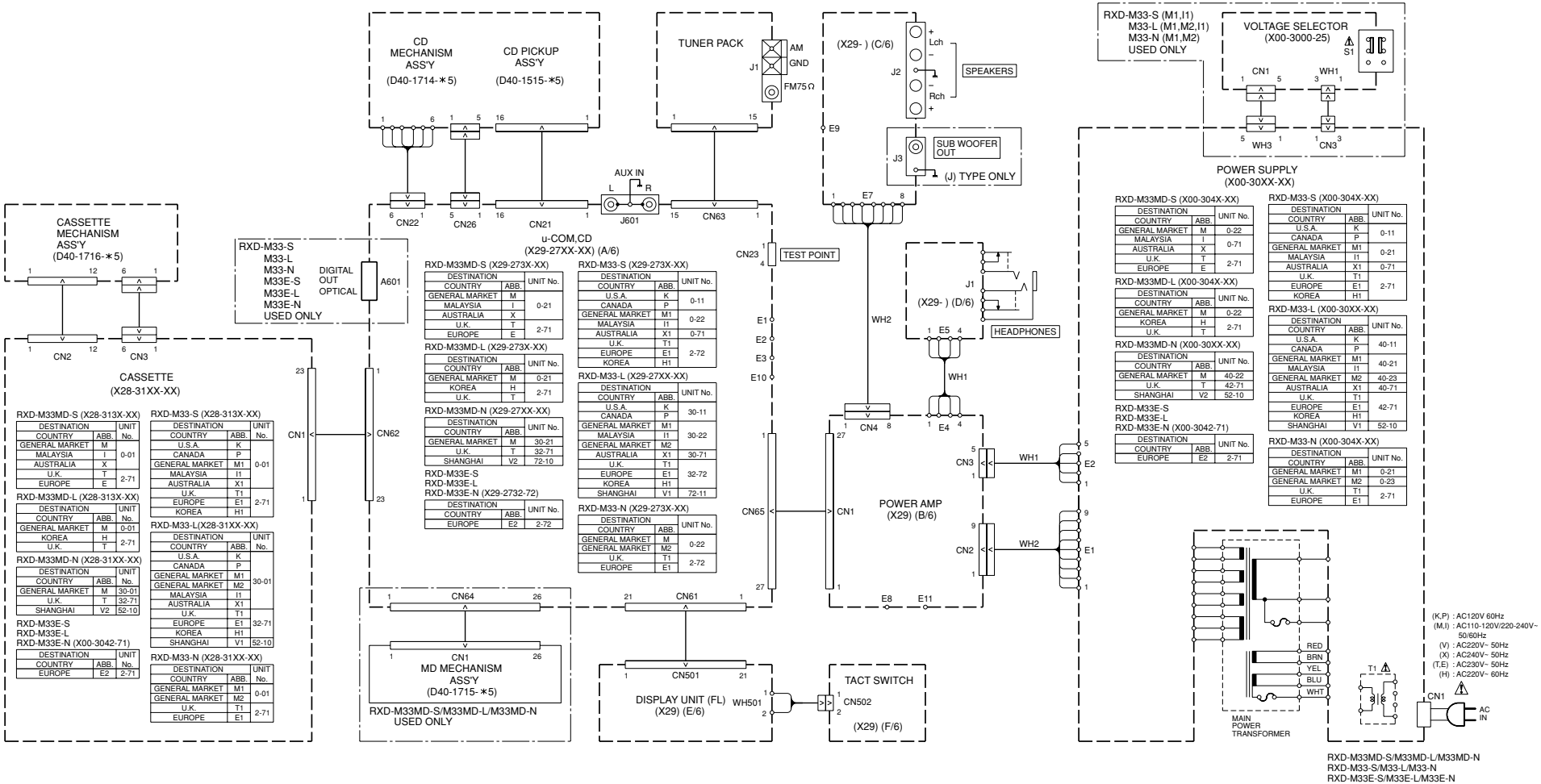
RF signal: AC coupled



- RF signal in test mode (PLAY).
- Perform the tangential and focusing offset are focused into one point on the display. The crossing points above and below the center shall also be looked clearly.

# RXD-M33/M33MD

## WIRING DIAGRAM

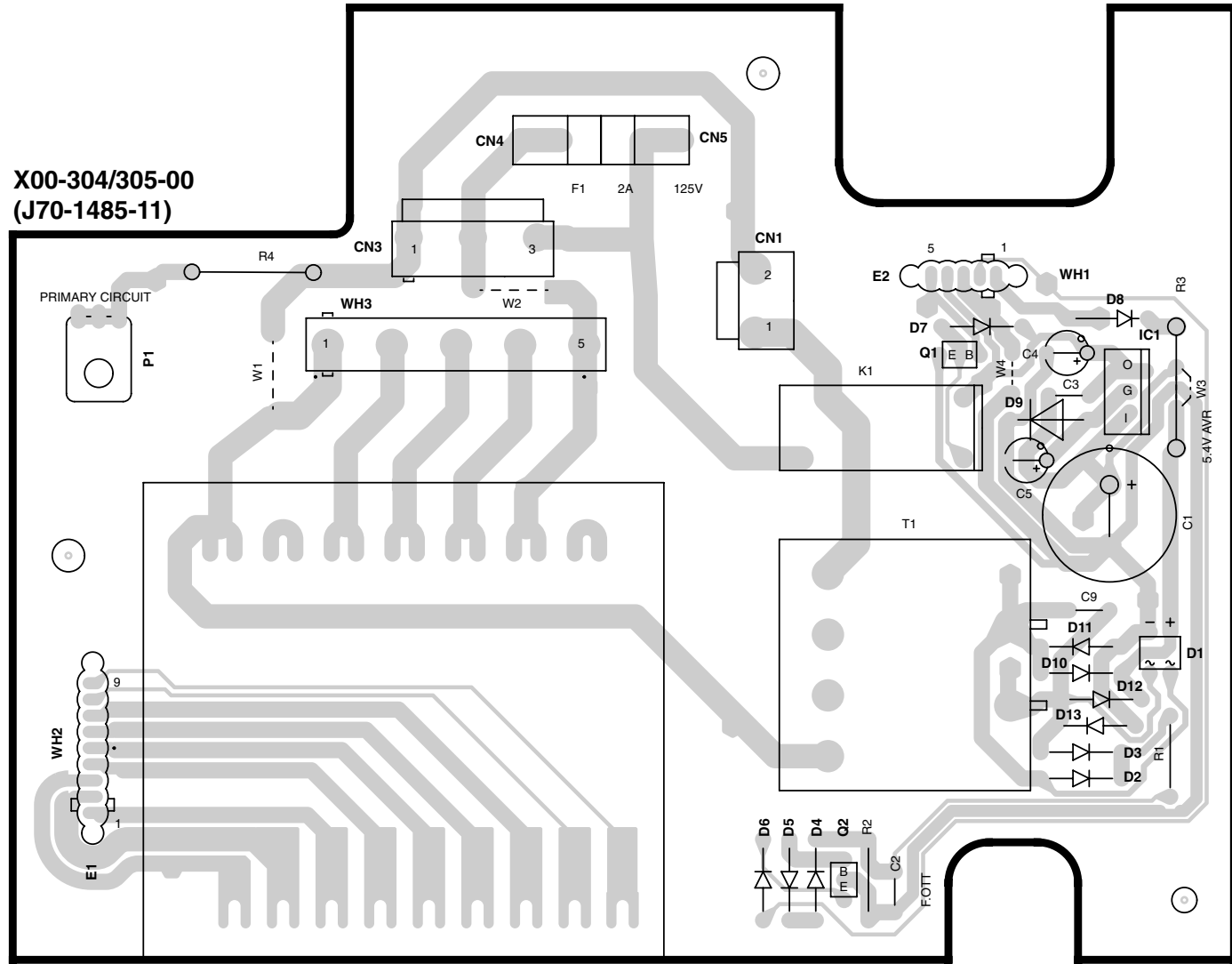


(K,P) : AC120V 60Hz  
 (M) : AC110-120V/220-240V-50/60Hz  
 (V) : AC220V-50Hz  
 (X) : AC240V-50Hz  
 (T,E) : AC230V-50Hz  
 (H) : AC220V-60Hz

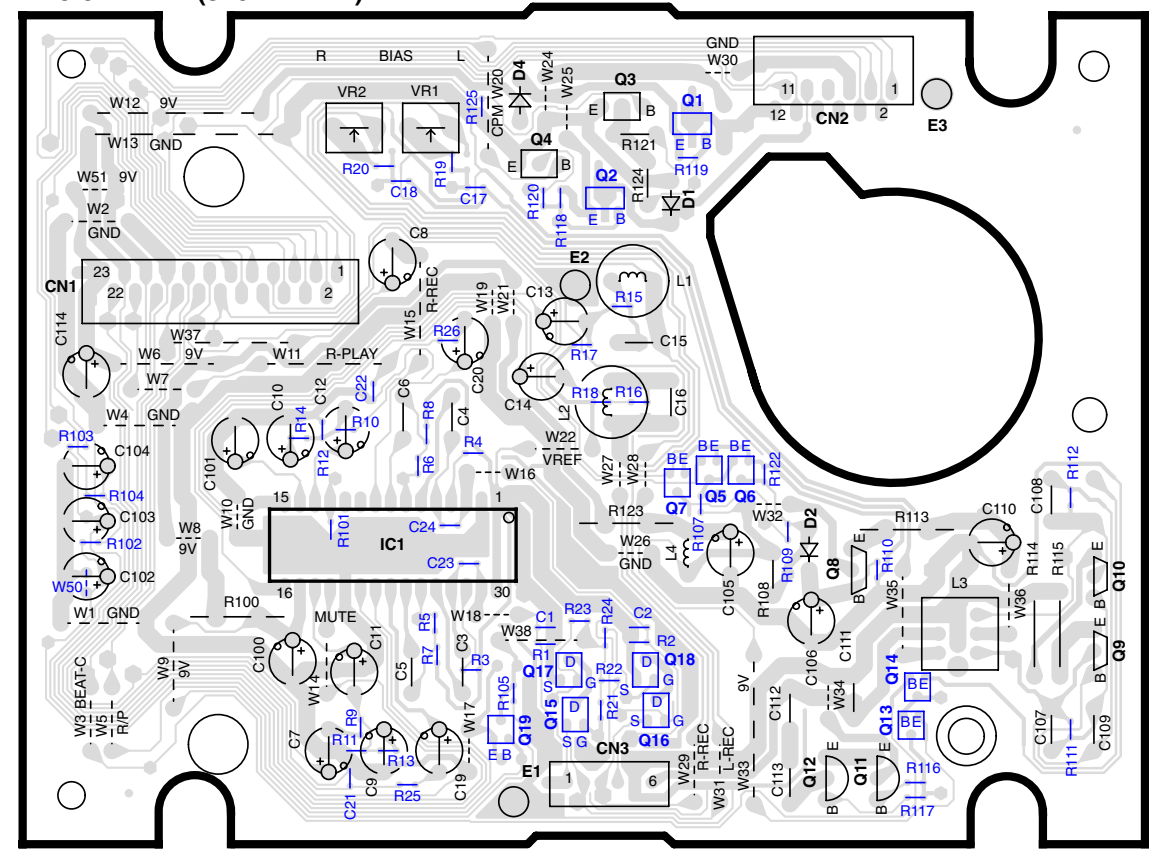
RXD-M33MD-S/M33MD-L/M33MD-N  
 RXD-M33-S/M33-L/M33-N  
 RXD-M33E-S/M33E-L/M33E-N

# PC BOARD (Component side view)

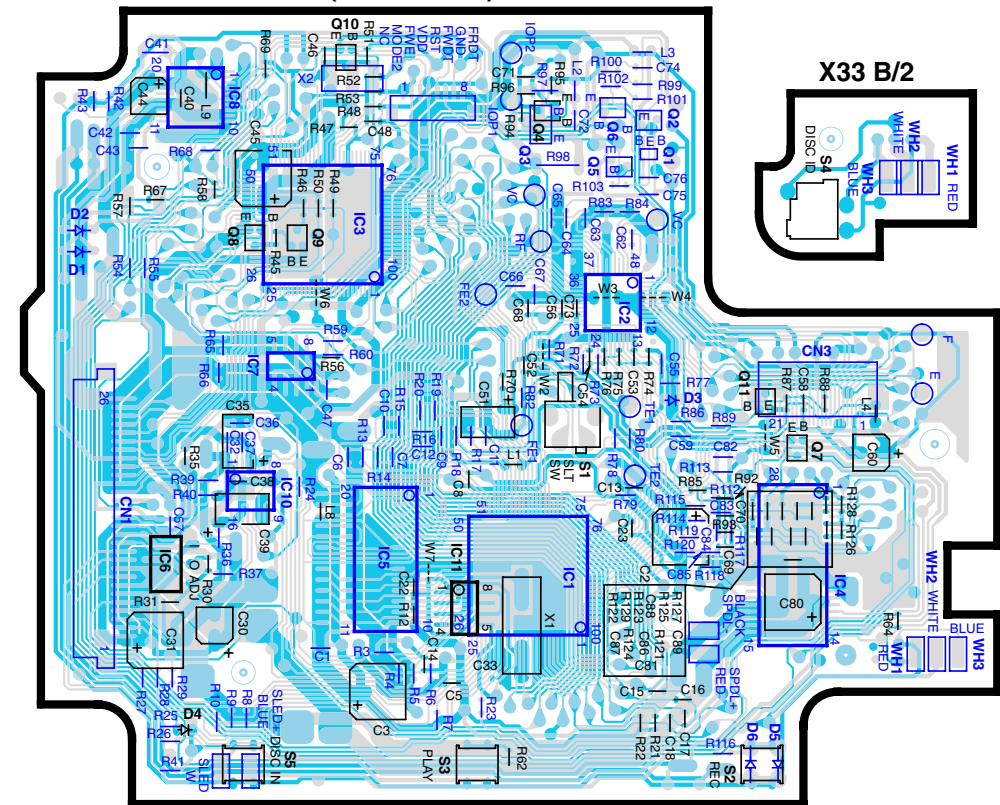
**X00-304/305-00  
(J70-1485-11)**



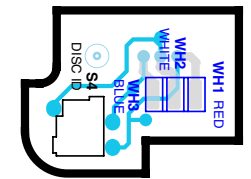
**X28-31XX-XX (J70-1471-11)**



**X33-1260-00 A/2 (J70-1452-02)**

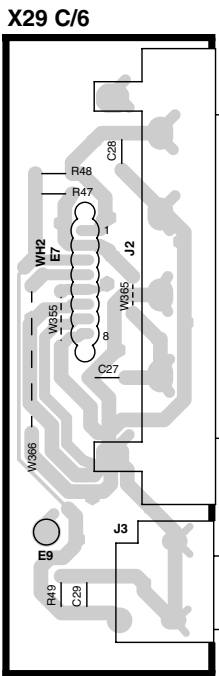
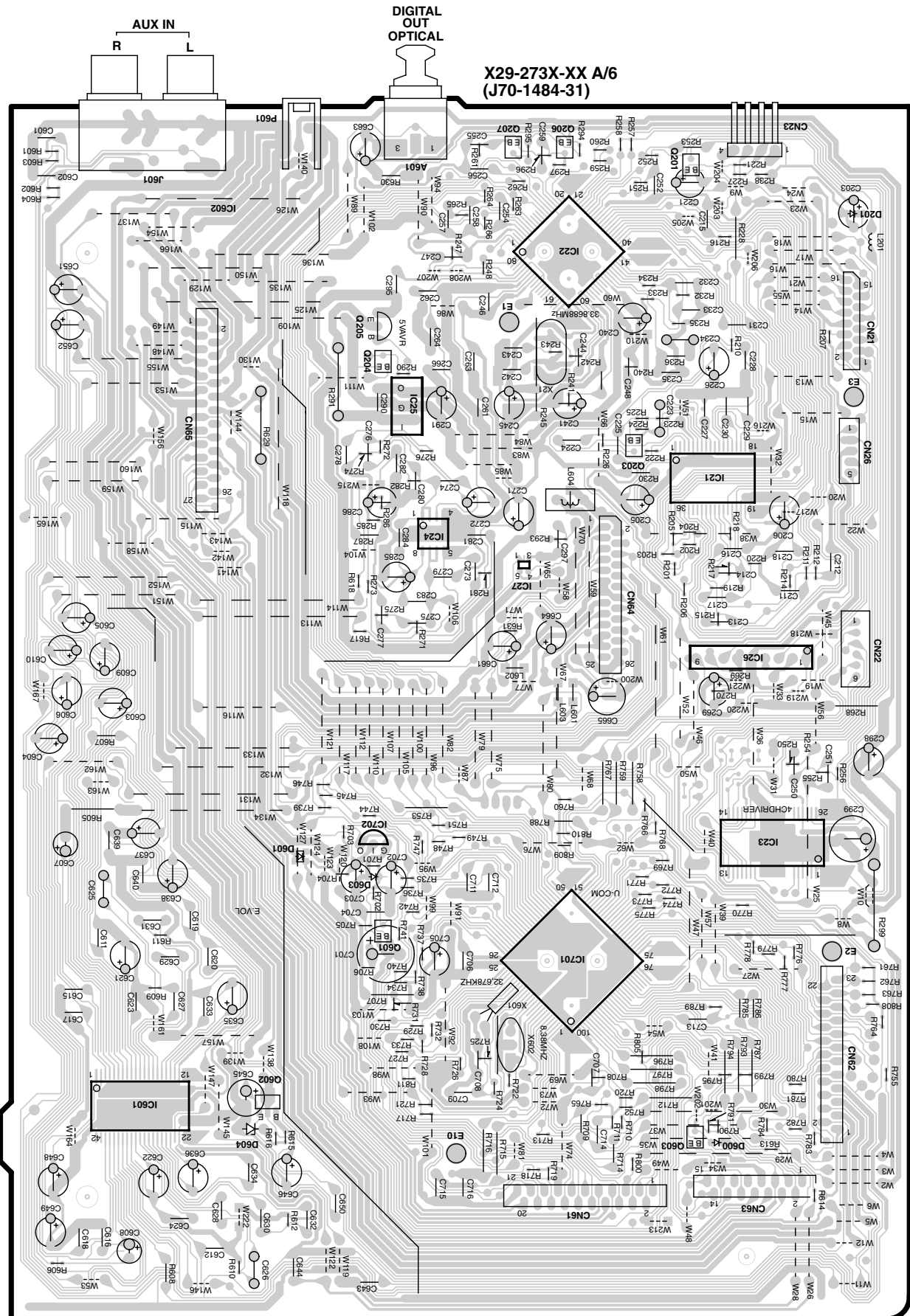


**X33 B/2**

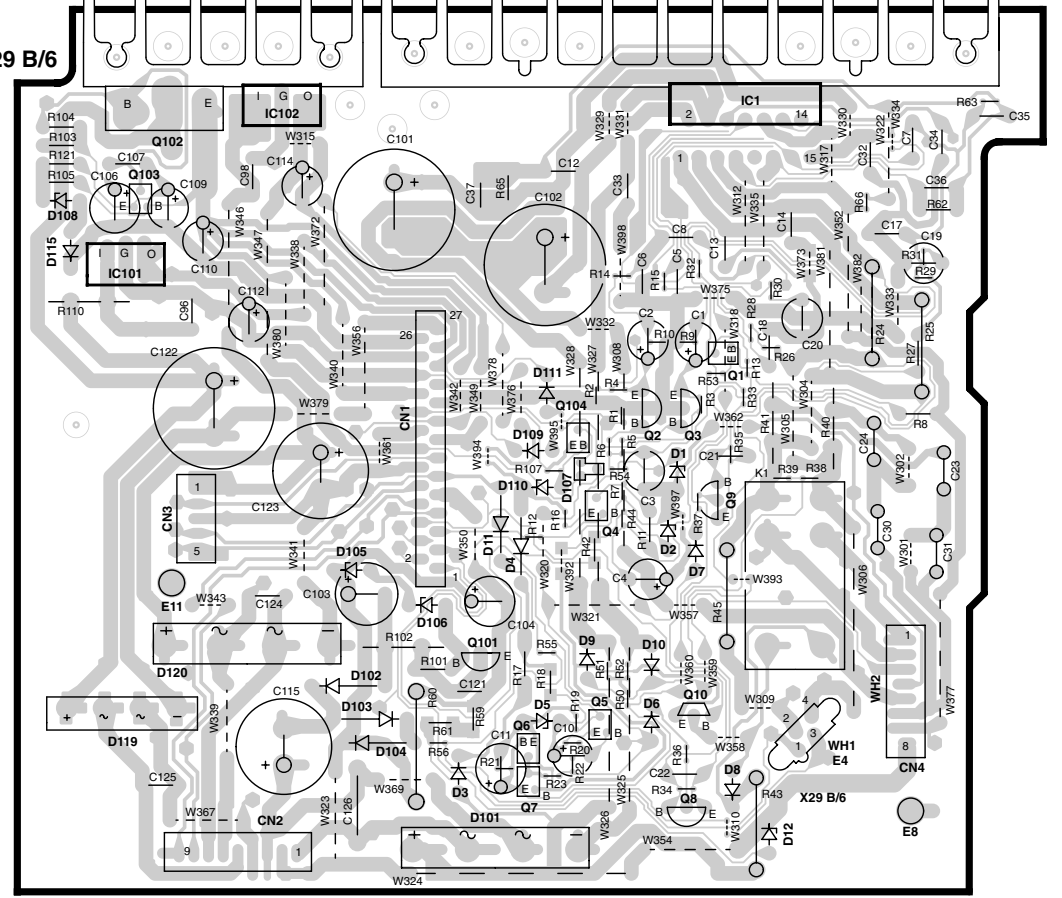




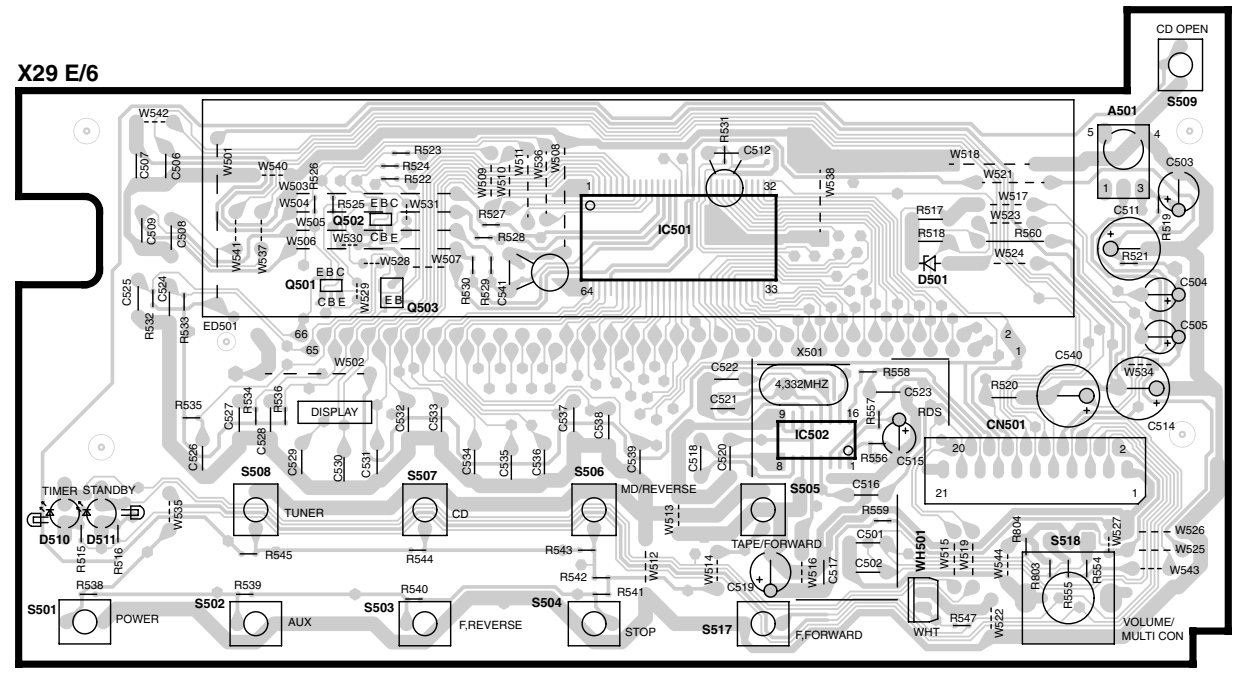
# PC BOARD (Component side view)



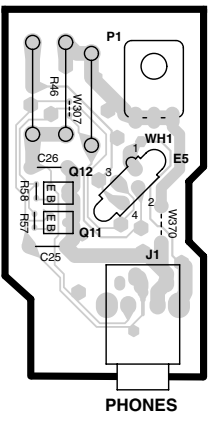
X29 B/6



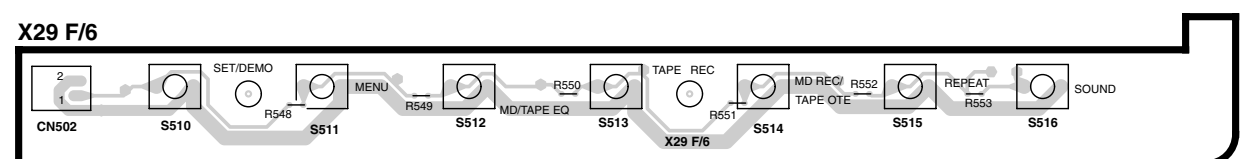
X29 E/6



X29 D/6

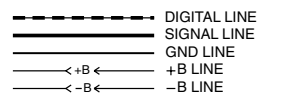


X29 F/6

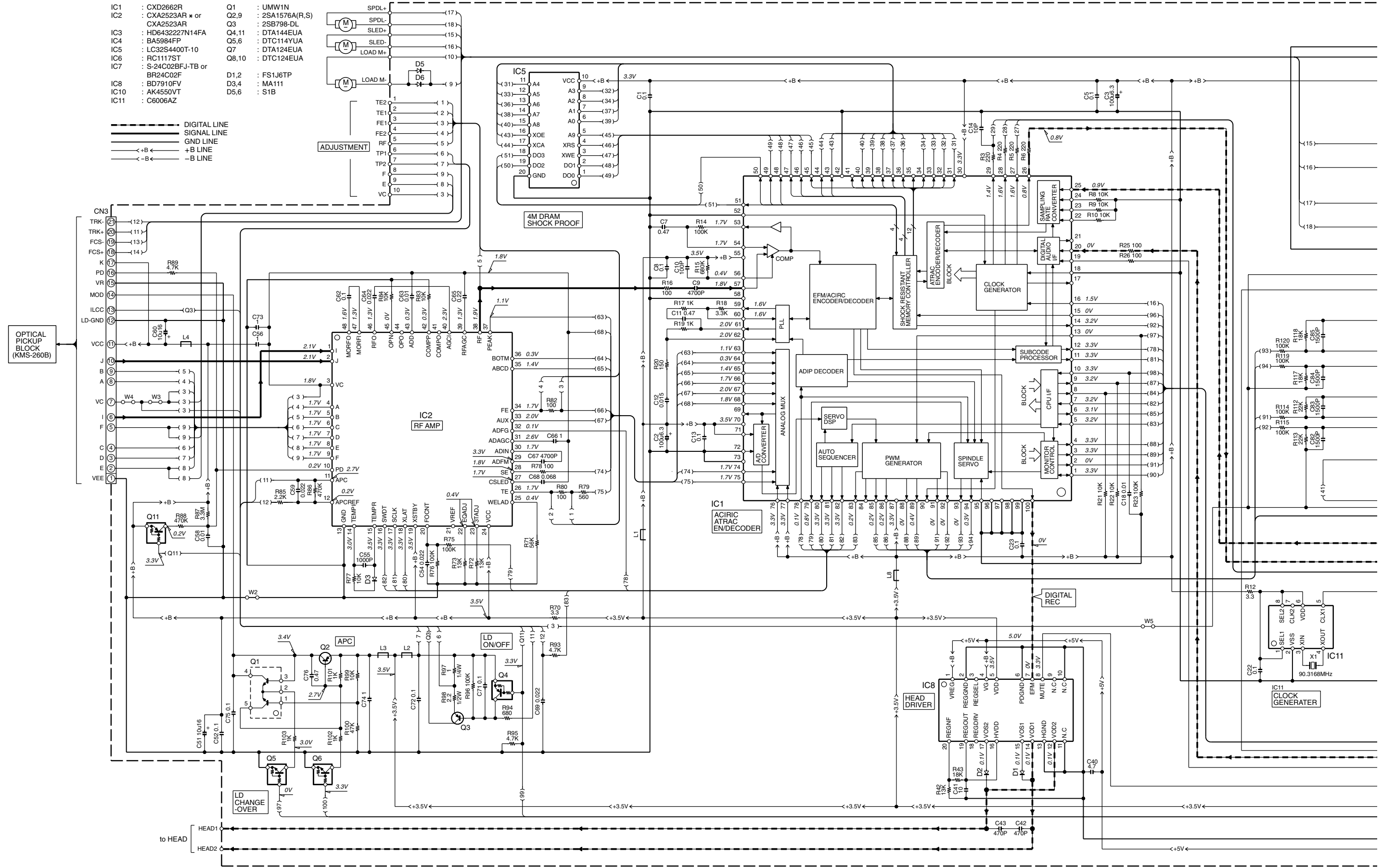


Refer to the schematic diagram for the value of resistors and capacitors.

- IC1 : CXD2662R
- IC2 : CXA2523AR \* or CXA2523AR
- IC3 : HD643227N14FA
- IC4 : BA5984FP
- IC5 : LC32S4400T-10
- IC6 : RC1117ST
- IC7 : S-24C02BFJ-TB or BR24C02F
- IC8 : BD7910FV
- IC10 : AK4550VT
- IC11 : C6006AZ
- Q1 : UMW1N
- Q2,9 : 2SA1576A(R,S)
- Q3 : 2SB798-DL
- Q4,11 : DTA144EUA
- Q5,6 : DTC114YUA
- Q7 : DTA124EUA
- Q8,10 : DTC124EUA
- D1,2 : FS1J6TP
- D3,4 : MA111
- D5,6 : S1B



(X33-1260-00) (A/2)



OPTICAL PICKUP BLOCK (KMS-260B)

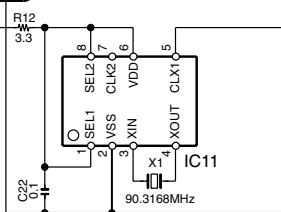
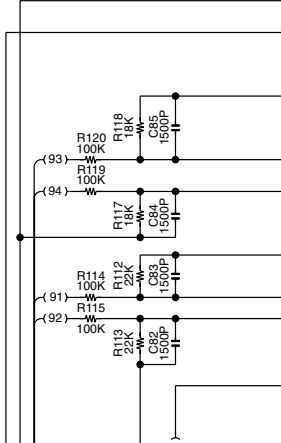
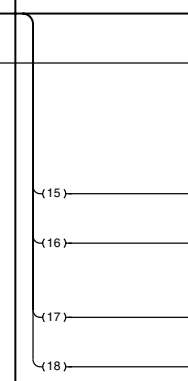
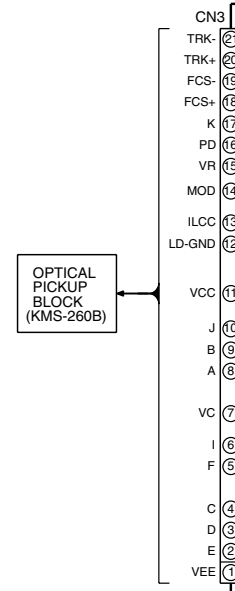
4M DRAM SHOCK PROOF

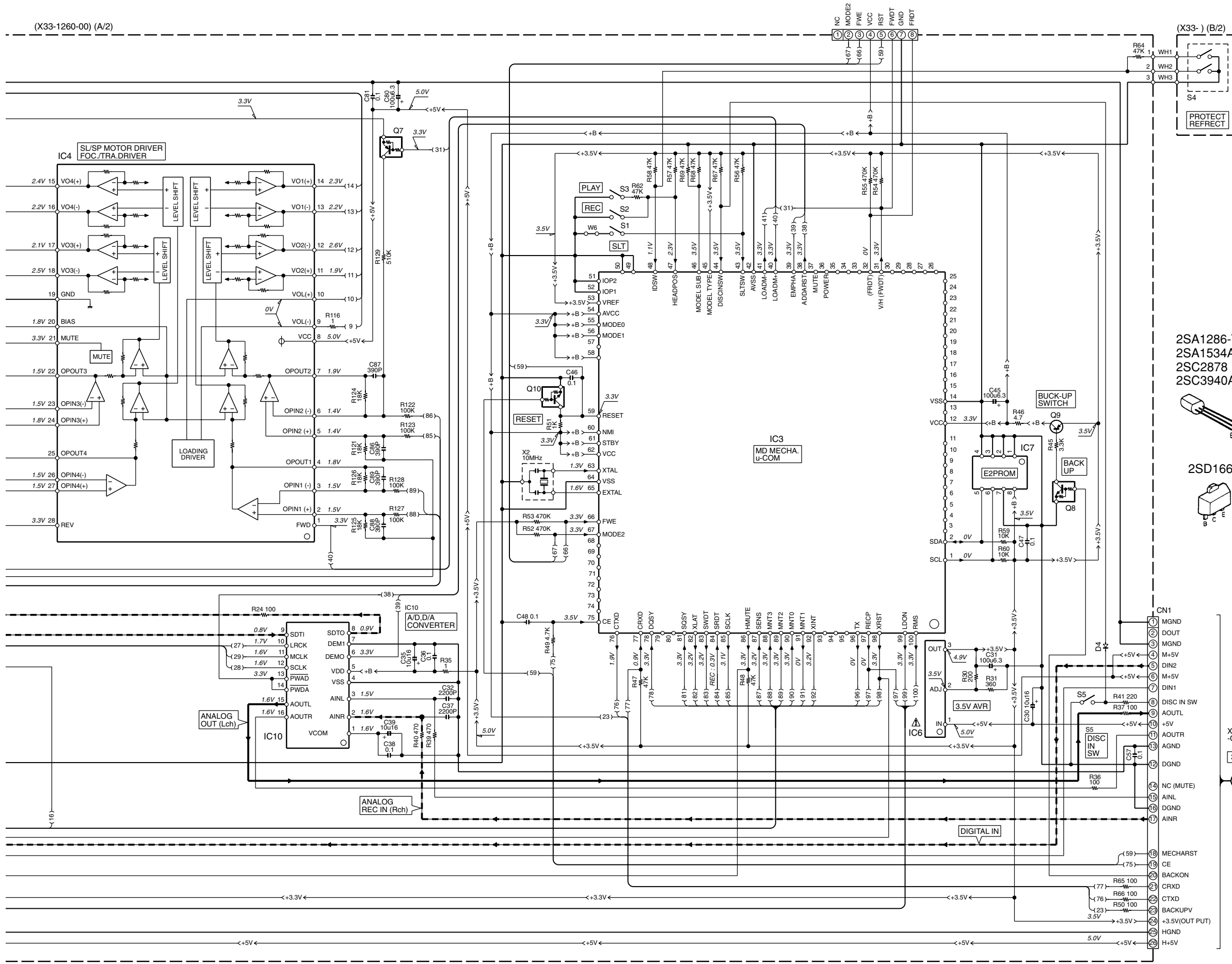
IC2 RF AMP

IC1 AC/DC EN/DECODER

IC8 HEAD DRIVER

IC11 CLOCK GENERATOR





**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  $\Delta$  indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter. The measurement value may vary depending on the measuring instruments used or on the product. Refer to the voltage during RECORDABLE MD PLAY unless otherwise specified; The value shown in ( ) is the voltage measured at the moment of STOP. The voltage followed by (REC) refers to the value during MD RECORDING.

- |             |         |           |
|-------------|---------|-----------|
| 2SA1286-T11 | 2SA1175 | DTC124ESA |
| 2SA1534A    | 2SC2785 | DTC143TSA |
| 2SC2878     |         | KRC103M   |
| 2SC3940A    |         |           |
|             |         |           |
| 2SD1664     | 2SD1963 | DTA144EUA |
|             |         | DTC114YUA |
|             |         | UN5219    |
|             |         | 2SA1576A  |
|             |         | 2SB1218A  |
|             |         | 2SD1819A  |
|             |         |           |
|             |         | KTC3205   |
|             |         |           |
|             |         | UN4212    |
|             |         | UN4216    |
|             |         | UN4219    |
|             |         |           |
|             |         | 2SB798-DL |
|             |         |           |
|             |         | 2SC4081   |
|             |         |           |
|             |         | DTA124EUA |
|             |         | DTC124EUA |
|             |         |           |
|             |         | UMW1N     |
|             |         |           |

RXD-M33MD-S/M33MD-L/M33MD-N (1/4)

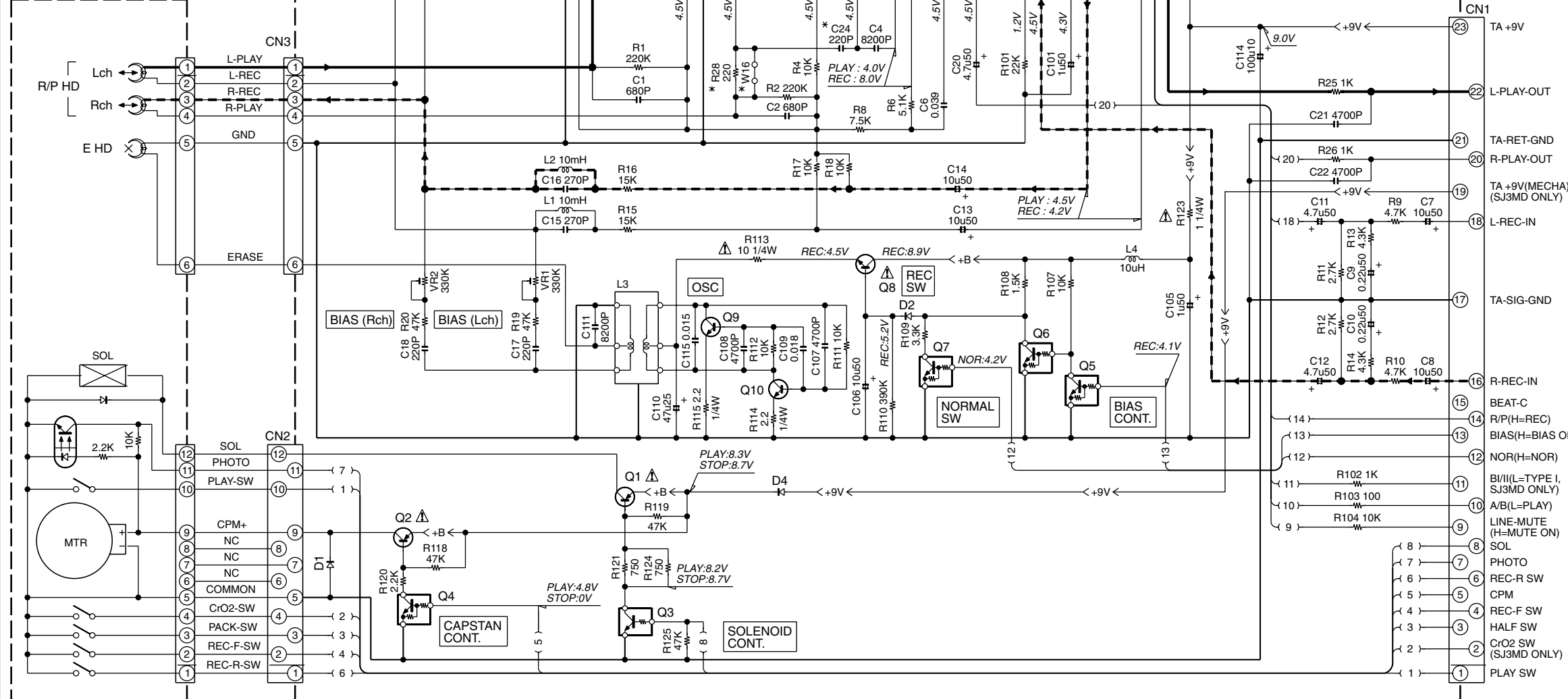
# RXD-M33/M33MD

Y39-3862-70

## KENWOOD

- IC1 : HA12230NT
- Q1,2 : 2SB1424(Q,R)
- Q3 : DTC143TSA or UN4216
- Q4 : KRC103M or UN4212
- Q5-7,19 : DTC124EUA or UN5212
- Q8 : KTC3205 or 2SC3940A(R,S)
- Q9,10 : KTC3199(Y,GR) or 2SC2785(F,E)
- Q15-18 : RK7002
- D1,2 : 1SS133 or HSS104A
- D4 : S5688B(TPB5)

CASSETTE MECHANISM ASSY (D40-1716- \*5)



--- SIGNAL LINE (Record)  
 ——— SIGNAL LINE (Play)  
 ——— GND LINE  
 ——— +B LINE

RXD-M33MD-S (X28-313X-XX)

DESTINATION	COUNTRY	ABB.	UNIT No.	C23, 24	R27, 28	W16, 18
GENERAL MARKET	U.S.A.	M	0-01	NO	NO	YES
	MALAYSIA	I	0-01	NO	NO	YES
	AUSTRALIA	X	0-01	NO	NO	YES
	U.K.	T	2-71	YES	YES	NO
	EUROPE	E	2-71	YES	YES	NO

RXD-M33MD-L (X28-313X-XX)

DESTINATION	COUNTRY	ABB.	UNIT No.	C23, 24	R27, 28	W16, 18
GENERAL MARKET	U.S.A.	M	0-01	NO	NO	YES
	KOREA	H	2-71	YES	YES	NO
	U.K.	T	2-71	YES	YES	NO

RXD-M33MD-N (X28-31XX-XX)

DESTINATION	COUNTRY	ABB.	UNIT No.	C23, 24	R27, 28	W16, 18
GENERAL MARKET	U.S.A.	M	30-01	NO	NO	YES
	U.K.	T	32-71	YES	YES	NO
	SHANGHAI	V2	52-10	NO	NO	YES

RXD-M33-S (X28-313X-XX)

DESTINATION	COUNTRY	ABB.	UNIT No.	C23, 24	R27, 28	W16, 18
GENERAL MARKET	U.S.A.	K	0-01	NO	NO	YES
	CANADA	P	0-01	NO	NO	YES
	MALAYSIA	I1	0-01	NO	NO	YES
	AUSTRALIA	X1	0-01	NO	NO	YES
	U.K.	T1	2-71	YES	YES	NO
	EUROPE	E1	2-71	YES	YES	NO
	KOREA	H1	2-71	YES	YES	NO

RXD-M33-L (X28-31XX-XX)

DESTINATION	COUNTRY	ABB.	UNIT No.	C23, 24	R27, 28	W16, 18
GENERAL MARKET	U.S.A.	K	30-01	NO	NO	YES
	CANADA	P	30-01	NO	NO	YES
	MALAYSIA	I1	30-01	NO	NO	YES
	AUSTRALIA	X1	30-01	NO	NO	YES
	U.K.	T1	32-71	YES	YES	NO
	EUROPE	E1	32-71	YES	YES	NO
	KOREA	H1	32-71	YES	YES	NO
	SHANGHAI	V1	52-10	NO	NO	YES

RXD-M33-N (X28-31XX-XX)

DESTINATION	COUNTRY	ABB.	UNIT No.	C23, 24	R27, 28	W16, 18
GENERAL MARKET	U.S.A.	M1	0-01	NO	NO	YES
	GENERAL MARKET	M2	0-01	NO	NO	YES
	U.K.	T1	2-71	YES	YES	NO
	EUROPE	E2	2-71	YES	YES	NO

RXD-M33E-S/M33E-L/M33E-N (X28-3132-71)

DESTINATION	COUNTRY	ABB.	UNIT No.	C23, 24	R27, 28	W16, 18
GENERAL MARKET	U.S.A.	E2	2-71	YES	YES	NO

RXD-M33MD-S/M33MD-L/M33MD-N (2/4)  
 RXD-M33-S/M33-L/M33-N (2/4)  
 RXD-M33E-S/M33E-L/M33E-N (2/4)

**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  $\Delta$  indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with a cassette loaded at playback mode. The measurement value may vary depending on the measuring instruments used or on the product. Bias circuit DC voltage is measured while in the record mode.

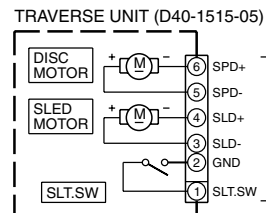
DOLBY and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation. Noise reduction circuit made under license from Dolby Laboratories Licensing Corporation.

**RXD-M33/M33MD**

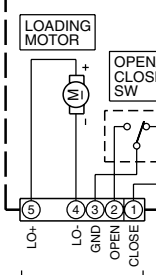
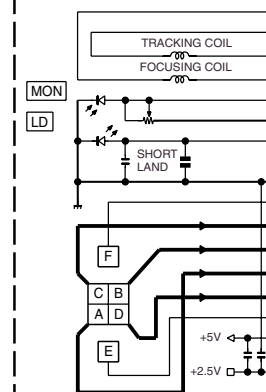
**KENWOOD**

MD MECHA. CN1

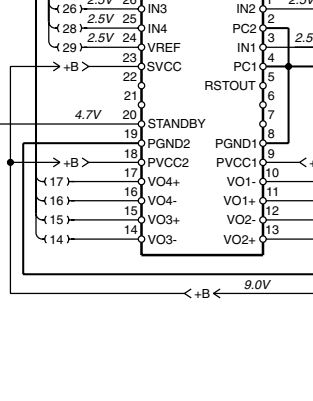
CD MECHANISM ASS'Y (D40-1714- \*5)



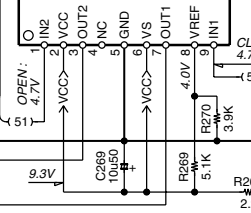
PICKUP (KSS-213C)



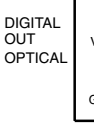
IC23 (BOTTOM VIEW) 4ch BTL DRIVER



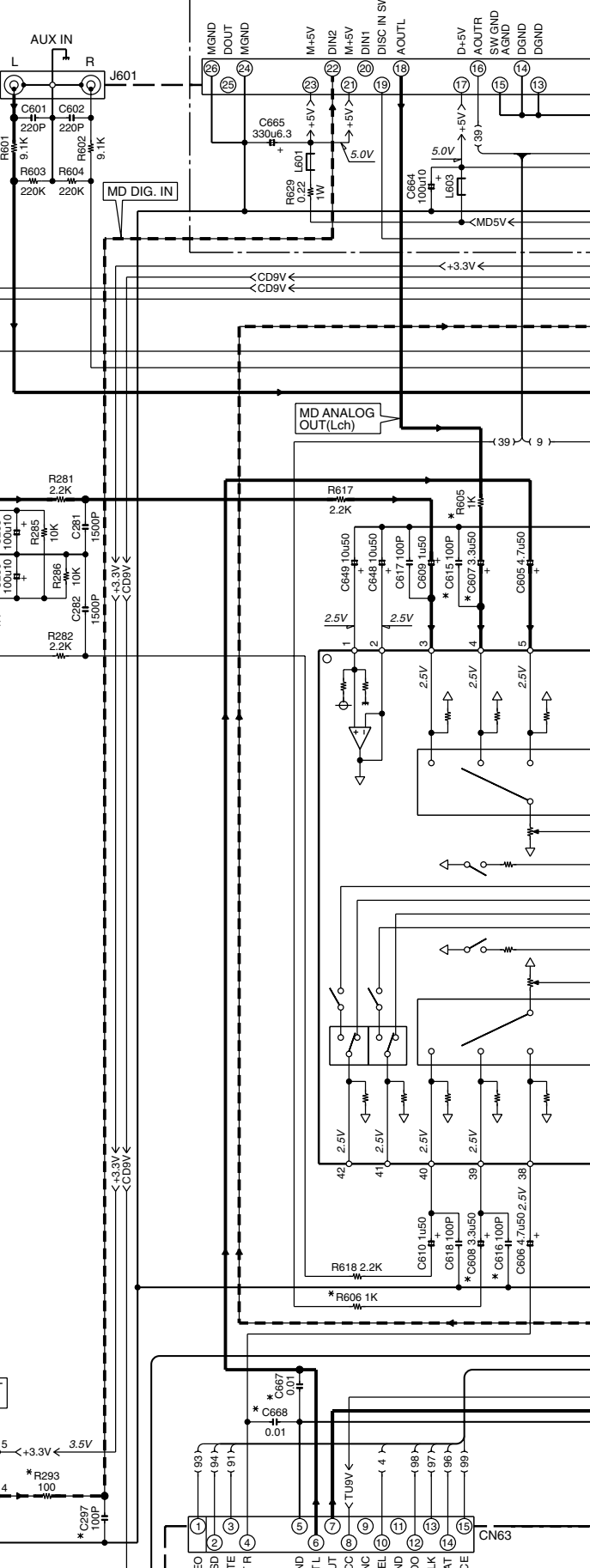
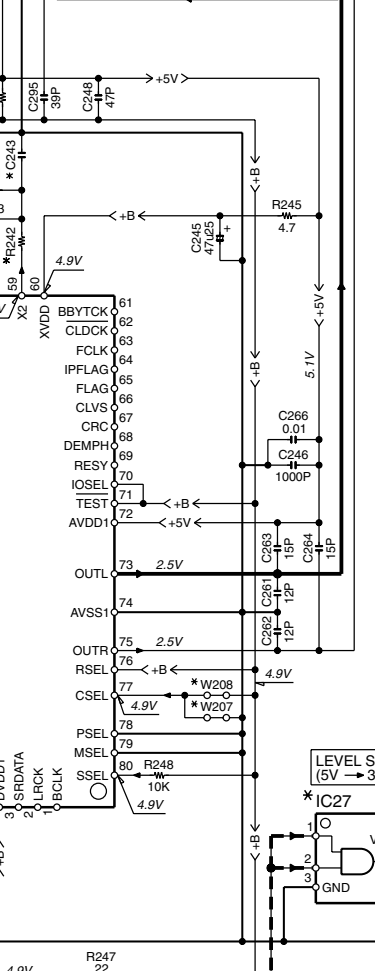
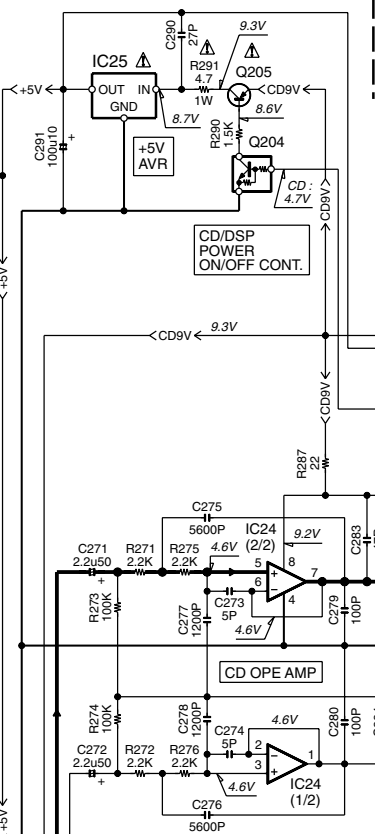
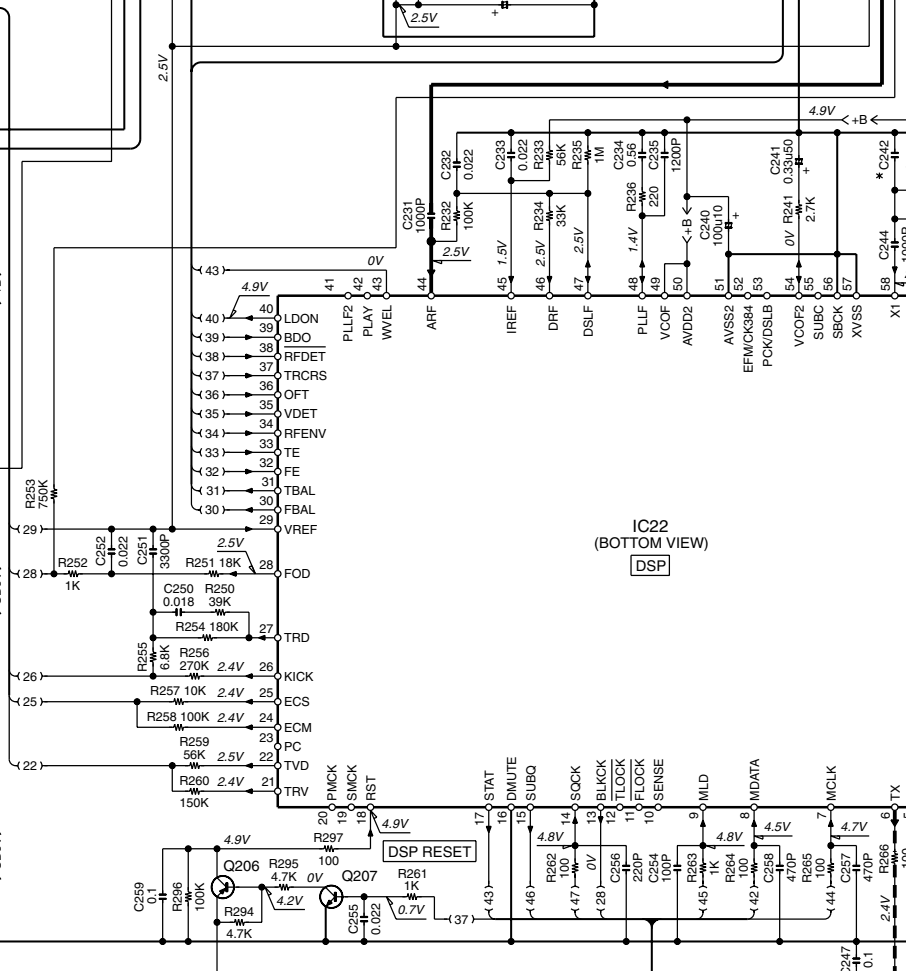
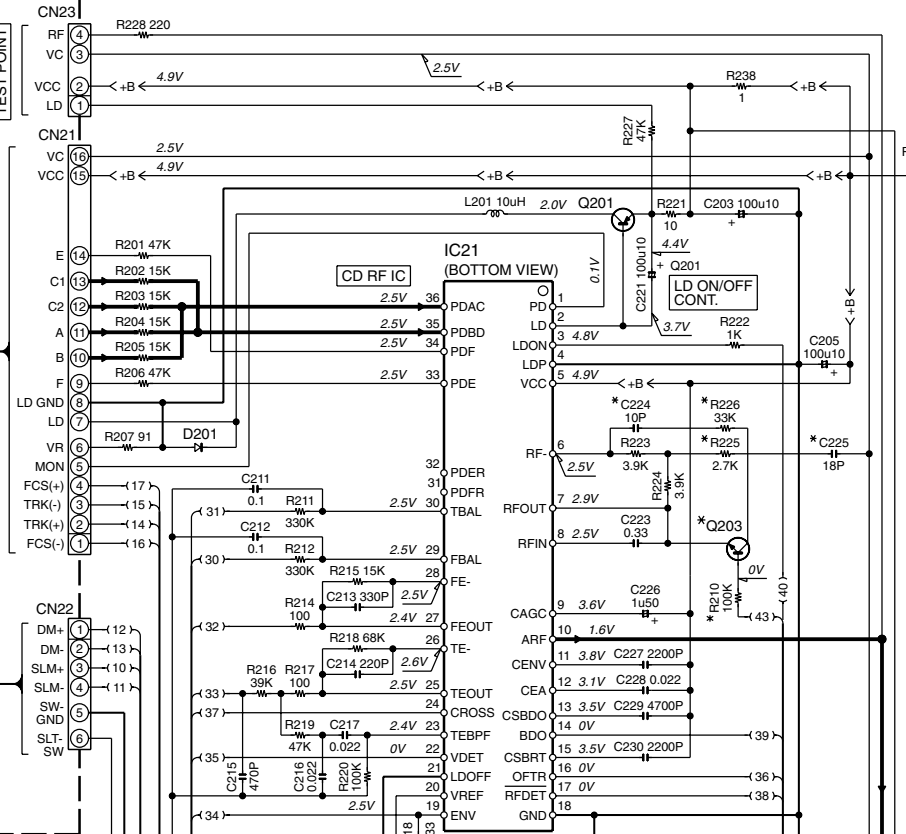
IC26 CD MECHA. DRIVER



A601 DIGITAL OUT OPTICAL



(X29-273X-XX) (A/6)

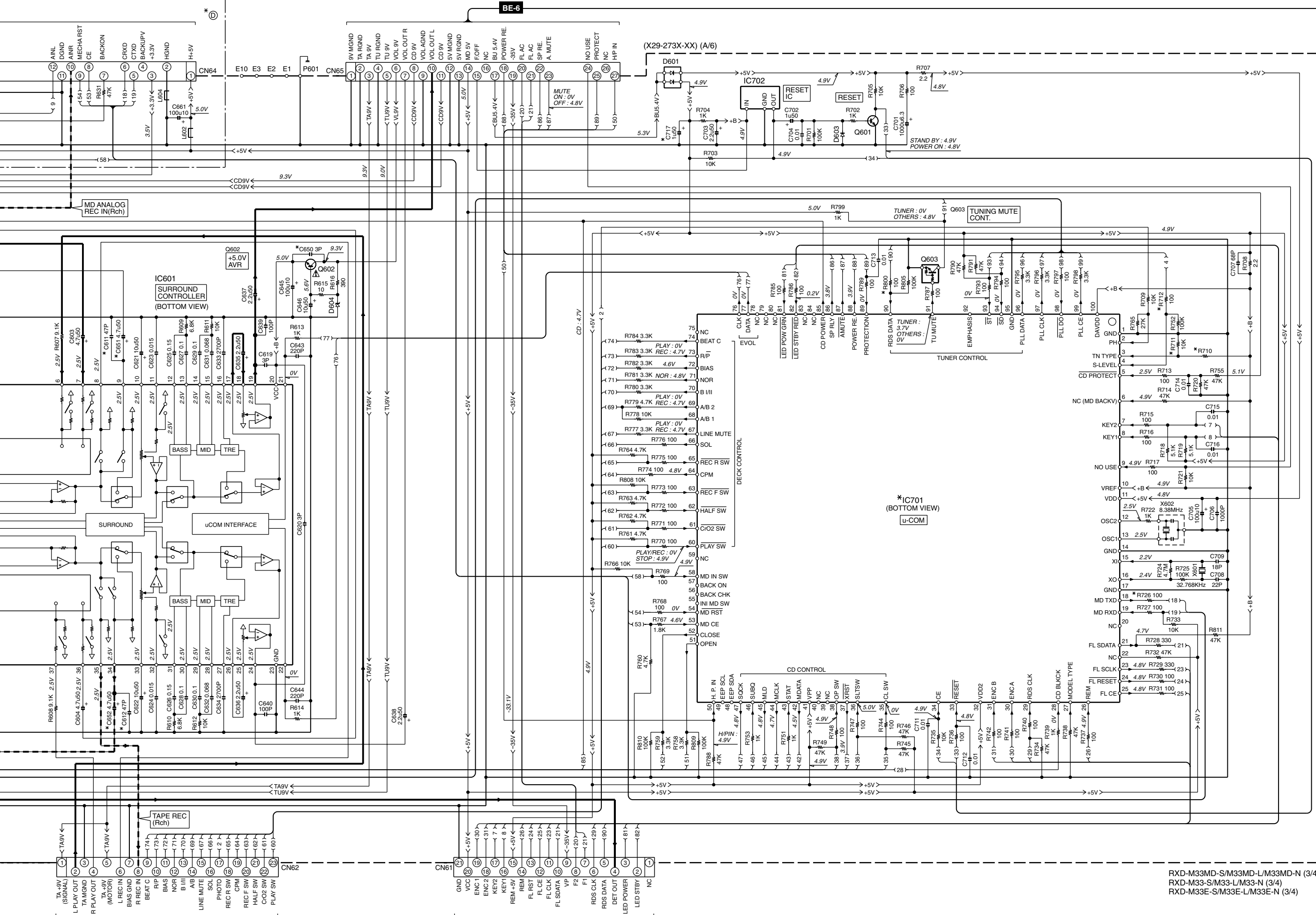


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X28- CN1 2/4

R-6

CN63



RXD-M33MD-S/M33MD-L/M33MD-N (3/4)  
 RXD-M33-S/M33-L/M33-N (3/4)  
 RXD-M33E-S/M33E-L/M33E-N (3/4)

X29-B/6

CN1

4/4

C

## RXD-M33MD-S (X29-273X-XX)

DESTINATION		UNIT No.	C	D	C224,225,297,607,608,611,612,615,616,651,652	C242,243	C650	C667,668,717	IC27	IC701	Q203	R210,225,226,293,605,606,726	R242	R710	R711	R712,800	W207	W208	X21
COUNTRY	ABB.																		
GENERAL MARKET	M	0-21	NO	YES	YES	10P	NO	YES	MN101C49KLB	YES	YES	470	22K	YES	NO	NO	YES	L77-2338-05	
MALAYSIA	I																		
AUSTRALIA	X																		
U.K.	T																		
EUROPE	E	2-71					YES						10K	NO	YES				

## RXD-M33MD-L (X29-273X-XX)

DESTINATION		UNIT No.	C	D	C224,225,297,607,608,611,612,615,616,651,652	C242,243	C650	C667,668,717	IC27	IC701	Q203	R210,225,226,293,605,606,726	R242	R710	R711	R712,800	W207	W208	X21
COUNTRY	ABB.																		
GENERAL MARKET	M	0-21					NO							22K	YES	NO			
KOREA	H	2-71	NO	YES	YES	10P	YES	NO	YES	MN101C49KLB	YES	YES	470	10K	NO	YES	NO	YES	L77-2338-05
U.K.	T																		

## RXD-M33MD-N (X29-27XX-XX)

DESTINATION		UNIT No.	C	D	C224,225,297,607,608,611,612,615,616,651,652	C242,243	C650	C667,668,717	IC27	IC701	Q203	R210,225,226,293,605,606,726	R242	R710	R711	R712,800	W207	W208	X21
COUNTRY	ABB.																		
GENERAL MARKET	M	30-21					NO							22K	YES	NO			
U.K.	T	32-71	NO	YES	YES	10P	NO	NO	YES	MN101C49KLB	YES	YES	470	10K	NO	YES	NO	YES	L77-2338-05
SHANGHAI	V2																		

## RXD-M33-S (X29-273X-XX)

DESTINATION		UNIT No.	C	D	C224,225,297,607,608,611,612,615,616,651,652	C242,243	C650,667,668	C717	IC27	IC701	Q203	R210,225,226,293,605,606,726	R242	R710	R711	R712,800	W207	W208	X21
COUNTRY	ABB.																		
U.S.A.	K	0-11					YES						6.8K						
CANADA	P																		
GENERAL MARKET	M1	0-22					NO						22K	YES	NO				
MALAYSIA	I1	0-71	YES	NO	NO	56P	NO	NO	MN101C49HLC	NO	NO	120	39K				YES	NO	L77-2190-05
AUSTRALIA	X1																		
U.K.	T1	2-72					YES						10K	NO	YES				
EUROPE	E1																		
KOREA	H1																		

## RXD-M33-L (X29-27XX-XX)

DESTINATION		UNIT No.	C	D	C224,225,297,607,608,611,612,615,616,651,652	C242,243	C650,667,668	C717	IC27	IC701	Q203	R210,225,226,293,605,606,726	R242	R710	R711	R712,800	W207	W208	X21
COUNTRY	ABB.																		
U.S.A.	K	30-11					YES						6.8K						
CANADA	P																		
GENERAL MARKET	M1	30-22					NO						22K	YES	NO				
MALAYSIA	I1	30-71	YES	NO	NO	56P	NO	NO	MN101C49HLC	NO	NO	120	39K				YES	NO	L77-2190-05
AUSTRALIA	X1																		
U.K.	T1	32-72					YES						10K	NO	YES				
EUROPE	E1																		
KOREA	H1	72-11					NO						22K	YES	NO				
SHANGHAI	V1																		

## RXD-M33-N (X29-273X-XX)

DESTINATION		UNIT No.	C	D	C224,225,297,607,608,611,612,615,616,651,652,717	C242,243	C650,667,668	IC27	IC701	Q203	R210,225,226,293,605,606,726	R242	R710	R711	R712,800	W207	W208	X21	
COUNTRY	ABB.																		
GENERAL MARKET	M1	0-22					NO						22K	YES	NO				
GENERAL MARKET	M2																		
U.K.	T1	2-72	YES	NO	NO	56P	NO	MN101C49HLC	NO	NO	120	10K	NO	YES	YES	NO	NO	L77-2190-05	
EUROPE	E1																		

## RXD-M33E-S/M33E-L/M33E-N (X29-2732-72)

DESTINATION		UNIT No.	C	D	C224,225,297,607,608,611,612,615,616,651,652,717	C242,243	C650,667,668	IC27	IC701	Q203	R210,225,226,293,605,606,726	R242	R710	R711	R712,800	W207	W208	X21
COUNTRY	ABB.																	
EUROPE	E2	2-72	YES	NO	NO	56P	YES	NO	MN101C49HLC	NO	NO	120	10K	NO	YES	YES	NO	L77-2190-05

IC21 : AN8806SBM  
 IC22 : MN662748RPMFA  
 IC23 : AN4801SB-E1  
 IC24 : NJM4565M  
 IC25 : TA7805SB  
 IC26 : TA8409S  
 IC27 : HD74LV1G08A  
 IC601 : M61510FP  
 IC701 : \*  
 IC702 : S-80840ANY

Q201,206 : 2SA1577(Q,R)  
 Q203,207,601 : 2SC4081(R,S) or  
 2SD1819A(Q,R)  
 Q204 : UN5212 or  
 DTC124EUA  
 Q205 : 2SA1286-T11  
 Q602 : 2SD1963(R,S) or  
 2SD1664(Q,R)  
 Q603 : UN5219 or  
 DTC113ZUA

D201,603 : MA111  
 D601 : 1SS402  
 D604 : MTZJ5.6(B) or  
 HZS5.6N(B) or  
 RD5.6ES(B)

--- RECRDING LINE  
 --- DIGITAL LINE  
 --- SIGNAL LINE  
 --- GND LINE  
 <-B< --- +B LINE  
 <-B< --- -B LINE

**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  $\Delta$  indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter as the AM/FM signal generator is specified to the conditions as shown in the list below. The measurement value may vary depending on the measuring instruments used or on the product. The value shown in ( ) is actual reading measured in the AM mode.

MODE	CARRIER	MODULATION		ANT INPUT
		FREQUENCY	DEVIATION	
FM	98MHz	1kHz	STEREO 67.5kHz 7.5kHz(Pilot)	60dB
AM	1000(999)kHz	400Hz	MONO 30% MOD	60dB

The DC voltage is an actual reading measured with a high impedance type voltmeter. The measurement value may vary depending on the measuring instruments used or on the product. Refer to the voltage during PLAY unless otherwise specified; The value shown in ( ) is the voltage measured at the moment of STOP.

X29-E/6

CN501

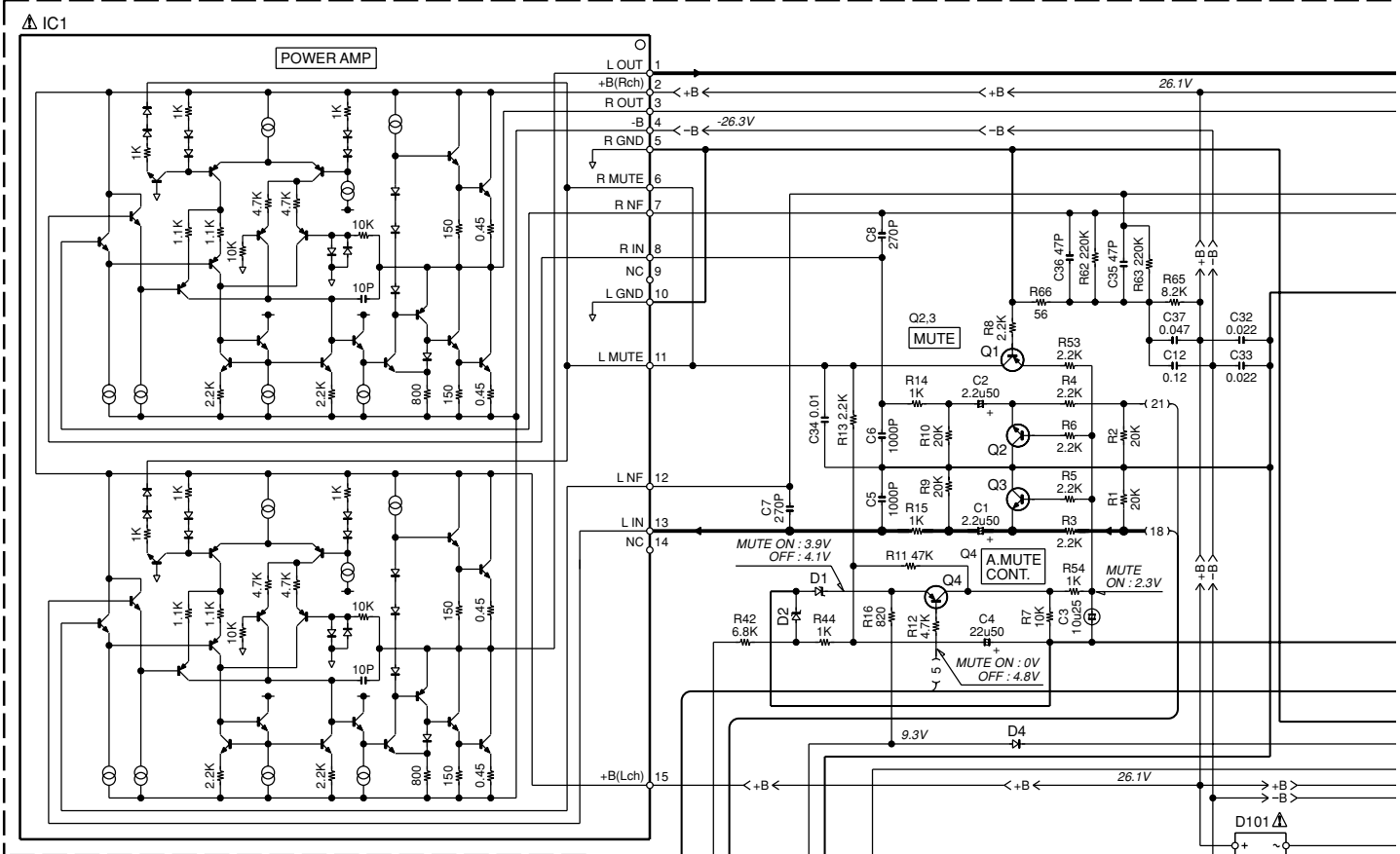
4/4

D

Y39-3862-70

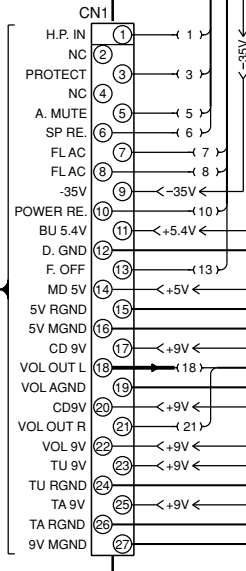
**RXD-M33/M33MD****KENWOOD**

(X29-) (B/6)



- (X29-) (B/6) (D/6) (E/6)
- IC1 : LM4766T
  - IC101 : TA7809SB
  - IC102 : KIA7805AP1
  - IC501 : M66005-001FP
  - IC502 : BU1923F
  - Q1,4,5 : 2SA1576A(R,S) or 2SB1218A(Q,R)
  - Q2,3 : 2SC2878(B)
  - Q6,7,103,503 : 2SC4081(R,S) or 2SD1819A(Q,R)
  - Q10 : DTC113ZSA or UN4219
  - Q101 : 2SA1534A(R,S)
  - Q102 : 2SD2641
  - Q104 : DTC124EUA
  - UN5212
  - Q501,502 : HN1C01F
  - D1 : MTZJ3.9(B) or HZS3.9N(B) or RD3.9ES(B)
  - D2,108 : MTZJ8.2(B) or RD8.2ES(B)
  - D3,4,8,109,111,115 : 1SS133 or HSS104A
  - D5 : MTZJ5.1(B) or HZS5.1N(B) or RD5.1ES(B)
  - D101,120 : D3SBA20F03
  - D102-104 : S5688B
  - D105 : MTZJ20(B) or HZS20N(B) or RD20ES(B)
  - D106 : MTZJ15(B) or HZS15N(B) or RD15ES(B)
  - D107 : DAP202U or 1SS300 or MA142WA
  - D110 : MTZJ10(B) or HZS10N(B) or RD10ES(B)
  - D119 : D2SBA20F03
  - D501 : MTZJ6.2(B) or HZS6.2N(B) or RD6.2ES(B)
  - D510 : B30-2541-05
  - D511 : B30-2546-05

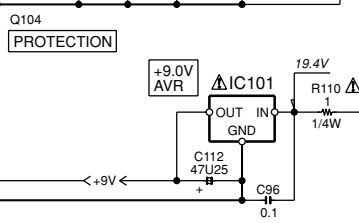
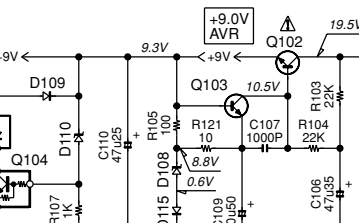
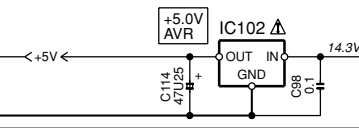
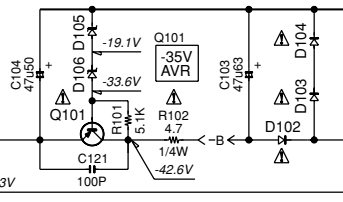
— SIGNAL LINE  
 — GND LINE  
 <+B< +B LINE  
 <-B< -B LINE



AQ-1

X29-A/6 -CN65

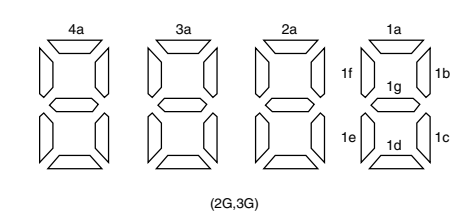
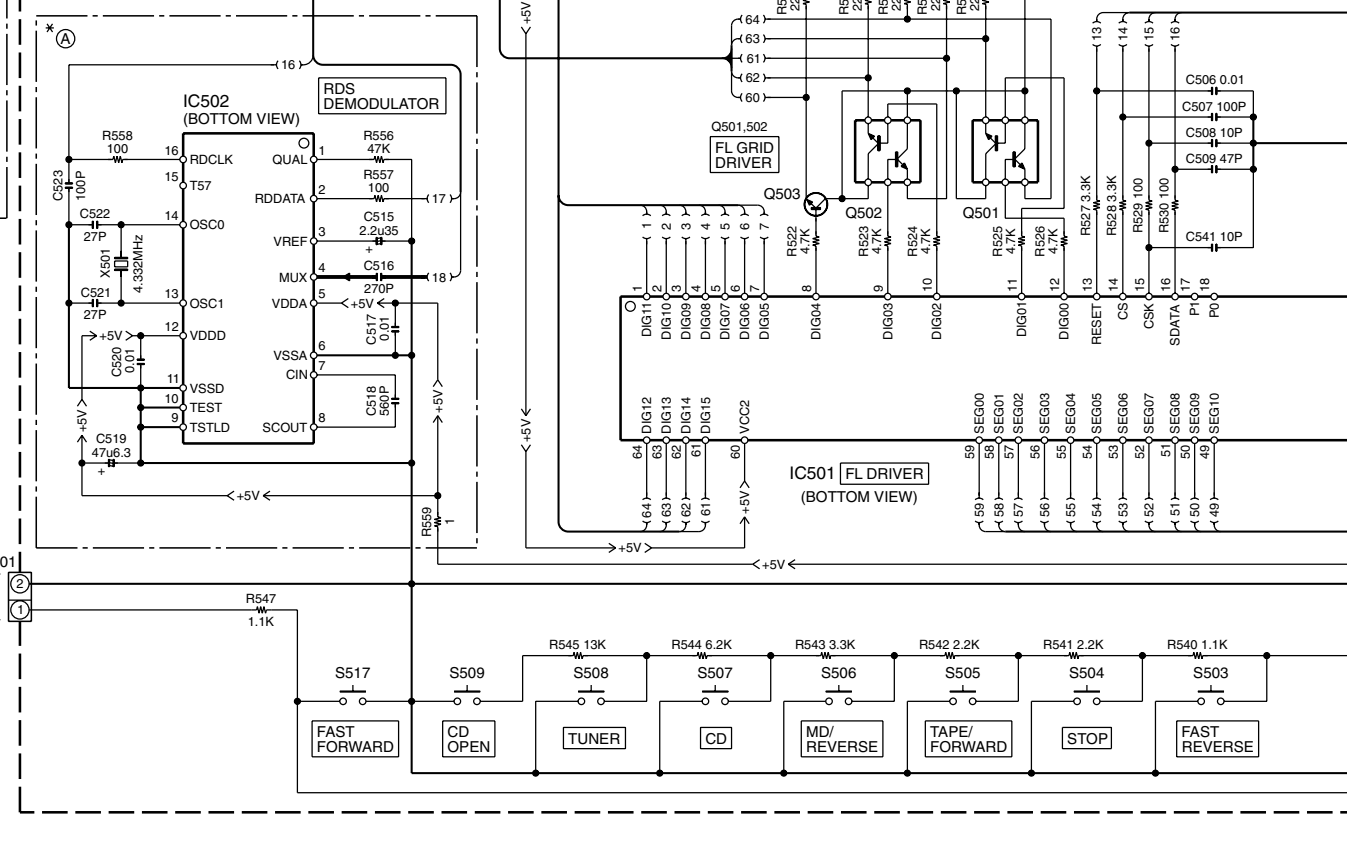
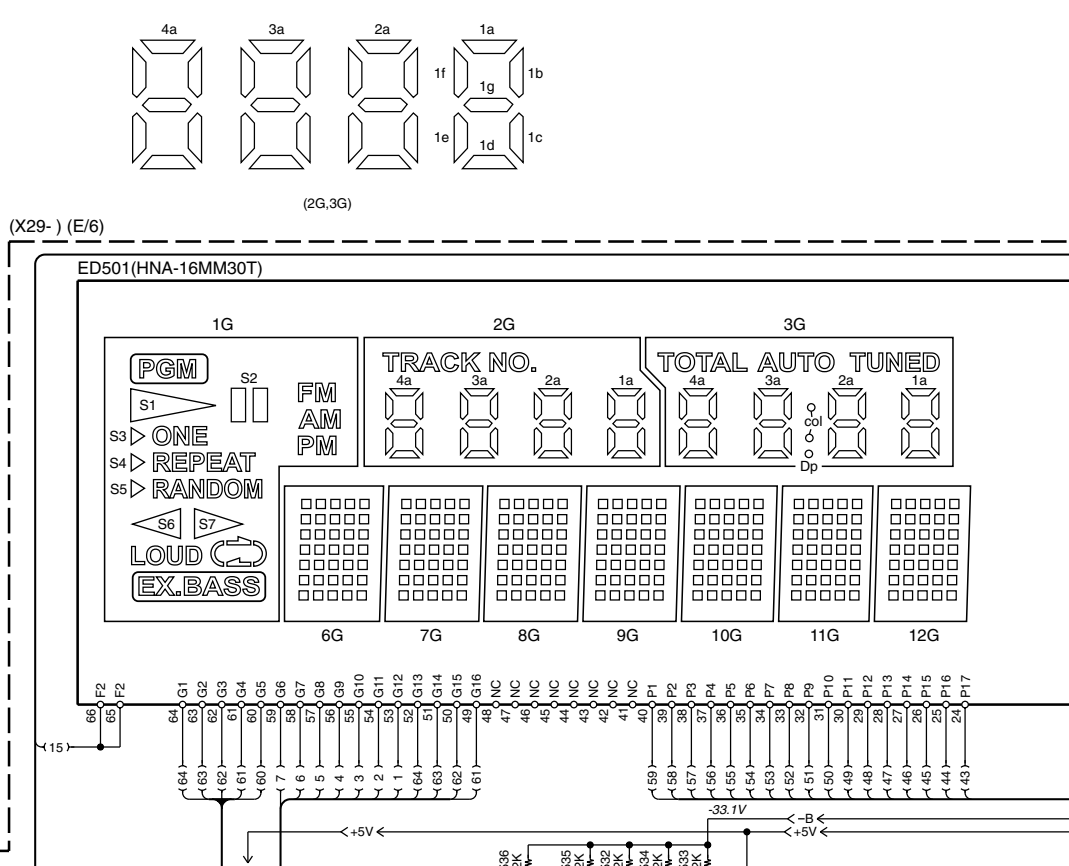
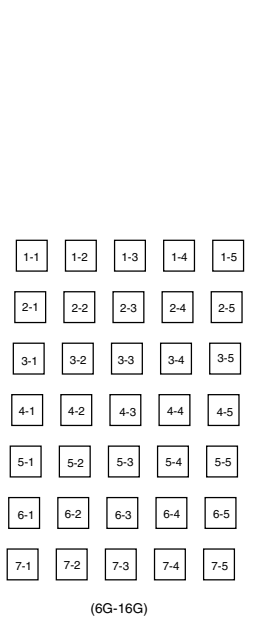
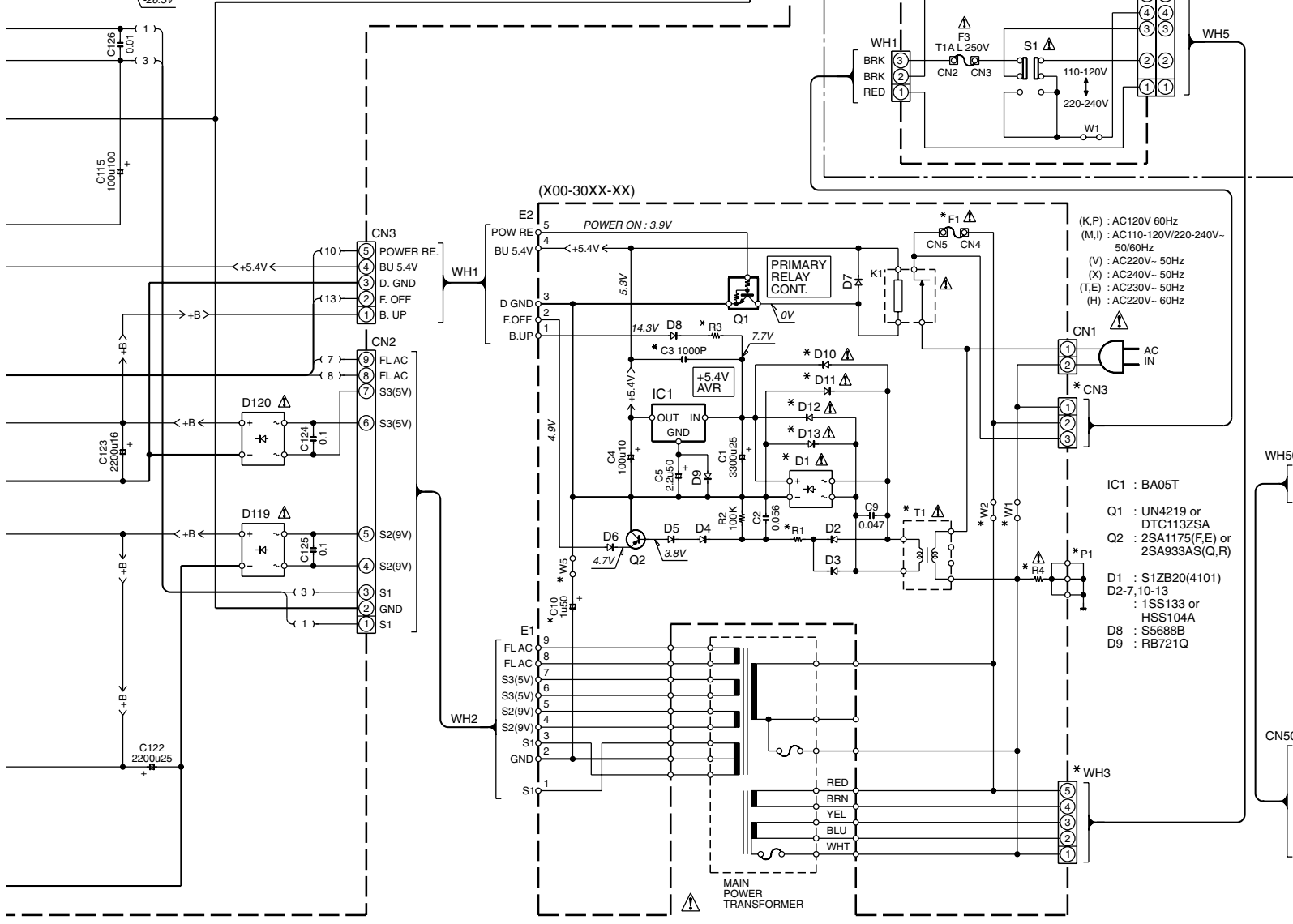
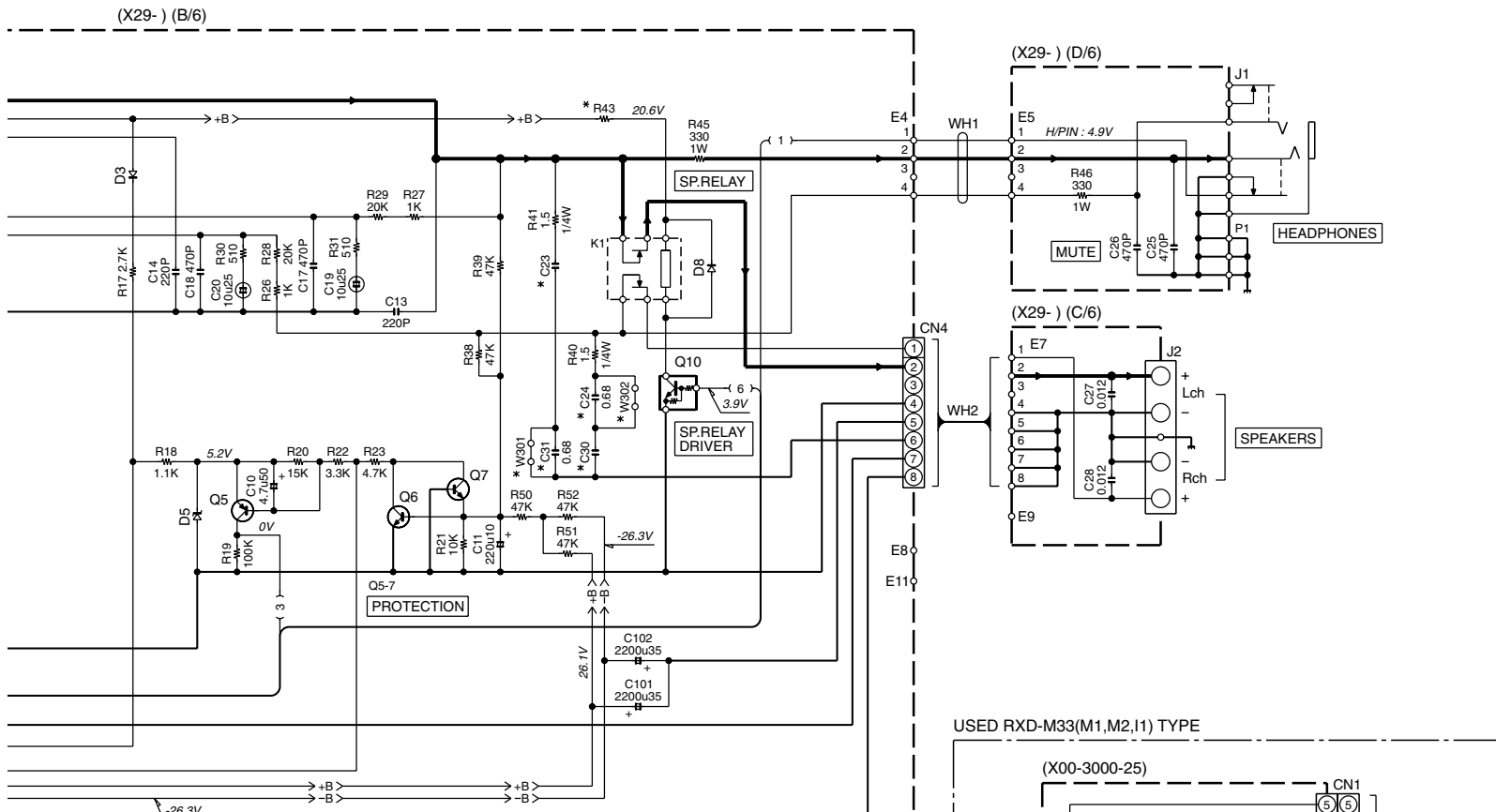
X29-A/6 -CN61



PROTECTION

D

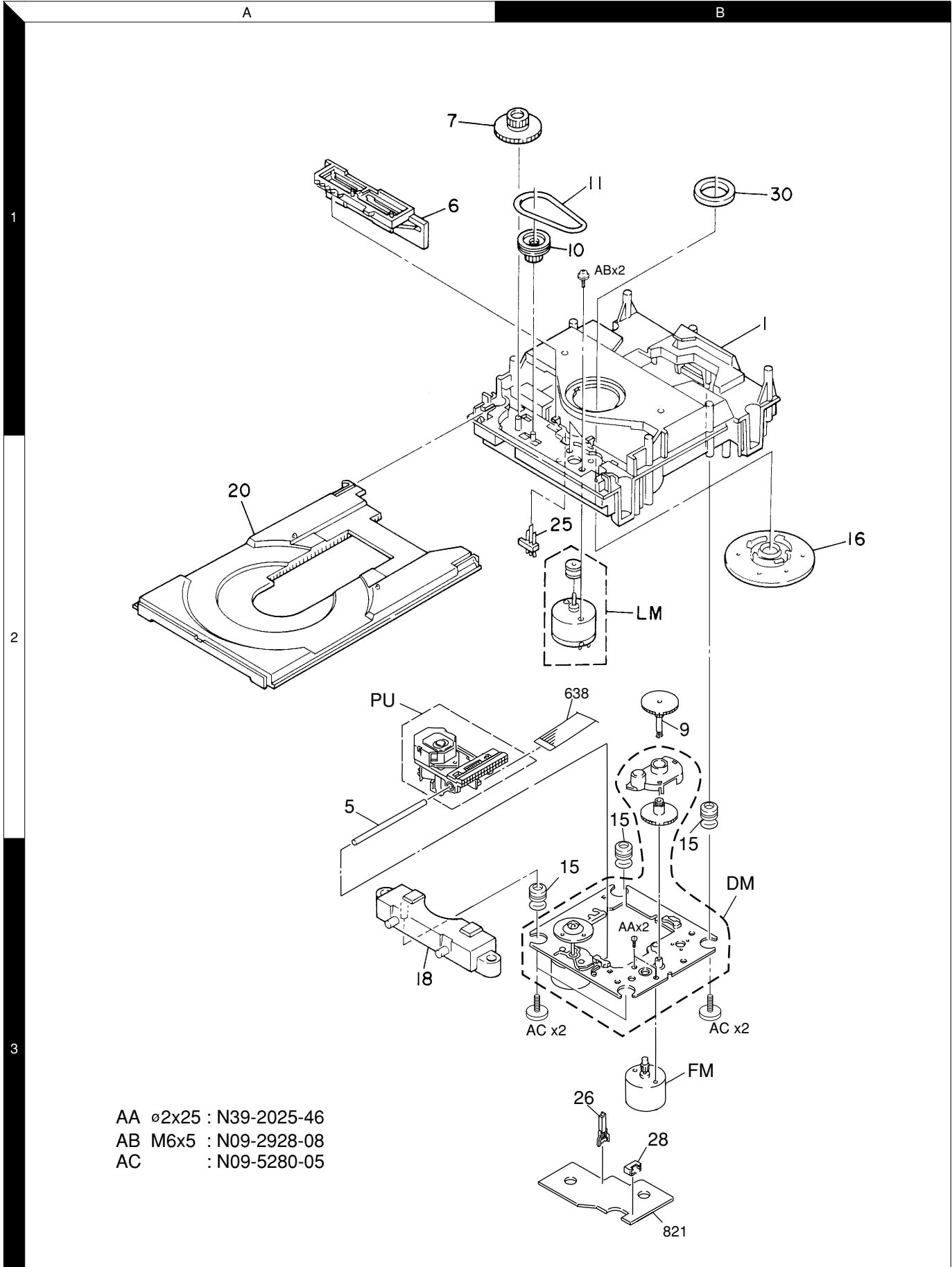






# RXD-M33/M33MD

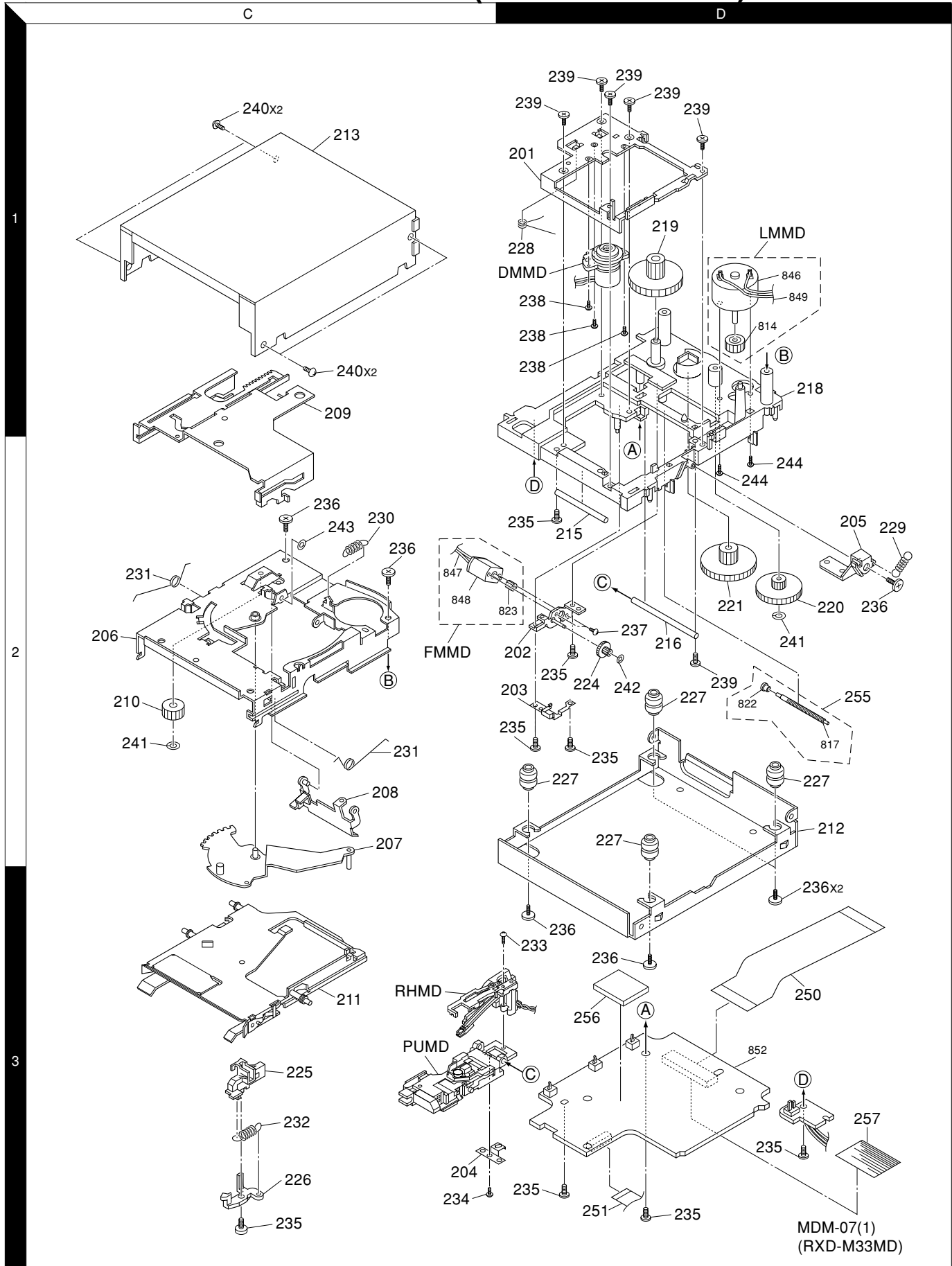
## EXPLODED VIEW(CD MECHANISM)



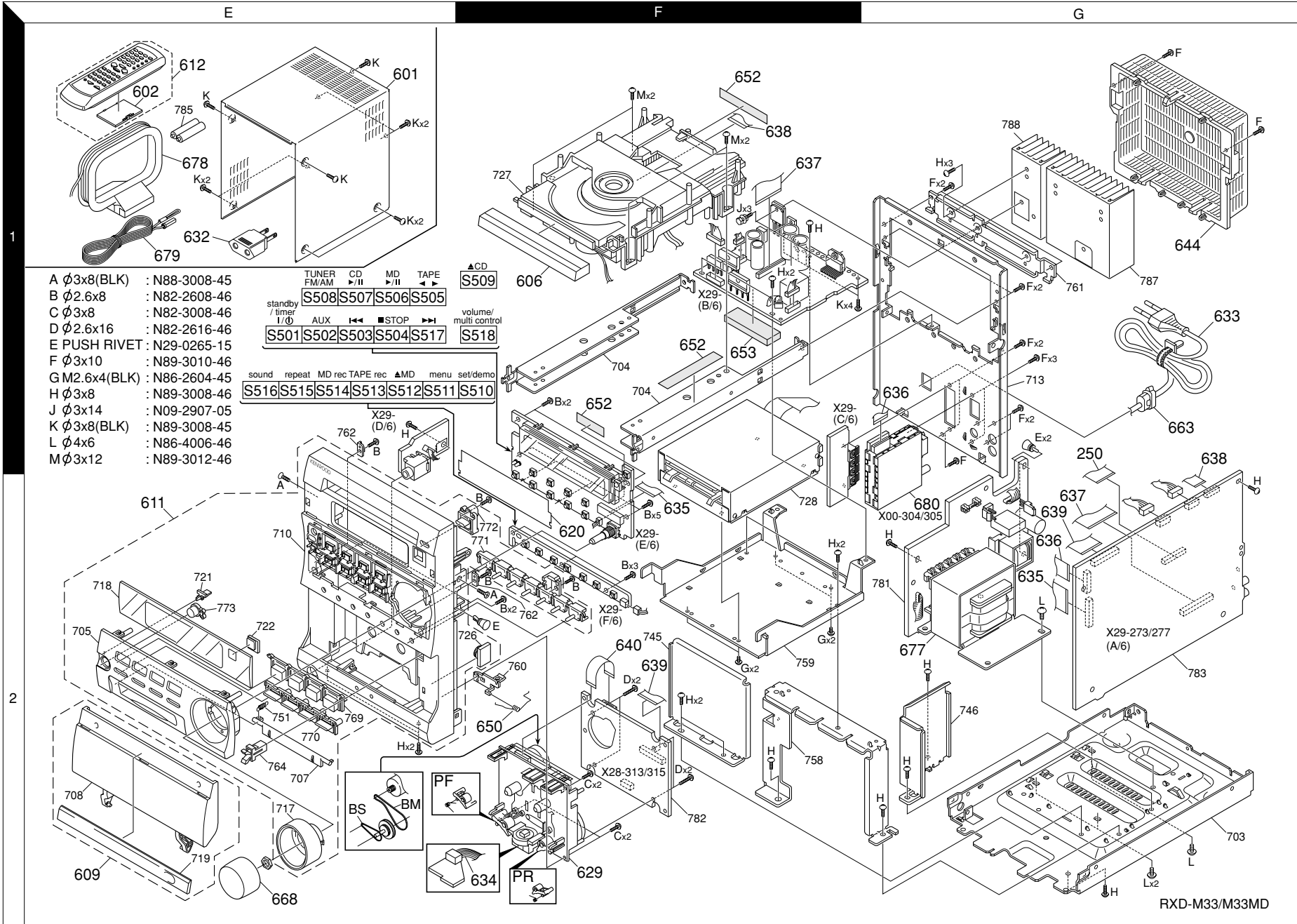
Parts with exploded numbers larger than 700 are not supplied.

# RXD-M33/M33MD

## EXPLODED VIEW (MD MECHANISM)



Parts with exploded numbers larger than 700 are not supplied.



RXD-M33/M33MD

**EXPLODED VIEW (UNIT)**  
**RXD-M33/M33MD**

\* New Parts  
Parts without **Parts No.** are not supplied.  
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.  
Teile ohne **Parts No.** werden nicht geliefert.

①

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
<b>RXD-M33MD-S/L/N</b>						
601	1E	*	A01-3799-01	METALLIC CABINET	MIXTEH	S,L
601	1E	*	A01-3799-01	METALLIC CABINET	V2	N
601	1E	*	A01-3812-01	METALLIC CABINET	MT	N
602	1E	*	A09-1151-08	BATTERY COVER		
606	1F	*	A29-1126-03	PANEL (CD)	MIXTEH	S,L
606	1F	*	A29-1126-03	PANEL (CD)	V2	N
606	1F	*	A29-1146-03	PANEL (CD)	MT	N
609	2E	*	A53-2262-08	CASSETTE HOLDER ASSY	V2	N
609	2E	*	A53-2256-08	CASSETTE HOLDER ASSY	MIXTE	S
609	2E	*	A53-2258-08	CASSETTE HOLDER ASSY	MTH	L
609	2E	*	A53-2260-08	CASSETTE HOLDER ASSY	MT	N
611	2E	*	A60-2092-08	PANEL ASSY	MIX	S
611	2E	*	A60-2093-08	PANEL ASSY	TE	S
611	2E	*	A60-2094-08	PANEL ASSY	M	L
611	2E	*	A60-2095-08	PANEL ASSY	TH	L
611	2E	*	A60-2096-08	PANEL ASSY	M	N
611	2E	*	A60-2097-08	PANEL ASSY	T	N
611	2E	*	A60-2106-08	PANEL ASSY	V2	N
612	1E	*	A70-1491-05	REMOTE CONTROLLER ASSY	TEH	
612	1E	*	A70-1492-05	REMOTE CONTROLLER ASSY	MIXV2	
620	2F	*	B11-1530-04	COLOR FILTER		
-			B46-0096-53	WARRANTY CARD	X	
-			B46-0310-03	WARRANTY CARD	E	
-			B46-0310-03	WARRANTY CARD	T	
-			B46-0344-03	WARRANTY CARD	V2	
-			B58-0965-13	CAUTION CARD (T.XtypePL)	TX	
-			B58-0966-13	CAUTION CARD (ELMtpyePL)	MIE	
-			B58-1546-03	CAUTION CARD	V2	
-			B58-1643-04	CAUTION CARD (CASSETTE EJEC)		
-		*	B60-4926-00	INSTRUCTION MANUAL (FR)	E	
-		*	B60-4927-00	INSTRUCTION MANUAL (GE)	E	
-		*	B60-4928-00	INSTRUCTION MANUAL (NE)	E	
-		*	B60-4929-00	INSTRUCTION MANUAL (IT)	E	
-		*	B60-4930-00	INSTRUCTION MANUAL (ES)	E	
-		*	B60-4931-00	INSTRUCTION MANUAL (EN)	IXT	
-		*	B60-4931-00	INSTRUCTION MANUAL (EN)	MT	
-		*	B60-5038-00	INSTRUCTION MANUAL (SC)	V2	
629	2F	*	D40-1716-05	CASSETTE MECHANISM ASSY		
BM	2E		D16-0741-08	BELT MAIN		
BS	2E		D16-0705-08	BELT SUB		
PF	2E		D14-0380-08	PINCH ROLLER FWD		
PR	2F		D14-0381-08	PINCH ROLLER RVS		
632	1E		E03-0115-05	AC PLUG ADAPTER	M	
△ 633	1G		E30-2717-05	AC POWER CORD	X	
△ 633	1G		E30-2824-15	AC POWER CORD	V2	
△ 633	1G		E30-2829-05	AC POWER CORD	T	
△ 633	1G		E30-2942-05	AC POWER CORD	IE	
△ 633	1G		E30-2942-05	AC POWER CORD	M	
△ 633	1G		E30-2950-05	AC POWER CORD	H	
634	2F		E35-2716-05	WIRING HARNESS (CAS HEAD)		
635	2F,2G	*	E35-2791-15	FLAT CABLE (21P)		
636	1G,2G	*	E35-2792-05	FLAT CABLE (15P)		
637	1F,2G	*	E35-2793-05	FLAT CABLE (27P)		

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia  
 Y : PX(Far East,Hawaii) T : England E : Europe G : Germany V : China(Shanghai)  
 Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas △ indicates safety critical components .  
 S : Silver L : Blue N : Gold

\* New Parts  
Parts without **Parts No.** are not supplied.  
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Teile ohne **Parts No.** werden nicht geliefert.

②

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
638	1F,1G	*	E35-2794-15	FLAT CABLE (16P)		
639	2F,2G	*	E35-2825-05	FLAT CABLE (23P)		
640	2F	*	E35-2874-05	FLAT CABLE (12P)		
644	1G	*	F07-1728-02	COVER		
650	2F	*	G01-4246-04	TORSION COIL SPRING		
652	1F	*	G10-0536-04	NON-WOVEN FABRIC		
653	1F	*	G11-2795-04	CUSHION		
-		*	H10-7735-02	POLYSTYRENE FOAMED FIXTURE	MIXHV2	
-		*	H10-7736-02	POLYSTYRENE FOAMED FIXTURE	MIXHV2	
-		*	H10-7737-02	POLYSTYRENE FOAMED FIXTURE	TE	
-		*	H10-7738-02	POLYSTYRENE FOAMED FIXTURE	TE	
-		*	H12-3541-04	PACKING FIXTURE	MIXH	
-		*	H25-1642-04	PROTECTION BAG		
-		*	H25-1694-04	PROTECTION BAG	TEHV2	
-		*	H25-1695-04	PROTECTION BAG		
-		*	H25-1695-04	PROTECTION BAG	MI	
-		*	H50-4005-14	ITEM CARTON CASE	T	S
-		*	H50-4006-04	ITEM CARTON CASE	T	L
-		*	H50-4007-14	ITEM CARTON CASE	T	N
-		*	H50-4008-14	ITEM CARTON CASE	E	S
△ 663	1G	*	J42-0083-05	POWER CORD BUSHING	V2	
△ 663	1G	*	J42-0349-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND (CD MECHA)		
668	2E	*	K29-7907-04	KNOB		
△ 677	2G	*	L07-2964-05	POWER TRANSFORMER	TEH	
△ 677	2G	*	L07-2967-05	POWER TRANSFORMER	IX	
△ 677	2G	*	L07-2969-05	POWER TRANSFORMER	M	
△ 677	2G	*	L07-2970-05	POWER TRANSFORMER	V2	
678	1F		T90-0852-05	LOOP ANTENNA		
679	1F	*	T90-0877-05	LEAD WIRE ANTENNA		
680	2G	*	W02-2783-05	TUNER ASSY	MIXV2	
680	2G	*	W02-2784-05	TUNER ASSY	TEH	
<b>RXD-M33-S/L/N (T,E,H,E2)</b>						
601	1E	*	A01-3799-01	METALLIC CABINET	E2	S,L
601	1E	*	A01-3799-01	METALLIC CABINET	H1T1E1	S,L
601	1E	*	A01-3812-01	METALLIC CABINET	T1E1E2	N
602	1E	*	A09-1151-08	BATTERY COVER		
606	1F	*	A29-1126-03	PANEL	E2	S,L
606	1F	*	A29-1146-03	PANEL	H1T1E1	S,L
609	2E	*	A53-2257-08	CASSETTE HOLDER ASSY	T1E1E2	N
609	2E	*	A53-2257-08	CASSETTE HOLDER ASSY	E2	S
609	2E	*	A53-2258-08	CASSETTE HOLDER ASSY	H1T1E1	S
609	2E	*	A53-2259-08	CASSETTE HOLDER ASSY	E2	L
609	2E	*	A53-2259-08	CASSETTE HOLDER ASSY	H1T1E1	L
609	2E	*	A53-2261-08	CASSETTE HOLDER ASSY	T1E1E2	N
611	2E	*	A60-2100-08	PANEL ASSY	E2	S
611	2E	*	A60-2100-08	PANEL ASSY	H1T1E1	S

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia  
 Y : PX(Far East,Hawaii) T : England E : Europe G : Germany V : China(Shanghai)  
 Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas △ indicates safety critical components .

PARTS LIST

RXD-M33/M33MD

\* New Parts  
Parts without **Parts No.** are not supplied.  
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Teile ohne **Parts No.** werden nicht geliefert.

③

Ref. No	Address	New Parts	Parts No.	Description	Destination	Remarks
611	2E	*	A60-2101-08	PANEL ASSY	E2	L
611	2E	*	A60-2101-08	PANEL ASSY	H1T1E1	L
611	2E	*	A60-2105-08	PANEL ASSY	T1E1E2	N
612	1E	*	A70-1494-05	REMOTE CONTROLLER ASSY		
620	2F	*	B11-1530-04	COLOR FILTER		
-			B46-0310-03	WARRANTY CARD	T1E1E2	
-			B58-0965-13	CAUTION CARD (T,XtypePL)	T1	
-			B58-0966-13	CAUTION CARD (ELMtypePL)	E1E2	
-			B58-1643-04	CAUTION CARD (CASSETTE EJEC)		
-		*	B60-4976-00	INSTRUCTION MANUAL (EN)	T1E1E2	
-		*	B60-4977-00	INSTRUCTION MANUAL (FR)	E1	
-		*	B60-4978-00	INSTRUCTION MANUAL (GE)	E1	
-		*	B60-4979-00	INSTRUCTION MANUAL (NE)	E1	
-		*	B60-4980-00	INSTRUCTION MANUAL (IT)	E1	
-		*	B60-4981-00	INSTRUCTION MANUAL (ES)	E1	
-		*	B60-4984-00	INSTRUCTION MANUAL (PL)	E2	
-		*	B60-4985-00	INSTRUCTION MANUAL (HU)	E2	
-		*	B60-4986-00	INSTRUCTION MANUAL (CZ)	E2	
-		*	B60-4987-00	INSTRUCTION MANUAL (RU)	E2	
629	2F	*	D40-1716-05	CASSETTE MECHANISM ASSY		
BM	2E		D16-0741-08	BELT MAIN		
BS	2E		D16-0705-08	BELT SUB		
PF	2E		D14-0380-08	PINCH ROLLER FWD		
PR	2F		D14-0381-08	PINCH ROLLER RVS		
△	1G		E30-2829-05	AC POWER CORD	T1	
△	1G		E30-2942-05	AC POWER CORD	E1E2	
△	1G		E30-2950-05	AC POWER CORD	H1	
634	2F		E35-2716-05	WIRING HARNESS		
635	2F,2G	*	E35-2791-15	FLAT CABLE (21P)		
636	1G,2G	*	E35-2792-05	FLAT CABLE (15P)		
637	1F,2G	*	E35-2793-05	FLAT CABLE (27P)		
638	1F,1G	*	E35-2794-15	FLAT CABLE (16P)		
639	2F,2G	*	E35-2825-05	FLAT CABLE (23P)		
640	2F	*	E35-2874-05	FLAT CABLE (12P)		
644	1G	*	F07-1728-02	COVER		
650	2F	*	G01-4246-04	TORSION COIL SPRING		
652	1F	*	G10-0536-04	NON-WOVEN FABRIC		
-		*	H10-7735-02	POLYSTYRENE FOAMED FIXTURE	H1	
-		*	H10-7736-02	POLYSTYRENE FOAMED FIXTURE	H1	
-		*	H10-7737-02	POLYSTYRENE FOAMED FIXTURE	T1E1E2	
-		*	H10-7738-02	POLYSTYRENE FOAMED FIXTURE	T1E1E2	
-		*	H12-3541-04	PACKING FIXTURE	H1	
-		*	H25-1642-04	PROTECTION BAG		
-		*	H25-1694-04	PROTECTION BAG		
-		*	H50-4009-14	ITEM CARTON CASE	E1	S
-		*	H50-4010-04	ITEM CARTON CASE	E1	L
-		*	H50-4076-14	ITEM CARTON CASE	E1	M
-		*	H50-4077-14	ITEM CARTON CASE	T1	S
-		*	H50-4078-04	ITEM CARTON CASE	T1	L
-		*	H50-4079-14	ITEM CARTON CASE	T1	M
-		*	H50-4080-14	ITEM CARTON CASE	E2	S
-		*	H50-4081-04	ITEM CARTON CASE	E2	L
-		*	H50-4110-14	ITEM CARTON CASE	E2	N

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④

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-		*	H60-1052-14	OUTER CARTON CASE	H1	S
-		*	H60-1053-04	OUTER CARTON CASE	H1	L
△	663	1G	J42-0349-05 J61-0307-05	POWER CORD BUSHING WIRE BAND (CD MECHA)		
668	2E	*	K29-7907-04	KNOB		
△	677	2G	L07-2964-05	POWER TRANSFORMER		
678	1F	*	T90-0852-05	LOOP ANTENNA		
679	1F	*	T90-0877-05	LEAD WIRE ANTENNA		
680	2G	*	W02-2781-05	TUNER ASSY		
680	2G	*	W02-2784-05	TUNER ASSY		
<b>RXD-M33-S/L/N (K,P,M,I,X,M2,V2)</b>						
601	1E	*	A01-3799-01	METALLIC CABINET	I1X1V1	S,L
601	1E	*	A01-3799-01	METALLIC CABINET	KPM1M2	S,L
601	1E	*	A01-3812-01	METALLIC CABINET	M1M2	N
602	1E	*	A09-1151-08	BATTERY COVER		
606	1F	*	A29-1126-03	PANEL	I1X1V1	S,L
606	1F	*	A29-1146-03	PANEL	KPM1M2	S,L
609	2E	*	A53-2257-08	CASSETTE HOLDER ASSY	M1M2	N
609	2E	*	A53-2257-08	CASSETTE HOLDER ASSY	KP	S
609	2E	*	A53-2259-08	CASSETTE HOLDER ASSY	M11X1	S
609	2E	*	A53-2259-08	CASSETTE HOLDER ASSY	I1X1V1	L
609	2E	*	A53-2259-08	CASSETTE HOLDER ASSY	KPM1M2	L
609	2E	*	A53-2261-08	CASSETTE HOLDER ASSY	M1M2	N
611	2E	*	A60-2098-08	PANEL ASSY	KP	S
611	2E	*	A60-2099-08	PANEL ASSY	M11X1	S
611	2E	*	A60-2101-08	PANEL ASSY	KP	L
611	2E	*	A60-2102-08	PANEL ASSY	M11X1	L
611	2E	*	A60-2102-08	PANEL ASSY	M2	L
611	2E	*	A60-2104-08	PANEL ASSY	M1M2	L
611	2E	*	A60-2107-08	PANEL ASSY	M1M2	N
612	1E	*	A70-1493-05	REMOTE CONTROLLER ASSY	V1	L
620	2F	*	B11-1530-04	COLOR FILTER		
-			B46-0096-53	WARRANTY CARD	X1	
-			B46-0197-00	QUESTIONNAIRE CARD	K	
-			B46-0328-03	WARRANTY CARD	K	
-			B46-0344-03	WARRANTY CARD	V1	
-			B46-0347-03	WARRANTY CARD	P	
-			B58-0964-13	CAUTION CARD (UL)	K	
-			B58-0965-13	CAUTION CARD (T,XtypePL)	X1	
-			B58-0966-13	CAUTION CARD (ELMtypePL)	M1M211	
-			B58-0967-03	CAUTION CARD (PtypePL)	P	
-			B58-1546-03	CAUTION CARD	V1	
-			B58-1643-04	CAUTION CARD (CASSETTE EJEC)		
-			B58-1674-03	CAUTION CARD (P1,PRA,A4,1)	K	
-		*	B60-4976-00	INSTRUCTION MANUAL (EN)		
-		*	B60-4977-00	INSTRUCTION MANUAL (FR)	P	
-		*	B60-4981-00	INSTRUCTION MANUAL (ES)	M1	
-		*	B60-4982-00	INSTRUCTION MANUAL (AR)	M1	
-		*	B60-4983-00	INSTRUCTION MANUAL (TC)	M1	
-		*	B60-5039-00	INSTRUCTION MANUAL (SC)	V1	
629	2F	*	D40-1716-05	CASSETTE MECHANISM ASSY		

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BM	2E		D16-0741-08	BELT MAIN		
BS	2E		D16-0705-08	BELT SUB		
PF	2E		D14-0380-08	PINCH ROLLER FWD		
PR	2F		D14-0381-08	PINCH ROLLER RVS		
△ 632	1E		E03-0115-05	AC PLUG ADAPTER	M1M2	
△ 633	1G		E30-2717-05	AC POWER CORD	X1	
△ 633	1G		E30-2824-15	AC POWER CORD	V1	
△ 633	1G		E30-2941-05	AC POWER CORD	KP	
△ 633	1G		E30-2942-05	AC POWER CORD	M1M211	
634	2F		E35-2716-05	WIRING HARNESS		
635	2F,2G	*	E35-2791-15	FLAT CABLE (21P)		
636	1G,2G	*	E35-2792-05	FLAT CABLE (15P)		
637	1F,2G	*	E35-2793-05	FLAT CABLE (27P)		
638	1F,1G	*	E35-2794-15	FLAT CABLE (16P)		
639	2F,2G	*	E35-2825-05	FLAT CABLE (23P)		
640	2F	*	E35-2874-05	FLAT CABLE (12P)		
644	1G	*	F07-1728-02	COVER		
650	2F	*	G01-4246-04	TORSION COIL SPRING		
652	1F	*	G10-0536-04	NON-WOVEN FABRIC		
-		*	H10-7735-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H10-7736-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H12-3541-04	PACKING FIXTURE		
-		*	H25-1642-04	PROTECTION BAG		
-		*	H25-1694-04	PROTECTION BAG	KPX1	
-		*	H25-1695-04	PROTECTION BAG	M1M211	
△ 663	1G	*	J42-0083-05	POWER CORD BUSHING	V1	
△ 663	1G	*	J42-0349-05	POWER CORD BUSHING		
-		*	J61-0307-05	WIRE BAND (CD MECKA)		
668	2E	*	K29-7907-04	KNOB		
△ 677	2G	*	L07-2963-05	POWER TRANSFORMER	KP	
△ 677	2G	*	L07-2966-05	POWER TRANSFORMER	M111	
△ 677	2G	*	L07-2967-05	POWER TRANSFORMER	X1	
△ 677	2G	*	L07-2971-05	POWER TRANSFORMER	V1	
△ 677	2G	*	L07-2988-05	POWER TRANSFORMER	M2	
678	1F		T90-0852-05	LOOP ANTENNA		
679	1F	*	T90-0877-05	LEAD WIRE ANTENNA		
680	2G	*	W02-2780-05	TUNER ASSY		
680	2G	*	W02-2783-05	TUNER ASSY		
<b>POWER SUPPLY UNIT (X00-3000-25)</b>						
CN1			E40-8386-05	PIN ASSY	M111M2	
△ F3			F06-1022-05	FUSE (SEMKO) (250V T1AL)	M111M2	
CN2 ,3			J13-0075-05	FUSE CLIP	M111M2	
△ S1			S62-0001-05	SLIDE SWITCH	M111M2	

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<b>POWER SUPPLY UNIT (X00-304X/305X-XX)</b>						
C1			CE04LW1E332M	ELECTRO	3300UF	25WV
C2			CQ93FMG1H563J	MYLAR	0.056UF	J
C3			CK45FB1H102K	CERAMIC	1000PF	K
C3			CK45FB1H102K	CERAMIC	1000PF	K
C3			CK45FB1H102K	CERAMIC	1000PF	K
C4			CE04LW1A101M	ELECTRO	100UF	10WV
C5			CE04LW1H2R2M	ELECTRO	2.2UF	50WV
C9			CQ93FMG1H473J	MYLAR	0.047UF	J
C10			CE04KW1H010M	ELECTRO	1.0UF	50WV
CN1			E40-4245-05	PIN ASSY		
CN3			E40-4428-05	PIN ASSY		
P1			E23-0378-05	TERMINAL		
W1 ,2			E31-0001-00	JUMPER WIRE		
W1 ,2			E31-0002-00	JUMPER WIRE		
W1 ,2			E31-0002-00	JUMPER WIRE	KPX1	
W5			E31-0002-00	JUMPER WIRE	KP	
△ F1			F06-1022-05	FUSE (SEMKO) (250V T1AL)		56
△ F1			F06-1022-05	FUSE (SEMKO) (250V T1AL)	M111M2	8
△ F1			F06-1022-05	FUSE (SEMKO) (250V T1AL)	X1	8
△ F1			F50-0069-05	FUSE (5X20)	KP	8
△ F1			F50-0108-05	FUSE (5X20) (250V T1AL)		9
CN4 ,5			J13-0075-05	FUSE CLIP		
△ T1			L07-2758-05	POWER TRANSFORMER	KP	9
△ T1			L07-2758-05	POWER TRANSFORMER		8
△ T1			L07-2805-05	POWER TRANSFORMER	M111M2	8
△ T1			L07-2858-05	POWER TRANSFORMER		56
△ T1			L07-2858-05	POWER TRANSFORMER	X1	8
R1			RD14BB2C103J	RD	10K	J 1/6W
R1			RD14BB2C103J	RD	10K	J 1/6W
R1			RD14BB2C223J	RD	22K	J 1/6W
R1			RD14BB2C224J	RD	220K	J 1/6W
R1			RD14BB2C513J	RD	51K	J 1/6W
R3			RS14KB3D820J	FL-PROOF RS	82	J 2W
△ R4			R92-1844-05			KP
△ K1			S76-0102-05	MAGNETIC RELAY		
△ D1			S12B20(4101)	DIODE	DIODE	
△ D1			S12B20(4101)	DIODE	DIODE	M111M2
D2 -7			HSS104A	DIODE		
D2 -7			1SS133	DIODE		
D8			S5688B	DIODE		
△ D9			RB721Q	DIODE		
△ D10 -13			HSS104A	DIODE		
△ D10 -13			HSS104A	DIODE		
△ D10 -13			1SS133	DIODE		
△ D10 -13			1SS133	DIODE		
IC1			BA05T	ANALOGUE IC		
Q1			DTC113ZSA	DIGITAL TRANSISTOR		
Q1			UN4219	DIGITAL TRANSISTOR		
Q2			2SA1175(F,E)	TRANSISTOR		
Q2			2SA933AS(Q,R)	TRANSISTOR		

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<b>RECORD/PLAYBACK UNIT (X28-313X/315X-XX)</b>						
C1 ,2 C3 ,4 C5 ,6 C7 ,8 C9 ,10			CC73GCH1H681J CQ93FMG1H822J CQ93FMG1H393J CE04LW1H100M CE04LW1HR22M	CHIP C MYLAR MYLAR ELECTRO ELECTRO	680PF 8200PF 0.039UF 10UF 0.22UF	J J J 50WV 50WV
C11 ,12 C13 ,14 C15 ,16 C17 ,18 C19 ,20			CE04LW1H4R7M CE04LW1H100M CC45FSL1H271J CC73GCH1H221J CE04LW1H4R7M	ELECTRO ELECTRO CERAMIC CHIP C ELECTRO	4.7UF 10UF 270PF 220PF 4.7UF	50WV 50WV J J 50WV
C21 ,22 C23 ,24 C23 ,24 C100 C101			CK73GB1H472K CC73GCH1H221J CC73GCH1H221J CE04PW1A101M CE04PW1H010M	CHIP C CHIP C CHIP C ELECTRO ELECTRO	4700PF 220PF 220PF 100UF 1UF	K J J 10WV 50WV
C102 C103 C104 C105 C106			CE04PW1H4R7M CE04PW1E470M CE04PW1H4R7M CE04PW1H010M CE04PW1H100M	ELECTRO ELECTRO ELECTRO ELECTRO ELECTRO	4.7UF 47UF 4.7UF 1UF 10UF	50WV 25WV 50WV 50WV 50WV
C107,108 C109 C110 C111 C114			CQ93FMG1H472J CQ93FMG1H183J CE04PW1E470M CQ93HP2A822J CE04PW1A101M	MYLAR MYLAR ELECTRO MYLAR ELECTRO	4700PF 0.018UF 47UF 8200PF 100UF	J J 25WV J 10WV
C115			CQ93FMG1H153J	MYLAR	0.015UF	J
CN1 CN2 CN3			E40-4910-05 E40-4937-05 E40-3250-05	FLAT CABLE CONNECTOR FLAT CABLE CONNECTOR PIN ASSY		
E1			J11-0808-05	WIRE CLAMPER		
L1 ,2 L3 L4		*	L40-1035-20 L32-1038-05 L40-1001-82	SMALL FIXED INDUCTOR(10MH,J) BIAS OSCILATING COIL SMALL FIXED INDUCTOR(10UH)		
R1 ,2 R3 ,4 R5 ,6 R7 ,8 R9 ,10			RK73GB1J224J RK73GB1J103J RK73GB1J512J RK73GB1J752J RK73GB1J472J	CHIP R CHIP R CHIP R CHIP R CHIP R	220K 10K 5.1K 7.5K 4.7K	J 1/16W J 1/16W J 1/16W J 1/16W J 1/16W
R11 ,12 R13 ,14 R15 ,16 R17 ,18 R19 ,20			RK73GB1J272J RK73GB1J432J RK73GB1J153J RK73GB1J103J RK73GB1J473J	CHIP R CHIP R CHIP R CHIP R CHIP R	2.7K 4.3K 15K 10K 47K	J 1/16W J 1/16W J 1/16W J 1/16W J 1/16W
R21 ,24 R25 ,26 R27 ,28 R27 ,28 R100			RK73GB1J105J RK73GB1J102J RD14BB2C221J RD14BB2C221J RD14NB2E4R7J	CHIP R CHIP R RD RD RD	1.0M 1.0K 220 220 4.7	J 1/16W J 1/16W J 1/6W J 1/6W J 1/4W
R101			RK73GB1J223J	CHIP R	22K	J 1/16W

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R102 R103 R104,105 R107 R109			RK73GB1J102J RK73GB1J101J RK73GB1J103J RK73GB1J103J RK73GB1J332J	CHIP R CHIP R CHIP R CHIP R CHIP R	1.0K 100 10K 10K 3.3K	J 1/16W J 1/16W J 1/16W J 1/16W J 1/16W
R110 R111,112 R113 R118,119 R120			RK73GB1J394J RK73GB1J103J RD14NB2E100J RK73GB1J473J RK73GB1J222J	CHIP R CHIP R RD CHIP R CHIP R	390K 10K 10 47K 2.2K	J 1/16W J 1/16W J 1/4W J 1/16W J 1/16W
R123 R125 VR1 ,2			RD14NB2E1R0J RK73GB1J473J R12-6013-05	RD CHIP R TRIMMING POT.(330K)	1 47K	J 1/4W J 1/16W
D1 ,2 D1 ,2 D4 IC1 Q1 ,2			HSS104A 1S5133 S5688B(TPB5) HA12230NT 2SB1424(Q,R)	DIODE DIODE DIODE ANALOGUE IC TRANSISTOR		
Q3 Q3 Q4 Q4 Q4			DTC143TSA UN4216 DTC124ESA KRC103M UN4212	DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR		9 568
Q5 -7 Q5 -7 Q8 Q8 Q9 ,10			DTC124EUA UN5212 KTC3205 2SC3940A(R,S) KTC3199(Y,GR)	DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q9 ,10 Q15 -18 Q19 Q19			2SC2785(F,E) RK7002 DTC124EUA UN5212	TRANSISTOR FET DIGITAL TRANSISTOR DIGITAL TRANSISTOR		
<b>CONTROL CIRCUIT UNIT (X29-273X/277X-XX)</b>						
D510 D511			B30-2541-05 B30-2546-05	LED(GRN3(80)) LED(RED3(80))		
C1 ,2 C3 C4 C5 ,6 C7 ,8			CE04KW1H2R2M CE04HW1E100M CE04LW1H220M CK45FB1H102K CC45FSL1H271J	ELECTRO NP-ELEC ELECTRO CERAMIC CERAMIC	2.2UF 10UF 22UF 1000PF 270PF	50WV 25WV 50WV K J
C10 C11 C11 C11 C11			CE04LW1H4R7M CE04KW1A221M CE04KW1A221M CE04LW1A221M CE04LW1A221M	ELECTRO ELECTRO ELECTRO ELECTRO ELECTRO	4.7UF 220UF 220UF 220UF 220UF	50WV 10WV 10WV 10WV 10WV
C12 C13 ,14 C17 ,18 C19 ,20 C23			CQ93FMG1H124J CK45FB1H221K CK45FB1H471K CE04HW1E100M CF92FV1H334J	MYLAR CERAMIC CERAMIC NP-ELEC MF-C	0.12UF 220PF 470PF 10UF 0.33UF	J K K 25WV J
C23 C23		*	CF92FV1H684J C91-1579-05	MF-C METALIZED FILM CAPACITOR	0.68UF	J KP

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W392			R92-0679-05	CHIP R	0 OHM	
W393			R92-0670-05	CHIP R	0 OHM	
W394,395			R92-1252-05	CHIP R	0 OHM	
W397			R92-1252-05	CHIP R	0 OHM	
W527-531			R92-0670-05	CHIP R	0 OHM	
W534			R92-0679-05	CHIP R	0 OHM	
K1			S76-0098-05	MAGNETIC RELAY		
S501-517			S70-0031-05	TACT SWITCH		
S518			T99-0634-05	ROTARY ENCODER		
D1			HZS3.9N(B)	ZENER DIODE		
D1			MTZJ3.9(B)	ZENER DIODE		
D1			RD3.9ES(B)	ZENER DIODE		
D2			MTZJ8.2(B)	ZENER DIODE		
D2			RD8.2ES(B)	ZENER DIODE		
D3 ,4			HSS104A	DIODE		
D3 ,4			1SS133	DIODE		
D5			HZS5.1N(B)	ZENER DIODE		
D5			MTZJ5.1(B)	ZENER DIODE		
D5			RD5.1ES(B)	ZENER DIODE		
D8			HSS104A	DIODE		
D8			1SS133	DIODE		
Δ D101			D3SBA20F03	DIODE		
Δ D102-104			S5688B	DIODE		
D105			HZS20N(B)	ZENER DIODE		
D105			MTZJ20(B)	ZENER DIODE		
D105			RD20ES(B)	ZENER DIODE		
D106			HZS15N(B)	ZENER DIODE		
D106			MTZJ15(B)	ZENER DIODE		
D106			RD15ES(B)	ZENER DIODE		
D107			DAP202U	DIODE		
D107			MA142WA	DIODE		
D107			1SS300	DIODE		
D108			MTZJ8.2(B)	ZENER DIODE		
D108			RD8.2ES(B)	ZENER DIODE		
D109			HSS104A	DIODE		
D109			1SS133	DIODE		
D110			HZS10N(B)	ZENER DIODE		
D110			MTZJ10(B)	ZENER DIODE		
D110			RD10ES(B)	ZENER DIODE		
D111			HSS104A	DIODE		
D111			1SS133	DIODE		
D115			HSS104A	DIODE		
D115			1SS133	DIODE		
Δ D119			D2SBA20F03	DIODE		
Δ D120			D3SBA20F03	DIODE		
D201			MA111	DIODE		
D501			HZS6.2N(B)	ZENER DIODE		
D501			MTZJ6.2(B)	ZENER DIODE		
D501			RD6.2ES(B)	ZENER DIODE		
D601			1SS402	DIODE		
D603			MA111	DIODE		
D604			HZS5.6N(B)	ZENER DIODE		
D604			MTZJ5.6(B)	ZENER DIODE		

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\* New Parts  
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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
D604			RD5.6ES(B)	ZENER DIODE		
ED501			HNA-16MM30T	FLUORESCENT INDICATOR TUBE		
IC1			LM4766T	ANALOGUE IC		
IC21		*	AN8806SBM	ANALOGUE IC		
IC22			MN662748RPFMA	MOS-IC		
IC23			AN4801SB-E1	ANALOGUE IC		
IC24			NJM4565M	ANALOGUE IC		
IC25			TA7805SB	ANALOGUE IC		
IC26			TA8409S	MOS-IC		
IC27			HD74LV1G08A	MOS-IC		5
IC27			HD74LV1G08A	MOS-IC	V2	9
IC101			TA7809SB	ANALOGUE IC		
IC102			KIA7805API	ANALOGUE IC		
IC501		*	M66005-001FP	MOS-IC		6
IC502			BU1923F	ANALOGUE IC		
IC502			BU1923F	ANALOGUE IC	HTE	5
IC601			M61510FP	ANALOGUE IC		
IC701		*	MN101C49HLC	MI-COM IC		68
IC701		*	MN101C49HLC	MI-COM IC	V1	9
IC701		*	MN101C49KLB	MI-COM IC		5
IC701		*	MN101C49KLB	MI-COM IC	V2	9
IC702			S-80840ANY	ANALOGUE IC		
Q1			2SA1576A(R,S)	TRANSISTOR		
Q1			2SB1218A(Q,R)	TRANSISTOR		
Q2 ,3			2SC2878(B)	TRANSISTOR		
Q4 ,5			2SA1576A(R,S)	TRANSISTOR		
Q4 ,5			2SB1218A(Q,R)	TRANSISTOR		
Q6 ,7			2SC4081(R,S)	TRANSISTOR		
Q6 ,7			2SD1819A(Q,R)	TRANSISTOR		
Q10			DTC113ZSA	DIGITAL TRANSISTOR		
Q10			UN4219	DIGITAL TRANSISTOR		
Δ Q101		*	2SA1534A(R,S)	TRANSISTOR		
Q102			2SD2641	TRANSISTOR		
Q103			2SC4081(R,S)	TRANSISTOR		
Q103			2SD1819A(Q,R)	TRANSISTOR		
Q104			DTC124EUA	DIGITAL TRANSISTOR		
Q104			UN5212	DIGITAL TRANSISTOR		
Q201			2SA1577(Q,R)	TRANSISTOR		
Q203			2SC4081(R,S)	TRANSISTOR		
Q203			2SC4081(R,S)	TRANSISTOR	V2	5 9
Q203			2SD1819A(Q,R)	TRANSISTOR		
Q203			2SD1819A(Q,R)	TRANSISTOR	V2	5 9
Q204			DTC124EUA	DIGITAL TRANSISTOR		
Q204			UN5212	DIGITAL TRANSISTOR		
Δ Q205			2SA1286-T11	TRANSISTOR		
Q206			2SA1577(Q,R)	TRANSISTOR		
Q207			2SC4081(R,S)	TRANSISTOR		
Q207			2SD1819A(Q,R)	TRANSISTOR		
Q501,502			HN1C01F	DUAL TRANSISTOR		
Q503			2SC4081(R,S)	TRANSISTOR		
Q503			2SD1819A(Q,R)	TRANSISTOR		
Q601			2SC4081(R,S)	TRANSISTOR		
Q601			2SD1819A(Q,R)	TRANSISTOR		
Q602			2SD1664(Q,R)	TRANSISTOR		
Q602			2SD1963(R,S)	TRANSISTOR		568

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## HOW TO READ THE PARTS LIST

## ABBREVIATION OF MODEL AND MASS PRODUCTION'S DESTINATIONS

MODEL	ABB.	Australia	Canada	China	England	Europe	Germany	Korea	Malaysia
RXD-M33MD-S/L/N	5	-	-	-	T	-	-	-	-
RXD-M33MD-S		X	-	-	-	E	-	-	I
RXD-M33MD-L		-	-	-	-	-	-	H	-
RXD-M33-S/L/N	6	-	-	-	T1	E1	-	-	-
RXD-M33-S/L		-	-	-	-	-	H1	-	-
RXD-M33E-S/L/N		-	-	-	-	E2	-	-	-
RXD-M33-S/L	8	X1	P	-	-	-	-	-	I1
RXD-M33-N		-	-	-	-	-	-	-	-
RXD-M33-L/N(M2)		-	-	-	-	-	-	-	-
RXD-M33-L	9	-	-	-	-	-	-	-	-
RXD-M33MD-N		-	-	-	-	-	-	-	-
MODEL	ABB.	Mexico	PX/AAFES	Russia	Scandinavia	Shanghai	USA	Other area	
RXD-M33MD-S/L/N	5	-	-	-	-	-	-	M	-
RXD-M33MD-S		-	-	-	-	-	-	-	-
RXD-M33MD-L		-	-	-	-	-	-	-	-
RXD-M33-S/L/N	6	-	-	-	-	-	-	-	-
RXD-M33-S/L		-	-	-	-	-	-	-	-
RXD-M33E-S/L/N		-	-	-	-	-	-	-	-
RXD-M33-S/L	8	-	-	-	-	-	K	M1	-
RXD-M33-N		-	-	-	-	-	-	M1	-
RXD-M33-L/N(M2)		-	-	-	-	-	-	M2	-
RXD-M33-L	9	-	-	-	-	V1	-	-	-
RXD-M33MD-N		-	-	-	-	V2	-	-	-

\* New Parts

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
225	3C		D10-3964-08	SLIDER	LOAD	
226	3C		D10-3965-08	ARM	LOAD	
227	2D		J02-1492-08	INSULATOR		
228	1D		G01-4230-08	TORSION SPRING SPM		
229	2D		G01-4231-08	TENSION SPRING		
230	2C		G01-4235-08	TENSION SPRING		
231	2C		G01-4233-08	TORSION SPRING		
232	3C		G01-4234-08	TENSION SPRING		
233	3D		N39-1745-46	SCREW	M1.7X4.5	
234	3C		N09-3104-05	SCREW	M1.7X2	
235	3C,2D		N09-3279-05	SCREW	M1.7X3	
236	2C,2D		N09-5113-08	SCREW	1.7X7	
237	2D		N09-5229-08	SCREW	1.4X1.8	
238	1D		N09-5230-08	SCREW	1.4X2.2	
239	1D,2D		N09-5231-08	SCREW	1.7X4	
240	1C		N86-2004-46	SCREW	2X4	
241	2C,2D		N19-0366-04	FLAT WASHER	2.1X4X0.5	
242	2D		N19-1511-08	FLAT WASHER	2.5X0.9X0.25	
243	2C		N19-1171-04	FLAT WASHER	1.6X3.5X0.25	
244	2D		N09-5285-08	SCREW	M1.7X4.5	
250	3D,2G	*	E35-2824-08	FLAT CABLE		
251	3D		E35-2348-18	FLAT CABLE	PU,21P	
255	2D		D13-2506-08	GEAR ASSY		
256	3D		G16-1236-08	SHEET		
257	3D		G11-2825-08	TAPE		
DMMD	1D		T42-0983-05	MOTOR ASSY		
FMMD	2C		T42-0985-08	MOTOR ASSY	FEED	
LMMD	1D		T42-0984-08	MOTOR ASSY	LOAD	
PUMD	3C		T25-0085-05	PICKUP		
RHMD	3C		T30-0027-05	RECORD HEAD		

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# RXD-M33/M33MD

## SPECIFICATIONS

### Main unit

#### [Amplifier section]

(For U.S.A. and Canada)

Rated output power during STEREO operation (FTC)

21 watts per channel minimum RMS, both channels driven, at 6  $\Omega$  from 90 Hz to 15 kHz with no more than 10 % total harmonic distortion.

(For U.K. and Europe)

Effective output power during STEREO operation

(1 kHz, 10% T.H.D., at 6  $\Omega$ )..... 25 W + 25 W

Rated output power during STEREO operation

(1 kHz, 0.7% T.H.D., at 6  $\Omega$ )..... 18 W + 18 W

(For Singapore)

Rated output power during STEREO operation

(1 kHz, 10% T.H.D., at 6  $\Omega$ )..... 20 W + 20 W

(For other countries)

Rated output power during STEREO operation

(1 kHz, 10% T.H.D., at 6  $\Omega$ )..... 25 W + 25 W

Frequency response

AUX..... 40 Hz~50 kHz (0 dB ~ -3dB)

#### [Tuner section]

FM tuner section

Tuning frequency range.....87.5 MHz ~ 108 MHz

MW (AM) tuner section

(For U.S.A. and Canada)

Tuning frequency range .....530 kHz ~ 1,700 kHz

(For U.K. and Europe)

Tuning frequency range .....531 kHz ~ 1,602 kHz

(For Australia)

Tuning frequency range .....531 kHz ~ 1,602 kHz

(For other countries)

Tuning frequency range

9 kHz step.....531 kHz ~ 1,602 kHz

10 kHz step.....530 kHz ~ 1,610 kHz



KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.  
• Sufficient performance may not be exhibited at extremely cold locations (where water freezes).

#### [CD player section]

Laser ..... Semiconductor laser

Over sampling ..... 8 fs (352.8 Hz)

Laser wave length ..... 760 to 800 nm

Laser power class..... Class 3A (IEC)

D/A Conversion ..... 1 Bit

#### [Cassette deck section]

Track ..... 4-track, 2-channel stereo

Recording system ..... AC bias system

(Frequency: 105 kHz)

Heads

Playback/ recording head ..... 1

Erasing head ..... 1

Motor ..... 1

Wow and flutter ..... 0.2 % (W.R.M.S.)

Fast winding time ..... Approx. 110 seconds  
(C-60 tape)

#### [General]

Power consumption

(For U.S.A., Canada and Singapore) ..... 70 W

(For other countries)..... 80 W

Dimensions..... W : 180 mm (7-1/16")

H : 255 mm (8-7/16")

D : 317 mm (12-7/16")

Weight (net)..... 5.1 kg (11.2 lb)

#### Note:

Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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