

DMF-3020/3020(S)/5020

MD-203

SERVICE MANUAL

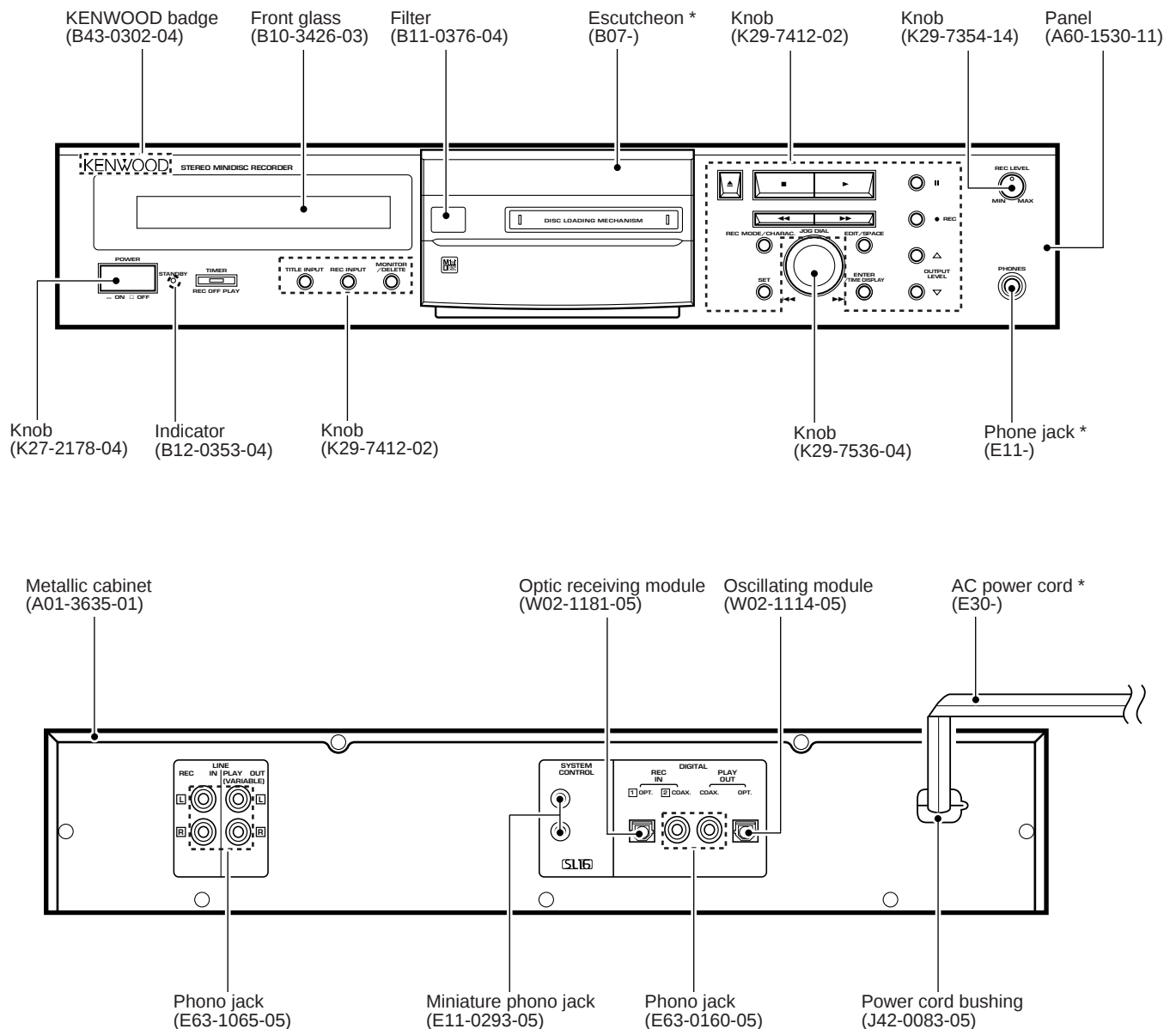


Illustration is DMF-3020.

*** Refer to parts list on page 23.**

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

Refer to 1050MD/DM-5090/DM-9090 service manual (B51-5387-00) if you see the mechanism test mode.

KENWOOD-Corp. certifies this equipment conforms to DHHS Regulation No.21 CFR 1040.10, Chapter 1, Subchapter J.

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

CONTENTS/ACCESSORIES/CAUTIONS

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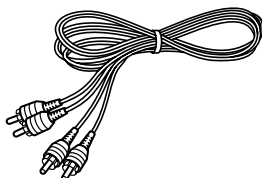
Refer to the Service manual, if you see the IC40, 41 on the X25 (PCB)

PCB	Ref No.	Parts No.	Refer to Service manual	Parts No.	Page
X25	IC40	KAN06	DV-203/2070, DVF-5010/9010/K7010	B51-5456-00	20
X25	IC41	PCM1716E	DV-203/2070, DVF-5010/9010/K7010	B51-5456-00	21

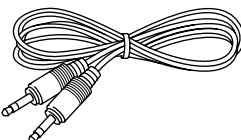
Accessories

Check that the following accessories are present.

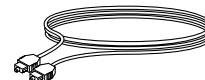
Audio cord (2)
(E30-0505-05)



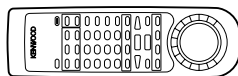
System control cord (1)
(E30-2733-05)



Optical fiber cable (1)
(B19-1529-05)

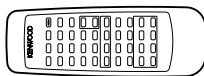


Remote control unit (1)
RC-M0705 (For DMF-5020)
(A70-1238-05)



Battery cover (A09-1116-08)

Remote control unit (1)
RC-M0302 (For DMF-3020/MD-203)
(A70-1239-05)



Battery cover (A09-0374-08)

Batteries (2)
R03 ("AAA"-size) batteries (For RC-M0705)
R6 ("AA"-size) batteries (For RC-M0302)



Cautions

Note related to transportation and movement

Before transporting or moving this unit, carry out the following operations.

1. Set the **POWER** key to **ON** without loading a Mini Disc.
 - Check that no disc is present in the unit.
2. Wait a few seconds and verify that the display shown appears.
3. Set the **POWER** key to **OFF**.

NO DISC

Operation to reset

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

With the **POWER key left to ON, unplug the power cord from the power outlet then, while holding the eject (▲) key depressed, plug the power cord again.**

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

Caution on condensation

Condensation (of dew) may occur inside the unit when there is a great difference in temperature between this unit and the outside. This unit may not function properly if condensation occurs. In this case, leave the unit for a few hours with the power left ON, and restart the operation after the condensation has dried up.

Be specially cautious against condensation in a following circumstance:

When this unit is carried from a place to another across a large difference in temperature, when the humidity in the room where this unit is installed increases, etc.

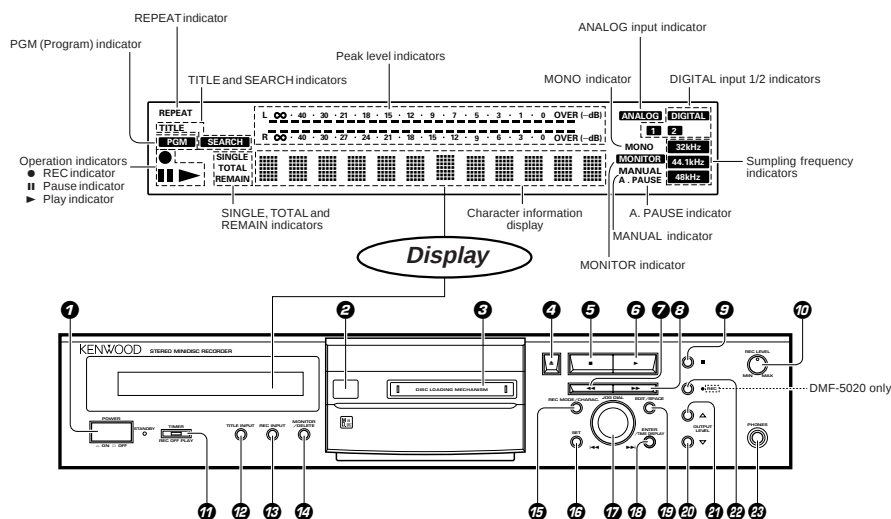
Memory backup

The typical period for which the memory can be backed up while the power cord is unplugged or the **POWER** key is set to the **OFF** position is about 3 weeks, though this may be variable depending on the surrounding environment.

In case of long hours of power failure or slipping out of the power cord, the data related to recording and editing (that is usually recorded at the moment the Mini Disc is ejected) may be cleared or destroyed before it is written in the Mini Disc. Remember that the data lost cannot be recovered.

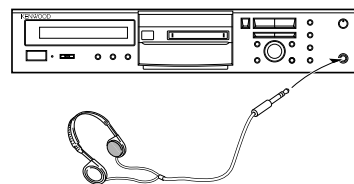
After recording or editing, be sure to eject the Mini Disc so that the recording or editing data can be written in the disc.

Display / Main unit



Listening through headphones

Plug the stereo headphones (with standard-plug) available in audio stores into the **PHONES** jack and adjust the listening volume with the **OUTPUT LEVEL** control on the front panel. The default value is 0 dB (maximum volume).



Standby mode

While the standby indicator of the unit is lit, a small amount of current is flowing into the unit's internal circuitry to back up the memory. This condition is referred to as the standby mode of the unit. While the unit is in the standby mode, it can be turned ON from the remote control unit.

Description of main unit keys

1 POWER key

- : Press to turn the unit ON and OFF.
- : The unit may enter the standby mode when the **POWER** key is pressed to turn it ON. This is because the unit holds the memory that it has been put to the standby mode by the remote control unit in the last operation.

2 Remote control sensor

3 Mini Disc insertion slot

- : When a Mini Disc is inserted while the unit is in the standby mode, it is turned ON automatically.

4 Eject (▲) key

- : Press to eject the Mini Disc.

5 Stop (■) key

- : Press to stop playback or recording.

6 Play (▶) key

- : Press to start playback.

7 Manual search down (◀◀) key

- : This key functions as the fast reverse key during playback.
- : During an editing mode, press to move the title input cursor or to scroll the track title display to the left.

8 Manual search up (▶▶) key

- : This key functions as the fast forward key during playback.
- : During an editing mode, press to move the title input cursor or to scroll the track title display to the right.

9 Pause (||) key

- : Press to let playback or recording pause temporarily.

10 REC LEVEL knob

- : Rotate to adjust the analog recording level.

11 TIMER switch

- : This switch is used in timer playback and timer recording.

12 TITLE INPUT key

- : Press to switch the title input mode ON/OFF.

13 REC INPUT key

- : Press to switch the recording input line between digital (optical/coaxial), analog and monaural.

14 MONITOR/DELETE key

- MONITOR**
- : Press to monitor the sound being input from the source while the unit is in stop mode.

DELETE

- : During title editing, press to delete a character. During track editing, press to delete a track.

15 REC MODE/CHARAC. (Character) key

REC MODE

- : Press to switch the recording setting adjustment modes (record modes) ON/OFF.

CHARAC.

- : Press to select a character group during the title input operation.

16 SET key

- : For use in setting the editing result and input title in memory.
- : When pressed in the recording pause mode, the MEMORY REC function is set and recording starts from the sound approximately 6 seconds before the current sound.

17 JOG DIAL

Skip down (◀◀) / Skip up (▶▶) knob

- : During playback, rotate to skip tracks.
- : Before starting recording in record mode, rotate to select the recording setting adjustment mode.
- : During title search, rotate to select a track number.
- : During title input, rotate to select a track number or a character.
- : During editing, rotate to select the editing mode or a track number.

18 ENTER/TIME DISPLAY key

ENTER

- : For use in executing the editing and title input operations.

TIME DISPLAY

- : Press to switch the time and title display modes.

19 EDIT/SPACE key

EDIT

- : Press to switch the editing mode ON/OFF.

SPACE

- : Press to insert a blank space character during the title input operation.

20 OUTPUT LEVEL DOWN (▽) key

- : Use this to decrease the volume of the headphones and the output level.

21 OUTPUT LEVEL UP (△) key

- : Use this to increase the volume of the headphones and the output level.

22 Record (●) key

- : Press to start recording.

In stop mode

- : When the ● key is pressed while a recordable disc is present in the unit, it enters record-pause mode. (It enters record-pause mode at the position immediately after the last existing track.)

In record-pause mode

- : When the ● key is pressed, the SOUND SYNCHRO REC standby mode is set.
- : In the SOUND SYNCHRO REC standby mode, the set functions in the same way as in the normal recording pause mode.

23 PHONES jack

- : Connect stereo headphones (optional) here.

Remote control unit (DMF-3020/MD-203)

The remote control unit incorporates the basic operation keys as well as a variety of applied operation keys so that it can be used in a wide range of purposes.

The keys on the remote control unit with the same names as on the main unit have the same function as the keys on the main unit.

① Numeric keys / Character editing keys

Numeric keys

0-9

: Press when selecting a track number directly.

+10

: Press when selecting a track number 10 or more.

+100

: Press when selecting a track number 100 or more.

: These keys are also used to select a character or symbol during title editing.

CHARACTER DELETE / CLEAR key

CHARACTER DELETE

: During title input, press to delete a character.

CLEAR

: During editing, press to clear a selected track number.

: In program mode, press to clear the program.

CHARACTER SPACE / CHECK key

CHARACTERSPACE

: During title input, press to insert a blank space character.

CHECK

: In program mode, press to check the program contents.

CHARA. (Character) / P.MODE (Play Mode) key

: Press to select a character group during the title input operation.

P.MODE

: Press to initiate the program mode.

③ ON/STANDBY key

: Press to turn the unit between ON and STANDBY (I/Δ) modes.

⑤ REPEAT key

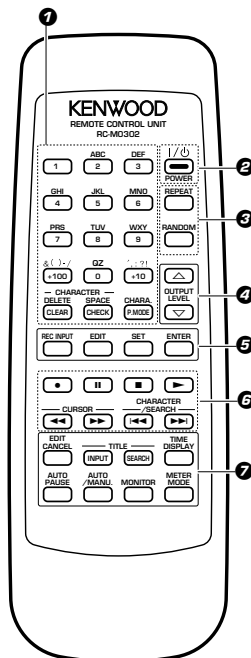
: Press to switch the repeat modes for repeat playback.

RANDOM key

: Press to initiate the random play mode.

④ OUTPUT LEVEL (Δ▽) keys

: Use these to adjust the output level and the volume of the headphones.



Model: RC-M0302
Infrared ray system

⑥ Basic operation keys

- : Record key
- ⏸ : Pause key
- : Stop key
- ▶ : Play key

CURSOR / ◀▶, ▶▶ keys

◀▶, ▶▶
: During playback, press to fast forward or fast reverse the play.

CURSOR

: During title input, press to move the cursor.

CHARACTER/SEARCH/◀▶, ▶▶ keys

CHARACTER
: Press to select a character group during the title input operation.

SEARCH

: During title search, rotate to select a track number.

◀▶, ▶▶

: During playback, press to skip tracks in the forward or reverse direction.

⑦ Applied operation keys

EDIT CANCEL key

: Press to cancel the editing operation.

TITLE INPUT key

: Press to switch the title input mode ON/OFF.

TITLE SEARCH key

: Press to switch the title search mode ON/OFF.

: During title editing, press to switch the title change input mode between the "overwrite mode" and "insert mode".

TITLE DISPLAY key

: Press to switch the time and title display modes.

AUTO PAUSE key

: When this key is pressed, the pause mode is initiated automatically at the point where the track number changes during playback.

: When pressed in the recording or recording standby mode, the AUTOREC PAUSE mode is turned on.

AUTO/MANU. key

: Selects whether the track numbers are to be marked automatically during recording (AUTO) or to be marked manually after it (MANUAL).

MONITOR key

: Press to monitor the sound being input from the source while the unit is in stop mode.

METER MODE key

: Press to switch the level meter display contents.

Remote control unit (DMF-5020)

The remote control unit incorporates the basic operation keys as well as a variety of applied operation keys so that it can be used in a wide range of purposes.

The keys on the remote control unit with the same names as on the main unit have the same function as the keys on the main unit.

① ON/STANDBY key

: Press to turn the unit between ON and STANDBY (I/Δ) modes.

② OUTPUT LEVEL (Δ▽) keys

: Use these to adjust the output level and the volume of the headphones.

⑤ Character editing keys

TIME DISPLAY key

: Press to switch the time and title display modes.

CHARA. (Character) / P.MODE (Play Mode) key

CHARA.
: Press to select a character group during the title input operation.

P.MODE

: Press to initiate the program mode.

DELETE / CLEAR key

DELETE
: During title input, press to delete a character.

CLEAR

: During editing, press to clear a selected track number.

: In program mode, press to clear the program.

SPACE / CHECK key

SPACE
: During title input, press to insert a blank space character.

CHECK

: In program mode, press to check the program contents.

④ MONITOR key

: Press to monitor the sound being input from the source while the unit is in stop mode.

METER key

: Press to switch the level meter display contents.

RANDOM key

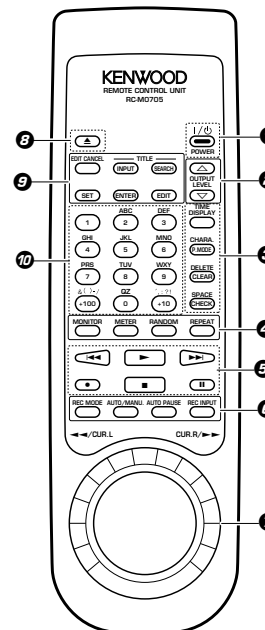
: Press to initiate the random play mode.

REPEAT key

: Press to switch the repeat modes for repeat playback.

⑤ Basic operation keys

- ▶ : Play key
- ◀▶, ▶▶ : Skip down/up keys
- : Record key
- : Stop key
- ⏸ : Pause key



Model: RC-M0705
Infrared ray system

⑦ CURSOR / ◀▶, ▶▶ shuttle CURSOR

: During title input, rotate to move the cursor.

◀▶, ▶▶

: Use this during playback for forward and reverse search.

③ EJECT (Δ) key

⑨ Editing mode keys

EDIT CANCEL key

: Press to cancel the editing operation.

TITLE INPUT key

: Press to switch the title input mode ON/OFF.

TITLE SEARCH key

: Press to switch the title search mode ON/OFF.

: During title editing, press to switch the title change input mode between the "overwrite mode" and "insert mode".

SET key

: This key is used in the title assignment or editing operations.

: When pressed in the recording pause mode, the MEMORY REC function is set and recording starts from the sound approximately 6 seconds before the current sound.

ENTER key

: Press to execute editing or enter the input title in memory.

EDIT key

: Press to switch the editing mode ON/OFF.

⑩ Numeric keys

0-9

: Press when selecting a track number directly.

+10

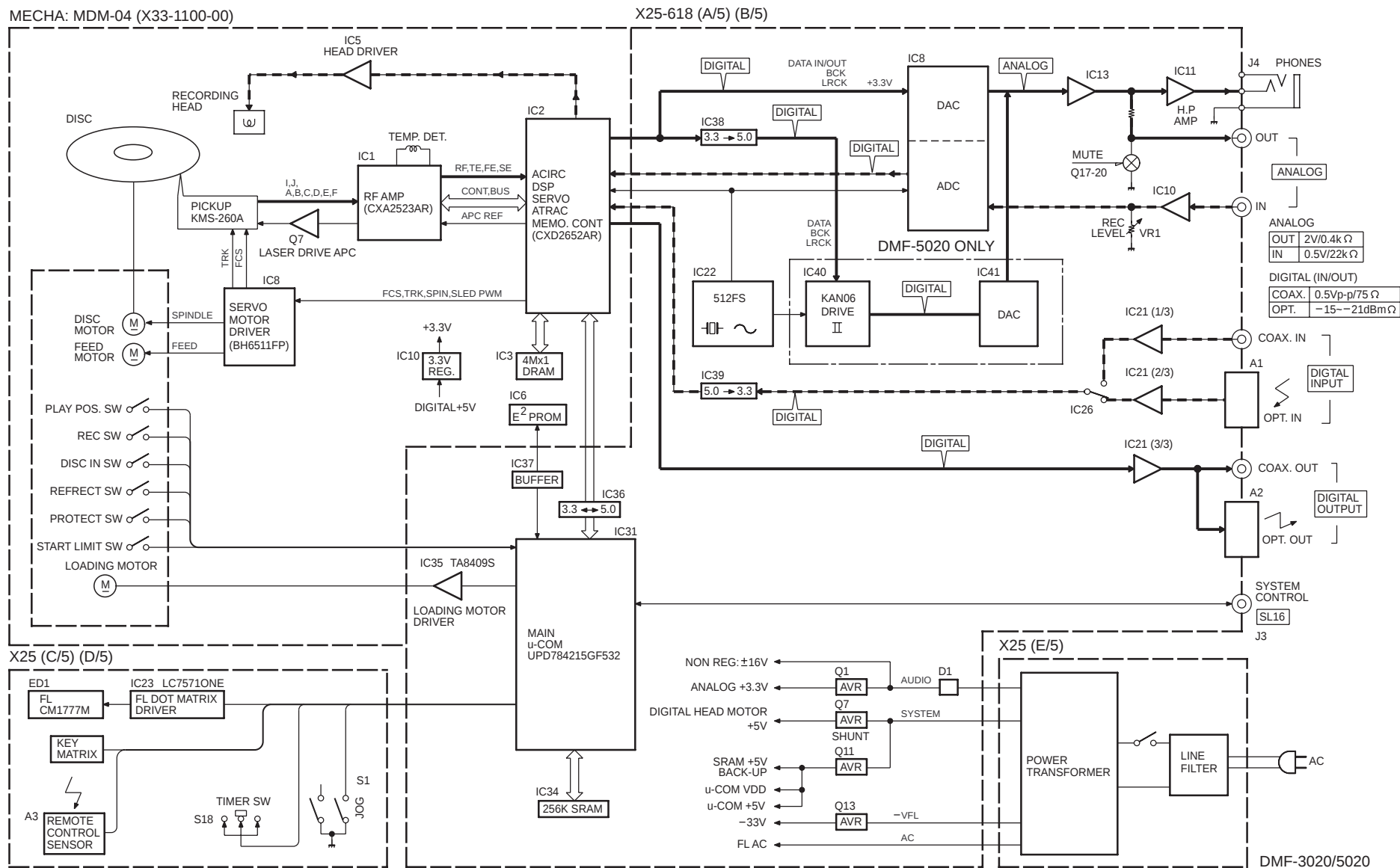
: Press when selecting a track number 10 or more.

+100

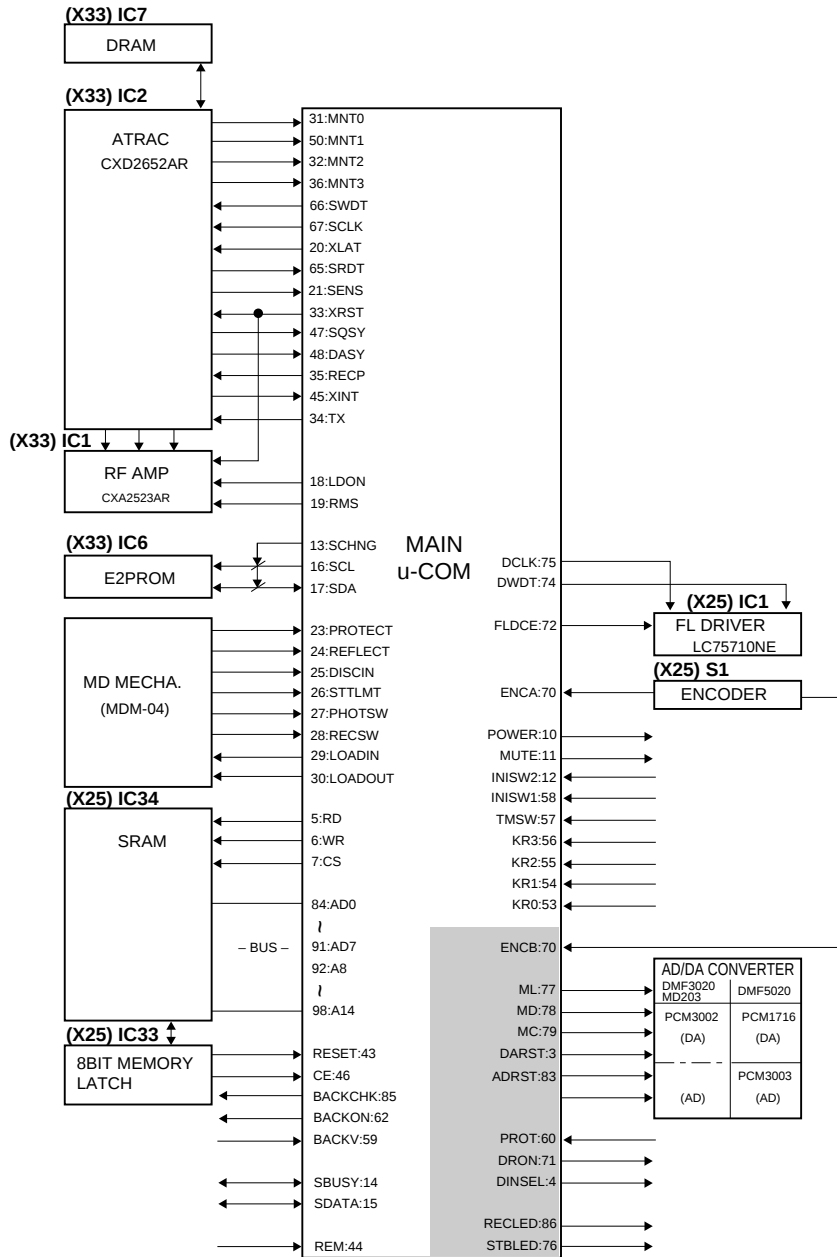
: Press when selecting a track number 100 or more.

: These keys are also used to select a character or symbol during title editing.

BLOCK DIAGRAM



1. Main microprocessor : uPD784215GF532 (X25: IC31)
1-1 Microprocessor peripley block diagram



1-2 Pin description

No.	Name	I/O	Description
1,2	-	O	N.C.
3	DARST	O	DAC reset
4	DINSEL	O	Digital 1/2 select H; DIGITAL 1
5	RD	O	SRAM read strobe
6	WR	O	SRAM write strobe
7	CS	O	SRAM CS L; SRAM enable
8	ASTB	O	SRAM address strobe
9	Vdd	-	Power supply (Microprocessor)
10	POWER	O	Power terminal H; Power ON
11	MUTE	O	Mute control output L; Mute ON
12	INISW2	I	Destination selector L; DMF-3020/5020
13	SCHNG	O	E2PROM data IN/OUT change-over H; SDA output
14	SBUSY	I/O	16 serial busy
15	SDATA	I/O	16 serial data
16	SCL	O	E2PROM clock
17	SDA	I/O	E2PROM data
18	LDON	O	Laser ON / OFF control port H; LD ON
19	RMS	O	Pick RMS H; ON
20	XLAT	O	System IC latch
21	SENS	I	System IC sens
22	Vpp	-	GND
23	PROTECT	I	Detection port of protect switch L; Protect ON
24	REFLECT	I	Detection port of reflect switch H; Low reflect
25	DISCIN	I	Detection of disc input switch L; Disc out SW ON
26	STTLMT	I	Detection port of limit switch L; Start limit SW ON
27	PHOTSW	I	Detection of mechanism play position L; Photo sensor ON
28	REC SW	I	Input port of detection from REC position switch L; REC SW ON
29	LOADIN	O	Output port of loading motor control signal L; Loading OUT
30	LOADOUT	O	Output port of loading motor control signal L; Loading IN
31	MNT0	I	FOK signal from CXD2652AR (IC2)
32	MNT2	I	Input port of monitor 2 from CXD2652AR (IC2)
33	XRST	O	Output port of reset signal to CXD2652AR (IC2)
34	TX	O	Output port of recording permitted signal
35	RECP	O	Laser power control to CXD2652AR (IC2)
36	MNT3	I	Input port of monitor 3 from CXD2652AR (IC2)
37	Vdd	-	Power supply (Microprocessor)
38,39	-	-	Clock IN / OUT (12.5MHz)
40	GND	-	GND
41	OPEN	O	No used
42	GND	I	No used
43	RESET	I	Microprocessor hard reset
44	REM	I	Remocon signal input terminal
45	XINT	I	Input port of interrupted status from CXD2652AR (IC2)
46	CE	I	Microprocessor chip enable H; Enable / L; disable
47	SQSY	I	Input port of sub code Q from CXD2652AR (IC2)
48	DQSY	I	U-bit of digital IN / SUB Q sync input of CD format from CXD2652AR (IC2)
49	DDQSY	I	N.C.
50	MNT1	I	Input port of track jump detection from CXD2652AR (IC2)
51	Vdd	-	Microprocessor power supply (+5V)
52	AVref 0	-	A/D reference voltage (Connect Vdd)
53-56	KR0-KR3	I	Key return (KR0-KR3)
57	TMSW	I	Timer switch input 0.0V OFF 1.25V PLAY 3.7V REC 5.0V
58	INISW1	I	Detection selector
59	BACK	I	Back up voltage detection (Less than 2.2V : NG)
60	PROT	I	Protection detection
61	GND	-	GND
62	BACK ON	O	Back up charge control H; Charge ON
63	ENCA	I	Rotary encoder A
64	AVref 1	-	D/A reference voltage (+5V)
65	SRDT	I	Data for reading input from CXD2652AR (IC2)

CIRCUIT DESCRIPTION

No.	Name	I/O	Description
66	SWDT	O	Data for writing to CXD2652AR (IC2)
67	SCLK	O	Serial clock to CXD2652AR (IC2)
68,69	-	-	N.C.
70	ENCB	I	Communication to sub u-COM (IC28) Rotary encoder B
71	DRON	O	DSP (D.R.I.V.E II : IC40) drive on H; ON
72	FLDCE	O	Latch to FL driver
73	-	I	N.C.
74	DWDT	O	Data to LC75710NE (IC1)
75	DCLK	O	Clock to LC75710NE (IC1)
76	STB LED	O	Latch to LC8904Q (IC23) Standby LED ON/OFF H; ON
77	ML	O	DAC (IC41) control latch
78	MD	O	DAC (IC41) control data
79	MC	O	DAC (IC41) control clock
80	-	O	No used / pull up
81	BACKCHK	O	Back up voltage check
82	REC LED	O	Clock to SM5844AF (IC25) REC LED ON/OFF H; ON
83	ADRST	O	Data to SM5844AF (IC25) ADC reset
84-91	AD0-AD7	O	SRAM address / data (AD0-AD7)
92-99	A8-A15	O	SRAM address (A8-A15)
100	Vss	-	GND

1-3 Initialization

※ POWER	= ON (DM-9090,DM-5090)
※ REC INPUT	= ANALOG
※ OUTPUT LEVEL	= 0 dB
※ AUTO/MANUAL	= AUTO
※ AUTO CUT	= OFF
PLAY MODE	= TRACK
REPEAT	= OFF
TIME DISPLAY	= SINGLE(+)
LEVEL METER MODE	= NORMAL MODE
※ AUTO TNO TIME	= 2 sec
※ AUTO TNO LEVEL	= 0 (-55 dB)
※ REC END WRITE	= ON
DRIVE	= ON
※ PRESET TITLE	= PRE1 : Pops
	PRE2 : Rock
	PRE3 : Classic
	PRE4 : Jazz
	PRE5 : Disco
	PRE6 : Best Hits
	PRE7 : Air Check
	PRE8 : No.
	PRE9 : Vol.

※ : Backup item

1-4 Switch control table

Model	INISW 58	INISW 12
DMF-3020	3.5 (V)	LOW
MD-203	1.5 (V)	

1-5 Key voltage matrix

	0.0 V	0.8 V	1.6 V	2.4 V	3.2 V	4.0 V
KR0	-	TT INPUT	REC INPUT	-	MONITOR/DEL	-
KR1	EJECT	STOP	FB	REC MODE	SET	-
KR2	PLAY	FF	EDIT/SPACE	-	ENTER/TIME	-
KR3	PAUSE	REC	LEVEL UP	LEVEL DOWN	-	-

5.0V : KEY OFF

2. AD/DA converter : PCM3002E, PCM3003E (X25: IC8)

2-1 PIN DESCRIPTION (PCM3002E: DMF-3020,MD-203)

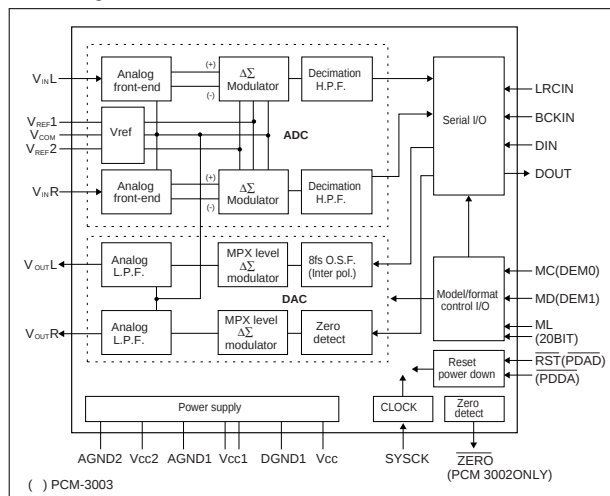
PIN	PIN NAME	I/O	DESCRIPTION
1,2	VCC1	-	ADC ANALOG POWER SUPPLY
3	VINR	I	RCH ANALOG INPUT
4,5	VREF1,2	-	REFERENCE VOLTAGE 1,2
6	VINL	I	LCH ANALOG INPUT
7	RST	I	RESET L: ON
8	ML	I	CONTROL DATA INPUT LOAD STOROE
9	SYSCK	I	SYSTEM CLOCK INPUT256fs 384fs 512fs
10	LRCIN	I	SAMPLING CLOCK INPUT
11	BCKIN	I	BIT CLOCK INPUT
12	DOUT	O	DIGITAL AUDIO DATA OUTPUT
13	DGND	-	DIGITAL GND
14	VDD	-	DIGITAL POWER SUPPLY
15	DIN	I	DIGITAL AUDIO DATA INPUT
16	ZERO	I	ZERO FLAG OUTPUT L: ON
17	MD	I	CONTROL DATA INPUT
19	VOUTL	O	LCH ANALOG OUTPUT
20	VOUTR	O	RCH ANALOG OUTPUT
21	VCOM	-	ANALOG AMP COMMON
22	AGND2	-	DAC ANALOG GND
23	AGND1	-	ADC ANALOG GND
24	VCC2	-	DAC ANALOG GND

(PCM3003E:DMF-5020)

PIN	PIN NAME	I/O	DESCRIPTION
1,2	VCC1	-	ADC ANALOG POWER SUPPLY
3	VINR	I	RCH ANALOG INPUT
4,5	VREF1,2	-	REFERENCE VOLTAGE 1,2
6	VINL	I	LCH ANALOG INPUT
7	PDAD	I	ADC POWER DOWN L: ON
8	PDDA	I	DAC POWER DOWN L: ON
9	SYSCK	I	SYSTEM CLOCK INPUT256fs 384fs 512fs
10	LRCIN	I	SAMPLING CLOCK INPUT
11	BCKIN	I	BIT CLOCK INPUT
12	DOUT	O	DIGITAL AUDIO DATA OUTPUT
13	DGND	-	DIGITAL GND

PIN	PIN NAME	I/O	DESCRIPTION
14	VDD	-	DIGITAL POWER SUPPLY
15	DIN	I	DIGITAL AUDIO DATA INPUT
16	20BIT	I	20/16 BIT DATA FORMAT CHOICE
17,18	DEM1,0	I	DE-EMPHASIS CONTROL 1,0
19	VOUTL	O	LCH ANALOG OUTPUT
20	VOUTR	O	RCH ANALOG OUTPUT
21	VCOM	-	ANALOG AMP COMMON
22	AGND2	-	DAC ANALOG GND
23	AGND1	-	ADC ANALOG GND
24	VCC2	-	DAC ANALOG GND

2-2 Block diagram



3. Test mode of the unit

3-1 Setting of the test mode

While pressing the [REC/INPUT] key, plug the AC power cord into the AC wall outlet.

3-2 Contents of the test mode

Choose the 3 mode by TIMER switch position below.

	TIMER SW	Mode
(1)	REC	INSPECTION
(2)	PLAY	ERROR RATE
※	OFF	NONE

※ NONE means none mode.

- (1) [INSPECTION] mode
 • 「ENGLISH」 display (2secs)

• " NIAGARA TEST " display
 Dot : Niagara
 Segment : All lighting

- Push a key, then cancel " NIAGARA TEST "

• Function of the key

Key	Mode
REC/INPUT	※ KEY-TEST
EDIT	NIAGARA TEST
TITLE INPUT	None all lighting

※ Display [KEY 028] into the KEY-TEST mode.

Push a key, then display [KEY * * *].

(2) [ERROR RATE] mode

• Function of the key

Key	Function
PLAY	CPLAY (MID)
REC	CREC (MID)
STOP	STOP CPLAY, CREC (2time push) ERROR RATE

4. Microprocessor reset

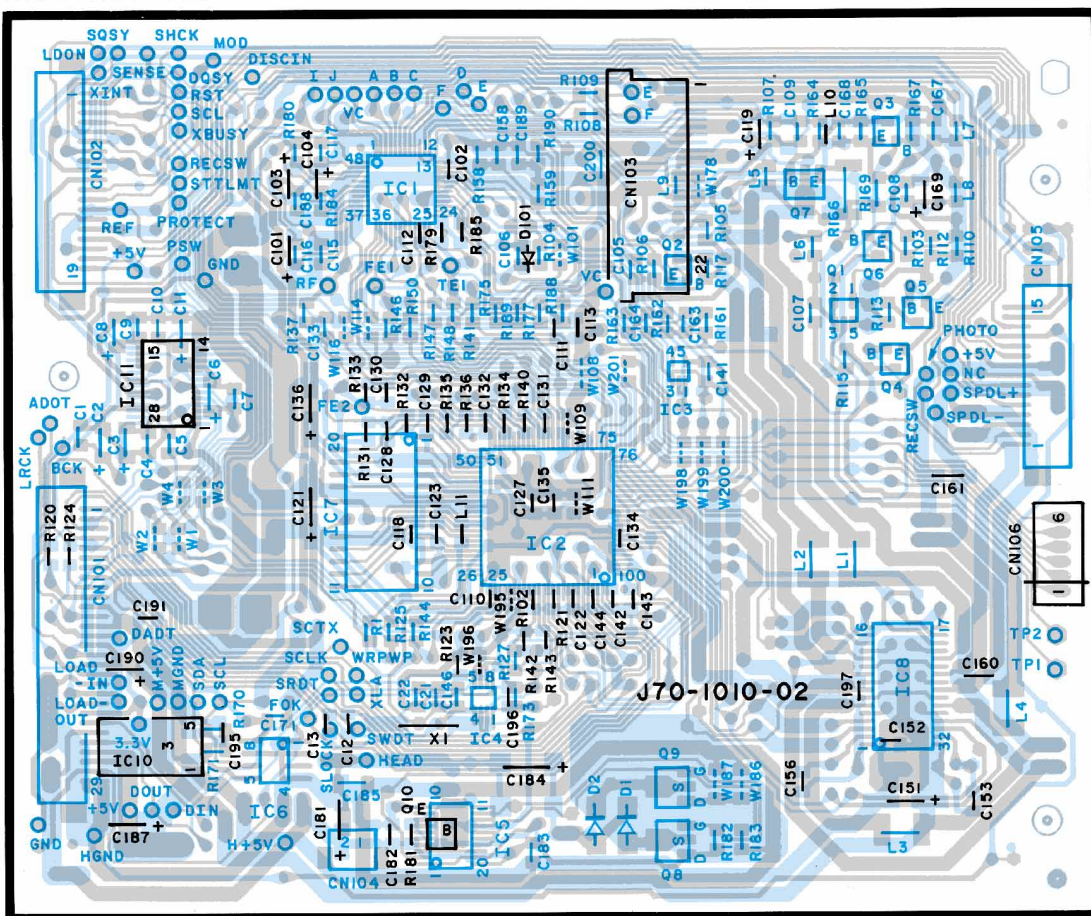
The microprocessor can be initialized while pressing the [EJECT] key, plug the AC power cord into the AC wall outlet.

5. Mechanism test mode

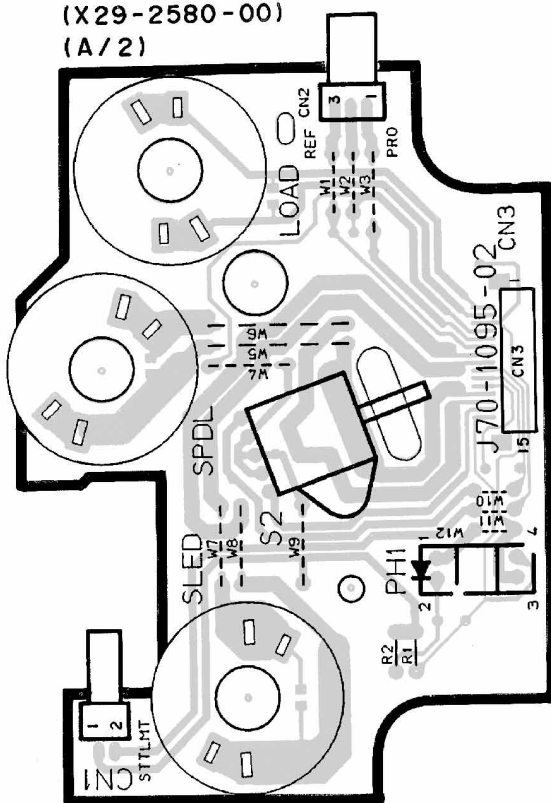
Refer to 1050MD/DM-5090/MD-9090 service manual (B51-5387-00), if you see this test mode.

PC BOARD (Component side view)

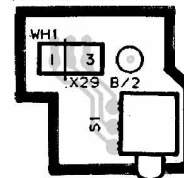
(X33-1100-00)



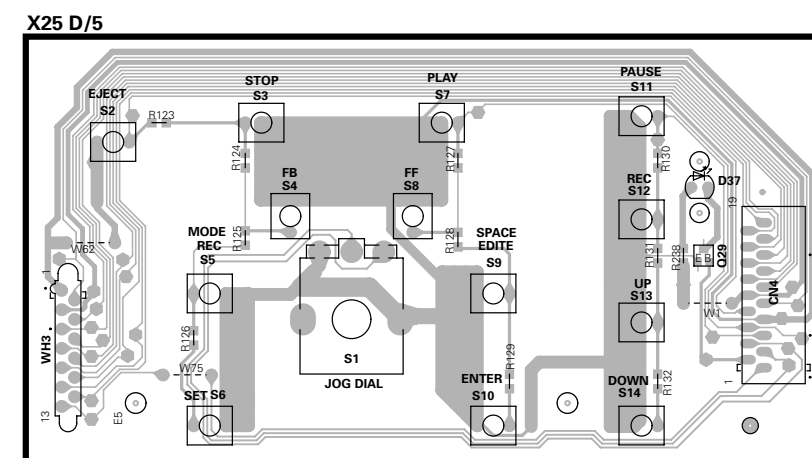
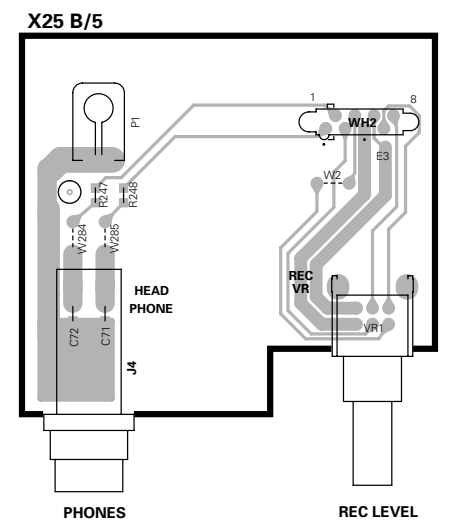
(X29-2580-00)
(A/2)



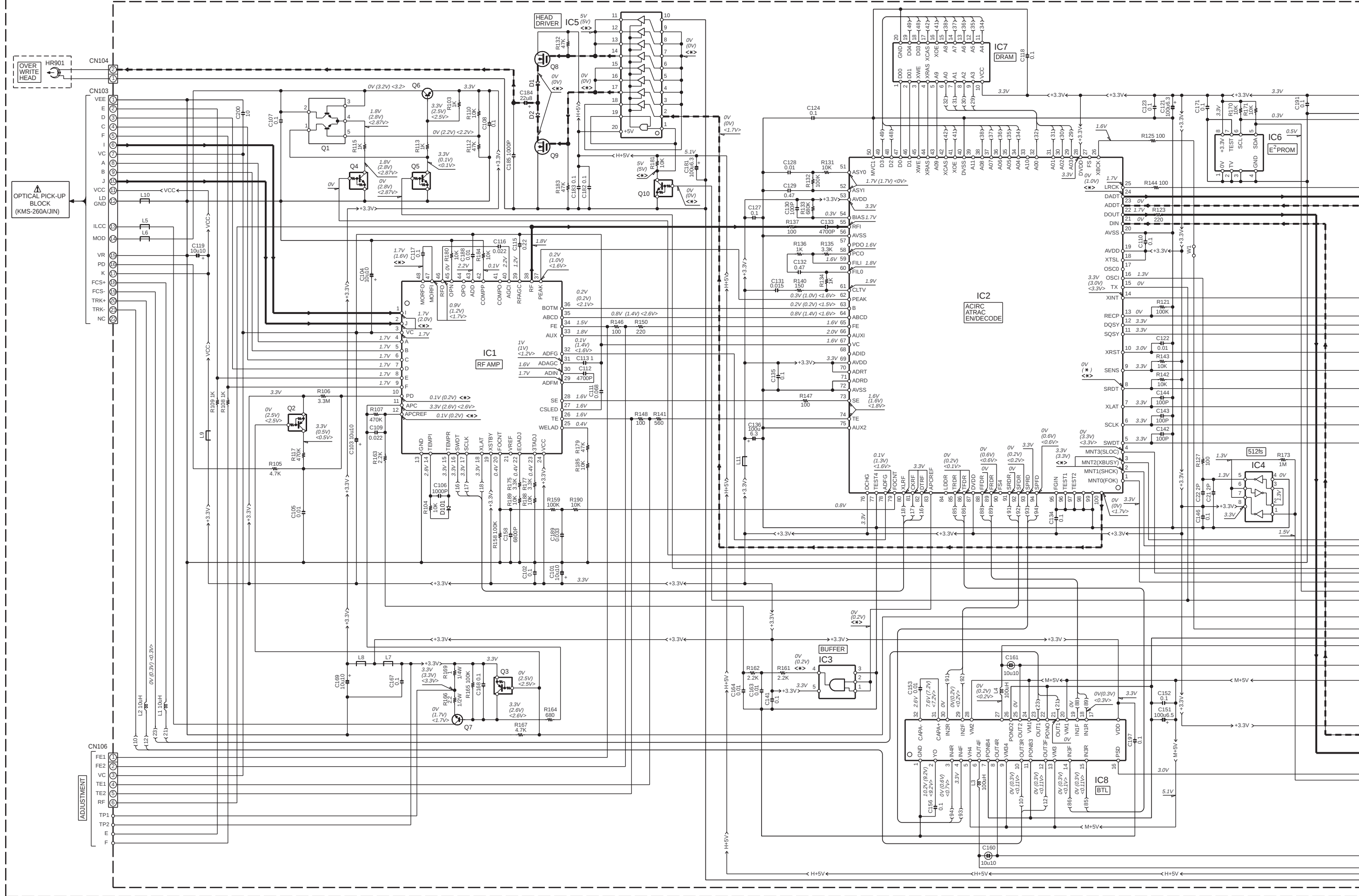
(X29) (B/2)

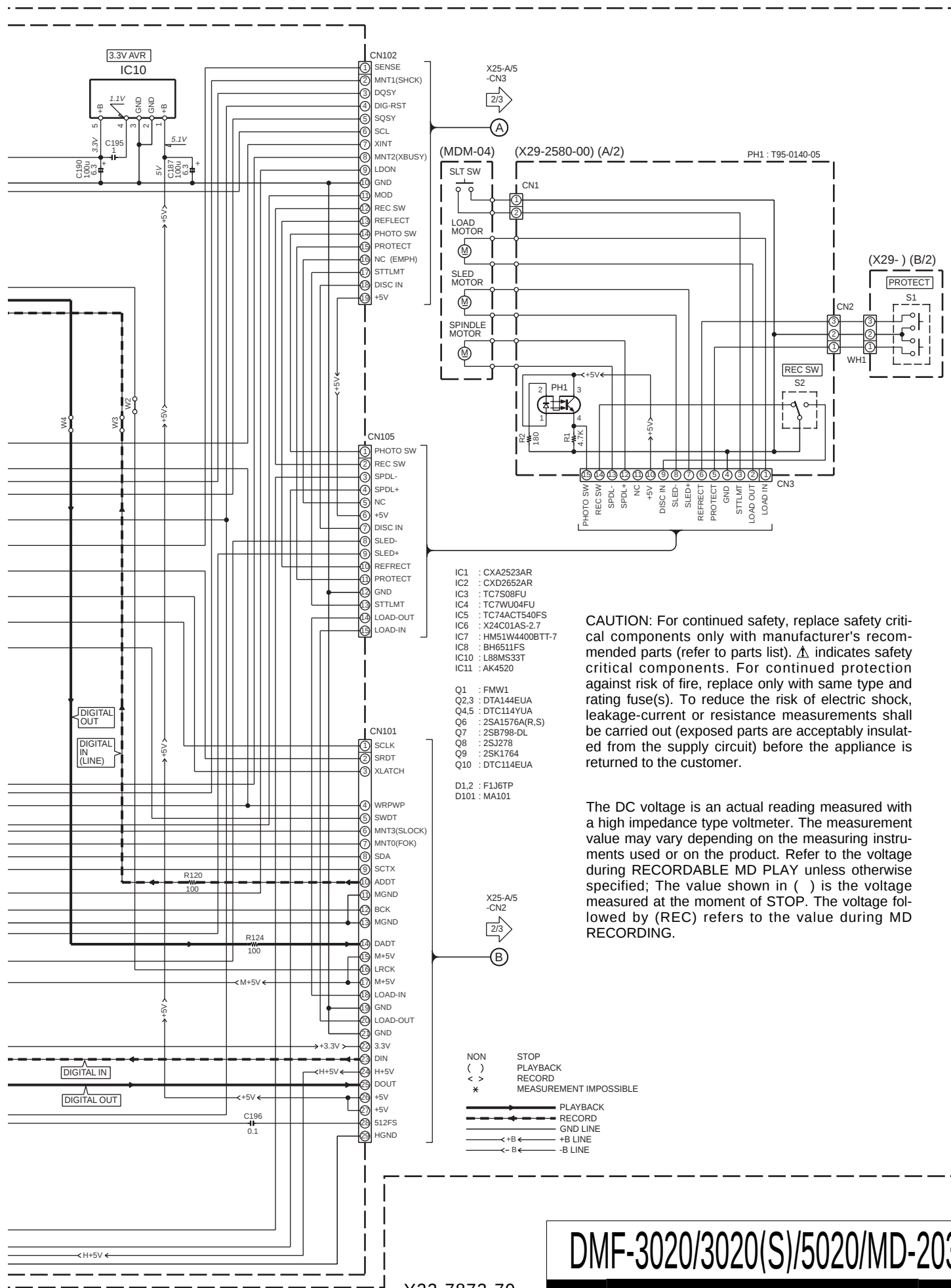


Bar Number	Relative Height
1	Tallest
2	Second tallest
3	Shorter than 2
4	Similar to 2
5	Shorter than 3
6	Shorter than 4
7	Shortest

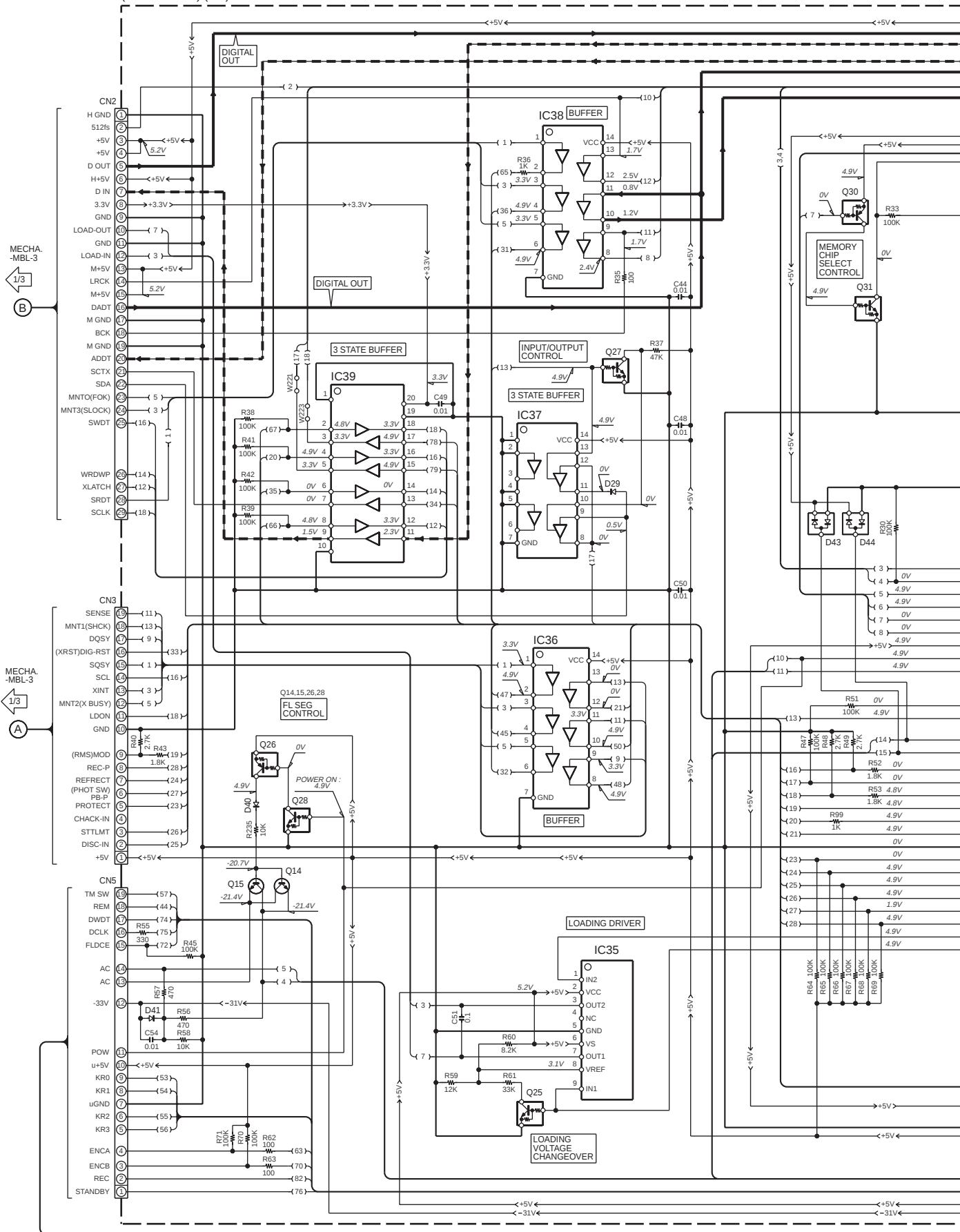


9

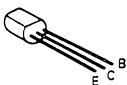




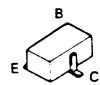
ELECTRIC UNIT (X25-618X-XX) (A/5)



2SA954
2SA992
2SC1845
2SD1302



DTA144EUA
DTC114YUA
DTC143TUA
UN5216
UN5219



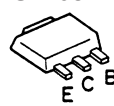
2SD2061



FMW1



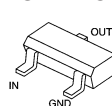
2SB798-DL

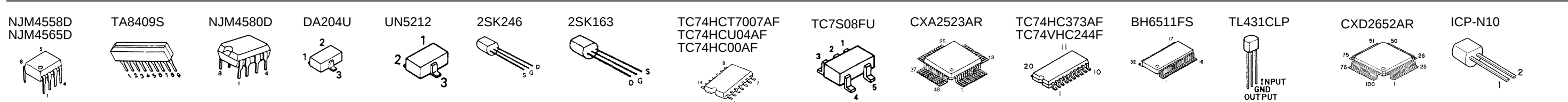


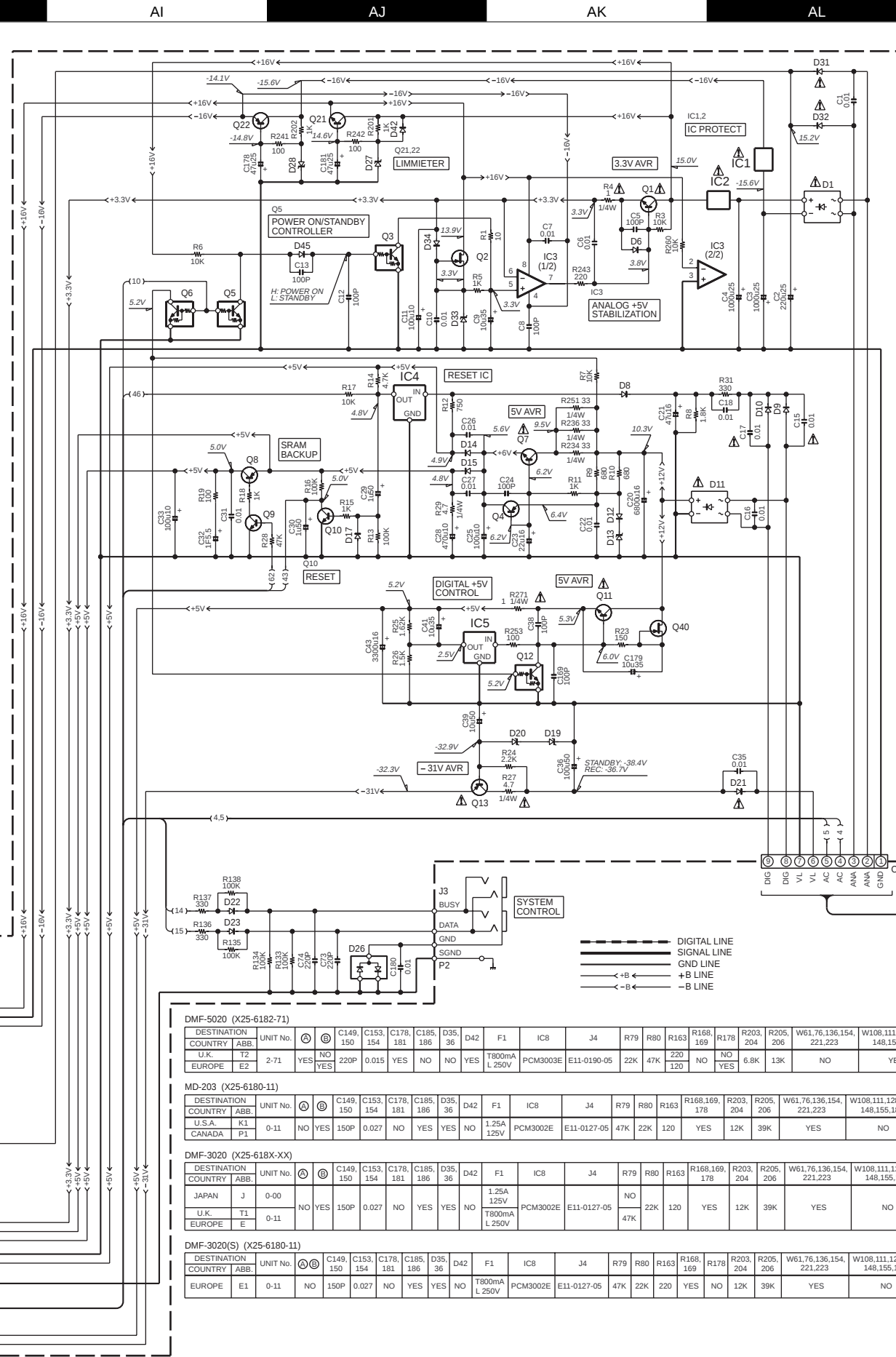
2SD2012



DTC114EUA







KENWOOD

(X25-) (E/5)

1
2
3
4
5
6
7
8
9

E1
GND
ANA
ANA
AC
AC
VL
VL
DIG
DIG

MAIN POWER

S20

C14
6800P

F1

CN11 CN10

CN6

(K.P) : AC120V 60Hz
(T.E) : AC230V-50Hz
(J) : AC100V-50/60Hz

POWER TRANSFORMER

0-0 : L07-2615-#5
0-11 : L07-2620-#5
2-71 : L07-2618-#5

DMF-5020 (X25-6182-71)

DESTINATION	UNIT No.	D37	Q29	R238
COUNTRY	ABB.			
U.K.	T2			
EUROPE	E2	2-71	YES	YES

DMF-3020 (X25-618X-XX)

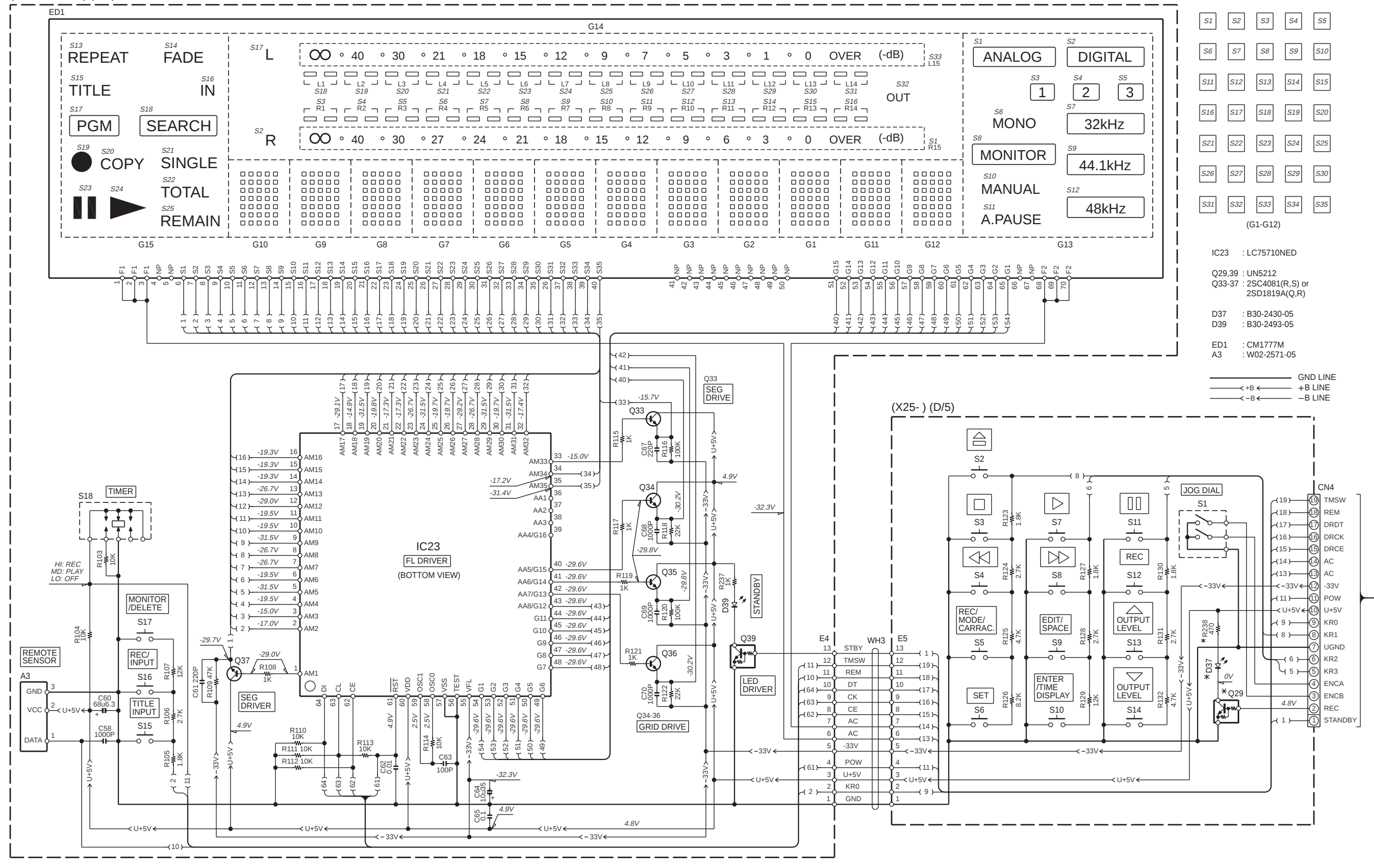
DESTINATION	UNIT No.	D37	Q29	R238
COUNTRY	ABB.			
JAPAN	J	0-00		
U.K.	T1			
EUROPE	E	0-11	NO	NO

MD-203 (X25-6180-11)

DESTINATION	UNIT No.	D37	Q29	R238
COUNTRY	ABB.			
U.S.A.	K1	0-11	NO	NO
CANADA	P1			

DMF-3020(S) (X25-6180-11)

DESTINATION	UNIT No.	D37	Q29	R238
COUNTRY	ABB.			
EUROPE	E1	0-11	NO	NO

DISPLAY UNIT
(X25-618X-XX) (C/5)

DMF-5020/3020/3020(S)/MD-203 (3/3)

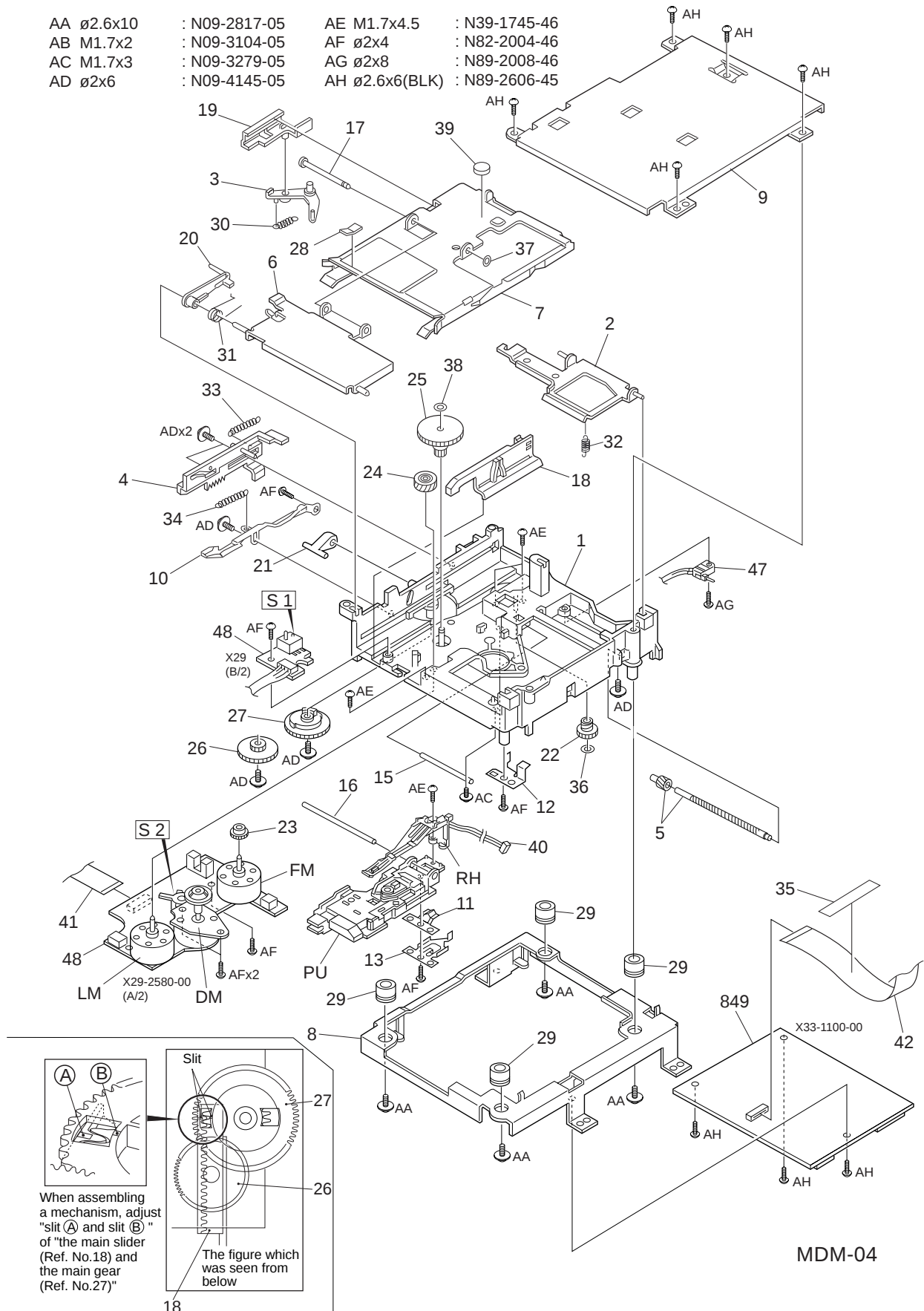
DMF-3020/3020(S)/5020/MD-203

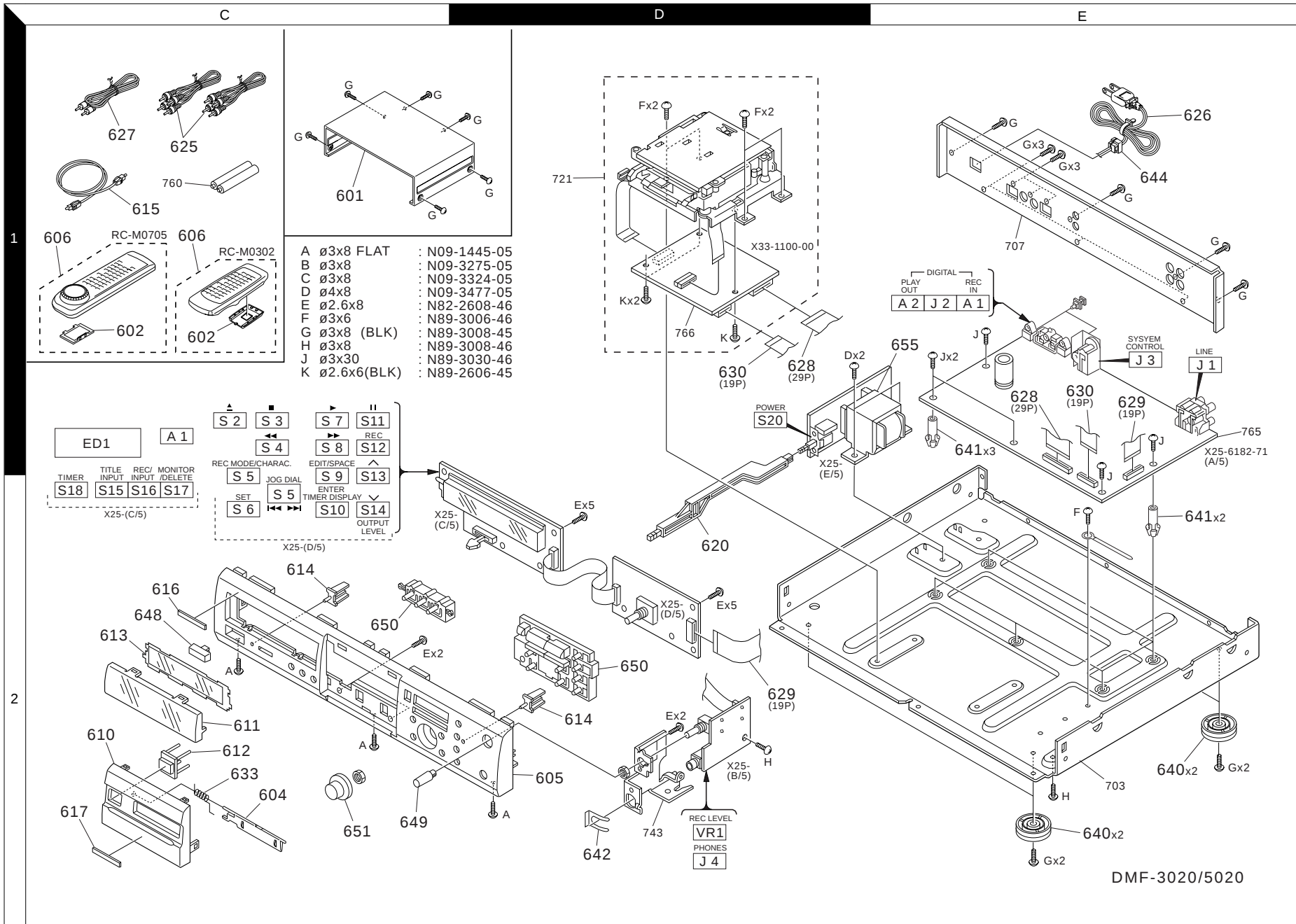
Y22-7872-70

KENWOOD

EXPLODED VIEW (MECHANISM)

AA $\varnothing 2.6 \times 10$	: N09-2817-05	AE M1.7x4.5	: N39-1745-46
AB M1.7x2	: N09-3104-05	AF $\varnothing 2 \times 4$	: N82-2004-46
AC M1.7x3	: N09-3279-05	AG $\varnothing 2 \times 8$	: N89-2008-46
AD $\varnothing 2 \times 6$	: N09-4145-05	AH $\varnothing 2.6 \times 6$ (BLK)	: N89-2606-45





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①

Ref. No	Add- ress	New Parts	Parts No.	Description	Desti- nation	Re- marks
DMF-3020/3020(S)/5020/MD-203						
601	1C	*	A01-3635-01	METALLIC CABINET	EK1P1	
601	1C	*	A01-3635-01	METALLIC CABINET	T1E1T2	
601	1C	*	A01-3637-01	METALLIC CABINET	E2	
602	1C		A09-0374-08	BATTERY COVER	EK1P1	
602	1C		A09-0374-08	BATTERY COVER	T1E2	
602	1C	*	A09-1116-08	BATTERY COVER	E1T2	
604	2C	*	A29-1024-04	PANEL	EK1P1	
604	2C	*	A29-1024-04	PANEL	T1E1T2	
604	2C	*	A29-1025-04	PANEL	E2	
605	2D	*	A60-1530-11	PANEL	ET1	
605	2D	*	A60-1532-11	PANEL	K1P1	
605	2D	*	A60-1533-11	PANEL	E1T2	
605	2D	*	A60-1534-11	PANEL	E2	
606	1C	*	A70-1238-05	REMOTE CONTROL ASSY(RC-M0705)	E1T2	
606	1C	*	A70-1239-05	REMOTE CONTROL ASSY(RC-M0302)	EK1P1	
606	1C	*	A70-1239-05	REMOTE CONTROL ASSY(RC-M0302)	T1E2	
610	2C	*	B07-2428-12	ESCUTCHEON	ET1	
610	2C	*	B07-2429-12	ESCUTCHEON	K1P1	
610	2C	*	B07-2430-12	ESCUTCHEON	E2	
610	2C	*	B07-2431-12	ESCUTCHEON	E1T2	
611	2C	*	B10-3426-03	FRONT GLASS		
612	2C	*	B11-0376-04	FILTER		
613	2C	*	B11-0377-04	COLOR FILTER	E2	
614	2C, 2D	*	B12-0353-04	INDICATOR		
615	1C	*	B19-1529-05	OPTICAL FIBER		
616	2C	*	B43-0302-04	KENWOOD BADGE		
617	2C		B43-0310-04	BADGE	E1T2	
-			B46-0310-03	WARRANTY CARD	ET1E1	
-			B46-0310-03	WARRANTY CARD	T2E2	
-			B46-0328-03	WARRANTY CARD	K1	
-			B46-0336-03	WARRANTY CARD	P1	
-		*	B60-4074-00	INSTRUCTION MANUAL(EN)	K1P1T1	
-		*	B60-4074-00	INSTRUCTION MANUAL(EN)	T2	
-		*	B60-4075-00	INSTRUCTION MANUAL(FR)	EP1E1	
-		*	B60-4075-00	INSTRUCTION MANUAL(FR)	E2	
-		*	B60-4076-00	INSTRUCTION MANUAL(GE/NE)	EE1E2	
-		*	B60-4077-00	INSTRUCTION MANUAL(IT/ES)	EE1E2	
620	2D		D21-1840-03	EXTENSION SHAFT		
625	1C		E30-0505-05	AUDIO CORD		
626	1E		E30-2592-15	AC POWER CORD	EE1E2	
626	1E		E30-2721-05	AC POWER CORD	T1T2	
626	1E	*	E30-2884-05	AC POWER CORD	K1P1	
627	1C		E30-2733-05	CORD WITH PLUG (SYSTEM)		
628	1D, 1E		E35-1960-05	FLAT CABLE 29P,180		
629	2D, 1E		E35-2149-05	FLAT CABLE 19P,330		
630	1D, 1E	*	E35-2289-05	FLAT CABLE 19P,270		
F1			F05-8013-05	FUSE (SEMKO) (250V T800MAL)	ET1E1	
F1			F05-8013-05	FUSE (SEMKO) (250V T800MAL)	T2E2	
F1			F50-0067-05	FUSE(5X20)	K1P1	
633	2C	*	G01-4088-04	TORSION COIL SPRING		

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②

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-		*	H10-7530-12	POLYSTYRENE FOAMED FIXTURE		
-		*	H10-7531-12	POLYSTYRENE FOAMED FIXTURE		
-			H25-0232-04	PROTECTION BAG (235X350X0.03)	EK1P1	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)	E1E2	
-			H25-0651-04	PROTECTION BAG	T1T2	
-		*	H25-0661-04	PROTECTION BAG		
-		*	H50-3172-14	ITEM CARTON CASE	ET1	
-		*	H50-3173-04	ITEM CARTON CASE	K1P1	
-		*	H50-3174-14	ITEM CARTON CASE	E1T2	
-		*	H50-3175-14	ITEM CARTON CASE	E2	
640	2E		J02-1168-03	FOOT	ET1E1	
640	2E		J02-1168-03	FOOT	T2	
640	2E		J02-1407-03	FOOT (D=46,H=14.5,T)	K1P1E2	
641	1E, 2E		J19-3753-04	UNIT HOLDER		
642	2D		J21-3326-05	JACK MOUNTING HARDWARE		
644	1E		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
648	2C		K27-2178-04	KNOB (BUTTON)	ET1E1	
648	2C		K27-2178-04	KNOB (BUTTON)	T2	
648	2C		K27-2273-04	KNOB (BUTTON)	K1P1	
648	2C	*	K27-2330-04	KNOB (BUTTON)	E2	
649	2C	*	K29-7354-14	KNOB	EK1P1	
649	2C	*	K29-7354-14	KNOB	T1E1T2	
649	2C	*	K29-7410-04	KNOB	E2	
650	2C, 2D	*	K29-7412-02	KNOB	ET1E1	
650	2C, 2D	*	K29-7412-02	KNOB	T2	
650	2C, 2D	*	K29-7413-02	KNOB	K1P1	
650	2C, 2D	*	K29-7414-02	KNOB	E2	
651	2C	*	K29-7536-04	KNOB	ET1E1	
651	2C	*	K29-7536-04	KNOB	T2	
651	2C	*	K29-7537-04	KNOB	K1P1	
651	2C	*	K29-7538-04	KNOB	E2	
655	1E	*	L07-2618-05	POWER TRANSFORMER	ET1E1	
655	1E	*	L07-2618-05	POWER TRANSFORMER	T2E2	
655	1E	*	L07-2620-05	POWER TRANSFORMER	K1P1	
ELECTRIC PCB (X25-6180-00)						
D37			B30-2430-05	LED(RED)	E1T2	
D39			B30-2493-05	LED(RED)		
C1			CK45FF1H103Z	CERAMIC	0.010UF	Z
C2			CE04KW1E221M	ELECTRO	220UF	25WV
C3, 4			CE04KW1E102M	ELECTRO	1000UF	25WV
C5			CC73FSL1H101J	CHIP C	100PF	J
C6			CK73FB1H103K	CHIP C	0.010UF	K
C7			CK45FF1H103Z	CERAMIC	0.010UF	Z
C8			CC73FSL1H101J	CHIP C	100PF	J
C9			CE04KW1V100M	ELECTRO	10UF	35WV
C10			CK73FB1H103K	CHIP C	0.010UF	K
C11			CE04KW1A101M	ELECTRO	100UF	10WV
C12, 13			CC73FSL1H101J	CHIP C	100PF	J
C14			C91-1488-05	MF	6800PF	250VAC
C15-18			CK73FB1H103K	CHIP C	0.010UF	K
C20			CE04KW1C682M	ELECTRO	6800UF	16WV
C21			CE04KW1C470M	ELECTRO	47UF	16WV

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PARTS LIST

DMF-3020/3020(S)/5020/MD-203

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3

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
C22			CK73FB1H103K	CHIP C	0.010UF	K
C23			CE04KW1C220M	ELECTRO	22UF	16WV
C24			CC73FSL1H101J	CHIP C	100PF	J
C25			CE04KW1A101M	ELECTRO	100UF	10WV
C26, 27			CK73FB1H103K	CHIP C	0.010UF	K
C28			CE04KW1A471M	ELECTRO	470UF	10WV
C29, 30			CE04KW1H010M	ELECTRO	1.0UF	50WV
C31			CK73FB1H103K	CHIP C	0.010UF	K
C32			C90-3542-05	SUPER-C	1.0F	5.5WV
C33			CE04KW1A101M	ELECTRO	100UF	10WV
C35			CK73FB1H103K	CHIP C	0.010UF	K
C36			CE04KW1H101M	ELECTRO	100UF	50WV
C38			CC73FSL1H101J	CHIP C	100PF	J
C39			CE04KW1H100M	ELECTRO	10UF	50WV
C41			CE04KW1V100M	ELECTRO	10UF	35WV
C43			CE04KW1C332M	ELECTRO	3300UF	16WV
C44, 45			CK73FB1H103K	CHIP C	0.010UF	K
C47-50			CK73FB1H103K	CHIP C	0.010UF	K
C51			CK73FF1E104Z	CHIP C	0.10UF	Z
C54, 55			CK73FB1H103K	CHIP C	0.010UF	K
C56, 57			CK73FF1E104Z	CHIP C	0.10UF	Z
C58			CC73FSL1H102J	CHIP C	1000PF	J
C60			C90-3213-05	ELECTRO	68UF	6.3WV
C61			CC73FSL1H221J	CHIP C	220PF	J
C62			CK73FF1E104Z	CHIP C	0.10UF	Z
C63			CC73FSL1H101J	CHIP C	100PF	J
C64			C90-3244-05	ELECTRO	10UF	35WV
C65			CK73FF1E104Z	CHIP C	0.10UF	Z
C67			CC73FSL1H221J	CHIP C	220PF	J
C68-70			CC73FSL1H102J	CHIP C	1000PF	J
C71, 72			CC73FSL1H471J	CHIP C	470PF	J
C73, 74			CC73FSL1H221J	CHIP C	220PF	J
C75			CK73FF1E104Z	CHIP C	0.10UF	Z
C77			CC73FCH1H220J	CHIP C	22PF	J
C78, 79			CK73FF1E104Z	CHIP C	0.10UF	Z
C80			CC73FCH1H220J	CHIP C	22PF	J
C82			CE04KW1C470M	ELECTRO	47UF	16WV
C83			CK73FB1H103K	CHIP C	0.010UF	K
C84			CC73FSL1H101J	CHIP C	100PF	J
C85			CC73FCH1H220J	CHIP C	22PF	J
C86			CC73FCH1H100D	CHIP C	10PF	D
C87			CC73FSL1H102J	CHIP C	1000PF	J
C88			CC73FCH1H100D	CHIP C	10PF	D
C89, 90			CC73FCH1H120J	CHIP C	12PF	J
C91			CE04KW1E221M	ELECTRO	220UF	25WV
C93			CK73FB1H103K	CHIP C	0.010UF	K
C94			CE04KW1V220M	ELECTRO	22UF	35WV
C96			CE04KW1A101M	ELECTRO	100UF	10WV
C97			CC73FSL1H102J	CHIP C	1000PF	J
C98			CE04KW1V220M	ELECTRO	22UF	35WV
C100			CE04KW1E221M	ELECTRO	220UF	25WV
C101, 102			CK73FB1H103K	CHIP C	0.010UF	K
C103			CE04KW1A101M	ELECTRO	100UF	10WV
C104			CK73FB1H103K	CHIP C	0.010UF	K
C105, 106			CC73FCH1H070D	CHIP C	7.0PF	D

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C105, 106			CC73FCH1H070D	CHIP C	7.0PF	D
C107			CC73FSL1H102J	CHIP C	1000PF	J
C108			CK45FF1H103Z	CERAMIC	0.010UF	Z
C109			CE04KW1A101M	ELECTRO	100UF	10WV
C111, 112			CE04KW1H4R7M	ELECTRO	4.7UF	50WV
C113			CC73FSL1H102J	CHIP C	1000PF	J
C115			CE04KW1A101M	ELECTRO	100UF	10WV
C116			CE04KW1V4R7M	ELECTRO	4.7UF	35WV
C118			CE04KW1A101M	ELECTRO	100UF	10WV
C119, 120			CE04KW1V100M	ELECTRO	10UF	35WV
C121			CK73FB1H103K	CHIP C	0.010UF	K
C122			CK45FF1H103Z	CERAMIC	0.010UF	Z
C123			CC73FSL1H101J	CHIP C	100PF	J
C124			CK73FB1H103K	CHIP C	0.010UF	K
C125-128			CC73FSL1H101J	CHIP C	100PF	J
C130			CC73FSL1H102J	CHIP C	1000PF	J
C130			CC73FSL1H102J	CHIP C	1000PF	J
C131, 132			CE04KW1C330M	ELECTRO	33UF	16WV
C133-136			CC73FSL1H101J	CHIP C	100PF	J
C137, 138			CE04KW1H2R2M	ELECTRO	2.2UF	50WV
C139, 140			CC73FSL1H471J	CHIP C	470PF	J
C141, 142			CE04KW1V100M	ELECTRO	10UF	35WV
C143, 144			CC73FSL1H101J	CHIP C	100PF	J
C145, 146			CE04KW1C330M	ELECTRO	33UF	16WV
C147, 148			CC73FSL1H101J	CHIP C	100PF	J
C149, 150			CC73FSL1H151J	CHIP C	150PF	J
C149, 150			CC73FSL1H151J	CHIP C	150PF	J
C149, 150			CC73FSL1H221J	CHIP C	220PF	J
C151, 152			CC73FSL1H101J	CHIP C	100PF	J
C153, 154			CQ93FMG1H153J	MYLAR	0.015UF	J
C153, 154			CQ93FMG1H273J	MYLAR	0.027UF	J
C153, 154			CQ93FMG1H273J	MYLAR	0.027UF	J
C155			CK73FB1H103K	CHIP C	0.010UF	K
C156			CC73FSL1H101J	CHIP C	100PF	J
C157, 158			CQ93FMG1H152J	MYLAR	1500PF	J
C159-162			CC73FSL1H101J	CHIP C	100PF	J
C163, 164			CE04KW1H470M	ELECTRO	47UF	50WV
C165, 166			CC73FSL1H471J	CHIP C	470PF	J
C167			CC73FSL1H101J	CHIP C	100PF	J
C168			CC73FSL1H102J	CHIP C	1000PF	J
C169-171			CC73FSL1H101J	CHIP C	100PF	J
C172, 173			CC73FCH1H050C	CHIP C	5.0PF	C
C174			CK73FF1E104Z	CHIP C	0.10UF	Z
C176			CK73FB1H103K	CHIP C	0.010UF	K
C177			CC73FSL1H182J	CHIP C	1800PF	J
C178			CE04KW1E220M	ELECTRO	22UF	25WV
C179			CE04KW1V100M	ELECTRO	10UF	35WV
C180			CK73FB1H103K	CHIP C	0.010UF	K
C181			CE04KW1E470M	ELECTRO	47UF	25WV
C182			CK73FB1H103K	CHIP C	0.010UF	K
C183, 184			CC73FSL1H101J	CHIP C	100PF	J
C185, 186			CC73FSL1H101J	CHIP C	100PF	J
C185, 186			CC73FSL1H101J	CHIP C	100PF	J
C187, 188			CC73FSL1H101J	CHIP C	100PF	J
C189, 190			CC73FSL1H101J	CHIP C	100PF	J

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
CN1			E40-4807-05	PIN ASSY		
CN2			E40-8055-05	FLAT CABLE CONNECTOR		
CN3			E40-8054-05	FLAT CABLE CONNECTOR		
CN4			E40-4944-05	FLAT CABLE CONNECTOR		
CN5			E40-4906-05	FLAT CABLE CONNECTOR		
▲ CN6		*	E40-4245-05	PIN ASSY		
J1			E63-1065-05	PHONO JACK		
J2			E63-0160-05	PHONO JACK		
J3			E11-0293-05	MINIATURE PHONE JACK(2P)		
J4			E11-0127-05	PHONE JACK (3P)	EK1P1	
J4			E11-0127-05	PHONE JACK (3P)	T1E2	
J4			E11-0190-05	PHONE JACK (3P)	E1T2	
CN10, 11			J13-0075-05	FUSE CLIP		
E6			J11-0808-05	WIRE CLAMPER		
L1, 2		*	L40-8201-58	SMALL FIXED INDUCTOR(82UH,K)	E1T2	
X1			L77-1124-05	CRYSTAL RESONATOR	E1T2	
X2			L77-1124-05	CRYSTAL RESONATOR	EK1P1	
X2			L77-1124-05	CRYSTAL RESONATOR	T1E2	
X3			L78-0615-05	RESONATOR (12.5MHZ)		
R1			RK73FB2A100J	CHIP R 10 J 1/10W		
R3			RK73FB2A103J	CHIP R 10K J 1/10W		
▲ R4			RD14NB2E1R0J	RD 1 J 1/4W		
R5			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R6, 7			RK73FB2A103J	CHIP R 10K J 1/10W		
R8			RK73FB2A182J	CHIP R 1.8K J 1/10W		
R9, 10			RK73FB2A681J	CHIP R 680 J 1/10W		
R11			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R12			RK73FB2A751J	CHIP R 750 J 1/10W		
R13			RK73FB2A104J	CHIP R 100K J 1/10W		
R14			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R15			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R16			RK73FB2A104J	CHIP R 100K J 1/10W		
R17			RK73FB2A103J	CHIP R 10K J 1/10W		
R18			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R19			RK73FB2A101J	CHIP R 100 J 1/10W		
R20~22			RK73FB2A331J	CHIP R 330 J 1/10W		
R23			RK73FB2A151J	CHIP R 150 J 1/10W		
R24			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R25			R92-1861-05	METAL GLAZE 1.62K F 1/10W		
▲ R26			R92-1860-05	METAL GLAZE 1.50K F 1/10W		
R27			RD14NB2E4R7J	RD 4.7 J 1/4W		
R28			RK73FB2A473J	CHIP R 47K J 1/10W		
R29			RD14NB2E4R7J	RD 4.7 J 1/4W		
R30			RK73FB2A104J	CHIP R 100K J 1/10W		
R31			RK73FB2A331J	CHIP R 330 J 1/10W		
R32~34			RK73FB2A104J	CHIP R 100K J 1/10W		
R35			RK73FB2A101J	CHIP R 100 J 1/10W		
R36			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R37			RK73FB2A473J	CHIP R 47K J 1/10W		
R38, 39			RK73FB2A104J	CHIP R 100K J 1/10W		
R40			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R41, 42			RK73FB2A104J	CHIP R 100K J 1/10W		
R43			RK73FB2A182J	CHIP R 1.8K J 1/10W		
R45			RK73FB2A104J	CHIP R 100K J 1/10W		

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R47			RK73FB2A104J	CHIP R 100K J 1/10W		
R48, 49			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R51			RK73FB2A104J	CHIP R 100K J 1/10W		
R52, 53			RK73FB2A182J	CHIP R 1.8K J 1/10W		
R55			RK73FB2A331J	CHIP R 330 J 1/10W		
R56, 57			RK73FB2A471J	CHIP R 470 J 1/10W		
R58			RK73FB2A103J	CHIP R 10K J 1/10W		
R59			RK73FB2A123J	CHIP R 12K J 1/10W		
R60			RK73FB2A822J	CHIP R 8.2K J 1/10W		
R61			RK73FB2A333J	CHIP R 33K J 1/10W		
R62, 63			RK73FB2A101J	CHIP R 100 J 1/10W		
R64~71			RK73FB2A104J	CHIP R 100K J 1/10W		
R72			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R73			RK73FB2A104J	CHIP R 100K J 1/10W		
R77			RK73FB2A182J	CHIP R 1.8K J 1/10W		
R78			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R79			RK73FB2A223J	CHIP R 22K J 1/10W	E1T2	
R79			RK73FB2A473J	CHIP R 47K J 1/10W	EK1P1	
R79			RK73FB2A473J	CHIP R 47K J 1/10W	T1E2	
R80			RK73FB2A223J	CHIP R 22K J 1/10W	EK1P1	
R80			RK73FB2A223J	CHIP R 22K J 1/10W		
R80			RK73FB2A473J	CHIP R 47K J 1/10W	T1E2	
R85~88			RK73FB2A103J	CHIP R 10K J 1/10W	E1T2	
R89~93			RK73FB2A101J	CHIP R 100 J 1/10W		
R94, 95			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R96			RK73FB2A104J	CHIP R 100K J 1/10W		
R97~99			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R100			RK73FB2A391J	CHIP R 390 J 1/10W	EK1P1	
R100			RK73FB2A391J	CHIP R 390 J 1/10W	T1E2	
R101			RK73FB2A470J	CHIP R 47 J 1/10W	EK1P1	
R101			RK73FB2A470J	CHIP R 47 J 1/10W		
R102			RK73FB2A104J	CHIP R 100K J 1/10W	T1E2	
R103, 104			RK73FB2A103J	CHIP R 10K J 1/10W		
R105			RK73FB2A182J	CHIP R 1.8K J 1/10W		
R106			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R107			RK73FB2A123J	CHIP R 12K J 1/10W		
R108			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R109			RK73FB2A473J	CHIP R 47K J 1/10W		
R110~114			RK73FB2A103J	CHIP R 10K J 1/10W		
R115			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R116			RK73FB2A104J	CHIP R 100K J 1/10W		
R117			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R118			RK73FB2A223J	CHIP R 22K J 1/10W		
R119			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R120			RK73FB2A104J	CHIP R 100K J 1/10W		
R121			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R122			RK73FB2A223J	CHIP R 22K J 1/10W		
R123			RK73FB2A182J	CHIP R 1.8K J 1/10W		
R124			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R125			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R126			RK73FB2A822J	CHIP R 8.2K J 1/10W		
R127			RK73FB2A182J	CHIP R 1.8K J 1/10W		
R128			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R129			RK73FB2A123J	CHIP R 12K J 1/10W		
R130			RK73FB2A182J	CHIP R 1.8K J 1/10W		

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R131			RK73FB2A272J	CHIP R	2.7K	J	1/10W		
R132			RK73FB2A472J	CHIP R	4.7K	J	1/10W		
R133~135			RK73FB2A104J	CHIP R	100K	J	1/10W		
R136, 137			RK73FB2A331J	CHIP R	330	J	1/10W		
R138			RK73FB2A104J	CHIP R	100K	J	1/10W		
R139			RK73FB2A221J	CHIP R	220	J	1/10W		
R140			RK73FB2A150J	CHIP R	15	J	1/10W		
R141			RK73FB2A101J	CHIP R	100	J	1/10W		
R142			RK73FB2A750J	CHIP R	75	J	1/10W		
R143			RK73FB2A271J	CHIP R	270	J	1/10W		
R144			RK73FB2A750J	CHIP R	75	J	1/10W		
R145			RK73FB2A331J	CHIP R	330	J	1/10W		
R146			RK73FB2A103J	CHIP R	10K	J	1/10W		
R148			RK73FB2A332J	CHIP R	3.3K	J	1/10W		
R149			RK73FB2A103J	CHIP R	10K	J	1/10W		
R150			RK73FB2A182J	CHIP R	1.8K	J	1/10W		
R151			RK73FB2A101J	CHIP R	100	J	1/10W		
R152			RK73FB2A104J	CHIP R	100K	J	1/10W		
R153			RK73FB2A101J	CHIP R	100	J	1/10W		
R154			RK73FB2A103J	CHIP R	10K	J	1/10W		
R155			RK73FB2A221J	CHIP R	220	J	1/10W		
R156			RK73FB2A821J	CHIP R	820	J	1/10W	E1T2	
R157~159			RK73FB2A471J	CHIP R	470	J	1/10W	E1T2	
R160			RK73FB2A512J	CHIP R	5.1K	J	1/10W	E1T2	
R161			RK73FB2A391J	CHIP R	390	J	1/10W	E1T2	
R162			RK73FB2A105J	CHIP R	1.0M	J	1/10W	EK1P1	
R162			RK73FB2A105J	CHIP R	1.0M	J	1/10W	T1E2	
R163			RK73FB2A121J	CHIP R	120	J	1/10W	EK1P1	
R163			RK73FB2A121J	CHIP R	120	J	1/10W	T1E2	
R163			RK73FB2A221J	CHIP R	220	J	1/10W	E1T2	
R164			RK73FB2A151J	CHIP R	150	J	1/10W		
R165, 166			RK73FB2A104J	CHIP R	100K	J	1/10W		
R167			RK73FB2A471J	CHIP R	470	J	1/10W		
R168			RK73FB2A222J	CHIP R	2.2K	J	1/10W	EK1P1	
R168			RK73FB2A222J	CHIP R	2.2K	J	1/10W	T1E2	
R169			RK73FB2A102J	CHIP R	1.0K	J	1/10W	EK1P1	
R169			RK73FB2A102J	CHIP R	1.0K	J	1/10W	T1E2	
R170			RK73FB2A102J	CHIP R	1.0K	J	1/10W		
R171			RK73FB2A222J	CHIP R	2.2K	J	1/10W		
R172			RK73FB2A105J	CHIP R	1.0M	J	1/10W	E1T2	
Δ R173~175			RK73FB2A100J	CHIP R	10	J	1/10W		
R176, 177			RK73FB2A105J	CHIP R	1.0M	J	1/10W		
R178			RK73FB2A105J	CHIP R	1.0M	J	1/10W	EK1P1	
R178			RK73FB2A105J	CHIP R	1.0M	J	1/10W	T1E2	
Δ R179			RK73FB2A1R0J	CHIP R	1	J	1/10W	E1T2	
Δ R180			RK73FB2A220J	CHIP R	22	J	1/10W	E1T2	
R181, 182			RK73FB2A222J	CHIP R	2.2K	J	1/10W		
R183, 184			RK73FB2A105J	CHIP R	1.0M	J	1/10W		
R185, 186			RK73FB2A102J	CHIP R	1.0K	J	1/10W		
R187, 188			RK73FB2A104J	CHIP R	100K	J	1/10W		
R189, 190			RK73FB2A223J	CHIP R	22K	J	1/10W		
R191, 192			RK73FB2A102J	CHIP R	1.0K	J	1/10W		
R193, 194			RK73FB2A473J	CHIP R	47K	J	1/10W		
R195, 196			RK73FB2A752J	CHIP R	7.5K	J	1/10W		
R197, 198			RK73FB2A331J	CHIP R	330	J	1/10W		

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R199, 200			RK73FB2A750J	CHIP R	75	J	1/10W		
R201, 202			RK73FB2A102J	CHIP R	1.0K	J	1/10W		
R203, 204			RK73FB2A123J	CHIP R	12K	J	1/10W	EK1P1	
R203, 204			RK73FB2A123J	CHIP R	12K	J	1/10W	T1E2	
R203, 204			RK73FB2A682J	CHIP R	6.8K	J	1/10W	E1T2	
R205, 206			RK73FB2A133J	CHIP R	13K	J	1/10W	E1T2	
R205, 206			RK73FB2A393J	CHIP R	39K	J	1/10W	EK1P1	
R205, 206			RK73FB2A393J	CHIP R	39K	J	1/10W	T1E2	
R207, 208			RK73FB2A101J	CHIP R	100	J	1/10W		
R209~214			RK73FB2A821J	CHIP R	820	J	1/10W		
R215, 216			RK73FB2A512J	CHIP R	5.1K	J	1/10W		
R217, 218			RK73FB2A101J	CHIP R	100	J	1/10W		
R219, 220			RK73FB2A104J	CHIP R	100K	J	1/10W		
R221, 222			RK73FB2A101J	CHIP R	100	J	1/10W		
R223, 224			RK73FB2A102J	CHIP R	1.0K	J	1/10W		
R225, 226			RK73FB2A101J	CHIP R	100	J	1/10W		
R227, 228			RK73FB2A102J	CHIP R	1.0K	J	1/10W		
R229, 230			RK73FB2A101J	CHIP R	100	J	1/10W		
Δ R232			RK73FB2A220J	CHIP R	22	J	1/10W	E1T2	
R234			RD14NB2E330J	RD	33	J	1/4W		
R235			RK73FB2A103J	CHIP R	10K	J	1/10W		
R236			RD14NB2E330J	RD	33	J	1/4W		
R237			RK73FB2A102J	CHIP R	1.0K	J	1/10W		
R238			RK73FB2A471J	CHIP R	470	J	1/10W	E1T2	
R239, 240			RK73FB2A221J	CHIP R	220	J	1/10W		
R241, 242			RK73FB2A101J	CHIP R	100	J	1/10W		
R243			RK73FB2A221J	CHIP R	220	J	1/10W		
R247, 248			RK73FB2A4R7J	CHIP R	4.7	J	1/10W		
Δ R249, 250			RK73FB2A150J	CHIP R	15	J	1/10W		
R251			RD14NB2E330J	RD	33	J	1/4W		
R252, 253			RK73FB2A101J	CHIP R	100	J	1/10W		
R255, 256			RK73FB2A103J	CHIP R	10K	J	1/10W		
Δ R258, 259			RK73FB2A1R0J	CHIP R	1	J	1/10W	E1T2	
R260			RK73FB2A103J	CHIP R	10K	J	1/10W		
Δ R261, 262			RK73FB2A150J	CHIP R	15	J	1/10W		
Δ R271			RD14NB2E1R0J	RD	1	J	1/4W		
VR1		*	R31-0098-05	VARIABLE RESISTOR					
S2~17			S70-0031-05	TACT SWITCH					
S18			S31-1036-05	SLIDE SWITCH					
Δ S20			S68-0107-05	PUSH SWITCH					
S1			T99-0537-05	ROTARY ENCODER					
Δ D1			D3SBA20F03	DIODE					
Δ D3~5			U1BC44	DIODE					
D6			MA111	DIODE					
D8			MA111	DIODE					
D9, 10			S5688B(TPB5)	DIODE					
Δ D11			D3SBA20F03	DIODE					
D12			MA111	DIODE					
D13			UDZ5.6B	ZENER DIODE					
D14, 15			MA113	DIODE					
D17			MA111	DIODE					
D19			UDZ18B	ZENER DIODE					
D20			UDZ15B	ZENER DIODE					

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Δ D21 D22, 23 D24 D26 D27, 28			S5688B(TPB5) MA111 MA111 DA204U UDZ18B	DIODE DIODE DIODE DIODE ZENER DIODE	E1T2	
Δ D29 D30 D31, 32 D33 D34			MA111 DA204U U1BC44 UDZ3.3B MA111	DIODE DIODE DIODE ZENER DIODE DIODE		
D35, 36 D35, 36 D38 D40 D41			MA111 MA111 MA111 MA111 UDZ7.5B	DIODE DIODE DIODE DIODE ZENER DIODE	EK1P1 T1E2	
D42 D43, 44 D45 ED1 IC1, 2			MA111 DA204U MA111 CM1777M ICP-N10	DIODE DIODE DIODE INDICATOR TUBE ANALOGUE IC		
Δ IC3 IC4 IC5 IC6 IC8			NJM4558D PST993D-T TL431CLP ICP-N10 PCM3002E	ANALOGUE IC ANALOGUE IC MOS-IC ANALOGUE IC MOS-IC	EK1P1	
IC8 IC8 IC10 IC11 IC13, 14			PCM3002E PCM3003E NJM4565D NJM4580D NJM4565D	MOS-IC MOS-IC ANALOGUE IC IC(OP AMP X2) ANALOGUE IC	T1E2 E1T2	
IC21, 22 IC23 IC26 IC31 IC33			TC74HCU04AF LC75710NED TC74HC00AF UPD784215GF532 TC74HC373AF	IC(HEX INVERTER SMD) MOS-IC IC(2INPUT NAND GATE) MI-COM IC IC(8 bit LATCH)		
IC34 IC35 IC36 IC37 IC38			W24258S-70LE TA8409S TC74HCT7007AF HD74HCT126FPEL TC74HCT7007AF	MEMORY IC MOS-IC IC(HEX BUFFER) MOS-IC IC(HEX BUFFER)		
IC39 IC40 IC41 Q1 Q1			TC74VHC244F KAN06 PCM1716E 2SD2012 2SD2061	MOS-IC CUSTOM IC MOS-IC TRANSISTOR TRANSISTOR	E1T2 E1T2	
Q2 Q3 Q3 Q4 Q5, 6			2SK246(GR) DTC113ZUA UN5219 2SA992(F,E) DTC124EUA	FET DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR		
Δ Q5, 6 Q7 Q8 Q8			UN5212 2SD2012 2SD2061 2SA1576A(R,S) 2SB1218A(Q,R)	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
Q9, 10 Q9, 10 Q11 Q11 Q12			2SC4081(R,S) 2SD1819A(Q,R) 2SD2012 2SD2061 DTC113ZUA	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR		
Q12 Q13 Q14, 15 Q16 Q16			UN5219 2SA954(L,K) 2SD1302(S,T) DTC124EUA UN5212	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR		
Q17~20 Q21 Q22 Q23 Q23			2SD1450(S,T) 2SC1845(F,E) 2SA992(F,E) 2SC4081(R,S) 2SD1819A(Q,R)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q24 Q24 Q25 Q25 Q26			2SA1576A(R,S) 2SB1218A(Q,R) DTC124EUA UN5212 DTA124EUA	TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR		
Q26 Q27, 28 Q27, 28 Q29 Q29			UN5112 DTC124EUA UN5212 DTC124EUA UN5212	DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR	E1T2 E1T2	
Q30 Q30 Q31 Q31 Q32			DTA124EUA UN5112 DTC143TUA UN5216 DTA124EUA	DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR		
Q32 Q33~37 Q33~37 Q39 Q39			UN5112 2SC4081(R,S) 2SD1819A(Q,R) DTC124EUA UN5212	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR		
Q40			2SK163(L)	FET		
A1 A2 A3			W02-1181-05 W02-1114-05 W02-2571-05	OPTIC RECEIVING MODULE OSCILLATING MODULE OPTIC RECEIVING MODULE		
MD MECHANISM PCB (X29-2580-00)						
CN1 CN2 CN3			E40-3260-05 E40-3261-05 E40-8076-05	PIN ASSY PIN ASSY FLAT CABLE CONNECTOR		
S1 S2			S68-0074-05 S64-0028-05	PUSH SWITCH LEVER SWITCH		
PH1			T95-0140-05	PHOTO INTERRUPTER		
MD PCB (X33-1100-00)						
C21, 22 C101 C102 C103, 104 C105			CC73FCH1H020C C92-0628-05 CK73FB1E104K C92-0628-05 CK73FB1H103K	CHIP C CHIP-TAN CHIP C CHIP-TAN CHIP C	2.0PF 10UF 0.10UF 10UF 0.010UF	C 10WV K 10WV K

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PARTS LIST

DMF-3020/3020(S)/5020/MD-203

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
C106			CC73FCH1H102J	CHIP C 1000PF J		
C107, 108			CK73FF1E104Z	CHIP C 0.10UF Z		
C109			CK73FB1H223K	CHIP C 0.022UF K		
C110			CK73FB1E104K	CHIP C 0.10UF K		
C111			CK73FB1H683K	CHIP C 0.068UF K		
C112			CK73FB1H472K	CHIP C 4700PF K		
C113			CK73FF1C105Z	CHIP C 1.0UF Z		
C115			CK73FB1C224K	CHIP C 0.22UF K		
C116			CK73FB1H223K	CHIP C 0.022UF K		
C117, 118			CK73FB1E104K	CHIP C 0.10UF K		
C119			C92-0628-05	CHIP-TAN 10UF 10WV		
C121			C92-0048-05	ELECTRO 100UF 6.3WV		
C122			CK73FB1H103K	CHIP C 0.010UF K		
C123			CK73FF1E104Z	CHIP C 0.10UF Z		
C127			CK73FF1E104Z	CHIP C 0.10UF Z		
C128			CK73FB1H103K	CHIP C 0.010UF K		
C129			CK73FB1C474K	CHIP C 0.47UF K		
C130			CC73FSL1H101J	CHIP C 100PF J		
C131			CK73FB1H153K	CHIP C 0.015UF K		
C132			CK73FB1C474K	CHIP C 0.47UF K		
C133			CK73FB1H472K	CHIP C 4700PF K		
C134, 135			CK73FF1E104Z	CHIP C 0.10UF Z		
C136			C92-0048-05	ELECTRO 100UF 6.3WV		
C141			CK73FF1E104Z	CHIP C 0.10UF Z		
C142~144			CC73FSL1H101J	CHIP C 100PF J		
C146			CK73FF1E104Z	CHIP C 0.10UF Z		
C151			C92-0048-05	ELECTRO 100UF 6.3WV		
C152			CK73FF1E104Z	CHIP C 0.10UF Z		
C153			CK73FB1H103K	CHIP C 0.010UF K		
C156			CK73FF1E104Z	CHIP C 0.10UF Z		
C158			CK73FB1H682K	CHIP C 6800PF K		
C160, 161			C92-0167-05	CHIP-ELE 10UF 10WV		
C163, 164			CK73FB1H103K	CHIP C 0.010UF K		
C167, 168			CK73FF1E104Z	CHIP C 0.10UF Z		
C169			C92-0628-05	CHIP-TAN 10UF 10WV		
C171			CK73FF1E104Z	CHIP C 0.10UF Z		
C181			C92-0048-05	ELECTRO 100UF 6.3WV		
C182, 183			CK73FF1E104Z	CHIP C 0.10UF Z		
C184			C92-0149-05	CHIP-ELE 22UF 8WV		
C185			C93-0031-05	CHIP-C 1000P 500V		
C187			C92-0048-05	ELECTRO 100UF 6.3WV		
C188			CK73FB1H103K	CHIP C 0.010UF K		
C189			CK73FB1H333K	CHIP C 0.033UF K		
C190			C92-0048-05	ELECTRO 100UF 6.3WV		
C191			CK73FF1E104Z	CHIP C 0.10UF Z		
C195			CK73FF1C105Z	CHIP C 1.0UF Z		
C196, 197			CK73FF1E104Z	CHIP C 0.10UF Z		
C200			C93-0032-05	CHIP C 10UF 10WV		
CN101			E40-8074-05	FLAT CABLE CONNECTOR (29P)		
CN102			E40-8075-05	FLAT CABLE CONNECTOR (19P)		
CN103			E40-8077-05	FLAT CABLE CONNECTOR (22P)		
CN104			E40-8078-05	PIN ASSY (2P)		
CN105			E40-8076-05	FLAT CABLE CONNECTOR (15P)		
L1, 2			L33-0545-05	CHOKE COIL (10UH)		

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L3, 4			L33-0369-05	CHOKE COIL (100UH)		
L5~11			L79-1216-05	LINE FILTER		
R103			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R104			RK73FB2A103J	CHIP R 10K J 1/10W		
R105			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R106			RK73FB2A335J	CHIP R 3.3M J 1/10W		
R107			RK73FB2A474J	CHIP R 470K J 1/10W		
R108, 109			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R110			RK73FB2A103J	CHIP R 10K J 1/10W		
R112			RK73FB2A473J	CHIP R 47K J 1/10W		
R113			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R115			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R117			RK73FB2A474J	CHIP R 470K J 1/10W		
R120			RK73FB2A101J	CHIP R 100 J 1/10W		
R121			RK73FB2A104J	CHIP R 100K J 1/10W		
R123			RK73FB2A221J	CHIP R 220 J 1/10W		
R124, 125			RK73FB2A101J	CHIP R 100 J 1/10W		
R127			RK73FB2A101J	CHIP R 100 J 1/10W		
R131			RK73FB2A103J	CHIP R 10K J 1/10W		
R132			RK73FB2A104J	CHIP R 100K J 1/10W		
R133			RK73FB2A684J	CHIP R 680K J 1/10W		
R134			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R135			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R136			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R137			RK73FB2A101J	CHIP R 100 J 1/10W		
R140			RK73FB2A151J	CHIP R 150 J 1/10W		
R141			RK73FB2A561J	CHIP R 560 J 1/10W		
R142, 143			RK73FB2A103J	CHIP R 10K J 1/10W		
R144			RK73FB2A101J	CHIP R 100 J 1/10W		
R146~148			RK73FB2A101J	CHIP R 100 J 1/10W		
R150			RK73FB2A221J	CHIP R 220 J 1/10W		
R158, 159			RK73FB2A104J	CHIP R 100K J 1/10W		
R161~163			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R164			RK73FB2A681J	CHIP R 680 J 1/10W		
R165			RK73FB2A104J	CHIP R 100K J 1/10W		
R166			R92-1854-05	RN 2.2 K 1/2W		
R167			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R169			R92-1853-05	CHIP-RN 1 1/4W		
R170, 171			RK73FB2A103J	CHIP R 10K J 1/10W		
R173			RK73FB2A105J	CHIP R 1.0M J 1/10W		
R175			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R177			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R179			RK73FB2A473J	CHIP R 47K J 1/10W		
R180, 181			RK73FB2A103J	CHIP R 10K J 1/10W		
R182, 183			RK73FB2A473J	CHIP R 47K J 1/10W		
R184, 185			RK73FB2A103J	CHIP R 10K J 1/10W		
R188~190			RK73FB2A103J	CHIP R 10K J 1/10W		
W1~4			R92-0670-05	CHIP R 0 OHM		
W101			R92-0670-05	CHIP R 0 OHM		
W108			R92-0679-05	CHIP R 0 OHM		
W109			R92-0670-05	CHIP R 0 OHM		
W111			R92-0670-05	CHIP R 0 OHM		
W114			R92-0670-05	CHIP R 0 OHM		
W116			R92-0670-05	CHIP R 0 OHM		

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W178 W186, 187 W195, 196 W198-201			R92-0670-05 R92-0679-05 R92-0670-05 R92-0670-05	CHIP R 0 OHM CHIP R 0 OHM CHIP R 0 OHM CHIP R 0 OHM		
D1, 2 D101 IC1 IC2 IC3			F1J6TP MA111 CXA2523AR CXD2652AR TC7S08FU	DIODE DIODE ANALOGUE IC MOS-IC MOS-IC		
IC4 IC5 IC6 IC7 IC8			TC7WU04FU TC74ACT540FS X24C01AS-2.7 HM51W4400BTT-7 BH6511FS	MOS-IC MOS-IC MEMORY IC MEMORY IC ANALOGUE IC		
IC10 Q1 Q2, 3 Q4, 5 Q6			L88MS33T FMW1 DTA144EUA DTC114YUA 2SA1576A(R,S)	ANALOGUE IC TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR		
Q7 Q8 Q9 Q10			2SB798-DL 2SJ278 2SK1764 DTC114EUA	TRANSISTOR FET FET DIGITAL TRANSISTOR		

MD MECHANISM (D40-1533-05) : MDM-04

1	2B	A10-3329-08	CHASSIS ASSY		
2	1B	D10-3690-08	LEVER ASSY		
3	1A	D10-3698-08	ARM ASSY		
4	2A	D10-3759-08	SLIDER ASSY (HD)		
5	2B	D13-1784-08	GEAR ASSY (T)		
6	1A	J11-0824-08	CLAMPER ASSY		
7	1B	J19-5766-08	HOLDER ASSY		
8	3A	A11-1113-08	SUB SHASSIS (FRAME)		
9	1B	A11-1116-08	SUB SHASSIS (TOP)		
10	2A	D10-3742-08	LEVER (DOOR)		
11	3A	D13-1792-08	RACK (GEAR)		
12	2B	G02-1616-08	FLAT SPRING (THRUST)		
13	3A	G02-1618-08	FLAT SPRING (SUB)		
15	2A	D10-3685-08	SHAFT (SUB)		
16	2A	D10-3694-08	SHAFT (MAIN)		
17	1A	D21-1859-08	SHAFT (JOINT)		
18	2B	D10-3686-08	SLIDER (MAIN)		
19	1A	D10-3687-08	SLIDER (LD)		
20	1A	D10-3689-08	ARM (CLAMP)		
21	2A	D10-3692-08	ARM (CHANGE)		
22	2B	D13-1786-08	GEAR (WORM)		
23	2A	D13-1787-08	GEAR (MOTOR-T)		
24	2A	D13-1788-08	GEAR (MOTOR-L)		
25	1A	D13-1789-08	GEAR (INTERMEDIATE LA)		
26	2A	D13-1790-08	GEAR (INTERMEDIATE LB)		
27	2A	D13-1791-08	GEAR (MAIN)		
28	1A	G13-0560-08	CUSHION		
29	3A, 3B	J02-1178-08	INSULATOR		
30	1A	G01-3964-08	EXTENSION SP		
31	1A	G01-3965-08	TORSION SP		

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32	2B		G01-3966-08	EXTENSION SP		
33	1A		G01-3967-08	EXTENSION SP (S/HD)		
34	2A		G01-4014-08	EXTENSION SP (DOOR)		
35	3B		G10-0146-04	NON-WOVEN-FABRIC		
36	2B		N19-1101-04	POLY WS 1.2*3.0*0.5CUT		
37	1B		N19-1105-04	POLY WS 1.6*3.5*0.5CUT		
38	1A		N19-0366-04	POLY WS 2.1*4.0*0.5CUT		
39	1A		G16-0877-04	SHEET (TRAY)		
40	2B		E35-1715-08	WIRING HARNESS		
41	3A		E35-1780-08	FLAT CABLE		
42	3B		J80-0012-08	FPC		
47	2B		S33-1022-05	PUSH SWITCH SPPB12		
48	2A, 3A		J26-0052-08	PCB ASSY (X29-2580-00)		
DM	3A		T42-0871-08	MOTOR ASSY		
FM	3A		T42-0880-05	DC MOTOR		
LM	3A		T42-0881-05	DC MOTOR		
PU	3A		T25-0060-05	OPTICAL PICKUP HEAD		
RH	3A		T30-0013-05	RECORD HEAD		

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PARTS LIST

HOW TO READ THE PARTS LIST

ABBREVIATION OF MODEL AND MASS PRODUCTION'S DESTINATIONS

MODEL	ABB.	Australia	Canada	China	England	Europe	Germany	Korea	Malaysia
DMF-3020		-	-	-	T1	E	-	-	-
DMF-3020(S)		-	-	-	-	E1	-	-	-
DMF-5020		-	-	-	T2	E2	-	-	-
MD-203		-	P1	-	-	-	-	-	-
MODEL	ABB.	Mexico	PX/AAFES	Russia	Scandinavia	Shanghai	USA	Other area	
DMF-3020		-	-	-	-	-	-	-	-
DMF-3020(S)		-	-	-	-	-	-	-	-
DMF-5020		-	-	-	-	-	-	-	-
MD-203		-	-	-	-	-	K1	-	-

DMF-3020/3020(S)/5020/MD-203

SPECIFICATIONS

DMF-5020

[Format]

System Minidisc digital audio system
Laser Semiconductor laser
Recording method Field modulation overwrite method
Audio compression ATRAC (Adaptive TRAnsform Acoustic Coding)
Playing rotation Approx. 400 rpm ~ 900 rpm (CLV)

[D/A conversion]

D/A conversion 1 Bit (24 Bit D.R.I.V.E. conversion)
Oversampling 8 fs (352.8 kHz)

[A/D converter]

A/D converter 5 th order sigma-delta conversion
Sampling frequency 44.1 kHz

[Digital audio performance]

Frequency response (playback mode) 8 Hz ~ 20 kHz (± 1 dB)
Signal to noise ratio (playback mode) More than 105 dB
Dynamic range (playback mode) More than 94 dB
Total harmonic distortion (1 kHz, playback mode) Less than 0.007 %
Wow & flutter Less than unmeasurable limit
Analog input sensitivity / input impedance 500 mV / 22 k Ω or more
Analog output level / output impedance 2.0 V / Less than 400 Ω
Headphone output 20 mW/32 Ω load
Digital input
Coxial 0.5 Vp-p / 75 Ω
Optical (Wave length 660 nm) - 15 dBm ~ - 21 dBm
Digital output
Coxial 0.5 Vp-p / 75 Ω
Optical (Wave length 660 nm) - 15 dBm ~ - 21 dBm

[General]

Power consumption 18 W
Dimensions W : 440 mm (17 - 5 / 16")
..... H : 94 mm (3 - 11 / 16")
..... D : 379 mm (14 - 15 / 16")
Weight (Net) 4.0 kg (8.8 lb)



1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
2. The full performance may not be exhibited in an extremely cold location (under a water-freezing temperature).

DMF-3020/MD-203

[Format]

System Minidisc digital audio system
Laser Semiconductor laser
Recording method Field modulation overwrite method
Audio compression ATRAC (Adaptive TRAnsform Acoustic Coding)
Playing rotation Approx. 400 rpm ~ 900 rpm (CLV)

[D/A conversion]

D/A conversion 1 Bit
Oversampling 8 fs (352.8 kHz)

[A/D converter]

A/D converter 5 th order sigma-delta conversion
Sampling frequency 44.1 kHz

[Digital audio performance]

Frequency response (playback mode) 8 Hz ~ 20 kHz (± 1 dB)
Signal to noise ratio (playback mode) More than 100 dB
Dynamic range (playback mode) More than 90 dB
Total harmonic distortion (1 kHz, playback mode) Less than 0.01 %
Wow & flutter Less than unmeasurable limit
Analog input sensitivity / input impedance 500 mV / 22 k Ω or more
Analog output level / output impedance 2.0 V / Less than 400 Ω
Headphone output 20 mW/32 Ω load
Digital input
Coxial 0.5 Vp-p / 75 Ω
Optical (Wave length 660 nm) - 15 dBm ~ - 21 dBm
Digital output
Coxial 0.5 Vp-p / 75 Ω
Optical (Wave length 660 nm) - 15 dBm ~ - 21 dBm

[General]

Power consumption 18 W
Dimensions W : 440 mm (17 - 5 / 16")
..... H : 94 mm (3 - 11 / 16")
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Weight (Net) 4.0 kg (8.8 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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