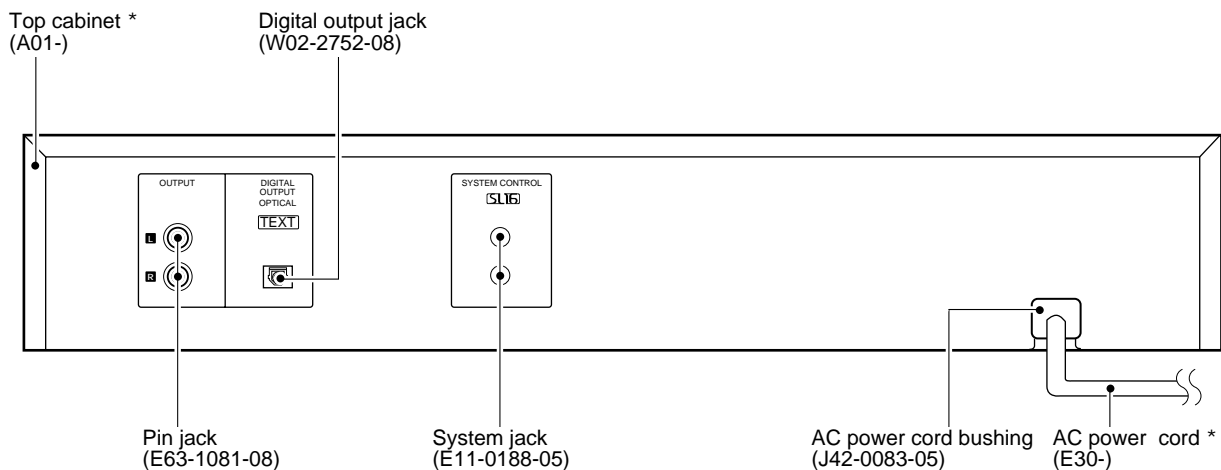
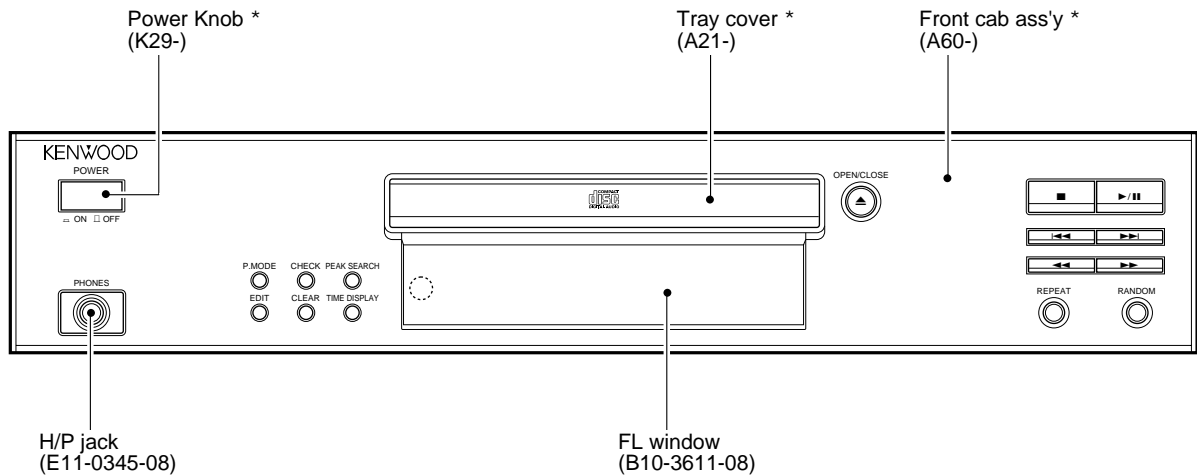


DPF-1030/1030E/1030-S DPF-2030/2030E/2030-S SERVICE MANUAL



*** Refer to parts list on page 14.**

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

Refer to DP-3080MKII/3090 Service manual (B51-5349-00), if you require disassembly for repair.

KENWOOD-Corp. 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.



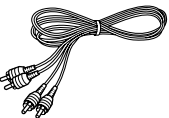
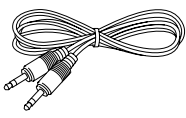
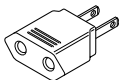
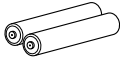
DPF-1030/2030

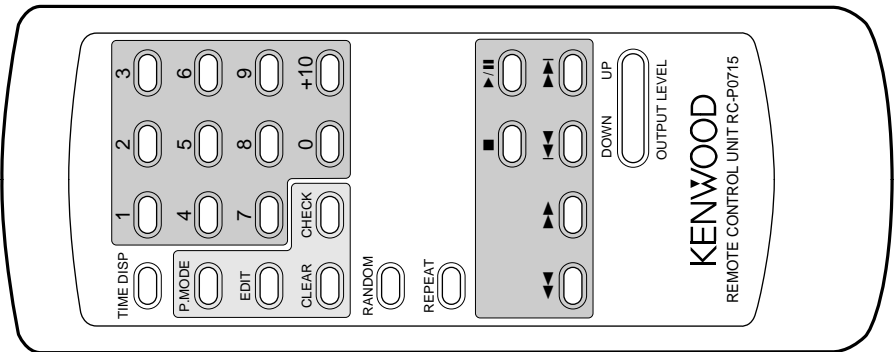
CONTENTS / ACCESSORIES

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CIRCUIT DESCRIPTION	3	PARTS LIST	14
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PC BOARD	5		

Accessories

Audio cord (1) (E30-2913-08) 	System control cord (1) (E30-2912-08) 	AC plug adaptor (1) (E03-0115-05)  Use to adapt the plug on the power cord to the shape of the wall outlet. (Accessory only for regions where use is necessary.)
Remote control unit (1) (A70-1414-08) : RC-P0715 (DPF-2030 only)	Battery cover : (A09-1190-08)	Batteries (R6/AA) (2) (DPF-2030 only) 

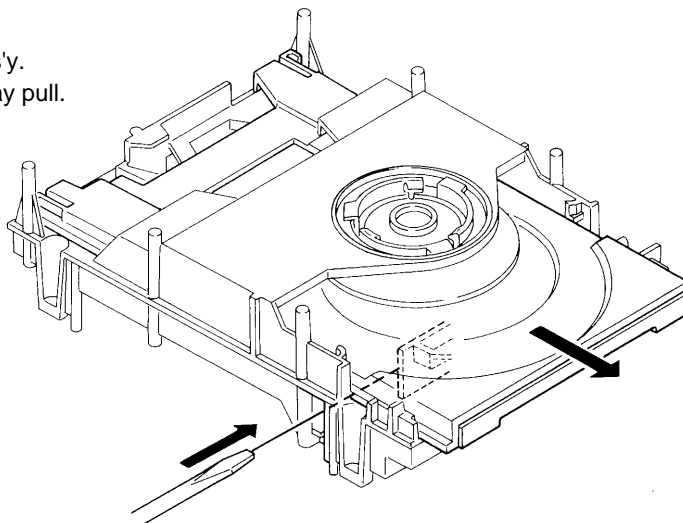


The remote control unit is shown with various buttons: TIME DISP, P.MODE, EDIT, CLEAR, CHECK, RANDOM, REPEAT, a numeric keypad (0-10), and directional buttons (UP, DOWN, LEFT, RIGHT). The brand name KENWOOD and model REMOTE CONTROL UNIT RC-P0715 are printed on the device.

DISASSEMBLY FOR REPAIR

1. How to open tray when tray not come out.

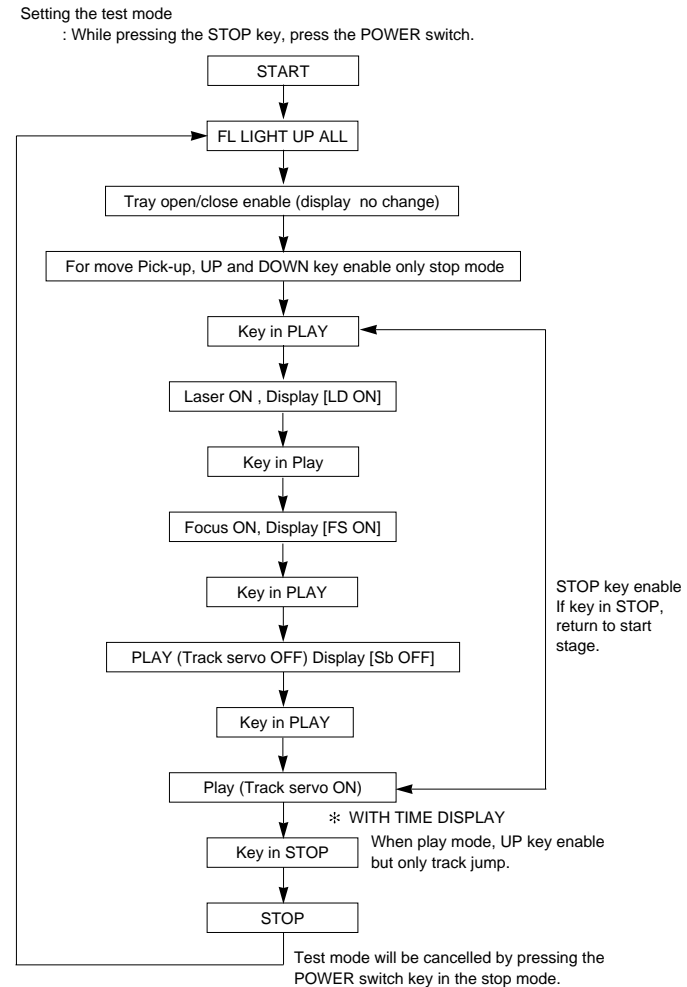
1. Insert the screw driver to left side hole of mechanism ass'y.
2. While pushing the rack gear fully right wards, then the tray pull.



1. Pin description of microprocessor

Pin No.	Pin Name	I/O	Description
1-6	6G-1G	O	FL grid control port.
7	NC	-	Unused.
8	VDD	-	Power supply(+5V).
9-11	-	-	Connected to ground.
12	C-RESET	O	DSP signal output.
13	S-MUTE	O	Muting signal output for system.
14	NC	-	Unused.
15	TEXT	I	Text copy detection.
16	-	-	Connected to ground.
17	RESET	I	Hardware reset signal input.
18	LD CLOSE	O	Tray motor control.
19	LD OPEN	O	Tray motor control.
20	AVSS	-	Connected to ground.
21	-	-	Connected to ground.
22	PU IN SW	I	Pickup location.
23	OPEN SW	I	Tray open switch input.
24	CLOSE SW	I	Tray close switch input.
25-28	KEYO-3	I	Key input port.
29	AVDD	-	Power supply(+5V).
30	AVREF	-	Reference voltage(+5V).
31,32	XT1,2	-	Connected to ground.
33	VSS	-	Connected to ground.
34,35	XO,1	-	X'tal 4.19MHz.
36	WRQ	I	Sub code Q output.
37	COIN	O	Command data to DSP.
38	16BIT	-	Unused.
39	HF	-	Connected to ground.
40	NC	-	Unused.
41	CQCK	O	Clock output to DSP.
42	SQOUT	I	SQ data to dsp.
43	RWC	O	Reading/writing control port.
44	GND	-	Connected to ground.
45	S BUSY	I/O	System control data.
46	S DATA	I/O	System control status.
47	RMC	I	Remote control signal input.
48	GND	-	Connected to ground.
49	TRY L/H	O	Tray motor speed control.
50	SL-	O	Sled motor control port(reverse).
51	SL+	O	Sled motor control port(forward).
52	VDD	-	Power supply(+5V).
53-59	NC	-	Unused.
60	DRF	I	CD focus OK signal input.
61	NC	-	Unused.
62-70	a-j	O	FL segment(a-j) control port.
71	VLOAD	-	Power supply(-30V).
72,73	k,l	O	FL segment(k,l) control port.
74-77	NC	-	Unused.
78-80	9G-7G	O	FL grid(9G-7G) control port.

2. Test mode



3. Key function in test mode

No.	INPUT KEY	FUNCTION	DISPLAY
1	PLAY(1ST)	LASER ON	LD ON
2	PLAY(2ND)	FOCUSING SERVO ON	FS ON
3	PLAY(3RD)	PLAY(TRACKING SERVO OFF)	Sb off
4	PLAY(4TH)	PLAY(TRACKING SERVO ON)	TN0. And Time
5	UP	In the stop mode. Moves the pickup slightly toward the outer position disc. When tracking servo is ON, set the track number up.	-
6	DOWN	In the stop mode. Moves the pickup slightly toward the inner position disc. When tracking servo is ON, set the track number up.	-
7	STOP	Laser off, focusing servo off, tracking servo off.	All segments
8	OPEN/CLOSE	In the stop mode, Tray is opened or closed.	All segments

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ADJUSTMENT

CD section

Since this CD system incorporates the following automatic adjustment function, when the pickup is replaced, it is not necessary to readjust it

Since this CD unit does not need adjustment, the combination of PWB and laser pickup unit is not restricted.

•Automatic adjustment item

1. Focus offset(Fig.1)
2. Tracking offset(Fig.2)
3. E/F balance (Tracking error balance) (Fig.3)
4. RF level AGC function (HF level : constant)
5. RF level automatic follow-up of the tracking gain

This automatic adjustment is performed each time a disc is changed. Therefore, each disc is played back using the optimal settings

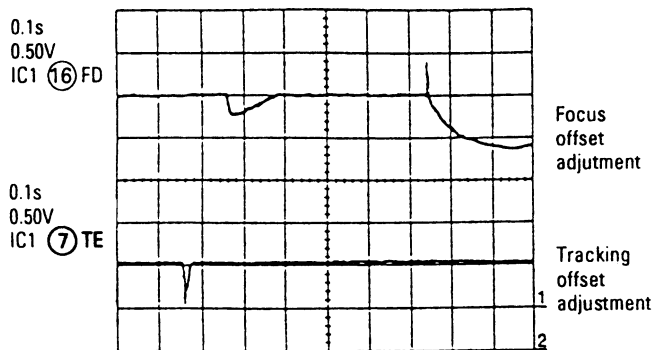


Fig.1

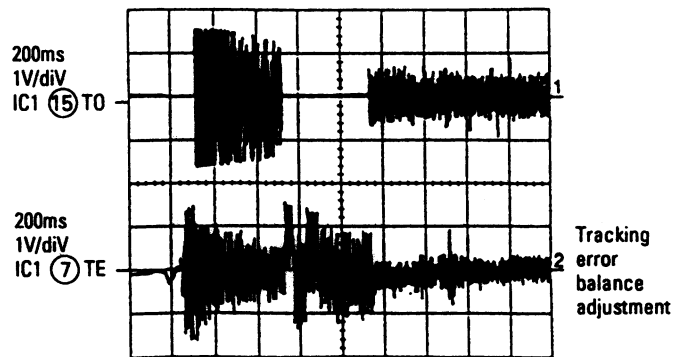


Fig.3

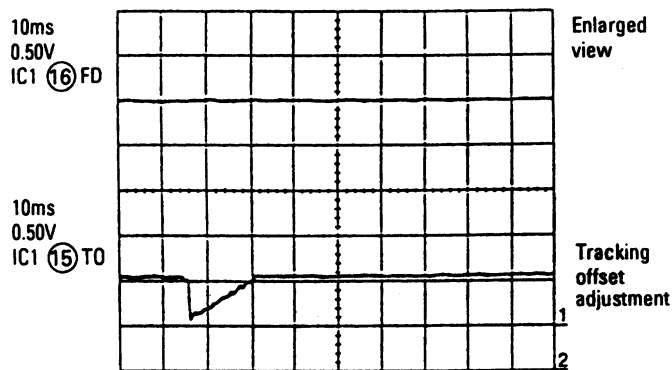


Fig.2

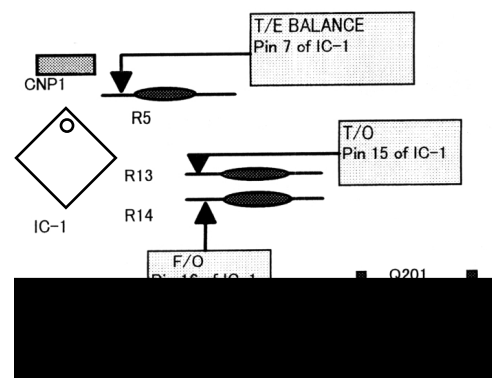
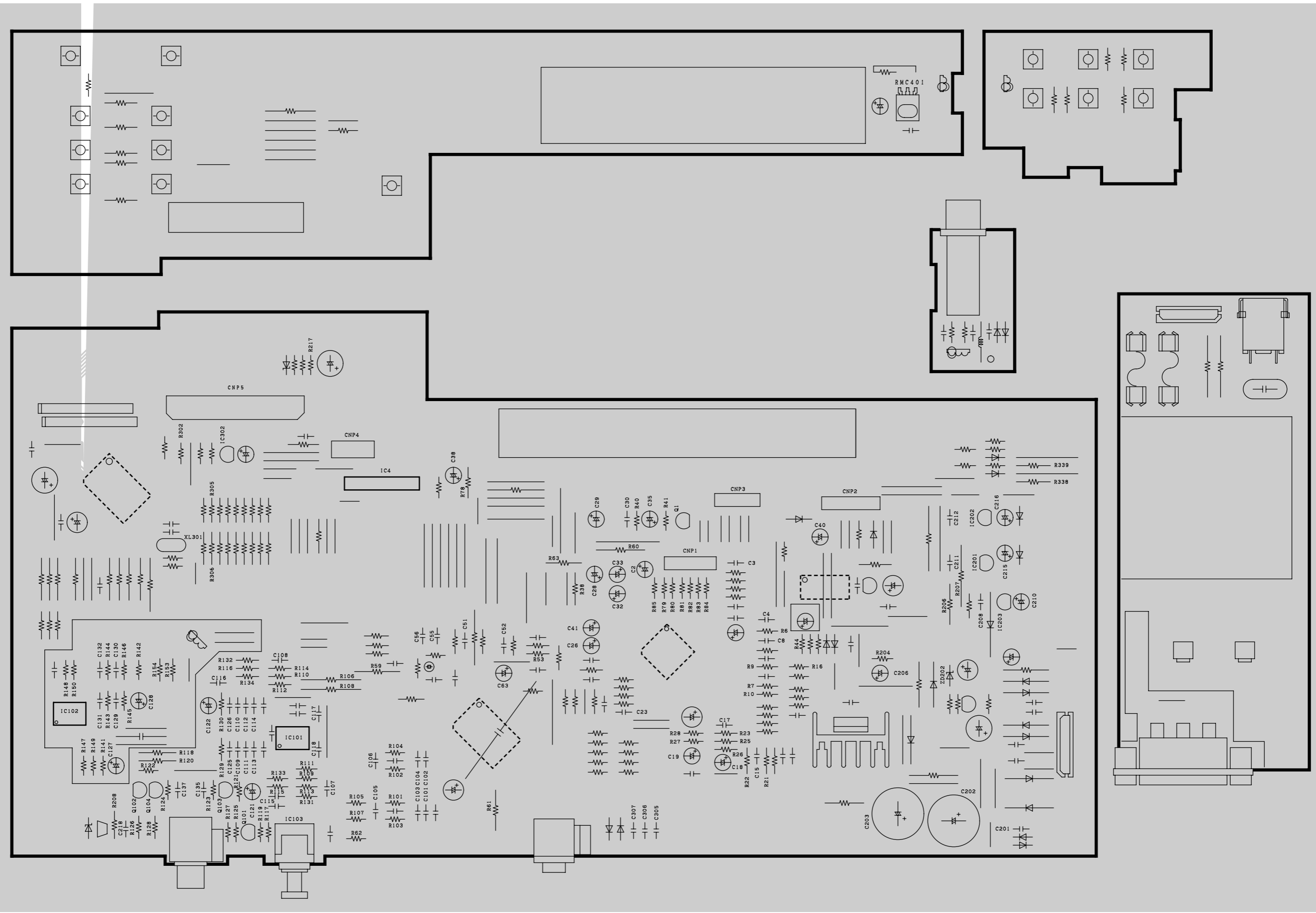
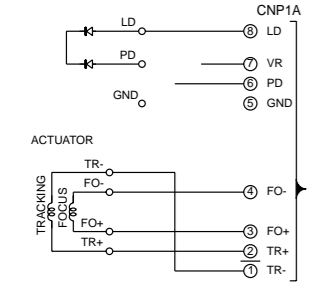
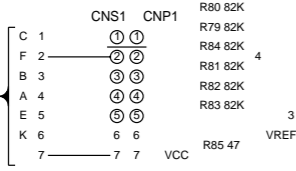
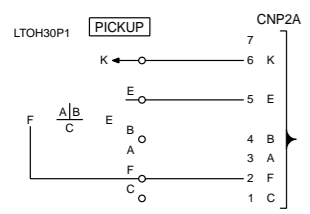
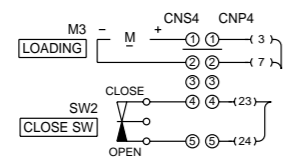


Fig.4 Checking points

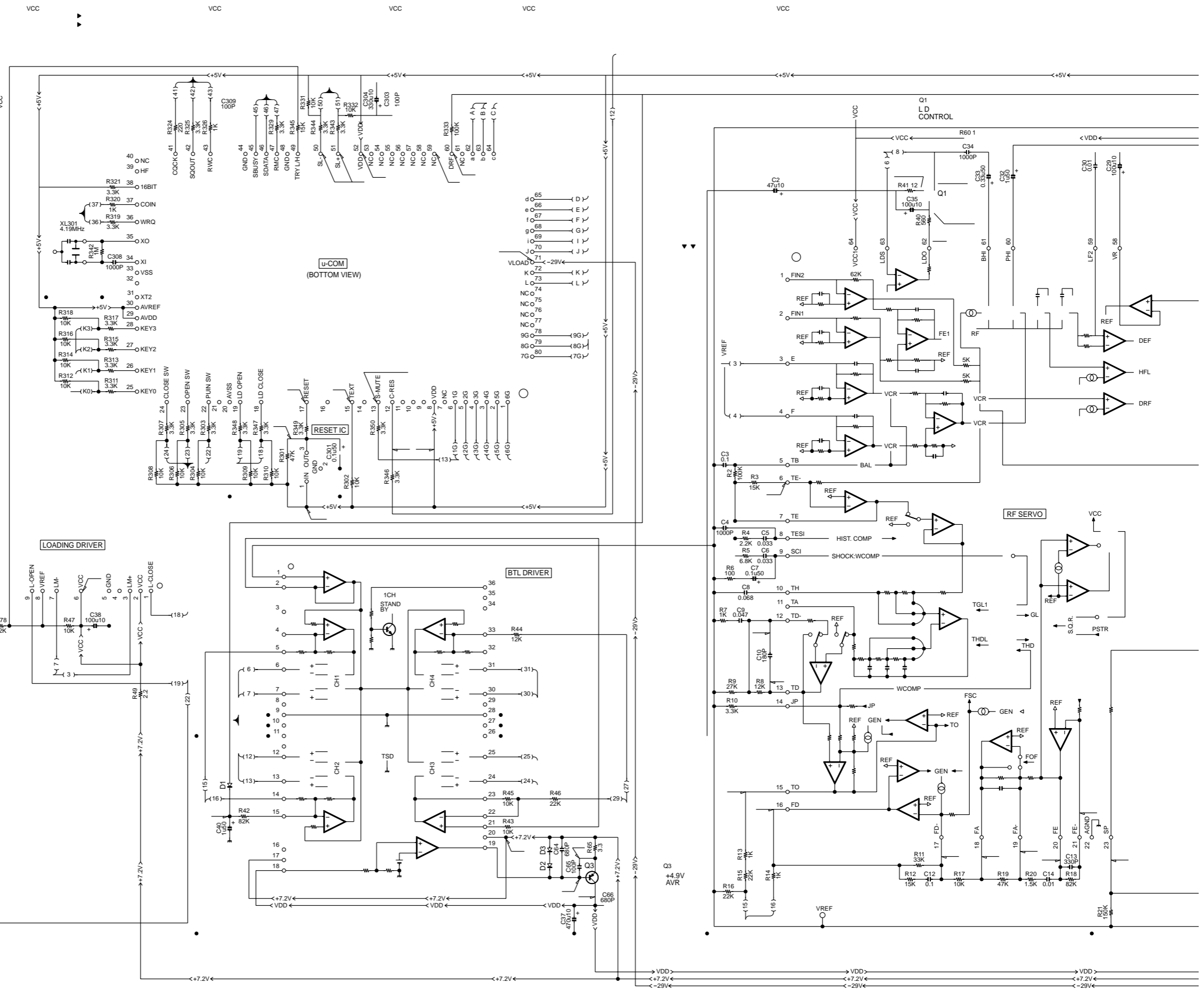
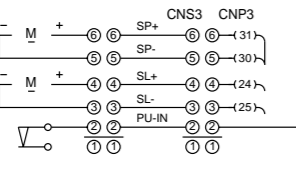
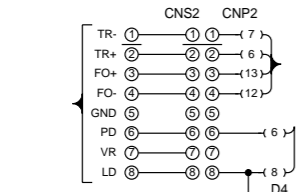


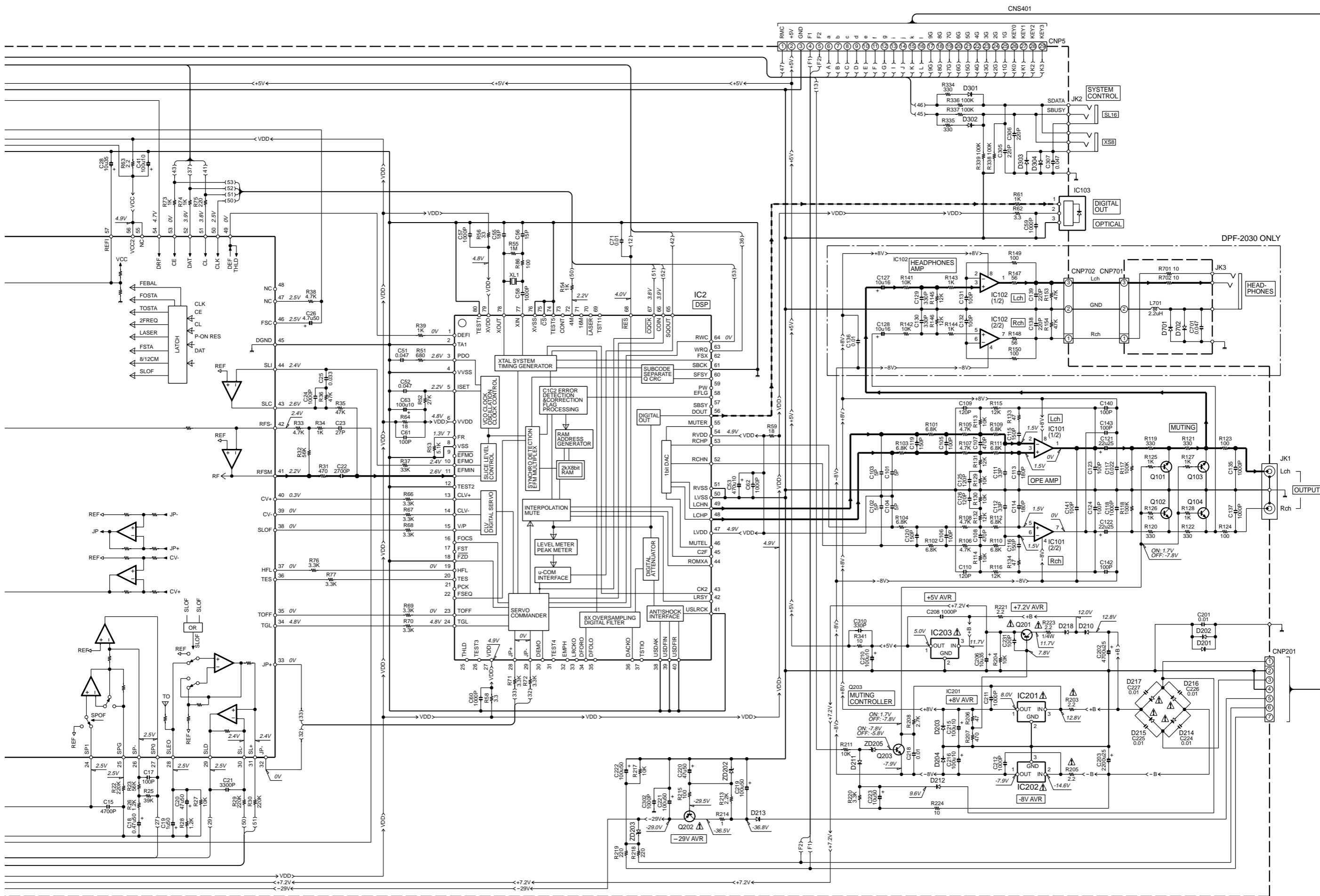


- IC1 : LA9241M
- IC2 : LC78620E
- IC3 : M56748FP
- IC4 : TA7291S
- IC101,102 : NJM4565DD
- IC103 : TOTX178A-1
- IC201 : KIA78S08P
- IC202 : NJM79L08A
- IC203 : KIA78S05P
- IC301 : IX0346(DPF-1030)
- IX0299(DPF-2030)
- IC302 : KIA7036AP
- Q1,202 : KTA1266GR
- Q3 : KTA1271Y
- Q101-104 : 2SC2878B
- Q201 : KTC2026
- Q203 : KRC102M
- D1-4,201-204,211,301-304, 701,702 : 1SS133
- D210,212-218 : 1N4004S
- ZD202 : MTZJ30B
- ZD203 : MTZJ5.6B
- ZD205 : MTZJ8.2B

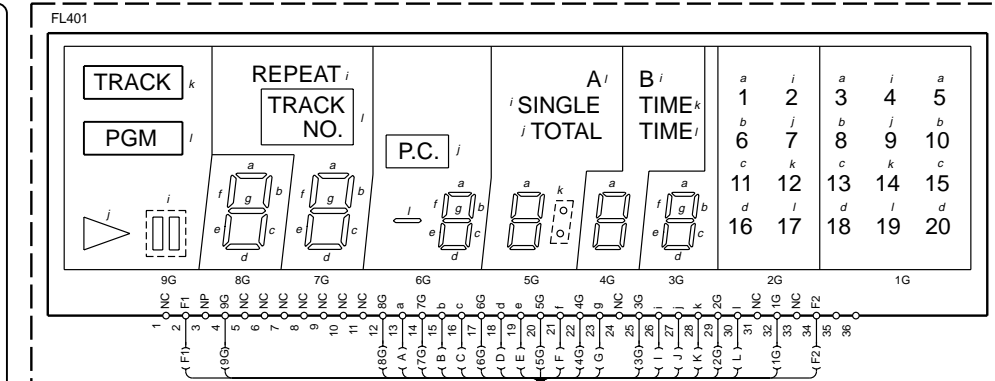


DIGITAL LINE
 SIGNAL LINE
 GND LINE
 +B LINE
 -B LINE



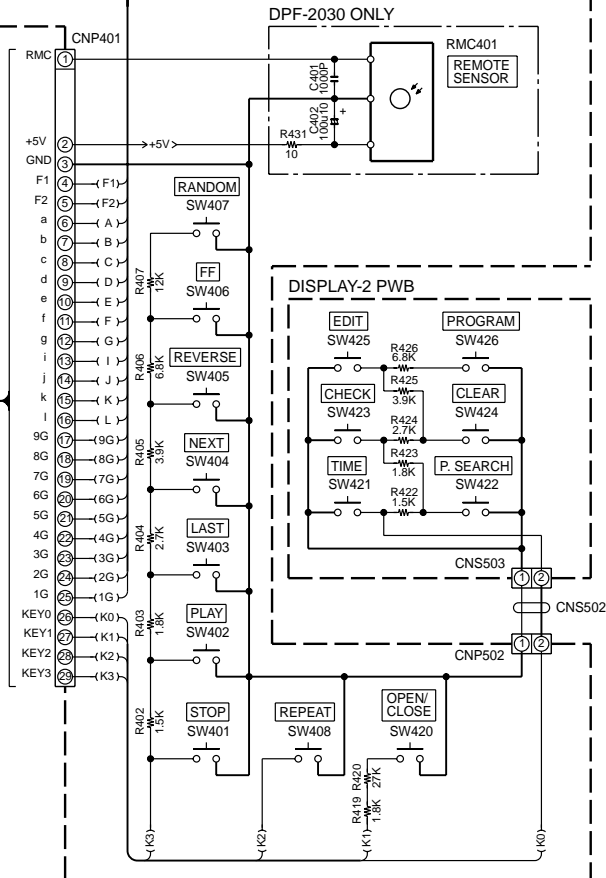


DISPLAY-1 PWB

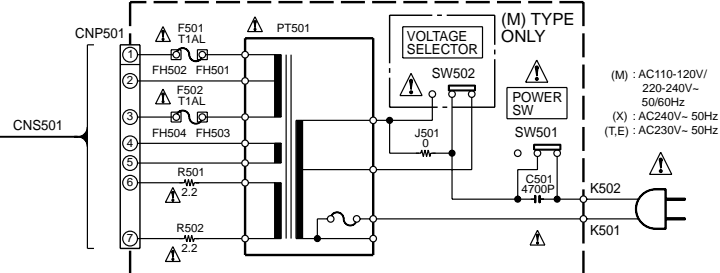


CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, 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 PLAY unless otherwise specified; The value shown in () is the voltage measured at the moment of STOP.



POWER PWB

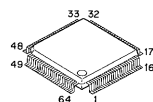
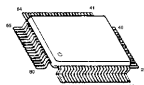
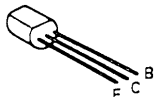


DPF-1030/1030E/1030-S
DPF-2030/2030E/2030-S

2SC2878B

LC78620E

LA9241M



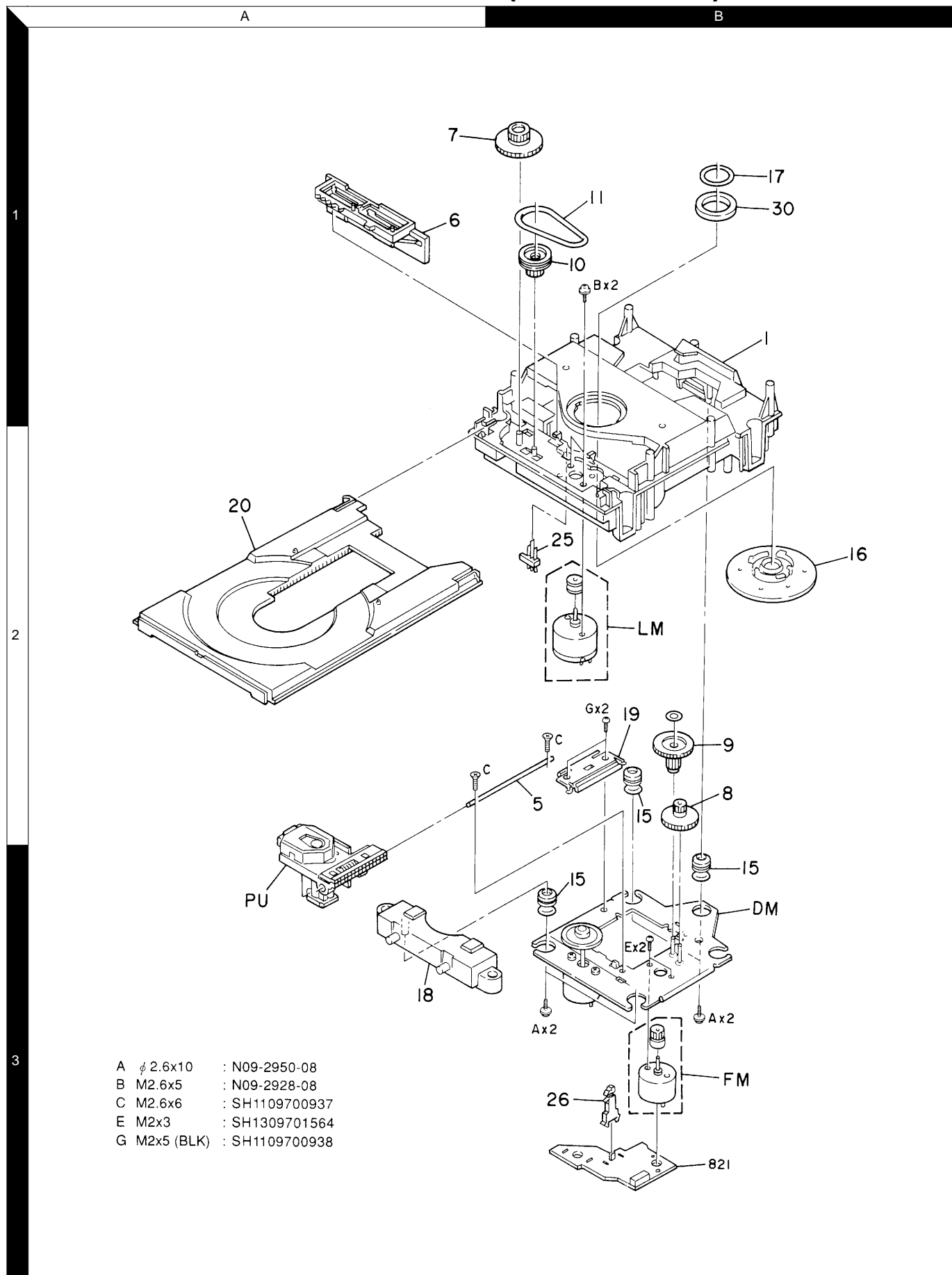
DPF-1030/2030

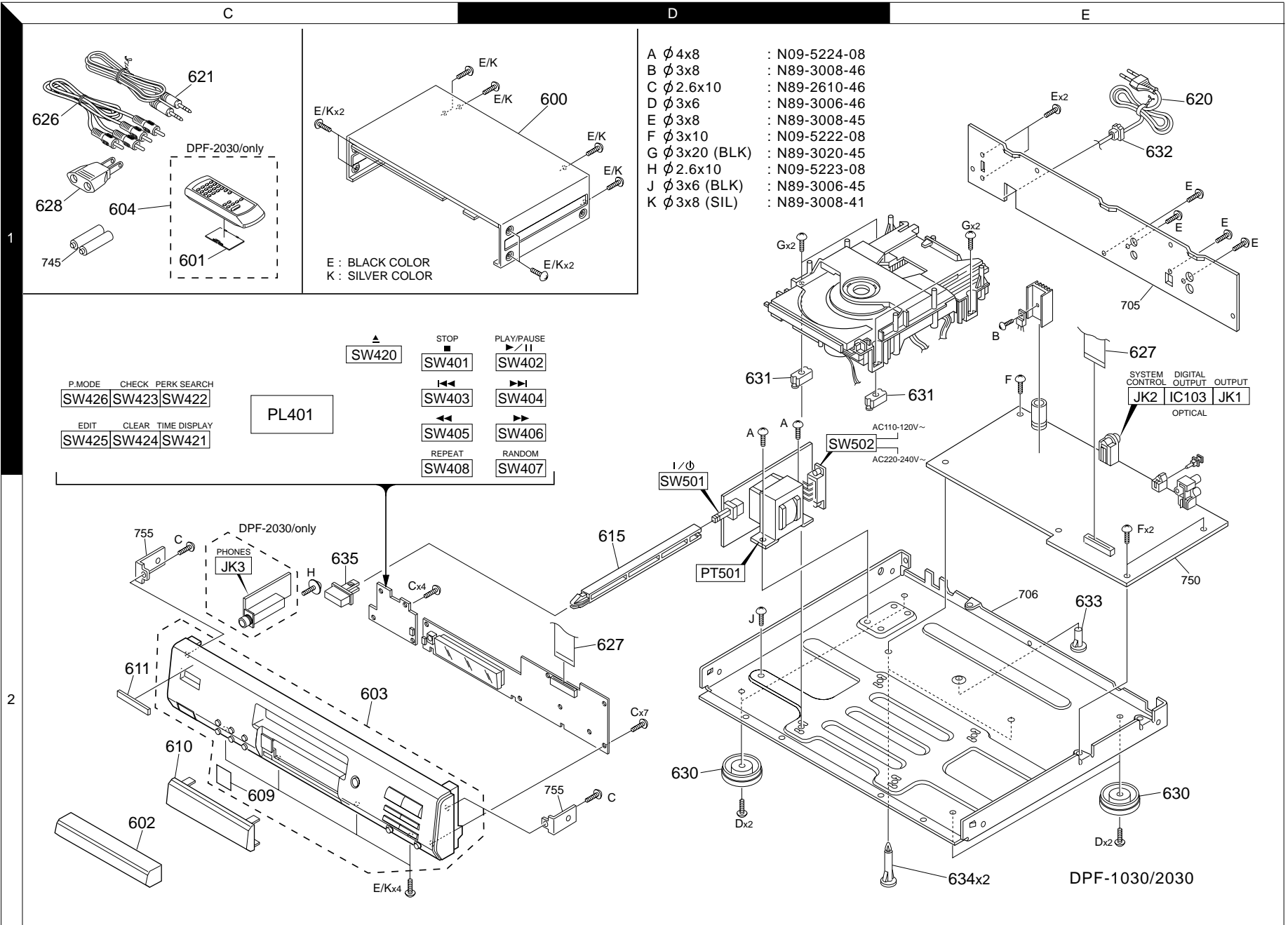
Y22-8290-50

KENWOOD

DPF-1030/2030

EXPLODED VIEW (MECHANISM)





- A Ø 4x8 : N09-5224-08
- B Ø 3x8 : N89-3008-46
- C Ø 2.6x10 : N89-2610-46
- D Ø 3x6 : N89-3006-46
- E Ø 3x8 : N89-3008-45
- F Ø 3x10 : N09-5222-08
- G Ø 3x20 (BLK) : N89-3020-45
- H Ø 2.6x10 : N09-5223-08
- J Ø 3x6 (BLK) : N89-3006-45
- K Ø 3x8 (SIL) : N89-3008-41

EXPLODED VIEW (UNIT)

DPF-1030/2030

5

* 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.

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
RMC401 IC103			W02-2689-08 W02-2752-08	REM CNTRL MDL OPTICAL OUT	VHLN63H380A-1	2
MECHANISM PARTS						
1	1B		A10-3468-08	LOADING CHS	LCHSM0072AWZZ	
5	2B		J90-0862-08	GUIDE SFT	NSFTM0002AWFW	
6	1A		D13-1726-08	RACK GEAR	NGERR0001AWZZ	
7	1A		D13-1727-08	TRAY GEAR	GEAR1728B	
8	2B		D13-1869-08	MIDDLE GEAR	NGERH0011AWZZ	
9	2B		D13-1870-08	DRIVING GEAR	NGERH0012AWZZ	
10	1B		D15-0388-08	DRIVE PULLEY	PULLY1728A	
11	1B		D16-0396-08	DRIVE BELT	BELT1728A	
15	2B,3B		J02-1146-08	CUSHION	MCUSN1524A	
16	2B		J11-0811-08	STABILIZER	LHLDM1001AWZZ	
17	1B		J11-0812-08	CD MAGNET RING	LANGZ0002AWFW	
18	3A		J19-5661-08	MEC HOLDER	LHLDZ1001AWZZ	
19	2B		J19-5662-08	GUIDE RAIL	MLEVP0080AWZZ	
20	2A		J99-0809-08	DISC HOLDER	GCOVA1201AWSA	
25	2B		S74-0080-08	LEAF SWITCH	SWICHL1749A	
26	3B		S74-0054-08	LEAF SWITCH		
30	1B		T99-0609-08	MAGNET	PMAGF0001AWZZ	
CNS1			E35-2615-08	CD PICKUP A WIRE	QCWNW1535AWZZ	
CNS2			E35-2320-08	CD PICKUP B WIRE	QCWNW1182AWZZ	
CNS3			E35-2321-08	MOTOR WIRE(6P)	QCWNW1339AWZZ	
CNS4			E35-2322-08	TRAY WIRE	QCWNW1379AWZZ	
DM	3B		T42-0825-08	MOTOR ASSY	DISC	
FM	3B		T42-0824-08	MOTOR ASSY	FEED	
LM	2B		T42-0823-08	MOTOR ASSY	TRAY	
PU	2A		T25-0101-08	PICKUP ASSY	HPC1LXASY	

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 Δ indicates safety critical components.

Δ

SPECIFICATIONS

[Format]

System Compact disc digital audio system
 Laser Semiconductor laser

Output level/impedance
 Variable (only DPF-2030) (Max.) 2.0 V/0.8 kΩ
 Fixed (only DPF-1030) 2.0 V/0.8 kΩ

Digital output
 Optical..... -15 dBm ~ -21 dBm
 (Wave length 660 nm)

Headphone output (Max.) 20 mW (32 Ω)

(Wave length 660 nm)

-15 dBm ~ -21 dBm
 (Wave length 660 nm)

[D/A Convertors]
 D/A Conversion 1 Bit
 Oversampling 8 fs (352.8 kHz)

[Audio]

Frequency response 6 Hz ~ 20 kHz, ±0.5 dB
 Signal to noise ratio More than 94 dB
 Dynamic range More than 92 dB
 Total harmonic distortion + noise Less than 0.007% (at 1 kHz)
 Channel separation More than 90 dB (at 1 kHz)
 Wow & flutter Unmeasurable Limit

[General]

Power consumption 12 W
 Dimensions W : 440 mm (17-5/16")
 H : 95 mm (3-3/4")
 D : 370 mm (14-9/16")
 Weight (Net) 4.3 kg (9.5 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).

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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