DR-770

Dr. Rhythm

SERVICE NOTES

First Edition

Issued by RJA

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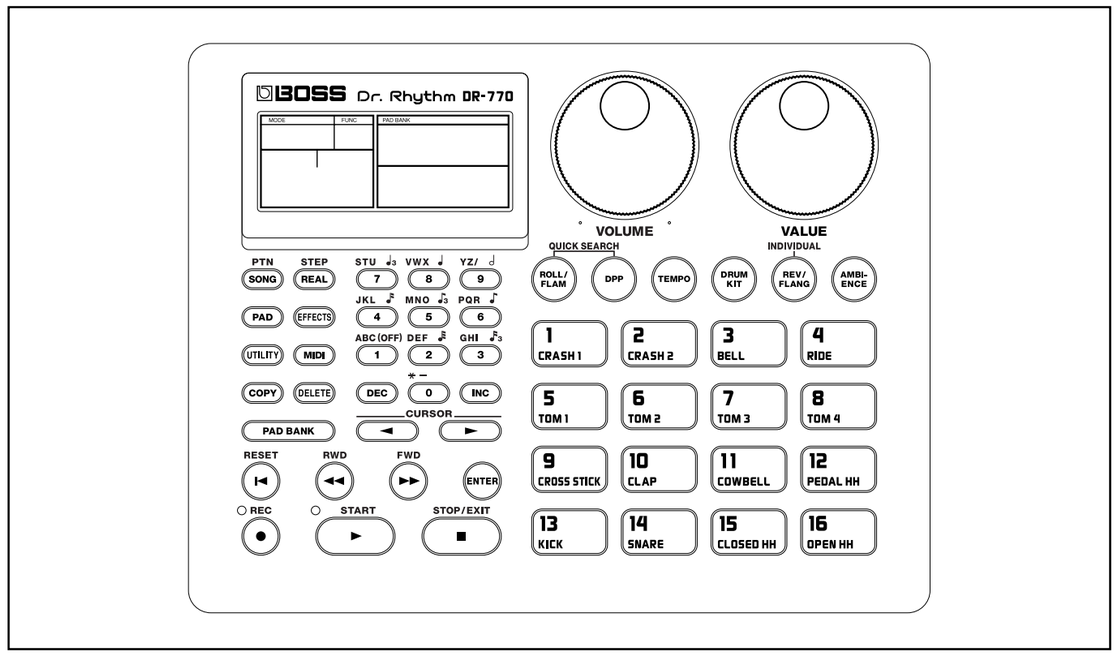


SPECIFICATIONS

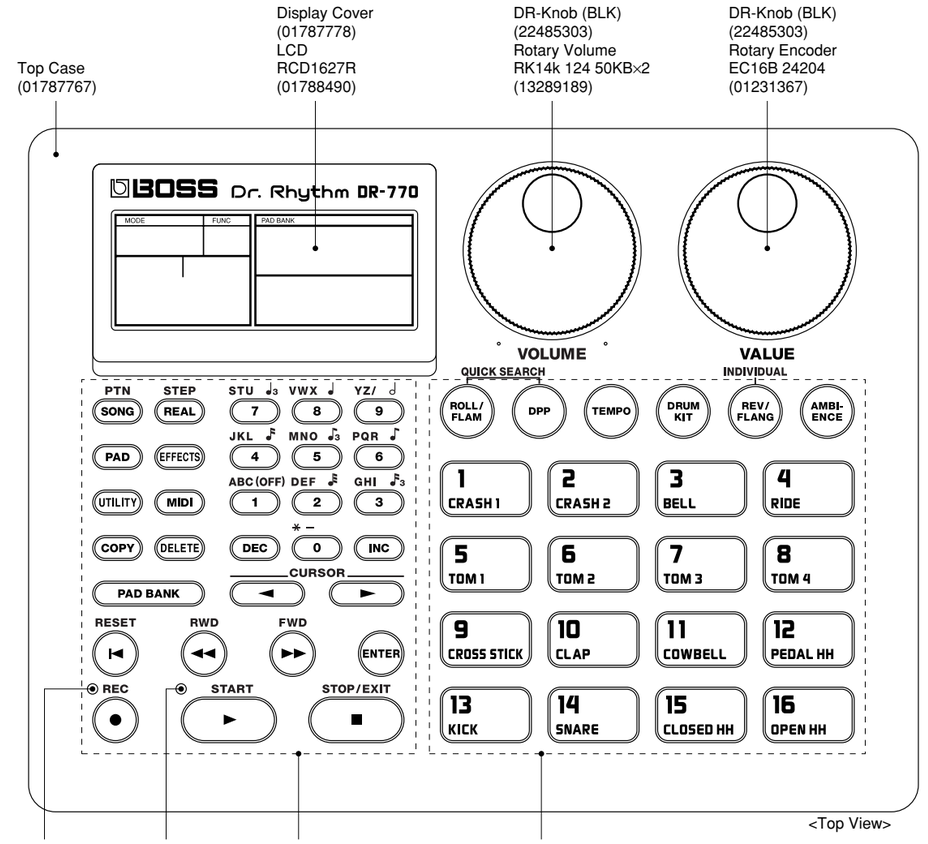
- **Instruments**
  255
- **Maximum Polyphony**
  14 voices
- **Rhythm Patterns**
  Preset Patterns : 400
  User Patterns : 400
- **Song**
  Songs :100
  Song Length : Maximum 250 parts for a song
  Total Parts for Songs : 10,000
- **Effect**
  Reverb,Flanger
- **Resolution**
  Per quarter note : 96
- **Tempo**
  Quarter note=20 ~ 260
- **Data Input Method**
  Realtime/Step
- **Maximum Note Storage**
  approx.11,200note
- **Output Level**
  Max.7 Vp-p(L(MONO),R)
- **Noise Level**
  Less Than -78 dBm(DIN AUDIO)((L(MONO))
- **Output Impedance**
  1kΩ(L(MONO),R, INDIVIDUAL))
- **Power Source**
  AC Adaptor BOSS BRC Series
- **Current Draw**
  700mA
- **Dimensions**
  215(W)×165(D)×57(H)mm
  8-1/2(W)×6-1/2(D)×2-3/8(H)inches
- **Weight**
  715g/1 lbs 10 oz
- **Accessories**
  Owner's Manual Set(English) : PNo.71238223
  Owner's Manual Set(Japanese) : PNo.71238145
  AC Adaptor
  AC ADAPTOR BRC-100 BOSS :PNo.00899078
  AC ADAPTOR BRC-120 BOSS :PNo.00899089
  AC ADAPTOR BRC-230 BOSS :PNo. 00899090
  AC ADAPTOR BRC-240A BOSS :PNo. 00899101
  EURO CONVERTER PLUG ECP01-5A :PNo. 00905234

■Deterioration in the conductive coating inside the case

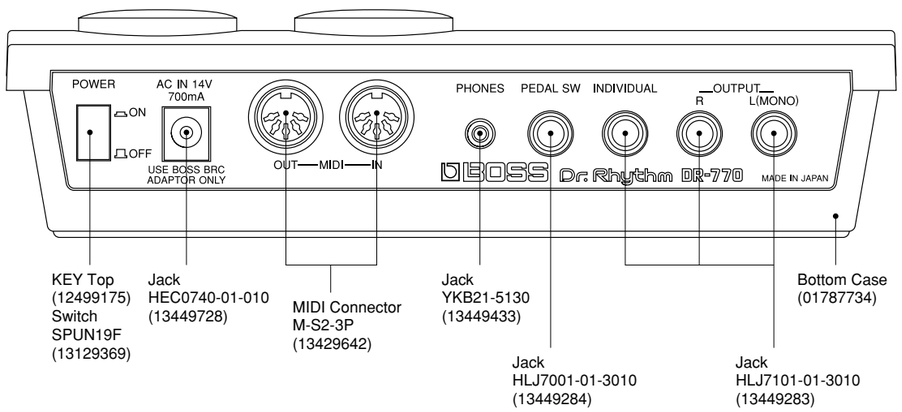
The inside of the case is coated with a conductive material. If the board undergoes repeated detaching/attaching, the coating on the boss may deteriorate.
If the resistance value between the case center and the head of the boss becomes 5Ω or more, the effect of conductive coating cannot be expected. In such a case, replace the case.

PANEL LAYOUT

FRONT VIEW



REAR VIEW



EXPLODED VIEW

[Part]

NO.	PART CODE	PART NAME	DESCRIPTION
①	01787734	BOTTOM CASE	
②	01898189	FOOT	D10 T4
③	71238156	JACK BOARD ASSY	
④	12449445	FERRITE-CORE	ESD-R-16C
⑤	71238167	VR BOARD ASSY	
⑥	71238178	ENC BOARD ASSY	
⑦	01892034	VR SHIELD SHEET	
⑧	71238123	MAIN BOARD ASSY	(EXG)
⑨	22055165	PLATE	205-165
⑩	25095101	PRESSURE SHEET SENSOR	509-101
⑪	23365653	RUBBER CONNECTOR	336-653
⑫	01788490	LCD	RCD1627R
⑬	01787790	RUBBER SW	KEY
⑭	01787801	RUBBER SW	PAD
⑮	01787767	TOP CASE	
⑯	12499175	G S-BUTTON	S1H BLK 249-175
⑰	01787778	DISPLAY COVER	
⑱	22485303	D R-KNOB	L BLK 248-303

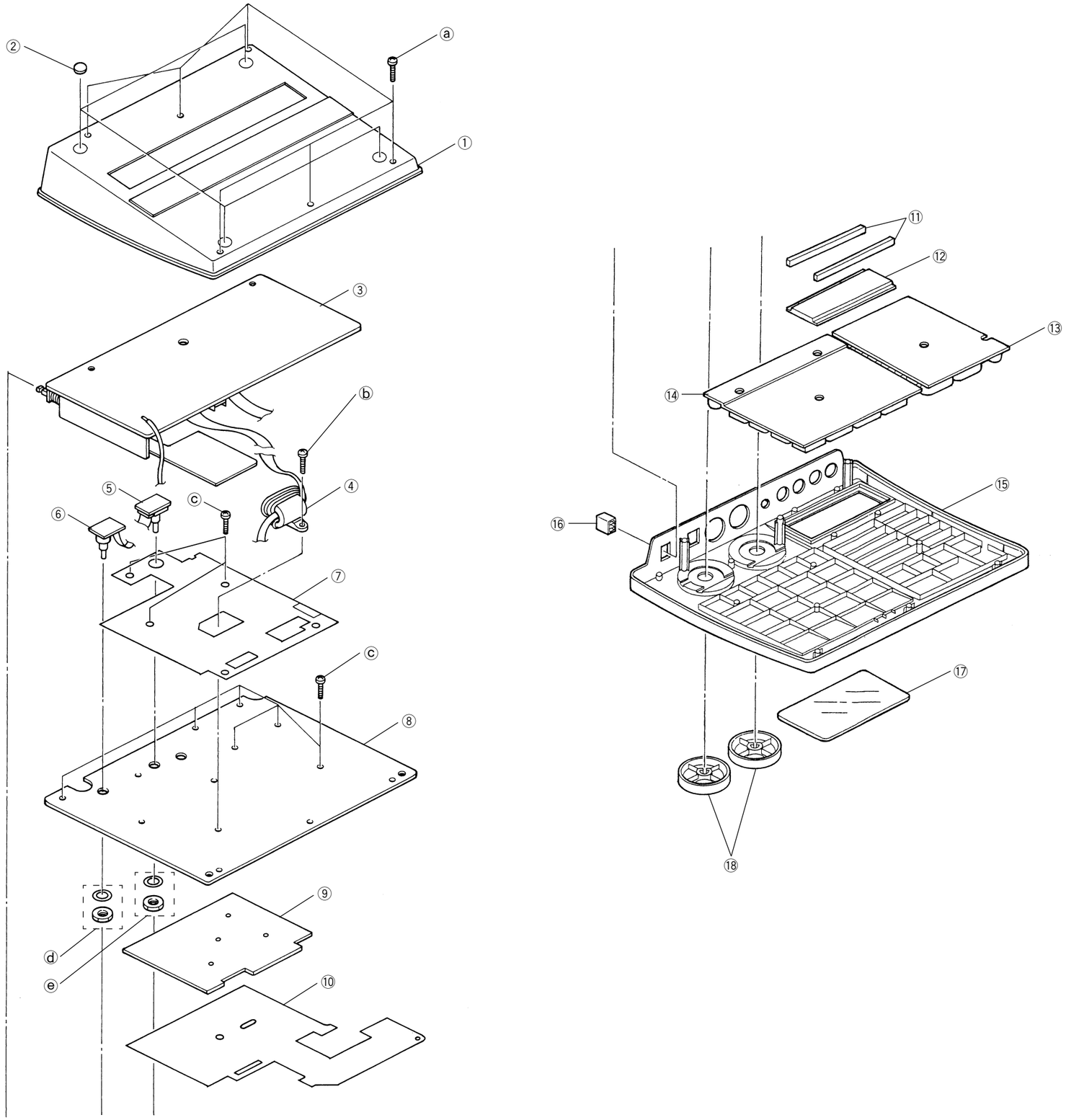
[Screw]

NO.	PART CODE	PART NAME	DESCRIPTION
ⓐ	40012456	SCREW M2.6×8	BINDING TAPTITE P FE NI
ⓑ	40012489	SCREW M2.6×10	BINDING TAPTITE FE BZC
ⓒ	40011223	SCREW M2.6×6	BINDING TAPTITE P NI

ⓓ

This MG WASHER and MG NUT are included in the #01231367 ROTARY ENCODER.

This MG WASHER and MG NUT are included in the #13289189 POTENTIOMETER.



PARTS LIST

SAFETY PRECAUTION:*1
The parts marked ⚠ have safety-related characteristics.
Use only listed parts for replacement.

The parts marked # are new (initial parts). *2

CONSIDERATIONS ON PARTS ORDERING
When ordering any parts listed in the parts list, please specify the following items in the order sheet.

	QTY	PART NUMBER	DESCRIPTION	MODEL NUMBER
Ex.	10	22575241	Sharp key	C-20/50
	15	2247017300	Knob (orange)	DAC-15D

Failure to completely fill the above items with correct number and description will result in delayed or even undelivered replacement.

MB → Main Board Assy
VB → VR Board Assy
EB → ENC Board Assy
JB → Jack Board Assy

Note : Consider about the natural environment carefully before through the old lithium battery away when you exchange to the new one.you exchange to the new one.

*1 ↓ *2 ↓

					Q'ty
CASING					
#	01787734	BOTTOM CASE			1
#	01787767	TOP CASE			1
#	01787778	DISPLAY COVER			1
	22055165	PLATE	205-165		1
KNOB, BUTTON					
	12499175	G S-BUTTON	S1H BLK 249-175		1
	22485303	D R-KNOB	L BLK 248-303		2
#	01787790	RUBBER SW KEY			1
#	01787801	RUBBER SW PAD			1
SWITCH					
	13129369	SPUN19430A	PUSH SWITCH	SW101 on JB	1
JACK, SOCKET					
	13429642	M-S2-3P MIDI SOCKET	JK108,JK107 on JB		2
	13449433	3.5MM STEREO YKB21-5130	JACK	JK105 on JB	1
	13449283	6.5MM HLJ7101-01-3010	JACK	JK102,JK103,JK104 on JB	3
	13449284	6.5MM HLJ7001-01-3010	JACK	JK101 on JB	1
	13449728	HEC0740-010010	ADAPTOR JACK	JK106 on JB	1
DISPLAY UNIT					
#	01788490	RCD1627R	LCD		1

PCB ASSY					
# E	71238123	MAIN BOARD ASSY	(EXG)		1
	NOTE : 'MAIN BOARD ASSY' includes the following parts.				
	12169388	LED SPACER	LH-3-3		2
#	71238178	ENC BOARD ASSY			1
	NOTE : 'ENC BOARD ASSY' includes the following parts.				
	23505274	WIRING HARNESS B	3P 350-274		1
#	71238156	JACK BOARD ASSY			1
	NOTE : 'JACK BOARD ASSY' includes the following parts.				
#	01898889	WIRING	GND 1P		1
#	01788556	WIRING	6P		1
#	01898989	WIRING	W11		1
#	01898001	HEATSINK (DR-770)			1
	22465939	HEATSINK (DR-660)			1
	22190758	HOLDER DIN SOCKET (2P)			1
	40011112	SCREW M3¥10	BINDING TAPTITE B BZC		2
	40011090	SCREW M3¥6	BINDING TAPTITE B BZC		2
	40016512	LOCKING TIE	80M/M T-18S		2
	40016545	INSULOK TIE	SKM-1		1
#	71238167	VR BOARD ASSY			1
	NOTE : 'VR BOARD ASSY' includes the following parts.				
	23505275	WIRING HARNESS C	6P 350-275		1
IC					
#	01784678	HD6415108RF12	IC (CPU)	IC6 on MB	1
	15199923	SED1278F0A	IC (LCD DRIVER)	IC9 on MB	1
	15239197	MB622928PF-G-BND-ER	IC (GATE ARRAY)	IC19 on MB	1
	15239229	TC6116AF (GP-4)	IC (PCM CUSTOM)	IC5 on MB	1
	01560289	TC55257DFL-55L(EL)	IC SRAM	IC10 on MB	1
	01122412	TC551001CF-70L	IC (SRAM)	IC12 on MB	1
#	01788589	LHMN4708	IC (MASK ROM)	IC8 on MB	1
#	01788578	LHMN5KRP WAVE ROM	IC (MASK ROM)	IC4 on MB	1
	01340789	BU9480F	IC (D/A CONVERTER)	IC15,IC16 on MB	2
	15259864T0	TC74HC4052AF(EL)	IC	IC13,IC11 on MB	2
	15249104	TC7S04F(TE85L)	IC (C MOS)	IC14 on MB	1
	15249111	TC7WU04F(TE12L)	IC (C MOS)	IC3 on MB	1
	15259889	TC7S02F(TE85L)	IC	IC18 on MB	1
	15269805	TC74AC14F(EL)	IC	IC2 on MB	1
	15269810	TC74AC138F(EL)	IC (CMOS)	IC17 on MB	1
	15289131	BA10393F-E2	IC (COMPARATOR)	IC1 on MB	1
	15289709	M51954BFP-600D	IC (RESET)	IC20 on MB	1
⚠	15289125	PC-410KT 178FAY	IC (PHOTO COUPLER)	IC7 on MB	1
	15189186	UPC4570C	IC (OP AMP) BIPOLAR	IC102,IC101 on JB	2
	15189248	M5216P	IC (OP AMP) BIPOLAR	IC103 on JB	1
#	01784834	M62421SP	FILTER	IC106 on JB	1
#	01897801	UPC7805AHF	IC (REGULATOR)	IC104 on JB	1
#	01897223	UPC24M09AHF	IC (REGULATOR)	IC105 on JB	1
TRANSISTOR					
	15309101	2SA1037KR T146 QRS	TRANSISTOR	Q3 on MB	1
	15329518	DTA114TKT146	TRANSISTOR	Q2,Q1 on MB	2
#	00894489	2SA1049-GR(TPE4)	TRANSISTOR	Q104 on JB	1
#	01788734	2SC2459-GR(TPE4)	TRANSISTOR	Q106,Q105 on JB	2
	15129204	DTC343TS TP	TRANSISTOR	Q101,Q102,Q103 on JB	3

DIODE

	15339135T0	1SS300(TE85R)	DIODE	DA2-DA20 on MB	19
	01127489	RB715F T106	SCHOTTKY DIODE	DA1 on MB	1
#	15039221	SLC-22VR3F	LED	LED1 on MB	1
#	15039222	SLC-22MG3F	LED	LED2 on MB	1
	15019126	1SS133 T-77	SWITCHING DIODE	D104,D105,D106,D107 on JB	4
⚠	15019260	1G4B42 1A/400V	BRIDGE DIODE	D102 on JB	1
	01122323	MTZJ T-77 8.2B	ZENER DIODE	D101 on JB	1
	01122312	MTZJ T-77 5.6C	ZENER DIODE	D103 on JB	1

RESISTOR

	15399975	RCE9A223JA (22KOHM X8)	RESISTOR ARRAY	RA4 on MB	
	15409113	EXBV8V103JV	RESISTOR ARRAY	RA7 on MB	1
	15399965	RCE9A103JAG7A (10KOHM X8)	RESISTOR ARRAY	RA1,RA2,RA3 on MB	
#	01788489	CNB2B9ZTE332 J	R-ARRAY	RA5,RA6 on MB	2
#	13749187	SR50TR 220 J	CARBON RESISTOR	R127,R132 on JB	2
#	01897834	ERF5AJ 150	CEMENT RESISTOR	R137 on JB	1
#	01897812	RSSX3 5.6 OHM J	MTL.OXIDE RESISTOR	R136 on JB	

POTENTIOMETER

	13289189	RK14K124 L1=15 50KBX2	POTENTIOMETER	VR301 on VB	1

CAPACITOR

#	00783990	MMTVA0050J474 200	M.POLYEST CAP.	C150,C151 on JB	2
#	01897778	16MV470CZ	CHEMICAL CAPACITOR	C154 on JB	1
#	01897789	25MV470CZ+T	CHEMICAL CAPACITOR	C136,C137 on JB	2
#	01897790	16MV100UGX+T	CHEMICAL CAPACITOR	C142 on JB	1
#	01897945	35MV10UGX	CHEMICAL CAPACITOR	C163 on JB	1

INDUCTOR, COIL, FILTER

	12449370	SBT-0160W	EMI FILTER	L117 on JB	1
	12449381	SBT-0460TF (TP)	EMI FILTER	L101-L111 on JB	11
	12449445	ESD-R-16C	FERRITE-CORE		1

CRYSTAL, RESONATOR

	00891801	MA-406 24.000MHZ	CRYSTAL	X1 on MB	1

ENCODER

	01231367	EC16B24204 (L=15)	ROTARY ENCODER	on EB	1

CONNECTOR

	23365653	336-653 RUBBER CONNECTOR			2
	13369874	IL-Z-11PL-SMTY-E1500	CONNECTOR	CN2 on MB	1
	13369928	53253-0610	CONNECTOR	CN1 on MB	1
	13369968	IL-404-17S-LW	CONNECTOR	CN3 on MB	1
	13369942	53254-0610	CONNECTOR	CN101 on JB	1
	13369939	53254-0310	CONNECTOR	CN103 on JB	1

SCREW

	40012489	SCREW M2.6×10	BINDING TAPTITE FE BZC		1
	40011223	SCREW M2.6×6	BINDING TAPTITE P NI		9
	40012456	SCREW M2.6×8	BINDING TAPTITE P FE NI		6

PACKING

#	01897923	PAD ADAPTOR			1
#	01788512	PAD UPPER			1
#	01788523	PAD LOWER			1
#	01788501	PACKING CASE			1

MISCELLANEOUS

⚠	12569249S0	LITHIUM BATTERY	CR2032 220MAH/3V		1
#	01898189	FOOT	D10 T4		4
	25095101	PRESSURE SHEET SENSOR	509-101		1
#	01892034	VR SHIELD SHEET			1
	13429566	IC SOCKET	400-032-001 32P		1
	12569420	LITHIUM BATTERY HOLDER	(HL32-A2) FOR CR2032		1

ACCESSORIES (STANDARD)

⚠	00899078	AC ADAPTOR	BRC-100		1
⚠	00899089	AC ADAPTOR	BRC-120		1
⚠	00899090	AC ADAPTOR	BRC-230		1
⚠	00899101	AC ADAPTOR	BRC-240A		1
⚠	00905234	EURO CONVERTER PLUG	ECP01-5A (PLUG FOR BRC-230T)		1
#	71238145	OWNER'S MANUAL	JAPANESE		1
#	71238223	OWNER'S MANUAL	ENGLISH		1

LOADING THE FACTORY PRESET DATA

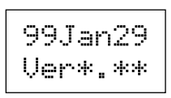
1. Turn off the power to the DR-770.
2. While simultaneously pressing the [RESET] and [REC] buttons turn the power on.
3. The display will show “INIT?”.
4. Press the [ENTER] button and the display will show “SURE?”.

NOTE : If initialization is not necessary do not press the [ENTER] button.
Press the [STOP/EXIT] button. The display will show “Aborted” and the operation will enter normal mode.

5. Press the [ENTER] button again. The DR-770 is loaded the Factory preset Data and then the display will show “Done” and the operation will enter normal mode.

IDENTIFYING THE VERSION NUMBER

1. While simultaneously pressing the [SONG] and Numeric button [7] turn the power on.
   The version number will appear on the LCD display as shown below . The displayed version of number is ROM (IC8 on Main Board) 's version number.



The displayed date differs depending on the ROM version.

2. When pressing the Numeric button [8], the display will show “INIT ?”.
   Then press the [ENTER] button the display will show “SURE?”. If you want to initialize the DR-770 press the [ENTER] botton again.
   The display will show “Done” and the operation enters normal mode.
   If not initializing, press the [STOP/EXIT] button. The display will show “Aborted” and the operation enters normal mode.

USER DATA SAVE AND LOAD

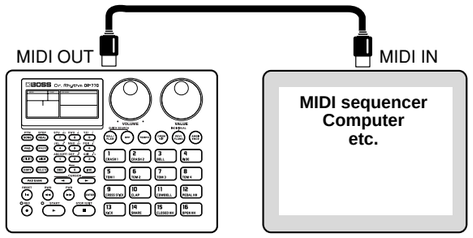
To save the data stored in the RAM of the mainframe (DR-770) in an external memory or load external MIDI.
Methods of transmitting and receiving data are explained below.

NOTE : If loading is executed all data stored in the RAM of the mainframe will be lost.

NOTE : If you select “ALL” and execute the Bulk Dump, the memory on the receive device will be full before the Bulk Dump is completed, not being able to receive any more data.
If this happens, change the data to be transferd to “SEQ,” “GLOBAL,” “DRMKITS,” or “1DRMKIT,” then execute the Bulk Dump again.

How to save the User Data

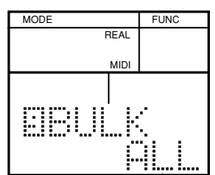
Connections



Transmit device (DR-770) **Receive device**

Procedure

1. Press [MIDI] to make “MIDI” light.
   The DR-770 is now in MIDI mode.
2. Use [◄] [►] to select “9 BULK.”



Data to be transferred

3. Use [DEC] [INC] or [VALUE] to select the type of data that will be transmitted.
   - ALL: All data of the DR-770
   - SEQ: All patterns and songs
   - GLOBAL: DPP/roll/metronome/MIDI settings
   - DRMKITS: All user drum kits
   - 1DRMKIT: A specified individual drum kit (If this data is transmitted to the DR-770, the drum kit that is currently selected on the receiving device will change to the drum kit settings that were received.)

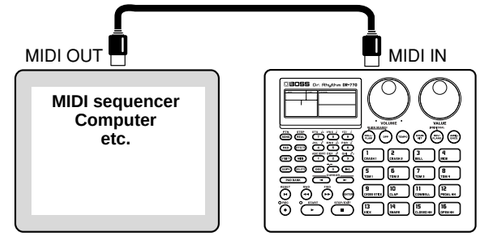
4. Press [ENTER].
   The display will ask “Sure?,” allowing you to confirm whether you really want to execute the bulk dump.

■ If you selected “1DRMKIT,” use [DEC] [INC] or [VALUE] to select the drum kit whose data you want to transmit.

5. To execute the bulk dump, press [ENTER].
   The display will indicate “Trnsmit” (transmitting) ' “Done,” and the bulk dump will be completed.
   If you decide to cancel, press [STOP/EXIT].
   The bulk dump will be canceled, and the display will indicate “Aborted."

How to load the User Data

Connections



Transmit device **Receive device (DR-770)**

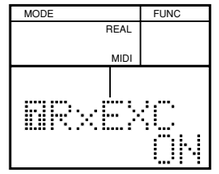
Connections

1. Press [MIDI] to make “MIDI” light.
   The DR-770 is now in MIDI mode.
2. Use [◄] [►] to select “2 MIDIch.”
3. Use [VALUE*] to select the MIDI channel.

■ If you want to restore data that was formetly transmitted to a sequencer, set the unit to the same MIDI channel that was used when transmitting the data.

■ If you want to receive data that being transmittied from another DR-770, set both DR-770 units to the same MIDI channel.

4. Use [◄] [►] to select “7 RxEXC.”



5. Use [DEC] [INC] or [VALUE] to turn the setting “ON.”
   With playback stopped on the DR-770, receive the data.

TEST MODE

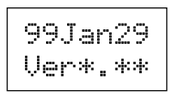
CAUTION : When running a test item (RAM check) in the test mode the backup data in the mainframe will be erased.
Be sure to seve the data before running this test.
To save the data refer to “DATA SAVE AND LOAD”.

◎Required Items

· Monitor speakers or Headphones,
· MIDI cable
· FS5U× 2 (Polarity switch setting is Jack side)
· Oscilloscope

◎To enter test mode

While simultaneously pressing the [SONG] and [7] buttons, turn the power on. The version number will appear on the LCD display as shown below. The displayed date differs depending on the ROM version.



This LCD display is referred to as the main screen in the following procedures.

◎To exit test mode

On the main screen, press the [8] button.
The display will show “INIT?”.

When initializing:
Press the [ENTER] button. The display will show “Sure?”.
Press the [ENTER] button again. The display will show “Done” and the operation will exit test mode.

When not initializing:
Press the [STOP/EXIT] button. The display will show “Aborted” and the operation will exit test mode without initializing the setting.

◎Test Items

The test mode includes the 8 tests.

0. LED check
1. Switch check
2. LCD check
3. RAM check
4. ROM check
5. MIDI check
6. FSR (Key Pads) check
7. OUTPUT check

NOTE : Each test number corresponds to the [0] to [7] keys on numeric buttons. To begin a test, press a numeric button that corresponds to the test number to be run.

[0]. LED check

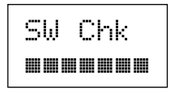
This test checks whether the LED lights normally.

1. Press the numeric button [0] to run this test.
2. If normal, pressing the [REC] button turns on the red LED, while pressing the [START] button turns on the green LED.
3. When pressing the [STOP/EXIT] button, the display will show “OK”.
4. Again, press the [STOP/EXIT] button to return to the main screen.

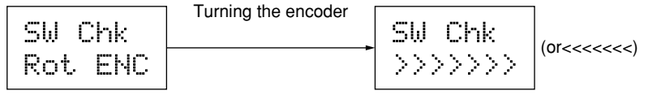
[1]. Switch check

This test checks whether each key (except key-pads) and the encoder (VALUE knob) are functioning.

1. Press the numeric button [1] to run this test.
   The display will show as follows:



2. When pressing a button or Foot SW to be checked, the key name will be displayed in the “ ■■■■■■■ ” field. At the same time a rim-shot sound will be output from Outputs L and R.
3. After all the buttons and Foot SW have been pressed for checking, the test automatically enters the encoder checking. The display will show as follows:



4. When turning the encoder clockwise (or counterclockwise), the display shown at right in the figure above will appear. Then when turning the encoder in the reverse direction, the display will show “OK” if the encoder is functioning.
5. Press the [STOP/EXIT] button to return to the main screen.

[2]. LCD check

1. Press the numeric button [2] to run this test.
2. When this test is entered, all segments of the LCD will be displayed.
3. When pressing the [STOP/EXIT] button, the display will show “OK” (even if the LCD does not operate normally).

4. Again, press the [STOP/EXIT] button to return to the main screen.

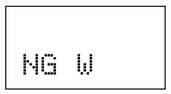
[3]. RAM check

1. Press the numeric button [3] to run this test.
   This test automatically performs the RAM check.
   If normal, the display will show “OK”. If a malfunction is found, the display will show “NG”.
2. Press the [STOP/EXIT] button to return to the main screen.

[4]. ROM check

1. Press the numeric button [4] to run this test.
   This test automatically performs the ROM check.
   If normal, the display will show “OK”. If an error occurs, the display will show as follows.

   · If there is an error on the wave ROM

   · If there is an error on the program ROM

   · If there is an error on the wave ROM and program ROM

2. Press the [STOP/EXIT] button to return to the main screen.

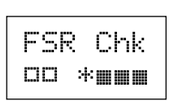
[5]. MIDI check

1. Before entering this test, connect MIDI IN to OUT using the MIDI cable.
2. Press the numeric button [5] to run this test.
   If the test result is normal the display will show “OK”.
   If the test is entered before connecting the MIDI cable, the display will show “NG”. Connect the MIDI cable properly and the display will change to “OK”.
3. Press the [STOP/EXIT] button to return to the main screen.

[6]. FSR (key-pads) check

This test checks whether the FSR (key-pads) is functioning.

1. Press the numeric button [6] to run this test.
   The display will show as follows:

2. In the “□□ ” field the key-pad number is displayed, and in the “ ■■■ ” field the pressure value is indicated.
   An asterisk “*” is displayed when the pressure value reaches “127”.
   When a key-pad is pressed, the red LED first goes on and then the green LED turns on when the pressure reaches “127”.
   A beep of oscillation sound is output from the OUTPUT-L/R jacks.
   If the FSR pattern touches a key-pad or two key-pads are pressed simultaneously, the display will show “T” to the right of the key-pad number as shown in the figure below.
   At the same time, the key-pad number being touched will be displayed at the lower right of the LCD display.

3. When all the key-pads are pressed with a pressure of more than 127 and there is no pattern touch in the FSR, the display will show “OK”. If the pressure value is low or any pattern touch occurs, the display will show “NG”.
4. Press the [STOP/EXIT] button to return to the main screen.

[7]. Sound check

This performs the tests for sounding and panning.

1. Press the numeric button [7] to run this test.
   The display will show as follows:

   ○ Sounding

2. In the “□□ ” field the output destination is displayed, and in the “ ■■■ ” field the velocitiy is indicated.
3. When you press one of key-pads 1 to 4, sound will be output as shown in the table below.

Pad no. /	1	2	3
Output destination /	L	R	IND1
Sound /	TOM1	TOM2	TOM3

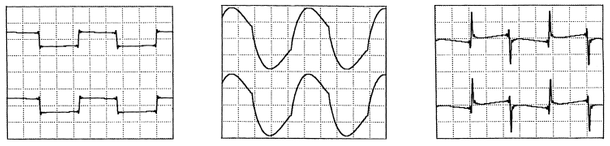
○ EQ (IC106 on Jack Board)

4. When you press one of key-pads “5” to “7”, a rectangle wave will be output with following EQ setting.

Pad no. /	5	6	7
EQ High	0dB	-12dB	+12dB
EQ Low	0dB	+12dB	-12dB
LCD display /	00	+12 -12	-12 +12

<Fig 1> L(MONO)

R



Pad No. 5 Pad No. 6 Pad No. 7

(1v/div)
(2ms/div)

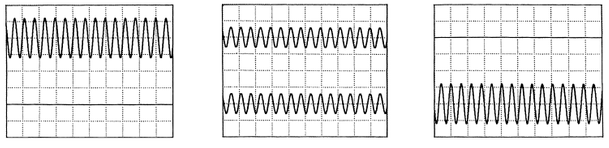
○ Panning

5. When you press one of key-pads 13 to 15, a sine wave will be output with the follwing panning.

Pad no. /	13	14	15
Panning /	L7	CENTER	R7

<Fig 2> L(MONO)

R



Pad No. 13 Pad No. 14 Pad No. 15

(1v/div)
(2ms/div)

6. The LCD is displayed as shown below.

7. In the “ □□ ” field the panning state is displayed, and in the “ ■■■ ” field the pressure value is indicated.
   An asterisk “*” is displayed when the pressure value reaches “127”.
   When a key-pad is pressed, the red LED first goes on and then the green LED turns on when the pressure reaches “127”.
8. When pressing the [STOP/EXIT] button, the display will show “OK”.
9. Again, press the [STOP/EXIT] button to return to the main screen.

TROUBLESHOOTING

① **No sound is produced.**
possible causes
The volume is set to minimum.
The level of the key-pads is set to zero.
The selected Rhythm Pattern or Song contains on data.

② **Sound breaks.**
possible causes
More than 14 voices are being played simultaneously.
Assign Type for the key-pads is not properly set.

③ **Sound is strange.**
possible causes
The settings for the key-pads are inappropriate.

④ **The Roll/Flam effect is not produced.**
possible causes
The Flam Interval is set to zero.
The settings for the Flam Ratio are inappropriate.

⑤ **Playback does not begin when [START] button is pressed.**
possible causes
The Sync Mode is set to MIDI.
The selected Rhythm Pattern or Song contains no data.

⑥ **Songs automatically play one after another.**
possible causes
The song chain function is ON.

⑦ **The tempo changes when a song starts playing.**
possible causes
An internal tempo is being set.

⑧ **The DR-770 cannot be controlled by an external MIDI device.**
An external MIDI device cannot be controlled by the DR-770.
possible causes
The MIDI channels of the DR-770 and the external MIDI device do not match.
Note numbers of the DR-770 and the external MIDI device do not correspond.

⑨ **When the DR-770 is played by performance data from a sequencer, the song on the DR-770 starts together.**
possible causes
The Sync Mode is set to MIDI sync.

⑩ **The metronome does not sound.**
possible causes
The level of the metronome is set to zero.

⑪ **Program Change messages cannot be transmitted or received.**
possible causes
“4PRG’ in the MIDI Mode is set to OFF.

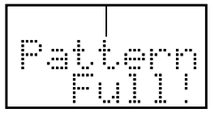
⑫ **The volume does not change when MIDI Volume messages are received.**
possible causes
“5RxVOL” in the MIDI mode is set to OFF.

⑬ **The volume does not change when MIDI Expression messages are received.**
possible causes
“6RxEXPR” in the MIDI mode is set to OFF.

⑭ **The DR-770 cannot receive Exclusive messages.**
possible causes
“7RxEXC” in the MIDI mode is set to OFF.
MIDI channels are not set to the same number.

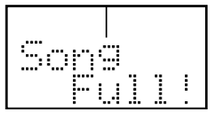
ERROR MESSAGE

If you attempt an incorrect operation or if an operation could not be executed, the display will indicate an error message. Refer to this list and take the appropriate action.



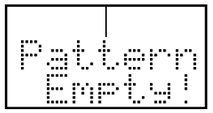
- No more patterns can be recorded.

❍ Press [STOP/EXIT]. If you want to continue recording patterns, you must first delete unneeded patterns. (p. 62)



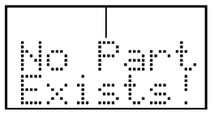
- No more songs can be recorded.

❍ Press [STOP/EXIT]. If you want to continue recording songs, you must first delete unneeded songs. (p. 67)



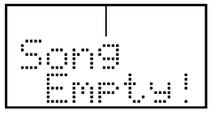
- During pattern editing, using “Copy Pattern” or “Delete Pattern,” the selected pattern contained no data.

❍ Press [STOP/EXIT], then select a different pattern.



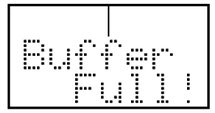
- During song editing, using “Insert Pattern” or “Delete Pattern,” the selected pattern contained no data.

❍ Press [STOP/EXIT], then select a different part.



- During song editing, using “Copy Song” or “Delete Song,” the selected song contained no data.

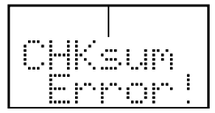
❍ Press [STOP/EXIT], then select a different song.



- An excessive amount of MIDI data was received all at once, and the DR-770 was unable to process it.
  Press [STOP/EXIT],

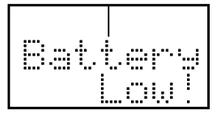
❍ If this message appears while receiving data, reduce the amount of MIDI data that is being transmitted to the DR-770.

❍ Change the MIDI mode setting so unnecessary MIDI messages are not transmitted or received. (p. 87)



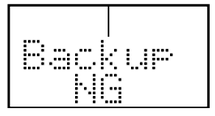
- An exclusive message could not be received correctly.

❍ Press [STOP/EXIT], then try the operation once again.



- The memory backup battery inside the DR-770 has run down. (This message will appear when the power is turned on.)

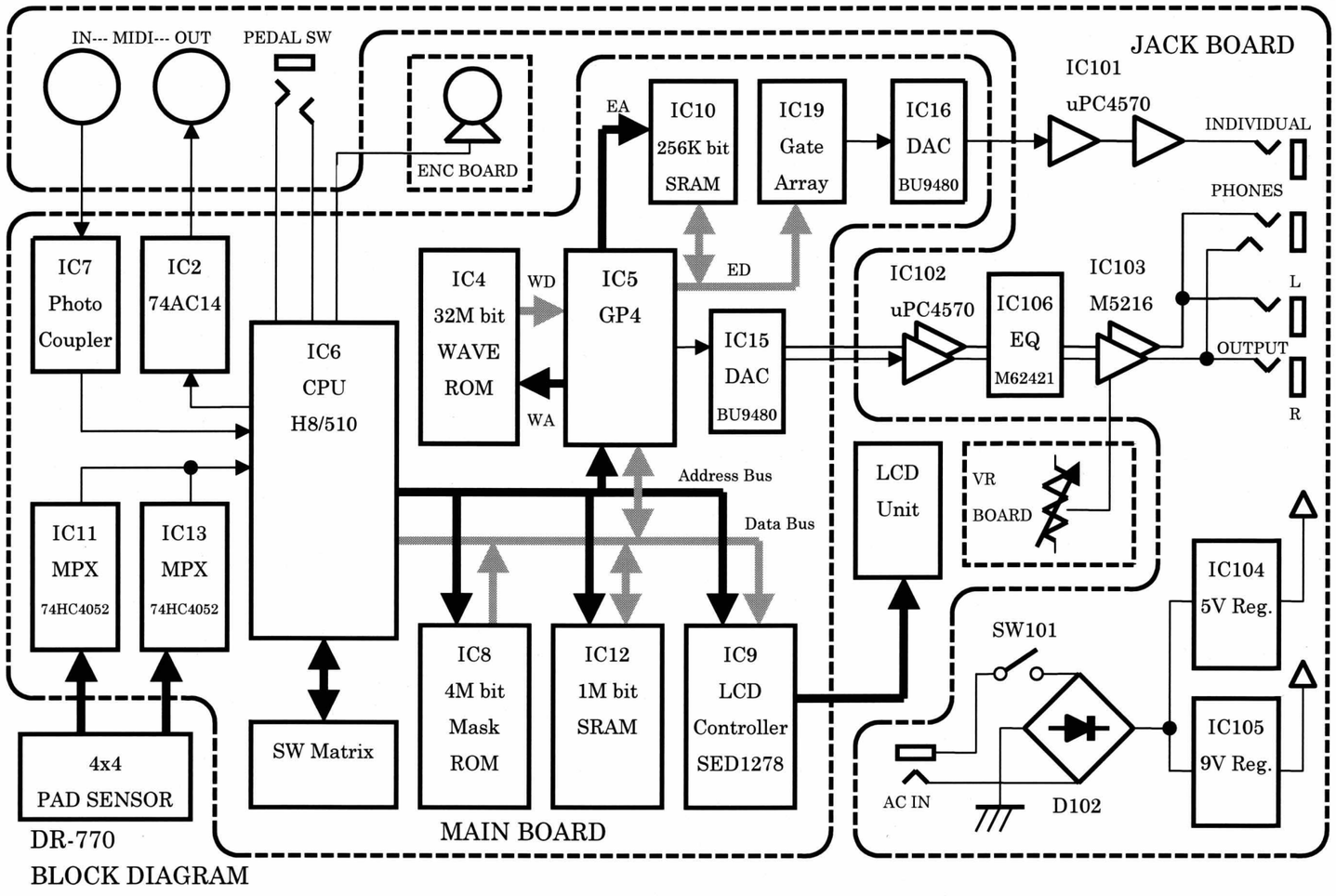
❍ Replace the battery as soon as possible. For battery replacement, please contact a Roland Service Center.



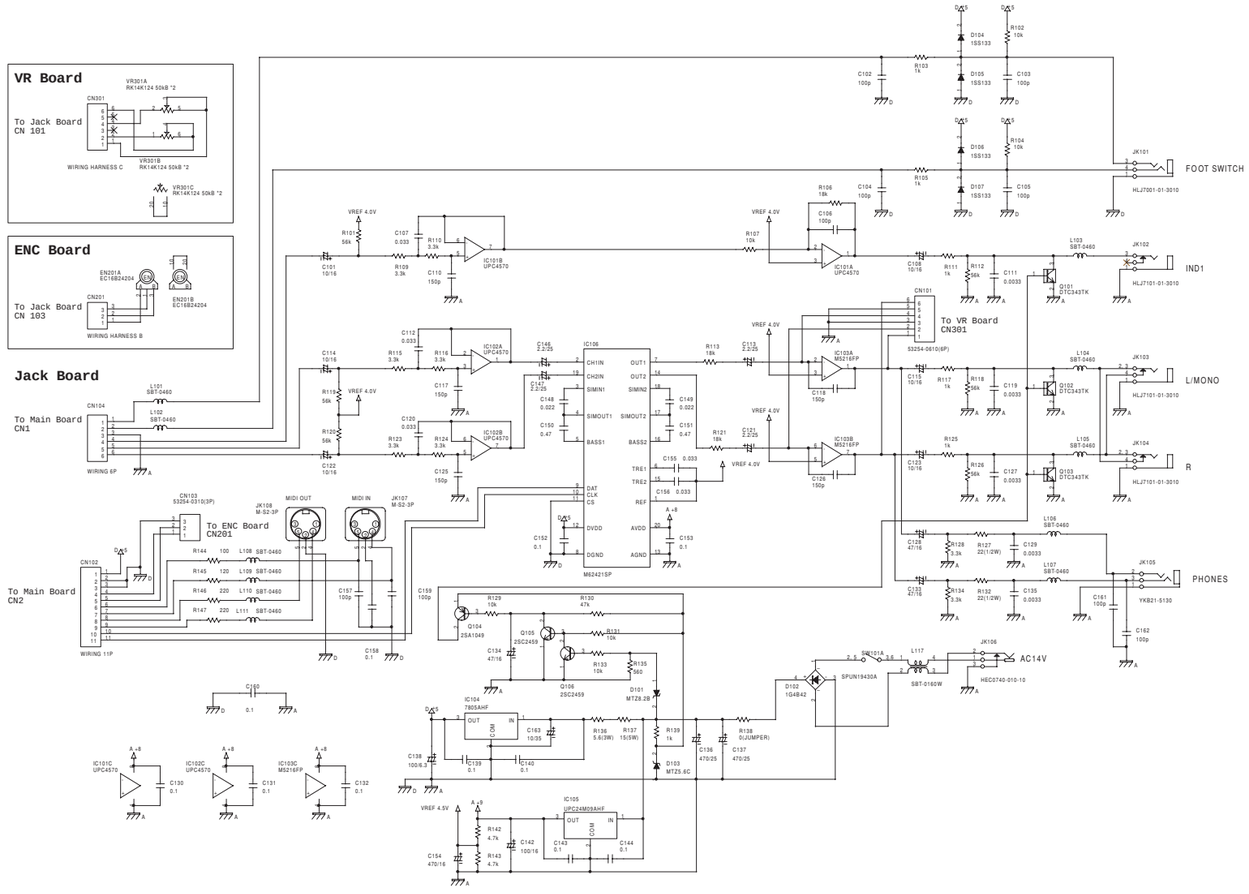
- The data in internal memory has been lost. (This message will appear when the power is turned on.)

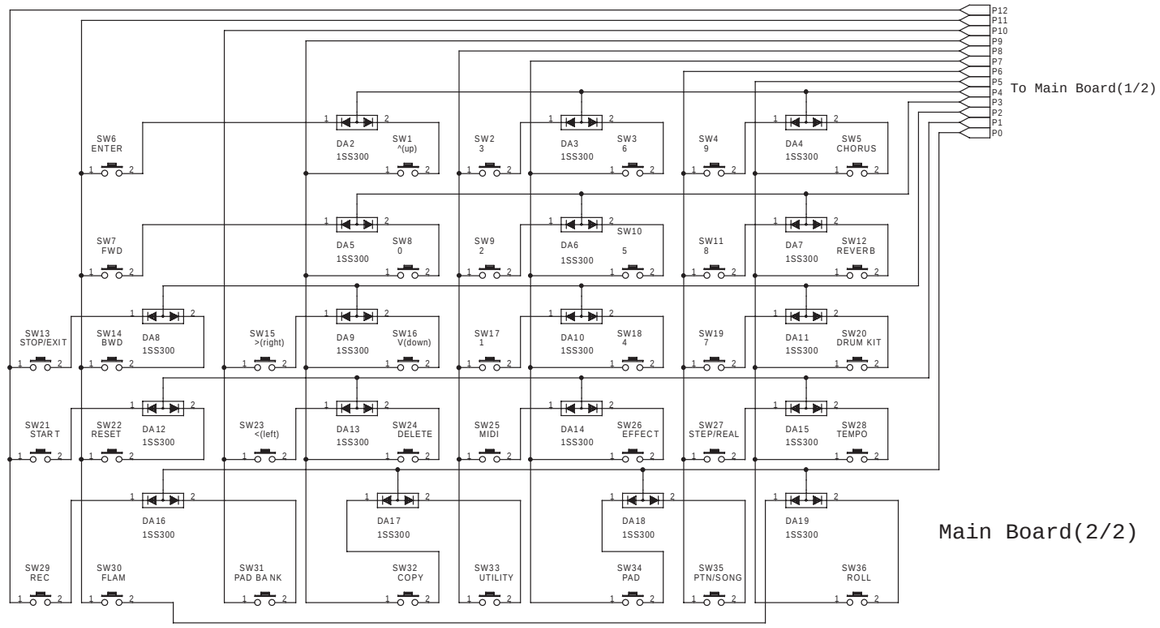
❍ After this message is shown, “Press ENTER” appears, then pressing [ENTER] will recall the factory settings.

BLOCK DIAGRAM

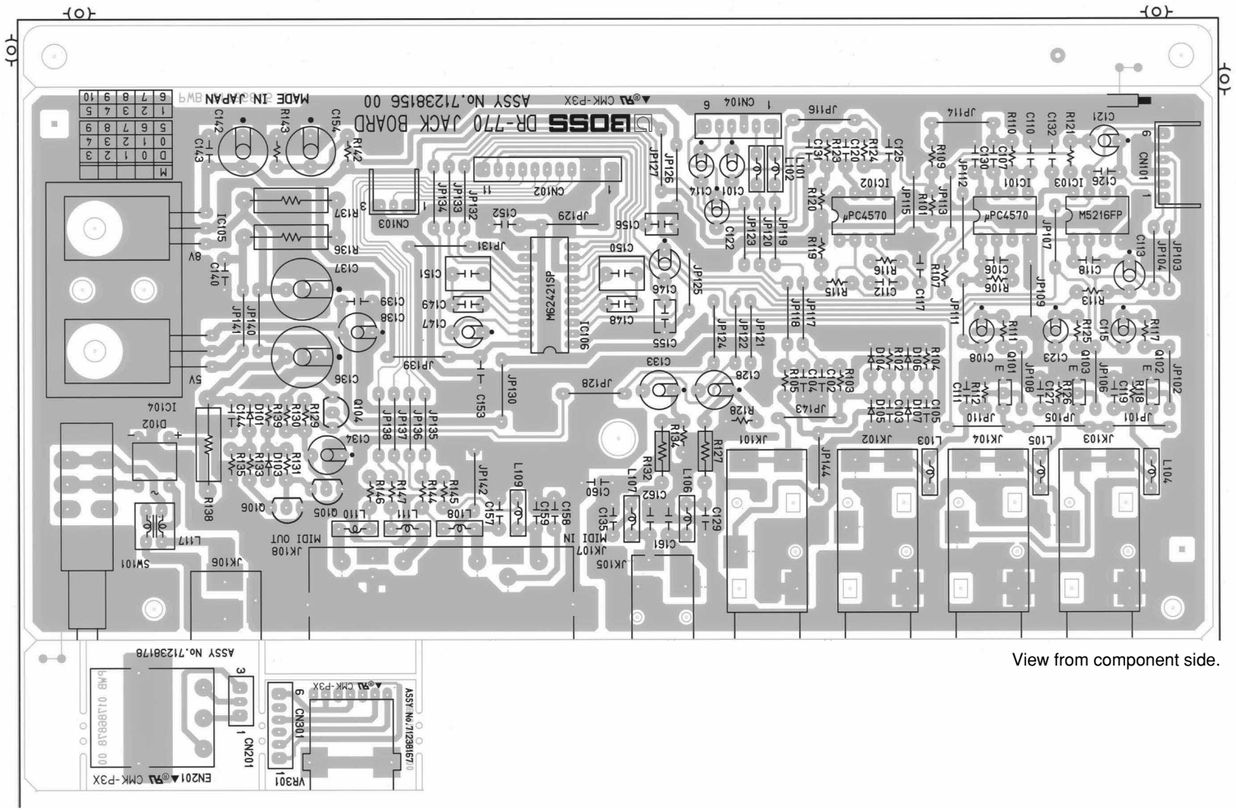


CIRCUIT DIAGRAM (JACK)



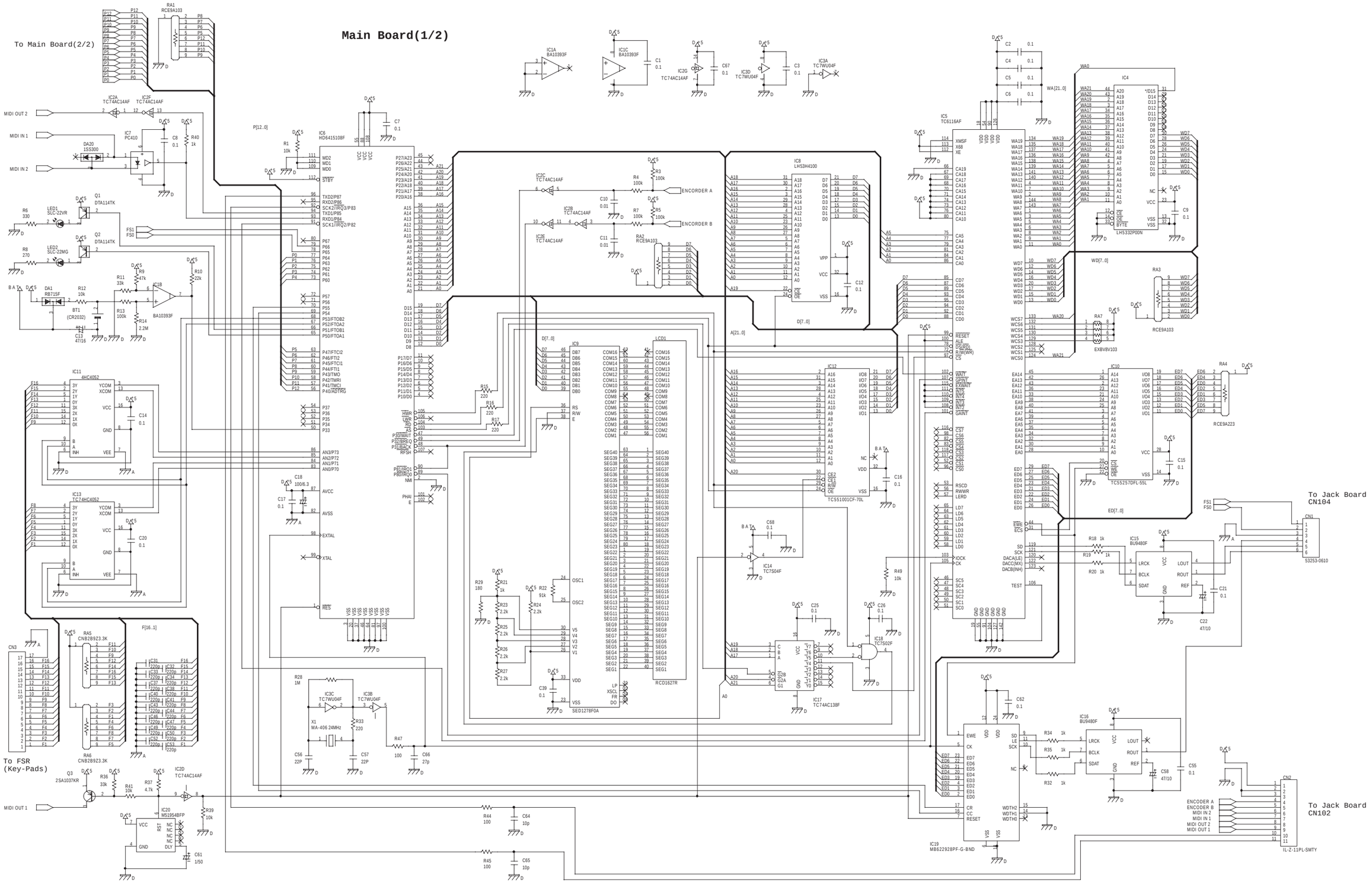


CIRCUIT BOARD (JACK)

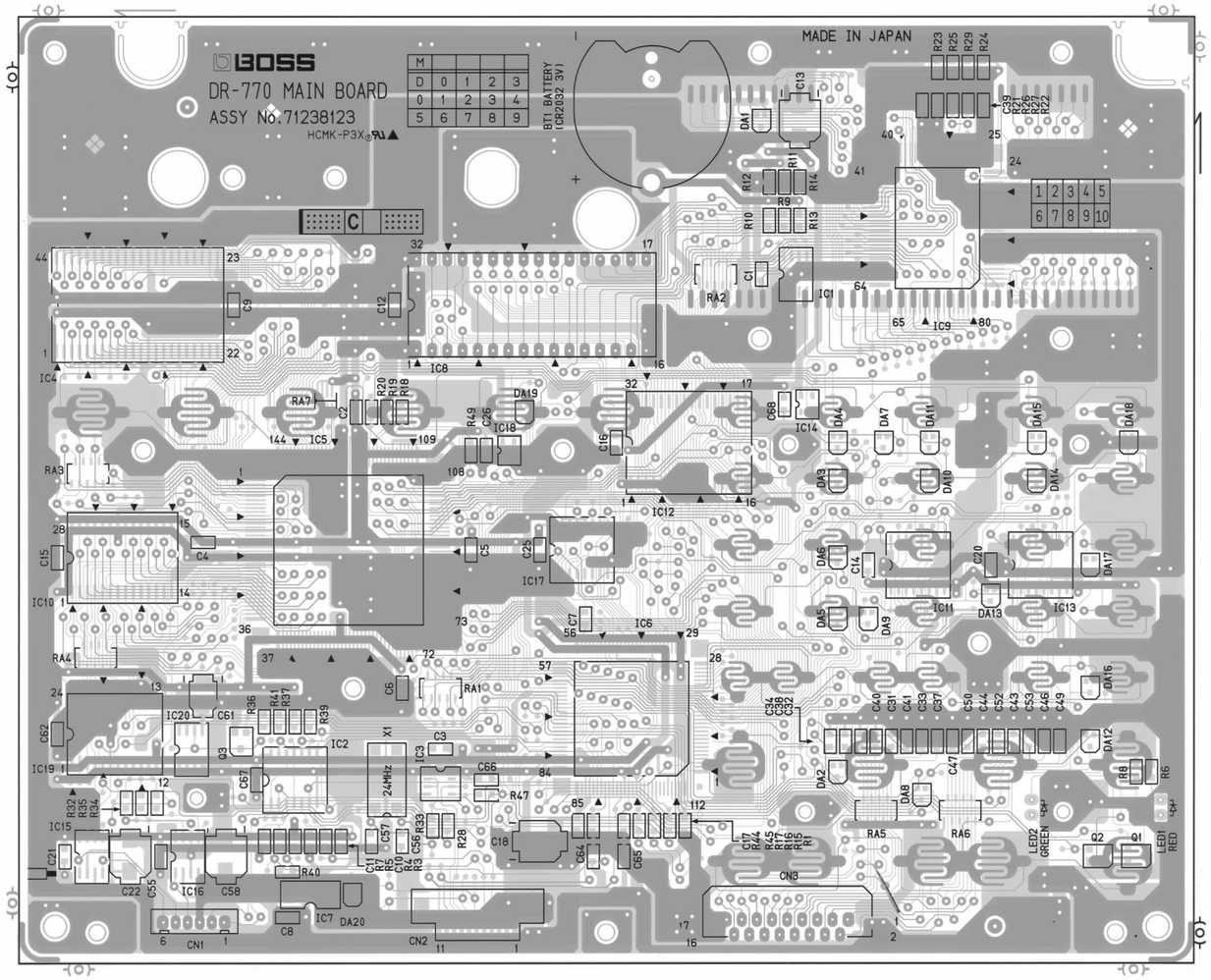


View from component side.

CIRCUIT DIAGRAM (MAIN)



CIRCUIT BOARD (MAIN)

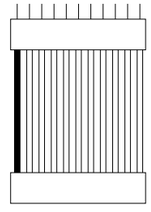


View from component side.

Change Information

The wiring differs depending on the serial number (the location of the red wire is opposite). The difference between before and after the change is as follows.

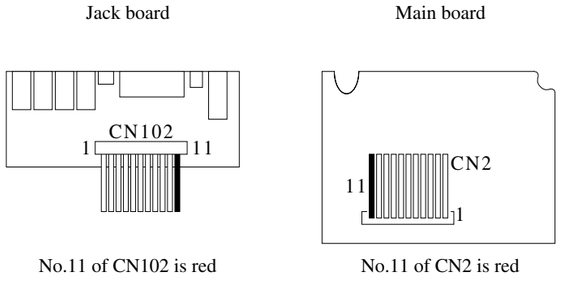
Before change
Applicable serial numbers: ZL90100 ~ ZL90199
Applicable parts #******* WIRING 11p



Wire color: red white - white

Figure 1

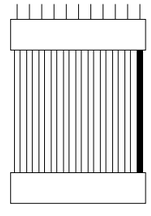
The connection method is as follows.



No.11 of CN102 is red
No.11 of CN2 is red

Figure 2

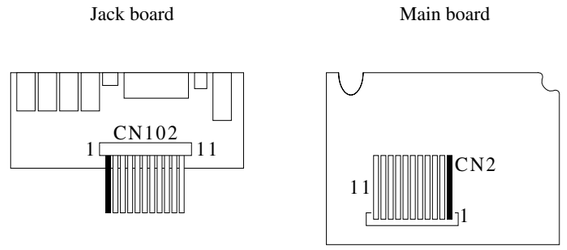
After change
Applicable serial numbers: ZL90200 ~
Applicable parts #01898989 WIRING W11



Wire color: white - white red

Figure 3

The connection method is as follows.



No.1 of CN10 is red
No.1 of CN2 is red

Figure 4

There is no difference in the circuit board before or after the change. As parts for servicing, only the newer wiring (01898989 WIRING W11) is supplied.
The jack board supplied for servicing has the newer wiring.

The older wiring was installed only on the first production lot of one hundred units (ZL90100 ~ ZL90199).

- If you replace the jack board wiring with the newer version (01898989 WIRING W11) on a unit with a serial number ZL90100 ~ ZL90199, make connections using the newer method (figure 4).
- If you retain the existing jack board and replace only the main board of a unit with a serial number ZL90100 ~ ZL90199, make connections using the older method (figure 2).
- If you retain the existing main board and replace only the jack board on a unit with a serial number ZL90100 ~ ZL90199, make connections using the newer method (figure 4).