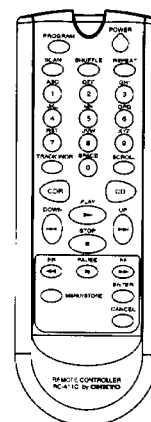
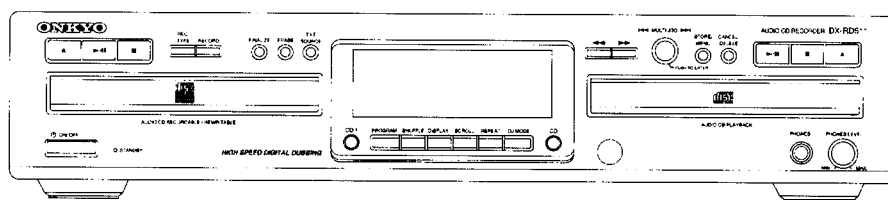


# ONKYO SERVICE MANUAL

Ref NO. 3665


052000

## AUDIO CD RECORDER DX-RD511



**Black model**  
**120 V AC 60Hz**

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBER APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

### TABLE OF CONTENTS

1	Cover page
2	Service procedure
3	Supplied accessories
4	Name of each part
6	Display messages
8	Chassis-exploded view
10	Packing view
11	IC Block Diagrams and Descriptions
12	Connection Diagram
13	Diagnostic software
14	Pcboard view
16	Circuit diagrams
18	Specifications



## SERVICE PROCEDURE

### Perform a reset

This device employs a microprocessor to perform various functions and operations. If interference generated by an external power supply, radio waves, or other electrical source results in an accident which causes the specified operations and functions to operate abnormally.

To perform a reset, please follow the procedure below.

1. It is confirmed for the tray of CD to close.
2. The mechanical power switch is OFF.
3. The mechanical power switch is pushed while pushing **YES** and **EDIT/NO** button from the state with the power supply on.

### Safety-check out

(Only U.S.A. model)

After correcting the original service problem perform the following safety check before releasing the set to the customer.

Connect the insulating-resistance tester between the plug of power supply cord and terminal GND on the back panel.

Specifications: More than 10Mohm at 500V.

## PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

### WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

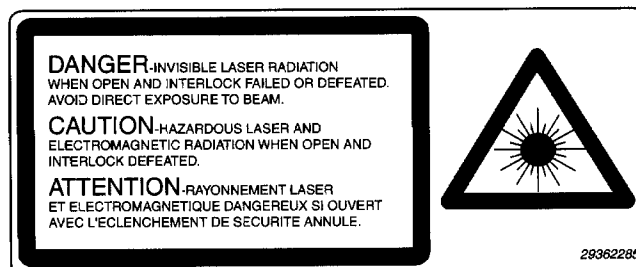
### Laser Diode Properties

Material:	GaAs/GaALAs
Wavelength:	778~787nm
Emission Duration:	continuous
Laser output:	MAX. 23mW
	PLAY 0.9mW $\pm$ 0.05mW(Ave)
	CD-R(REC) 4.9mW $\pm$ 0.11mW(Ave)
	CD-RW(REC) 5.6mW $\pm$ 0.1mW(Ave)

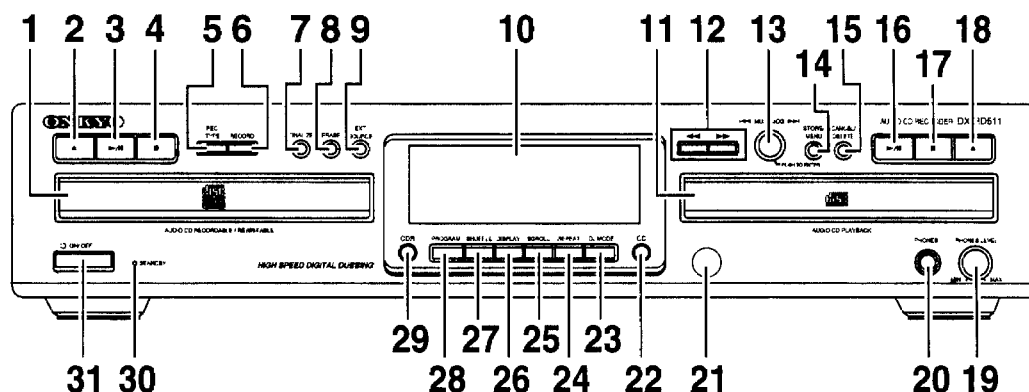
## LASER WARNING LABEL

The label shown below are affixed.

### 1. Warning label

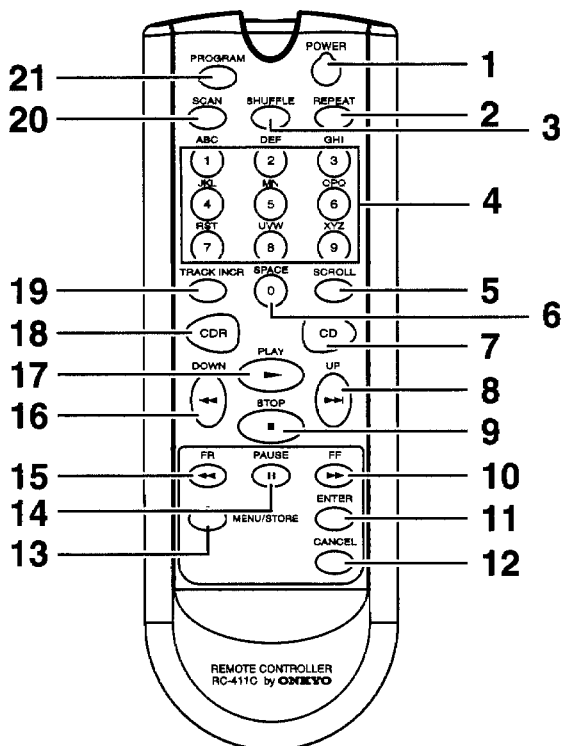


# NAME OF EACH PART



## Front panel of the machine

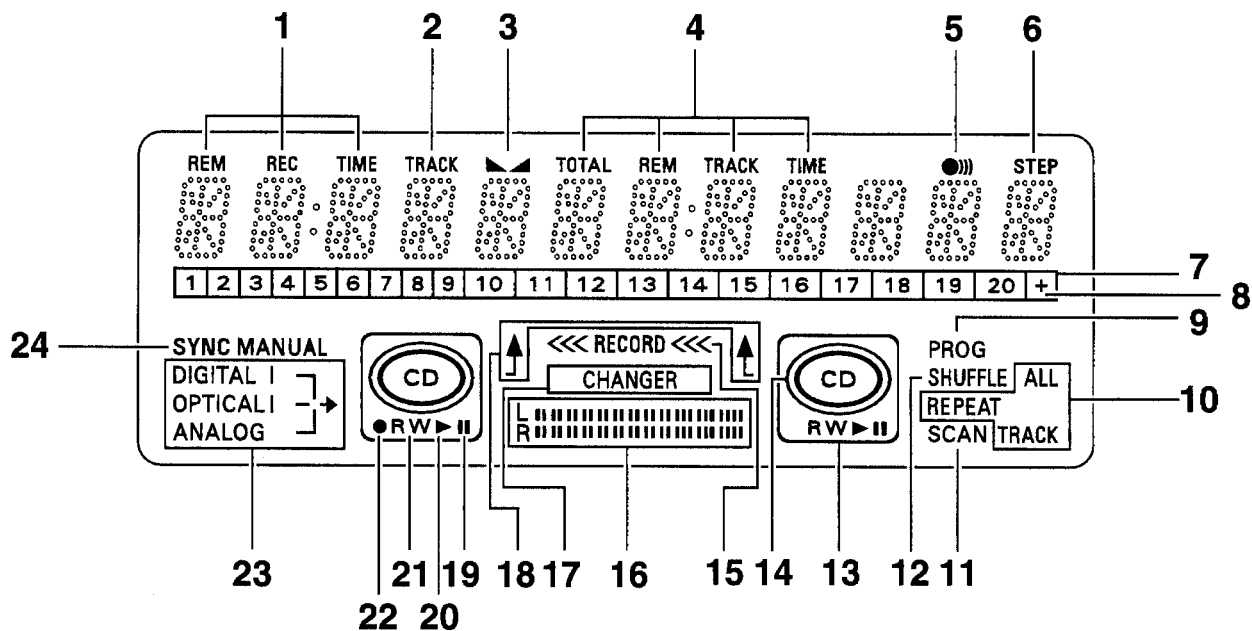
- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>1 Disc tray on the recording deck</li> <li>2 ▲ (Disc tray OPEN/CLOSE) button on the recording deck</li> <li>3 ►/   (PLAY/PAUSE) button on the recording deck</li> <li>4 ■ (STOP) button on the recording deck</li> <li>5 REC TYPE selection button</li> <li>6 RECORD button</li> <li>7 FINALIZE button</li> <li>8 ERASE button</li> <li>9 EXT SOURCE button</li> <li>10 Display</li> <li>11 Disc tray on the playing deck</li> <li>12 ◀◀/▶▶ button</li> <li>13  ◀◀ MULTI JOG ▶▶  PUSH ENTER knob</li> <li>14 STORE/MENU button</li> <li>15 CANCEL/DELETE button</li> <li>16 ►/   (PLAY/PAUSE) button on the playing deck</li> </ul> | <ul style="list-style-type: none"> <li>17 ■ (STOP) button on the playing deck</li> <li>18 ▲ (Disc tray OPEN/CLOSE) button on the playing deck</li> <li>19 PHONES LEVEL knob</li> <li>20 PHONES (headphones) jack</li> <li>21 Remote controller sensor</li> <li>22 CD button</li> <li>Pressing this button enables the playing deck (right tray).</li> <li>23 DJ MODE button</li> <li>24 REPEAT button</li> <li>25 SCROLL button</li> <li>26 DISPLAY button</li> <li>27 SHUFFLE button</li> <li>28 PROGRAM button</li> <li>29 CDR button</li> <li>Pressing this button enables the recording deck (left tray).</li> <li>30 STANDBY indicator</li> <li>31 ON/OFF switch</li> </ul> |
|--|--|



## Remote Controller

- 1 POWER button
- 2 REPEAT button
- 3 SHUFFLE button
- 4 Numeric/letter input button
- 5 SCROLL button
- 6 SPACE/0 (ZERO) button
- 7 CD button
- 8 ►► UP button
- 9 ■ STOP button
- 10 ►► FF (fast-forward) button
- 11 ENTER button
- 12 CANCEL button
- 13 MENU/STORE button
- 14 || PAUSE button
- 15 ◀◀ FR (fast-return) button
- 16 ◀◀ DOWN button
- 17 ► PLAY button
- 18 CDR button
- 19 TRACK INCR button
- 20 SCAN button
- 21 PROGRAM button

# NAME OF EACH PART



**Display**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>1 Recording/remaining time indicator</li> <li>2 Track indicator</li> <li>3 Balance indicator</li> <li>4 Disc/track elapsed/remaining time indicator</li> <li>5 Remote-control signal received indicator</li> <li>6 Step indicator</li> <li>7 Track indicator</li> <li>8 +20 indicator<br/>Lights up when the disc contains 21 or more tracks.</li> <li>9 Program indicator</li> <li>10 Repeat single/all track(s) indicator</li> </ul> | <ul style="list-style-type: none"> <li>11 Scan indicator</li> <li>12 Shuffle indicator</li> <li>13 CD player selected indicator</li> <li>14 CD indicator</li> <li>15 Recording indicator</li> <li>16 Recording/playback level indicator</li> <li>17 Changer mode indicator</li> <li>18 DJ play mode indicator</li> <li>19 Pause indicator</li> <li>20 Play indicator</li> <li>21 CD-R/CD-RW indicator</li> <li>22 Recording indicator</li> <li>23 Input source indicator<br/>(DIGITAL1/OPTICAL/ANALOG)</li> <li>24 Recording indicator<br/>(SYNC/MANUAL)</li> </ul> |
|---|---|

## DISPLAY MESSAGE

Messages, as listed and explained here, may appear on the display for your guidance.

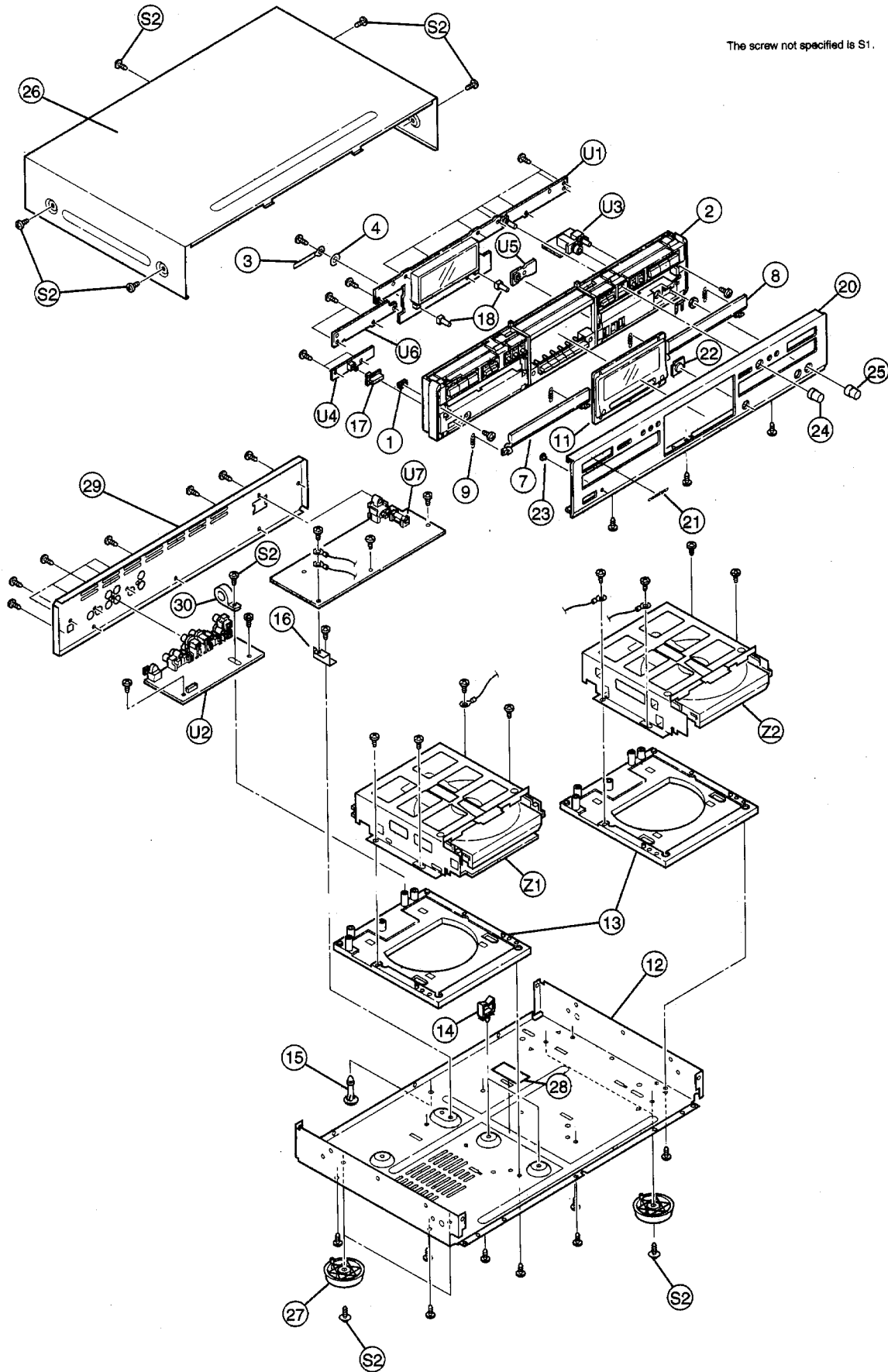
The displayed message may vary depending on the type of disc used:

CD: Audio CD R: CD-R W: CD-RW ALL: All of audio CD, CD-R, and CD-RW -: Displayed independent of disc type

General		
<b>READING</b>	<b>ALL</b>	The unit is reading the information stored on the disc. The disc becomes playable as soon as the time display appears.
<b>OPEN</b>	-	The unit is opening the disc tray.
<b>CLOSE</b>	-	The unit is closing the disc tray.
<b>NO DISC</b>	-	No disc is loaded or the loaded disc is unreadable. The disc may be set upside down.
<b>PROG FULL</b>	<b>ALL</b>	The unit is unable to store tracks any more. The number of programmed tracks has reached 99.
<b>INSERT DISC</b>	-	No disc is loaded or the loaded disc is unplayable. See "Playing does not start" or "Recording does not start" in the Troubleshooting Guide section.
<b>WRONG DISC</b> → <b>USE AUDIO CD</b>	-	The loaded disc is not for audio use. It may be a CD-ROM for use with personal computers.
<b>UNFINALIZED</b>	<b>R/W</b>	The unit has finished unfinalizing the finalized CD-RW.
<b>MEMORY xx%</b>	<b>R/W</b>	This indicates what percentage of the CD-TEXT memory is used by the unfinalized disc. See also "MEMORY FULL."
<b>NOT FINALIZED</b> → <b>SCANNING</b>	<b>W</b>	A CD-RW that has not been finalized is placed in the CD tray.
Recording		
<b>WAIT</b>	<b>R/W</b>	The unit is preparing for the next operation, such as for starting or stopping the recording.
<b>UPDATE</b>	<b>R/W</b>	The unit is updating the information stored on the disc after recording. This also appears during recording if writing to the disc is discontinued due to a disc failure such as a scratch. The recording stops immediately.
<b>DISC FULL</b>	<b>R/W</b>	The unit is unable to store tracks on disc any more.
<b>DIGITAL 1</b>	-	Coaxial external digital input (CDR DIGITAL IN) is selected.
<b>OPTICAL</b>	-	Optical external digital input (CDR OPTICAL DIGITAL IN) is selected.
<b>ANALOG</b>	-	External analog input (CDR ANALOG IN) is selected.
<b>COPY PROTECT</b>	-	The unit is unable to record the digital input signals from the external source.
<b>NOTFINALIZED</b>	<b>R/W</b>	The disc in the open disc tray has not yet been finalized (CD recorder). This means that the disc is unplayable on other CD players.
<b>RECORD FAST</b>	<b>R/W</b>	The fast recording mode is selected, where the recording time is 1/2 of the normal recording mode but no sound is heard.
<b>REC LISTEN</b>	<b>R/W</b>	The normal recording mode is selected. The sound will be heard during recording.
<b>MAKE CD</b>	<b>R/W</b>	The automatic finalization function is selected. The disc will be finalized automatically when the recording is finished.
<b>REC EXT DISC</b>	<b>R/W</b>	Synchro recording from an external source is selected.
<b>REC EXT MAN</b>	<b>R/W</b>	Manual recording from an external source is selected.
<b>xx dB</b>	<b>R/W</b>	The attenuation level is shown in all recording modes whenever you rotate the MULTI JOG knob to set the recording level.
<b>DOES NOT FIT</b>	<b>R/W</b>	The total playback time of the CD does not fit the total recording time of the CD-R or CD-RW.
<b>ANALOG REC</b>	<b>R/W</b>	The unit automatically selects the analog recording mode, if the disc contains audio signals of which digital copying is prohibited.
<b>ERASE TRACK</b>	<b>W</b>	The track is to be erased.
<b>ERASE DISC</b>	<b>W</b>	The whole contents of the disc are to be erased.
<b>FINALIZE</b>	<b>R/W</b>	The CD-R or CD-RW is to be finalized so that it is readable on ordinary CD players.
<b>FINALIZED</b>	<b>R/W</b>	The CD-R or CD-RW you attempted to finalize need not be finalized because it has already been finalized.
<b>CHECK INPUT</b>	<b>R/W</b>	An attempt was made to record through one of the external digital input channels, but no signal has been detected. Check that the cables are connected firmly and that the external digital source is turned on and outputting digital signals.
<b>xx xx ERASE</b>	<b>W</b>	When a track is being erased, the time to the completion of erasure is counted down.
<b>xx xx FINAL</b>	<b>R/W</b>	When a disc is being finalized, the time to the completion of finalization is counted down.
<b>PRESS RECORD</b>	<b>R/W</b>	Press the RECORD button when this message is displayed to start recording or erasing.
<b>START SOURCE</b>	<b>R/W</b>	During synchro recording from an external source, start playback on it to start recording in response to the input signals.
<b>FINALIZED CD</b>	<b>CD/R</b>	An attempt was made to record on a finalized CD-R or ordinary CD.
<b>UNFINALIZE/ PRESS ENTER</b>	<b>W</b>	An attempt was made to record on a finalized CD-RW. Press the MULTI JOG knob to start unfinalizing the CD-RW.

<b>Recording (continued)</b>		
<b>PROF SOURCE</b>	<b>R/W</b>	"REC EXT DISC" or "REC EXT MAN" is selected, but the unit is connected to professional audio equipment. The serial copy management system (SCMS) prohibits recording from professional equipment with any consumer-product recorder including this unit.
<b>TEXT PROTECT</b>	<b>R/W</b>	The CD text data stored on discs cannot be copied.
<b>Playback</b>		
<b>CHANGER MODE</b>	<b>-</b>	The changer mode is selected.
<b>DJ MODE</b>	<b>-</b>	DJ mode play is selected.
<b>PROGRAM</b>	<b>ALL</b>	Program play is selected.
<b>ALBUM TITLE</b>	<b>ALL</b>	If the disc contains album title information in the CD-TEXT format, this message appears when the SCROLL button is pressed.
<b>TRACK TITLE</b>	<b>ALL</b>	If the disc contains track title information in the CD-TEXT format, this message appears when the SCROLL button is pressed.
<b>ALBUM ARTIST</b>	<b>ALL</b>	If the disc contains album artist name information in the CD-TEXT format, this message appears when the SCROLL button is pressed.
<b>TRACK ARTIST</b>	<b>ALL</b>	If the disc contains track artist information in the CD-TEXT format, this message appears when the SCROLL button is pressed.
<b>Others</b>		
<b>NO AUDIO TR</b>	<b>CD</b>	Some tracks include other than audio data. These tracks cannot be played back.
<b>FINALIZE CD</b>	<b>R</b>	Writing to a CD-R is impossible, if it has been ejected and re-inserted 96 times. Finalize the CD-R before attempting to write on it.
<b>INITIALIZING</b>	<b>R/W</b>	The unit is measuring the laser output level of its optical pickup for writing to the disc. Do not turn off the power until this message disappears because the unit is writing to or reading from the disc.
<b>DISC RECOVER</b>	<b>R/W</b>	This message appears immediately after power on if the unit has been turned off during recording or initialization. The tracks that recorded before power shutoff can be restored. The disc may be finalized automatically when recovered. (See page 29.)
<b>OPC ERROR</b>	<b>R/W</b>	Any disc causing this error message cannot be used because the laser output level of the optical pickup cannot be optimized for writing.
<b>RECORD ERROR</b>	<b>R/W</b>	This appears in the text edit mode if writing to the disc is discontinued due to a disc failure such as a scratch. The text-edit display will be restored, although the recording stops immediately.
<b>DISC ERROR</b>	<b>R/W</b>	Writing to or reading from the disc is not possible for some reason. This error is generally caused by dirt or scratches on discs.
<b>MEMORY FULL/ FINALIZE CD</b>	<b>R/W</b>	You cannot enter additional characters because the CD-TEXT memory has become full. Finalize the disc or erase the entered characters before attempting to enter additional characters.
<b>PRESS DJMODE</b>	<b>-</b>	The attempted operation is unavailable in the changer mode. Please select the DJ mode.
<b>FIRST TIME</b>	<b>R/W</b>	The memory retains some data when "MEMORY VIEW" is selected.
<b>Menu Message</b>		
<b>NO TRACKS</b>	<b>R/W</b>	An attempt was made to edit text information on a disc that contains no recorded tracks.
<b>TEXT EDIT</b>	<b>R/W</b>	The TEXT EDIT mode is set.
<b>CD ARTIST</b>	<b>R/W</b>	The album artist name is to be modified or erased.
<b>CD TITLE</b>	<b>R/W</b>	The album title is to be modified or erased.
<b>TR n ARTIST</b>	<b>R/W</b>	The artist name for the track number indicated as "n" is to be modified or erased.
<b>TR n TITLE</b>	<b>R/W</b>	The title for the track number indicated as "n" is to be modified or erased.
<b>TEXT ERASE</b>	<b>R/W</b>	The TEXT ERASE mode is set.
<b>ALL TEXT</b>	<b>R/W</b>	The whole text is displayed.
<b>ERASE OK</b>	<b>R/W</b>	You can press the MULTI JOG knob to erase the entered character.
<b>ERASE ALL OK</b>	<b>R/W</b>	You can press the MULTI JOG knob to erase the whole text.
<b>ERASE MEMORY</b>	<b>R/W</b>	You can erase the text data (set in memory) on the disc that has not been finalized yet.
<b>MEMORY VIEW</b>	<b>R/W</b>	You can view the text data (set in memory) on the disc that has not been finalized yet.
<b>MEMORY EMPTY</b>	<b>R/W</b>	No text data is set (in memory).
<b>AUTO TRACK</b>	<b>R/W</b>	The AUTO TRACK mode is selected.
<b>ON</b>	<b>R/W</b>	The AUTO TRACK mode is set to "ON."
<b>OFF</b>	<b>R/W</b>	The AUTO TRACK mode is set to "OFF."
<b>SET BALANCE</b>	<b>R/W</b>	The recording balance can be adjusted by rotating the MULTI JOG knob.
<b>NO TEXT</b>	<b>ALL</b>	The disc contains no CD text data.


# CHASSIS-EXPLODED VIEW



The screw not specified is S1.

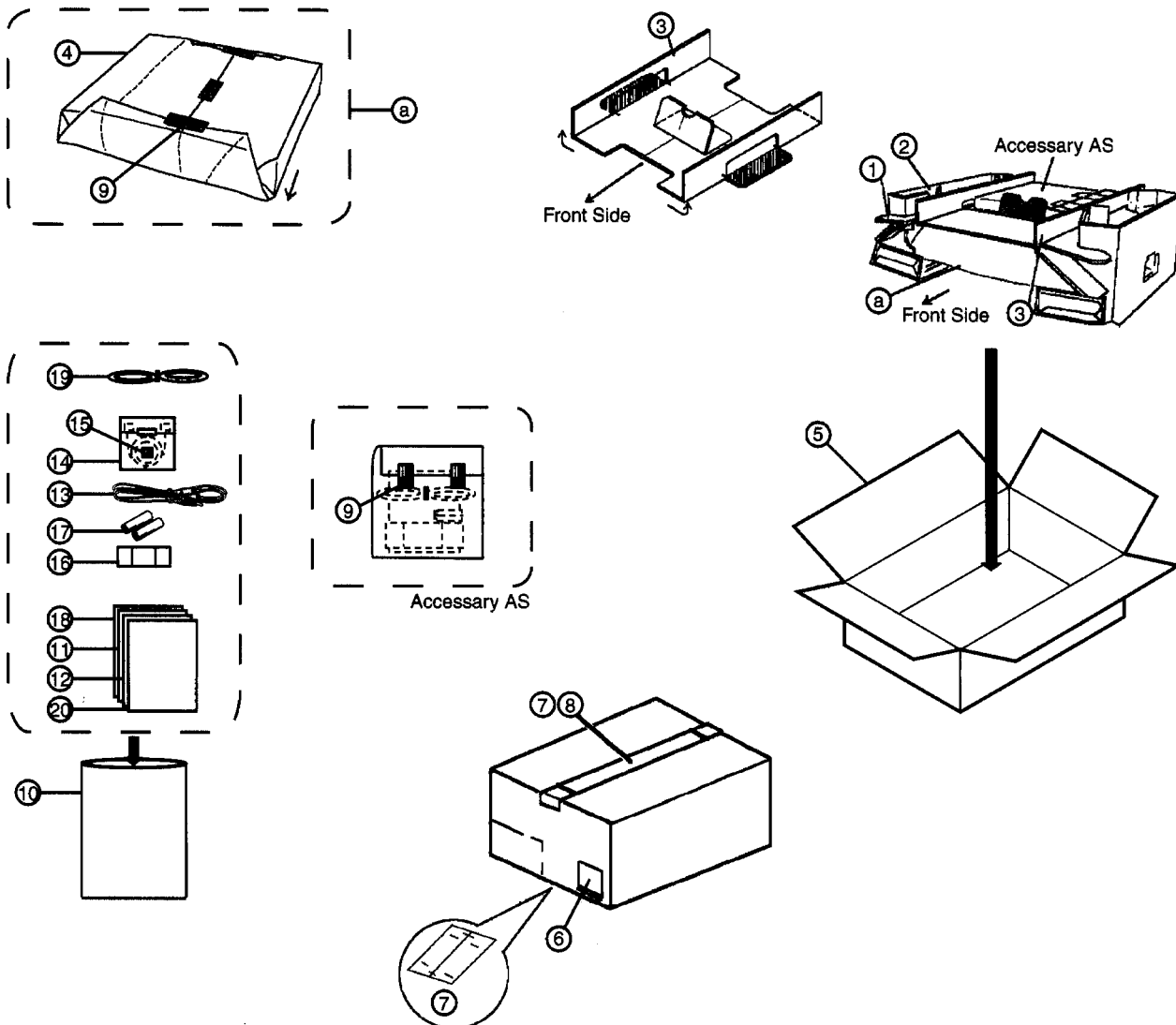
## CHASSIS-EXPLODED PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
U1	1H428517-1A	NADIS-6717-1A, Display circuit pcboard AS
U2	1H428518-1A	NAAF-6718-1A, Audio terminals pcboard AS
U3	1H428519-1A	NAAF-6719-1A, Headphones terminal pcboard AS
U4	1H428520-1A	NASW-6720-1A, Power switch circuit pcboard AS
U5	1H428521-1A	NAETC-6721-1A, Remote sensor circuit pcboard AS
U6	1H428522-1A	NAETC-6722-1A, CDR control button pcboard AS
U7	24150008	 PSU-CDR775-1, Power supply circuit pcboard AS
1	28141412	Cushion
2	27111138A	Front Bracket
3	27255004	CS-1U, Clip
4	27270393	(MARU), Spacer
5	27190608	UA-0, Holder
7	28148422A	Door (Left)
8	28148423A	Door (Right)
9	27180576	Spring (Door)
10	28133390	B Plate
11	28191866A	Clear Plate (FL)
12	27100379	Chassis
13	27191087B	Holder (M)
14	27300243Y	WS-2W, WS Clamp
15	27190772	KGLS-22RF, Holder
16	27141750	Retainer (Pcboard)
17	28325696	Knob (Power)
18	28325699	Knob (CD)
19	29362553	Label (Fuse Symbol)
20	27212144A	Front Panel
21	28135244Y	BADGE, Badge
22	28191869	Clear Plate (IR)
23	28198864 or 28198895	Facet or Facet (1P)
24	28325702	Knob (AMCS)
25	28325452Y	Knob (MIC)
26	28184764	Cover
27	27175311A	Leg AS
28	29362285	Label
29	27122659A	Rear Panel
30	230910	ESD-R-25DB, Core
F1	2046074012	NCFC6-074012, Flat Flexible Cable
F2	2042141012	NCFC2-141012, Flat Flexible Cable
F3	2042223012	NCFC2-223012, Flat Flexible Cable
S1	838130088	3TTB+8B, Screw
S2	831430088	3TTW+8B(BC), Screw
Z1	24800044	VAUR775, CD-Recorder Mechanism AS
Z2	24800045	VAL1250, CD-Player Mechanism AS

NOTE: THE COMPONENTS IDENTIFIED BY  MARK ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.



**Packing View**



**REF. NO. PART NO. DESCRIPTION**

**Packing**

1	29091894	Pad
2	29091895	Pad (S)
3	29095872A	Sheet (ACCE)
4	29095847	Sheet
5	29053513	Carton
6	29362523	Label UPC AS
7	282321	Staple
8	29110141	PP Tape
9	29110149	Tape (CEROHAN)

**REF. NO. PART NO. DESCRIPTION**

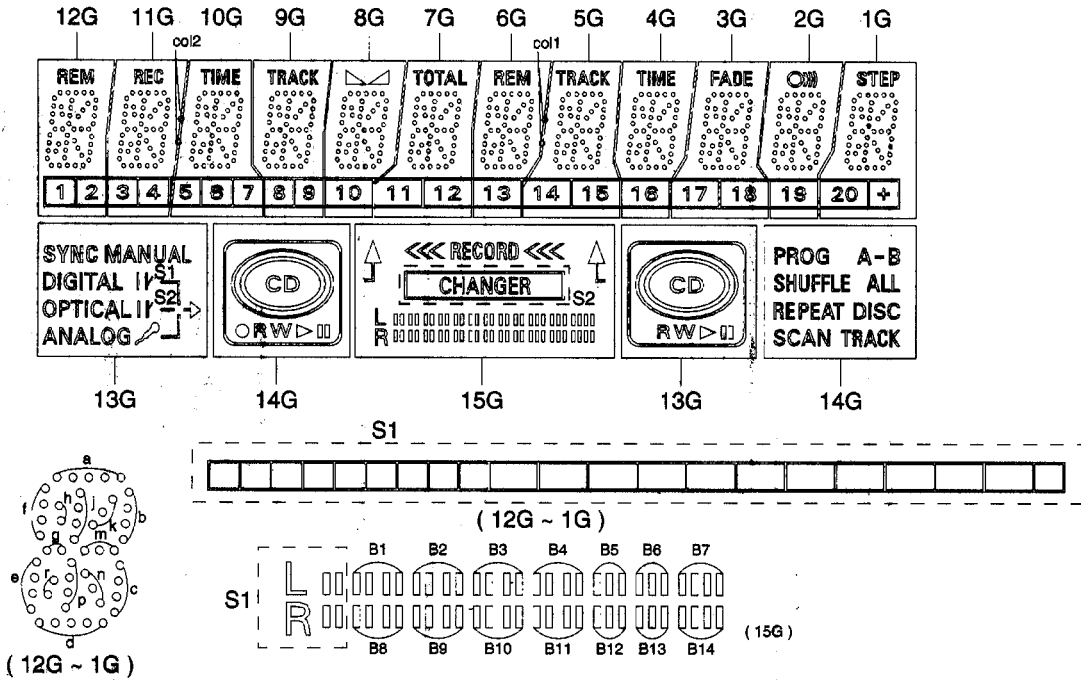
**Accessory AS**

10	29100097-1A	350*250, Poly Bag
11	29365083	Warranty Card
12	29095866	Sheet (ONKYO)
13	2010098A or 2010244	Pin-Cord AS or Pin-Cord AS
14	2050039	NCS-1P104, Cord AS
15	29361573	Label (PE-LD)
16	24140411	RC-411C, Remote Control Unit
17	3010124	UM-4, Battery
18	29342803A	Instruction Manual, E
19	253291	AS-UC-6, AC Cord
20	29355318	Instruction Sheet, E

# IC Block diagrams and Description

**Q603 15-BT-69GNK:FL Tube**

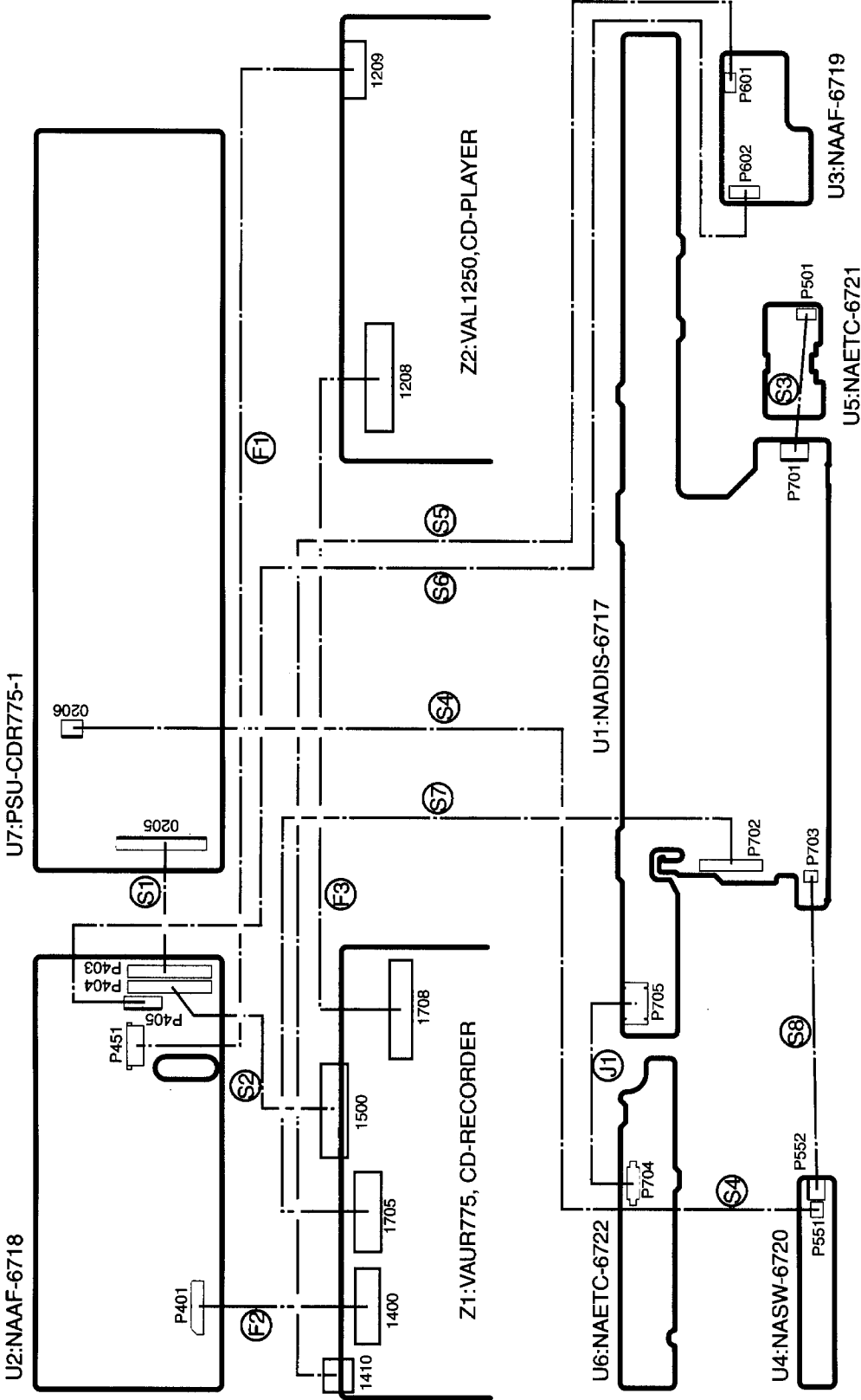
## GRID ASSIGNMENT



## ANODE CONNECTION

	15G	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	B14	-	DIGITAL I	a	a	a	a	a	a	a	a	a	a	a	a
P2	B13	TRACK	S1	j, p	j, p	j, p	j, p	j, p	j, p	j, p	j, p	j, p	j, p	j, p	j, p
P3	B12	SCAN	OPTICAL I	h	h	h	h	h	h	h	h	h	h	h	h
P4	B11	DISC	S2	k	k	k	k	k	k	k	k	k	k	k	k
P5	B10	REPEAT	ANALOG	b	b	b	b	b	b	b	b	b	b	b	b
P6	B9	ALL	SYNC	f	f	f	f	f	f	f	f	f	f	f	f
P7	B8	SHUFFLE	MANUAL	m	m	m	m	m	m	m	m	m	m	m	m
P8	B7	B	T	g	g	g	g	g	g	g	g	g	g	g	g
P9	B6	□	□	c	c	c	c	c	c	c	c	c	c	c	c
P10	B5	A	J	e	e	e	e	e	e	e	e	e	e	e	e
P11	B4	PROG	→	r	r	r	r	r	r	r	r	r	r	r	r
P12	B3	○	↗	n	n	n	n	n	n	n	n	n	n	n	n
P13	B2	▶	▶	d	d	d	d	d	d	d	d	d	d	d	d
P14	B1			REM	REC	TIME	TRACK	△	TOTAL	REM	TRACK	TIME	FADE	○	STEP
P15	↑ (※)	CD	CD	1	3	5	8	10	11	13	14	16	17	19	20
P16	S2	□	□	2	4	6	9	-	12	-	15	-	18	-	+
P17	◀◀ RECORD ▶▶	○	○	-	-	7	-	-	-	-	-	-	-	-	-
P18	↑ (※)	R	R	-	-	-	-	-	-	-	-	-	-	-	-
P19	-	W	W	-	-	-	-	-	-	-	col1	-	-	-	-
P20	-	-	-	-	col2	-	-	-	-	-	-	-	-	-	-
P21	S1	-	-	-	-	-	-	-	-	-	-	-	-	-	S1

# CONNECTION DIAGRAM



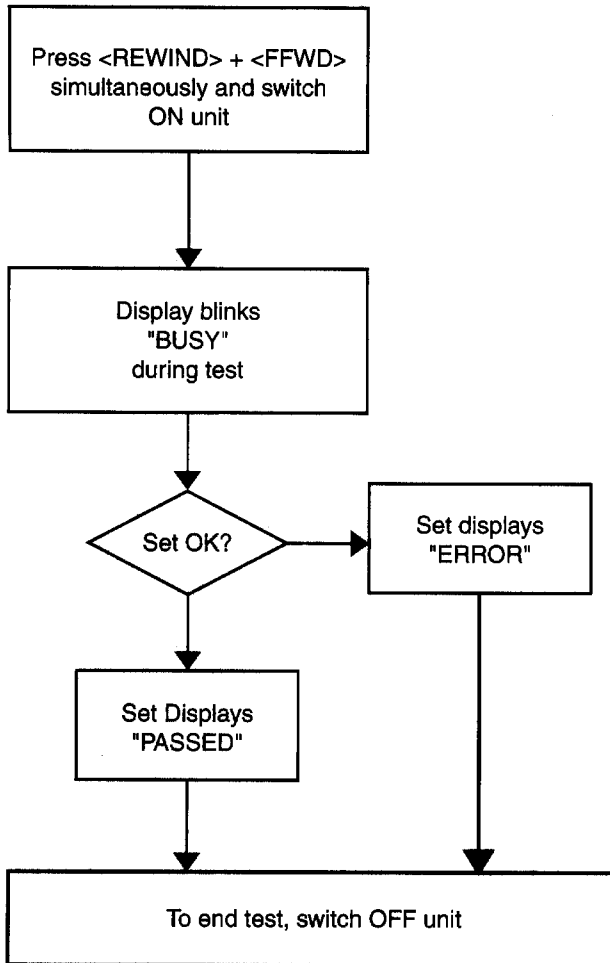
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
F1	2046074012	NCFC6-074012,FFC	S4	2003B290460	NSAS-4P0770,SOCKET AS
F2	2042141012	NCFC2-141012,FFC	S5	2002A390660	NSAS-6P0761,SOCKET AS
F3	2042223012	NCFC2-223012,FFC	S6	2003B290850	NSAS-8P0771,SOCKET AS
J1	61200606B15	JL6 200 BUL.2651#26,JUMPER LEAD	S7	2002A392035	NSAS-20P0738,SOCKET AS
S1,S2	2003B292210	NSAS-22P0769,SOCKET AS	S8	2002A390420	NSAS-4P0754,SOCKET AS
S3	2006390605UL	NSAS-6P0451,SOCKET AS			

# DIAGNOSTIC SOFTWARES

## 1. Dealer mode

The purpose of the player at exhibitions, showrooms etc.. This mode disables the open/close function of the player. The dealer mode can be switched on and off pressing keys [OPEN/CLOSE] and [STOP] of the CDR player simultaneously while switching on the unit. The dealer mode is stored in the flash memory and can only be changed by executing the above actions.

## 2. Diagnostics

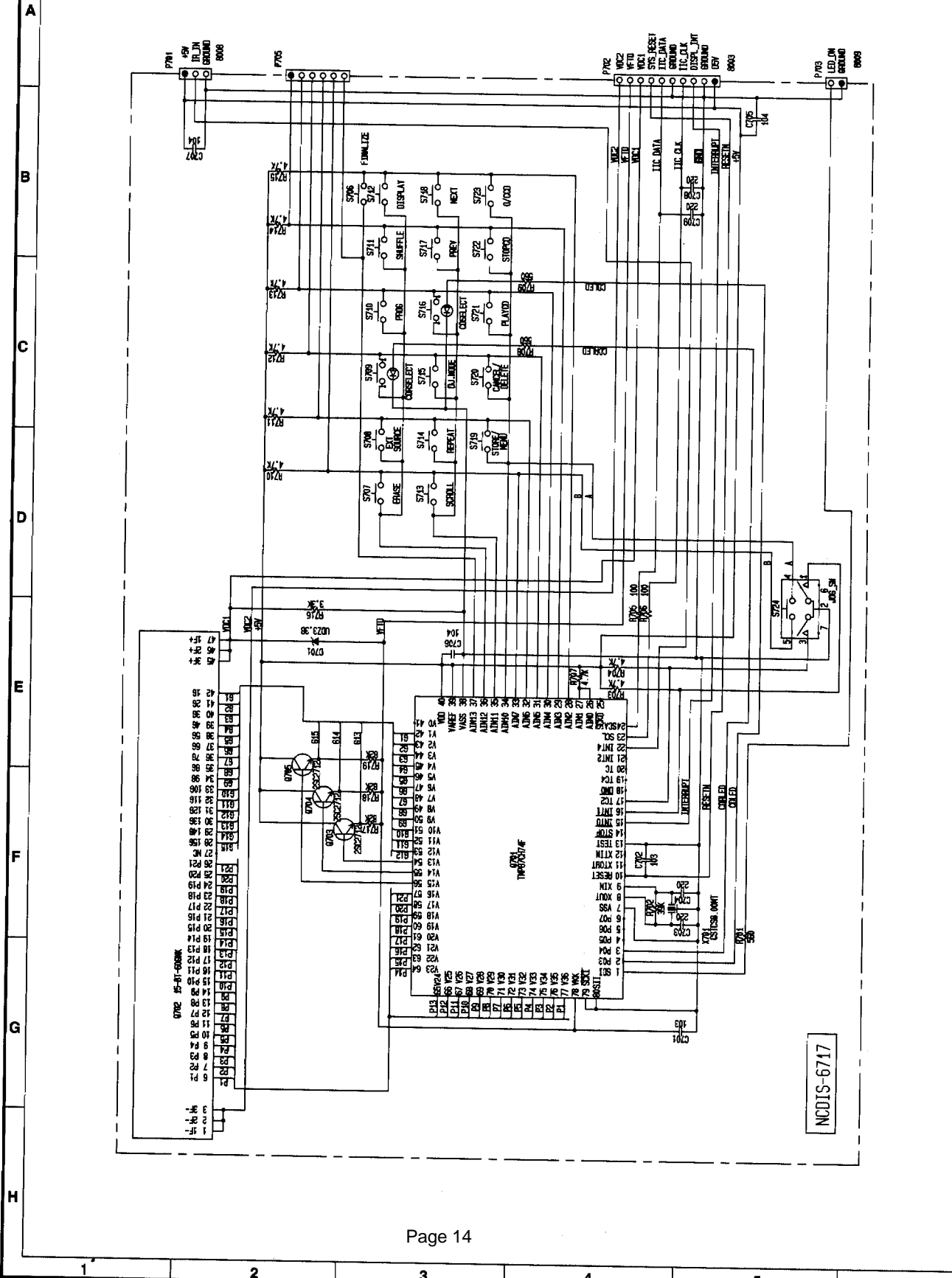


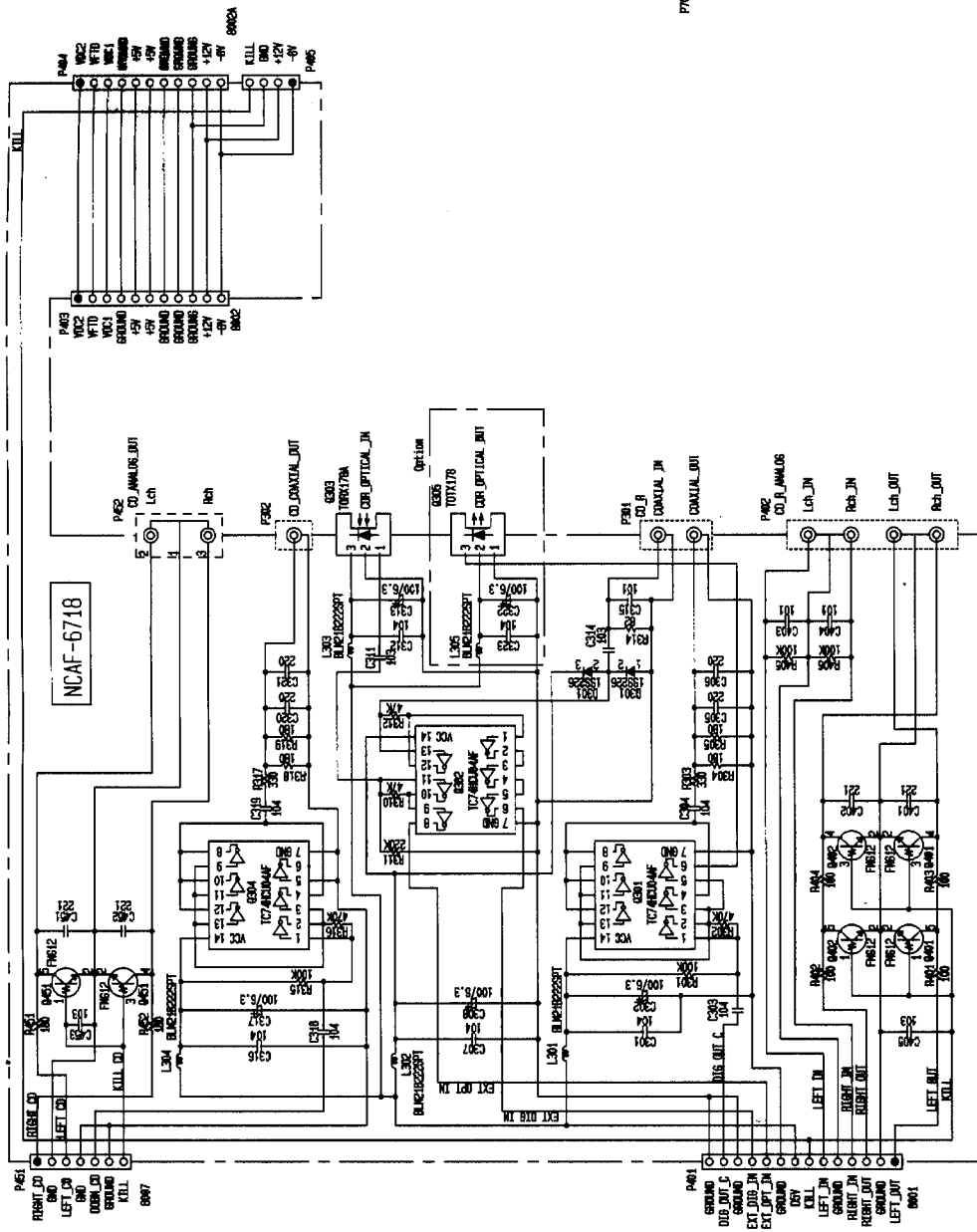
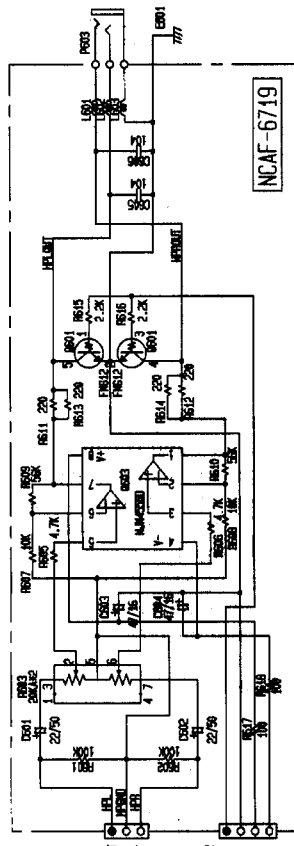
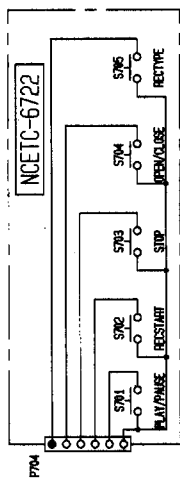
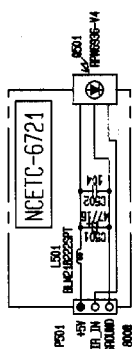
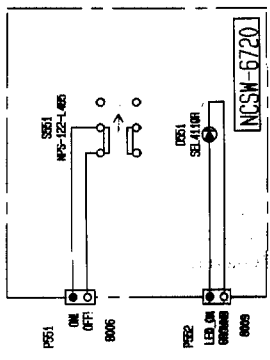
### 2-1. Description

The intention of the dealer diagnostics is to give an indication of the CDR player status. An inexperienced, even nontechnical dealer will/can perform the test. Tests are executed automatically without need for external tools or disassembly of the unit. This test checks the CDR main board using the same tests as the electrical service diagnostics program. Only the result of test, "PASSED" or "ERROR", will be shown on the display. Pressing keys [F FWD] and [REWIND] simultaneously while switching on the unit, starts the test. Switching off the unit ends the

Display circuit pc board AS (NADIS-6717-1A)		Headphone terminal circuit pcboard AS (NAAF-6719-1A)	
CIRCUIT NO.	PART NO. DESCRIPTION	CIRCUIT NO.	PART NO. DESCRIPTION
D701	Semi Conductor 224490330R2 UDZ3.3B, Zener Diode	P402	Switch, Terminal 25045303 NPJ-4PDBL162, Pin Jack (CDR Analog IN/OUT)
Q701	22241413R3 TMP87CH74F-6851, IC	P403	2003B292210 NSAS-22P0769, Socket AS
Q702	212203 15-BT-69GNK, Fluorescent Tube	P404	2003B292210 NSAS-22P0769, Socket AS
Q702A	27191088 Holder (Fluorescent Tube)	P405	25055134 NPLG-4P118, Plug
Q703-Q705	2213143R2 or 2213144R2 2SC2712-O, Transistor or 2SC2712-Y, Transistor	P451	25052203 NSCT-7P2100, Socket
X701	Trans Coil 3010255R2 8.00MHZ, Cera Lock	P452	25045371 NPJ-2PDWR214, Pin Jack (CD Analog OUT)
P701	Switch, Terminal 25055367 NPLG-3P350, Plug		
P702	2002A392055 NSAS-20P0749, Socket AS		
P703	2002A390420 NSAS-4P0754, Socket AS		
P704	25051090 NSCT-6P877, Wire Holder		
P704A	6J200606B15 JL6 200 BUL2651#26, Jumper Lead		
P705	25055627 NPLG-6P589, Wire TransistorAP		
S701-S708, S710-S715, S717-S723	25035699T NPS-111-S662, Push Switch		
S709, S716	25035707 NPS-111-S670, Push Switch (CDR, CD Select)		
S724	25065589 EC12E24C25, Rotary Encoder (JOG SW)		
<b>Audio terminals circuit pcboard AS (NAAF-6718-1A)</b>			
CIRCUIT NO.	PART NO. DESCRIPTION	CIRCUIT NO.	PART NO. DESCRIPTION
D301	Semi Conductor 223266R2 ISS226, Diode	R603	5112467 20KW, A Type, Variable Resistor (Headphone)
Q301, Q302, Q304	222740046R2TO 74HCU04(TC74HCU04F), IC	P601	2002A390660 NSAS-6P0761, Socket AS
Q303	24120037 TORX178B, Fiber Optic Receiving Module (CDR Optical IN)	P602	2003B290850 NSAS-8P0771, Socket AS
Q401, Q402, Q451	2215940R2 FMG12, Transistor	P603	25045255 YKB26-5009, Jack (Headphone)
L301-L304	Trans Coil 230921R2 BLM21B222SPT, Choke Coil		
C302, C308, C313, C317	Capacitor 393321017T 100mF/6.3V, Electrolytic Capacitor, VX Type		
P301	Switch, Terminal 25045600 NPJ-2PDO408, Pin Jack (CDR Coaxial IN/OUT)		
P302	25045548 NPJ-1PDOR369, Pin Jack (CD Coaxial OUT)		
P401	25051938 NSCT-14P1725, Socket		

# CIRCUIT DIAGRAMS





NOTE  
 -THE COMPONENTS IDENTIFIED BY MARK Δ AND CRITICAL FOR SAFETY  
 REPLACE ONLY WITH PART NUMBER SPECIFIED  
 -RESISTORS (UNLESS OTHERWISE SPECIFIED) ARE IN Ω UNLESS OTHERWISE NOTED  
 -ALL CAPACITORS ARE IN pF UNLESS OTHERWISE NOTED  
 -ALL RESISTORS ARE IN Ω UNLESS OTHERWISE NOTED  
 -THE WIRE LINES ON THIS BOARD ARE THE PREVIOUS EDITION OF THE PART.  
 -REVISIONS ARE INDICATED BY THE FOLLOWING:  
 -REVISION TO CORRECT TO CHANGE FOR IMPROVEMENT