Film-Tech

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www.film-tech.com

SONY

SDDS Player System

FILM SOUND DECODER
DFP-D3000

DIGITAL FILM SOUND READER
DFP-R3000

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SDDS Sony Dynamic Digital Sound®

OPERATION MANUAL Japanese/English

1st Edition

Serial No. 10001 and Higher (DFP-D3000)

Serial No. 10001 and Higher (DFP-R3000)

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

VORSICHT

Um Feuergefahr und die Gefahr eines elektrishcen Schlages zu vermeiden, darf das Gerät weder Regen noch Feuchtigkeit ausgesetzt werden.

Um einen elektrischen Schlag zu vermeiden, darf das Gehäuse nicht geöffnet werden. Überlassen Sie Wartungsarbeiten stets nur einem Fachmann.

For customers in the USA

WARNING
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Using this unit at a voltage other than 120V may require the use of a different line cord or attachment plug, or both. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel.

Für Kunden in Deutschland
Dieses Produkt kann im kommerziellen und in begrenztem Maße auch im industriellen Bereich engesetzt werden. Dies ist eine Einrichtungen, welche die Funk-Entstörung nach Klasse B besitzt.

For customers in the United Kingdom

WARNING
THIS APPARATUS MUST BE EARTHED.

IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow:	Earth
Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Table of Contents

Overview

Overview of SDDS Player System

The SDDS (Sony Dynamic Digital Sound)[1] Player System is comprised of the DFP-R3000 Digital Film Sound Reader and the DFP-D3000 Film Sound Decoder.

The system reads digital audio data recorded on 35 mm movie film in the SDDS format, and feeds high quality digital sound to a theater sound system.

The SONY DFP-D3000 is a digital cinema processor that utilizes Digital Signal Processing (DSP) techniques to perform matrix decode, analog noise reduction, and room equalization.
This unit has a wide range of functions and capabilities designed to meet the rigorous standards of film sound post-production and the exhibition cinema. The Sony DFP-D3000 is designed to be configured in a number of variations for maximum flexibility in installation.

Principal Features

The principal features of the system are as follows.

Playback of 8 channels of digital audio signals recorded in the SDDS format

The system can read 8 channels of digital audio signals recorded in the SDDS format on the P (picture) and S (sound) sides of the film. It features digital processing, for little or no signal degradation during playback.

P side	C (center) L (left) LC (left center) SL (surround left)
S side	R (right) RC (right center) SR (surround right) SW (sub-woofer)

Fully digital audio signal path

The DFP-D3000 performs all audio signal processes in the digital domain. All analog input signals are firsts converted to 20 bit PCM data, then processsed. Therefore, adjustments that have been historically performed in the analog domain (i.e., slit loss EQ, matrix decode, NR decode, room EQ, etc.), can now be adjusted digitally. This ensures a more stable room equalization and projector/audio input alignment.

High quality A/D and D/A converters

High quality 20-bit A/D and 20-bit D/A converters are used to ensure the optimum resolution of the input and output signals. These converters are operated at a sampling frequency (Fs) of 44.1kHz (44,100 samples per second).

Full function LCD status display

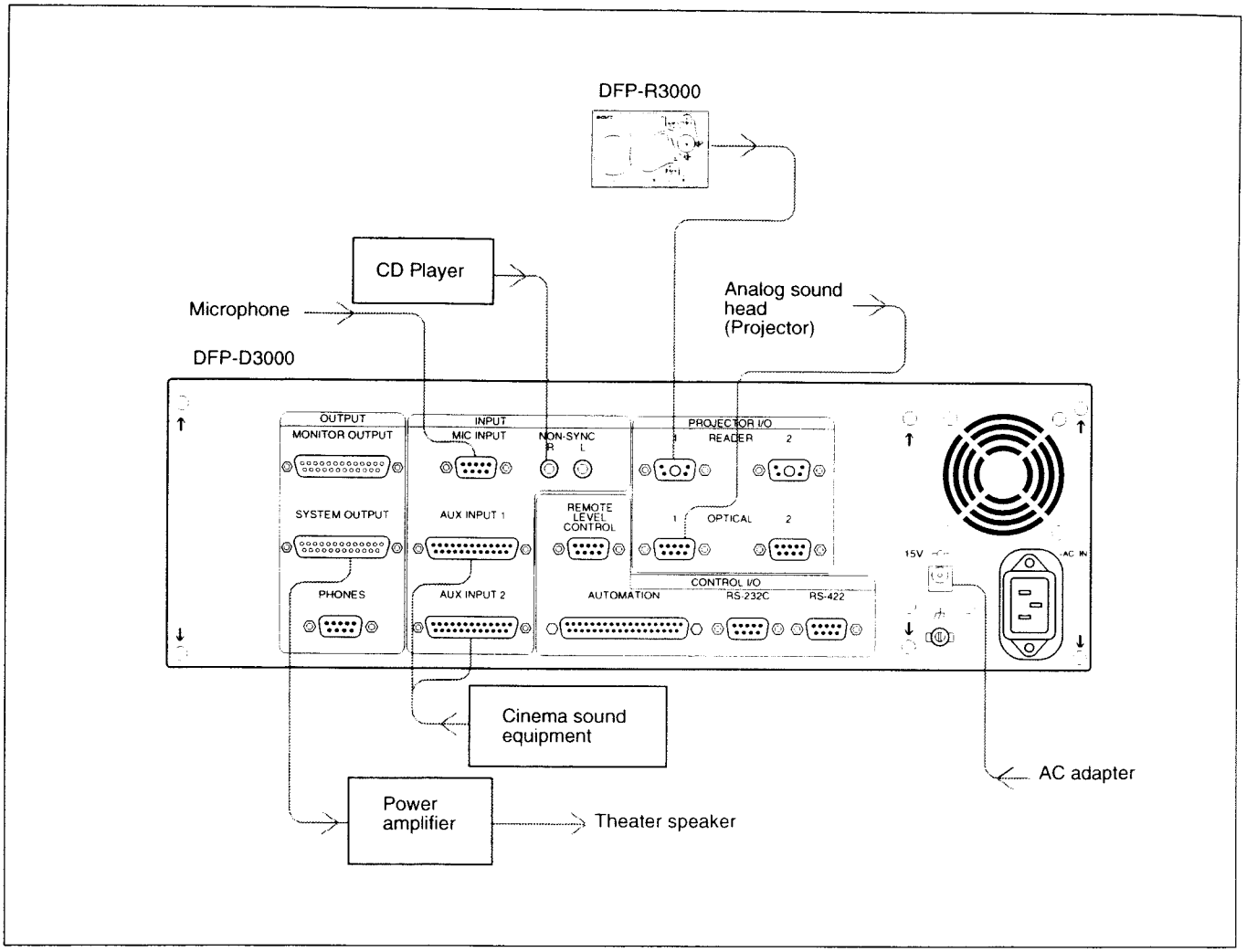
The DFP-D3000 provides the user and the service engineer with complete details on system status through the use of a back-lit LCD screen. All set-up and system status information can be accessed through this interface.

Fail-safe back-up feature

The Sony DFP-D3000 is equipped with a fail-safe back-up feature. This back-up system operates on a separate external 15VDC power supply and in the unlikely event that the DFP-D3000 system fails, the fail-safe back-up automatically switches in to ensure that the presentation sound continues until repairs can be made.

1) SDDS is a registered trademark of Sony Corporation.

System Configuration

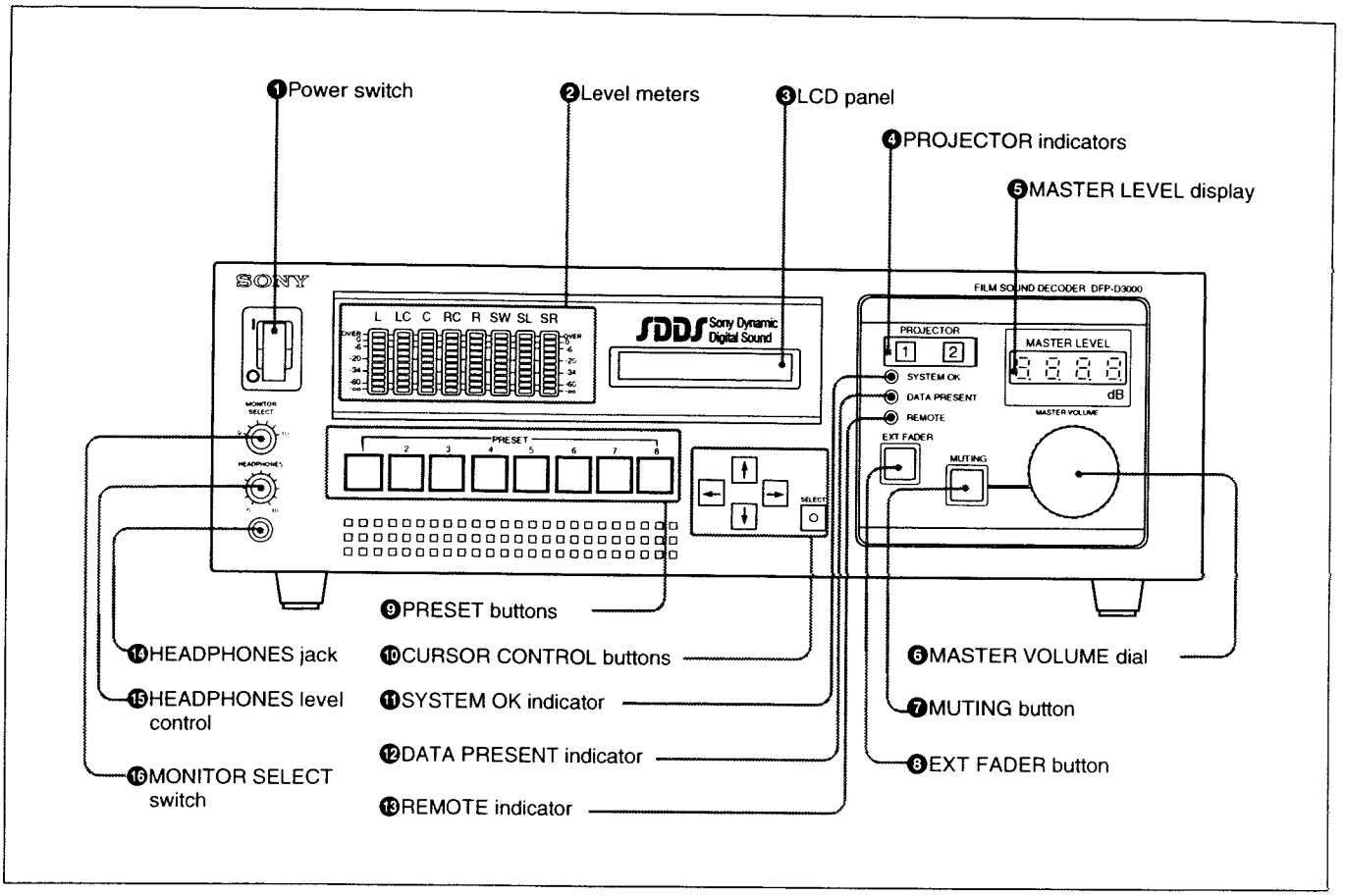


Note

For details about installation and connection of this system, contact your Sony service or sales representative.

Location and Function of Parts

DFP-D3000 front panel



❶ Power switch

❷ Level meters
Show the level of each channel.

❸ LCD panel
This LCD panel is used as the user interface to the DFP-D3000 system. All system status is indicated on this panel.
For details about the LCD panel menu, refer to "LCD panel menu" (page 13(E)).

❹ PROJECTOR indicators
During playback with a changeover system, shows which of the projectors is currently in use.

❺ MASTER LEVEL display
Shows the master level.

❻ MASTER VOLUME dial
The master volume dial is a rotary encoder which is used to control the master volume level of all channel outputs from the Sony DFP-D3000. This volume control allows the user to set the master volume level between +10dB and -∞.

❼ MUTING button
Press this button, turning it on, to mute system output.

❽ EXT FADER button
Activate the remote fader connected to the REMOTE LEVEL CONTROL connector of the connector panel.

Note

When there is no connection to the REMOTE LEVEL CONTROL connector, do not operate this switch.

⑨ PRESET buttons
These eight select buttons are used to select any one of eight pre-programmed presets for the DFP-D3000. When selecting, it is necessary to press the button twice for preset activation. This is a safety feature to ensure the proper selection of presets.
For details, refer to "Changing PRESET" (page 13(E)).

⑩ CURSOR CONTROLbuttons
These buttons are used to the movement of the cursor on the LCD panel.

⑪ SYSTEM OK indicator
- Lights when the SDDS player system is operating normally, and goes out when the SDDS player system error occurs.
- Goes out to indicate a system warning, for example that the fan has stopped rotating or that there is no backup battery.

⑫ DATA PRESENT indicator
Lights when the unit is reading SDDS digital audio signals.

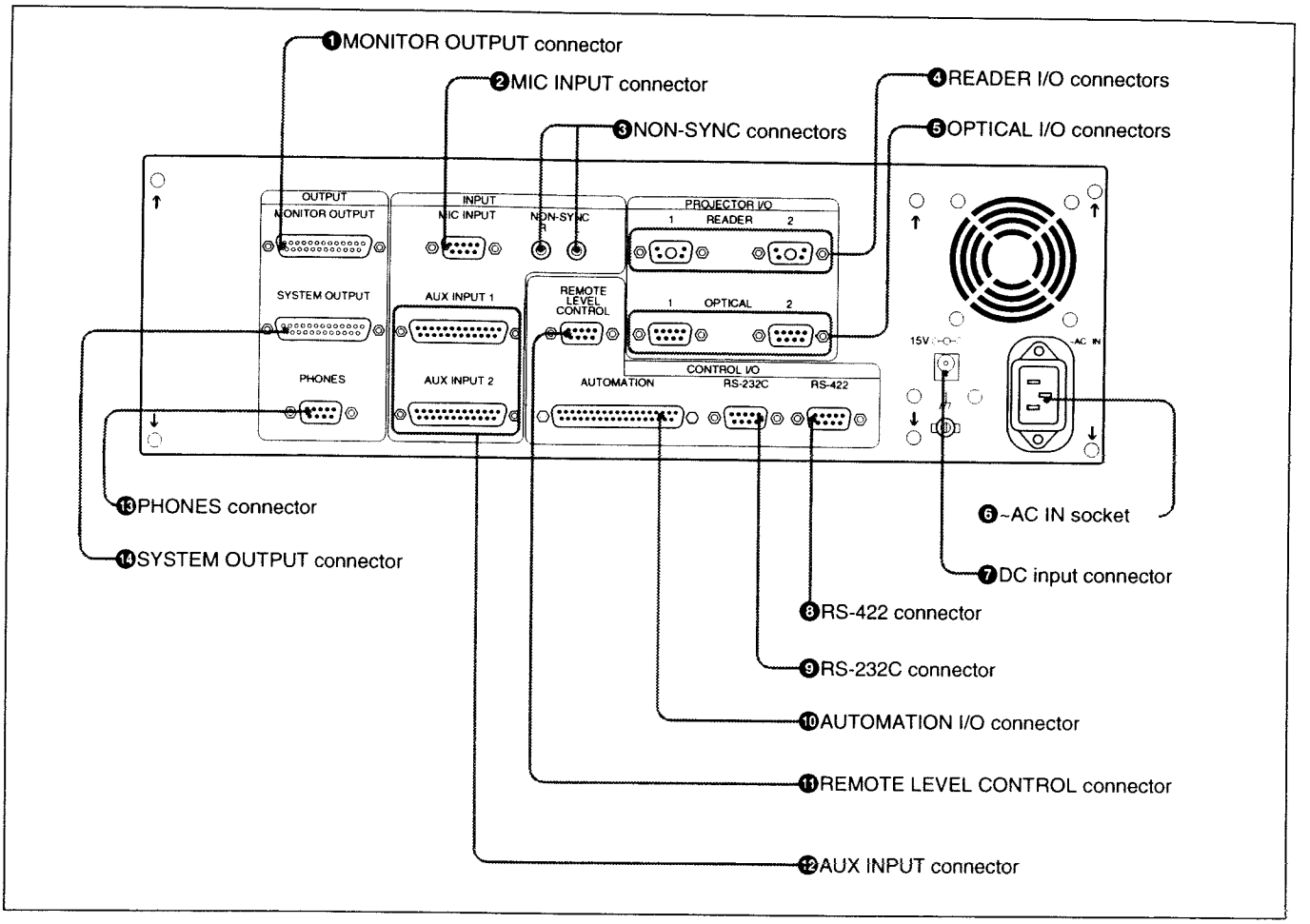
⑬ REMOTE indicator
Lights when the system is being controlled remotely.
For details, contact your Sony service or sales representative.

⑭ HEADPHONES jack

⑮ HEADPHONES level control

⑯ MONITOR SELECT switch
This switch determines the signal output to the headphones jack.
For details, refer to "Selecting headhopnes jack output" (page 21(E)).

DFP-D3000 connector panel



❶ MONITOR OUTPUT connector
Balanced 8-channel analog audio output connector. This connector is connected in parallel with the SYSTEM OUT connector and used as a booth monitor.

❷ MIC INPUT connector
Theater announcement(MIC1) or theater diagnosis(MIC2).

❸ NON-SYNC connectors
Two unbalanced female phone jack connectors are provided for the input of stereo non-sync audio sources (i.e., cassette deck, CD player, etc.).

❹ READER (1/2) connectors
Connect to the DFP-R3000 for input of digital audio signals read from the film. Use the READER 1 connector in a system with one projector, and use both the READER 1 and READER 2 connectors in a changeover playback system.

❺ OPTICAL (1/2) connectors
One female connector is provided for the input of projector audio sources.

❻ ~ AC IN socket
Connect the supplied power cord.

❼ DC input connector
Connect an attached AC adapter.

❽ RS-422 connector
Connect the central control equipment of the theater.
For details, contact your Sony service or sales representative.

❾ RS-232C connector
Connect an IBM PC/AT or compatible computer.
For details, contact your Sony service or sales representative.

⑩ AUTOMATION I/O connector
This is a connector for automatic system control.
For details, contact your Sony service or sales representative.

⑪ REMOTE LEVEL CONTROL connector
Connect external remote fader(100 kΩB).

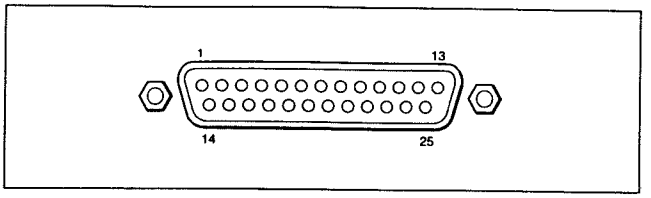
⑫ AUX INPUT (1/2) connectors
Balanced 8-channel analog audio input connector. These connectors can be used to interface digital playback systems from other manufacturers to the DFP-D3000.

⑬ PHONES connector
All channel excepting SW channel mono mixed output and headphones monitor output.

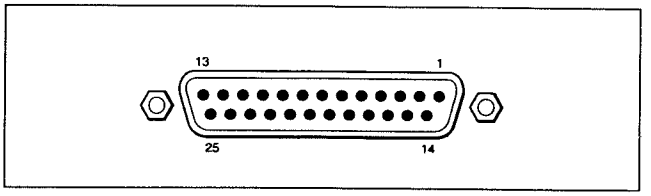
⑭ SYSTEM OUTPUT connector
Balanced 8-channel analog audio output connector. This connection is used to connect to the amplifier system of the theater "B-Chain".

DFP-D3000 connector pin assignment

❶ MONITOR OUTPUT connector
⓮ SYSTEM OUTPUT connector

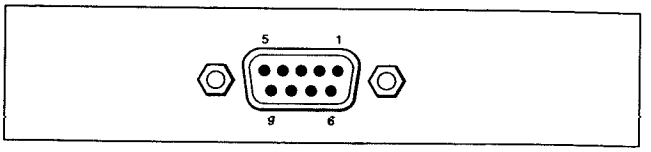


⓬ AUX INPUT1/2 connector



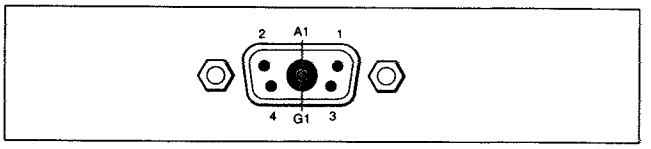
Pin No.	Signal
1	LEFT GND
2	LEFT HOT
3	LEFT CENTER COLD
4	CENTER GND
5	CENTER HOT
6	RIGHT CENTER COLD
7	RIGHT GND
8	RIGHT HOT
9	SURROUND LEFT GND
10	SURROUND LEFT COLD
11	SURROUND RIGHT COLD
12	SUB WOOFER COLD
13	SUB WOOFER GND
14	LEFT COLD
15	LEFT CENTER GND
16	LEFT CENTER HOT
17	CENTER COLD
18	RIGHT CENTER GND
19	RIGHT CENTER HOT
20	RIGHT COLD
21	NC
22	SURROUND RIGHT GND
23	SURROUND LEFT HOT
24	SURROUND RIGHT HOT
25	SUB WOOFER HOT

❷ MIC INPUT connector



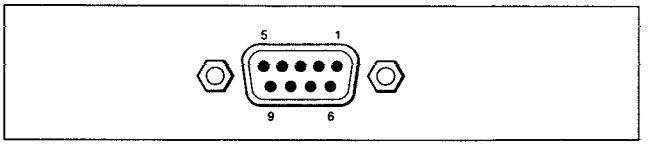
Pin No.	Signal
1	MIC 1 GND
2	MIC 1 HOT
3	NC
4	MIC 2 GND
5	MIC 2 HOT
6	MIC 1 COLD
7	NC
8	NC
9	MIC 2 COLD

❹ READER I/O connector



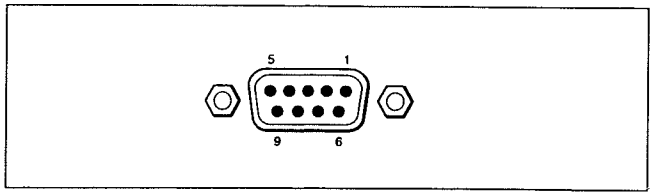
Pin No.	Signal
1	DC 24V
2	NC
3	GND(DC24V)
4	CABLE SHIELD
A1	DATA
G1	DATA GND

❺ OPTICAL I/O (1/2) connector



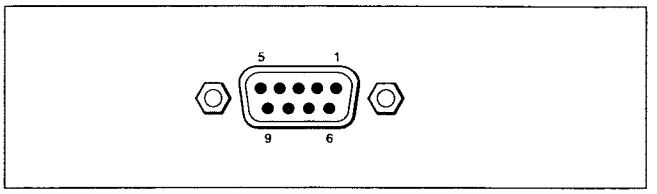
Pin No.	Signal
1	LEFT ch GND
2	LEFT ch HOT
3	NC
4	RIGHT ch GND
5	RIGHT ch HOT
6	LEFT ch COLD
7	NC
8	NC
9	RIGHT ch COLD

❽ RS-422 connector



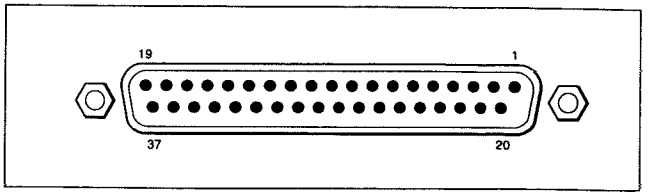
Pin No.	I/O	Signal
1	-	GND
2	O	RTS(-)
3	O	RTS(+)
4	O	TXD(+)
5	O	TXD(-)
6	I	CTS(-)
7	I	CTS(+)
8	I	RXD(+)
9	I	RXD(-)

❾ RS-232C connector



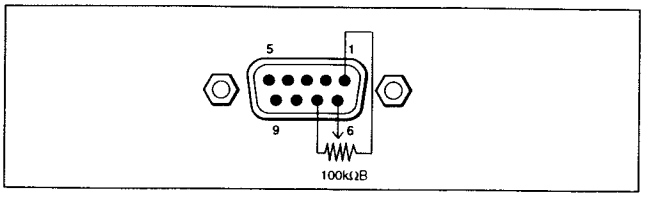
Pin No.	I/O	Signal
1	-	NC
2	I	RXD
3	O	TXD
4	O	DTR
5	-	GND
6	-	NC
7	O	RTS
8	I	CTS
9	-	NC

❿ AUTOMATION I/O connector



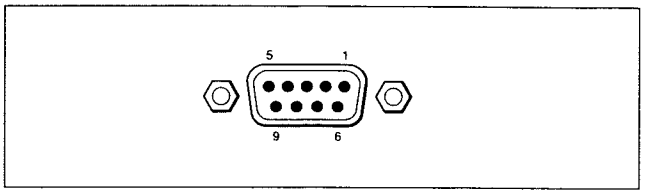
Pin No.	I/O	Name
1	-	CHASSIS GND
2	I	PROJ1 M_START
3	I	M_MUTE
4	I/O	PRE1
5	I/O	PRE2
6	I/O	PRE3
7	I/O	PRE4
8	I/O	PRE5
9	I/O	PRE6
10	I/O	PRE7
11	I/O	PRE8
12	O	MOTOR1
13	O	MOTOR2
14	-	LOGIC CMN
15	-	LOGIC CMN
16	-	TLY CMN
17	-	TLY CMN
18	I	C/O CMD IN
19	O	C/O CMD TLY
20	O	PROJ1 TLY
21	O	PROJ2 TLY
22	O	M_MUTE TLY
23	I	PNOISE
24	-	
25	-	
26	-	
27	-	
28	-	
29	-	
30	O	+5V
31	O	+5V
32	O	SDDS OK TLY
33	I	PROJ2 M_START
34	I	LIP+
35	I	LIP-
36	O	ACM
37	I	

⓫ REMOTE LEVEL CONTROL connector



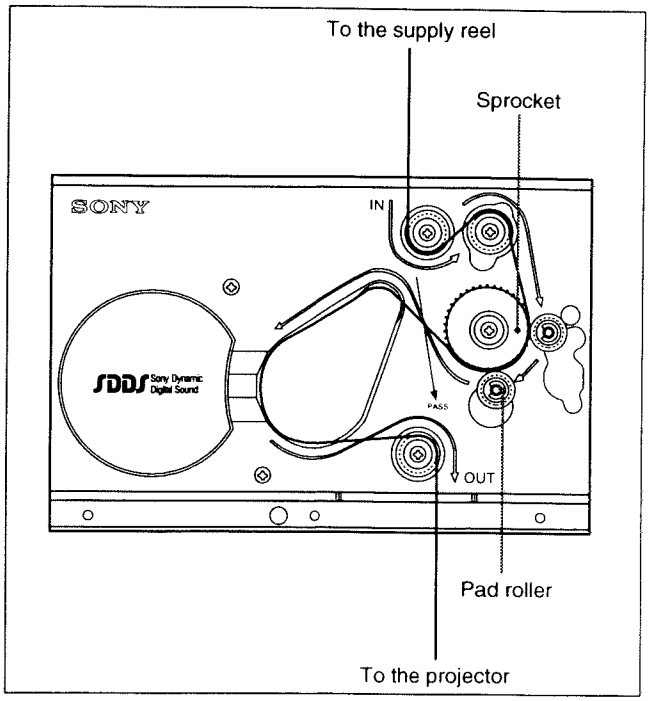
Pin No.	I/O	Signal
1	-	GND
2	I	MAN FADE
3	-	
4	-	
5	-	
6	I	AUTO FADE
7	O	DC
8	O	REMTLY
9	-	GND

⓭ PHONES connector



Pin No.	Signal
1	GND
2	GND
3	NC
4	HEADHOPNE Lch
5	HEADPHONE Rch
6	MONO
7	MONO
8	NC
9	HEADPHONE GND

Loading Film



Film loading path in the DFP-R3000

1 Release the pad roller.

2 Pull out a suitable length of film from the supply reel, and feed it along the path indicated by the black line on the front panel.

Note

When other audio playback equipment is equipped between the DFP-R3000 and projector, be sure to feed the film with bypassing the other equipment.

3 Pass the film through the projector and take it up on the takeup reel, just as you would with ordinary movie film.

4 Return the pad roller to the original position.

Loading film other than SDDS

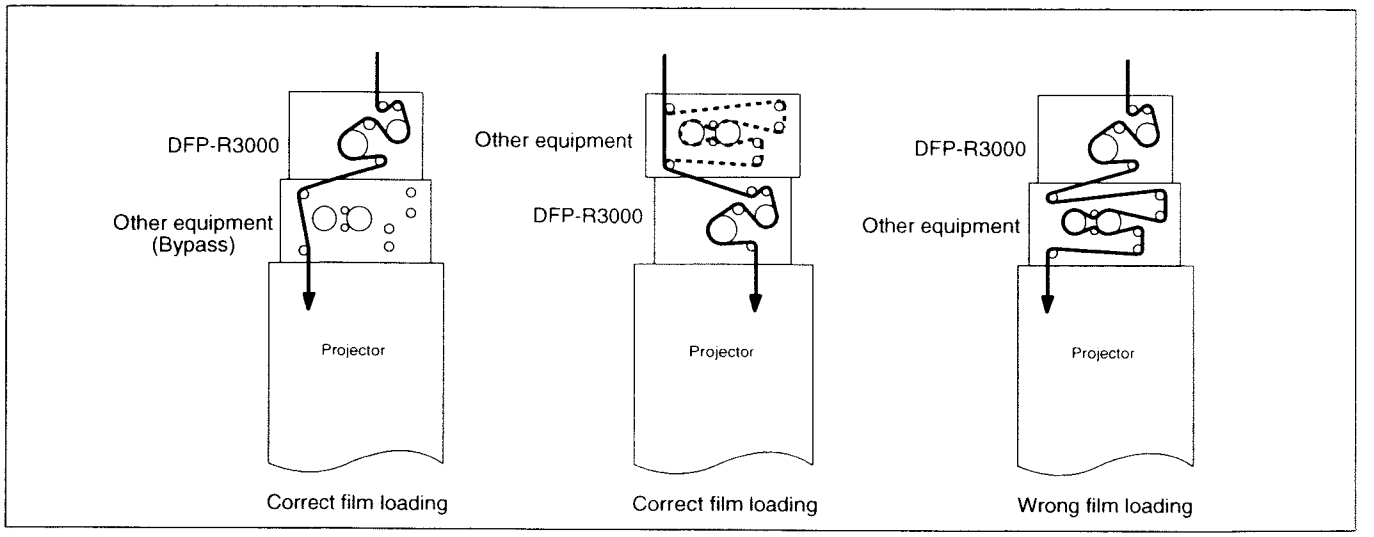
1 Pull out a suitable length of film from the supply reel, and feed it along the path indicated by PASS on the front panel.

2 Pass the film through the projector and take it up on the takeup reel, just as you would with ordinary movie film.

3 Return the pad roller to the original position.

Handling SDDS film

- Avoid marking the SDDS data tracks using either adhesive labels or ink. If it is essential, keep any marks within a single frame.
- The splice length should also be not more than a single frame.



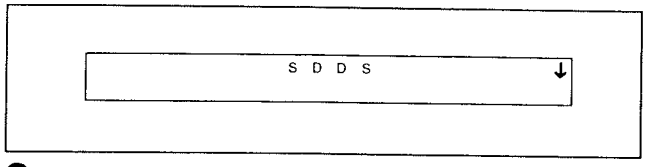
Operating the DFP-D3000

Changing PRESET

Change PRESET according to the following procedure.

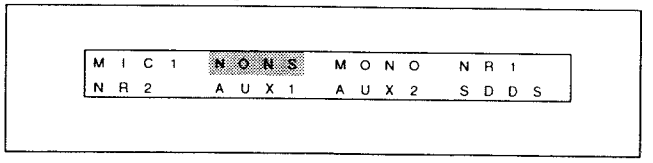
1 Turn on the power switch.

The memorized PRESET button is lit. On the LCD panel, the characters assigned to the PRESET button are indicated.



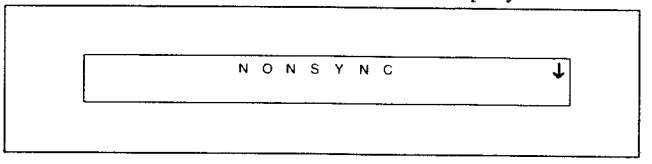
2 Push the PRESET button to memorize.

The PRESET button blinks. All characters assigned to the PRESET 1 to 8 buttons are indicated on the LCD panel, and the character assigned to the pushed PRESET button blinks.



3 Push the PRESET button again.

It is lit. On the LCD panel, the character assigned to the pushed PRESET button is displayed.



Note

There are no user adjustments or user-replaceable parts inside the DFP-D3000; do not open the front panel.

LCD panel menu

The following parameters can be set up.

Audio

Output level offset of each preset.	-35dB~+10dB
H.P.F.	47Hz~220Hz
L.P.F.	8.2kHz~17kHz
Grahpic EQ.	31.5Hz~16kHz
SW channel EQ.	10Hz~200Hz
Surrond channel delay	0~99msec
Channel level control	-10dB~+10dB
Slit loss EQ.	8kHz~20kHz
OPTICAL input level	-31~-21dBu
NONSYNC INPUT level	-16~+4dBu
AUX INPUT level	0~+10dB(only SW ch)
MIC INPUT level	MIC:-60~-20dBu LINE:-16~+4dBu
Nominal output level	-16~+4dBu

System

Coarse delay	34~119frame
Lip sync delay	-99~+99msec
Password setting	SDDS(factory setting)

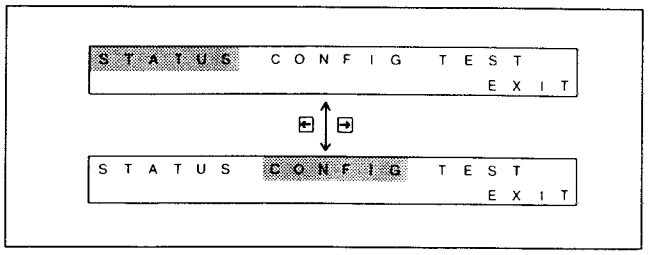
Preset menu

Noise reduction	OFF/NR1/NR2
Audio bypass source select	
SW ch L.P.F.	100Hz~330Hz
SP matrix mode	16mode

For detais about SP matrix mode, refer to "Speaker matrix mode"(page 18(E)).

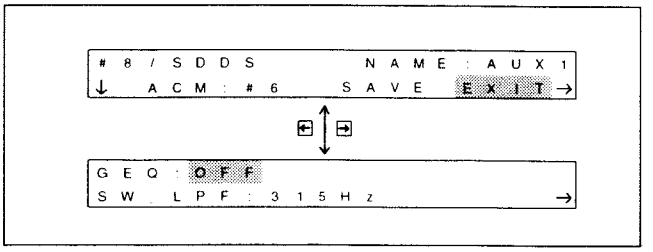
To change the item to be set on the LCD panel menu.

Push the right arrowCURSOR CONTROL button to select an item in the menu, then push the SELECT button to execute.



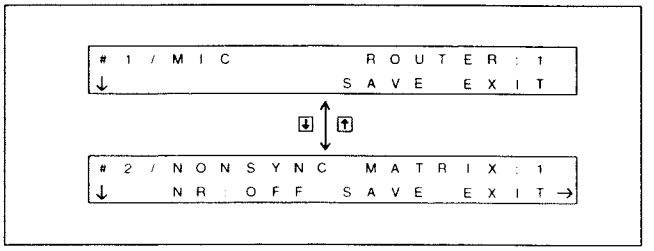
To go to the sub menu

When there is the right arrow(→)in the menu, push the right arrow CURSOR CONTROL button to go into the next sub menu.



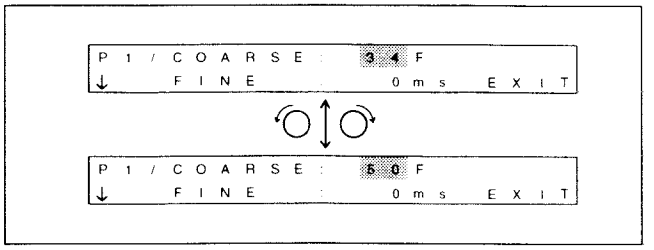
To set the plural items

Push the up and down arroow CURSOR CONTROL button to switch the menu.

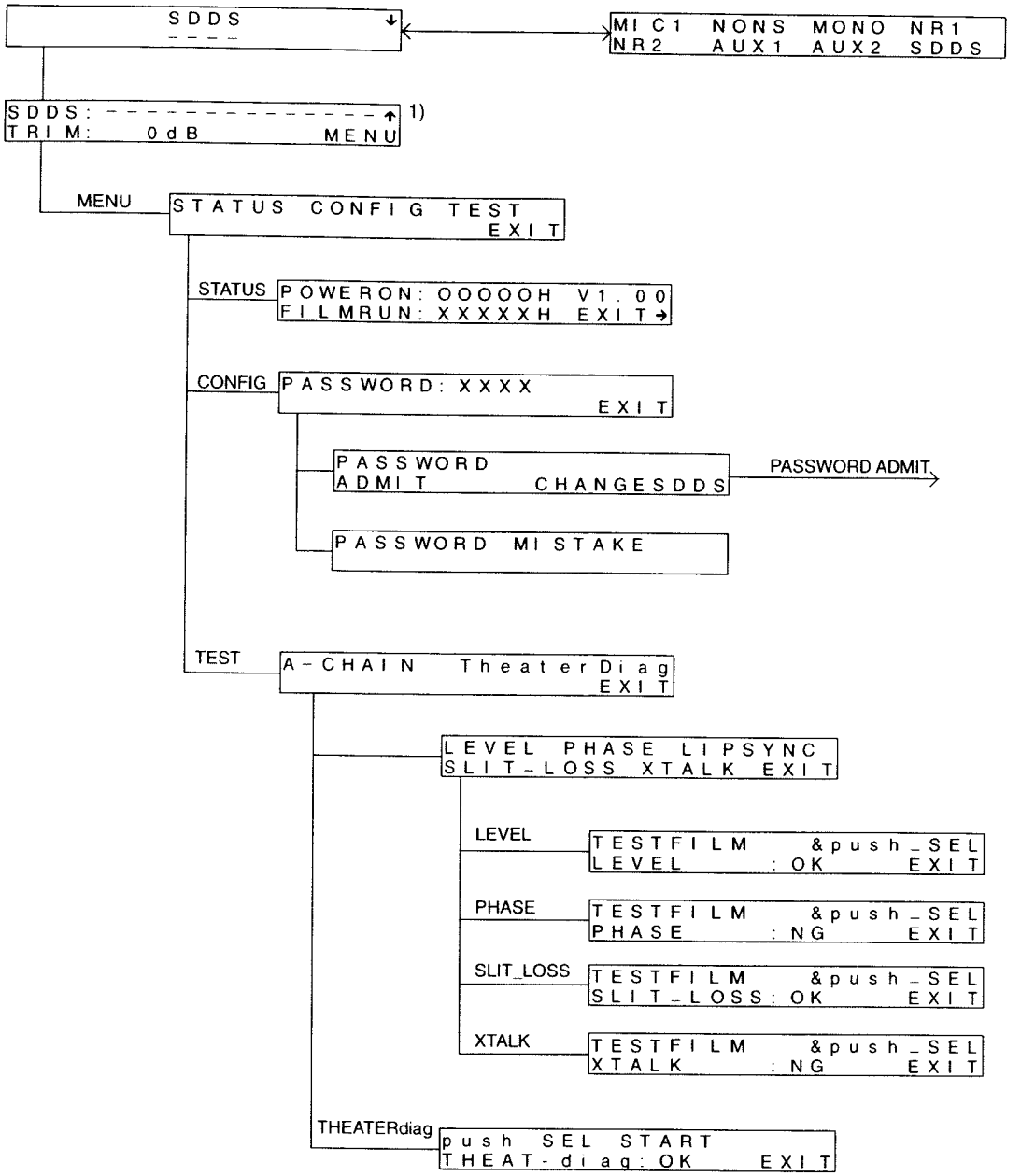


To change the setting value

Turn the MASTER VOLUME dial.

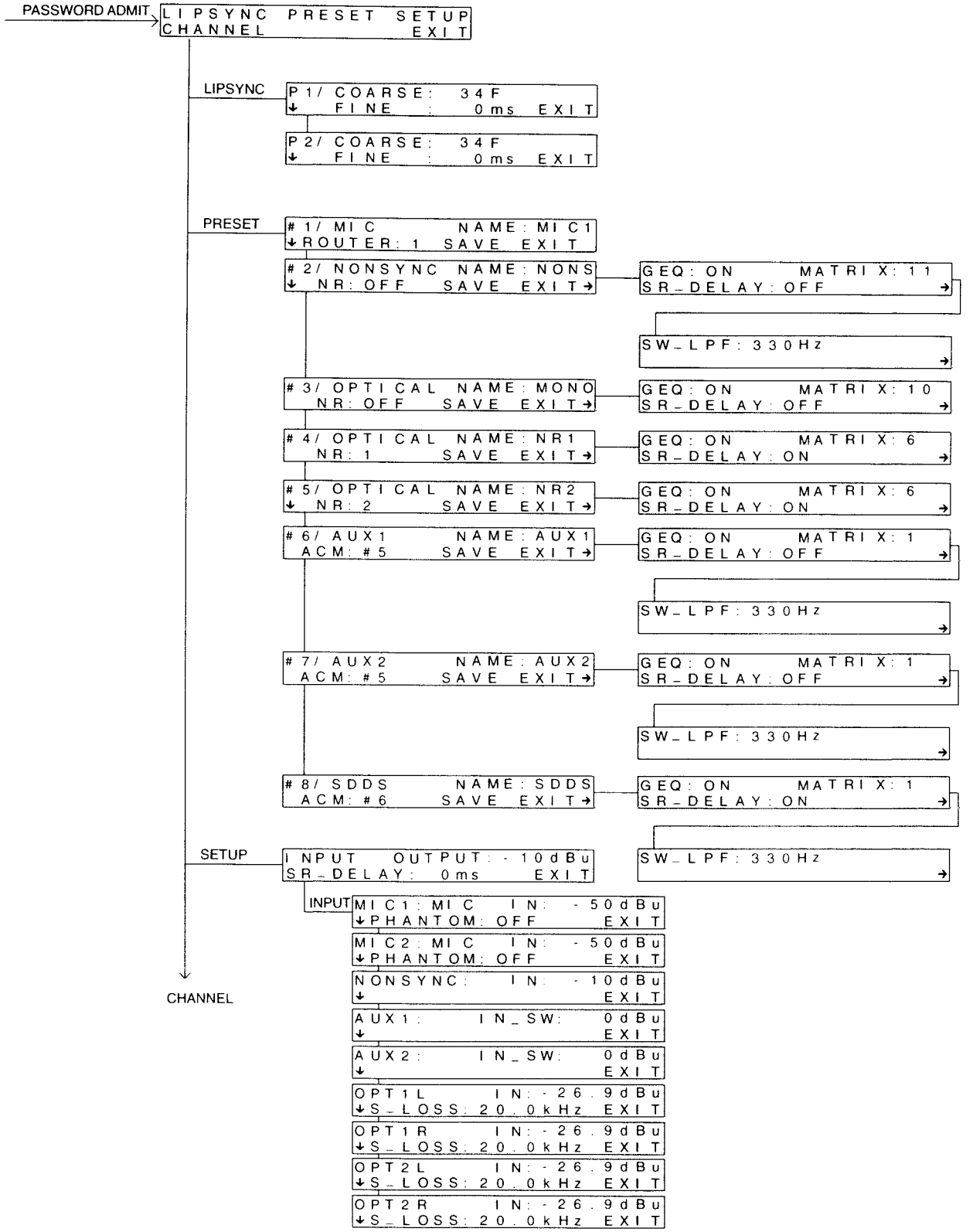


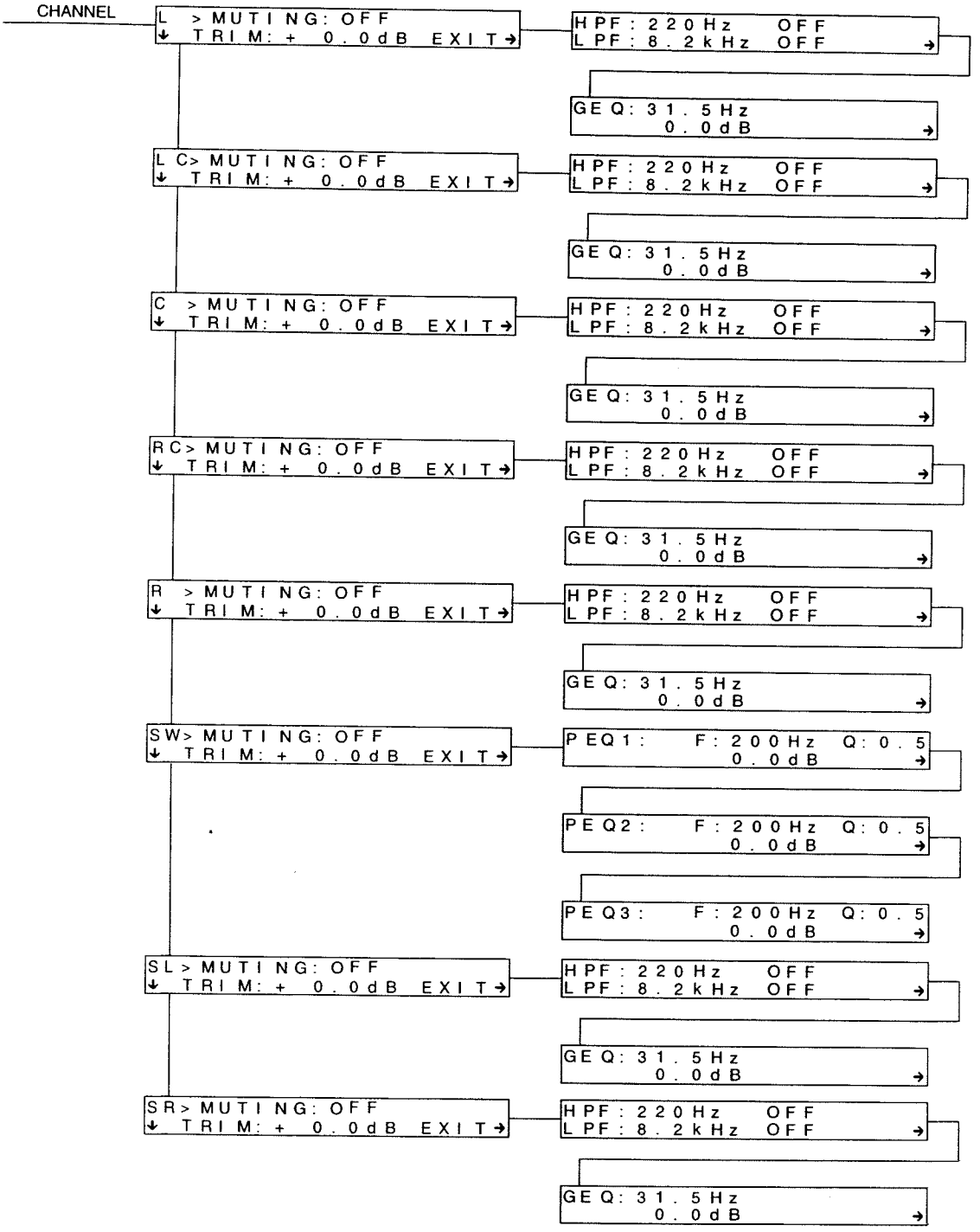
DPF-D3000 hierarchy chart of LCD menu



1) "SDDS fader automation menu"
It is possible to set the trim level of each film title of SDDS data and recall it automatically.

(Continued)


PASSWORD ADMIT
LIPSYNC PRESET SETUP
CHANNEL EXIT
LIPSYNC
P1/ COARSE: 34F
FINE : 0ms EXIT
P2/ COARSE: 34F
FINE : 0ms EXIT
PRESET
#1/ MIC NAME: MIC1
ROUTER: 1 SAVE EXIT
#2/ NONSYNC NAME: NONS
NR: OFF SAVE EXIT
GEQ: ON MATRIX: 11
SR-DELAY: OFF
SW-LPF: 330Hz
#3/ OPTICAL NAME: MONO
NR: OFF SAVE EXIT
GEQ: ON MATRIX: 10
SR-DELAY: OFF
#4/ OPTICAL NAME: NR1
NR: 1 SAVE EXIT
GEQ: ON MATRIX: 6
SR-DELAY: ON
#5/ OPTICAL NAME: NR2
NR: 2 SAVE EXIT
GEQ: ON MATRIX: 6
SR-DELAY: ON
#6/ AUX1 NAME: AUX1
ACM: #5 SAVE EXIT
GEQ: ON MATRIX: 1
SR-DELAY: OFF
SW-LPF: 330Hz
#7/ AUX2 NAME: AUX2
ACM: #5 SAVE EXIT
GEQ: ON MATRIX: 1
SR-DELAY: OFF
SW-LPF: 330Hz
#8/ SDDS NAME: SDDS
ACM: #6 SAVE EXIT
GEQ: ON MATRIX: 1
SR-DELAY: ON
SW-LPF: 330Hz
SETUP
INPUT OUTPUT: -10dBu
SR-DELAY: 0ms EXIT
INPUT
MIC1: MIC IN: -50dBu
PHANTOM: OFF EXIT
MIC2: MIC IN: -50dBu
PHANTOM: OFF EXIT
NONSYNC: IN: -10dBu
EXIT
AUX1: IN_SW: 0dBu
EXIT
AUX2: IN_SW: 0dBu
EXIT
OPT1L IN: -26.9dBu
S-LOSS: 20.0kHz EXIT
OPT1R IN: -26.9dBu
S-LOSS: 20.0kHz EXIT
OPT2L IN: -26.9dBu
S-LOSS: 20.0kHz EXIT
OPT2R IN: -26.9dBu
S-LOSS: 20.0kHz EXIT
CHANNEL


CHANNEL
L > MUTING: OFF
TRIM: + 0.0dB EXIT
HPF: 220Hz OFF
LPF: 8.2kHz OFF
GEQ: 31.5Hz
0.0dB
LC> MUTING: OFF
TRIM: + 0.0dB EXIT
HPF: 220Hz OFF
LPF: 8.2kHz OFF
GEQ: 31.5Hz
0.0dB
C > MUTING: OFF
TRIM: + 0.0dB EXIT
HPF: 220Hz OFF
LPF: 8.2kHz OFF
GEQ: 31.5Hz
0.0dB
RC> MUTING: OFF
TRIM: + 0.0dB EXIT
HPF: 220Hz OFF
LPF: 8.2kHz OFF
GEQ: 31.5Hz
0.0dB
R > MUTING: OFF
TRIM: + 0.0dB EXIT
HPF: 220Hz OFF
LPF: 8.2kHz OFF
GEQ: 31.5Hz
0.0dB
SW> MUTING: OFF
TRIM: + 0.0dB EXIT
PEQ1: F: 200Hz Q: 0.5
0.0dB
PEQ2: F: 200Hz Q: 0.5
0.0dB
PEQ3: F: 200Hz Q: 0.5
0.0dB
SL > MUTING: OFF
TRIM: + 0.0dB EXIT
HPF: 220Hz OFF
LPF: 8.2kHz OFF
GEQ: 31.5Hz
0.0dB
SR> MUTING: OFF
TRIM: + 0.0dB EXIT
HPF: 220Hz OFF
LPF: 8.2kHz OFF
GEQ: 31.5Hz
0.0dB

Speaker matrix mode

SDDS playback/AUX input signals/surround decoded signals of OPTICAL or NON-SYNC input are distributed to theater speakers according to the matrix mode.

SDDS playback and AUX input

MODE 1 (SDDS)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L	0dB							
	LC		0dB						
	C			0dB					
	RC				0dB				
	R					0dB			
	SW						0dB		
	SL							0dB	
	SR								0dB

MODE 2 (SDDS 7.1CH)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L	0dB							
	LC	-2.5dB		-12.0dB					
	C			0dB					
	RC			-12.0dB		-2.5dB			
	R					0dB			
	SW		0dB		0dB		0dB		
	SL							0dB	
	SR								0dB

MODE 3 (SDDS 6CH)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L	0dB							
	LC	-2.5dB		-12.0dB					
	C			0dB					
	RC			-12.0dB		-2.5dB			
	R					0dB			
	SW		0dB		0dB		0dB		
	SL							0dB	
	SR							0dB	

MODE 4 (SDDS 5.1CH)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L	0dB							
	LC	-2.5dB		-12.0dB					
	C			0dB					
	RC			-12.0dB		-2.5dB			
	R					0dB			
	SW						0dB		
	SL							0dB	
	SR								0dB

MODE 5 (SDDS 4CH)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L	0dB							
	LC	-2.5dB		-12.0dB					
	C			0dB					
	RC			-12.0dB		-2.5dB			
	R					0dB			
	SW						0dB		
	SL							0dB	
	SR							0dB	

AUX input, OPTICAL and NON-SYNC

MODE 6 (Surround wide)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L	0dB							
	C			0dB					
	R					0dB			
	S							0dB	0dB
	SW						0dB		

MODE 7 (Surround narrow)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L		0dB						
	C			0dB					
	R				0dB				
	S							0dB	0dB
	SW						0dB		

(Continued)

MODE 8 (Stereo wide)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L	0dB							
	R					0dB			
	SW						0dB		

MODE 9 (Stereo narrow)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L		0dB						
	R				0dB				
	SW						0dB		

MODE 10 (Mono)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	C			0dB					

NON-SYNC

MODE 11 (Normal)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L	0dB							
	R					0dB			

MODE 12 (Normal narrow)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L		0dB						
	R				0dB				

MODE 13 (Matrix decode W)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L	0dB							
	C			0dB					
	R					0dB			
	S							0dB	0dB

MODE 14 (Matrix decode N)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L		0dB						
	C			0dB					
	R				0dB				
	S							0dB	0dB

MODE 15 (Surround)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L							0dB	
	R								0dB

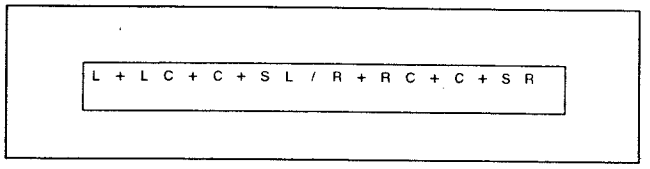
MODE 16 (LRS)		Output							
		L	LC	C	RC	R	SW	SL	SR
Source	L	0dB							
	R					0dB			
	SL							0dB	
	SR								0dB

Selecting headphones jack output

The relation between the position of the MONITOR SELECT switch and the outputs from the headphone is as follows.

SW No.	Outputs from the headphone	
	L ch	Rch
1	Outputs of Lch+LCch+Cch+SLch	Outputs of Rch+RCch+Cch+SRch
2	Input of MIC2	
3	Output of Cch	
4	Input of OPTICAL connector Lch	Input of OPTICAL connector Rch
5	Output of Lch+Rch input of OPTICAL connector	Output of Cch of the source selected by PRESET
6	For testing	

When MONITOR SELECT switch is operated, the output source in each position is indicated on the LCD panel.



Specification

SDDS Digital Audio Signals

Number of channels
8
Channel assignments
L: Left
LC: Left center
C: Center
RC: Right center
R: Right
SW: Sub-woofer
SL: Surround left
SR: Surround right
Sampling frequency
44.1 kHz
Frequency response
20 Hz to 20 kHz ±1.0 dB
Dynamic range More than 90 dB
Distortion Less than 0.07%
Crosstalk Less than –80 dB
Output level –10 dBu balanced (factory seting)

General

DFP-R3000 Digital Film Sound Reader

Power requirements
DC +24 V (400mA)
Power consumption
9.6 W
Operating temperature
5°C to 40°C (41°F to 104°F)
Operating humidity
10% to 90% (relative humidity)
Storage temperature
–20°C to +60°C (–4°F to +140°F)
Mass 3.5 kg (7.7 lb)
Dimensions (w/h/d; excluding projections)
240 mm X 156 mm X 176 mm
(9 1/2 X 6 1/7 X 7 inches)
Film width 35 mm

DFP-D3000 Film Sound Decoder

Power requirements
100 to 240V AC, 15VDC(Back-up)
50/60 Hz
Power consumption
1.1A, 1A(Back-up)
Operating temperature
5°C to 40°C (41°F to 104°F)
Operating humidity
10% to 90% (relative humidity)
Storage temperature
–20°C to +60°C (–4°F to +140°F)
Mass Approx. 11 kg (24 lb)
Dimensions (w/h/d; including projections)
482 mm X 147 mm X 375 mm
(19 X 5 4/5 X 14 4/5 inches)
EIA rack mount space
3 units
Lock-in time 1 second max.
Lock range Rated speed ±5%
Sync drift 20 msec max.
Sync drift rate 10 Hz/sec max.

I/O Characterlistics

PROJECTOR I/O
READER 1/2 connecters
5W1 connector(2)
OPTICAL 1/2 connectors
D-sub 9-pin, female(2)
Impedance
1kΩ min.
Reference level
-26.9dBu

INPUT
MIC INPUT connector
D-sub 9-pin, female(1)
Impedance
1.2kΩ min.(Line:10k)
Reference level
Mic : -50dBu
Line : -10dBu

NON-SYNC connector
RCA phono jack
Impedance
10kΩ min.
Reference level
-10dBu
AUX INPUT 1/2 connectors
L, LC, C, RC, R, SW, SL, SR
D-sub 25-pin, female(2)
Impedance
10kΩ min.
Reference level
-8.2dBu

OUTPUT

SYSTEM OUTPUT connectors
L, LC, C, RC, R, SW, SL, SR
D-sub 25-pin, male(1)
Load impedance
600Ω max.
Reference level
-10dBu
PHONES connector
D-sub 9-pin, female(1)
Sum of 7 chs excluding SWch
Load impedance
600Ω max.
Reference level
-10dBu
HEADPHONES jack
Output level
100mW (at 32Ω)

CONTROL I/O

REMOTE LEVEL CONTROL connector
D-sub 9-pin, female(1)
Input voltage
0 ~ +10V
AUTOMATION I/O
D-sub 37-pin, female(1)
RS-232C connector
D-sub 9-pin, female(1)
Transmission rate
19.2kbps
RS-422 connector D-sub 9-pin, female(1)
DC input connector
Input voltage
+15VDC

Accessories and Related Equipment

Accessories supplied

DFP-R3000
Operation guide (1)
Reader cable (1)
Reader mount kit (1 set)

DFP-D3000
Operation manual (1)
Power cord (1)
AC adapter (1)

Required equipment for a changeover system

For details, contact your Sony service or sales representative.

Design and specifications are subject to change without notice.