

Mini Hi-Fi Component System



Game SYNC
M I X I N G

MHC-RV990D
MHC-RV660D

**DTS
*Dolby Digital
Dolby Pro Logic (II)
% *
& double-D Pro Logic

Digital Theater Systems, Inc. % **
& DTS Digital Surround DTS
Digital Theater Systems, Inc.
%



CLASS 1 LASER

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

CAUTION : VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
ADVARSEL : SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNNSÅ UDSÆTTELSE FOR STRÅLING.
VORSICHT : SICHTBARE UND UNSICHTBARE LASERSTRALHUNG WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.
VARO! : NÄKYVÄÄ JA NÄKYMÄTÖN AVATTAESSA OLET ALTIINA LASERSTRÄLTYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING : SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STRÅLEN ÄR FARLIG.
ADVARSEL : SYNLIG OG USYNLIG LASERSTRÅLING NÄR DEKSEL ÅPNES. UNNSÅ EKSPONERING FOR STRÅLEN.
FIGYELEM : A BUNTKOLAT MEGSONTASZAKOR LÁTHATÓ ÉS LÁTHATATLAN LEZERSUGÁR LEPIHET KI A KESZÜLEKBŐL. ÖVAKKOZJON A KÖZVETLEN LEZERSUGÁRTÓL!

ENERGY STAR®
Sony Corporation
ENERGY STAR®
ENERGY STAR®





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/

'MHC-RV990D

{
CD {
CD-TAPE {
{

JPEG MP3 CD VIDEO CD DVD

—
DVD
VIDEO CD
'2.0
PBC —
JPEG

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—

DVD

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- {

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/
'JPEG

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CD-R/CD-RW
* MP3



CD-R/CD-RW
* JPEG

& DVD VIDEO

DVD

DVD



DVD

DVD

Playback prohibited by area limitations.

DVD

DVD



.JPG .MP3

CD-ROM •

.JPEG

CD-RW CD-R •

{

CD -

CD -

* ISO9660

MP3/JPEG

*! Multi Session

Joliet

CD-Extra •

Super Audio CD •



DVD	
VIDEO CD	
CD	
MP3	
JPEG	



«	DVD VIDEO
«	VIDEO CD
	CD
	CD-R/CD-RW

CD-R/CD-RW •
 /
 {
 CD-R/CD-RW { •
 {
 CD-RW CD-R •
 /'
 CD-RW CD-R •
 closing the session ISO9660 *
 /
 •
 .JPG .MP3 / MP3/JPEG •
 .JPEG
 MP3/JPEG •
 .JPEG .JPG .MP3
 ISO9660 •
 /
 •
 -{
 { -
 { -
 DVD-R CD-RW CD-R •
 DVD-RW ' { DVD-RW
 {
 'DVD VIDEO
 {
 /
 {
 /
 / •{

DVD-RW VR { DVD-RW •
 ' VR {
 DVD-ROM •
 DVD •
 DVD •
 MP3PRO •
 , •
 •
 •
 ISO9660 *
 *
 CD-ROM
 8.3
 .JPG .MP3 /
 /
 Joliet
 /
 'Multi Session *
 {
 CD Track-At-Once
 Lead-in CD
 Lead-out
 CD CD
 Lead-out Lead-in
 ' CD CD-Extra
 { /

DVD

VIDEO CD

VIDEO CD DVD

Macrovision

VIDEO CD DVD

Macrovision

DVD { /
/ VIDEO CD

CD'

{

CD

{

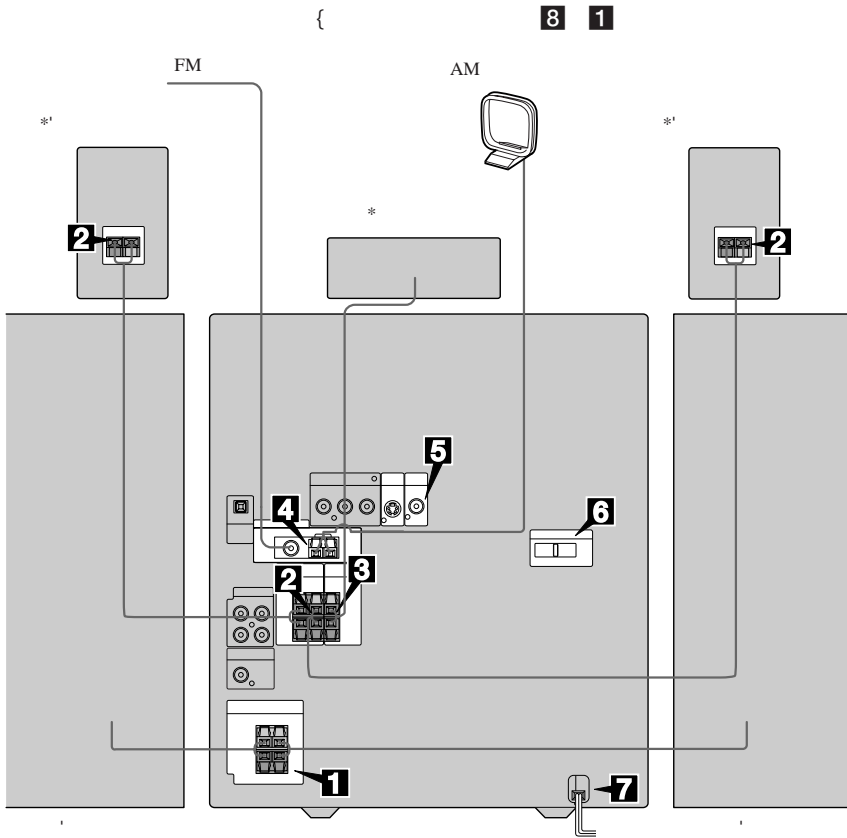
CD •
MP3

{ MP3 /

CD •
JPEG

{ JPEG /

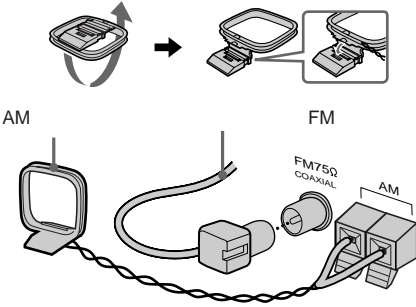
CD •
{ CD



MHC-RV990D *

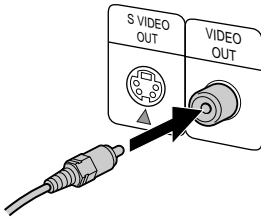
AM FM
AM

4



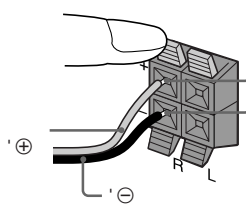
VIDEO OUT

5



FRONT SPEAKER

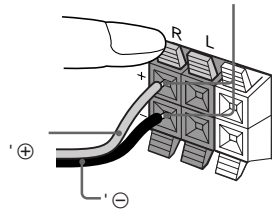
1



2

'MHC-RV990D

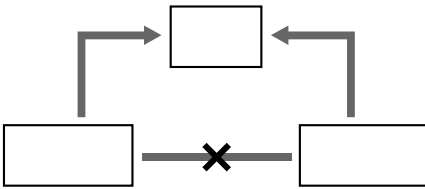
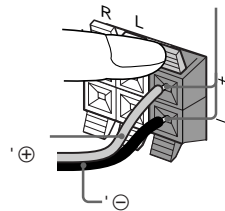
SURROUND SPEAKER



3

'MHC-RV990D

CENTER SPEAKER



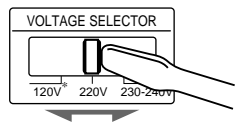
/
 /
 *
 * /
 /
 VIDEO CD /
 /
 MHC-RV990D *
 / •

COMPONENT VIDEO
 COMPONENT VIDEO OUT
 PROGRESSIVE COMPONENT OUT /
 S-video S VIDEO
 S VIDEO OUT S VIDEO

6

VOLTAGE SELECTOR

VOLTAGE SELECTOR



7

I/O

{

8

PAL

NTSC

NTSC

PAL

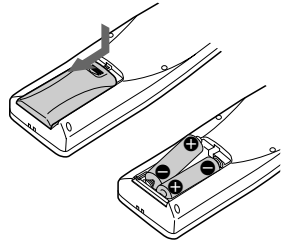
PAL ↔ NTSC

I/O **1**

||

I/O **2**

AA R6



Sony

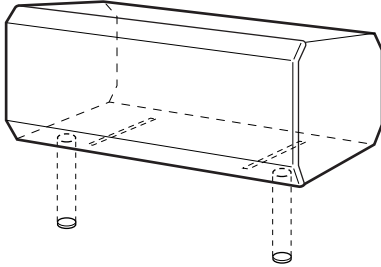
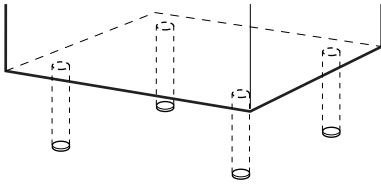
Sony

TV I/⏻

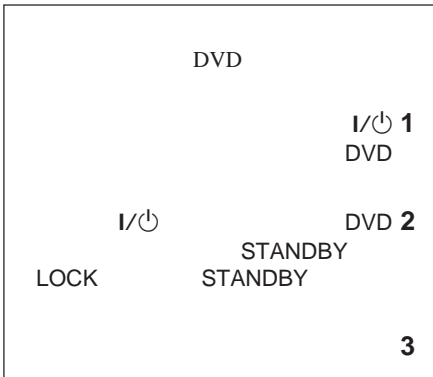
TV/VIDEO

TV CH +/-

TV VOL +/-



MHC-RV990D *

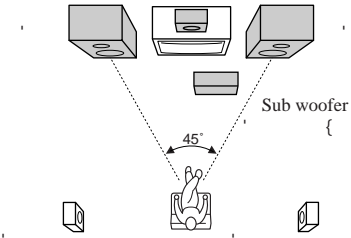


5.1

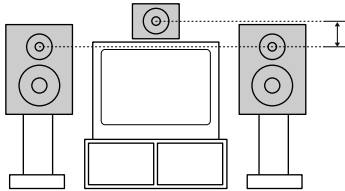
DVD

'MHC-RV990D

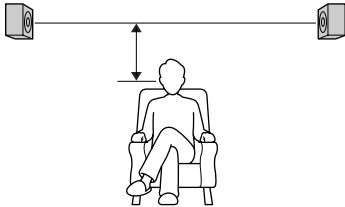
1



2



3



/ 1
I/O 2
DVD DVD 3
DVD SETUP { 4
LANGUAGE SETUP ↓ ↑ 5
ENTER
OSD ↓ ↑ 6
ENTER
/ ↓ ↑ 7
ENTER

I/O 1
CLOCK/TIMER SET 2
↓ ↑ 3
→ 4
↓ ↑ 5
ENTER 6

CLOCK/TIMER SET 1
CLOCK SET ↓ ↑ 2
ENTER
6 3 3

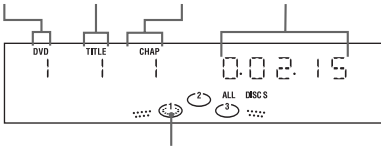
JPEG MP3 CD VIDEO CD DVD

MP3 CD VIDEO CD DVD

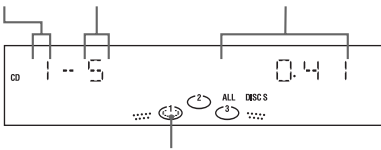
DVD VIDEO CD DVD VIDEO CD

▲ 1
2

DVD

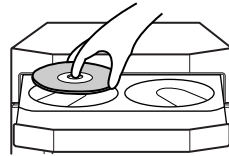


CD



DVD DVD

1



DISC SKIP/EX-CHANGE

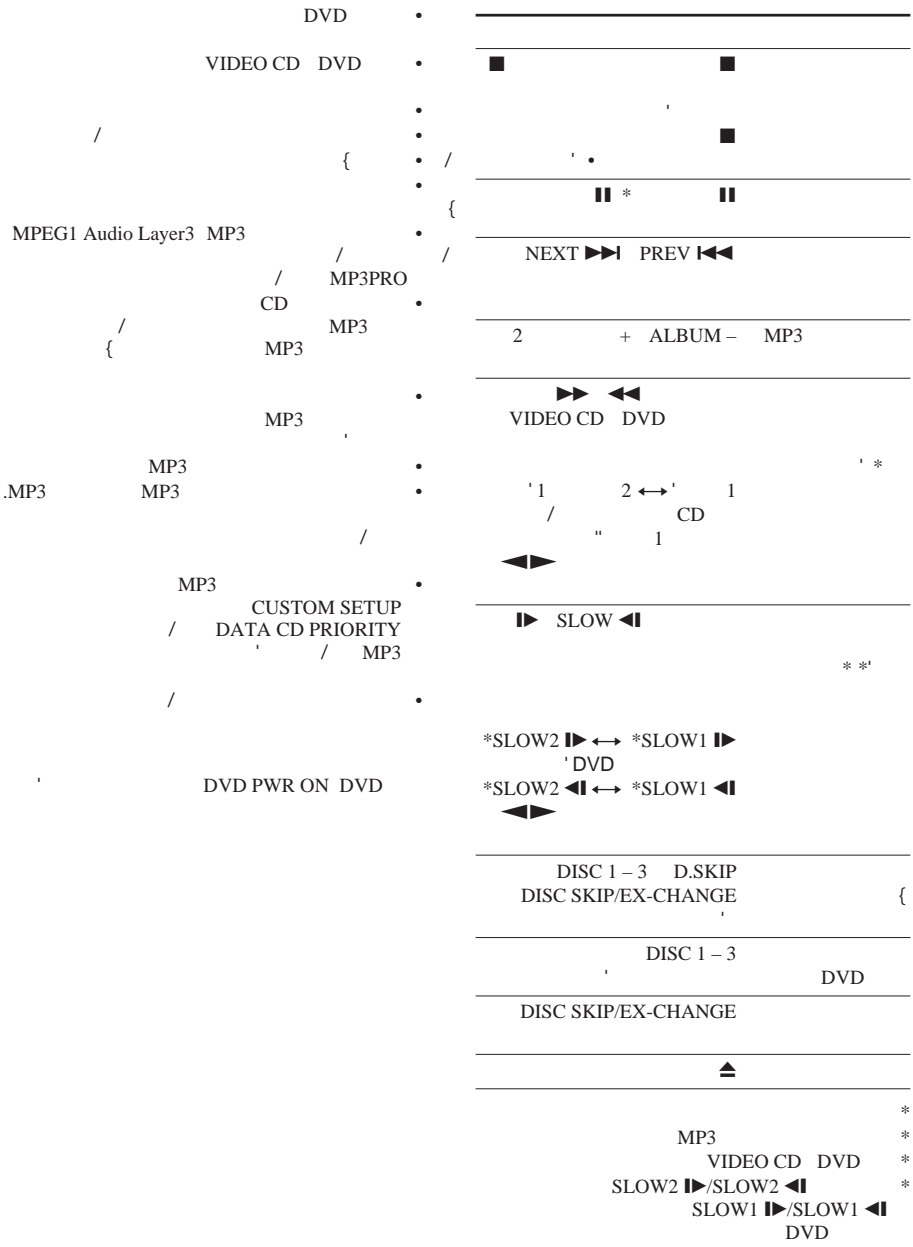
▲ 3
.
.

ALL DISCS 1DISC { / ALBM
 { DVD DISPLAY 1
 PLAY MODE ↓ ↑ 2
) { ENTER
 { ↓ ↑ 3
 ENTER
 ALBM SHUF ALBM
 MP3 MP3
 1DISC SHUF 1DISC

{ **PLAY MODE** 2 {
 /) {
 ALL DISCS
 1DISC
 MP3 ALBM
 MP3
 1DISC
 ALL DISCS
 SHUF
 *'
 1DISC SHUF
 *'
 MP3 SHUF ALBM
 *'
 MP3
 1DISC
 SHUF
 PGM
 *'
 /
 DVD * /

DISC 1 - 3 3

DVD ◀▶



+ ALBUM - MP3)

1

10/0 0

ENTER 2

ENTER 10/0 3

10/0 10/0 1 MP3

ENTER

1



1

RESUME
RESUME



2

DVD DISPLAY


DVD SETUP

/ . /
.
.
{ -
-
- {
-

VIDEO CD '2.0 PBC

DVD

PBC —



*PBC


VIDEO CD 2.0 PBC PBC * ← 1

↑/↓ 2

ENTER 3

4

VIDEO CD / {


 RETURN

ENTER Press ENTER VIDEO CD { 3 ' SELECT Press SELECT SELECT

/ PBC NEXT ►► PREV ◄◄ { 1

◄► 2

PBC Play without PBC



DVD /DVD DVD

DVD •

DVD DVD

) /

DVD •

DVD DVD

DVD DVD

DVD DVD

DVD MENU DVD TOP MENU 1

↑/↓/←/→ 2

)

ENTER 3

DVD DVD DVD/

◄► ■ PBC

↓ ↑

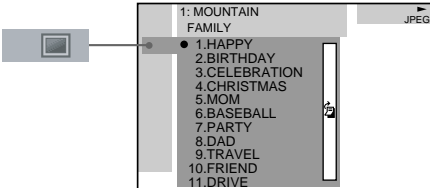
ENTER /

3

FILE ↓ ↑

4

ENTER



→

↓ ↑

ENTER

↓ ↑

5

RETURN ←

DVD DISPLAY

/

JPEG

/ + ALBUM -

JPEG

JPEG

CD-ROM JPEG / CD-RW CD-R
Joliet ISO9660

/ { }
/ { } { } CD-R/RW /
JPEG { 1
◀▶ 2

JPEG

/ .JPEG .JPG . /JPEG .

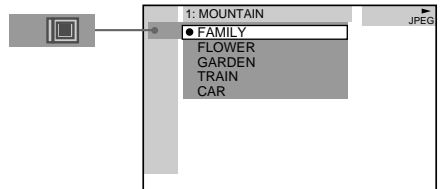
CD-RW CD-R / .

DVD DISPLAY 1

JPEG

ALBUM

↓ ↑ 2
ENTER





JPEG MP3 CD VIDEO CD DVD

/



REP

REPEAT

REP1

REP

*

REP1

JPEG MP3

ALBM

*

REP1 REP

REPEAT

DVD .

VIDEO CD PBC /.

REP1 . /

REP1 .

REP1

ALL DISCS SHUF

REP /.



DVD DISPLAY 1

REPEAT ↓ ↑ 2

ENTER

REPEAT

OFF

↓ ↑ 3



JPEG

{

1

2

◀▶

/

▶▶

FF3▶▶ ← FF2▶▶ ← FF1▶▶

FF2▶▶ FF3▶▶

{

→ ←

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→

←

◀▶

/

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/

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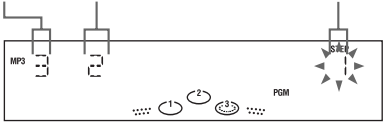
/



DVD DVD 1
 { PLAY MODE 2
 PGM
 DISC 1 - 3 D.SKIP 3
 DISC SKIP/EX-CHANGE



+ ALBUM - MP3
 ►► ◀◀



ENTER 5

4 3 { 6
 ◀▶ 7

DVD ■
 / OFF •
 *ALL •
 { TITLE •
 { CHAPTER •

MP3 CD VIDEO CD ■
 OFF
 / OFF •
 *ALL •
 * {
 { TRACK •

JPEG ■
 / OFF •
 ALL •
 * {

ON ■
 / OFF •
 ALL •

ENTER 4

SHUFFLE (ALL) *
 CHAPTER TITLE
 ALL TRACK
 CONTINUE (ALBUM) JPEG MP3 *
 SHUFFLE (ALBUM) MP3

CLEAR OFF 3

/
 DVD DISPLAY

DVD •
 /
 VIDEO CD PBC / •
 ALL •

REPEAT •
 ◀▶
 / REPEAT {
 REPEAT •

→ 3

DISC 1

Program	Disc	Track
• 1	DI	• ALL TRACKS
2	DI	1. TRACK1
3	DI	2. TRACK2
4		3. TRACK3
5		4. TRACK4
6		5. TRACK5
7		6. TRACK6
8		7. TRACK7
9		8. TRACK8
10		9. TRACK9

/ * →

← ↻ RETURN 4

CD VIDEO CD 6 ENTER

Program	Disc	Track
1	DISC 1 (CD)	- TRACK 6
2		
3		
4		
5		
6		
7		
8		
9		
10		

MP3 2 3 ENTER

Program	Disc	Album	Track
• 1	DI	• ALL TRACKS	
2	DI	A	1. Classic
3	DI	R	2. Jazz
4	DI		3. Pops
5			
6			
7			
8			
9			
10			

{ PLAY MODE
SHUF PGM

▶▶ ◀◀ /

{ CLEAR

REP1 REP1 { PGM

◀▶

Program
1
2
3
4
5
6
7
8
9
10

↓ ↑ → 2

Program	Disc
• 1	DISC 1 (CD)
2	DISC 2 (----)
3	DISC 3 (MP3)
4	
5	
6	
7	
8	
9	
10	



JPEG MP3 CD VIDEO CD DVD

DVD DVD
 'VIDEO CD 'MP3 VIDEO CD CD
 (JPEG) JPEG MP3
) /
) /
) / (

DVD DISPLAY 1

↓ ↑ 2

DVD ■
 TITLE
 PBC VIDEO CD ■
 TRACK
 CD ■
 TRACK
 MP3 ■
 TRACK ALBUM
 JPEG ■
 FILE ALBUM

3



ENTER

Program		
1	DISC 3 (MP3) - ALBUM2	- TRACK3
2		
3		
4		
5		
6		
7		
8		
9		
10		

5

/ 4 2

◀▶ 6



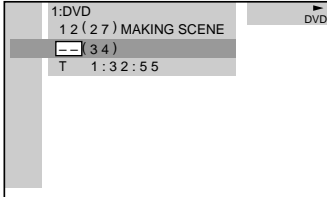
CLEAR		
/ /		
PLAY MODE		
5	CLEAR	

JPEG DVD
 REPI REP1 { .
 PGM .



ENTER 3

-- (**) ** (**)



↓ ↑ 4

CLEAR /

ENTER 5

DVD DISPLAY

RETURN

TIME 2 1

T****.**

ENTER 2

T****.**

T--:--:--

3

ENTER

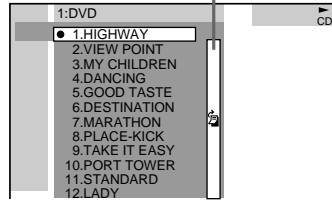
2:10:20

VIDEO CD

VIDEO CD CD

MP3

ENTER 3



→

↑/↓
←

RETURN

)

↓ ↑ 4

ENTER

DVD DISPLAY 1

↓ ↑ 2

DVD

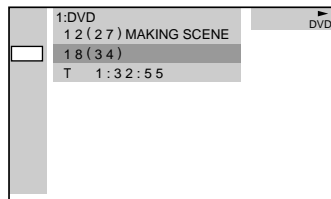
CHAPTER

VIDEO CD

INDEX

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** (**)



JPEG MP3 CD VIDEO CD DVD

JPEG MP3 CD VIDEO CD DVD

'DVD /

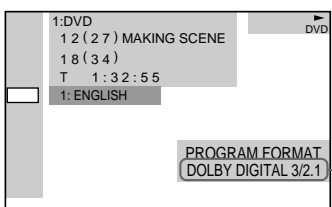
AUDIO /

Dolby Digital

5.1 { DVD {

DVD

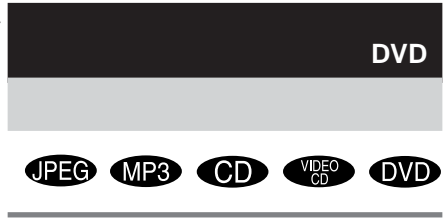
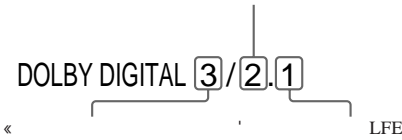
*



/DOLBY DIGITAL DTS PCM *

DOLBY DIGITAL /

:Dolby Digital 5.1 ch



'DVD

DVD

DVD

{ ' DTS MPEG Dolby Digital PCM

DVD

DVD DISPLAY 1

AUDIO ↓ ↑ 2

ENTER AUDIO

↓ ↑ 3

DVD

/

DVD

ENTER 4

DVD DISPLAY

{ DVD • /

AUDIO

'DVD

{

DVD /
DVD /

DVD DISPLAY 1

SUBTITLE ↓ ↑ 2

ENTER
SUBTITLE

ENTER ↓ ↑ 3

SUBTITLE

OFF 3

DVD DISPLAY

DVD /
DVD {

SUBTITLE

PCM •

PROGRAM FORMAT
PCM 48kHz 24bit

Dolby Surround •

PROGRAM FORMAT
DOLBY DIGITAL 2/0
DOLBY SURROUND

Dolby Digital 5.1ch •

PROGRAM FORMAT
DOLBY DIGITAL 3/2.1

DTS •

PROGRAM FORMAT
DTS 3/2.1

OSD ■
 DVD MENU ■
 DVD
 DVD AUDIO ■
 DVD SUBTITLE ■
 DVD TRACK SELECTION ■
 DVD
 DTS MPEG PCM
 Dolby Digital format

OFF
 AUTO
 AUDIO DRC ■
 DYNAMIC
 DYNAMIC OFF
 DYNAMIC STANDARD
 DYNAMIC MAX

Dolby Digital DYNAMIC

DVD
 DVD SETUP 1
 LANGUAGE SETUP ↓ ↑ 2
 CUSTOM SETUP
 ENTER
 OSD LANGUAGE SETUP
 DVD MENU
 AUDIO
 SUBTITLE
 TRACK SELECTION CUSTOM SETUP
 AUDIO DRC
 DATA CD PRIORITY
 JPEG DATE

↓ ↑ 3
 ENTER
 ↓ ↑ 4
 ENTER

DVD
 OSD
 DVD
 %
 DVD
 DVD MENU OTHERS →
 / SUBTITLE AUDIO
 OTHERS →

JPEG

MP3

CD

VIDEO CD

DVD

'JPEG MP3 DATA CD PRIORITY ■

'CD-RW CD-R CD-ROM

JPEG

MP3

DVD

'DVD

DVD

{

/ ANGLE

/

/ DVD DISPLAY 1

ANGLE ↓ ↑ 2

{

ANGLE

ENTER 3

ENTER ↑/↓ 4

/ DVD DISPLAY

DVD

DVD

ANGLE

- AUTO •
- TRACK SELECTION
- LANGUAGE SETUP
- AUDIO
- DTS MPEG PCM •
- Dolby Digital
- Dolby Digital
- DTS PCM
- MPEG
- DVD •
- AUTO
- MPEG Dolby Digital DTS

CD-DA

/ CD-DA

CD-DA



4:3 PAN SCAN •

4:3 LETTER BOX DVD
4:3 PAN SCAN

SCREEN SAVER ■

{
CD
JPEG MP3

/
DVD

ON
OFF

BACKGROUND ■

CD

JACKET
PICTURE

{ ' CD-EXTRA

GRAPHICS

GRAPHICS

BLUE
BLACK

COMPONENT OUT ■

COMPONENT VIDEO OUT

INTERLACE
PROGRESSIVE

DVD SETUP { 1

SCREEN SETUP ↓ ↑ 2

CUSTOM SETUP
ENTER

TV TYPE SCREEN SETUP

SCREEN SAVER

BACKGROUND

COMPONENT OUT

VCD COLOR SYSTEM CUSTOM SETUP

↓ ↑ 3
ENTER

↓ ↑ 4
ENTER

'DVD TV TYPE ■

{ / 16:9

/ 4:3 4:3 LETTER BOX

/ 4:3 4:3 PAN SCAN

/ /

16:9 •



4:3 LETTER BOX •



DVD

JPEG MP3 CD VIDEO CD DVD

CUSTOM PARENTAL CONTROL
ENTER
CUSTOM PARENTAL CONTROL

ON → ENTER

CUSTOM PARENTAL CONTROL

Enter a new 4-digit password,
then press **ENTER**.

□ - - - -

ENTER

PROGRESSIVE

DVD
DVD MENU

PROGRESSIVE / PAL
PROGRESSIVE COMPONENT OUT

PAL
COMPONENT OUT
PROGRESSIVE
S VIDEO OUT VIDEO OUT

VCD COLOR SYSTEM

VIDEO CD

PAL	NTSC	AUTO
AUTO	DUAL	
NTSC	PAL	PAL
PAL	NTSC	NTSC

1
CUSTOM PARENTAL CONTROL /

2
ENTER

/ 199703
CUSTOM PARENTAL CONTROL
/ ENTER /

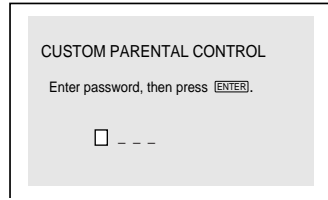
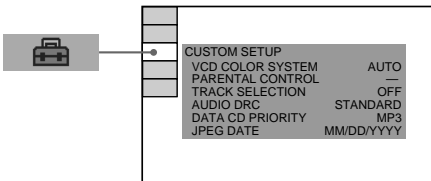
'DVD

DVD

{ DVD SETUP 1
/

CUSTOM SETUP
ENTER ↓ ↑ 2

CUSTOM SETUP



ENTER

Custom parental control is set.

ENTER

3

RETURN

DVD DISPLAY

RETURN

ENTER

OFF → 4

1

2

ENTER

PASSWORD → 4

ENTER

1

2

ENTER

3

ENTER

4

ENTER

DVD

STANDARD ↓ ↑ 5
ENTER
STANDARD

CUSTOM SETUP	
PARENTAL CONTROL	
LEVEL:	OFF
STANDARD:	USA
CHANGE PASSWORD	OTHERS →

↓ ↑ 6
/ ENTER

OTHERS →

LEVEL ↓ ↑ 7
ENTER
LEVEL

CUSTOM SETUP	
PARENTAL CONTROL	
LEVEL:	OFF
STANDARD:	8: OFF
CHANGE PASSWORD	7: NC17
	6: R
	5: RG13
	4: PG
	3: PG
	2: PG
	1: G

↓ ↑ 8

ENTER

CUSTOM SETUP	
PARENTAL CONTROL	
LEVEL:	4: PG13
STANDARD:	USA
CHANGE PASSWORD	→

↓ ↑ 3
PARENTAL CONTROL →
ENTER

CUSTOM SETUP	
PARENTAL CONTROL	
Enter a new 4-digit password, then press ENTER .	
	_ _ _ _

ENTER

CUSTOM SETUP	
PARENTAL CONTROL	
Enter password, then press ENTER .	
	_ _ _ _

ENTER

4

CUSTOM SETUP	
PARENTAL CONTROL	
LEVEL:	OFF
STANDARD:	USA
CHANGE PASSWORD	→

RETURN ←

/
DVD SETUP

DVD

OFF

LEVEL

CHANGE PASSWORD → 5
ENTER

1

3

2

◀▶ /
PARENTAL CONTROL /

1

ENTER

2

DVD •
/ /
DVD •

{

3 1

'DVD

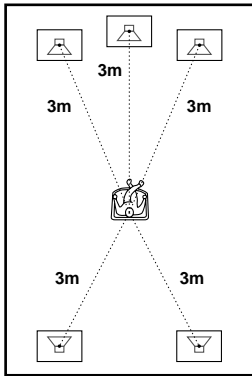
199703
/ ENTER



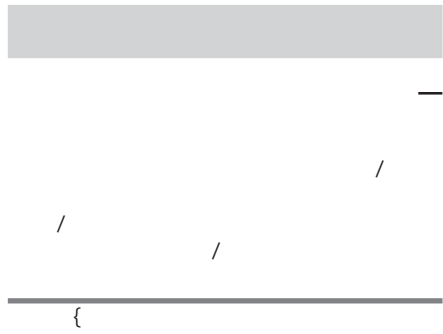
PARENTAL CONTROL

sub woofer /
 sub woofer / YES SUBWOOFER
 sub woofer / NONE
 {sub woofer DVD /
 YES / SUBWOOFER / sub woofer

'MHC-RV990D DISTANCE ■



• [[[FRONT 3.0 m
[[[CENTER 3.0 m
[[[SURROUND 3.0 m



DVD SETUP { 1
 SPEAKER SETUP ↓ ↑ 2
 ENTER
 DISTANCE SIZE ↓ ↑ 3
 ENTER
 ENTER ↓ ↑ 4
 ENTER ↓ ↑ 5
 SIZE ■

sub woofer / SURROUND CENTER / SUBWOOFER /
 YES FRONT
 YES *CENTER
 NONE
 YES *SURROUND
 NONE /
 sub woofer NONE SUBWOOFER /
 sub woofer YES /

LEVEL ■

ON TEST TONE

		*CENTER	0 dB
dB <	dB	'dB	
		*SURROUND LEFT	0 dB
dB <	dB	'dB	
		*SURROUND RIGHT	0 dB
		SUBWOOFER	0 dB
sub woofer			
dB <	dB		
'MHC-RV990D			
'MHC-RV660D	dB		

MHC-RV990D *

BALANCE ■

TEST TONE

ON

		FRONT	
		'CENTER	---
		'MHC-RV990D	TEST TONE ■
LEVEL	BALANCE		

		OFF
		ON

SPEAKER SETUP
BALANCE LEVEL

'MHC-RV660D LFE ■
LFE{

LFE	ON
/ LFE	OFF

DVD {
OFF LFE

{ DVD SETUP 1

SPEAKER SETUP ENTER ↓ ↑ 2

TEST TONE ENTER ↓ ↑ 3

ON ENTER ↓ ↑ 4

↑/↓/←/→ LEVEL BALANCE 5

ENTER 6

TEST TONE ENTER ↓ ↑ 7

















OFF ENTER ↓ ↑ 8

ENTER / ↑/↓ / LEVEL BALANCE 3
ENTER

/

DVD DISPLAY

DVD

				DISC	
PBC	VIDEO CD	(DVD) (VIDEO CD)	' DVD VIDEO CD	TITLE	
			' PBC ' VIDEO CD	SCENE TRACK	
	VIDEO CD	DVD	' DVD ' VIDEO CD	CHAPTER INDEX	
		MP3	' MP3	ALBUM	
		MP3 CD	' MP3 CD	TRACK	
	CD		' CD	INDEX	
				TIME	
			' DVD	AUDIO	
			' DVD	SUBTITLE	
		(JPEG)	' JPEG	ALBUM	
		(JPEG)	' JPEG	FILE	
			' JPEG	DATE	
			' DVD	ANGLE	
		{ VIDEO CD		PLAY MODE	
			' *JPEG MP3 CD		
				REPEAT	
				CUSTOM PARENTAL CONTROL	

JPEG *

DVD DISPLAY

← /

ANGLE

REPEAT

' OFF

{

MM/DD/YYYY JPEG DATE
 YYYY/MM/DD
 DD/MM/YYYY
 YYYY/DD/MM

SPEAKER SETUP

<u>YES</u>	FRONT	SIZE
<u>YES</u>	*CENTER	
NONE		
<u>YES</u>	*SURROUND	
NONE		
<u>NONE</u>	SUBWOOFER	
YES		
<u>3.0m</u>	FRONT	*DISTANCE
[
<u>3.0m</u>	CENTER	
[
<u>3.0m</u>	SURROUND	
[
<u>0 dB</u>	*CENTER	LEVEL
' dB <		
<u>0 dB</u>	SURROUND	
' dB <	*LEFT	
<u>0 dB</u>	SURROUND	
' dB <	*RIGHT	
<u>0 dB</u>	SUBWOOFER	
MHC-RV990D		
dB <	dB	
MHC-RV660D		
' dB	dB	
<u>CENTER</u>	---	FRONT BALANCE
	<u>OFF</u>	*TEST TONE
	ON	
	<u>ON</u>	*LFE
	OFF	
		RESET
		YES
		NO
		*
	MHC-RV990D	*
	MHC-RV660D	*

DVD SETUP

LANGUAGE SETUP

OSD

DVD MENU

AUDIO

SUBTITLE

SCREEN SETUP

16:9 TV TYPE

4:3 LETTER BOX

4:3 PAN SCAN

ON SCREEN SAVER

OFF

JACKET PICTURE BACKGROUND

GRAPHICS

BLUE

BLACK

INTERLACE COMPONENT OUT

PROGRESSIVE

CUSTOM SETUP

AUTO VCD COLOR

PAL *SYSTEM

NTSC

PARENTAL CONTROL →

OFF TRACK SELECTION

AUTO

OFF AUDIO DRC

STANDARD

MAX

MP3 DATA CD

JPEG PRIORITY

▶▶ ◀◀ PRESET -/+ 4

ENTER 5
COMPLETE

5 1 6



AM FM

AM FM TUNER/BAND 1

▶▶+ -◀◀ TUNING -/+ 2

TUNER MEMORY 3

▶▶ ◀◀ PRESET -/+ 4

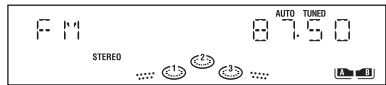
ENTER 5
COMPLETE

5 1 6

AM FM TUNER/BAND 1

▶▶+ -◀◀ TUNING -/+ 2

STEREO TUNED
FM'



TUNED

6 2

TUNER MEMORY 3

3 1
▶▶ ◀◀ PRESET -/+





DVD { DVD
DVD

DVD 1

I/⏻ 2

■ I/⏻ 3
DVD PWR OFF

DVD /

DVD PWR ON

DVD PWR OFF •

{ • /

AM

AM

AM AM

ENTER

I/⏻

AM

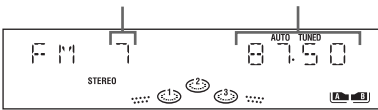
AM /

•

/ { / •

AM FM TUNER/BAND 1

⏮ ⏭ PRESET -/+ 2)



AM FM TUNER/BAND 1

▶▶+ -◀◀ TUNING -/+ 2

/ { .
&
FM FM MODE .
MONO

▶▶+ -◀◀ TUNING -/+ .

{ . {
{

/ DVD OSD .
{ DVD .
TUNER/BAND DVD PWR OFF
TUNER

TYPE I

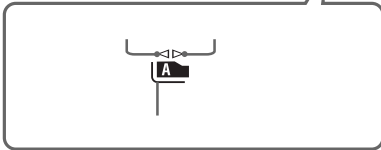
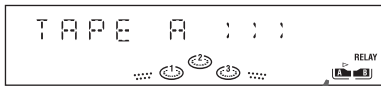
1

PLAY MODE
* RELAY



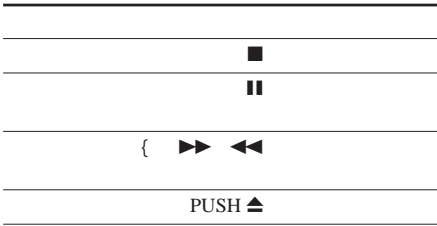
DIRECTION 2

RELAY



← A ← A
B ← B

*/



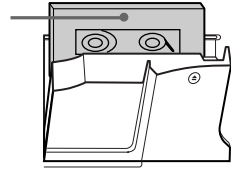
B A

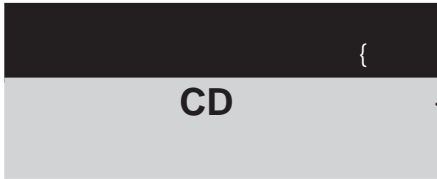
TAPE A/B 1

PUSH ▲ 2

B A
{

{ 3





CD-TAPE {—

{ CD
TYPE I

B { 1

{ DVD 2

CD SYNC 3

{ B
REC

DIRECTION 4

{ RELAY ⇔

REC PAUSE/START 5

{



CD
6 2 { 3 2 {

JPEG DVD CD {

CD SYNC 3 {

/

*'AMS {

▷ ‹‹‹

TAPE B TAPE A >>> +1

◁ ‹‹‹

TAPE B TAPE A <<< +1

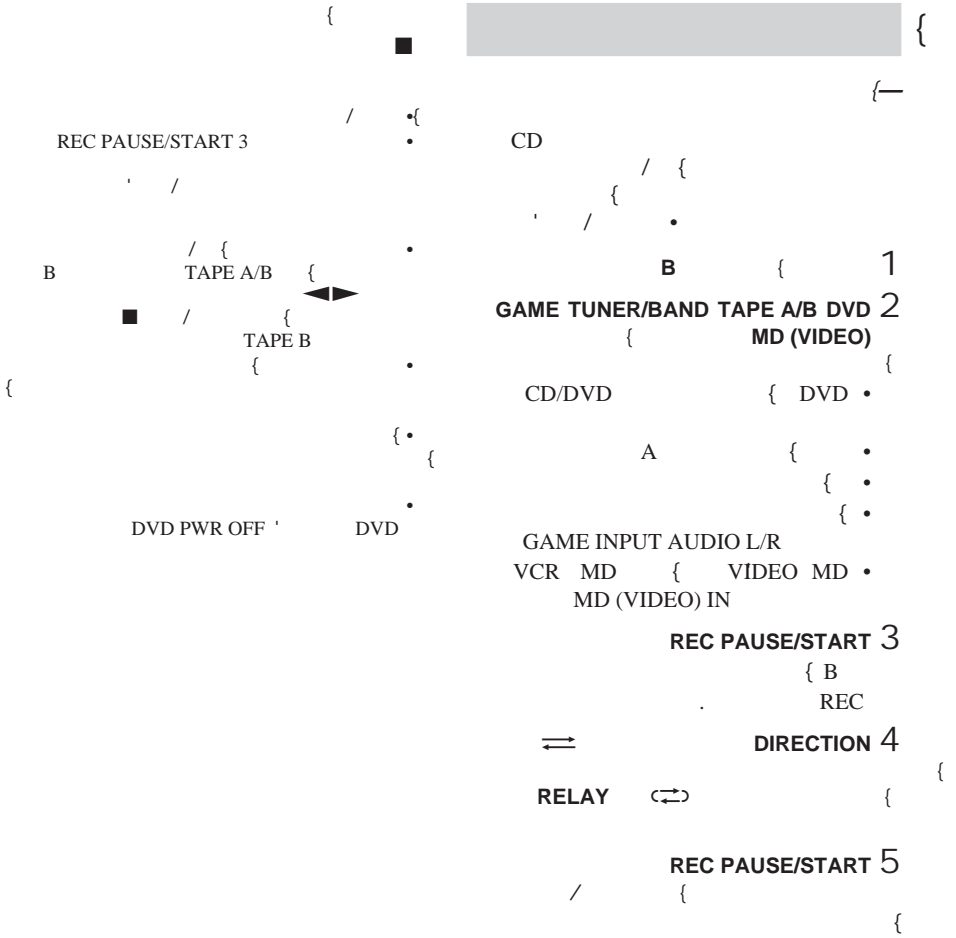
▷ ‹‹‹

TAPE B TAPE A <<< -1

◁ ‹‹‹

TAPE B TAPE A >>> -1
AMS *

AMS
{ -
-



MP3 CD VIDEO CD DVD

GAME EQ MOVIE EQ MUSIC EQ

EFFECT ON/OFF
EFFECT OFF

MUSIC EQ

ROCK
POP
JAZZ
DANCE
SOUL
ORIENTAL

MOVIE EQ

ACTION
DRAMA
MUSICAL

GAME EQ

PlayStation 1, 2 ADVENTURE
ARCADE
RACING



MP3 CD VIDEO CD DVD

GROOVE {
V-GROOVE {

GROOVE

← *V-GROOVE ON ← *GROOVE ON
GROOVE OFF
V-GROOVE GROOVE * {

Auto Format Direct Auto A.F.D. AUTO •

Pro Logic [PRO LOGIC •
{

{ PL II MUSIC •
Pro Logic II

CD

{ PL II MOVIE •
Pro Logic II

Dolby Surround

{

/ 5.1

Sound Broad System { SBS MULTI •
Multi

DTS-CD

A.F.D AUTO

/

LINK •

NONE
LINK SURROUND LINK



MP3

CD

VIDEO
CD

DVD

SOUND FIELD

/

MHC-RV990D ■

← *A.F.D. AUTO ← *SBS MULTI

← *PL II MOVIE ← *PRO LOGIC

← LINK SURR ← LINK ← *PL II MUSIC
2 CH STEREO ← 2 CH SURR

MHC-RV990D ■

*HP VIRTUAL ← HP SURR ← HP 2 CH

MHC-RV660D ■

← *2 CH SURR ← 2 CH STEREO
*VIRTUAL

DVD

*

{ { -

KEY CONTROL #/b

-
- {
-

{ / { *

P-FILE

GAME

GAME EQ

AMP MENU 1

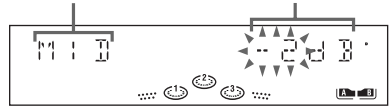
DIMMER

EQ EDIT

ENTER

↓ ↑ 2

↓ ↑ → ← 3



P FILE 4

P FILE 1-3

P FILE 5

ENTER 6

COMPLETE

/ 4

P FILE

EFFECT ON/OFF
EFFECT OFF

MP3 CD VIDEO CD DVD

MIC LEVEL 1
 MIN
 MIC 2
 KARAOKE/MPX 3
)
 /

← *MPX L ← KARAOKE PON
 *KARAOKE OFF ← *MPX R
 CD
 MPX L MPX R

/ 4
 MIC LEVEL 5

VIDEO CD
 DVD

MIN MIC LEVEL {
 MIC
 KARAOKE/ /
 ● MPX

ECHO LEVEL *

ECHO LEVEL
 MIN

▷ KEY CONTROL #

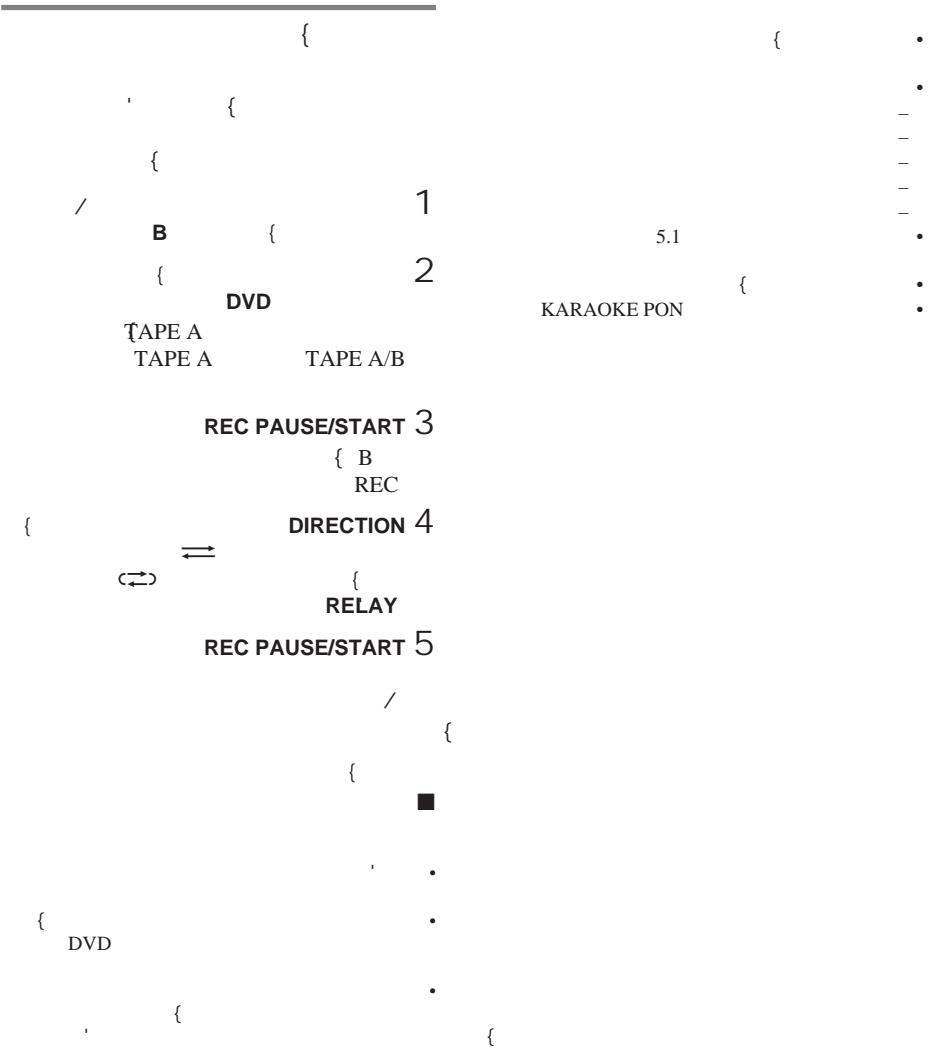
▷ #6 '

MP3/CD/VIDEO CD *
 * {
 *

1
 GAME MIXING 2

← MIXING MID ← MIXING LOW
 MIXING OFF ← MIXING HIGH

. {
 { GAME MIXING
 { REC PAUSE/START
 GAME INPUT .
 S-video ./
 S-video /
 {
 GAME MIXING .
 .





' /
/
/ DVD • 1

' /
.
.
/

VOL +/- 2
VOLUME

CLOCK/TIMER SET 3
DAILY SET

ENTER 4
ON

5
↓ ↑
→

↓ ↑
ENTER

5 6
/

) ↓ ↑ 7

/



ENTER 8

DAILY
/

I/O 9

SLEEP

← 70MIN ← 80MIN ← 90MIN ← *AUTO
OFF ← 10MIN ← ...

{



SLEEP **



SLEEP

)



SLEEP

SLEEP OFF



/ AUTO **

/

AUTO

{

CLOCK/TIMER SET 2

DAILY SET

REC SET ↓ ↑ 3

ENTER

ON

{ 4

↓ ↑
→

↓ ↑
ENTER

4

5

/

/

TUNER FM 5

B

{

6

I/⏻ 7

CLOCK/TIMER SELECT 1

{ ↓ ↑ 2

DAILY

ENTER

1

CLOCK/TIMER SELECT 1

↓ ↑ 2

TIMER OFF

ENTER

{ .

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MD (VIDEO) IN L/R



CLOCK/TIMER SELECT 1

↓ ↑ 2
REC SELECT
ENTER

1
CLOCK/TIMER SELECT 1

DISPLAY

↓ ↑ 2
TIMER OFF
ENTER

DISPLAY

← *

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AM

MD (VIDEO)

{I/⏻

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ILLUMINATION

← PATTERN 2 ← PATTERN 1
← PATTERN 4 ← PATTERN 3
' / PATTERN OFF

DIMMER

← DIMMER 1 ← DIMMER OFF
*DIMMER 3 ← DIMMER 2

DIMMER 3*

AMP MENU 1

↓ ↑ 2

→ ← 3

ENTER 4



DVD/CD

/ /
1 ID3
ID3

ID3

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*
*



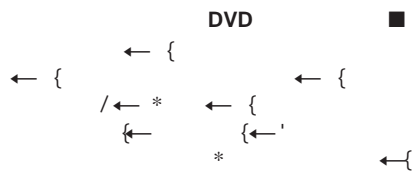
MP3

/
DVD/CD-TEXT
JPEG

MP3 CD VIDEO CD DVD
'JPEG

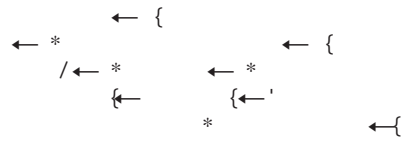
DISPLAY

/

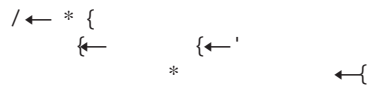


VIDEO CD / CD

PBC ■



'2.0 PBC VIDEO CD ■





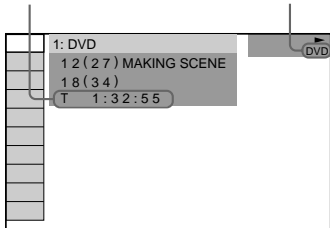
{ / DVD/CD / }

DVD DISPLAY 1

TIME ↓ ↑ 2

ENTER

DISPLAY 3



DVD ■

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T_ *.*.*.*.* •

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C *.*.*.*.* •

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C_ *.*.*.*.* •

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..*.*.* •

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'PBC VIDEO CD ■

..*.*.* •

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MP3 CD VIDEO CD DVD
'JPEG

{ DISPLAY

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MP3 CD VIDEO CD DVD ■

{ JPEG

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{ ← *

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/ JPEG *

MP3 { { MP3 *

JPEG { { *

CD/DVD { *

JPEG { *

MP3 { *

/ { *

DVD/CD-TEXT

{ MP3 CD VIDEO CD ■

* ← *

{ ← *

* ← *

{ ← *

CD/DVD *

MP3 *

*

/ DVD

/

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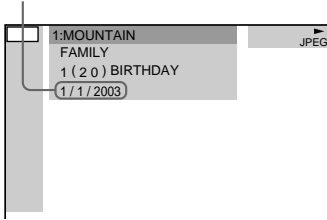


JPEG

JPEG

*Exif

DVD DISPLAY



Exchangeable Image File Format *
Japan Electronics &
Information technology Industries Association

PBC

VIDEO CD

CD

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D_ **: ** .

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MP3

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DVD DISPLAY

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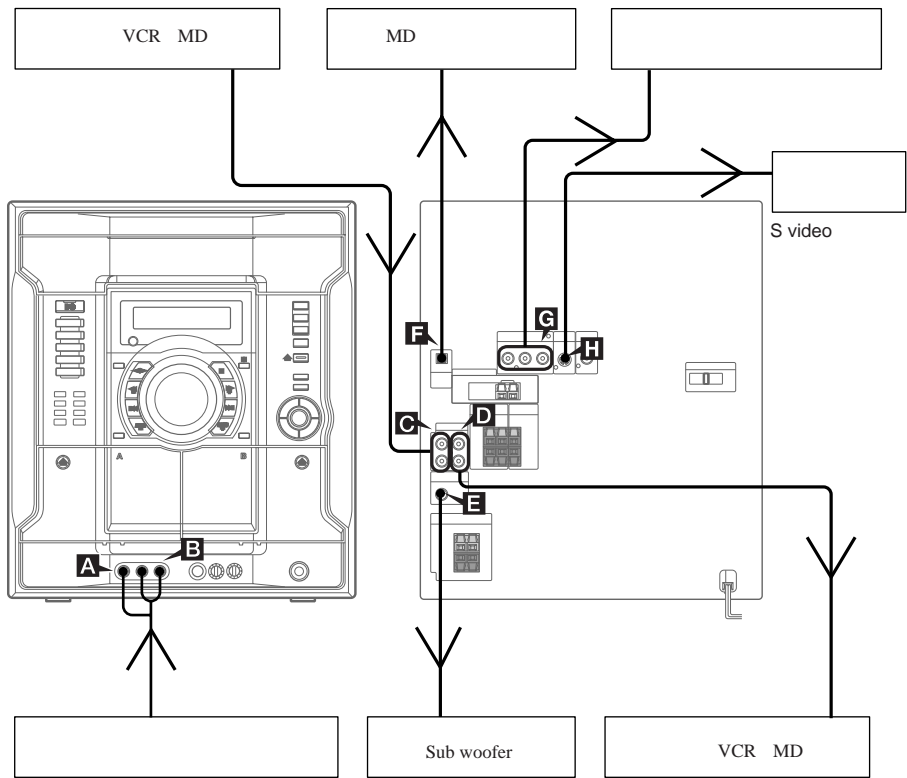
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CUSTOM SETUP

JPEG DATE

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DIGITAL OUT F

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VIDEO CD *DVD •
MP3 / •
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DVD
MHC-RV990D *

COMPONENT VIDEO OUT G

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COMPONENT OUT ' /
/ PROGRESSIVE

GAME INPUT VIDEO /

S VIDEO OUT H

{S video /

GAME INPUT VIDEO /
S video

GAME INPUT VIDEO A

{

GAME INPUT AUDIO L/R B

{

GAME

GAME

GAME •

GAME EQ •

GAME •

GAME •

GAME EQ •

MD (VIDEO) IN L/R C

{

VCR MD /

MD (VIDEO) OUT L/R D

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VCR MD /

SUB WOOFER OUT E

{
/ *sub woofer

SA-RV990

SA-RV990 *
/

sub woofer

Sony /



MD

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/ 2{

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CD/DVD

{ MD

DIGITAL OUT

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VIDEO CD

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MD/VIDEO (AUDIO) OUT

VCR VIDEO OUT

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VIDEO CD

VIDEO CD

MD

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MD {

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VIDEO MD

MD (VIDEO) 2

VIDEO

MD

MD

MD (VIDEO)

MD (VIDEO)

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VIDEO

I/O

VIDEO

MD

VIDEO

MD

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DISPLAY • /

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Sony /

JPEG MP3 CD VIDEO CD DVD

LOCKED /
 Sony Sony /•

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DVD ◀▶ •
 DVD •

DVD •
 / DVD PWR ON •

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MD MD (VIDEO) •
 / VIDEO •
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/ / •
 / ' •

'MHC-RV990D •

sub woofer •
 YES SUBWOOFER •
 { DVD •
 sub woofer sub woofer /

'MHC-RV990D •

'MHC-RV990D •
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- + / •

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 / •

JPEG
 ISO9660 JPEG DATA CD •
 { Joliet
 .JPEG .JPG JPEG •
 JPEG .JPEG .JPG •
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 CUSTOM SETUP •
 DATA CD PRIORITY •
 JPEG /
 /JPEG •

/ **ID3**
 ISO9660 •
 / Joliet •
 ID3 •

ID3
 CD
 / •

MP3 CD VIDEO CD DVD
 3 •
 / KARAOKE OFF •

MPEG Dolby Digital
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 5.1 / DVD •
 MPEG Dolby Digital

/
 SHUF PGM / PLAY MODE •
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 PBC DVD •

/ DVD •

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DVD
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 DVD /DVD
 DVD

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MP3
 Joliet ISO9660 {
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 MP3 •
 MPEG1 Audio Layer-3 •
 MP3PRO MP3 •
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MP3
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TV TYPE / SCREEN SETUP /

DVD •

S-video / •

LANGUAGE SETUP % OSD / •

{ DVD / •

DVD •

{ DVD / •

DVD •

DVD •

{ DVD / •

DVD •

CD/DVD {

{DIGITAL OUT

DIGITAL OUT •

{ { 'MD /

DVD {

'MHC-RV660D

OFF SPEAKER SETUP LFE •

DVD •

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DVD •

VCR •

DVD /

DVD /

S video /

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JPEG MP3 CD VIDEO CD DVD

CANNOT PLAY

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.

DATA ERROR

JPEG

NO DISC

NOT IN USE

PLAY LIMIT

MP3

PUSH STOP

PLAY MODE

STEP FULL

READING

TOC

NO TAB

{

NO TAPE

DISPLAY

GROOVE

DVD

DVD

{ DVD SETUP 1

RESET

ENTER

YES

ENTER

I/⏻

sub woofer

1

2

■ 3

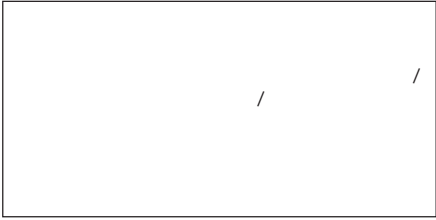
I/⏻ 4

↓ ↑ 2

↓ ↑ 3



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CD/DVD

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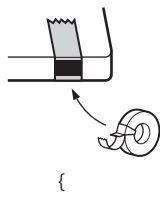
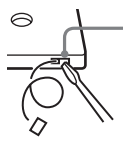
{

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{
B A





λ DVD
 • λ CD
 PCM DVD
 ± dB
 CD
 ± dB
 PAL NTSC
 OPTICAL DIGITAL OUT

\ {
 ± dB
 Sony TYPE I
 [± IEC W.Peak
 [' NAB W.RMS
 [± DIN W.Peak

superheterodyne FM/AM FM

• [[FM
 FM
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 AM

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 ' RMS
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 ' THD *
 ' THD *
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 ' THD
 MHC-RV990D *
 MD/VIDEO (AUDIO) IN
 •
 ' GAME (VIDEO) IN
 • Vp-p
 ' GAME (AUDIO) IN
 •
 ' MIC
 MD/VIDEO (AUDIO) OUT
 ' VIDEO OUT
 Vp-p
 •
 'DIN-mini/pin S-VIDEO OUT
 Vp-p Y
 [Vp-p C
 •
 ' COMPONENT VIDEO OUT
 • Vp-p Y
 • [Vp-p Pr Pb
 ' PHONES
 {
 SS-RV990
 ' MHC-RV660D
 {
 SS-RS390
 ' MHC-RV660D
 {
 SS-CT390
 SUB WOOFER OUT

SS-RV990

Woofers
Sub Woofers
Tweeters

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-

[•

MHC-RV990D
MHC-RV660D

MHC-RV990D SS-RS390

HCD-RV990D/RV660D

[
[

HCD-RV990D
HCD-RV660D

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MHC-RV990D SS-CT390

AM
FM

MHC-RV990D
MHC-RV660D

[

MHC-RV990D

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ISO639: 1988 (E/F)

Siswati	1513	Malayalam	1350	Scots Gaelic	1186	Afar	1027
Sesotho	1514	Mongolian	1352	Galician	1194	Abkhazian	1028
Sundanese	1515	Moldavian	1353	Guarani	1196	Afrikaans	1032
Swedish	1516	Marathi	1356	Gujarati	1203	Amharic	1039
Swahili	1517	Malay	1357	Hausa	1209	Arabic	1044
Tamil	1521	Maltese	1358	Hindi	1217	Assamese	1045
Telugu	1525	Burmese	1363	Croatian	1226	Aymara	1051
Tajik	1527	Nauru	1365	Hungarian	1229	Azerbaijani	1052
Thai	1528	Nepali	1369	Armenian	1233	Bashkir	1053
Tigrinya	1529	Dutch	1376	Interlingua	1235	Byelorussian	1057
Turkmen	1531	Norwegian	1379	Interlingue	1239	Bulgarian	1059
Tagalog	1532	Occitan	1393	Inupiak	1245	Bihari	1060
Setswana	1534	(Afan) Oromo	1403	Indonesian	1248	Bislama	1061
Tonga	1535	Oriya	1408	Icelandic	1253	Bengali; Bangla	1066
Turkish	1538	Punjabi	1417	Italian	1254	Tibetan	1067
Tsonga	1539	Polish	1428	Hebrew	1257	Breton	1070
Tatar	1540	Pashto; Pushto	1435	Japanese	1261	Catalan	1079
Twi	1543	Portuguese	1436	Yiddish	1269	Corsican	1093
Ukrainian	1557	Quechua	1463	Javanese	1283	Czech	1097
Urdu	1564	Rhaeto-Romance	1481	Georgian	1287	Welsh	1103
Uzbek	1572	Kirundi	1482	Kazakh	1297	Danish	1105
Vietnamese	1581	Romanian	1483	Greenlandic	1298	German	1109
Volapük	1587	Russian	1489	Cambodian	1299	Bhutani	1130
Wolof	1613	Kinyarwanda	1491	Kannada	1300	Greek	1142
Xhosa	1632	Sanskrit	1495	Korean	1301	English	1144
Yoruba	1665	Sindhi	1498	Kashmiri	1305	Esperanto	1145
Chinese	1684	Sangho	1501	Kurdish	1307	Spanish	1149
Zulu	1697	Serbo-Croatian	1502	Kirghiz	1311	Estonian	1150
	1703	Singhalese	1503	Latin	1313	Basque	1151
		Slovak	1505	Lingala	1326	Persian	1157
		Slovenian	1506	Laothian	1327	Finnish	1165
		Samoan	1507	Lithuanian	1332	Fiji	1166
		Shona	1508	Latvian; Lettish	1334	Faroese	1171
		Somali	1509	Malagasy	1345	French	1174
		Albanian	1511	Maori	1347	Frisian	1181
		Serbian	1512	Macedonian	1349	Irish	1183

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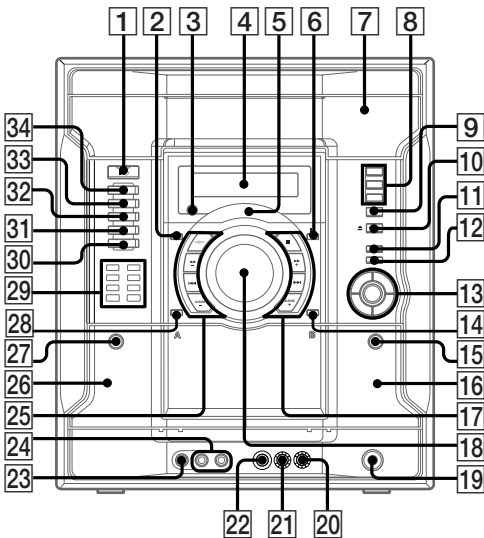
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- 1 I/⏻
- 6 II
- 10 ▲
- 13 ▲/▼/◀/▶
- 15 B' ▲ PUSH
- 17 ■
- 17 ▶▶+
- 17 ▶▶-
- 25 ◀◀
- 25 ▶▶
- 27 A' ▲ PUSH

- R
- 29 REC PAUSE/START
- 29 REPEAT
- 11 SOUND FIELD
- 32 TAPE A/B
- 33 TUNER/BAND
- 29 TUNER MEMORY
- 4 /
- 26 A
- 16 B
- 3
- 7
- GAME INPUT AUDIO L/R
- 24
- 23 GAME INPUT VIDEO
- 22 *MIC
- 19 PHONES
- 5
- 18 VOLUME

- Q - A
- 17 ALBUM +
- 25 ALBUM -
- 29 CD SYNC
- 29 DIRECTION
- 8 DISC 1 - 3
- 9 DISC SKIP/EX-CHANGE
- 2 DISPLAY
- 34 DVD
- 29 DVD MENU
- 29 DVD TOP MENU
- 20 *ECHO LEVEL
- 12 ENTER
- 29 FM MODE
- 30 GAME
- 13 GAME EQ
- 29 GAME MIXING
- 13 GROOVE
- 28 ILLUMINATION
- 29 KARAOKE/MPX
- 31 MD (VIDEO)
- 21 *MIC LEVEL
- 13 MOVIE EQ
- 13 MUSIC EQ
- 14 P FILE
- 29 PLAY MODE





- 5 I/⏻
- 14 ◀▶
- 15 ⏸
- 16 ↻ RETURN
- 17 ■
- 27 ↑/↓/←/→
- 36 ◀▶
- 36 ▶▶
- 37 ◀◀
- 37 ▶▶
- 38 * > 10

- R

- 11 REPEAT
- 14 SELECT
- 1 SLEEP
- 18 SLOW ◀|▶
- 19 SOUND FIELD
- 21 SUBTITLE
- 48 TAPE A/B
- 47 TUNER/BAND
- 36 TUNING -/+
- 4 TV I/⏻
- 7 TV CH +/-
- 8 TV/VIDEO
- 6 TV VOL +/-
- 24 VOL +/-
- 9

P - A

- 35 ALBUM +/-
- 41 AMP MENU
- 22 ANGLE
- 31 AUDIO
- 12 CLEAR
- 2 CLOCK/TIMER SELECT
- 3 CLOCK/TIMER SET
- 10 D. SKIP
- 42 DISPLAY
- 46 DVD
- 40 DVD DISPLAY
- 32 DVD MENU
- 39 DVD SETUP

- 33 DVD TOP MENU
- 34 EFFECT ON/OFF
- 29 ENTER
- 43 GAME
- 28 GAME EQ
- 44 GAME MIXING
- 20 GROOVE
- 25 KEY CONTROL #/b
- 45 MD (VIDEO)
- 23 MOVIE EQ
- 30 MUSIC EQ
- 37 NEXT
- 26 P FILE
- 13 PLAY MODE
- 37 PRESET -/+
- 37 PREV

