

MODEL RR-1050

9 DEVICES LEARNING REMOTE CONTROL

WITH PREPROGRAMMED ROTEL CODE

SPECIFICATION SHEET

(I) COSMETIC

HOUSING

Colour : Black with Silver-dot colour spray-painted

Dimension : 225 (L) x 66 (W) x 30 (H) mm

SLIDING COVER

Silkscreen printed “ **ROTEL RR-1050** “ with colour # 155C

LCD LENS

Transparent / with silkscreen Dark Grey colour (#433C) frame

UPPER PVC INLAY

(a) Major background area :

----- Grey colour # 431C / White colour lettering

(b) Area for buttons “POWER ON / OFF , VOL UP/DOWN, MUTE” :

----- Light Grey colour # 428C / Letters “POWER, MACRO” Dark Grey colour # 433C

(c) Area for buttons “ 1, 2,.....,+10, 0, X” :

----- Dark Grey colour # 433C

(d) Area for buttons “UP, DOWN,.....ENT” :

----- Blue colour # 2718C

LOWER PVC INLAY

(a) Upper 10 Secondary Command Buttons area :

-----Grey colour # 431C / White colour lettering

(b) Middle 10 Secondary Command Buttons area :

-----Light Grey colour # 428C / Dark Grey colour # 433C lettering

(c) Special / Configuration Buttons area :

----- Dark Grey colour # 433C / White colour lettering

UPPER RUBBER KEYPAD

Milky colour / Black colour lettering

LOWER RUBBER KEYPAD

Grey colour / White colour lettering

BACK PLATE

Back Plate Label: Black colour background / Silver colour lettering

FCC Label: Black colour background / Silver colour lettering

(II) PACKAGING

Each Unit packed with bubble bag then placed in an Inner Tray.

Inner Tray with Unit inserted into a **Dark Grey (#433C) Box (with White colour graphic).**

(III) CHARACTERISTICS / SPECIFICATIONS :

(A) Capability of Learning Code format / types :

-----Learn Single code (not Double / Toggle Code) from Original Remote Control.

Except Commands Buttons "S1 to S5 " which provide Max. 3 Storage Codes
(Command) per button.

-----Learn both Pulse and Carrier Frequency format type IR (Infrared) Remote Control
Code. Please also see Appendix A for Waveform Notation.

(1) Pulse format :

Pulse-to-Pulse period -----Max. 3.3 sec. / Min. 45 Micro sec.

Transmitting Pulse Width -----Min. 27 Micro sec.

(2) Carrier Frequency format :

Carrier Frequency Learning Range -----20kHz to 75kHz

Carrier Pulse Width (Mark) -----Max. 2 sec. / Min. (approx.) 60 Micro sec.

Zero Width (Space) -----Max. 3.3 sec. / Min. (approx.) 60 Micro sec.

(B) Transmitting Range :

-----Average 10M

(C) Preprogrammed Commands (Pre-code) List :

(1) Preprogrammed Rotel Code with NEC format (system code 8311 Hex) stored in

Input buttons CD, TUNER, TAPE, EXT, V1 (DVD), V2, V3, V4 & V5.

- (2) Preprogrammed Rotel Code with NEC format (system code 8311 Hex) stored in "AUD" device bank.
- (3) Preprogrammed Rotel Code with NEC format (system code 007F Hex) and JC format (system code EF Hex) stored in "V1 (DVD)" device bank.
- (4) Also some Pre-codes (NEC format, system code 8311 Hex) stored in Command Buttons "POWER ON /OFF, VOL UP/DOWN, MUTEetc."
- (5) Please also see Appendix B & C, the Code Table for detail.

(D) LCD Keyname List :

----Please see Appendix C.

(E) Back-up after removal of batteries :

-----All learned Commands remained.

(F) Electrical performance of operations :

Battery operating range -----DC 4.6V to 6.5V

Standby current -----Less than 85 Micro Amp.

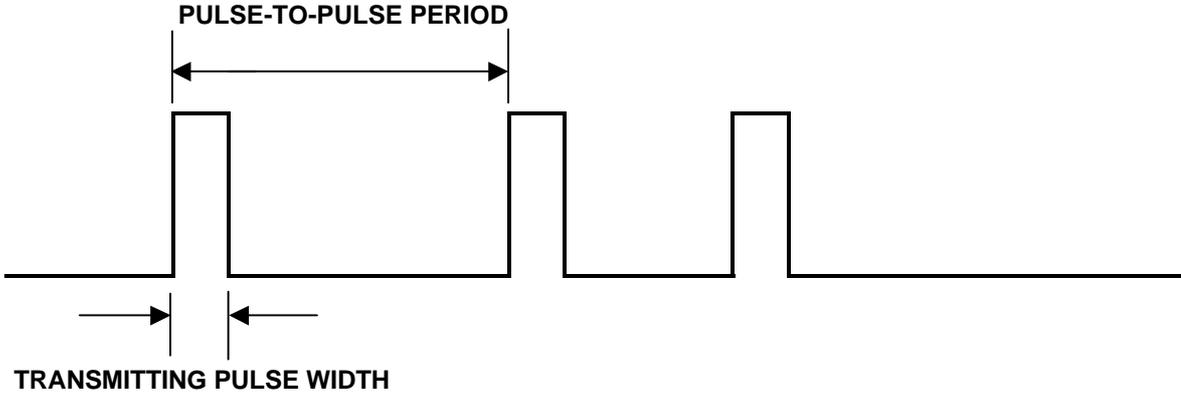
(G) Schematic Diagram :

-----Please see Appendix D

Appendix A : RR-1050 ; Capability of Learning Code format / types

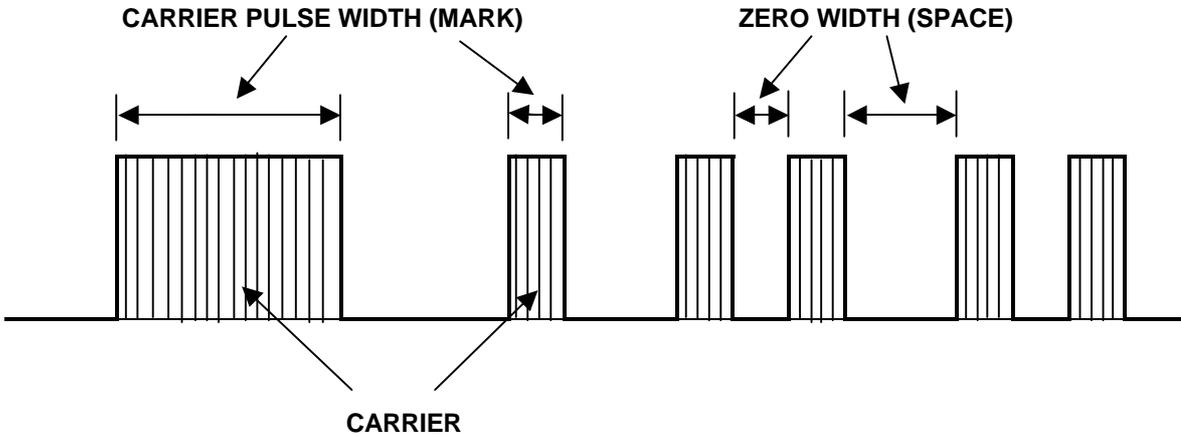
(1) PULSE FORMAT :

Pulse-to-Pulse period -----Max. 3.3 sec. / Min. 45 Micro sec.
Transmitting Pulse Width -----Min. 27 Micro sec.



(2) CARRIER FREQUENCY FORMAT :

Carrier Frequency Learning Range -----20kHz to 75kHz
Carrier Pulse Width (Mark) -----Max. 2 sec. / Min. (approx.) 60 Micro sec.
Zero Width (Space) -----Max. 3.3 sec. / Min. (approx.) 60 Micro sec.



Appendix B : RR-1050 Code table

ROTEL : RR-1050

AUD PAGE PRE-CODE (NEC CODE " 8311"H)

STOP BIT

BUTTON NAME CODE	CUSTOM CODE														DATA CODE														CARRIER FREQ. 37.79kHz			
	C0	C1	C2	C3	C4	C5	C6	C7	C0	C1	C2	C3	C4	C5	C6	C7	D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3		D4	D5	D6
CD 01	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
TUNER 02	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1
TAPE 05	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	1	1	1	1
EXT 19	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	0	1	1	0	0	1	1	1
DVD 07	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1
VIDEO 2 08	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	1	1	1	1
VIDEO 3 09	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	1	1	0	1	1	1	1
VIDEO 4 03	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1
VIDEO 5 04	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	1	0	1	1	1	1	1
1 48	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	1	1	0	1	1	0	1
2 49	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	1	0	1
3 4A	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	1	0	1
4 4B	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1	0	1	0	0	1	0	0	0	1	0	1	1	0	1
5 4C	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	1	1	0	0	1	1	0	1
6 4D	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	1	1	0	0	1	0	0	1	0	0	1	1	0	1
7 4E	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	1	1	0	0	1	0	1	0	0	0	1	1	0	1
8 4F	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1	1	1	0	0	1	0	0	0	0	0	1	1	0	1
9 50	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	1	1	1	1	0	1	0	1
0 51	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	0	1	0	1	0	0	1	1	1	0	1	0	1
TEN 52	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	0	0	1	0	1	0	1	0	1	1	0	1	0	1
PWR ON	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	1	1	1	1	0	0	1	1	0

BUTTON NAME CODE	CUSTOM CODE														DATA CODE														CARRIER FREQ.			
	C0	C1	C2	C3	C4	C5	C6	C7	C0	C1	C2	C3	C4	C5	C6	C7	D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3		D4	D5	D6
RECORD 1A	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	0	1	1	0	0	0	1	0	1	0	0	1	1	1
ZONE 9A	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	0	1	1	0	0	1	1	0	1	0	0	1	1	0
SUR+ 1D	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	1	1	1	0	0	0	0	1	0	0	0	0	1	1
2CH 83	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0	1	1	1	1	1	0
PLII C 84	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	1	1	0	1	1	1	1	0
PLII M 85	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	1	0	0	0	0	1	0	1	0	1	1	1	1	0
5CH 86	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	1	1	1	1	0
7CH 87	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1	1	0	0	0	0	1	0	0	0	1	1	1	1	0
DISPLAY 55	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	1	0	1	0	1	0	0	1	0	1	0	1	0	1
TAPE 2 06	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	1	0	0	1	1	1	1	1
PHONO 0A	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	1	1	1	1
TONE 15	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	1	0	1	0	0	0	0	1	0	1	0	1	1	1
D SELECT 56	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	1	0	1	0	1	0	1	0	0	1	0	1	0	1
SCAN 54	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	1	0	1	0	1	0	1	1	0	1	0	1	0	1
PTY 59	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	1	1	0	1	0	0	1	1	0	0	1	0	1
T/PRESET 5D	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	0	1	1	1	0	1	0	0	1	0	0	0	1	0	1
TP 5B	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1	0	1	1	0	1	0	0	0	1	0	0	1	0	1
TA 5C	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	1	1	1	0	1	0	1	1	0	0	0	1	0	1
POWER 00	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Appendix B : RR-1050 Code table		ROTEL : RR-1050														VIDEO 1 (DVD) PAGE PRE-CODE (NEC CODE " 007F"H)														STOP BIT	CARRIER FREQ.			
BUTTON NAME		CUSTOM CODE														DATA CODE															37.79kHz			
CODE		C0	C1	C2	C3	C4	C5	C6	C7	C0	C1	C2	C3	C4	C5	C6	C7	D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3	D4	D5	D6	D7	
POWER	49	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	0	0	1	0	0	1	0	0	1	1	0	1	1	0	1	
				0				0				F				7				9				4										
PWR OFF	4A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	0	1	0	0	1	0	1	0	1	0	1	1	0	1	
				0				0				F				7				A				4										
TITLE	13	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	0	0	1	0	0	0	0	0	1	1	0	1	1	1	
				0				0				F				7				3				1										
PROGSCAN	46	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	1	0	0	0	1	0	1	0	0	1	1	1	0	1	
				0				0				F				7				6				4										
OPEN	00	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	
				0				0				F				7				0				0										
DISPLAY	52	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	0	0	1	0	1	0	1	0	1	1	0	1	0	1	
				0				0				F				7				2				5										
AUDIO	42	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	1	0	1	0	1	1	1	1	0	1
				0				0				F				7				2				4										
ANGLE	40	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	1	
				0				0				F				7				0				4										
SUBTITLE	41	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0	1	0	0	1	1	1	1	1	0	1	
				0				0				F				7				1				4										
ZOOM	53	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	0	0	1	0	1	0	0	0	1	1	0	1	0	1	
				0				0				F				7				3				5										
RESUME	55	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	0	1	0	1	0	1	0	0	1	0	1	0	1	0	1	
				0				0				F				7				5				5										
REPEAT	5A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	0	1	1	0	1	0	1	0	1	0	0	1	0	1	
				0				0				F				7				A				5										
A-B	5B	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	0	1	1	0	1	0	0	0	1	0	0	1	0	1	
				0				0				F				7				B				5										
GOTO	54	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	1	0	1	0	1	0	1	1	0	1	0	1	0	1	
				0				0				F				7				4				5										
SLOW	10	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	1	0	0	0	1	1	1	1	0	1	1	1	
				0				0				F				7				0				1										

Appendix B : RR-1050 Code table																	
ROTEL : RR-1050																	
VIDEO 1 (DVD) PAGE PRE-CODE (JC CODE " EF"H)																	
STOP BIT																	
BUTTON NAME CODE	CUSTOM CODE							DATA CODE							CARRIER FREQ.		
	C0	C1	C2	C3	C4	C5	C6	C7	D0	D1	D2	D3	D4	D5		D6	D7
1 61	1	1	1	1	0	1	1	1	1	0	0	0	0	1	1	0	37.79kHz
			F				E			1				6			
2 62	1	1	1	1	0	1	1	1	0	1	0	0	0	1	1	0	
			F				E			2				6			
3 63	1	1	1	1	0	1	1	1	1	1	0	0	0	1	1	0	
			F				E			3				6			
4 64	1	1	1	1	0	1	1	1	0	0	1	0	0	1	1	0	
			F				E			4				6			
5 65	1	1	1	1	0	1	1	1	1	0	1	0	0	1	1	0	
			F				E			5				6			
6 66	1	1	1	1	0	1	1	1	0	1	1	0	0	1	1	0	
			F				E			6				6			
7 67	1	1	1	1	0	1	1	1	1	1	1	0	0	1	1	0	
			F				E			7				6			
8 68	1	1	1	1	0	1	1	1	0	0	0	1	0	1	1	0	
			F				E			8				6			
9 69	1	1	1	1	0	1	1	1	1	0	0	1	0	1	1	0	
			F				E			9				6			
0 60	1	1	1	1	0	1	1	1	0	0	0	0	0	1	1	0	
			F				E			0				6			
TEN 6F	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	0	
			F				E			F				6			
10 6E	1	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0	
			F				E			E				6			
PLAY 4C	1	1	1	1	0	1	1	1	0	0	1	1	0	0	1	0	
			F				E			C				4			

BUTTON NAME CODE	CUSTOM CODE							DATA CODE							CARRIER FREQ.		
	C0	C1	C2	C3	C4	C5	C6	C7	D0	D1	D2	D3	D4	D5		D6	D7
REV SCAN B1	1	1	1	1	0	1	1	1	1	0	0	0	1	1	0	1	
			F				E				1				B		
FWD SCAN B0	1	1	1	1	0	1	1	1	0	0	0	0	1	1	0	1	
			F				E				0				B		
PAUSE 4D	1	1	1	1	0	1	1	1	1	0	1	1	0	0	1	0	
			F				E				D				4		
STOP 43	1	1	1	1	0	1	1	1	1	1	0	0	0	0	1	0	
			F				E				3				4		
MENU C1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	1	1	
			F				E				1				C		
OSD C0	1	1	1	1	0	1	1	1	0	0	0	0	0	0	1	1	
			F				E				0				C		
SEARCH - 70	1	1	1	1	0	1	1	1	0	0	0	0	1	1	1	0	
			F				E				0				7		
SEARCH + 76	1	1	1	1	0	1	1	1	0	1	1	0	1	1	1	0	
			F				E				6				7		
UP D0	1	1	1	1	0	1	1	1	0	0	0	0	1	0	1	1	
			F				E				0				D		
DOWN D1	1	1	1	1	0	1	1	1	1	0	0	0	1	0	1	1	
			F				E				1				D		
FORWARD D3	1	1	1	1	0	1	1	1	1	1	0	0	1	0	1	1	
			F				E				3				D		
BACK D2	1	1	1	1	0	1	1	1	0	1	0	0	1	0	1	1	
			F				E				2				D		
ENTER D4	1	1	1	1	0	1	1	1	0	0	1	0	1	0	1	1	
			F				E				4				D		
DIGEST B9	1	1	1	1	0	1	1	1	1	0	0	1	1	1	0	1	
			F				E				9				B		

Appendix C : CODE & KEYNAME TABLE

FOR RR-1050 LEARNING REMOTE CONTROL

REMARKS : KEYNAME SHOULD BE MAX. 8 CHARACTERS (INCLUDING SPACE) AND IS IN CAPITAL LETTER ONLY.
 (FOR AVAILABLE CHARACTERS -----PLEASE SEE SEPARATE CHARACTER SET TABLE PRINTED ON USER GUIDE)
RED is AUD precodes with NEC format 8311h. **Green** is DVD precodes with JC format EFh. **Blue** is DVD precodes with NEC format 007Fh.

Device / Graphic Input / Graphic	AUD	CD	TUNER	TAPE	EXT	DVD	VIDEO 2	VIDEO 3	VIDEO 4	VIDEO 5
		CD/01	TUN/02	TAPE/05	EXT/19	V1/07	V2/08	V3/09	V4/03	V5/04
1	1/48	1	1/48	1		1/61	1	1	1	1
2	2/49	2	2/49	2		2/62	2	2	2	2
3	3/4A	3	3/4A	3		3/63	3	3	3	3
4	4/4B	4	4/4B	4		4/64	4	4	4	4
5	5/4C	5	5/4C	5		5/65	5	5	5	5
6	6/4D	6	6/4D	6		6/66	6	6	6	6
7	7/4E	7	7/4E	7		7/67	7	7	7	7
8	8/4F	8	8/4F	8		8/68	8	8	8	8
9	9/50	9	9/50	9		9/69	9	9	9	9
0	0/51	0	0/51	0		0/60	0	0	0	0
X / 10	TEN/52	TEN	TEN/52	TEN		TEN/6F	TEN	TEN	TEN	TEN
	CLEAR	CLEAR	CLEAR	CLEAR		10/6E	CLEAR	CLEAR	CLEAR	CLEAR
POWER ON	PWR ON/98	PWR ON/98	PWR ON/98	PWR ON/98		POWER/49	PWR ON/98	PWR ON/98	PWR ON/98	PWR ON/98
POWER OFF	PWR OFF/80	PWR OFF/80	PWR OFF/80	PWR OFF/80		PWR OFF/4A	PWR OFF/80	PWR OFF/80	PWR OFF/80	PWR OFF/80
VOL UP	VOL UP/16	VOL UP/16	VOL UP/16	VOL UP/16		VOL UP/16				
VOL DN	VOL DN/17	VOL DN/17	VOL DN/17	VOL DN/17		VOL DN/17				
CH UP	CH UP/44	CH UP	CH UP/44	CH UP		CH UP				
CH DOWN	CH DOWN/45	CH DOWN	CH DOWN/45	CH DOWN		CH DOWN				
M/MACRO	M/MACRO	MACRO	MACRO	MACRO		MACRO	MACRO	MACRO	MACRO	MACRO
MUTE	MUTE/18	MUTE/18	MUTE/18	MUTE/18		MUTE/18	MUTE/18	MUTE/18	MUTE/18	MUTE/18
FREQ DIRECT / PLAY	FRQ DIR/52	PLAY	FRQ DIR/52	PLAY		PLAY/4C	PLAY	PLAY	PLAY	PLAY
TUNE/TRACK <<	TUNE/C4	REV SCAN	TUNE/C4	REV SCAN		REV SCAN/B1	REV SCAN	REV SCAN	REV SCAN	REV SCAN
PRESET/TRACK >>	PRESET/C5	FWD SCAN	PRESET/C5	FWD SCAN		FWD SCAN/B0	FWD SCAN	FWD SCAN	FWD SCAN	FWD SCAN
FM MONO/PAUSE (II)	FM MONO/46	PAUSE	FM MONO/46	PAUSE		PAUSE/4D	PAUSE	PAUSE	PAUSE	PAUSE
BAND/STOP ()	BAND/43	STOP	BAND/43	STOP		STOP/43	STOP	STOP	STOP	STOP
C/CTR / GUIDE / MENU	CENTER/40	CENTER/40	CENTER/40	CENTER/40		MENU/C1	CENTER/40	CENTER/40	CENTER/40	CENTER/40
M/MENU / OSD	MENU/42	MENU	MENU	MENU		OSD/C0	MENU	MENU	MENU	MENU
S/SUB / SEARCH -	SWOOFER/1F	SWOOFER/1F	SWOOFER/1F	SWOOFER/1F		SEARCH -/70	SWOOFER/1F	SWOOFER/1F	SWOOFER/1F	SWOOFER/1F
R/SUR / SEARCH + / PREV CH	SURROUND/14	SURROUND/14	SURROUND/14	SURROUND/14		SEARCH +/76	SURROUND/14	SURROUND/14	SURROUND/14	SURROUND/14
UP	UP/57	UP/57	UP/57	UP/57		UP/D0	UP/57	UP/57	UP/57	UP/57
DOWN	DOWN/58	DOWN/58	DOWN/58	DOWN/58		DOWN/D1	DOWN/58	DOWN/58	DOWN/58	DOWN/58
+ / FORWARD	FORWARD/1B	FORWARD	FORWARD	FORWARD		FORWARD/D3	FORWARD	FORWARD	FORWARD	FORWARD
- / BACK	BACK/1C	BACK	BACK	BACK		BACK/D2	BACK	BACK	BACK	BACK
ENT / ENTER	ENTER/1E	ENTER	ENTER	ENTER		ENTER/D4	ENTER	ENTER	ENTER	ENTER
EQ/PIP / DISC 1	EQ/13	DISC 1	P IN P	A/D		DISC 1				
DYN / SWAP / DISC 2	DYNAMIC/58	DISC 2	BOX OFF.	RESET		DISC 2				
REC / POS / DISC 3	RECORD/1A	DISC 3	INFO	TIMER		DISC 3				
ZONE / ANT / DISC 4	ZONE/9A	DISC 4	SERVICES	TRACKING		DISC 4				
SUR + / MODE / DISC 5	SUR +/1D	DISC 5	HELP	PROGRAM		DISC 5				

Device / Graphic	AUD	CD	TUNER	TAPE	EXT	DVD	VIDEO 2	VIDEO 3	VIDEO 4	VIDEO 5
Input / Graphic										
2CH / - / PROGRAM	2CH/83	CD/01	TUN/02	TAPE/05	EXT/19	V1/07	V2/08	V3/09	V4/03	V5/04
PL C / - / RANDOM/DIGEST	PLII C/84	PROGRAM	PROGRAM	PROGRAM		PROGRAM	PROGRAM	VIDEO 1	VIDEO 1	VIDEO 1
PL M / TITLE / REPEAT	PLII M/85	RANDOM	RANDOM	RANDOM		DIGEST/89	RANDOM	VIDEO 2	VIDEO 2	VIDEO 2
5CH / PROGSCAN / DISC -	5CH/86	REPEAT	REPEAT	REPEAT		TITLE/13	REPEAT	VIDEO 3	VIDEO 3	VIDEO 3
7CH / OPEN / DISC +	7CH/87	DISC -	DISC -	DISC -		PROGSCAN/46	DISC -	VIDEO 4	VIDEO 4	VIDEO 4
DISP / DISPLAY / INPUT 1	DISPLAY/55	DISC +	DISC +	DISC +		OPEN/00	DISC +	VIDEO 5	VIDEO 5	VIDEO 5
TAPE2 / AUDIO / INPUT 2	TAPE2/06	DISPLAY	DISPLAY/55	DISPLAY		DISPLAY/52	DISPLAY	DISPLAY	DISPLAY	DISPLAY
PHONO / ANGLE / INPUT 3	PHONO/0A	AUDIO	AUDIO	AUDIO		AUDIO/42	AUDIO	AUDIO	AUDIO	AUDIO
TONE / SBTITLE / TV/VCR	TONE/15	ANGLE	ANGLE	ANGLE		ANGLE/40	ANGLE	ANGLE	ANGLE	ANGLE
D-SLT / ZOOM / REC	D SELECT/56	SUBTITLE	SUBTITLE	SUBTITLE		SUBTITLE/41	SUBTITLE	SUBTITLE	SUBTITLE	SUBTITLE
SCAN / RESUME / INPUT 1 (S1)	SCAN/54	ZOOM	ZOOM	ZOOM		ZOOM/53	ZOOM	ZOOM	ZOOM	ZOOM
PTY / REPEAT / INPUT 2 (S2)	PTY/59	SCAN	SCAN/54	S1		RESUME/55	S1	S1	S1	S1
P-TUN / A-B / INPUT 3 (S3)	T/PRESET/5D	TIME	PTY/59	S2		REPEAT/5A	S2	S2	S2	S2
TP / GOTO / TV/VCR (S4)	TP/5B	A-B	T/PRESET/5D	S3		A-B/5B	S3	S3	S3	S3
TA / SLOW / REC (S5)	TA/5C	REVIEW	TP/5B	S4		GOTO/54	S4	S4	S4	S4
POWER	POWER/00	CLEAR	TA/5C	S5		SLOW/10	S5	S5	S5	S5
		POWER/00	POWER/00	POWER/00		POWER/00	POWER/00	POWER/00	POWER/00	POWER/00

