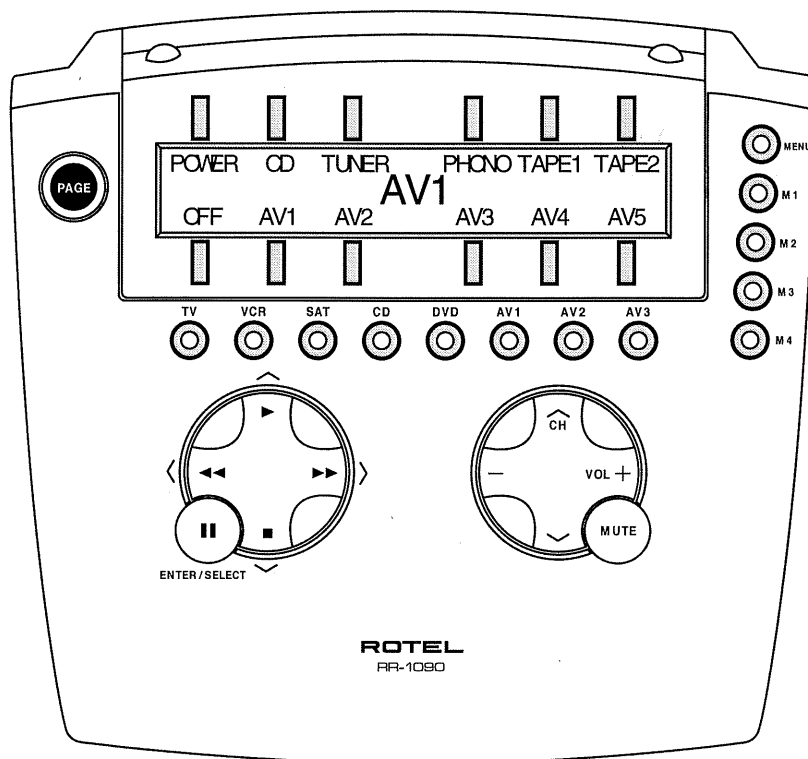


# RR-1090

## Technical Data



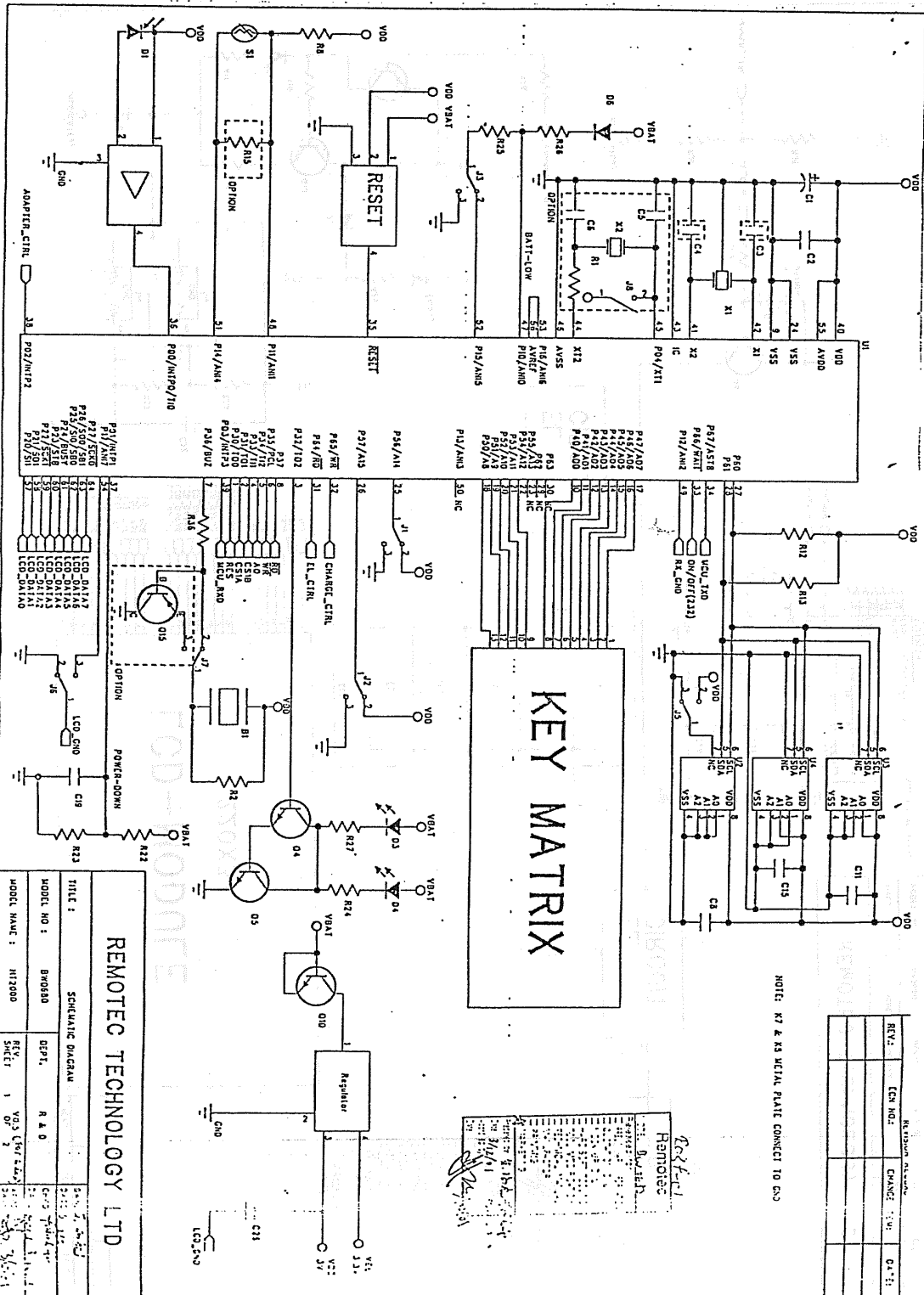
# Remotec

Remotec Technology Ltd.  
 1301 Swire & Maclaine House,  
 19-23 Austin Avenue, TST,  
 Kowloon, Hong Kong.  
 General: (852) 2314-0330  
 Email: rtsales@remotec.com.hk

Local Fax : (852) 2314-1006

Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
 Remotec Model Number: BW0680

## H) Schematic diagram



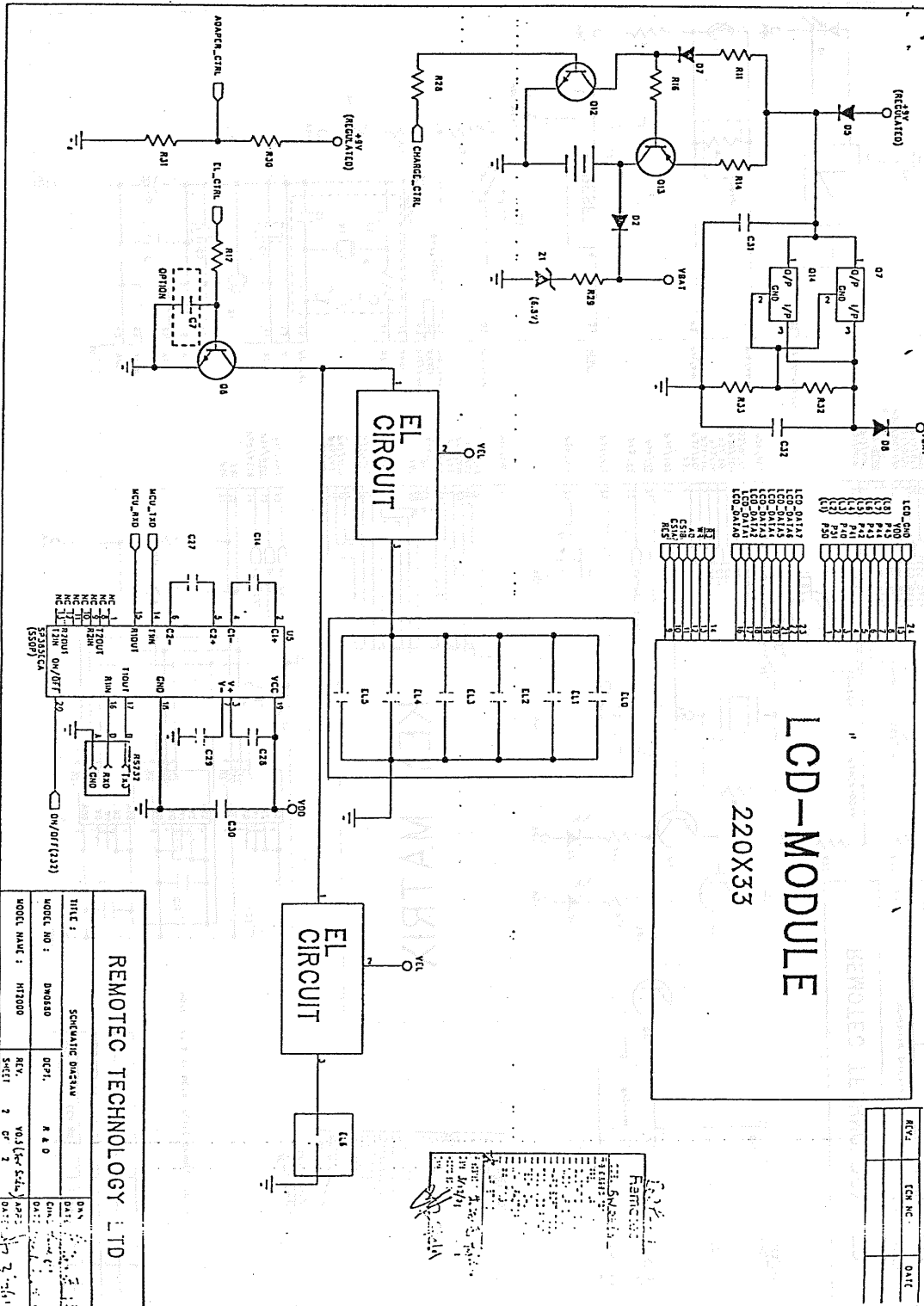
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 Kowloon, Hong Kong.  
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 Email: rtsales@remotec.com.hk

Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
 Remotec Model Number: BW0680

## H) Schematic diagram



P. 1/1

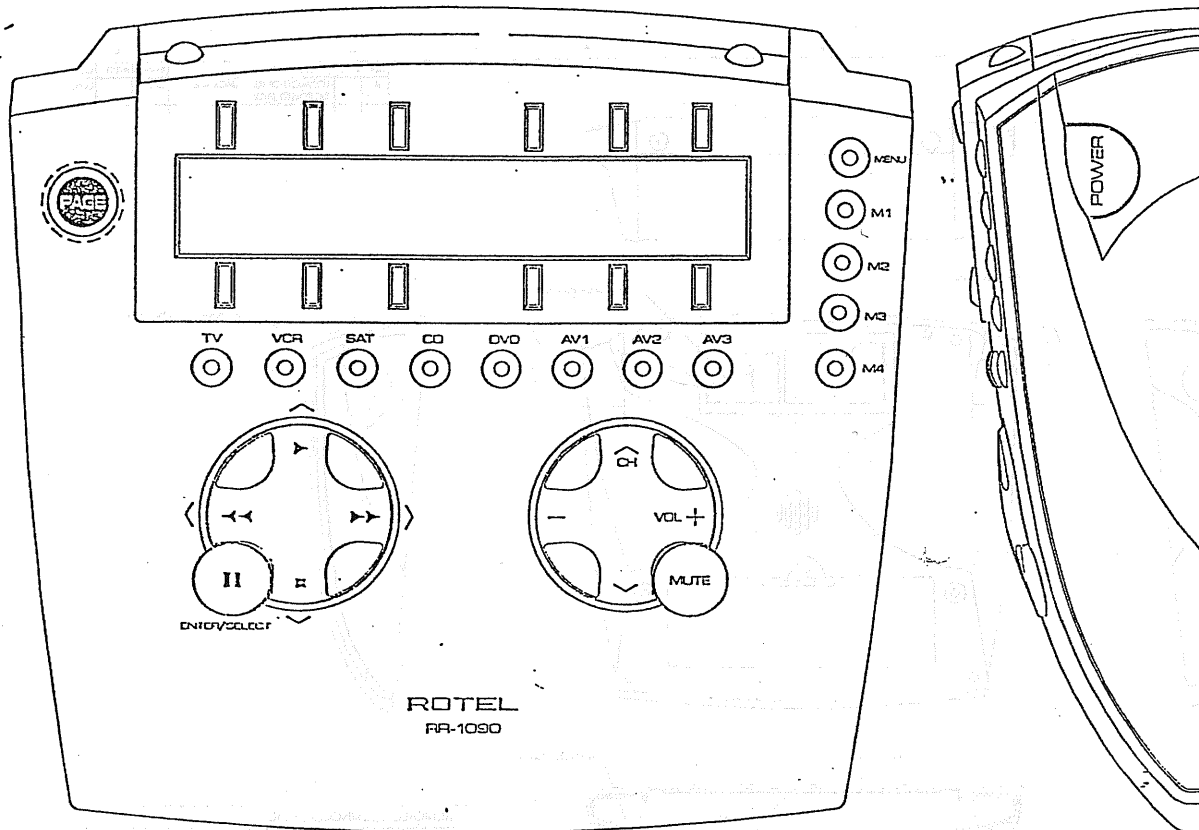
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Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
 Remotec Model Number: BW0680

Figure 1a. Top cabinet with cosmetic silk-screen details



Top View

Side View (Right)

Printing on Casing and buttons:  
 Pantone 155C

Except "PAGE" button printed in reversed Black

Remotec	
MODEL: BW-0680	
Released for	
<input type="checkbox"/>	PRELIMINARY INFORMATION ON
<input type="checkbox"/>	QUOTATION ONLY
<input type="checkbox"/>	MOCK UP ONLY
<input type="checkbox"/>	HARD/SOFT TOOLING
<input type="checkbox"/>	TOOL MODIFICATION
<input type="checkbox"/>	TECHNICAL MANUAL
<input type="checkbox"/>	MANUFACTORY
<input type="checkbox"/>	PRINTING
<input checked="" type="checkbox"/>	MARKETING
Prepared by Ben Dec	
Date: APR 6 2000	
Approved by	
Date:	

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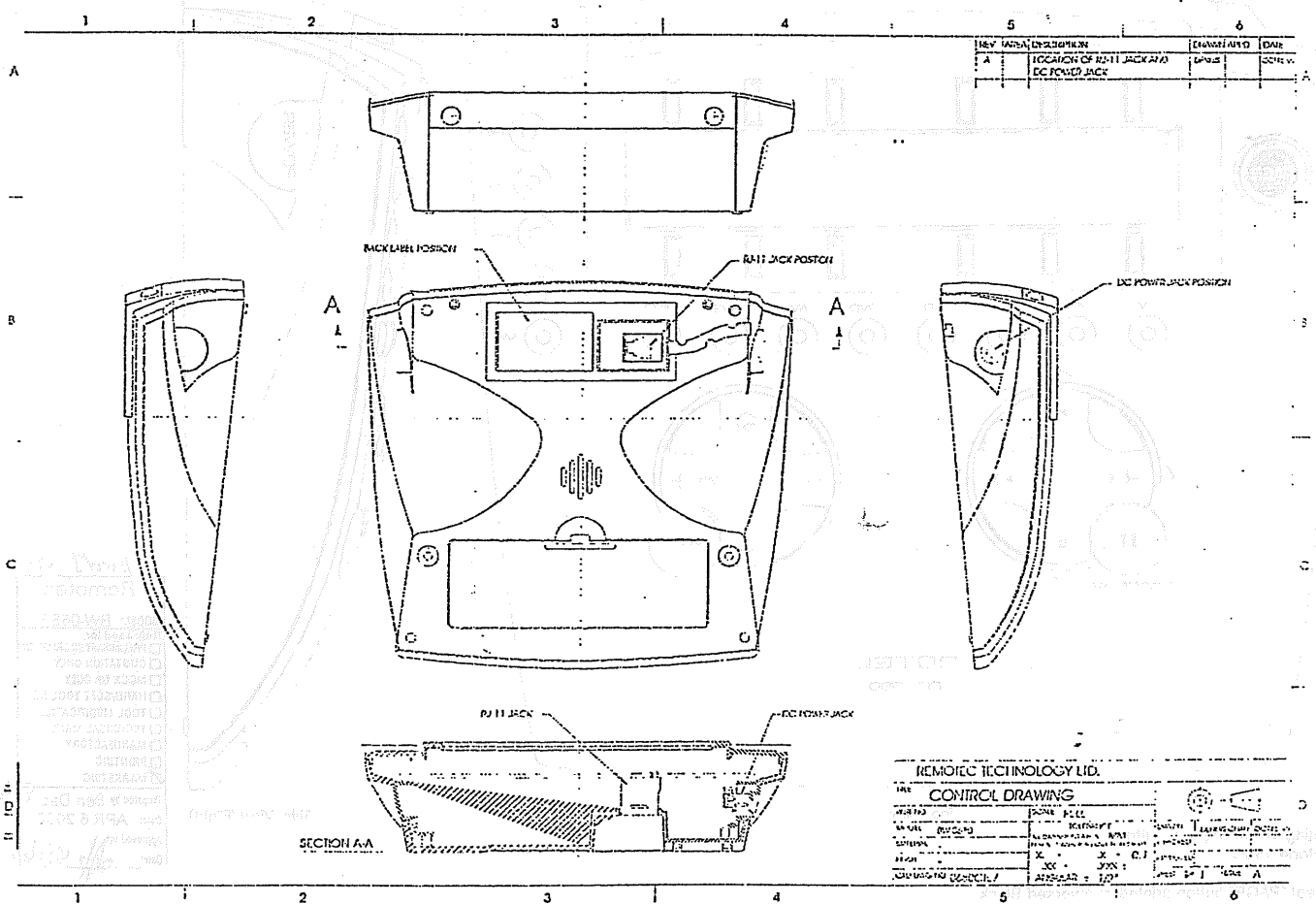
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## Product Specifications for RR-1090 (Rotel, Universal Remote Control) Remotec Model Number: BW0680

Figure 1b. Bottom cabinet with back label and PC link jack position details

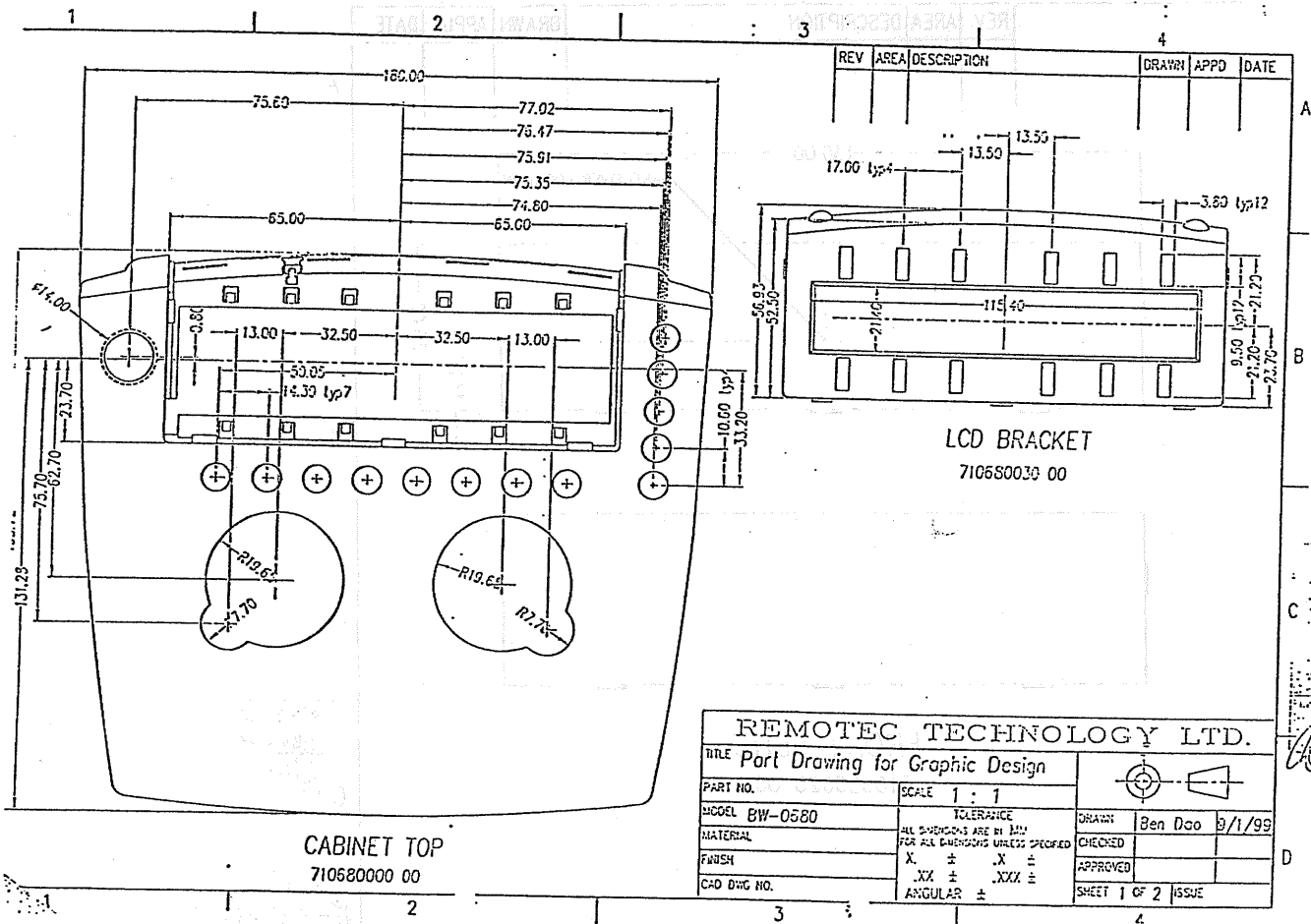


1998

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Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
 Remotec Model Number: BW0680

Figure 2a. LCD Bracket



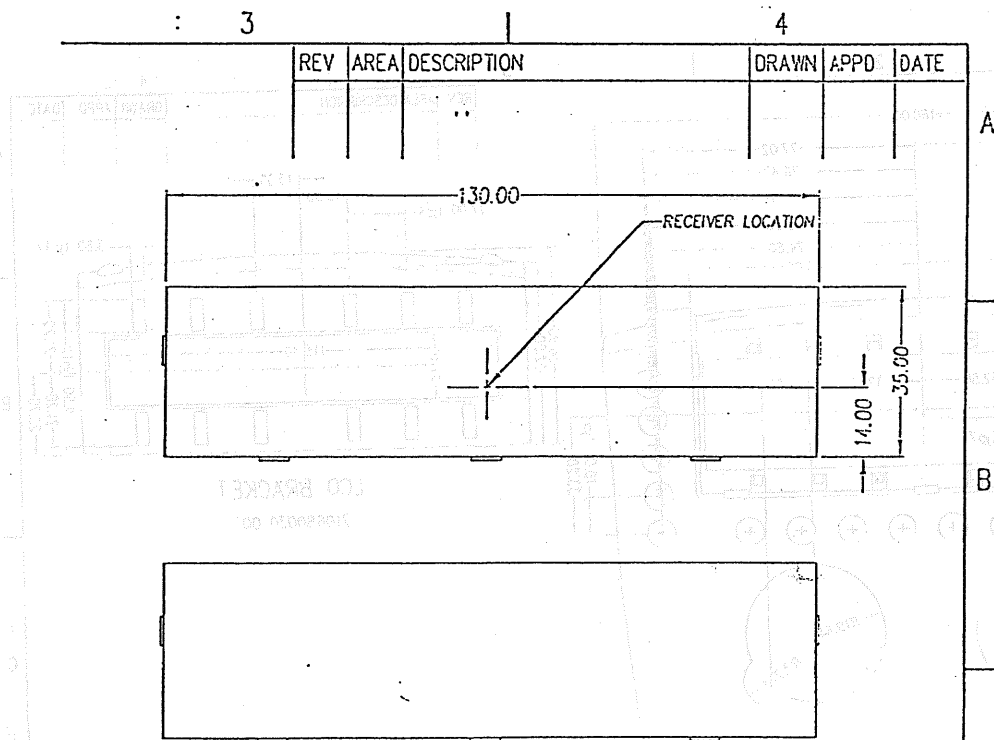
*Handwritten signature/initials*

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Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
Remotec Model Number: BW0680

Figure 2b. Front IR Lens/Windows



FRONT LENS  
710650020 00

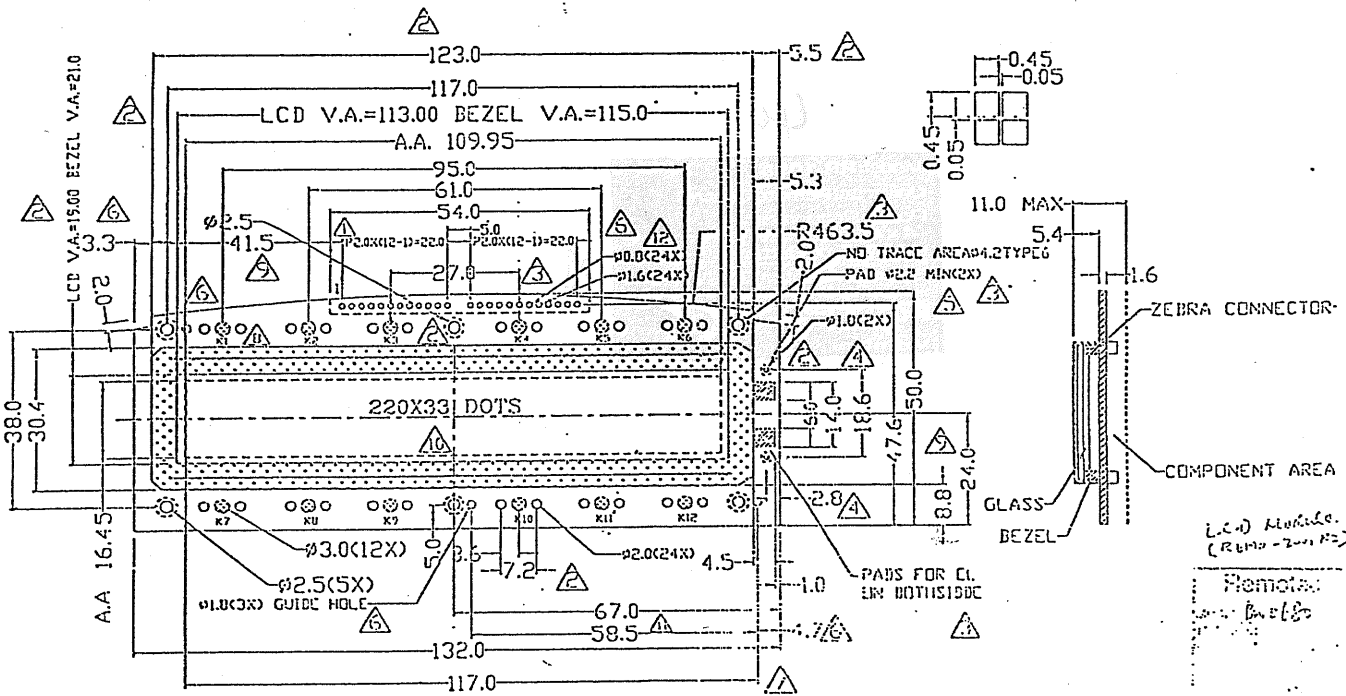
REMOTEC TECHNOLOGY LTD.					
TITLE Part Drawing for Graphic Design					
PART NO.	SCALE 1 : 1		DRAWN	Ben Doo	6/1/99
MODEL BW-0580	TOLERANCE		CHECKED		
MATERIAL	ALL DIMENSIONS ARE IN MM FOR ALL DIMENSIONS UNLESS SPECIFIED		APPROVED		
FINISH	X. ±	.X ±	SHEET 2 OF 2 ISSUE		
CAD DWG NO.	.XX ±	.XXX ±			
	ANGULAR +				

REVISIONS  
 1. BY: 06/01/99  
 2. BY: 06/01/99  
 3. BY: 06/01/99  
 4. BY: 06/01/99  
 5. BY: 06/01/99  
 6. BY: 06/01/99  
 7. BY: 06/01/99  
 8. BY: 06/01/99  
 9. BY: 06/01/99  
 10. BY: 06/01/99

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Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
 Remotec Model Number: BW0680

Figure 3. EL Display, LCD Module Details



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
L1	L2	L3	L4	L5	L6	L7	L8	RES	CS1A	CS1B	A7	DR	RD	VCC	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	VSS

LCD Module  
 (REM-200K2)  
 Remotec  
 BW0680  
 Cap 22.1uF  
 Sep 2001

P-n/31



# Remotec

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Local Fax : (852) 2314-1006

Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
Remotec Model Number: BW0680

Figure 4. Back Label

Size: 40 x 25mm



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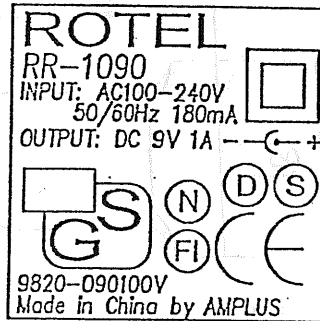
# Remotec

Local Fax : (852) 2314-1006

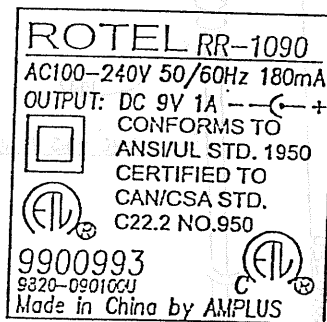
Remotec Technology Ltd.  
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 19-23 Austin Avenue, TST,  
 Kowloon, Hong Kong.  
 General: (852) 2314-0330  
 Email: rtsales@remotec.com.hk

Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
 Remotec Model Number: BW0680

Figure 5. AC/DC Adapter Label



EURO VERSION



US VERSION

P.121-02  
 New Adapter Label with priority.

Remotec	
MODEL:	BW0680
Released for	
<input type="checkbox"/>	PRELIMINARY INFORMATION
<input type="checkbox"/>	QUOTATION ONLY
<input type="checkbox"/>	MOCK UP ONLY
<input type="checkbox"/>	HARD/SOFT TOOLING
<input type="checkbox"/>	TOOL MODIFICATION
<input type="checkbox"/>	TECHNICAL MANUAL
<input type="checkbox"/>	MANUFACTORY
<input type="checkbox"/>	PRINTING
<input checked="" type="checkbox"/>	MARKETING
Prepared by	AT
Date:	1/11
Approved by	AT
Date:	1/11

P.18/31

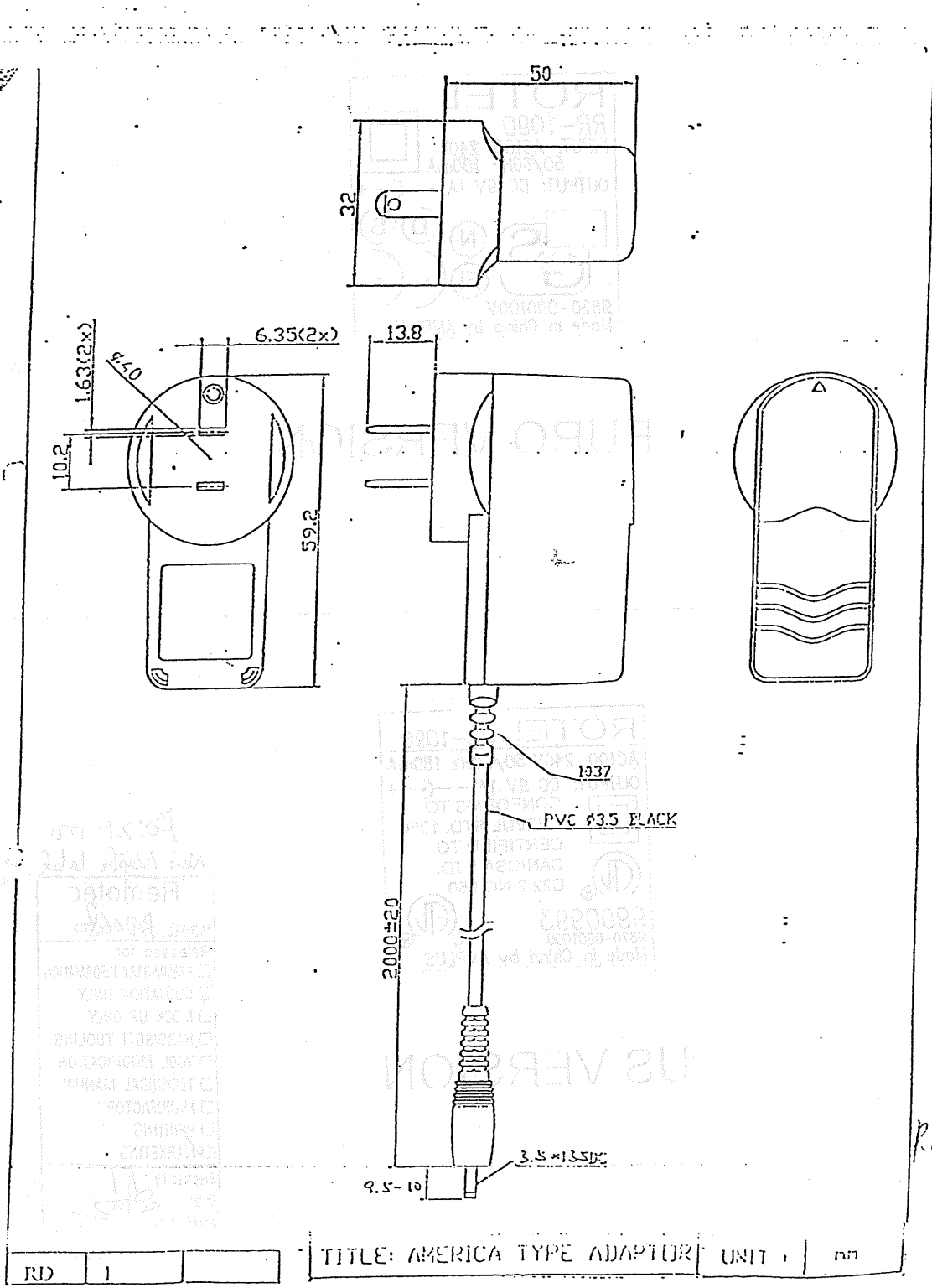
# Remotec

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 19-23 Austin Avenue, TST,  
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 Email: rtlsales@remotec.com.hk

Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
 Remotec Model Number: BW0680

Figure 5a. American Type AC/DC Adapter Drawing



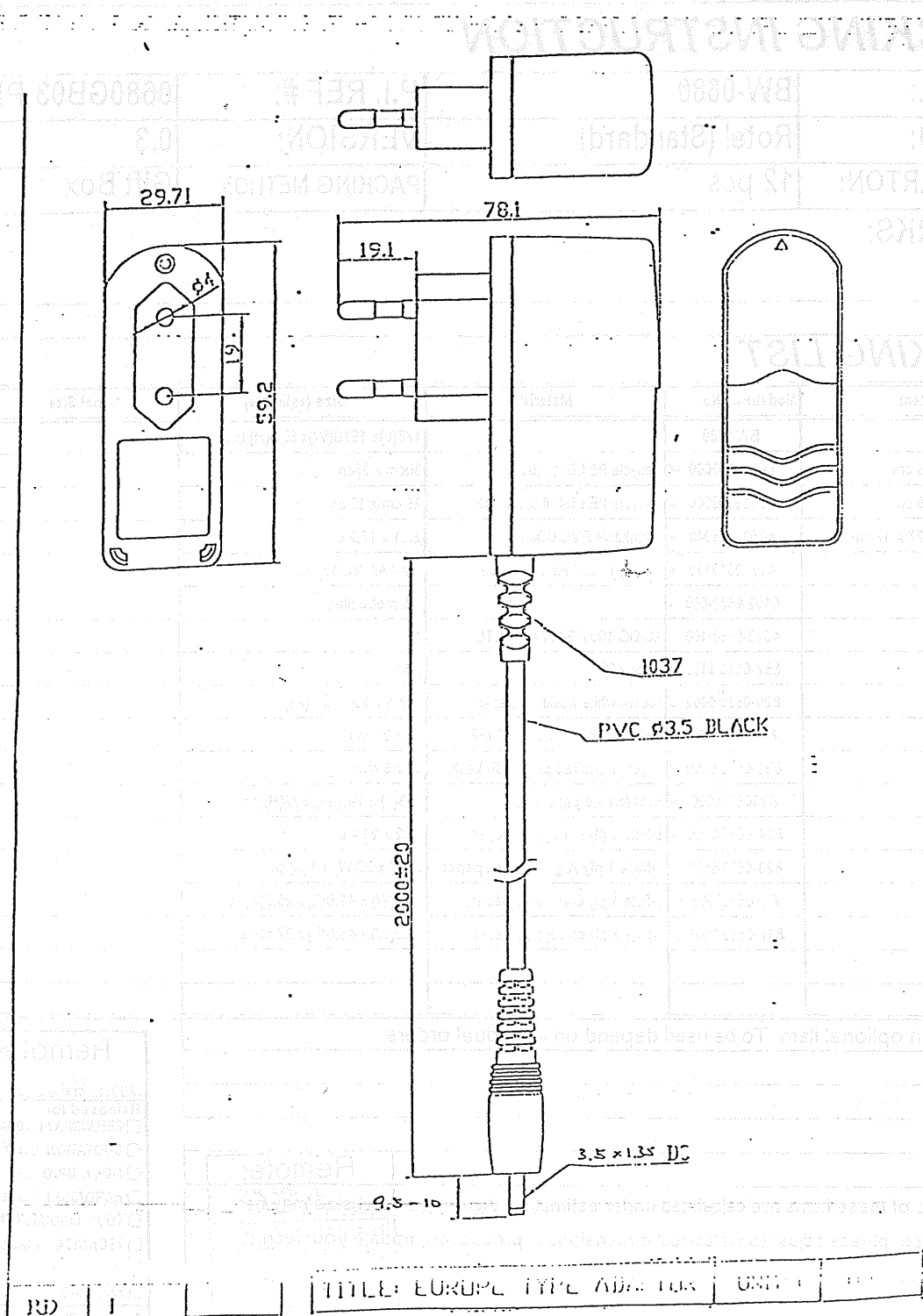
# Remotec

Local Fax : (852) 2314-1006

Remotec Technology Ltd.  
 1301 Swire & Maclaine House,  
 19-23 Austin Avenue, TST,  
 Kowloon, Hong Kong.  
 General: (852) 2314-0330  
 Email: rtsales@remotec.com.hk

Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
 Remotec Model Number: BW0680

Figure 5b. European AC/DC Adapter Drawing



# Remotec

Local Fax : (852) 2314-1006

Remotec Technology Ltd.  
 1301 Swire & Maclaine House,  
 19-23 Austin Avenue, TST,  
 Kowloon, Hong Kong.  
 General: (852) 2314-0330  
 Email: rtsales@remotec.com.hk

Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
 Remotec Model Number: BW0680

## Document A. Packing Instruction

PACKING INSTRUCTION			
MODEL:	BW-0680	P.I. REF #:	0680GB03.PI
BRAND:	Rotel (Standard)	VERSION:	0.3
UNIT/CARTON:	12 pcs	PACKING METHOD:	Gift Box
REMARKS:			

PACKING LIST					
Item	Model/Part No	Material	Size (estimate)	*Final Size	Usage
Rotel RR-1090	BW-0680		178(L)x 1670(W)x 50.5(H) mm		12/12
Poly Bag 30 x 25 cm	80130252000	Recycle PE LD-4 0.04mm	30cm x 25cm		12/12 ✓
Poly Bag 29 x 19 cm	80129192000	Recycle PE LD-4 0.04mm thk	29 cm x 19 cm		24/12 ✓
Shrinkable Bag 27 x 17 cm	80527176040	Shrinkable PVC 0.03mm	27.1 x 17.2 cm		12/12 ✓
Battery	41212510132	Battery Ni-MH Rechargeable	1.2V AA 'HI-WATT'		43/12 ✓
Cable	4402-0680-000		1.5 metre black		12/12 ✓
Adaptor	4523-0680-100	AC/DC 100V-240V 0.8A ETL			12/12 ✓
Installation Disk	662-0680-1100	Floppy Disk	3.5"		24/12 ✓
User's Manual	820-0680-0002	70gsm white woodfree paper	143.5 x 210 mm (A5)		12/12 ✓
Back Label	82606800000	30gsm art paper adh back /PP	40 x 25 mm		12/12 ✓
Additional Label	830-0680-0000	30gsm woodfree paper adh back	30 x 5 mm		12/12 ✓
Pulp Tray	82306800000	Heat formed paper pulp	333(L) x 195(W) x 72(H) cm		12/12 ✓
Gift Box Spacer	814-0680-0000	E-flute 1-ply corrugated paper	15.2 x 21.4 cm		12/12 ✓
Gift Box	823-0680-0001	E-flute 1-ply A-grade corr. paper	35(L) x 29(W) x 8(H) cm		12/12 ✓
Inner Carton	81606800000	E-flute 1-ply corrugated paper	35.0(W) x 41.0(L) x 25.5(H) cm		2/12 ✓
Outer Carton	817-0680-0001	E-flute 2-ply corrugated paper	74.0(W) x 43.0(L) x 27.5(H) cm		1/12 ✓

^^ This is an optional item. To be used depend on individual orders.

Remotec

\* Dimensions of these items are calculated under estimation. Actual practical size may be different. If so, please adjust to the correct dimensions in production, update your record and inform Remotec Technology Ltd. the changes by email.

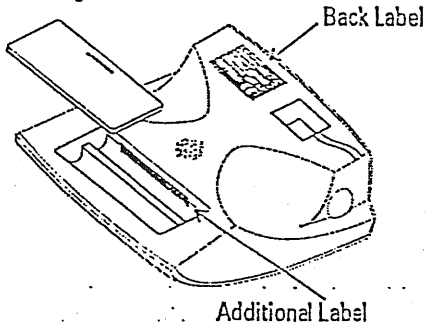
Remotec	
MODEL: BW0680	
Released for	
<input type="checkbox"/>	PRELIMINARY INFORMATION
<input type="checkbox"/>	QUOTATION ONLY
<input type="checkbox"/>	MOCK UP ONLY
<input type="checkbox"/>	HARD/SOFT TOOLING
<input type="checkbox"/>	TOOL MODIFICATION
<input type="checkbox"/>	TECHNICAL MANUAL
<input type="checkbox"/>	PRINTING
Prepared by: [Signature]	

P.16/8

# PACKING METHOD

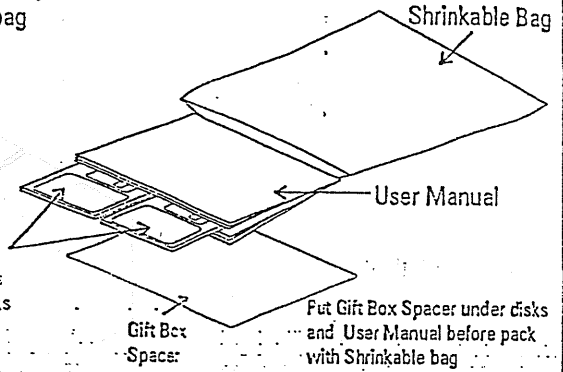
Ref#: 0680GB03.PI

1. Labelling



2. Put Gift Box Spacer, Installation Disk and User Manual into Polybag

2 x Installation disk insert into centre page of Manual  
Appropriate Disk Labels should be stuck on disks matching with volume label recorded on disk.



3. Put remote, and other accessories into cavities in pulp tray as illustrated.

Cable pack with 29 x 10 cm polybag

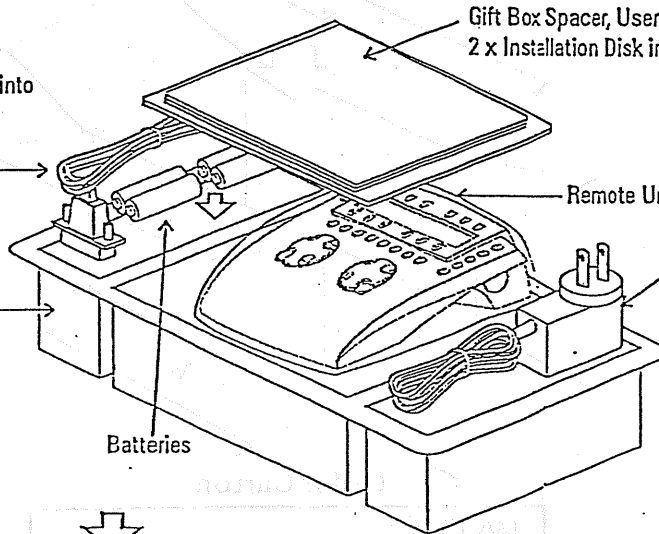
Pulp Tray

Batteries

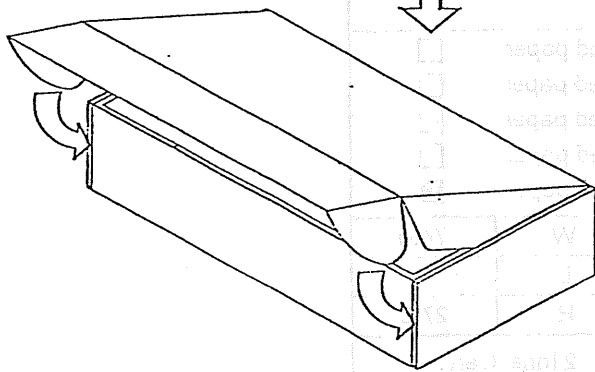
Gift Box Spacer, User Manual and 2 x Installation Disk in Shrinkable Bag

Remote Unit packed with polybag

Adapter pack with 29 x 10 cm polybag



4. Close and lock Gift Box with flaps



MODEL: BW-0680

DESCRIPTION: Pack of Gift box

MATERIAL:

DIMENSION:

int.

REMARKS:

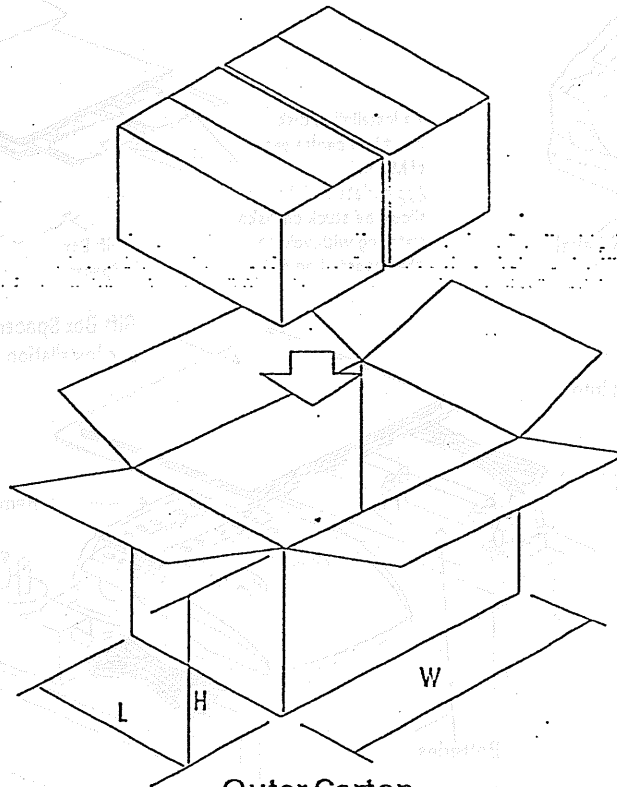
DRAWN: Ben Dao  
DATE: Feb 22 2001

CHECKED BY: Sule  
DATE: Feb 26 2001

SHEET 2 OF 6

R17/3

Pack of Outer Carton



<b>MATERIAL:</b>		
E-flute 1-ply corrugated paper	<input type="checkbox"/>	
C-flute 1-ply corrugated paper	<input type="checkbox"/>	
C-flute 2-ply corrugated paper	<input type="checkbox"/>	
A-flute 1-ply corrugated paper	<input type="checkbox"/>	
A-flute 2-ply corrugated paper	<input checked="" type="checkbox"/>	
<b>DIMENSION:</b> (in cm)	W	74.0
	L	43.0
	H	27.5
<b>UNIT/CARTON:</b>	2 Inner Cartons	

MODEL: BW-0680

DESCRIPTION: Pack of Outer Carton

MATERIAL: As shown above

DIMENSION: As shown above

int.  ext.

REMARKS:

DRAWN: Ben Dao  
DATE: Feb 22 2001

CHECKED BY: [Signature]  
DATE: Feb 26, 01

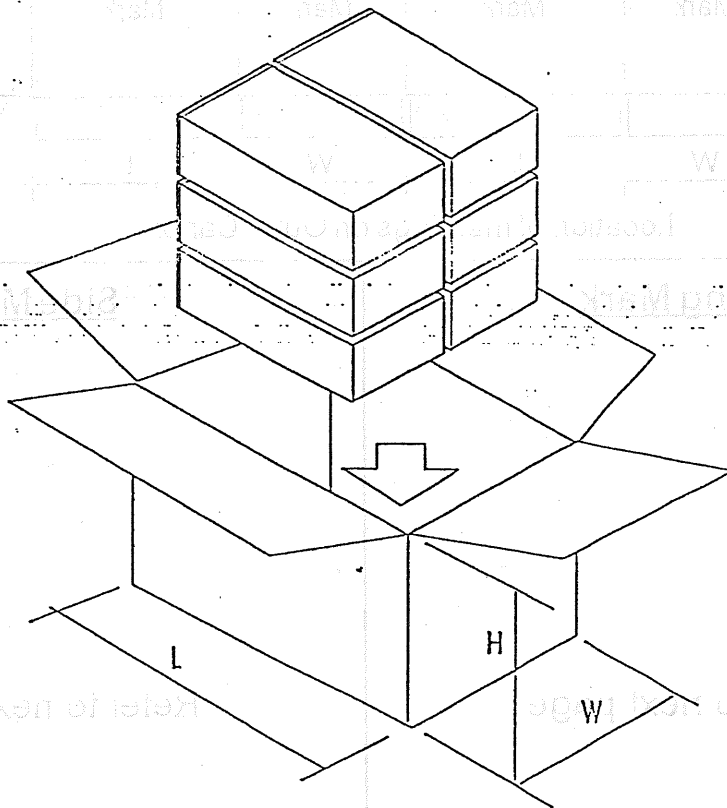
Page 4 of 6

*Handwritten initials/signature*

# PACKING METHOD

Ref#: 0680GB03.PI

## Pack of Inner Carton



Inner Carton

MATERIAL:		
E-flute 1-ply corrugated paper	<input type="checkbox"/>	
C-flute 1-ply corrugated paper	<input checked="" type="checkbox"/>	
C-flute 2-ply corrugated paper	<input type="checkbox"/>	
A-flute 1-ply corrugated paper	<input type="checkbox"/>	
A-flute 2-ply corrugated paper	<input type="checkbox"/>	
DIMENSION: (in cm)	W	36.0
	L	41.0
	H	25.5
UNIT/CARTON:	6 Gift Boxes	

MODEL: BW-0680

DESCRIPTION: Pack of Inner Carton

MATERIAL: As shown above

DIMENSION: As shown above

REMARKS:

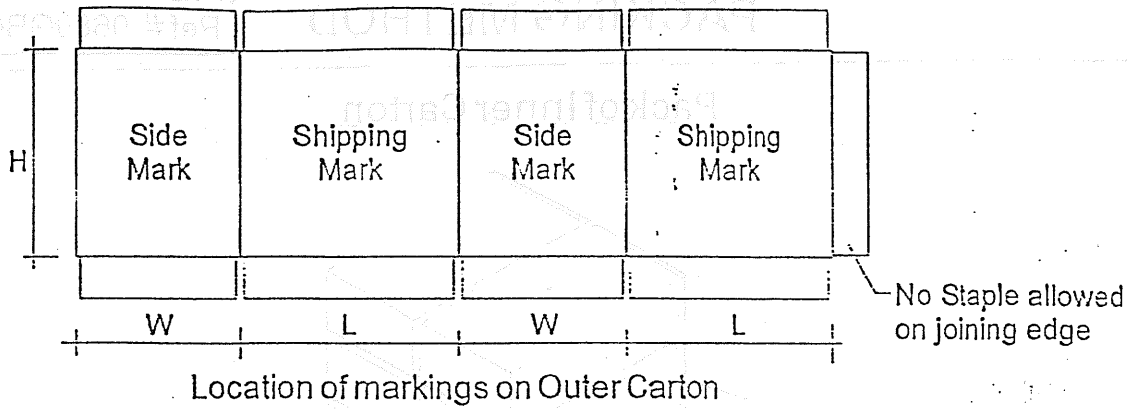
DRAWN: Ben Dao  
DATE: Feb 22 2001

CHECKED BY: P.L. La  
DATE: Feb 26, 2001

Page 3 of 6

P. 07/31





**Shipping Mark**

Refer to next page

**Side Mark**

Refer to next page

MATERIAL		DIMENSION (mm)		UNIT/CARTON
<input type="checkbox"/>	A-flute 1-ply corrugated paper	W		
<input checked="" type="checkbox"/>	A-flute 2-ply corrugated paper	L		
<input type="checkbox"/>	C-flute 2-ply corrugated paper	H		
<input type="checkbox"/>	A-flute 1-ply corrugated paper			
<input checked="" type="checkbox"/>	A-flute 2-ply corrugated paper			
38.0				
43.0				
27.5				
E-Flute Paper				

MODEL: BW-0680

UNIT/CARTON: 2 Inners

DESCRIPTION: Location of Markings on Outer Carton / Shipping Mark / Side Mark

MATERIAL: A-flute 2-ply corrugated paper

DIMENSION: 74.0 (W) x 43.0 (L) x 27.5 (H) cm

int.  ext.

REMARKS: Data should be completed according to Orders and production facts

DRAWN: Ben Dao  
DATE: Oct 30 2000

CHECKED BY: Sida  
DATE: Feb 06, 01

Page 5 of 6

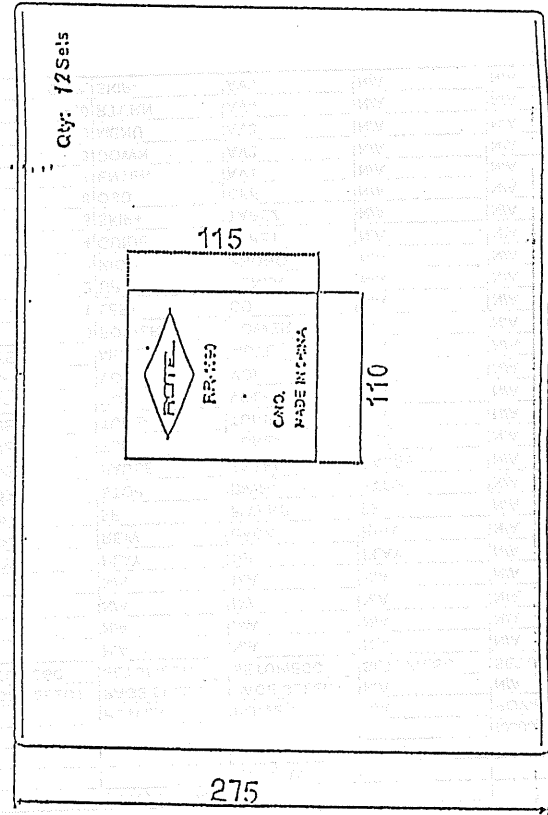
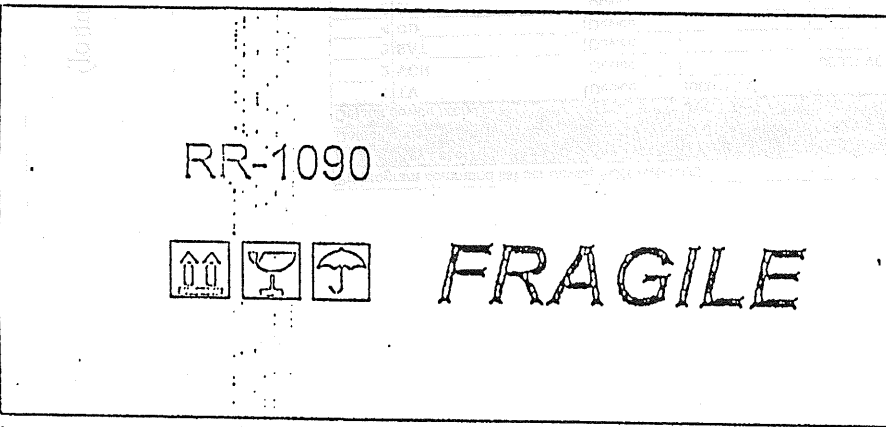
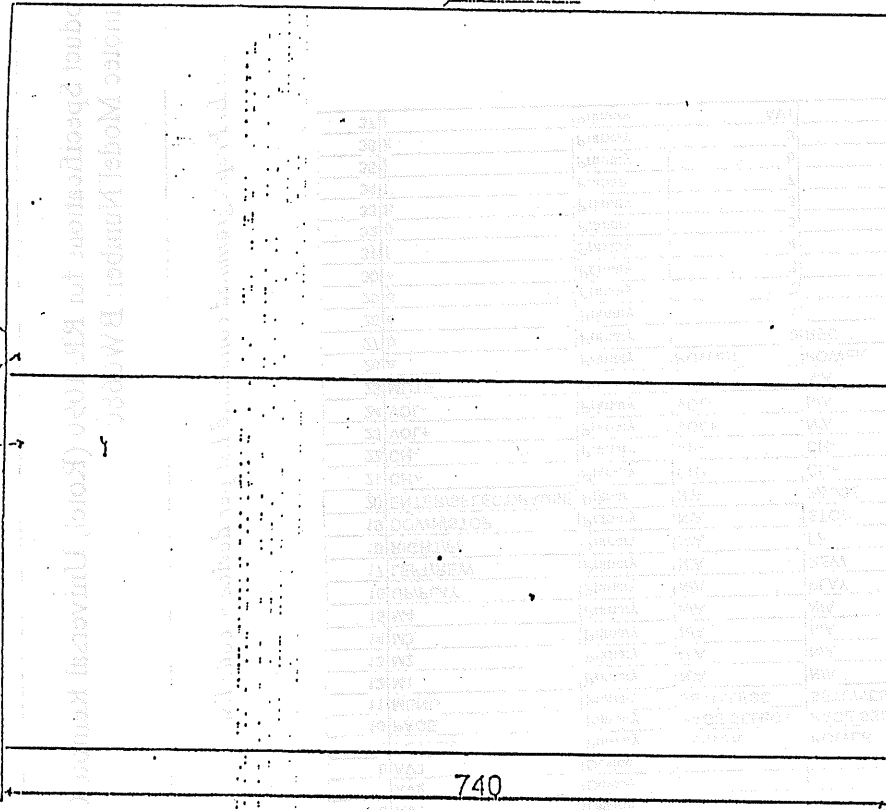
*Handwritten signature/initials*

UNIVERSAL

Print same as Right side.

Flaps

Print same as Front side



CARTON COLOR: BROWN  
PRINT: Black color

DO NOT SCALE DRAWING

Handwritten initials/signature

# Remotec

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Local Fax : (852) 2314-1006

## Product Specifications for RR-1090 (Rotel, Universal Remote Control) Remotec Model Number: BW0680

### Document B. Preprogrammed command list per device + code list

No.	Key/Label	Key Type	TV	VCR	SAT/DSS	CD	LD/DVD	AV1	AV2	AV3
Default code	Device		(0001) JVC	(0002) JVC	(0003) MAGNAVOX	(0006) JVC	(0008) ROTEL	(0005) ROTEL	(0007) ROTEL	(0009) ROTEL
1	TV	Device	(0001) TV							
2	VCR	Device		(0002) VCR						
3	SAT	Device			(0003) SAT/DSS					
4	CD	Device				(0006) CD				
5	DVD	Device					(0008) LD/DVD			
6	AV1	Device						(0005) AV1		
7	AV2	Device							(0007) AV2	
8	AV3	Device								(0009) AV3
9	POWER	Primary	POWER	POWER	POWER	N/A	POWER	POWER	N/A	POWER
10	PAGE	Primary	PAGE SELECT	PAGE SELECT	PAGE SELECT	PAGE SELECT	PAGE SELECT	PAGE SELECT	N/A	N/A
11	MENU	Primary	SETUP/ESC	SETUP/ESC	SETUP/ESC	SETUP/ESC	SETUP/ESC	SETUP/ESC	N/A	SETUP/ESC
12	M1	Primary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	M2	Primary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	M3	Primary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15	M4	Primary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16	UP/PLAY	Primary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17	LEFT/REW	Primary	N/A	PLAY	N/A	N/A	N/A	N/A	N/A	N/A
18	RIGHT/FF	Primary	N/A	REV	N/A	N/A	N/A	N/A	N/A	N/A
19	DOWN/STOP	Primary	N/A	STOP	N/A	N/A	N/A	N/A	N/A	N/A
20	ENTER/SELECT/PAUSE	Primary	N/A	PAUSE	ENTER	PAUSE	PAUSE	ENTER	STOP	STOP
21	CH+	Primary	CH+	CH+	CH+	CH+	CH+	CH+	N/A	N/A
22	CH-	Primary	CH-	CH-	CH-	CH-	CH-	CH-	N/A	N/A
23	VOL+	Primary	VOL+	VOL+	VOL+	VOL+	VOL+	VOL+	N/A	N/A
24	VOL-	Primary	VOL-	VOL-	VOL-	VOL-	VOL-	VOL-	N/A	N/A
25	MUTE	Primary	MUTE	MUTE	MUTE	MUTE	MUTE	MUTE	N/A	N/A
26	a	Primary	POWER	POWER	POWER	POWER	POWER	POWER	N/A	N/A
27	b	Primary	POWER	POWER	POWER	POWER	POWER	POWER	N/A	N/A
28	c	Primary	REC	REC	REC	REC	REC	REC	N/A	N/A
29	d	Primary	0 EXIT	0 EXIT	0 EXIT	0 EXIT	0 EXIT	0 EXIT	N/A	N/A
30	e	Primary	1 F-VISTA	1 F-VISTA	1 F-VISTA	1 F-VISTA	1 F-VISTA	1 F-VISTA	N/A	N/A
31	f	Primary	2 ALT	2 ALT	2 ALT	2 ALT	2 ALT	2 ALT	N/A	N/A
32	g	Primary	3 N/A	3 N/A	3 N/A	3 N/A	3 N/A	3 N/A	N/A	N/A
33	h	Primary	4 GUIDE	4 GUIDE	4 GUIDE	4 GUIDE	4 GUIDE	4 GUIDE	N/A	N/A
34	i	Primary	5 REGAL	5 REGAL	5 REGAL	5 REGAL	5 REGAL	5 REGAL	N/A	N/A
35	j	Primary	6 PREVCH	6 PREVCH	6 PREVCH	6 PREVCH	6 PREVCH	6 PREVCH	N/A	N/A
36	k	Primary	7 INFO	7 INFO	7 INFO	7 INFO	7 INFO	7 INFO	N/A	N/A
37	l	Primary	8 NEXT	8 NEXT	8 NEXT	8 NEXT	8 NEXT	8 NEXT	N/A	N/A
		Primary	9 AV1	9 AV1	9 AV1	9 AV1	9 AV1	9 AV1	N/A	N/A
		Primary	+10 DISP	+10 DISP	+10 DISP	+10 DISP	+10 DISP	+10 DISP	N/A	N/A
		Primary	SKIP	SKIP	SKIP	SKIP	SKIP	SKIP	N/A	N/A

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18/12/13

JA DENICE

38	aa	Secondary	DISP.	ENTER		0	CLEAR		0		0	N/A	N/A
39	bb	Secondary	BR-	AV1		1	PROG		1		1	N/A	N/A
40	cc	Secondary	BR+	MENU		2	TIME		2		2	N/A	N/A
41	dd	Secondary	COLR-	EXIT		3	SEL.		3		3	N/A	N/A
42	ee	Secondary	COLR+	SEL.		4	RPEAT		4		4	N/A	N/A
43	ff	Secondary	AV2	F.ADV		5	A-B		5		5	N/A	N/A
44	gg	Secondary	N/A	DISP.		6	RANDM		6		6	N/A	N/A
45	hh	Secondary	N/A	TIMER		7	RVIEW		7		7	N/A	N/A
46	ii	Secondary	N/A	-		8	DISC1		8		8	N/A	N/A
47	jj	Secondary	N/A	+		9	DISC2		9		9	N/A	N/A
48	kk	Secondary	N/A	MEM		+10	DISC3		+10		+10	N/A	N/A
49	ll	Secondary	N/A	SPEED			DISC4					N/A	N/A
50	aaa	Tertiary	N/A	I<<	N/A		DISC5	VSS3D				N/A	N/A
51	bbb	Tertiary	N/A	>>I	N/A		DISC6	SBTLE				N/A	N/A
52	ccc	Tertiary	N/A	N/A	N/A		SKIP-	STROB				N/A	N/A
53	ddd	Tertiary	N/A	N/A	N/A		SKIP+	ANGLE	REAR			N/A	N/A
54	eee	Tertiary	N/A	N/A	N/A		OPEN	CLEAR	SUR+			N/A	N/A
55	fff	Tertiary	N/A	N/A	N/A		N/A	TITLE	UP			N/A	N/A
56	ggg	Tertiary	N/A	N/A	N/A		BACK	CNCEL	BACK			N/A	N/A
57	hhh	Tertiary	N/A	N/A	N/A		N/A	RESUM	ENTER			N/A	N/A
58	iii	Tertiary	N/A	N/A	N/A		FORWD	ZOOM	FORWD			N/A	N/A
59	jjj	Tertiary	N/A	N/A	N/A		N/A	DGEST	SHIFT			N/A	N/A
60	kkk	Tertiary	N/A	N/A	N/A		SCAN	T.POS	ZONE			N/A	N/A
61	lll	Tertiary	N/A	N/A	N/A		N/A	OPEN	DOWN			N/A	N/A
62	aaaa	Quadruple	N/A	N/A	N/A		N/A	N/A	PTY			N/A	N/A
63	bbbb	Quadruple	N/A	N/A	N/A		N/A	N/A	TP			N/A	N/A
64	cccc	Quadruple	N/A	N/A	N/A		N/A	N/A	PRSET			N/A	N/A
65	dddd	Quadruple	N/A	N/A	N/A		N/A	N/A	PSCAN			N/A	N/A
66	eeee	Quadruple	N/A	N/A	N/A		N/A	N/A	AUTUN			N/A	N/A
67	ffff	Quadruple	N/A	N/A	N/A		N/A	N/A	EXTIN			N/A	N/A
68	gggg	Quadruple	N/A	N/A	N/A		N/A	N/A	TA			N/A	N/A
69	hhhh	Quadruple	N/A	N/A	N/A		N/A	N/A	DSPLY			N/A	N/A
70	iiii	Quadruple	N/A	N/A	N/A		N/A	N/A	FILTR			N/A	N/A
71	jjjj	Quadruple	N/A	N/A	N/A		N/A	N/A	FRQDT			N/A	N/A
72	kkkk	Quadruple	N/A	N/A	N/A		N/A	N/A	ON			N/A	N/A
73	llll	Quadruple	N/A	N/A	N/A		N/A	N/A	DIGIN			N/A	N/A

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BW0680 CODE LIST (V 2.0)

TV DEVICE

TV	AKAI	:0331	
TV	ALBA	:0431	
TV	AMSTRAD	:0431	
TV	ANAM	:0251	
TV	AOC	:0361	Remotec
TV	BAUER	:0441	MODEL BUC 6.5
TV	CANDLE	:0351, 0361	Released to:
TV	CENTURION	:0411	<input type="checkbox"/> TECHNICAL MAN.
TV	CITIZEN	:0351, 0361	<input type="checkbox"/> JOTATION: C.A.
TV	COLORTYME	:0361	<input type="checkbox"/> LOCK UP ONLY
TV	CONCERTO	:0351	<input type="checkbox"/> HARD/SOFT TOOL
TV	CRAIG	:0251	<input type="checkbox"/> TOOL MODIFICAT
TV	CURTIS MATHES	:0161, 0361	<input type="checkbox"/> TECHNICAL MAN.
TV	DAEWOO	:0291, 0301, 0331	<input type="checkbox"/> MANUFACTORY
TV	DECCA	:0271	<input type="checkbox"/> PRINTING
TV	DIXI	:0331	<input checked="" type="checkbox"/> MARKETS
TV	ELTA	:0331	May 29, 2000
TV	EMERSON	:0021, 0061, 0071, 0081, 0091, 0101, 0111	
TV	ENVISION	:0361	
TV	ETRON	:0331	
TV	FISHER	:0171	
TV	FORMENTI	:0441	
TV	GE	:0131, 0161, 0201	
TV	GEC	:0271	
TV	GEMINI	:0391	
TV	GENEXXA	:0431	
TV	GOLDSTAR	:0031, 0121, 0351, 0411	
TV	GOODMANS/TASHIKO	:0271	
TV	HITACHI	:0181, 0351	
TV	JENSEN	:0311	
TV	JVC	:0001, 0261, 0281	
TV	KENWOOD	:0361	
TV	LOGIK	:0381	
TV	LUXMAN	:0351	
TV	MAGNASONIC	:0031	
TV	MAGNAVOX	:0341, 0391, 0401, 0411, 0421, 0581, 0591, 0601	
TV	MARANTZ	:0221, 0351, 0361	
TV	MATSUI	:0271, 0331	
TV	MEMOREX	:0331, 0351, 0381, 0571	
TV	MGA	:0361, 0561, 0571	
TV	mitsubishi	:0221, 0321, 0561, 0571	
TV	MONTGOMERY	:0351	
TV	MTC	:0351, 0361	
TV	NAD	:0551	
TV	NEC	:0241, 0351, 0361	
TV	NIKKAI	:0271, 0431	
TV	NIKKO	:0031	
TV	OPTIMUS	:0551	
TV	OPTONICA	:0541	
TV	OSAKI	:0271	
TV	PANASONIC	:0191, 0251	
TV	PENNY	:0161, 0351, 0361, 0521, 0531	
TV	PHILCO	:0361, 0581, 0591, 0601	
TV	PHILIPS	:0401	
TV	PIONEER	:0511, 0551	
TV	PROTON	:0351, 0501	
TV	PULSER	:0351	
TV	QJASAR	:0251	
TV	RADIO SHACK	:0541	
TV	RCA	:0051, 0141, 0151, 0181, 0411, 0491, 0531	
TV	REALISTIC	:0541	
TV	SAISHO	:0331	
TV	SAMPO	:0361	
TV	SAMSUNG	:0331, 0341, 0351, 0361	
TV	SANYO	:0171, 0231, 0271	

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Released to:  
 TECHNICAL MAN.  
 JOTATION: C.A.  
 LOCK UP ONLY  
 HARD/SOFT TOOL  
 TOOL MODIFICAT  
 TECHNICAL MAN.  
 MANUFACTORY  
 PRINTING  
 MARKETS  
 May 29, 2000  
 [Signature]

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TV	SEARS	10161, 0171, 0351, 0481, 0521
TV	SHARP	0461, 0471, 0541
TV	SIGNATURE	0351, 0381
TV	SIMPSON	0581
TV	SONY	0371, 0451
TV	SQUAREVIEW	0481
TV	SURPA	0351
TV	SYLVANIA	0361, 0441, 0581, 0591, 0601
TV	SYMPHONIC	0481
TV	TANDY	0271, 0431
TV	TATUNG	0271
TV	TECHWOOD	0351
TV	TEKNIKA	0351, 0381, 0571
TV	TELETECH	0331
TV	TERA	0501
TV	TMK	0351
TV	TOSHIBA	0351, 0521
TV	VECTOR RESEARCH	0361
TV	VIDIKRON	0211
TV	WARDS	0361, 0381, 0451, 0541, 0581, 0591, 0601
TV	YAMAHA	0361
TV	ZENITH	0011, 0041, 0381

VCR DEVICE

VCR	AKAI	0262
VCR	AUDIO DYNAMICS	0202
VCR	BLAUPUNKT	0412
VCR	CANDLE	0342
VCR	CITIZEN	0342
VCR	CURTIS MATHES	0342
VCR	DSX	0202
VCR	DYNATECH	0342, 0472
VCR	EMERSON	0072, 0122, 0132, 0142, 0152, 0162, 0172, 0182, 0192, 0212, 0342
VCR	GOLDSTAR	0082
VCR	GOODMANS	0402
VCR	HITACHI	0102, 0562, 0572, 0582, 0592, 0602
VCR	JVC	0002, 0202, 0472, 0522, 0532, 0542, 0552
VCR	KENWOOD	0202, 0542
VCR	LXI	0022, 0342
VCR	MAGNAVOX	0342, 0482, 0492, 0502, 0512
VCR	MARANTZ	0202, 0402
VCR	MATSUSHITA	0342
VCR	MEI	0222
VCR	MEMOREX	0232, 0242, 0472, 0512
VCR	MINOLTA	0592, 0602
VCR	mitsubishi	0452, 0462, 0542
VCR	MONTGOMERY	0472
VCR	MOTOROLA	0472
VCR	NAD	0442
VCR	NEC	0202, 0292, 0422, 0432, 0542
VCR	OLYMPUS	0412
VCR	OPTIMUS	0442, 0472
VCR	OPTONICA	0402, 0472
VCR	ORION	0212
VCR	PANASONIC	0012, 0052, 0092, 0222, 0342, 0372, 0382, 0392, 0412
VCR	PENNY	0202, 0432, 0602
VCR	PENTAX	0592, 0602
VCR	PHILIPS	0282, 0342, 0402, 0492
VCR	PIONEER	0442, 0542
VCR	PULSAR	0512
VCR	OJARTZ	0272
VCR	OJASAR	0382, 0392
VCR	RADIO SHACK	0472
VCR	RCA	0112, 0382, 0392, 0482, 0592, 0602
VCR	REALISTIC	0402, 0472
VCR	RICOH	0352, 0362
VCR	SAISHO	0212, 0592

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VCR	SAMSUNG	0212, 0312
VCR	SANKY	0472, 0512
VCR	SANSUI	0292, 0542
VCR	SANYO	0242
VCR	SBR	0282
VCR	SCOTT	0342
VCR	SEARS	0302, 0342, 0592, 0602
VCR	SHARP	0402, 0472
VCR	SONY	0032, 0332, 0352, 0362
VCR	STS	0502
VCR	SUNPAK	0352
VCR	SYLVANIA	0492, 0502
VCR	TEKNIKA	0322
VCR	TELEFUNKEN	0252
VCR	TMK	0212
VCR	TOSHIBA	0062, 0302, 0342
VCR	VECTOR RESEARCH	0202
VCR	VICTOR	0542, 0552
VCR	VIDEO CONCEPTS	0202, 0432
VCR	WARDS	0322, 0402, 0472, 0482, 0602
VCR	YAMAHA	0202
VCR	ZENITH	0042, 0362, 0512

SAT DEVICE

SAT	ABC	0253, 0373
SAT	ALPHA STAR	0773
SAT	ANTRONIX	0133
SAT	ARCHER	0133, 0283
SAT	BBT	0073
SAT	CABLETIME	0163
SAT	CANAL +	0863
SAT	CLYDE CABLEVISION	0193
SAT	COLOUR VOICE	0303, 0343
SAT	COMTRONICS	0213, 0273
SAT	EAGLE COMTRONICS	0273
SAT	EASTERN	0063
SAT	ECHOSTAR	0783
SAT	ELECTRICORD	0203
SAT	ELECTUS	0263
SAT	GE	0113, 0123
SAT	GEC CABLE SYSTEM	0193
SAT	GENERAL INSTRUMENT	0793, 0803
SAT	HAMLIN H5	0633, 0643, 0653, 0663, 0673
SAT	HITACHI	0753
SAT	HUGHES NETWORK SYSTEMS	0813
SAT	JERROLD	0253, 0433, 0593, 0603, 0613, 0602, 0803, 0823
SAT	MAGNAVOX	0093, 0413, 0423
SAT	MAMM	0293
SAT	MEMOREX	0003, 0383
SAT	MOVIE TIME	0143, 0203
SAT	NORTHCOAST	0013
SAT	NSC	0143
SAT	OAK	0103, 0533, 0543
SAT	PACE (ONDIGITAL)	0903
SAT	PANASONIC TZ 120/130	0443, 0453, 0463, 0473
SAT	PARAGON	0383
SAT	PHILIPS	0003, 0033, 0213, 0303, 0313, 0323, 0333, 0343, 0413, 0423, 0913
SAT	PIONEER	0083, 0553, 0693
SAT	PRIMESTAR	0803, 0823
SAT	PULSAR	0383
SAT	RCA DIGITAL SATELLITE SYSTEM	0393, 0403, 0833
SAT	REALISTIC	0133
SAT	REGENCY/EASTERN	0583
SAT	RUNCO	0383
SAT	SAMSUNG	0273
SAT	SCIENTIFIC ATLANTA 175/475	0363, 0563, 0573, 0583
SAT	SIGNAL	0273

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SAT	SKY	10893
SAT	SL MARX	0273
SAT	SONY	10843
SAT	SPECTAVISION	10233
SAT	STANDARD COMPONENTS	10183
SAT	STARCOM V	10253
SAT	STARGATE	0273
SAT	SYLVANIA/TEXSCAN	10373, 0493
SAT	TEKNIKA	0173
SAT	TELESERVICE	10053
SAT	TELEVIEW	0273
SAT	TEXSCAN	10183, 0373
SAT	TFC	0023
SAT	TOCOM	10223, 0353, 0503, 0513, 0523
SAT	TOSHIBA	10383, 0853
SAT	TPS	0373
SAT	TUDI	10043
SAT	UNIDEN	10003
SAT	UNIKA	10133
SAT	UNIVERSAL	10133, 0153, 0203, 0283
SAT	VIDEOWAY	10093
SAT	VIEWSTAR	10213
SAT	XSAT	10883
SAT	ZENITH	10243, 0383, 0483

CD DEVICE

CD	ACOUSTIC RESEARCH	1346
CD	ADC	10076, 0116
CD	ADCOM	0256, 0306, 1066
CD	ADS	0316
CD	AIWA	10346, 0996, 1086, 1106
CD	AKAI	10226, 0536, 0586
CD	ALPINE	1266, 1356
CD	AUDIO-TECHNICA	0596
CD	BSR	0296, 0706, 0826
CD	CALIFORNIA AUDIO LAB	0106
CD	CAPETONIC	1256
CD	CARRERA	0296
CD	CARVER	0336, 1186
CD	CASIO	0396
CD	CROWN	0236
CD	CURTIS MATHES	0396
CD	DENON	0326, 0926, 0936
CD	DUAL(E)	0556
CD	DYNAMIC BASS(H)	0606
CD	EMERSON	0256, 0376, 1156
CD	EROICA	1326
CD	FISHER	0146, 0506, 0976, 1056
CD	GARRARD	0416
CD	GENEXXA	0356, 0376, 1156
CD	GOLDSTAR	1186, 1276, 1316, 1386
CD	H/K	0156, 0226, 0516, 1046
CD	HITACHI	0246, 0256, 0556, 0866
CD	INKEL	0166, 0446
CD	JVC	0366
CD	KENWOOD	0096, 0146, 0456, 0636, 0776, 0786, 0796, 0806, 0946
CD	KYOCERA	0076
CD	LUXMAN	0126, 0476, 0726, 0756, 0766, 1036
CD	MAGNAVOX	0216, 0266, 0696, 1006
CD	MARANTZ	0266, 0286, 0426, 0836, 1396
CD	MACINTOSH	0406, 1136
CD	MCS	0956, 1366
CD	MEMOREX	0256, 0276, 0286, 0356, 0376, 1156
CD	MSA	0186
CD	MISSION	0266
CD	MITSUBISHI	0186, 0496
CD	MTC	1306

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CD	NAD	0086, 0666, 0736, 0746
CD	NAKAMICHI	0176, 0436, 0566
CD	NEC	0306, 0956, 1016
CD	NIKKO	0596, 1056
CD	ONKYO	0206, 0506, 0546, 0356, 1206
CD	OPTIMUS	0276, 0296, 0606, 0646, 0896, 0906, 0916, 0946, 0986
CD	PANASONIC	0106, 0876, 1146, 1176
CD	PENNY	0956
CD	PHILIPS	0216, 0266
CD	PIONEER	0356, 0986, 1096
CD	PROTON	0266, 1236
CD	QUASAR	0106
CD	RCA	0256, 0966, 1166
CD	REALISTIC	0256, 0276, 0286, 0376, 0606, 0896
CD	REVOX	1226
CD	ROTEL	0006, 0016, 0026, 0036, 0046, 0266
CD	SABA TELECOMMANDER(E)	0556
CD	SAE	0266
CD	SAMSUNG	1336
CD	SANSUI	0266, 0676, 1026, 1076, 1156
CD	SANYO	0196, 0606, 0686, 0816
CD	SCOTT	0376, 1156
CD	SEARS	0396
CD	SHARP	0286, 0716, 0946, 1116, 1126
CD	SHERWOOD	0166, 0286, 0446, 0526
CD	SIEMENS GARRARD	1296
CD	SIGNATURE	0226
CD	SONTEC	1216
CD	SONY	0116, 0616, 0916, 1196
CD	STARON	1286
CD	STS	0076
CD	SYLVANIA	0266
CD	SYMPHONIC	0386
CD	TANDY	0356
CD	TANGBERG	1246
CD	TEAC	0286, 0386, 0436, 0576, 0846, 0886, 1406
CD	TECHNICS	0106, 0656, 1146
CD	TECHWOOD	1376
CD	TELEFUNKEN(E)	0556
CD	THOMSON(E)	0556
CD	TOSHIBA	0086, 0736
CD	VECTOR RESEARCH	0116, 1186
CD	VICTOR	0366
CD	WARDS	0226
CD	YAMAHA	0056, 0066, 0136, 0466, 0596, 0626, 1116

DVD DEVICE

DVD	AKAI	0058
DVD	JVC	0093, 0183
DVD	ONKYO	0078
DVD	PANASONIC	0038
DVD	PHILIPS	0108
DVD	PIONEER	0118, 0128
DVD	ROTEL	0008
DVD	SAMSUNG	0088
DVD	SHARP	0048
DVD	SONY	0028
DVD	TOSHIBA	0058
DVD	YAMAHA	0018, 0138, 0148, 0158, 0168, 0178

AMP DEVICE

AMP	ROTEL	0005, 0015, 0025, 0035
AMP	YAMAHA	0045, 0055, 0065

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## LD DEVICE

LD	AIWA	0177
LD	DENON	0167
LD	DISCO VISION	0037
LD	FUNAI	0177
LD	HITACHI(E)	0037
LD	KENWOOD	0107, 0127
LD	MAGNAVOX	0047
LD	MARANTZ	0047
LD	MITSUBISHI	0157
LD	NAD	0157
LD	PANASONIC	0097, 0197
LD	PHILIPS	0047
LD	PIONEER	0037, 0057, 0157
LD	RCA	0187
LD	REALISTIC	0177
LD	ROTEL	0007, 0017
LD	SHARP	0147
LD	SONY	0067, 0077, 0137
LD	VICTOR	0117
LD	YAMAHA	0027, 0087

# Remotec

Local Fax : (852) 2314-1006

Remotec Technology Ltd.  
 1301 Swire & Maclaine House,  
 19-23 Austin Avenue, TST,  
 Kowloon, Hong Kong.  
 General: (852) 2314-0330  
 Email: rtsales@remotec.com.hk

## Product Specifications for RR-1090 (Rotel, Universal Remote Control) Remotec Model Number: BW0680

### Document C. Compatible and learnable brand type and list

TV DEVICE	VCR DEVICE	SAT DEVICE	CD DEVICE	DVD DEVICE	LD DEVICE
AKAI	AKAI	ABC	ACOUSTIC RESEARCH	AKAI	AIWA
ALBA	AUDIO DYNAMICS	ALPHA STAR	ADC	JVC	DENON
AMSTRAD	BLAUPUNKT	ANTRONIX	ADCOM	ONKYO	DISCO VISION
ANAM	CANDLE	ARCHER	ADS	PANASONIC	FUNAI
AOC	CITIZEN	BBT	AIWA	PHILIPS	HITACHI(E)
BAUER	CURTIS MATHES	CABLETIME	AKAI	PIONEER	KENWOOD
CANDLE	DBX	CANAL +	ALPINE	ROTEL	MAGNAVOX
CENTURION	DYNATECH	CLYDE	AUDIO-TECHNICA	SAMSUNG	MARANTZ
CITIZEN	EMERSON	CABLEVISION	BSR	SHARP	MITSUBISHI
COLORTIME	GOLDSTAR	COLOUR VOICE	CALIFORNIA	SONY	NAD
CONCERTO	GOODMANS	COMTRONICS	AUDIO LAB	TOSHIBA	PANASONIC
CRAIG	HITACHI	EAGLE	CAPETEONIC	YAMAHA	PHILIPS
CURTIS MATHES	JVC	COMTRONICS	CARRERA		PIONEER
DAEWOO	KENWOOD	EASTERN	CARVER		RCA
DECCA	LXI	ECHOSTAR	CASIO		REALISTIC
DIXI	MAGNAVOX	ELECTUS	CROWN		ROTEL
ELTA	MARANTZ	GE	CURTIS MATHES		SHARP
EMERSON	MATSUSHITA	GEC CABLE SYSTEM	DENON		SONY
ENVISION	MEI	GENERAL	DUAL(E)		VICTOR
ETRON	MEMOREX	INSTRUMENT	DYNAMIC BASS(II)		YAMAHA
FISHER	MINOLTA	HAMLIN H5	EMERSON		
FORMENTI	MITSUBISHI	HITACHI	EROICA		
GE	MONTGOMERY	HUGHES NETWORK SYSTEMS	FISHER		
GEC	MOTOROLA	JERROLD	GARRARD		
GEMINI	NAD	MAGNAVOX	GENEXXA		
GENEXXA	NEC	MAMM	GENEXXA		
GOLDSTAR	OLYMPUS	MEMOREX	GOLDSTAR		
GOODMANS/TAS	OPTIMUS	MOVIE TIME	H/K		
HIKO		NORTHCOAST	HITACHI		
HITACHI	OPTONICA	NSC	INKEL		
JENSEN	ORION	OAK	JVC		
JVC	PANASONIC	PACE (ONDIGITAL)	KENWOOD		
KENWOOD	PENNY	PANASONIC TZ 120/130	KYOCERA		
LOGIK	PENTAX	PARAGON	LUXMAN		
LUXMAN	PHILIPS	PHILIPS	MAGNAVOX		
MAGNASONIC	PIONEER	PIONEER	MARANTZ		
MAGNAVOX	PULSAR	PRIMESTAR	MCLNTOSH		
MARANTZ	QUARTZ	PULSAR	MCS		
MATSUI	QUASAR	RCA DIGITAL	MEMOREX		
MEMOREX	RADIO SHACK	SATELLITE SYSTEM	MGA		
MGA	RCA	REALISTIC	MISSION		
MITSUBISHI	REALISTIC	REGENCY/EASTERN	MISSION		
MONTGOMERY	RICOH	RUNCO	MITSUBISHI		
MTC	SAISHO	SAMSUNG	MTC		
NAD	SAMSUNG	SCIENTIFIC	NAD		
NEC	SANKY	ATLANTA 175/475	NAKAMICHI		
NIKKAI	SANSUI	SIGNAL	NEC		
NIKKO	SANYO	SKY	NEC		
OPTIMUS	SBR	SL MARX	NIKKO		
OPTONICA	SCOTT	SONY	ONKYO		
USANI	SEARS	SPECTAVISION	OPTIMUS		
		STANDARD	PANASONIC		
		COMPONENTS			
		STARCOM V			
		STARGATE	PENNY		
			PHILIPS		

*R03P-01*

Remotec	
MODEL BW0680	
Released for	
<input type="checkbox"/>	PRELIMINARY INFORMATION
<input type="checkbox"/>	QUOTATION ONLY
<input type="checkbox"/>	MOCK UP ONLY
<input type="checkbox"/>	HARD-SOFT TOOLING
<input type="checkbox"/>	TOOL MODIFICATION
<input type="checkbox"/>	TECHNICAL MANUAL
<input type="checkbox"/>	MANUFACTORY
<input type="checkbox"/>	PRINTING
<input type="checkbox"/>	MARKETING
Prepared by <i>Handwritten</i>	
Date <i>March 13, 2001</i>	
Approved by <i>Handwritten</i>	
Date <i>2/20/01</i>	

*f. 20/01*

# Remotec

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## Product Specifications for RR-1090 (Rotel, Universal Remote Control) Remotec Model Number: BW0680

### Document C. Compatible and learnable brand type and list

TV DEVICE	VCR DEVICE	SAT DEVICE	CD DEVICE	DVD DEVICE	LD DEVICE
PANASONIC	SHARP	SYLVANIA/TEXSCA	PIONEER		
PENNY	SONY	TEKNIKA	PROTON		
PHILCO	STS	TELESERVICE	QUASAR		
PHILIPS	SUNPAK	TELEVIEW	RCA		
PIONEER	SYLVANIA	TEXSCAN	REALISTIC		
PROTON	TEKNIKA	TFC	REVOX		
PULSER	TELEFUNKEN	TOCOM	ROTEL		
QUASAR	TMK	TOSHIBA	SABA		
			TELECOMMANDER		
			(E)		
RADIO SHACK	TOSHIBA	TPS	SAE		
RCA	VECTOR RESEARCH	TUDI	SAMSUNG		
REALISTIC	VICTOR	UNIDEN	SANSUI		
SAISHO	VIDEO CONCEPTS	UNIKA	SANYO		
SAMPO	WARDS	UNIVERSAL	SCOTT		
SAMSUNG	YAMAHA	VIDEOWAY	SEARS		
SANYO	ZENITH	VIEWSTAR	SHARP		
SEARS		XSAT	SHERWOOD		
SHARP		ZENITH	SIEMENS		
			GARRARD		
SIGNATURE			SIGNATURE		
SIMPSON			SONTEC		
SONY			SONY		
SQUAREVIEW			STARON		
SURPA			STS		
SYLVANIA			SYLVANIA		
SYMPHONIC			SYMPHONIC		
TANDY			TANDY		
TATUNG			TANGBERG		
TECHWOOD			TEAC		
TEKNIKA			TECHNICS		
TELETECH			TECHWOOD		
TERA			TELEFUNKEN(E)		
TMK			THOMSON(E)		
TOSHIBA			TOSHIBA		
VECTOR			VECTOR		
RESEARCH			RESEARCH		
VIDIKRON			VICTOR		
WARDS			WARDS		
YAMAHA			YAMAHA		
ZENITH					

2037-c1

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<input type="checkbox"/> FREQUENTLY INFORMATION
<input type="checkbox"/> QUOTATION ONLY
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<input type="checkbox"/> HARD-SET TOOLING
<input type="checkbox"/> TOOL MODIFICATION
<input type="checkbox"/> TECHNICAL MANUAL
<input type="checkbox"/> MANUFACTORY
<input type="checkbox"/> PRINTING
<input checked="" type="checkbox"/> MARKETING
Prepared by: <i>Frank</i>
Date: <i>March 12, 2001</i>
<i>FR</i>

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Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
Remotec Model Number: BW0680

This document contains the descriptions and necessary drawings/documents of the following parts:

## Part I

### General product specifications:

- A) Control up to 8 devices including TV, VCR, SAT/DSS, Cable TV, CD, LD/DVD and Amplifier
- B) With pre-programmed codes and learning function for all keys which can learn up to 240 commands
- C) Pre-programmed code library including US, Japan and European popular device
- D) Code set up by Brand search, code search (code enter) & auto sequential code search
- E) Key name and device name editing
- F) 4 Marco keys and each can contain up to 10 commands
- G) Move, delete and rename function keys
- H) Backlight - EL backlight with light sensor always on or off
- I) Volume control punch through function
- J) Duplication - Remote to Remote copy all
- K) Duplication - PC to Remote copy all
- L) Keys from different devices can be grouped into a device to form 'Custom page'
- M) Beep sound for valid key strokes indication
- N) Auto Power off
- O) Battery Low indication
- P) Memory retention
- Q) PC Link software included which is Windows 95/98 compatible.
- R) User manual
- S) AC/DC Power Adapter
- T) Packaging in 2 color giftbox

## Part II

- A) Appearance description
- B) Finishing of casing
- C) EL Display details
- D) Back Label details
- E) Packing details and Shipping Form

ローテル技術部	技術	照査	承認
納入仕様書	092.11		
ローテル部	092.RR-1090	明記ノコト	
使用モデル			

## Part III

- A) Capability of learning and format types
- B) Transmission length
- C) Preprogrammed Command list per device (default mode) and code list
- D) AC/DC Power Adaptor
- E) PC link SW and Computer I/O specification
- F) Comment of cautions
- G) Electrical performance of operations
- H) Schematic diagrams

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## Product Specifications for RR-1090 (Rotel, Universal Remote Control) Remotec Model Number: BW0680

### Part I

#### A) Appearance Description

Design and cosmetic: refer to Figure 1a and 1b.

Figure 1a.: Top cabinet with cosmetic silk-screen details

Figure 1b.: Bottom cabinet with back label and PC link jack position details

Overall dimensions: Approx. 180 x 165 x 45mm

Unit weight: Approx. 400g (not including batteries)

#### B) Finishing of casing

Color: Black with rubber paint finishing of Top cabinet, Bottom cabinet, Battery Door and 2 Round-shape function keys

LCD Bracket, no rubber paint finishing, see Figure 2a.

Front IR Lens/Windows, no rubber paint finishing, see Figure 2b.

Other hard keys, no rubber paint finishing

#### C) EL Display details

Display format: 220 (Horizontal) x 33 (Vertical) dots

Dot size: 0.45 (W) x 0.45 (H) mm

Dot spacing: 0.05 (W) x 0.05 (H) mm

Blue-Green EL backlight

Viewing area: 113 (W) x 19 (H) mm

Active area: 109.95 (W) x 16.45 (H) mm

see Figure 3

#### D) Back Label

Size: 40 (W) x 25 (H) mm

Material: 80gsm art paper adh back/PP

see Figure 4

#### E) Packing details and Shipping Form

##### Individual packing:

RR-1090 x 1pc

User Manual x 1set

PC Link SW floppy diskettes x 2

R6, AA 1.2V 1200MAH batteries x 4pcs

PC Link Cable x 1

AC/DC 100-240V DC 9V 1A Power Adapter x 1

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Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
Remotec Model Number: BW0680

Pulp Tray x 1  
Giftbox x 1, dimensions: 350 (L) x 300 (W) x 80 (H) mm  
See *Document A*, packing method (Ref#. 0680GB03.PI)

**Inner carton:**  
6 units per inner carton  
dimensions: 360 (W) x 410 (L) x 255 (H)mm

**Export carton**  
12 units per export carton  
dimensions: 740 (W) x 430 (L) x 275 (H) mm

Shipping Mark, see *Document A*

## Part II

### A) Capability of Learning and format types

Total 240 IR remote commands can be learnt in 8 different modes (free selected by user)  
IR code carrier frequency range: 36.7kHz to 56.9kHz  
See *Document C*

### B) Transmission length

Approx. 8m/25ft (varies depending on components of different manufacturers)

### C) Preprogrammed command list per device + code list

See *Document B*

### D) AC/DC Power Adapter

Input voltage: AC100 - 240V  
Variable input voltage range: AC90 - 264V  
Rating frequency: 50 - 60Hz  
Frequency range: 47 - 63 Hz  
Input current: 0.18Arms Max (at regular voltage & current)  
Output power: DC 9V 1A  
Safety Standard: ETL-UL1950, CETL-C22.2 NO.950, GS-DIN EN60950

Back Label on adapter, see *Figure 5*

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Product Specifications for RR-1090 (Rotel, Universal Remote Control)  
Remotec Model Number: BW0680

## E) PC Link SW and Computer I/O

SW: 2 floppy diskettes of Windows 95/98 PC-Link software, disk 1 and disk 2  
Computer I/O: Serial cable 1.5m in length (RJ11 jack and DB9)  
Real-time interface  
Software cannot be run alone

## F) Comment of cautions

Do not drop the unit or give a shock to the unit, or it may cause a malfunction.  
Do not leave the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust or sand, moisture, rain or mechanical shock.  
Do not put foreign objects into the unit. Should any liquid or solid object fall into the unit, have it checked by qualified personnel before operating the unit any further.  
To clean the remote only use a soft, lint-free damp cloth. Avoid any harsh cleaning solvent.

## G) Electrical performance of operations

Power supply	:	AA x 4
Operating Voltage	:	6V (normal)
	:	4.5V (min)
Operating Current	:	100uA max (sleep mode)
	:	1mA max (standby mode)
	:	25mA max (operating mode, NEC code format)
	:	50mA max (operating mode, NEC code format with EL on)
Transmission Power	:	-29dB typ. (NEC code format, Remotec IR Rx ver 2.0, peak sen. = 940nm)

## Rechargeable batteries specifications

Cell: Sealed Nickel Metal Hydride Cylindrical Cell  
Size type: AA size  
Nominal capacity: 120mAh  
Nominal Voltage: 1.2V  
Discharge End Voltage: 1.0V  
Trickle charging current: 60mA for continuous  
Standard charging current: 120mAh for 14 hours  
Max. charging Voltage: 1.5V/cell  
Temperature Range: 0 to 45 C  
Cycle life: min. 500 cycles.

Handwritten signature: K. Y. / 3/1