

JVC

SERVICE MANUAL

COLOUR TELEVISION

BASIC CHASSIS

JK

AV-29R9B(BK)

This service manual mainly consists of the following items:

- The items which differ from those for the AV-29RSB service manual.
- The initial value for each setting item.

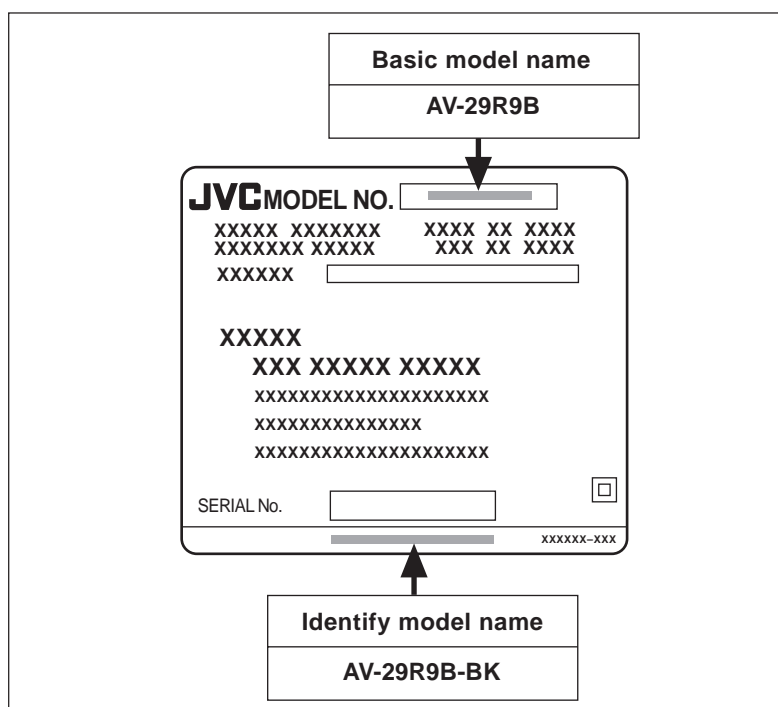
For details other than those described in this manual, please refer to the following service manual.

Reference Service Manual: AV-29RSB Service Manual (No. 51726, May 2000)

Note: The page in parentheses shows the one for the AV-29RSB service manual (No. 51726, May 2000).


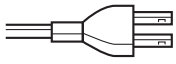
HOW TO IDENTIFY MODEL

While referring to the illustration given below, identify model name on the rating label affixed to the rear cover.



PARTS DIFFERENCE TABLE

The different parts between AV-29RSB and AV-29R9B(BK) are described below:

▲	REF. NO.	AV-29RSB	AV-29R9B(BK)	PART NAME	DESCRIPTION
		PART No.	PART No.		
■ EXPLODED VIEW PARTS LIST (Pages 35 and 36)					
▲	13	QMP40D0-200J5 or QMP40D0-200J3 	QMPR010-200-E2 or QMPR010-200-K2 	POWER CORD	
▲	16	LC20377-001B-H	CM22960-079-H	RATING LABEL	
▲	100	LC10761-001B-H	LC10761-004B-H	F. CABI ASSY	Inc. 101-107
	102	LC20532-001B-H	LC20532-005B-H	DOOR	
■ PRINTED WIRING BOARD PARTS LIST [MAIN PWB ASSY] (Page 38-)					
	—	SJK-1001A-H2	SJK-1013A-BK	MAIN PWB ASSY	
	R1329	NRSA02J-102X	———	CH MG R	1kΩ 1/10W J
		———	NRSA02J-0R0X	CH MG R	0.0Ω 1/10W J
	R1330	NRSA02J-472X	———	CH MG R	4.7kΩ 1/10W J
		———	NRSA02J-0R0X	CH MG R	0.0Ω 1/10W J
	R1615N	———	NRSA02J-0R0X	CH MG R	0.0Ω 1/10W J
	R1871	NRSA02J-102X	———	CH MG R	1kΩ 1/10W J
	R1872	NRSA02J-222X	———	CH MG R	2.2kΩ 1/10W J
	R1873	NRSA02J-222X	———	CH MG R	2.2kΩ 1/10W J
	R1874	NRSA02J-272X	———	CH MG R	2.7kΩ 1/10W J
	R1875	NRSA02J-0R0X	———	CH MG R	0.0Ω 1/10W J
	R1876	NRSA02J-102X	———	CH MG R	1kΩ 1/10W J
	R1877	NRSA02J-393X	———	CH MG R	39kΩ 1/10W J
	R1878	NRSA02J-182X	———	CH MG R	1.8kΩ 1/10W J
	R1879	NRSA02J-182X	———	CH MG R	1.8kΩ 1/10W J
	R1880	NRSA02J-182X	———	CH MG R	1.8kΩ 1/10W J
	R1881	NRSA02J-181X	———	CH MG R	180Ω 1/10W J
	R1882	NRSA02J-181X	———	CH MG R	180Ω 1/10W J
	R1883	NRSA02J-102X	———	CH MG R	1kΩ 1/10W J
	R1884	NRSA02J-181X	———	CH MG R	180Ω 1/10W J
	C1324	QETN1HM-105Z	———	E. CAP.	100μF 50V M
	C1325	QETN1HM-105Z	———	E. CAP.	100μF 50V M
	C1326	QETN1HM-105Z	———	E. CAP.	100μF 50V M
	C1334	———	NCB21HK-103X	CH C CAP.	0.01μF 50V K
	C1335	———	NCB21HK-103X	CH C CAP.	0.01μF 50V K
	C1336	———	NCB21HK-103X	CH C CAP.	0.01μF 50V K
	C1871	NCB21EK-104X	———	CH C CAP.	0.1μF 25V K
	C1872	NCB21HK-223X	———	CH C CAP.	0.022μF 50V K

▲	REF. NO.	AV-29RSB	AV-29R9B(BK)	PART NAME	DESCRIPTION
		PART No.	PART No.		
■ PRINTED WIRING BOARD PARTS LIST [MAIN PWB ASSY] - Continued (Page 38-)					
	C1873	NDC21HJ-221X	——	CH C CAP.	220pF 50V J
	C1874	NDC21HJ-150X	——	CH C CAP.	15pF 50V J
	C1875	NDC21HJ-150X	——	CH C CAP.	15pF 50V J
	C1876	NDC21HJ-221X	——	CH C CAP.	220pF 50V J
	C1877	NCB21EK-104X	——	CH C CAP.	0.1μF 25V K
	C1878	NCB21HK-102X	——	CH C CAP.	1000pF 50V K
	C1879	NDC21HJ-221X	——	CH C CAP.	220pF 50V J
	C1880	QETN1AM-477Z	——	E CAP.	470μF 10V M
	C1881	NCB21EK-104X	——	CH C CAP.	0.1μF 25V K
	C1882	QETN1EM-476Z	——	E CAP.	47μF 25V M
	C1883	NCB21HK-103X	——	CH C CAP.	0.01μF 50V K
	C1884	NCB21EK-104X	——	CH C CAP.	0.1μF 25V K
	C1885	NCB21EK-104X	——	CH C CAP.	0.1μF 25V K
	C1886	NCB21HK-103X	——	CH C CAP.	0.01μF 50V K
	L1871	QQL244K-4R7Z	——	PEAKING COIL	4.7μH K
	L1872	QQL244K-3R3Z	——	PEAKING COIL	3.3μH K
	D1303	MA111-X	——	CHIP DIODE	
	D1628	MA111-X	——	CHIP DIODE	
	Q1871	2SA1037AK/QR/-X	——	SI TRANSISTOR	
	Q1872	2SC2412K/QR/-X	——	CHIP TRANSISTOR	
	IC1701	M37280MF-173SP	M37280MF-201SP	I C (MICROCOMPUTER)	
	IC1702	AT24C16-29RSB	AT24C16-29R9BBK	I C (MEMORY)	(Service)
	IC1871	ET417	——	I C (DATA SLICER)	
	IC1872	ET211	——	I C (TELETEXT DEC.)	
	X1871	CE41257-001Z	——	X TAL	
■ PRINTED WIRING BOARD PARTS LIST [POWER & DEF PWB ASSY] (Page 41-)					
	—	SJK-2001A-H2	SJK-2001A-BK	POWER & DEF PWB ASSY	
■ PRINTED WIRING BOARD PARTS LIST [CRT SOCKET PWB ASSY] (Page 44)					
	—	SJK-3001A-H2	SJK-3001A-BK	CRT SOCKET PWB ASSY	
■ PRINTED WIRING BOARD PARTS LIST [FRONT CONTROL PWB ASSY] (Page 45)					
	—	SJK-8004A-H2	SJK-8004A-BK	FRONT CONTROL PWB ASSY	
■ PRINTED WIRING BOARD PARTS LIST [AV SEL. PWB ASSY] (Page 46)					
	—	SJK0S001A-H2	SJK0S001A-BK	AV SEL. PWB ASSY	

(to be continued)

△	REF. NO.	AV-29RSB	AV-29R9B(BK)	PART NAME	DESCRIPTION
		PART No.	PART No.		
■ PACKING PARTS LIST (Page 49)					
	1	LC10845-004A-H	GG10045-007A-H	PACKING CASE	
	3	CP30967-004-H	CP30697-006-H	POLY BAG	
	4	RM-C110-2H	RM-C114-2H	REMOCON UNIT	
	5	CP30966-001-H	QPA02503505	POLY BAG	
△	6	LCT0664-001A-H	LCT0816-001A-H	INST BOOK	
	—	—	ATEAB001-00A	MATCHING BOX	

SPECIFICATIONS (Page 2)

Item		CONTENTS
Dimensions (W × H × D)		732mm × 588mm × 508mm
Mass		52kg
TV RF System		B, G, I, D, K, K1, M
Colour System		PAL, SECAM, NTSC3.58, NTSC4.43
Stereo System		A2 / NICAM (B,G)
Receiving Frequency	VHF (L)	46.25MHz ~ 168.25MHz
	VHF (H)	175.25MHz ~ 463.25MHz
	UHF	471.25MHz ~ 863.25MHz
	CATV	Mid (X-Z, S1-S10), Super (S11-S20), Hyper (S21-S41) bands receivable
Intermediate Frequency		
	VIF Carrier	38.0MHz
	SIF Carrier	33.5MHz(4.5MHz), 32.5MHz(5.5MHz), 32.0MHz(6.0MHz), 31.5MHz(6.5MHz)
Colour Sub Carrier Frequency		
	PAL	4.43MHz
	SECAM	4.40625MHz, 4.25MHz
	NTSC	3.58MHz / 4.43MHz
Power Input		Rating: AC110 ~ 240V, 50/60Hz Operating: AC90 ~ 260V, 50/60Hz
Power Consumption		233W (Max) / 163W (Avg)
Picture Tube		Visible size : 68cm measured diagonally
High Voltage		32.0kV ±1.5kV (at zero beam current)
Speaker & Audio Output		Closed dome speaker with TWIN PORT BASS system L / R : 15W+15W (10cm round x 2, +3.5cm round x 2) Center : 5W (4 x 12cm oval x 1)
Video Audio Input terminals		
Video1	S-Video	Y: 1Vp-p Positive (Negative sync provided, when terminated with 75Ω) C: 0.286Vp-p (Burst signal, when terminated with 75Ω)
	Video	1Vp-p 75Ω (RCA pin jack)
	Audio (L/R)	500mVrms (-4dBs), High impedance (RCA pin jack)
Video2	Video	1Vp-p 75Ω (RCA pin jack)
	Audio (L/R)	500mVrms (-4dBs), High impedance (RCA pin jack)
Video3	Video/Y	Composite video 1Vp-p 75Ω (RCA pin jack) Component video 1Vp-p 75Ω (RCA pin jack)
	Cb	Component video B-Y 0.7Vp-p 75Ω (RCA pin jack)
	Cr	Component video R-Y 0.7Vp-p 75Ω (RCA pin jack)
	Audio (L/R)	500mVrms (-4dBs), High impedance (RCA pin jack)
Video4 (Front terminal)	S-Video	Y: 1Vp-p Positive (Negative sync provided, when terminated with 75Ω) C: 0.286Vp-p (Burst signal, when terminated with 75Ω)
	Video	1Vp-p 75Ω (RCA pin jack)
	Audio (L/R)	500mVrms (-4dBs), High impedance (RCA pin jack)
Video audio Output terminal		
	Video	1Vp-p 75Ω (RCA pin jack)
	Audio (L/R)	500mVrms (-4dBs), High impedance (RCA pin jack)
Aerial Input Terminal		75Ω Unbalanced, Coaxial
Headphone Jack		Stereo mini jack (3.5ø)
AV Compu Link terminal		AV Compu Link II, mini jack (3.5ø)
Remote Control Unit		RM-C114 (AA/R06 / UM-3 dry battery × 2)

Design & specifications are subject to change without notice.

SPECIFIC SERVICE INSTRUCTIONS

SETTING OF SYSTEM CONSTANT SET (Page 10)

Table 1

CONTENTS	VARIABLE RANGE	INITIAL SETTING VALUE
COLOUR	<input type="checkbox"/> MULTI <input type="checkbox"/> TRIPLE <input type="checkbox"/> PAL <input type="checkbox"/>	MULTI
MSP	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>	YES
SUPER BASS	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>	YES
CENTER SPEAKER	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>	YES
TEXT	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>	NO
BLUE BACK MUTE	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>	NO
VOLUME LIMIT	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>	YES
COLOUR AUTO	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>	NO
TILT	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>	YES
C-TRAP	<input type="checkbox"/> 1 <input type="checkbox"/> 0 <input type="checkbox"/>	1
E.M.C.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>	NO
N/S WHITE BACK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>	NO
7 LED SPEED	<input type="checkbox"/> 00 <input type="checkbox"/> 10 <input type="checkbox"/> 20 <input type="checkbox"/> ... <input type="checkbox"/> 1250 <input type="checkbox"/> <input type="checkbox"/> 1270 <input type="checkbox"/> 1260 <input type="checkbox"/>	100
LANGUAGE	<input type="checkbox"/> E/T <input type="checkbox"/> E <input type="checkbox"/>	E/T

USER SETTING CONDITIONS (Page 10)

Table 2

PICTURE SETTING		FEATURES	
PICTURE MODE	BRIGHT	SLEEP TIMER	OFF
CONTRAST	CENTER	ON TIMER	PR1 0:00
BRIGHT	CENTER	BLUE BACK	ON
SHARP	CENTER	CHILD LOCK	OFF
COLOUR	CENTER	CHANNEL GUARD	--
TINT	CENTER	AUTO SHUT OFF	OFF
WHITE BALANCE	COOL	VIDEO-3 SETTING	COMPONENT
PICTURE FEATURES		INSTALL	
A.A.C	ON	LANGUAGE	THAI
AUTO VNR	AUTO	AUTO PROGRAM	--
COLOUR SYSTEM	TV: According to preset CH VIDEO: AUTO PAL	EDIT / MANUAL	PRESET CH only Others: blank
ZOOM	REGULAR	DEMO	
ECO SENSOR	OFF	DEMO	OFF
PICTURE TILT	CENTER	OTHERS	
SOUND SETTING		VOLUME	Appropriate sound level
SETERO / I • II	<input type="radio"/>	CHANNEL PRESET	Refer to Operating Instructions.
BASS	CENTER	CHANNEL POSITION	1 POSITION
TREBLE	CENTER	SUB POWER	ON
BALANCE	CENTER	ON SCREEN DISPLAY	POSITION INDICATION
AI VOLUME	ON	TV/VIDEO	TV
BBE	ON	SOUND SYSTEM	B/G
SPATIALIZER	OFF		
SUPER BASS	ON		

SERVICE ADJUSTMENTS

■ Initial Setting Value

■ SETTING OF VSM PRESET (Page 19)

[INITIAL SETTING VALUES OF VSM PRESET (SUB MENU 5. VSM PRESET)]

ITEM \ PICTURE MODE	BRIGHT	STANDARD	SOFT
1. BRIGHT	+0	+0	+0
2. CONT	+17	+0	-4
3. COLOR	+0	+0	-1
4. SHARP	+0	+0	-3
5. TINT	+0	+0	+0

: Do not adjust.

■ SETTING OF WHITE BALANCE PRESET (Page 20)


[SETTING OF WHITE BALANCE PRESET (SUB MENU 6. WB PRESET)]

ITEM \ WHITE BALANCE	COOL	MID	WARM
1. R DRIVE	0	-3	+26
2. B DRIVE	0	-23	-27

: Do not adjust.

■ VIDEO / CHROMA CIRCUIT ADJUSTMENT (Page 20)

CONTENTS		PAL	SECAM	NTSC 3.58	NTSC 4.43
1. CUTOFF	R	-60			
	G	-60			
	B	-60			
2. DRIVE	R	+0			
	B	+0			
3. BRIGHT	TV	0	+3	+1	—
	VIDEO	-1	+2	+2	—
	COMPONENT	-2			
4. CONT	TV	-15	0	0	—
	VIDEO	0	0	0	—
	COMPONENT	+2			
5. COLOUR	TV / VIDEO	+10	+18	+0	0
	COMPONENT	+8		+17	
6. TINT	TV	+6	+6	+7	0
	VIDEO	+6	+6	+14	0
	COMPONENT	+6		0	
7. BLACK OFFSET	R-Y	—	0	—	—
	B-Y	—	0	—	—
8. SHARP	TV	-14	-13	-12	—
	VIDEO	-8	-7	-9	—
	COMPONENT	-10			

 : Do not adjust.

Adjustment of SUB COLOUR-II (Page 23)

Adjustment part	Description
5. COLOUR	
PAL COLOUR	Value (A) in the figure: Set to -3V (W & G) .
SECAM COLOUR	Value (A) in the figure: Set to -5V (W & G) .
NTSC 3.58 COLOUR	Value (A) in the figure: Set to +3V (W & G) .

Adjustment of SUB TINT-II (Page 24)

Adjustment part	Description
6. TINT	
NTSC 3.58 TINT	Value (B) in the figure: Set to +4V (W & Cy) .

■ DEFLECTION CIRCUIT ADJUSTMENT (Page 26)

[DEFLECTION ADJUSTMENTS INITIAL SETTING VALUE (SUB MENU 4. DEF)]

Setting item	Adjustment name	Initial setting value					
		REGULAR		ZOOM		16:9	
		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
1. V-SHIFT	Vertical shift	-5	-1	0	+1	0	0
2. V-SIZE	Vertical size	+7	-1	+36	+35	-39	-39
3. SUBTITLE	Subtitle	0	+1	-7	+7	0	0
4. H-CENT	Horizontal center	-10	+5	-1	-1	0	-1
5. H-SIZE	Horizontal size	-12	-1	-4	-4	0	-1
6. EW-PIN	Side pin correction	-3	+1	-4	-4	+2	0
7. TRAPEZ	Trapezoidal distortion correction	+4	-2	0	-1	0	+1
8. EW.COR.L	Corner pin correction Low side	-2	0	-1	-1	+1	+1
9. EW.COR.H	Corner pin correction High side	-2	0	0	0	+1	+1
10. V.S-COR	Vertical size correction	+13	0	0	0	0	0
11. V-LIN	Vertical Linearity	+2	-1	-1	-1	+1	0
12. H-BLK-R	Horizontal Blanking Right	0	0	0	0	+77	0
13. H-BLK-L	Horizontal Blanking Left	0	0	0	0	+2	0
14. V-EHT	V size correction level caused by EHT change	-4	0	0	0	0	0
15. H-EHT	H size correction level caused by EHT change	-3	0	0	0	0	0
16. EHT-GAIN	Size correction gain caused by EHT change	+3	0	0	0	0	0

: Do not adjust.

■ AUDIO CIRCUIT ADJUSTMENT (Page 30)

[AUDIO ADJUSTMENTS INITIAL SETTING VALUE (SUB MENU 3. AUDIO)]

Setting item	Variable range	Fixed value
1. ERROR LIMIT	000H ~ FF0H	100H
2. A2 ID THR	00H ~ FFH	14H
3. BASS	-17 ~ +17	+0
4. TREBLE	-17 ~ +17	+0

: Do not adjust.



JVC

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AV29R9BBK-BK #3



CTH 0009
CRT