

JVC

SERVICE MANUAL

COLOUR TELEVISION

BASIC CHASSIS

JK

AV-DX25(HK)

This service manual mainly consists of the following items:

- The items which differ from those for the AV-25PS service manual.
- The initial value for each setting item.

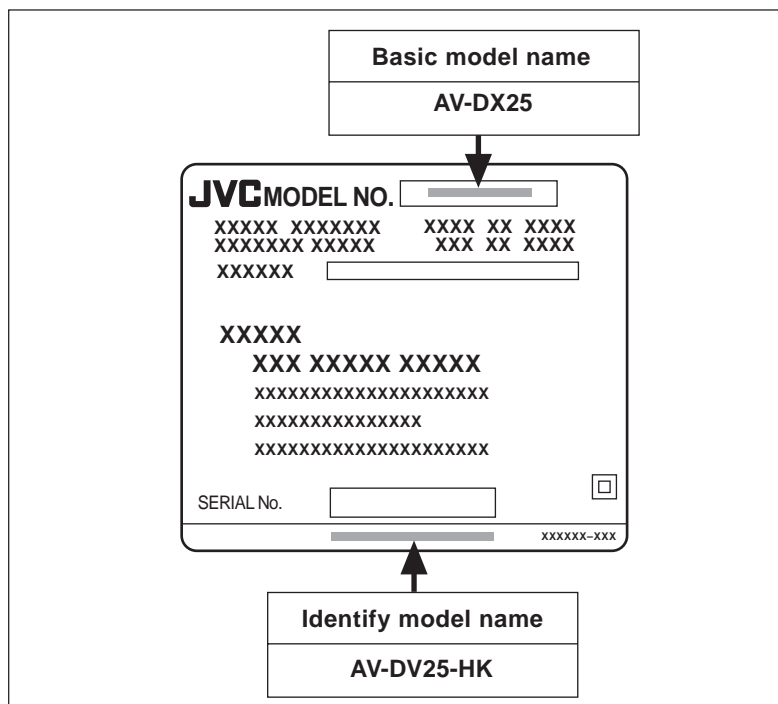
For details other than those described in this manual, please refer to the following service manual.

Reference Service Manual: AV-25PS Service Manual (No. 51750, Jul. 2000)

Note: The page in parentheses shows the one for the AV-25PS service manual (No. 51750, Jul. 2000).


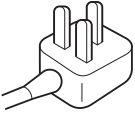
HOW TO IDENTIFY MODEL

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-25PS and AV-DX25(HK) are described below:

▲	REF. NO.	AV-25PS	AV-DX25(HK)	PART NAME	DESCRIPTION
		PART No.	PART No.		
■ EXPLODED VIEW PARTS LIST (Page 36)					
▲	10	QMP40D0-200J3 or QMP40D0-200J5 	QMPN050-200-E2 	POWER CORD	
▲	14	LC20377-001B-H	LC20377-012B-H	RATING LABEL	
	25	LC10475-012A-H	LC10475-016A-H	FRONT CABI ASSY	
■ PRINTED WIRING BOARD PARTS LIST [MAIN PWB ASSY] (Page 38-)					
	—	SJK-1005A-H2	SJK-1028A-H2	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
	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.	1μF 50V M
	C1325	QETN1HM-105Z	—	E. CAP.	1μF 50V M
	C1326	QETN1HM-105Z	—	E. CAP.	1μF 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
	C1873	NDC21HJ-221X	—	CH C CAP.	220pF 50V J

△	REF. NO.	AV-25PS	AV-DX25(HK)	PART NAME	DESCRIPTION		
		PART No.	PART No.				
■ PRINTED WIRING BOARD PARTS LIST [MAIN PWB ASSY] - Continued (Page 38-)							
	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			
	Q1871	2SA1037AK/QR/-X	———	SI TRANSISTOR			
	Q1872	2SC2412K/QR/-X	———	CHIP TRANSISTOR			
	IC1701	M37280MF-173SP	M37280MF-200SP	IC (MICROCOMPUTER)			
	IC1702	AT24C16-29RSB	AT24C16-29RF7C	IC (MEMORY)		(Service)	
	IC1871	ET417	———	IC			
	IC1872	ET211	———	IC			
	X1871	CE41257-001Z	———	X TAL			
■ PACKING PARTS LIST (Page 47)							
	1	LC10453-078A-H	GG10044-016A-H	PACKING CASE			
	4	RM-C112-2H	RM-C115-2H	REMOCON UNIT			
△	6	LCT0664-001A-H	LCT0849-001A-H	INST BOOK			

SPECIFICATIONS (Page 2)

Item		CONTENTS
Dimensions (W × H × D)		655mm × 530.5mm × 465mm
Mass		36kg
TV RF System		B, G, I, D, K, K1, M
Colour System		PAL, SECAM, NTSC3.58, NTSC4.43
Stereo System		A2 / NICAM (B/G, I, D/K)
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		AC110 ~ 240V, 50/60Hz
Power Consumption		164W, 1.31A (at 220V)
Picture Tube		Visible size : 60cm measured diagonally
High Voltage		31.0kV ±1.5kV (at zero beam current)
Speaker & Audio Output		Open dome speaker 10W+10W, 10cm round x 2
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	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-C115 (AA/R06 / UM-3 dry battery × 2)

Design & specifications are subject to change without notice.

SPECIFIC SERVICE INSTRUCTIONS

SETTING OF SYSTEM CONSTANT SET (Page 9)

Table 1

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

USER SETTING CONDITIONS (Page 9)

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	ENGLISH
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		

SERVICE ADJUSTMENTS

■ Initial Setting Value

■ SETTING OF VSM PRESET (Page 18)

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


PICTURE MODE ITEM	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 19)


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

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

 : Do not adjust.

■ VIDEO / CHROMA CIRCUIT ADJUSTMENT (Page 19)

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	0	0	—
	VIDEO	+1	-4	-2	—
	COMPONENT	-3			
4. CONT	TV	0	0	0	—
	VIDEO	+2	0	+2	—
	COMPONENT	+2			
5. COLOUR	TV / VIDEO	+10	+18	+0	-2
	COMPONENT	+8		+18	
6. TINT	TV	+6	+6	-1	0
	VIDEO	+6	+6	+6	0
	COMPONENT	+6		-3	
7. BLACK OFFSET	R-Y	—	0	—	—
	B-Y	—	0	—	—
8. SHARP	TV	-15	-17	-15	—
	VIDEO	-13	-11	-12	—
	COMPONENT	-15			

 : Do not adjust.

Adjustment of SUB COLOUR-II (Page 22)

Adjustment part	Description
5. COLOUR	
PAL COLOUR	Value (A) in the figure: Set to 0V (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 +6V (W & G) .

Adjustment of SUB TINT-II (Page 23)

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

■ DEFLECTION CIRCUIT ADJUSTMENT (Page 25)

[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	-3	0	+1	0	-1	0
2. V-SIZE	Vertical size	+13	0	+36	+35	-37	-37
3. SUBTITLE	Subtitle	0	+1	0	+7	0	0
4. H-CENT	Horizontal center	-9	+5	-1	-1	0	0
5. H-SIZE	Horizontal size	+11	-1	-9	-7	-1	0
6. EW-PIN	Side pin correction	-1	-1	-4	-5	+2	+1
7. TRAPEZ	Trapezoidal distortion correction	+4	-1	0	0	-1	+1
8. EW.COR.L	Corner pin correction Low side	-2	0	0	0	+1	+1
9. EW.COR.H	Corner pin correction High side	-2	0	0	0	+1	+1
10. V.S-COR	Vertical size correction	+9	0	0	0	0	0
11. V-LIN	Vertical Linearity	0	0	+1	0	0	0
12. H-BLK-R	Horizontal Blanking Right	0	0	0	0	+29	0
13. H-BLK-L	Horizontal Blanking Left	0	0	0	0	0	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	-4	0	0	0	0	0
16. EHT-GAIN	Size correction gain caused by EHT change	0	0	0	0	0	0

: Do not adjust.

■ AUDIO CIRCUIT ADJUSTMENT (Page 29)

[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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