

JVC

SERVICE MANUAL

COLOUR TELEVISION

BASIC CHASSIS

CG

AV-14F7 (VT)

This service manual mainly consists of the following items:

- The items which differ from those for the AV-14FM service manual.
- The initial value for each setting item.

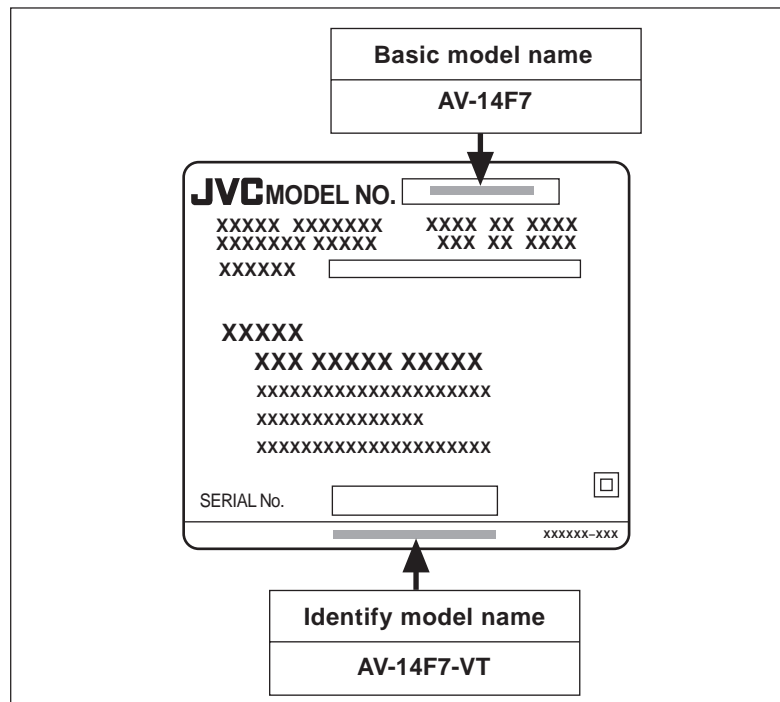
For details other than those described in this manual, please refer to the following service manual.

Reference Service Manual: AV-14FM Service Manual (No. 51753, Jul. 2000)

Note: The page in parentheses shows the one for the AV-14FM service manual (No. 51753, 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-14FM and AV-14F7(VT) are described below:

△	REF. NO.	AV-14FM	AV-14F7(VT)	PART NAME	DESCRIPTION
		PART No.	PART No.		
■ EXPLODED VIEW PARTS LIST (Page 32)					
△	V01	A34AGT15X	———	PICTURE TUBE	
		———	A34JLL91X84	PICTURE TUBE ITC	
△	L01	QQW0093-001	CELD025-005J6	DEGAUSSING COIL	
	DY01	QQD0046-001	———	DEF YOKE	
	1	LC10831-002B-H	LC10831-011B-H	FRONT CABINET	
	10	CE42153-00AJ1	———	WEDGE ASSY	(x3)
	11	CE40305-00B	———	PC MAGNET	
△	16	CM12961-D01-VH	CM12961-D01-KH	REAR COVER	
△	19	LC20377-001B-H	GG20001-010A-H	RATING LABEL	
■ PRINTED WIRING BOARD PARTS LIST [MAIN PWB ASSY] (Page 34-)					
	—	SCG-1017A-H2	SCG-1249A-CK	MAIN PWB ASSY	
	R1103	NRSA63J-100X	———	CH MG R	10Ω 1/16W J
		———	NRSA02J-820X	CH MG R	82Ω 1/10W J
	R1112	NRSA63J-100X	———	CH MG R	10Ω 1/16W J
		———	NRSA02J-220X	CH MG R	22Ω 1/10W J
	R1303	NRSA63J-101X	———	CH MG R	100Ω 1/16W J
		———	NRSA02J-221X	CH MG R	220Ω 1/10W J
	R1304	NRSA63J-101X	———	CH MG R	100Ω 1/16W J
		———	NRSA02J-221X	CH MG R	220Ω 1/10W J
	R1305	NRSA63J-101X	———	CH MG R	100Ω 1/16W J
		———	NRSA02J-221X	CH MG R	220Ω 1/10W J
	R1347	———	NRSA02J-392X	CH MG R	3.9kΩ 1/10W J
	R1348	———	NRSA02J-472X	CH MG R	4.7kΩ 1/10W J
	R1369	———	QRE122J-394	C R	390kΩ 1/2W J
	R1528	———	QRE122J-471	C R	470Ω 1/2W J
	R1529	QRL039J-121	———	OM R	120Ω 3W J
		———	QRG029J-271	OM R	270Ω 2W J
	C1317	NCB31EK-473X	———	CH C CAP.	0.047μF 25V K
		———	NCB21HK-473X	CH C CAP.	0.047μF 50V K
	C1351	QCZ0121-102	———	C CAP.	1000pF 3kV Z
	C1352	———	QFZ0097-103	MM CAP.	0.01μF 1250V K
	C1354	NDC31HJ-271X	———	CH C CAP.	270pF 50V J
		———	NDC21HJ-221X	CH C CAP.	220pF 50V J
	C1355	NDC31HJ-221X	———	CH C CAP.	220pF 50V J
		———	NDC21HJ-271X	CH C CAP.	270pF 50V J

△	REF. NO.	AV-14FM	AV-14F7(VT)	PART NAME	DESCRIPTION		
		PART No.	PART No.				
■ PRINTED WIRING BOARD PARTS LIST [MAIN PWB ASSY] - Continued (Page 34-)							
	C1527	QFZ0199-224	———	MPP CAP.	0.22μF	250V	J
		———	QFZ0199-184	MPP CAP.	0.18μF	250V	J
	C1530	———	QCB32HK-561	C CAP.	560pF	500V	K
	C1582	QFZ0199-204	———	MPP CAP.	0.2μF	250V	J
		———	QFZ0199-184	MPP CAP.	0.18μF	250V	J
	C1657	———	QCB31HK-103	C CAP.	0.01μF	50V	K
	L1522	———	QQR1005-003	LINEARITY COIL			
	L1551	QQLZ026-640	QQLZ018-670	HEATER CHOKE			
	IC1701	MN1873287JB1	MN1873287JD1	IC (MICROCOMPUTER)			
	IC1702	AT24C08-21PM	AT24C08-14F7VT	IC (MEMORY)		(Service)	
	J1006	———	QNN0281-002	PIN JACK			
	TU1001	QAU0202-001	QAU0186-001	TUNER			
■ PACKING PARTS LIST (Page 38)							
	1	LC10453-092A-H	GG10007-010A	PACKING CASE			
	4	RM-C364-1H	RM-C367-1H	REMOCON UNIT			
△	6	LCT0733-001A-H	LCT0768-001A	INST BOOK			
△	7	LCT0734-001A-H	———	DIGEST MANUAL			
	8	CM47385-00B-H	CM43936-001	POS/SERIAL LABEL		(×2)	
	—	———	CEAB005-00AJ1	MATCHING BOX			

SPECIFICATIONS (Page 2)

Item		Content
Dimensions (W × H × D)		462mm × 340.5mm × 375mm
Mass		10kg
TV RF System		B / G, I, D / K, K1, M
Colour System	TV Mode	PAL / SECAM / NTSC3.58 / NTSC4.43
	VIDEO Mode	PAL / SECAM / NTSC3.58 / NTSC4.43
Receiving Frequency	VHF (VL)	46.25MHz ~ 168.25MHz
	VHF (VH)	175.25MHz ~ 463.25MHz
	UHF	471.25MHz ~ 863.25MHz
	CATV	● Cable TVs of Mid (X-Z, S1-S10) Super (S11-S20) & Hyper (S21-S41) bands receivable
Intermediate Frequency	VIF Carrier	38.0MHz
	SIF Carrier	31.5MHz (6.5MHz) 32.0MHz (6.0MHz) 32.5MHz (5.5MHz) 33.5MHz (4.5MHz)
Colour Sub Carrier Frequency		PAL (4.43MHz) SECAM (4.40625MHz / 4.25MHz) NTSC (3.58MHz / 4.43MHz)
Aerial Input Terminal		75Ω Unbalanced
Power Input		Rating: AC110 ~ 240V, 50/60Hz Operating: AC90 ~ 260V, 50/60Hz
Power Consumption		70W (Max.) / 47W (Avg.)
Picture Tube		Visible size : 34cm measured diagonally
High Voltage		22.5kV ± 1.5kV (at zero beam current)
Speaker		5cm × 9cm Oval type × 2
Audio Output		3W (Monaural)
Input	Video	1Vp-p, 75Ω
	Audio	500mVrms (−4dBs), High impedance
Output	Video	1Vp-p, 75Ω
	Audio	500mVrms (−4dBs), Low impedance
Headphone Jack		Stereo mini jack (3.5ø)
Remote Control Unit		RM-C367-1H (Battery size : AA/R06/UM-3 × 2)

Design & specifications are subject to change without notice.

SPECIFIC SERVICE INSTRUCTIONS

SETTING OF SYSTEM CONSTANT SET (Page 9)

Table 1

Setting item	Setting contents	Setting value
COLOUR	<input type="checkbox"/> → MULTI. → TRIPLE → PAL <input type="checkbox"/>	MULTI.
BILINGUAL	<input type="checkbox"/> → YES → NO <input type="checkbox"/>	NO
TUNER	<input type="checkbox"/> → MU → MA <input type="checkbox"/>	MU
ECO SENSOR	<input type="checkbox"/> → YES → NO <input type="checkbox"/>	YES
LANGUAGE	<input type="checkbox"/> → E/V → E <input type="checkbox"/>	E/V
B/B SOUND	<input type="checkbox"/> → ON → OFF <input type="checkbox"/>	OFF
LOCK	YES ↔ 10 ↔ 20 ↔ ... ↔ 230 ↔ 250 ↔ 240 ←	180
COLOUR AUTO	<input type="checkbox"/> → YES → NO <input type="checkbox"/>	NO
QSS	<input type="checkbox"/> → MINT → MQSS <input type="checkbox"/>	MINT
ALC	<input type="checkbox"/> → YES → NO <input type="checkbox"/>	NO
TEXT RATE	10 ↔ 20 ↔ 40 ↔ 80	20
AMP TUNER	<input type="checkbox"/> → YES → NO <input type="checkbox"/>	YES
VNR	<input type="checkbox"/> → YES → NO <input type="checkbox"/>	NO

USER SETTING VALUES (Page 9)

Table 2

Setting item	Setting value	Setting item	Setting value
SUB POWER	ON	PICTURE MODE (VSM)	BRIGHT
CHANNEL POSITION	1 POSITION	OFF TIMER	OFF
CHANNEL PRESET	Refer to OPERATING INSTRUCTION	LANGUAGE	VIETNAMESE
		AUTO SHUTOFF	OFF
VOLUME	Appropriate sound volume	ECO SENSOR	OFF
TV/VIDEO	TV	BLUE BACK	OFF
ON SCREEN DISPLAY	POSITION NUMBER DISPLAY	ON TIMER	PR1 0:00
COLOUR SYSTEM	AUTO PAL	CHILD LOCK	OFF
SOUND SYSTEM	B / G	PICTURE BOOSTER	OFF

SERVICE ADJUSTMENTS

■ Initial Setting Value


■ IF CIRCUIT ADJUSTMENT -- Adjustment of DELAY POINT (Page 17)

Setting (Adjustment) Item		Variable range	Initial setting value
DELAY POINT (AGC TAKE-OVER)	NTSC3.58	0 ~ 127	48
	Others		43

■ V/C (VIDEO/CHROMA) CIRCUIT ADJUSTMENT (Page 17)

[SUB MENU 2. V/C]

Setting item	Colour system	Variable range	Initial setting value			
			PAL	SECAM	NTSC 3.58	NTSC 4.43
1. CUT OFF (R / G / B)		-128 ~ +127	-50	←	←	←
2. DRIVE (R / B)		-64 ~ +63	0	←	←	←
3. BRIGHT		-128 ~ +127	0	←	←	←
4. CONT.		-64 ~ +63	0	←	←	←
5. COLOUR (P / S / N3 / N4)		-64 ~ +63	0	←	←	←
6. TINT (N3 / N4)	TV / VIDEO	-64 ~ +63	—	—	0 / +8	0 / 0
7. SECAM BL ADJUST		-32 ~ +31	0	←	←	←
8. SHARP	TV / VIDEO	-32 ~ +31	-15 / +5	←	←	←
9. AMP T. SHARP		-16 ~ +15	0	←	←	←

 : Do not adjust.

Adjustment of SUB COLOUR-II (Page 20)

Adjustment part	Description
5. COLOUR	
PAL COLOUR	Value (A) in the figure: Set to +9V (W & G) .
SECAM COLOUR	Value (A) in the figure: Set to +3V (W & G) .
NTSC 3.58 COLOUR	Value (A) in the figure: Set to +7V (W & G) .


Adjustment of SUB TINT-II (Page 21)

Adjustment part	Description
6. TINT	
NTSC 3.58 TINT	Value (B) in the figure: Set to +5V (W & Cy) .

■ DEFLECTION CIRCUIT ADJUSTMENT (Page 23)

[SUB MENU 3. DEF]


Setting item	Adjustment name	Variable range	Initial setting value	
			50Hz	60Hz
1. VER. POSITION	Vertical center	-4 ~ +3	-2	-3
2. HOR. POSITION	Horizontal center	-16 ~ +15	+1	+4
3. VER. HEIGHT	Vertical height	-64 ~ +63	-40	0
4. VER. LINEARITY	Vertical linearity	-32 ~ +31	+13	-3
5. VER. SCURVE	Vertical scurve	-32 ~ +31	-32	0
6. HOR. VCO ADJUST	Horizontal VCO	-64 ~ +63	0	0

 : Do not adjust.

■ VSM PRESET ADJUSTMENT (Page 25)

[Setting Values for SUB MENU 4. VSM PRESET]

VSM preset mode VSM Setting item	BRIGHT	STANDARD	SOFT
TINT SETTING VALUE	+15	←	←
COLOUR SETTING VALUE	+15	←	←
BRIGHT SETTING VALUE	+15	←	←
CONT. SETTING VALUE	+30	+15	+11
SHARP SETTING VALUE	+15	+15	+12

 : Do not adjust.


■ PRESET ADJUSTMENT (Page 26)

[SUB MENU 5. PRESET]

Colour system		Initial setting value			
		PAL	SECAM	NTSC 3.58	NTSC 4.43
1. C-TRAP FIX		1	←	←	←
2. SHARP PEAK		0	←	—	—
3. ABL		1	←	—	—
4. GAMMA		0	←	←	←
5. Y.DELAY TIME	TV	0	2	2	3
	VIDEO	0	2	0	2
6. BLACK EXP START		3	←	←	←
7. C-BPF	TV	1	←	0	←
	VIDEO	1	←	←	←
8. CW/SCP		0	←	←	←
9. V.IF DET. LEVEL		0	←	←	←
11. IF AGC MIN.		0	←	←	←
12. V.IF AGC		0	←	←	←
13. V.IF PMOD		0	←	←	←
19. VNR		15	←	←	←
20. RGB LIM.		1	←	←	←
21. RGB LIMIT LEVEL		2	←	←	←
23. TEXT H. POSITION		-3	←	←	←
24. READ DATA		—	—	—	—

 : Do not adjust.

TV RF system		Initial setting value			
		B/G	I	D/K	M
10. S.IF DET. LEVEL		0	←	←	←
14. S.IF BPF BW ADJUST		0	←	←	←
15. S.IF TRAP FO ADJUST		0	←	←	←
16. S.IF TRAP FO ADJUST 2		0	←	←	←
17. S.IF-TRAP		0	←	←	←
18. S.IF-BPF		0	←	←	1
22. S.IF SW		1	←	←	0

 : Do not adjust.

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