

# JVC

# SERVICE MANUAL

## COLOUR TELEVISION

BASIC CHASSIS

CM-II'

# AV-F2983(MA)

This service manual mainly consists of the following items:

- The items which differ from those for the AV-F29MX3 service manual.
- The initial value for each setting item.

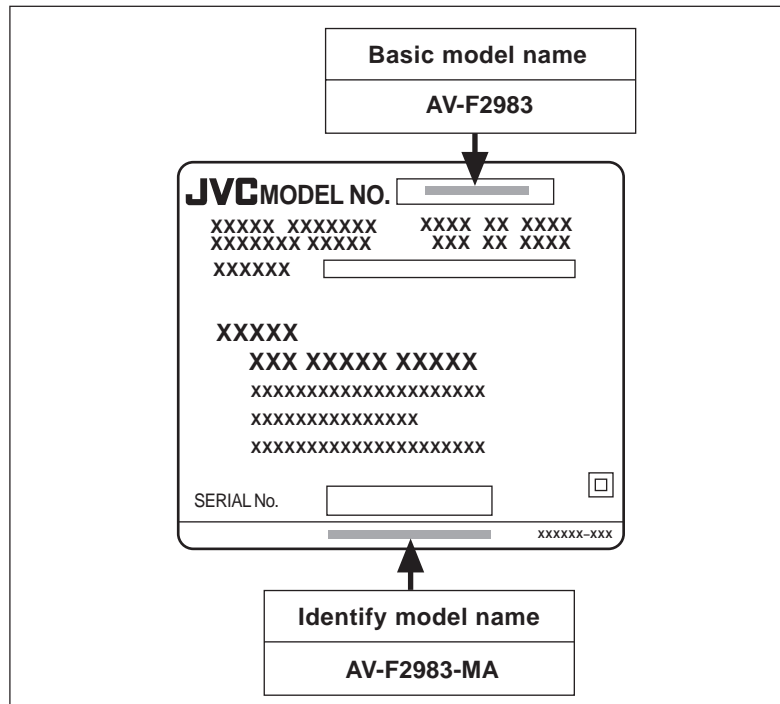
For details other than those described in this manual, please refer to the following service manual.

Reference Service Manual: AV-F29MX3 Service Manual (No. 51641, Sep. 1999)

**Note:** The page in parentheses shows the one for the AV-F29MX3 Service Manual (No. 51641, Sep. 1999).

## 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-F29MX3 and AV-F2983(MA) are described below:

△	REF. NO.	AV-F29MX3	AV-F2983(MA)	PART NAME	DESCRIPTION
		PART No.	PART No.		
<b>■ EXPLODED VIEW PARTS LIST (Pages 33 and 34)</b>					
△	V01	A68KVL74X02/DT/	A68KVL74X03/DT/	PICTURE TUBE	
	1	LC10414-001C-H	LC10414-010A-H	FRONT CABINET	
	4	LC20294-001A-H	LC20294-004A-H	DOOR	
△	25	LC20377-010B-H	LC20377-001B-H	RATING LABEL	
<b>■ PACKING PARTS LIST (Page 63)</b>					
	1	CP11781-051-H	GG10056-028A-H	PACKING CASE	
△	7	LCT0434-001A-H	LCT0847-001A-H	INST BOOK	
△	8	LCT0520-001A-H	———	DIGEST MANUAL	
	—	LCT0435-001A-H	———	DIGEST MANUAL	

# SPECIFICATIONS (Page 2)

Item		Content
<b>Dimensions (W × H × D)</b>		765mm × 591mm × 524.6mm
<b>Mass</b>		38kg
<b>TV RF System</b>		B / G, I, D / K, K1, M
<b>Colour System</b>	TV Mode	PAL / SECAM / NTSC3.58 / NTSC4.43
	VIDEO Mode	PAL / SECAM / NTSC3.58 / NTSC4.43
<b>Receiving Frequency</b>	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
<b>Intermediate Frequency</b>	VIF Carrier	38.0MHz
	SIF Carrier	31.5MHz (6.5MHz)
		32.0MHz (6.0MHz)
		32.5MHz (5.5MHz)
33.5MHz (4.5MHz)		
<b>Colour Sub Carrier Frequency</b>		PAL (4.43MHz), SECAM (4.40625MHz / 4.25MHz) NTSC (3.58MHz / 4.43MHz)
<b>Aerial Input Terminal</b>		75Ω Unbalanced
<b>Power Input</b>		AC110 ~ 240V, 50 / 60Hz
<b>Power Consumption</b>		165W (Max.) / 120W (Avg.)
<b>Picture Tube</b>		Visible size : 68cm measured diagonally
<b>High Voltage</b>		31kV +1/-1.5kV (at zero beam current)
<b>Speaker</b>		6cm × 12 cm Oval type × 2
<b>Audio Output</b>		5W + 5W
<b>Input (S/Video-1, Video-2 &amp; -3, Audio)</b>	Video	1Vp-p, 75Ω
	S/Video	Y: 1Vp-p Positive (negative sync provided, when terminated with 75Ω) C: 0.286Vp-p (burst signal, when terminated with 75Ω)
	Audio (L/R)	500mVrms (-4dBs), High impedance
<b>Output</b>	Video	1Vp-p, 75Ω
	Audio (L/R)	500mVrms (-4(syn) -4dBs), Low impedance, RCA × 2
<b>Headphone Jack</b>		Stereo mini jack (3.5ø)
<b>Remote Control Unit</b>		RM-C235-1C (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
1. COLOUR AUTO	<input type="checkbox"/> YES → NO <input type="checkbox"/>	NO
2. COLOUR	<input type="checkbox"/> MULTI. → TRIPLE → PAL <input type="checkbox"/>	MULTI
3. ECO SENSOR	<input type="checkbox"/> YES → NO <input type="checkbox"/>	YES
4. BASS	<input type="checkbox"/> YES-BB → YES-BB-SB → YES-SB <input type="checkbox"/> NO-SB-OFF ← NO-SB-ON ← YES-BA <input type="checkbox"/>	NO-SB-ON
5. VOL. LIMITER	<input type="checkbox"/> YES → NO <input type="checkbox"/>	YES
6. TEXT	<input type="checkbox"/> YES → NO <input type="checkbox"/>	NO
7. MSP	<input type="checkbox"/> YES → NO → NO-A2 <input type="checkbox"/>	NO
8. LANGUAGE	<input type="checkbox"/> E/R/A/F → E/A/F → E/A → E/F <input type="checkbox"/>	E/R/A/F
9. EW-PIN IC	<input type="checkbox"/> YES → NO <input type="checkbox"/>	YES
10. B/B OFF MUTE	<input type="checkbox"/> ON → OFF <input type="checkbox"/>	OFF
11. LED	<input type="checkbox"/> 2 → 3 <input type="checkbox"/>	3
12. D/K NICAM	<input type="checkbox"/> YES → NO <input type="checkbox"/>	NO
13. ALC	<input type="checkbox"/> YES → NO <input type="checkbox"/>	YES
14. BBE	<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	BASS	CENTER
CHANNEL POSITION	1 POSITION	BALANCE	CENTER
CHANNEL PRESET	Refer to OPERATING INSTRUCTIONS	VNR	OFF
VOLUME	Appropriate sound volume	OFF TIMER	OFF
TV/VIDEO	TV	AUTO SHUTOFF	OFF
ON SCREEN DISPLAY	POSITION NUMBER DISPLAY	ECO SENSOR	OFF
COLOUR SYSTEM	AUTO PAL	LANGUAGE	ENGLISH
SOUND SYSTEM	B / G	ALC	HIGH
PICTURE MODE (VSM)	BRIGHT	BLUE BACK	OFF
LIVE SPATIAL	OFF	ON TIMER	PR1 0:00
TREBLE	CENTER	CHILD LOCK	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)	0 ~ 63	19

### 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	0	←	←	←
2. DRIVE (R / B)		-128 ~ +127	0	←	←	←
3. BRIGHT		-128 ~ +127	+6	←	←	←
4. CONT.		-42 ~ +42	+3	←	←	←
5. COLOUR		-60 ~ +68	+21	+16	+19	0
6. TINT	TV / VIDEO	-64 ~ +63	————	————	+4 / -4	-4 / -4
7. BLACK OFFSET (R-Y / B-Y)		-8 ~ +7	————	+4 / +2	————	————
8. SHARP	TV / VIDEO	-32 ~ +31	-7 / +1	←	←	←
9. TEXT (RGB) CONT.		-128 ~ +77	+50	←	←	←
10. B.S.OFF		0 ~ +1	0	←	←	←
11. B.S.POINT		0 ~ +7	+5	←	←	←
12. DC TRAN RATE		0 ~ +7	+3	←	←	←
13. APA-CON FO/SW		0 ~ +3	+1	←	←	←
14. VSM PHASE		0 ~ +3	+2	←	←	←
15. VSM GAIN		0 ~ +3	+1	←	←	←
16. CLL SW		0 ~ +1	+1	←	←	←
17. CLL LEVEL		0 ~ +3	+2	←	←	←
18. ABL POINT		0 ~ +7	+2	←	←	←
19. ABL GAIN		0 ~ +7	+2	←	←	←
20. Y-DL (TV / VIDEO / S)		0 ~ +7	+2 / +4 / +2	+3 / +3 / +2	+4 / +4 / +2	←
21. P.ACL SW		0 ~ +1	+1	←	←	←
22. WPL SW		0 ~ +1	0	←	←	←
23. Y GAMMA		0 ~ +1	0	←	←	←

: Do not adjust.

**Adjustment of SUB COLOUR-II (Page 20)**

Adjustment part	Description
<b>5. COLOUR</b>	
PAL COLOUR	Value <b>(A)</b> in the figure: Set to <b>+13V (W &amp; G)</b> .
SECAM COLOUR	Value <b>(A)</b> in the figure: Set to <b>+11V (W &amp; G)</b> .
NTSC 3.58 COLOUR	Value <b>(A)</b> in the figure: Set to <b>+11V (W &amp; G)</b> .

**Adjustment of SUB TINT-II (Page 21)**

Adjustment part	Description
<b>6. TINT</b>	
NTSC 3.58 TINT	Value <b>(B)</b> in the figure: Set to <b>+8V (W &amp; Cy)</b> .

**■ DEFLECTION CIRCUIT ADJUSTMENT (Page 23)**

[SUB MENU 4. DEF]

Setting item	Adjustment name	Variable range	Initial setting value	
			50Hz	60Hz
<b>1. TRAPEZ</b>	Trapezoidal distortion correction	-32 ~ +31	-8	-1
<b>2. V-SHIFT</b>	Vertical center	-32 ~ +31	0	+5
<b>3. V-SIZE</b>	Vertical height	-64 ~ +63	-10	0
<b>4. H-CENT</b>	Horizontal center	-16 ~ +15	-13	-10
<b>5. H-SIZE</b>	Horizontal width	-64 ~ +63	+17	0
<b>6. EW-PIN</b>	Side pin correction	-64 ~ +63	-15	-1
<b>7. V-S. CR</b>	Vertical height correction	-64 ~ +63	0	+1
<b>8. V-EDGE</b>	Vertical edge correction	-64 ~ +63	+2	-1
<b>9. EW-COR</b>	Side pin fore correction	-64 ~ +63	-6	-1
<b>10. V-LINE</b>	Vertical linearity	-16 ~ +15	0	+3
<b>11. H-COMP</b>	Horizontal compensation	0 ~ +15	0	0

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 : Do not adjust.

## ■ VSM PRESET ADJUSTMENT (Page 27)

[Setting Values for SUB MENU 5. VSM PRESET]

VSM preset mode VSM Setting item	BRIGHT	STANDARD	SOFT
1. TINT SETTING VALUE	0	←	←
2. COLOUR SETTING VALUE	0	←	←
3. BRIGHT SETTING VALUE	0	←	←
4. CONT. SETTING VALUE	+15	+4	-4
5. SHARP SETTING VALUE	0	←	-3

: Do not adjust.

## ■ CENTER ADJUSTMENT (Page 27)

- Do not adjust 6. CENTER (TREBLE, BASS) in the SERVICE MENU as it requires no adjustment.

[SUB MENU 6. CENTER]

Setting item	Initial setting value (fixed)
TREBLE	+2
BASS	0

: Do not adjust.



**JVC**

VICTOR COMPANY OF JAPAN, LIMITED  
TELEVISION RECEIVER DIVISION 1106 Heta, Iwai-city, Ibaraki-prefecture, 306-0698, Japan

