# **JVC** SERVICE MANUAL

# **COLOUR TELEVISION**

BASIC CHASSIS

JK

# AV28S2EKGR / AV28S2EKBL AV28S2EIGR / AV28S2EIBL



# SERVICE ADJUSTMENTS

## **BEFORE STARTING SERVICE ADJUSTMENT**

- 1. There are 2 ways of adjusting this TV: One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.
- 2. The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- 3. Make sure that connection is correctly made to AC power source.
- 4. Turn on the power of the TV and measuring instrument for warming up for at least 30 minutes before starting adjustment.
- 5. If the receive or input signal is not specified, use the most appropriate signal for adjustment.
- Never touch parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.

 Preparation for adjustment (presetting): Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT:

#### Setting position

PICTURE MODE (VSM)	NORMAL
SLEEP TIMER	OFF
BALANCE	CENTER
ECO	OFF
ZOOM	PANORAMIC

# MEASURING INSTRUMENT AND FIXTURES

- 1. DC voltmeter (or digital voltmeter)
- 2. Oscilloscope
- 3. Signal generator (Pattern generator) [PAL / NTSC]
- 4. Remote control unit

## **ADJUSTMENT ITEMS**

- Checking items.
- Adjustment of FOCUS.
- IF circuit adjustment.
- VSM preset setting.
- VIDEO / CHROMA circuit adjustment.
- DEFLECTION circuit adjustment.
- H. BLANKING ADJUSTMENT.
- AUDIO circuit adjustment. (Do not adjust)

## **BASIC OPERATION SERVICE MENU**

#### 1. TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

#### 2. SERVICE MENU ITEMS

With the SERVICE MENU, various settings (adjustments) can be made, and they are broadly classified in the following items of settings (adjustments):

(	1. IF This mode adjusts the setting values of the IF circuit.		
(	(2) <b>2.V/C</b> ······	This mode adjusts the setting	values of the VIDEO / CHROMA circuit.
(	(3) <b>3.AUDIO</b> ······	This mode adjusts the setting	values of the multiplicity SOUND circuit.
(	(4) <b>4.DEF</b> ·····	This mode adjusts the setting	values of the DEFLECTION circuit for each aspect mode given below.
		REGULAR	(50/60Hz)
		PANORAMIC	(50/60Hz)
		14:9 ZOOM	(50/60Hz)
		16:9 ZOOM	(50/60Hz)
		16:9 ZOOM SUB TITLE	(50/60Hz)
		FULL	(50/60Hz)
(	(5) 5.VSM PRESET ·····	This mode adjusts the initial s	etting values of COOL,NOMAL and WARM.
		(VSM : Video Status Memory)	
(	(6) <b>6.VPS</b> ·····	This mode shows the monitor	of the VPS and PDC. <b>(Do not adjust)</b> .
		(VPS : Video Program System	n, PDC : Program Delivery Code)
(	(7) <b>7.AUTO PROGRAM</b> · · · · · · · ·	By turning the power switch o	n, you can get the state of AUTO PROGRAM. (Do not adjust)

#### 3. BASIC OPERATION OF SERVICE MENU

#### (1) How to enter SERVICE MENU

Press the INFORMATION key and the MUTING key of the REMOTE CONTROL UNIT simultaneously, and the SERVICE MENU screen of Fig. 1 will be displayed.



SERVICE MENU

Fig.1

#### (2) Selection of SUB MENU SCREEN

Press one of keys 1~7 of the REMOTE CONTROL UNIT and select the SUB MENU SCREEN (See Fig. 3), form the SERVICE MENU.

SERVICE MENU → SUB MENU

- 1. IF
- 2. V / C
- 3. AUDIO
- 4. DEF.
- 5. VSM PRESET
- 6. VPS
- 7. AUTO PROGRAM

#### NEME OF REMOTE CONTOROL KEY

Names of key	key
INFORMATION	Û
MUTING	×
MENU	OK
FUNCTION UP/DOWN	$\begin{array}{c} \bullet\\ \\ \bullet\\ \\ \bullet\\ \\ \bullet\end{array}$
FUNCTION -/+	



Fig. 3 SUB MENU SCREEN

#### (3) Method of Setting

1) Method of Setting 1.IF

[VCO]

① 1 Key ······ Select 1.IF.

- (2) The VCO (CW) screen will be displayed in yellow when the AFC voltage is at a certain level and in blue when it is at other levels.
- ③ INFORMATION Key ······ Return to the SERVICE MENU screen.

2) Method of setting 2.V/C, 3.AUDIO, 4.DEF and 5.VSM PRESET.

- ① 2~5 Key ······ Select one from 2. V/C, 3. AUDIO, 4. DEF and 5. VSM PRESET.
- ② FUNCTION UP/DOWN Key ····· Select setting items.
- ③ FUNCTION -/+ ········· Set (adjust) the setting values of the setting items. (Use the number keys of the REMOTE CONTROL UNIT for setting of WHITE BALANCE. For the setting, refer to each item concerned.)
  ④ MENU Key ······· Memorize the setting value. (Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF key if you do, the values will not be stored in memory.)
  ⑤ INFORMATION Key ····· Return to the SERVICE MENU screen.

#### 3) Method of setting 6.VPS and 7.AUTO PROGRAM.

6.VPS	This mode displayed monitor of VPS systems. (Do not adjust)
7.AUTO PROGRAM·····	When the MAIN POWER is turned on with the state of AUTO PROGRAM ON, you get a mode
	that initializes every existing set value including language selection. Because this mode is set
	at the factory upon completion of the adjustment, you need not to use it for service. (Do not
	adjust in this mode.)

#### (4) Release of SERVICE MENU

1) After completing the setting, return to the SERVICE MENU, then again press the INFORMATION key.



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### **CIRCUIT DIAGRAMS** MAIN PWB CIRCUIT DIAGRAM





POWER & DEF PWB CIRCUIT I	DIAGRAM
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AV28S2EKGR AV28S2EKBL AV28S2EIGR AV28S2EIBL



No.51777

AV28S2EKGRAV28S2EKGRAV28S2EKBLAV28S2EKBLAV28S2EIGRAV28S2EIGRAV28S2EIBLAV28S2EIBL







AV28S2EKGRAV28S2EKGRAV28S2EKBLAV28S2EKBLAV28S2EIGRAV28S2EIGRAV28S2EIBLAV28S2EIBL

#### CRT SOCKET PWB CIRCUIT DIAGRAM



