# JVC  AV-29TS4 EK

## General Information

### Also Covers
### AV-21TS4 EK & AV-25TS4 EK
### JH Chassis

## Recommended Safety Parts

| Item | Part No. | Description | | | |
|------|----------|-------------|--|--|--|
| **(21" Models)** | | | | | |
| V01 | A51EAL155X01 | PICTURE TUBE (C) Inc.DY,PC,WED | | | |
| L01 | CELD018-005J7 | DEGAUSSING COIL | | | |
| T1551 | QQH0036-002 | HVT | | | |
| 1 | CM12774-002-E | REAR COVER | | | |
| 3 | AEEMP003-185A | POWER CORD | | | |
| 4 | CM46618-A01-E | POWER CORD CLAMP | | | |
| 5 | LC20075-022A-U | RATING LABEL | | | |
| R1552 | QRZ9017-4R7 | FUSI. RESISTOR | 4.7 Ω | 1/4W | |
| R1553 | QRZ9021-1R0 | FUSI. RESISTOR | 1 Ω | 1W | J |
| R1585 | QRA14CF-3902Y | MF R | 39k Ω | 1/4W | F |
| R1586 | QRA14CF-4991Y | MF R | 4.99k Ω | 1/4W | F |
| R1957 | QRZ9017-331 | FUSI. RESISTOR | 330 Ω | 1/4W | |
| R1991 | QRZ0057-825 | C R | 8,2M Ω | 1W | J |
| C1521 | QFZ0152-9501 | MPP CAP. | 9500pF | 1.5kVH±2.5% | |
| C1525 | QFZ0119-254 | MPP CAP. | 0.25uF | 210V±3% | |
| C1531 | QFZ0119-154 | MPP CAP. | 0.15uF | 200V±3% | |
| C1901 | QCZ9054-472 | C CAP. | 4700pF | AC250V | Z |
| C1902 | QCZ9054-472 | C CAP. | 4700pF | AC250V | Z |
| C1903 | QCZ9054-472 | C CAP. | 4700pF | AC250V | Z |
| C1992 | QCZ9079-471 | C CAP. | 470pF | AC250V | K |
| C1993 | QCZ9079-332 | C CAP. | 3300pF | AC250V | K |
| T1551 | QQH0036-002 | H.V.TRANSF. | | | |
| T1901 | CETS122-001J4 | SW TRANSF. | | | |
| D1901 | D3SBA60 | DIODE BRIDGE | | | |
| Q1521 | 2SD2333-RL | SI.TRANSISTOR H.OUT | | | |
| CP1951 | ICP-N50-Y | I.C. PROTECT | | | |
| CP1952 | ICP-N50-Y | I.C. PROTECT | | | |
| CP1955 | ICP-N38-Y | I.C. PROTECT | | | |
| PC1901 | TLP721F(D4-GR) | I.C. (PH.COUPLER) | | | |
| SK3001 | CE42446-001 | C.R.T. SOCKET | | | |
| C8901 | QFZ9040-474 | MF CAP. | 0.47uF | AC275V | M |
| C8904 | QFZ9040-473 | MF CAP. | 0.047uF | AC275V | M |
| F8901 | QMF51D2-3R15J1 | FUSE | 3.15A | | |
| LF8901 | AEELP002-001 | LINE FILTER | | | |
| S8901 | QSW0750-001 | PUSH SWITCH MAIN POWER | | | |
| TH8901 | CEKP010-001J2 | W.P. THERMISTOR | | | |
| R0403 | QRZ9017-470 | FUSI. RESISTOR | 47 Ω | 1/4W | |
| 11 | LCT0296-001A-U | INST BOOK | | | |
| **(25" Models)** | | | | | |
| V01 | A59ECF50X05 | ITC TUBE (C) Inc. DY, PC, WED | | | |
| L01 | CELD019-002J7 | DEGAUSSING COIL | | | |
| T1551 | CETH018-00AJ1 | H.V.TRANSF. (SERVICE) | | | |
| 3 | AEEMP003-185A | POWER CORD | | | |
| 4 | CM46618-A01-E | POWER CORD CLAMP | | | |
| 5 | LC20075-021A-U | RATING LABEL | | | |
| R1475 | QRJ14RJ-2R2X | CR | 22 Ω | 1/4W | J |
| R1552 | QRZ9017-4R7 | FUSI. RESISTOR | 4.7 Ω | 1/4W | J |
| R1553 | QRZ9021-1R0 | FUSI. RESISTOR | 1 Ω | 1W | J |
| R1554 | QRZ9021-1R0 | FUSI. RESISTOR | 1 Ω | 1W | J |
| R1585 | QRA14CF-1582Y | MF R | 15.8k Ω | 1/4W | F |
| R1586 | QRA14CF-2541Y | MF R | 254k Ω | 1/4W | F |
| R1991 | QRZ0057-825 | CR | 8.2M Ω | 1W | J |
| C1521 | QFZ0122-362 | MPP CAP. | 3600pF | 1.8kVH±3% | |
| C1522 | QFZ0152-8001 | MPP CAP. | 8000pF | 1.5kVH±2.5% | |
| C1523 | QFP32GJ-333 | PP CAP. | 0.033uF | 400V | J |
| C1524 | QFZ0119-474 | HPP CAP. | 0.47uF | 200V±3% | |
| C1525 | QFZ0104-304 | HPP CAP. | 0.3uF | 250V | J |
| C1531 | QFZ0119-204 | MPP CAP. | 0.2uF | 200V±3% | |
| C1901 | QCZ9054-472 | C CAP. | 4700pF | AC250V | Z |
| C1902 | QCZ9054-472 | C CAP. | 4700pF | AC250V | Z |
| C1903 | QCZ9054-472 | C CAP. | 4700pF | AC250V | Z |
| C1992 | QCZ9079-471 | C CAP. | 470pF | AC250V | K |
| C1993 | QC79079-332 | C CAP. | 3300pF | AC250V | K |
| T1901 | CETS121-001JC | SW TRANSF. | | | |
| D1901 | D3SBA60 | DIODE BRIDGE | | | |
| Q1521 | BU2508AX | POWER TRANSISTOR | | H.OUT | |
| CP1951 | ICP-N50-Y | I.C. PROTECT | | | |
| CP1952 | ICP-N50-Y | I.C. PROTECT | | | |
| CP1955 | ICP-N38-Y | I.C. PROTECT | | | |
| PC1901 | TLP721F(D4-GR) | I.C. (P.H. COUPLER) | | | |
| SK3001 | CE42446-001 | C.R.T. SOCKET | | | |
| C8901 | QFZ9040-474 | M.F. CAPACITOR | 0.47uF | AC275V | M |
| C8904 | QFZ9040-473 | M.F. CAPACITOR | 0.047uF | AC275V | M |
| F8901 | QMF51D2-3R15J1 | FUSE | 3.15A | | |
| LF8901 | CE42144-001J2 | LINE FILTER | | | |
| S8901 | QSW0750-001 | PUSH SWITCH | | MAIN POWER | |
| TH8901 | CEKP011-001J2 | W.P. THERMISTOR | | | |
| 11 | LCT0296-001A-U | INST BOOK | | | |
| **(29" Models)** | | | | | |
| V01 | A68ESF002X111 | ITC TUBE (C) Inc.DY, PC, WED | | | |
| L01 | CELD020-004J7 | DEGAUSSING COIL | | | |
| T1551 | CETH019-00AJ1 | H.V. TRANSF. (SERVICE) | | | |
| 1 | CM12798-A02-E | REAR COVER | | | |
| 3 | AEEMP003-185A | POWER CORD | | | |
| 4 | CM47016-001-H | CORD CLAMP | | | |
| 5 | LC20075-020A-U | RATING LABEL | | | |

## Recommended Safety Parts

| Item | Part No. | Description | | | |
|------|----------|-------------|--|--|--|
| R1475 | QRJ146J-2R2X | C R | 2.2Ω | 1/4W | |
| R1552 | QRZ9017-4R7 | FUSI. RESISTOR | 4.7Ω | 1/4W | J |
| R1553 | QRZ9021-1R0 | FUSI. RESISTOR | 1Ω | 1W | J |
| R1554 | QRZ9021-1R0 | FUSI. RESISTOR | 1Ω | 1W | J |
| R1585 | QRA14CF-1582Y | MF R | 15.8kΩ | 1/4W | F |
| R1586 | QRA14CF-2941Y | MF R | 2.94kΩ | 1/4W | F |
| R1991 | QRZ0057-825 | C R | 8.2MΩ | 1W | J |
| C1521 | QFZ0152-4001 | MPP CAP. | 4000pF | 1.5kVH±25% | |
| C1522 | QFZ0152-5501 | MPP CAP. | 9500pF | 1.5kVH±25% | |
| C1523 | QFP32GJ-223 | PP CAP. | 0.022uF | 400V | J |
| C1524 | QFZ0119-684 | MPP CAP. | 0.68uF | 200V±3% | |
| C1525 | QFZ0194-364 | MM CAP. | 0.36uF | 250V | J |
| C1531 | QFZ0119-154 | MPP CAP. | 0.51uF | 200V±3% | |
| C1901 | QCZ9054-472 | C CAP. | 4700pF | AC250V | Z |
| C1902 | QCZ9054-472 | C CAP. | 4700pF | AC250V | Z |
| C1903 | QCZ9054-472 | C CAP. | 4700pF | AC250V | Z |
| C1992 | QCZ9079-471 | C CAP. | 470pF | AC250V | K |
| C1993 | QCZ9079-332 | C CAP. | 3300pF | AC250V | K |
| T1901 | CETS120-001J7 | SW TRANSF. | | | |
| D1901 | D3SBA60 | DIODE BRIDGE | | | |
| Q1521 | BU2508AX | POWER TRANSISTOR H.OUT | | | |
| CP1951 | ICP-N50-Y | I.C.PROTECT | | | |
| CP1952 | ICP-N50-Y | I.C.PROTECT | | | |
| CP1955 | ICP-N30-Y | I.C.PROTECT | | | |
| PC1901 | TCP721F (D4-GR) | I.C. (PH.COUPLER) | | | |
| SK3001 | CE642446-001 | C.R.T.SOCKET | | | |
| C8901 | QFZ9040-474 | M.F.CAPACITOR | 0.47uF | AC275V | M |
| C8904 | QFZ9040-473 | M.F.CAPACITOR | 0.047uF | AC275V | M |
| F8901 | QMF51D2-3R15J1 | FUSE 3.15A | | | |
| LF8901 | CE42144-001J2 | LINE FILTER | | | |
| S8901 | QSW0750-001 | PUSH SWITCH MAIN POWER | | | |
| TH8901 | CEKP010-001J2 | W.P.THERMISTOR | | | |
| 11 | LCT0296-001A-U | INST BOOK | | | |

## E2prom Replacement

### REPLACEMENT OF MEMORY IC's
**1. Memory IC**
This TV use a non-volatile memory IC (EEPROM IC). In the memory IC are memorized data for correctly operating the video and deflection circuits. When replacing it, be sure to use a memory IC containing the initial values (not blank ones).

**2. Procedure for replacing memory IC's**

**Procedure**
**1) Power off**
Switch the power oft and unplug the power code from the outlet.
**2) Replacing the memory IC**
Be sure to use memory ICs written with the initial data values.
**3) Power on**
Plug the power code into the outlet and switch the power on.
**4) Check and set SYSTEM CONSTANT SET**
1) Press the INFORMATION key and the MUTE key of the REMOTE CONTROL UNIT simultaneously.
2) The SERVICE MENU screen shown in Fig. 1 will be displayed.
3) While the SERVICE MENU is displayed, press the INFORMATION key and MUTE key simultaneously, and the SYSTEM CONSTANT SET screen shown in Fig. 2 will be displayed.
4) Check the setting value of the SYSTEM CONSTANT SET shown in Table 1. If the value is different, select the setting item with the FUNCTION UP/DOWN key, and set the correct value with the FUNCTION -/+ key.
5) Press the MENU key to memorize the setting value.
6) Press the INFORMATION key twice, and return to the normal screen.
**5) Setting of receive channels**
Set the receive channels. For setting, refer to the OPERATING INSTRUCTIONS.
**6) User Setting**
Check the user setting value of Table 2, and if setting value is different, set the correct value. For setting, refer to the OPERATING INSTRUC-TIONS.

**7) Setting of SERVICE MENU**
Verify the setting items of the SERVICE MENU of Table 3, and reset where necessary. For setting, refer to the SERVICE ADJUSTMENTS.

```
          SERVICE MENU

1.IF              2.V/C

3.AUDIO           4.DEF

5.VSM PRESET  6.VPS

7.AUTO PROGRAM (OFF)

8.MAX VOLUME

1-8:SELECT   [i]:EXIT
```

**Fig. 1**

```
     SYSTEM CONSTANT SET

  MODEL=TS4   (V*. ****)

☞  1.COUNTRY   :EK
    2.INCH      :**

- +  [OK]:STORE   [i] :EXIT
  JVC JH BASIC V01
  ******* – *****
```

**Fig. 2**

### REMOTE CONTROL KEYS

| Names of key | key |
|--------------|-----|
| INFORMATION | ⓘ |
| MUTING | ⊠ |
| MENU | OK |
| FUNCTION UP/DOWN | ▲▼ |
| FUNCTION -/+ | ◀ ▶ |

## SETTING VALUES OF SYSTEM CONSTANT SET

**Setting item**
1. COUNTRY

**Setting content**

→ EE → IR → UK → EN → EP →

**Setting value (AV-21TS4EK)**
UK

**Setting value (AV-25TS4EK)**
←

**Setting value (AV-29TS4EK)**
←

**Setting item**
2. INCH

**Setting content**

→ 21 → 25 → 29 →

**Setting value (AV-21TS4EK)**
21

**Setting value (AV-25TS4EK)**
25

**Setting value (AV-29TS4EK)**
29

## USER SETTING VALUES

| Setting item | Setting value |
|--------------|---------------|
| SUB POWER | ON |
| CHANNEL | 1 POSITION |
| CHANNEL PRESET | See; OPERATING INSTRUCTIONS |
| VOLUME | Appropriate sound volume |
| TV/EXT | TV |
| DISPLAY | CHANNEL DISPLAY |
| COLOUR SYSTEM | TV / PAL |
| HYPERSOUND | OFF |
| COOL/NORMAL | COOL |
| SLEEP TIMER | OFF |
| TV SPEAKER | ON |
| BLUE BACK | ON |
| ZOOM MODE | REGULAR |
| TONE | OFF |
| BALANCE, BASS, TREBLE | CENTRE |
| LANGUAGE | ENGLISH |
| CHILD LOCK | ID No.****** |

### SERVICE MENU SETTING ITEMS

**Service menu & Setting item**
**1. IF**
1. VCO
2. DELAY POINT

**2. V/C**
1. CUT OFF (R, G, B)
2. DRIVE (R, B)
3. BRIGHT
4. CONT.
5. COLOUR (PAL/NTSC)
6. TINT (NTSC)
7. BLACK OFFSET (Do not adjust)
8. SHARP
9. TEXT (RGB) CONT(Do not adjust)
10. DC TRAN RATE (Do not adjust)
11. BLACK STRETCH (Do not adjust)
12. B.S.OFF (Do not adjust)

**3. AUDIO**
1. CONC LIMIT (Do not adjust)
2. A2 ID THR (Do not adjust)

**4. DEF.**
1. TRAPEZ (Except for AV-21TS4EK)
2. V-SHIFT

3. V-SIZE
4. H-CENT
5. H-SIZE (Except for AV-21TS4EK)
6. EW-PIN (Except for AV-21TS4EK)
7. V-S. CR
8. V-EDGE (Except for AV-21TS4EK)
9. EW-COR (Except for AV-21TS4EK)
10. V-LIN (Only: AV-21TS4EK)
11. ABL POINT (Do not adjust)
12. ABL GAIN (Do not adjust)

**5. VSM PRESET**
COOL/NORMAL/WARM
1. BRIGHT
2. CONT.
3. COLOUR
4. SHARP
5. TINT
6. R DRIVE
7. B DRIVE
8. BASS
9.TREBLE

**6. VPS (Do not adjust)**
VPS

**7. AUTO PROGRAM (Do not adjust)**
ON / OFF

**8. MAX VOLUME**
LEVEL

## 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. Turn on the power of the TV and measuring equipment for warming up for at least 30 minutes before starting adjustment.
4. Make sure that connection is correctly made to AC power source.
5. If the receive or input signal is not specified, use the most appropriate signal for adjustment.
6. Never touch parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.
7. Preparation for adjustment (presetting): Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT:

**1) PICTURE MODE (VSM)**
COOL
**2) SLEEP TIMER**
OFF
**3) DIGITAL SURROUND**
OFF
**4) BALANCE**
CENTRE
**5) ECO**
OFF
**6) ZOOM**
REGULAR

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

## Adjustments Cont'd

### ADJUSTMENT ITEMS
• B1 power supply check
• FOCUS adjustment
• IF circuit adjustment
• VSM PRESET setting adjustment
• VIDEO / CHROMA circuit adjustment
• DEFLECTION circuit adjustment
• AUDIO circuit adjustment (Do not adjust)
• Setting of MAX VOLUME

### BASIC OPERATION OF 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) 1. IF**
This mode adjusts the data of the IF circuit.
**2) 2. V/C**
This mode adjusts the data of the VIDEO / CHROMA circuit.
**3) 3. AUDIO**
This mode adjusts the setting values of the multiplicity SOUND circuit. (Do not adjust).
**4) 4. DEF**
This mode adjusts the setting values of the DEFLECTION circuit.
**5) 5. VSM PRESET**
This mode adjusts the initial setting values of COOL, NORMAL and WARM.
(VSM : Video Status Memory)
**6) 6. VPS**
This mode shows the monitor of the VPS and PDC. (Do not adjust). (VPS : Video Program System, PDC : Program Delivery Code)
**7) 7. AUTO PROGRAM**
By turning the powerswitch on, you can get the state of AUTO PROGRAM. (Do not adjust).
**8) 8. MAX VOLUME**
This mode adjusts the MAX VOLUME. (Do not adjust under normal condition).

#### 3. BASIC OPERATION OF SERVICE MENU
**1) How to enter SERVICE MENU**
Press the INFORMATION and the MUTE key of the REMOTE CONTROL UNIT simultaneously and the SERVICE MENU screen of Fig.1 will be displayed.
**2) Selection of SUB MENU SCREEN**
1) Press one of the keys 1~8 of the REMOTE CONTROL UNIT, and select the SUB MENU SCREEN from the SERVICE MENU.

SERVICE MENU ⟶ SUB MENU
1. IF
2. V/C
3. AUDIO
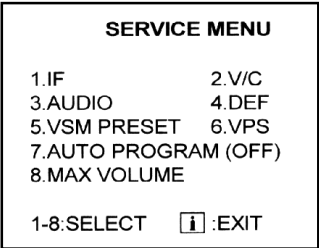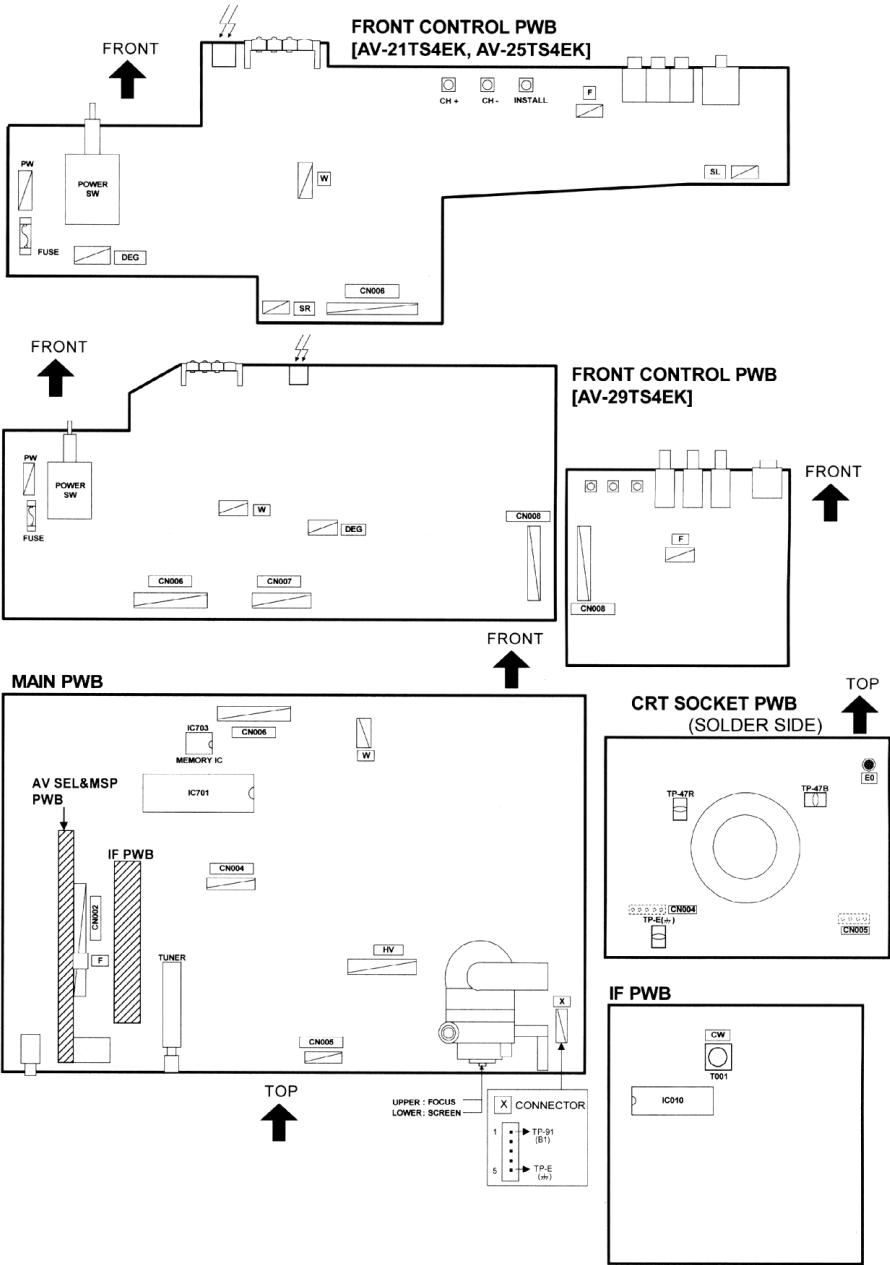4. DEF.
5. VSM PRESET
6. VPS
7. AUTO PROGRAM
8. MAX VOLUME

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| SERVICE MENU | |
|---|---|
| 1.IF | 2.V/C |
| 3.AUDIO | 4.DEF |
| 5.VSM PRESET | 6.VPS |
| 7.AUTO PROGRAM (OFF) | |
| 8.MAX VOLUME | |
| -08 | |
| 1-8:SELECT | ⓘ :EXIT |

**Fig. 1**

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### ADJUSTMENT LOCATIONS

FRONT

FRONT CONTROL PWB
[AV-21TS4EK, AV-25TS4EK]

FRONT CONTROL PWB
[AV-29TS4EK]

MAIN PWB

CRT SOCKET PWB
(SOLDER SIDE)

AV SEL&MSP PWB

IF PWB

TUNER

IF PWB

TOP

UPPER : FOCUS
LOWER : SCREEN

X CONNECTOR

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### REMOTE CONTROL KEYS

| Names of key | key |
|---|---|
| INFORMATION | ⓘ |
| MUTING | ✕ |
| MENU | OK |
| FUNCTION UP/DOWN | ▲▼ |
| FUNCTION -/+ | ◀▶ |

**Fig. 2**

**(3) Method of Setting**
**1) Method of Setting 1. IF**
[1. VCO]
(2) 1 Key. Select 1.IF.
(2) 1 Key. Select 1.VCO.
(3) 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.
(4) INFORMATION Key. As you press this twice, you will return to the SERVICE MENU.

[2. DELAY POINT]
(1) 1 Key. Select 1.IF.
(2) 2 Key. Select 2.DELAY POINT.
(3) FUNCTION -/+. Set (adjust) the setting values of the setting items.
(4) MENU Key. Memorize the set value.
(Before storing the setting values in memory, do not press the INFORMATION, TV, POWER ON/OFF keys - it you do, the values will not be stored in memory.)
(5) INFORMATION Key. When this is pressed twice, you will return to the SERVICE MENU.

**2) Method of setting 2.V/C, 3. AUDIO, 4.DEF and 5.VSM PRESET.**
1) 2 ~ 5 keys.
Select one from 2.V/C, 3. AUDIO, 4.DEF and 5.VSM PRESET.
2) FUNCTION UP/DOWN key.
Select setting items.
3) FUNCTION -/+ key.
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.)

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4) MENU Key.
Memorize the setting value.
(Before storing the setting values in memory, do not press the INFORMATION, 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) 8. MAX VOLUME**
This mode adjusts the MAX VOLUME. (Do not adjust under normal condition).
(1) 8 Key
Select 8. MAX VOLUME.
(2) FUNCTION -/+ Key
Set (adjust) the setting values of the setting items
(3) MENU Key
Memorise the setting value
(4) INFORMATION Key
Return to the SERVICE MENU screen

**(4) Release of SERVICE MENU**
1) After completing the setting, return to the SERVICE MENU, then again press the INFORMATION key.

## Electrical Adjustments

**Item**
B1 power supply check

**Measuring instrument**
Signal generator
DC Voltmeter

**Test point**
TP-91
TP-E (⏚)
[X connector in MAIN PWB]

**Description**
1. Receive a whole black signal.
2. Connect a DC voltmeter to TP-91 and TP-E (⏚).
3. Make sure that the voltage is DC116.5V ± 2.0V.(AV-21TS4EK), DC149.5V ± 2.0V.(AV-25TS4EK) or DC142.5V ± 2.0V.(AV-29TS4EK)

**FOCUS Adjustment**

**Item**
FOCUS Adjustment

**Measuring instrument**
Signal generator

**Adjustment part**
FOCUS VR [In HVT]

**Description**
1. Receive a cross-hatch signal.
2. While watching the screen, adjust the FOCUS VR to make the vertical and horizontal lines as fine and sharp as possible.
3. Make sure that when the screen is darkened, the lines remain in good focus.

**IF CIRCUIT ADJUSTMENT**

**Item**
Adjustment of VCO

---

**Measuring instrument**
Remote control unit

**Adjustment part**
P. CW TRANSF.
(TOO1)
[On IF PWB]
• Do not make any adjustment unless the adjustment is out of way and you cannot get correct PICTURE.
1. Select 1.IF from the SERVICE MENU.
2. Press 1 key and select 1.VCO.
3. Select a receivable broadcast channel with the CHANNEL key.
4. Turn the core of P. CW TRANSF. until the colour of the characters TOO HIGH displayed on the screen changes from blue to..Yellow. (Step 1)
5. Turn the core of P. CW TRANSF. until the colour of the characters TOO LOW changes from blue to Yellow. (Step 2)
6. Then slowly turn back the core of P. CW TRANSF. until the colour of the characters JUST REFFERENCE changes from blue to Yellow. (Step 3)
7. Press the INFORMATION key three times to return to normal screen.
8. Perform CHANNEL PRESET again, and make sure that each broadcast is being received properly.

VCO(CW) ***.** MHz ⟵ [ ⏚ ]
TOO HIGH
ABOVE REFERENCE
JUST REFERENCE ⟵ [ YELLOW ]
BELOW REFERENCE
TOO LOW

ⓘ : EXIT
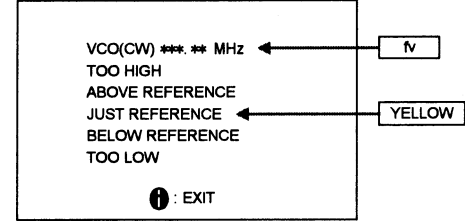
| Screen display | Step | | |
|---|---|---|---|
| | 1 ⟶2 ⟶ | | 3 |
| TOO HIGH | Yellow ⟶ Blue ⟶ | | Blue |
| ABOVE REFERENCE | Blue ⟶ Blue ⟶ | | Blue |
| JUST REFERENCE | Blue ⟶ Blue ⟶ | | Yellow |
| BELOW REFERENCE | Blue ⟶ Blue ⟶ | | Blue |
| TOO LOW | Blue ⟶ Yellow ⟶ | | Blue |

**Item**
Adjustment of DELAY POINT

**Measuring instrument**
Remote control unit

**Adjustment part**
[AGC TAKE-OVER]
1. Receive a black and white signal (colour off).
2. Select 1 IF from the SERVICE MENU.
3. Select 2.DELAY POINT by pressing the 2 key on the remote control.
4. Adjust the FUNCTION - or + key until video noise disappears.
5. Press the MENU key and memorize the set value.
6. Turn to other channels and make sure that there are no irregularities.

**Setting item (Adjustment item)**
DELAY POINT (AGC TAKE-OVER)

Variable range: 0~63
Initial setting value: 30

**Item**
Setting of VSM PRESET ADJUST

**Measuring instrument**
Remote control unit

**Adjustment part**
1. BRIGHT
2. CONT.
3. COLOUR
4. SHARP

---

5. TINT
6. R DRIVE
7. B DRIVE
8. BASS
9.TREBLE

**Description**
1. Select 5.VSM PRESET from the SERVICE MENU.
2. Select COOL with the MENU key of the remote control unit.
3. Adjust the FUNCTION UP/DOWN and -/+ key to bring the set values of 1. BRIGHT ~ 9.TREBLE to the values shown in the table.
4. Press the MENU key and memorize the set value.
5. Respectively select the VSM PRESET mode for NORMAL and WARM, and make similar adjustment as in 3.
6. Press the MENU key and memorize the set value.
* Refer to OPERATING INSTRUCTIONS for the PICTURE MODE.

| Setting item | VSM preset mode | COOL | NORMAL | WARM |
|---|---|---|---|---|
| 1. BRIGHT SETTING VALUE | | +0 | +0 | +0 |
| 2. CONT. SETTING VALUE | | +12 | +10 | +2 |
| 3. COLOUR SETTING VALUE | | +6 | +0 | -2 |
| 4. SHARP SETTING VALUE | 25"/29" | +0 | +0 | -2 |
| | 21" | +1 | +1 | -1 |
| 5. TINT SETTING VALUE | | +0 | +0 | +0 |
| 6. R DRIVE SETTING VALUE | | +2 | +15 | +22 |
| 7. B DRIVE SETTING VALUE | | +0 | -25 | -43 |
| 8. BASS SETTING VALUE | | +2 | +2 | +2 |
| 9. TREBLE SETTING VALUE | | +0 | +0 | +0 |

**SETTING VALUES OF VSM PRESET**

**VIDEO/CHROMA CIRCUIT ADJUSTMENT**
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.

| Setting (adjustment) item | | Variable range | Initial setting value |
|---|---|---|---|
| 1.CUT OFF | R | -128~+127 | -100 |
| | G | -128~+127 | -100 |
| | B | -128~+127 | -100 |
| 2.DRIVE | R | -118~+32 | +00 |
| | B | -31~+32 | +00 |
| 3.BRIGHT | | -128~+127 | +00 |
| 4.CONT | | -55~+31 | +00 |

| Setting (adjustment)item | Colour system | | Variable range | Initial setting value | | |
|---|---|---|---|---|---|---|
| | | | | PAL | NTSC 3.58 | NTSC 4.43 |
| 5. COLOUR | | | -128~+127 | +00 | +00 | (+00) |
| 6.TINT | TV | | -64~+63 | | +00 | |
| | VIDEO | | | | (+00) | |
| 7.BLACK OFFSET (Do not adjust) | R-Y | | -8~+7 | — | — | — |
| | B-Y | | -8~+7 | — | — | — |
| 8.SHARP (Do not adjust) | | | -36~+27 | -15 (Fixed) | +00 (Fixed) | (+00) (Fixed) |
| 9.TEXT (RGB) CONT (Do not adjust) | | | -128~+127 | -30 (Fixed) | | |
| 10.DC TRAN RATE (Do not adjust) | | | -08~-01 | -01 (Fixed) | | |
| 11.BLACK STRETCH (Do not adjust) | | | -08~-01 | -01 (Fixed) | | |
| 12.B.S.OFF (Do not adjust) | | | ON / OFF | OFF (Fixed) | | |

# JVC  AV-29TS4 EK

## Adjustments Cont'd

**Item**
Adjustment of WHITE BALANCE
(Low Light)

**Measuring instrument**
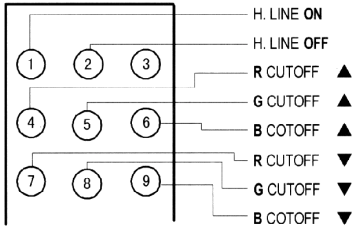Signal generator
Remote control unit

**Adjustment part**
1.CUT OFF
(R) * * *
(G) * * *
(B) * * *

SCREEN VR [In HVT]

**Description**
• Set the PICTURE MODE to COOL.
1. Receive a black and white signal(colour off).
2. Select 2. V/C from the SERVICE MENU.
3. Select 1 .CUT OFF with the FUNCTION UP/ DOWN key.
4. Show one honzontal line with the 1 key. With the SCREEN VR, adjust so that the horizontal line will not be too bright.
5. Gradually turn the SCREEN VR from the left end to the right direction to bring one of the red, green or blue colour faintly visible.
6. Press 4~9 key, and bring out the other 2 colours and make one horizontal line visible in white.
7. Turn the SCREEN VR and bring one white horizontal line faintly visible.
8. Press 2 key, turn off 1.CUT OFF screen.
9.Press the MENU key and memorize the set value.

**Remote Control Unit**

**Item**
Adjustment of WHITE BALANCE
(High Light)

**Measuring instrument**
Signal generator
Remote control unit

**Adjustment part**
2.DRIVE
(R) * *
(B) * *

**Description**
1. Receive a black and white signal (colour off).
2. Select 2.V/C from the SERVICE MENU.
3. Select 2.DRIVE with the FUNCTION UP/ DOWN key.
4. Change the screen colour to white with 4 key or 7 key (Drive of Red), 6 key or 9 key (Drive of Blue).
5. Press the MENU key, and memorize the set values.

**Remote Control Unit**

**Item**

---
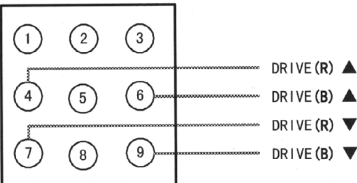
Adjustment of SUB BRIGHT
**Measuring instrument**
Remote control unit

**Adjustment part**
3.BRIGHT

**Description**
1. Receive any broadcast.
2. Select 2.V/C from the SERVICE MENU.
3. Select 3.BRIGHT with the FUNCTION UP/ DOWN key.
4. Set the initial setting value with the FUNC-TION -/+ key.
5. If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness.
6. Press the MENU key and memorize the set value.

**Item**
Adjustment of SUB CONT.

**Measuring instrument**
Remote control unit

**Adjustment part**
4.CONT.

**Description**
1. Receive any broadcast.
2. Select 2.V/C from the SERVICE MENU.
3. Select 4.CONT with the FUNCTION UP/ DOWN key.
4. Set the initial setting value with the FUNC-TION - or + key.
5. If the contrast is not the best with the initial setting value, make fine adjustment until you get the best contrast.
6. Press the MENU key and memorize the set value.

**Item**
Adjustment of SUB COLOUR I

**Measuring instrument**
Remote control unit

**Adjustment part**
5.COLOUR (PAL~NTSC)

**Description**
[Method of adjustment without using measuring instrument]

**Adjustment part**
PAL COLOUR

**Description**
(PAL COLOUR)
1. Receive PAL broadcast.
2. Select 2.V/C from the SERVICE MENU.
3. Select 5.COLOUR with the FUNCTION UP/ DOWN key.
4. Set the initial setting value for PAL COLOUR with the FUNCTION - or + key.
5. If the colour is not the best with the initial set value, make fine adjustment until you get the best colour.
6. Press the MENU key and memorize the set value.

**Adjustment part**
NTSC COLOUR

**Description**
(NTSC 3.58 COLOUR)
1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal from the EXT terminal.
2. Make similar fine adjustment of NTSC 3.58 COLOUR in the same manner as for above.
(NTSC 4.43 COLOUR)
1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.

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**Item**
Adjustment of SUB COLOUR II

**Measuring instrument**
Signal generator
Oscilloscope
Remote control unit

**Test Point**
TP-47B
TP-E($\perp$)
[CRT SOCKET PWB]

**Adjustment part**
5.COLOUR
(PAL~NTSC)
[Method of adjustment using measuring instrument]

**Adjustment part**
PAL COLOUR

**Description**
(PAL COLOUR)
1. Receive a PAL full field colour bar signal (75% white).
2. Select 2.V/C from the SERVICE MENU.
3. Select 5.COLOUR with the FUNCTION UP/ DOWN key.
4. Set the initial setting value of PAL COLOUR with the FUNCTION - or + key.
5. Connect the oscilloscope between TP-47B and TP-E($\perp$).
6. Adjust PAL COLOUR and bring the value of (A) in the illustration to +5V (voltage difference between white (w) and blue (B)).
7. Press the MENU key and memorize the setting value.
Voltage (W~B) +3V (AV-21TS4EK) or +2V (AV-25TS4EK/AV-29TS4EK)
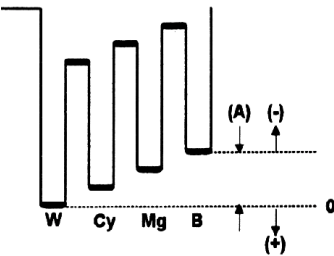
**Adjustment part**
NTSC 3.58 COLOUR

**Description**
(NTSC 3.58 COLOUR)
1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal.
2. Set the initial setting value of NTSC 3.58 COLOUR with the FUNCTION -/+ key.
3. Adjust NTSC 3.58 COLOUR and bring the value of (A) to the values shown.
4. Press the MENU key and memorize the setting values shown.
Voltage (W~B) +5V (AV-21TS4EK) or -3V (AV-25TS4EK/AV-29TS4EK)

(NTSC 4.43 COLOUR)
1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.

**Item**
Adjustment of SUBTINT I

**Measuring instrument**
Remote control unit

**Adjustment part**
6.TINT

**Description**
[Method of adjustment without using measuring instrument]

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**Item**
Adjustment of SUB COLOUR II

**Adjustment part**
NTSC 3.58 TINT

**Description**
[NTSC 3.58 TINT]
1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal.
2. Select 2.V/C from the SERVICE MENU.
3. Select 6. TINT with the FUNCTION UP/ DOWN key.
4. Set the initial setting value of NTSC 3.58 TINT with the FUNCTION -/+ key.
5. If you cannot get the best tint with the initial setting value, make fine adjustment until you get the best tint.
6. Press the MENU key and memorize the set value.

**Adjustment part**
NTSC 4.43 TINT

**Description**
(NTSC 4.43 TINT)
1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.

**Item**
Adjustment of SUB TINT II

**Measuring instrument**
Signal generator
Oscilloscope
Remote control unit

**Test Point**
TP-47B
TP-E($\perp$)
[CRT SOCKET PWB]

**Adjustment part**
6. TINT

**Description**
[Method of adjustment using measuring instrument]
[NTSC 3.58 TINT]
1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal.
2. Select 2.V/C from the SERVICE MENU.
3. Select 6.TINT with the FUNCTION UP/DOWN key.
4. Set the initial setting value of NTSC 3.58 TINT with the FUNCTION - or + key.
5. Connect the oscilloscope between TP-47B and TP-E($\perp$).
6. Adjust NTSC 3.58 TINT to bring the value of (A) in the illustration to +3V (voltage difference between white (W) and magenta (Mg)).
7. Press the MENU key and memorize the setting values shown.
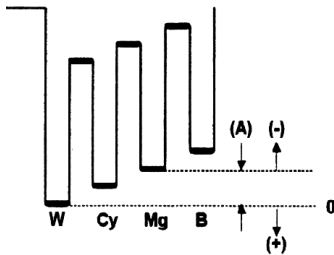
-Voltage (W~B) +2V (AV-21TS4EK) or +5V (AV-25TS4EK/AV-29TS4EK)

**Description**
[NTSC 4.43 TINT]
1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.

---

**DEFLECTION CIRCUIT ADJUSTMENT**

There are 5 modes of the adjustment
**(1) 50Hz mode**
(1) REGULAR
(2) ZOOM1
(3) ZOOM2
(4)16:9

**(2) 60Hz mode**
(REGULAR) depending upon the kind of signals (vertical frequency 50Hz / 60Hz).

Adjustments in 50Hz REGULAR mode should always be done first.
When the 50Hz REGULAR mode has been established, the setting of other modes will be done automatically. However, if the picture quality has not been optimized, adjust each mode again, respectively.
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.

**[AV-21TS4EK]**

| Setting (adjustment) item | Adjustment name | Variable range | Initial setting value | | | | |
|---|---|---|---|---|---|---|---|
| | | | 50Hz mode | | | | 60Hz mode |
| | | | REGULAR | ZOOM1 | ZOOM2 | 16:9 | |
| 2.V-SHIFT | Vertical center | -32~+31 | +01 | -01 | -01 | +00 | -03 |
| 3.V-SIZE | Vertical hight | -64~+63 | +29 | +19 | +26 | -32 | +02 |
| 4.H-CENT | Horizontal center | -16~+15 | -10 | +00 | +00 | -10 | +05 |
| 7.V-S.CR | Vertical hight correction | -16~+15 | -10 | +30 | +35 | +00 | +20 |
| 10.V-LIN | Vertical linearity | -08~+07 | -09 | +00 | +01 | +00 | -03 |
| 11.ABL POINT (Do not adjust) | Auto beam limited point | -08~-01 | -04 | ← | ← | ← | ← |
| 12.ABL GAIN (Do not adjust) | Auto beam limited gain | -08~-01 | -04 | ← | ← | ← | ← |

**[AV-25TS4EK]**

| Setting (adjustment) item | Adjustment name | Variable range | Initial setting value | | | | |
|---|---|---|---|---|---|---|---|
| | | | 50Hz mode | | | | 60Hz mode |
| | | | REGULAR | ZOOM1 | ZOOM2 | 16:9 | |
| 1.TRAPEZ | Trapezoidal distortion correction | -32~+31 | +18 | -02 | -03 | +01 | -02 |
| 2.V-SHIFT | Vertical center | -32~+31 | -12 | +05 | +06 | +05 | +11 |
| 3.V-SIZE | Vertical hight | -64~+63 | -28 | +17 | +26 | -26 | +01 |
| 4.H-CENT | Horizontal center | -16~+15 | -08 | -01 | -01 | -08 | +05 |
| 5.H-SIZE | Horizontal width | -32~+31 | +20 | -04 | -04 | +00 | +02 |
| 6.EW-PIN | Side pin correction | -32~+31 | -09 | +09 | +14 | -11 | +00 |
| 7.V-S.CR | Vertical hight correction | -16~+15 | +04 | +04 | +05 | -08 | +00 |
| 8.V-EDGE | Vertical edge correction | -08~+07 | +07 | +00 | +00 | +00 | +00 |
| 9.EW-COR | Side pin for corner correction | -08~+07 | +01 | +05 | +05 | -05 | +00 |
| 11.ABL POINT (Do not adjust) | Auto beam limited point | -08~-01 | -04 | ← | ← | ← | ← |
| 12.ABL GAIN (Do not adjust) | Auto beam limited gain | -08~-01 | -04 | ← | ← | ← | ← |

**[AV-29TS4EK]**

| Setting (adjustment) item | Adjustment name | Variable range | Initial setting value | | | | |
|---|---|---|---|---|---|---|---|
| | | | 50Hz mode | | | | 60Hz mode |
| | | | REGULAR | ZOOM1 | ZOOM2 | 16:9 | |
| 1.TRAPEZ | Trapezoidal distortion correction | -32~+31 | +16 | -02 | -04 | +01 | -01 |
| 2.V-SHIFT | Vertical center | -32~+31 | -13 | +02 | +03 | +02 | +12 |
| 3.V-SIZE | Vertical hight | -64~+63 | -26 | +16 | +27 | -25 | +01 |
| 4.H-CENT | Horizontal center | -16~+15 | -09 | +00 | +00 | -09 | +05 |
| 5.H-SIZE | Horizontal width | -32~+31 | +15 | -03 | -03 | +00 | +02 |
| 6.EW-PIN | Side pin correction | -32~+31 | +02 | +11 | +20 | -14 | -01 |
| 7.V-S.CR | Vertical hight correction | -16~+15 | +02 | +01 | +04 | +00 | +00 |
| 8.V-EDGE | Vertical edge correction | -08~+07 | +07 | +00 | +00 | +00 | +00 |
| 9.EW-COR | Side pin for corner correction | -08~+07 | -02 | +03 | +04 | +00 | -01 |
| 11.ABL POINT (Do not adjust) | Auto beam limited point | -08~-01 | -04 | ← | ← | ← | ← |
| 12.ABL GAIN (Do not adjust) | Auto beam limited gain | -08~-01 | -04 | ← | ← | ← | ← |

# JVC  AV-29TS4 EK

## Adjustments Cont'd

**Item**
Adjustment of TRAPEZ [Except for AV-21TS4EK]

**Measuring Instrument**
Signal generator
Remote control unit
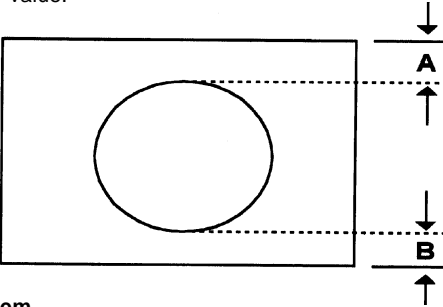
**Adjustment part**
1.TRAPEZ

**Description**
[50Hz REGULAR mode]
1  Receive a cross-hatch signal of vertical frequency 50Hz.
2.  Select 4.DEF from the SERVICE MENU.
3.  Select 1 .TRAPEZ with the FUNCTION UP/DOWN key.
4.  Set the initial setting value of TRAPEZ with the FUNCTION - or + key.
5.  Adjust TRAPEZ and bring the VERTICAL lines at the right and left edges of the screen parallel.
6.  Press the MENU key and memorise the set value.

**Parallel**
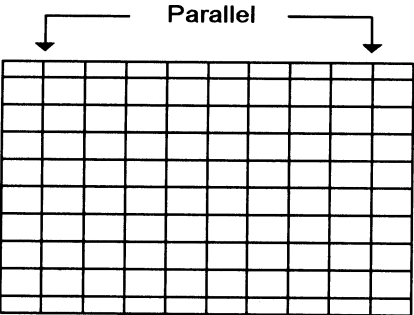
**Item**
Adjustment of V-SHIFT

**Adjustment part**
2.V-SHIFT

**Description**
7.  Receive a circle pattern signal
8.  Select 2.V-SHIFT and set the initial setting value.
9.  Adjust V-SHIFT to make A = B.
10.Press the MENU key and memorize the set value.

**Item**
Adjustment of V-SIZE

**Adjustment part**
3.V. SIZE

**Description**
11.Receive a cross-hatch signal.
12.Select 3.V-SIZE and set the initial setting value.
13.Adjust V-SIZE and make sure that the vertical screen size of the picture size is in the table.
14.Press the MENU key and memorize the set value.

---

**Screen size**
Screen size / Picture size 100%
Picture size 100%
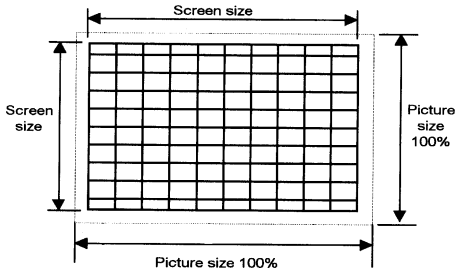
**[AV-25TS4EK / AV-29TS4EK]**

| MODE Freq. | REGULAR | ZOOM1 | ZOOM2 |
|---|---|---|---|
| 50Hz | 92% | 80% | 74% |
| 60Hz | 90% | 78% | 72% |

**[AV-21TS4EK]**

| MODE Freq. | REGULAR | ZOOM1 | ZOOM2 |
|---|---|---|---|
| 50 / 60Hz | 92% | 80% | 74% |

**Item**
Adjustment of H.CENTER

**Adjustment part**
4.H-CENT.

**Description**
15.Receive a circle pattern signal.
16.Select 4.H-CENT and set the initial setting value.
17.Adjust H-CENT to make C=D.
18.Press the MENU key and memorize the set value.
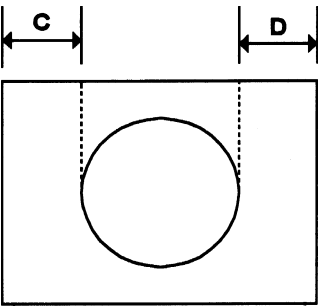
**Item**
Adjustment of H.SIZE [Except for AV-21TS4EK]

**Adjustment part**
5.H-SIZE

**Description**
19.Receive a cross-hatch signal.
20.Select 5.H-SIZE and set the initial setting value.
21.Adjust H-SIZE and make sure that the horizontal screen size of the picture size is in the table.
22.Press the MENU key and memorize the set value.

**[AV-25TS4EK / AV-29TS4EK]**

| MODE Freq. | REGULAR | ZOOM1 | ZOOM2 |
|---|---|---|---|
| 50Hz | 92% | 85% | 85% |
| 60Hz | 90% | 83% | 83% |

**[AV-21TS4EK]**

| MODE Freq. | REGULAR | ZOOM1 | ZOOM2 |
|---|---|---|---|
| 50 / 60Hz | 92% | 85% | 85% |

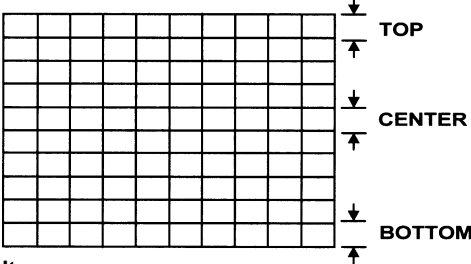**Item**
Adjustment of EW-PIN [Except for AV-21TS4EK]

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**Description**
23.Select 6.EW-PIN and set the initial setting value
24.Adjust EW-PIN and make the 2nd vertical lines at the left and right edges of the screen straight. Also make sure that the 3rd vertical lines are straight.
25.Press the MENU key and memorize the set value.

**Straight**
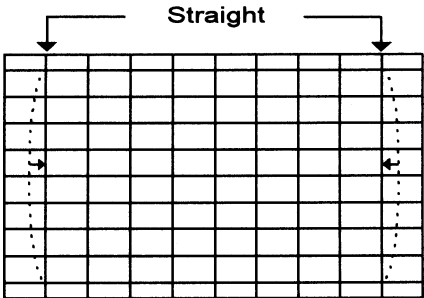
**Item**
Adjustment of V-S.CR & V-EDGE

**Adjustment part**
7.V-S.CR
8.V-EDGE

**Description**
*  When the vertical linearity has been deteriorated remarkably, perform the following steps.
26.Receive a cross-hatch signal.
27.Select 7.V-S.CR and set the initial setting value.
28.Select 8.V-EDGE and set the initial setting value.
29.Adjust both items so that the spaces of each line on TOP, CENTRE and BOTTOM become uniform.
30.Press the MENU key and memorize the set value.

TOP
CENTER
BOTTOM

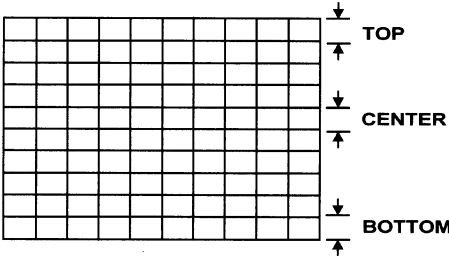**Item**
Adjustment of EW-COR

**Adjustment part**
9.EW-COR

**Description**
31.Select 9.EW-COR and set the initial setting value.
32.Adjust EW-COR and make the vertical lines at the four corners of the screen straight
33.Press the MENU key and memorize the set value.
34.Make sure that the adjustment is done properly on the screen of other mode.
[NOTE]
When adjusting again, ajust 50Hz mode first.

**Item**
Adjustment of V-S.CR & V-LIN

**Adjustment part**
7.V-S.CR
10.V-LIN

**Description**
*  When the vertical linearity has been deteriorated remarkably, perform the following steps.
26. Receive a cross-hatch signal.
27.Select 7.V-S.CR and set the initial setting value.
28.Select 10.V-LIN and set the initial setting value.

---

29.Adjust both items so that the spaces of each line on TOP, CENTRE and BOTTOM become uniform..
30.Press the MENU key and memorize the set value.
31.Make sure that the adjustment is done properly on the screen of other mode.
[NOTE]
When adjusting again, adjust 50Hz mode first.

TOP
CENTER
BOTTOM

### AUDIO CIRCUIT ADJUSTMENT
•  Do not touch 3.AUDIO (1. CONC UMIT, 2. A2 ID THR) of the SERVICE MENU as it requires no adjustment.

### 3. AUDIO

Setting item: 1. CONC LIMIT (Do not adjust)
Variable range: 00H~FFH
Fixed value: 0AH

Setting item: 2.A2 ID THR (Do not adjust)
Variable range: 00H~FFH
Fixed value: 19H
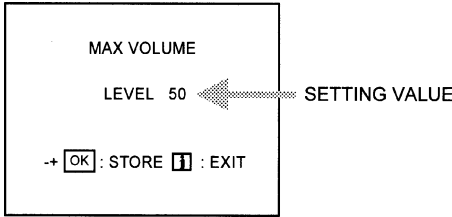
### SETTING OF MAX VOLUME
This model has a function that can set MAX VOLUME in the SERVICE MENU. (Do not adjust them under normal condition).
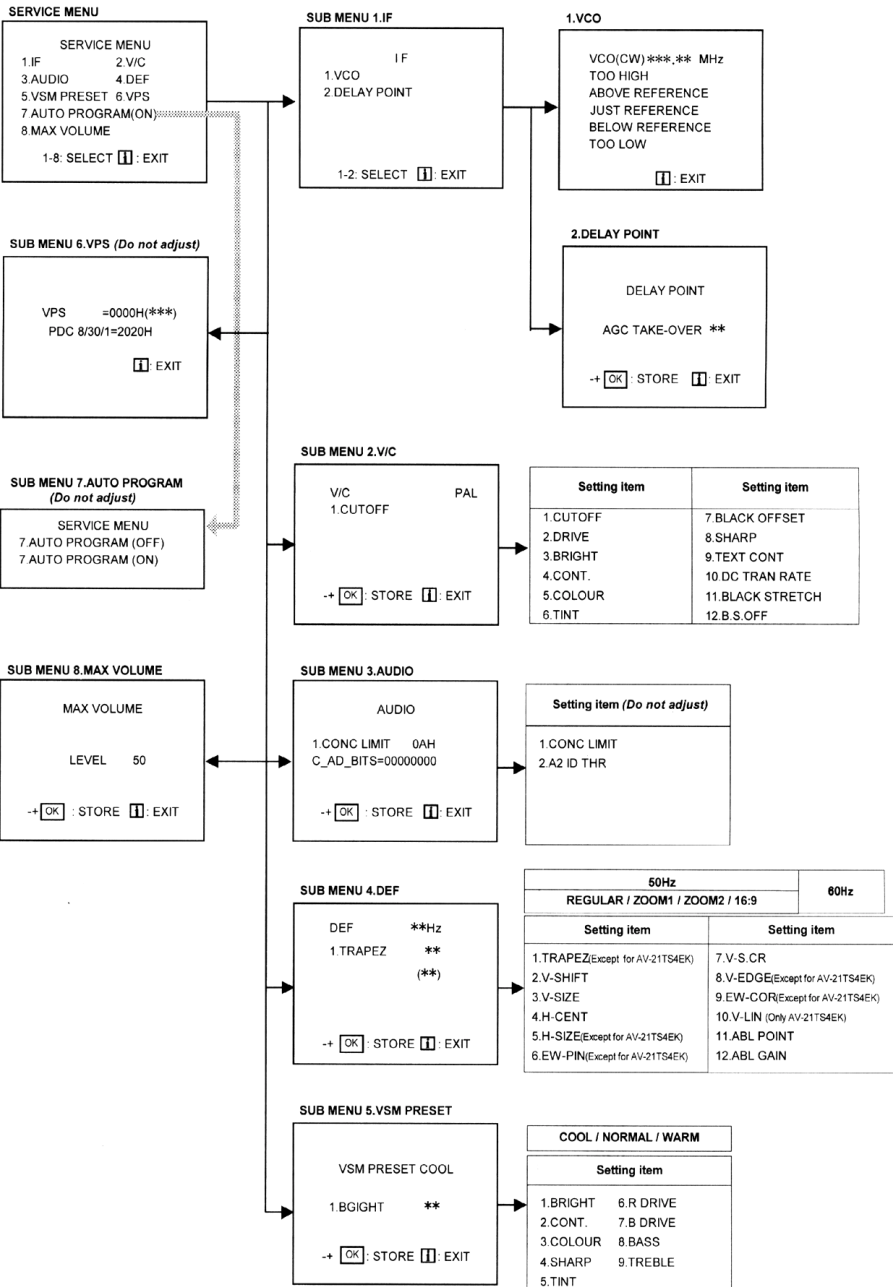
**Item**
Setting of MAX VOLUME

**Measuring Instrument**
Remote Control Unit

**Adjustment Part**
MAX VOLUME

**Description**
1. Select 8. MAX VOLUME from the SERVICE MENU.
2. Set the setting value with the FUNCTION -/+ key.
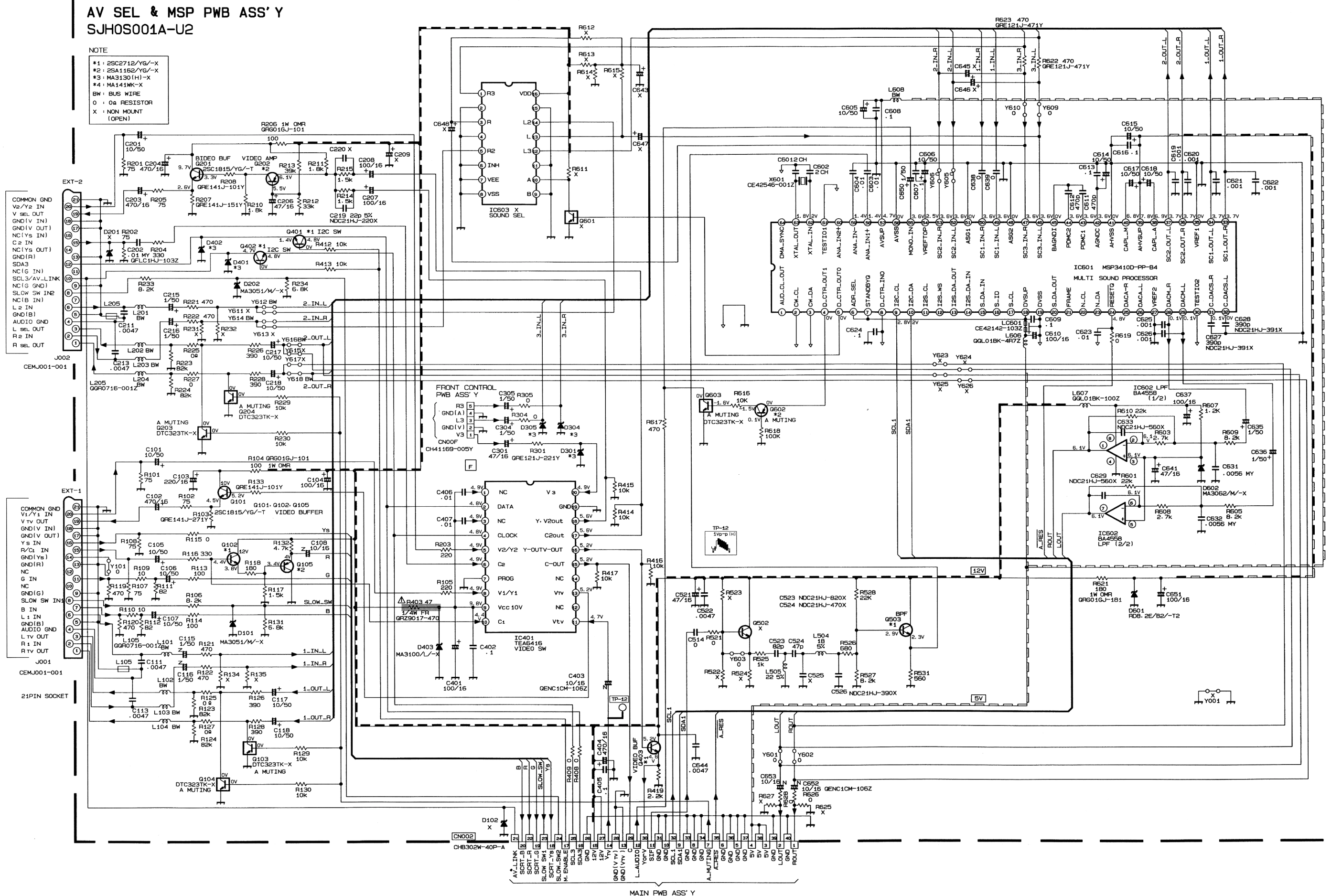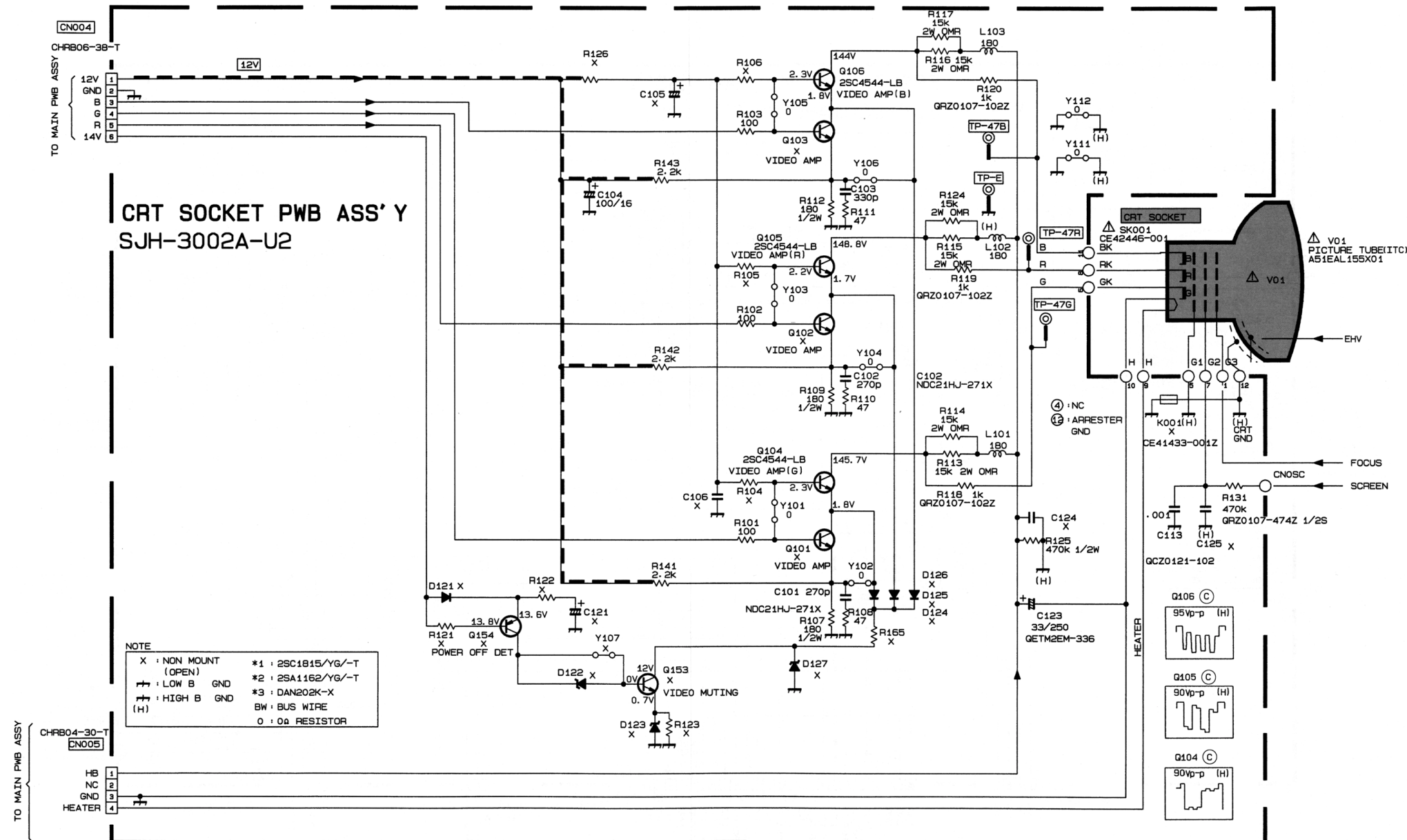3. Usually, set the value to LEVEL 50.

MAX VOLUME
LEVEL  50  ◄── SETTING VALUE
◄ [OK] : STORE  [I] : EXIT

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## Sub Menu Screen

SERVICE MENU
SERVICE MENU
1.IF            2.V/C
3.AUDIO       4.DEF
5.VSM PRESET  6.VPS
7.AUTO PROGRAM(ON)
8.MAX VOLUME
1-8: SELECT [I] : EXIT

SUB MENU 1.IF
IF
1.VCO
2.DELAY POINT
1-2: SELECT [I] : EXIT

1.VCO
VCO(CW)***.** MHz
TOO HIGH
ABOVE REFERENCE
JUST REFERENCE
BELOW REFERENCE
TOO LOW
[I] : EXIT

2.DELAY POINT
DELAY POINT
AGC TAKE-OVER  **
◄ [OK] : STORE  [I] EXIT

SUB MENU 6.VPS *(Do not adjust)*
VPS     =0000H(***)
PDC 8/30/1=2020H
[I] : EXIT

SUB MENU 7.AUTO PROGRAM *(Do not adjust)*
SERVICE MENU
7.AUTO PROGRAM (OFF)
7.AUTO PROGRAM (ON)

SUB MENU 2.V/C
V/C        PAL
1.CUTOFF
◄ [OK] STORE [I] EXIT

| Setting item | Setting item |
|---|---|
| 1.CUTOFF | 7.BLACK OFFSET |
| 2.DRIVE | 8.SHARP |
| 3.BRIGHT | 9.TEXT CONT |
| 4.CONT. | 10.DC TRAN RATE |
| 5.COLOUR | 11.BLACK STRETCH |
| 6.TINT | 12.B.S.OFF |

SUB MENU 8.MAX VOLUME
MAX VOLUME
LEVEL    50
◄ [OK]  STORE [I] EXIT

SUB MENU 3.AUDIO
AUDIO
1.CONC LIMIT   0AH
C_AD_BITS=00000000
◄ [OK] : STORE [I] EXIT

Setting item *(Do not adjust)*
1.CONC LIMIT
2.A2 ID THR

SUB MENU 4.DEF
DEF      **Hz
1.TRAPEZ    **
(**)
◄ [OK] : STORE [I] : EXIT

| | 50Hz | 60Hz |
|---|---|---|
| | REGULAR / ZOOM1 / ZOOM2 / 16:9 | |
| Setting item | | Setting item |
| 1.TRAPEZ(Except for AV-21TS4EK) | | 7.V-S.CR |
| 2.V-SHIFT | | 8.V-EDGE(Except for AV-21TS4EK) |
| 3.V-SIZE | | 9.EW-COR(Except for AV-21TS4EK) |
| 4.H-CENT | | 10.V-LIN (Only AV-21TS4EK) |
| 5.H-SIZE(Except for AV-21TS4EK) | | 11.ABL POINT |
| 6.EW-PIN(Except for AV-21TS4EK) | | 12.ABL GAIN |

SUB MENU 5.VSM PRESET
VSM PRESET COOL
1.BGIGHT      **
◄ [OK] : STORE [I] : EXIT

COOL / NORMAL / WARM
| Setting item |
|---|
| 1.BRIGHT    6.R DRIVE |
| 2.CONT.     7.B DRIVE |
| 3.COLOUR    8.BASS |
| 4.SHARP     9.TREBLE |
| 5.TINT |

# JVC AV-29TS4 EK

## AV Selector & MSP PCB Diagram



AV SEL & MSP PWB ASS'Y
SJH0S001A-U2

# JVC  AV-29TS4 EK

## CRT Diagram (21")

# JVC  AV-29TS4 EK

## CRT Diagram (25"/29")



CRT Diagram (25"/29") schematic — JVC AV-29TS4 EK, CRT SOCKET PWB ASS'Y SJH-3001A-U2

**Front Control Diagram (21")**

# JVC  AV-29TS4 EK

## Front Control Diagram (25"/29")

# JVC  AV-29TS4 EK

## Main PCB Diagram



MAIN PWB ASS'Y
SJH-1901A-U2[AV-29TS4EK]
SJH-1902A-U2[AV-25TS4EK]
SJH-1903A-U2[AV-21TS4EK]

NOTE
*1: 2SC2712/YG/-X
*2: 2SA1162/YG/-X
*3: MA111-X
BW: BUS WIRE
X: NON MOUNT
(OPEN)

DIFFERENCE LIST(*PARTS)

# JVC  AV-29TS4 EK

## Power Deflection Diagram (21")

# JVC  AV-29TS4 EK

## Power Deflection Diagram (25"/29")