SERVICE ADJUSTMENTS

[After replacing the Menory IC (IC803)]

The memory IC, IC803, stores the feature setting data of TV set and service adjustments data for each circuit, therefore, when the memory IC is replaced, it should be performed by following "FEATURE SETTING" and "SERVICE ADJUSTMENT".

[FEATURE SETTING]

To enter to the Feature Setting Mode

+ Press and hold the "**GREEN**" button on the remote control and **P▼ button** on the front control panel. The adjustment window will appear on the screen.

+ Highlight the **FEATURE** memu by using the ▲ or ▼ **button** and then press the **OK button**. The window will change to the feature setting window.

```
         ADJUST Ver 1.0
      ┌─────────────────────┐
      │ REGULAR             │
      │ WIDE                │
      │ OTHERS              │
      │ FEATURE             │
      │ TDA9320             │
      │ TDA9330             │
      │ TDA9178             │
      │ TC90A36             │
      └─────────────────────┘
        SELECT: ⇧⇩     OK
          EXIT : RECALL
```

=>

```
          FEATURE
      ┌─────────────────────────┐
      │ ON-TIMER        ON       │
      │ SORT MODE    ATS EURO +  │
      │ PLUG & PLAY     ON       │
      │ WELCOME TEXT    ON       │
      │ CODE TEST       OFF      │
      │ WSS             ON       │
      │ AUTO VOLUME     OFF      │
      │ DOLBY AUTO BAL  OFF      │
      └─────────────────────────┘
      ⇧⇩ ADJUST : ⇦⇨ EXIT : RECALL
```
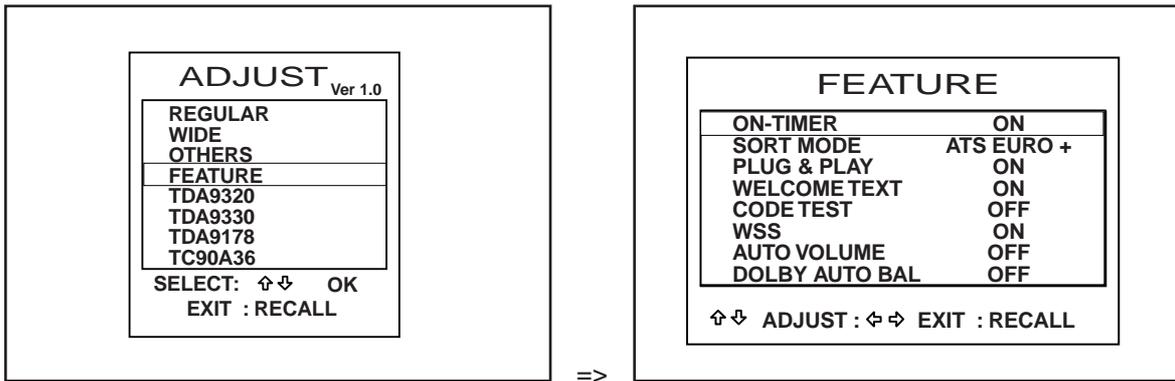
To set the feature mode

+ Highlight the desired feature item by using the ▲ or ▼ **button**.

+ To change the feature mode, use the ◄ or ► **button**.

+ The data which is set in the feature mode is stored into the memory IC automatically.

Following table shows the available feature items and default setting. (The features of item DOLBY AUTO BAL mode will not operate properly even if the mode can be selected.)

Feature items	Mode	Description & Note
ON-TIMER	ON or OFF	On-timer available, default "ON"
SORT MODE	AUTO TUNE/SORT or AUTO TUNE or ATS EURO PLUS	Tuning mode, default "ATS EURO +"
PLUG & PLAY	ON or OFF	Plug & Play mode,default "ON"
WELCOME TEXT	ON or OFF	Display message when first set up, default "ON"
CODE TEST	OFF or ON	For factory use, default "OFF"
WSS	OFF or ON	Wide Screen Signaling available , default "ON"
AUTO VOLUME	ON or OFF	Auto Volume function available, default "OFF"
DOLBY AUTO BAL	OFF or ON	Dolby Auto balance mode, default "OFF"

Exit from the Feature Setting Mode

+ Press the **RECALL button** on the remote control.

WB5-B chassis

[SERVICE ADJUSTMENT]

Note: Some items of the service adjustments for this chassis are controlled by the CPU, IC801, and the adjustments are carried out by using the RC handset.

IMPORTANT NOTICE
Do not attempt to adjust service adjustments not listed on the above otherwise it may cause loss of performance and product safety.

To enter to the Service Mode
+ Press and hold the "**GREEN**" **button** on the remote control and **P▼ button** on front control panel. The adjustment window will appear on the screen.

```
         ADJUST Ver 1.0
        REGULAR
        WIDE
        OTHERS
        FEATURE
        TDA9320
        TDA9330
        TDA9178
        SELECT:  ⇧⇩      OK
           EXIT  : RECALL
```
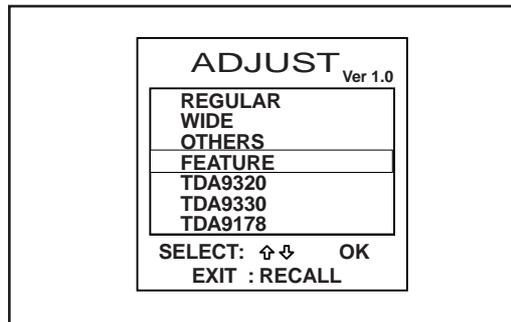
To select the mode and service item and change data value
+ Highlight the desired adjustment mode (**REGULAR** or **WIDE** mode **)** by using the ▲ or ▼ **button** and then press the **OK** button.
+ To select the adjustment item, use the ▲ or ▼ **button**.
+ To change the service data, use the ◄ or ► **button** button.
+ The data which is set in the service mode is stored into the memory IC automatically.

REGULAR mode

```
        REGULAR
        1VC1           38
```
Adjustment No. ⎯ **Adjustment Data**
and Item name

WIDE mode

```
        WIDE
        1.HSF          1F
```
Adjustment Item   **Adjustment Data**
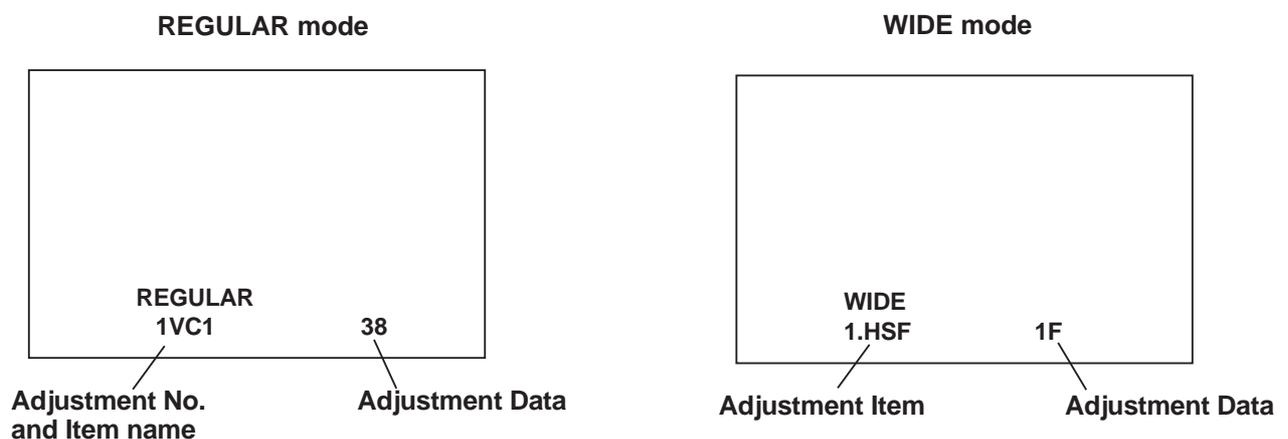
ADJUSTABLE SERVICE ADJUSTMENT

IMPORTANT NOTICE
Do not attempt to change the data value of service items not listed below table otherwise it may cause loss of performance and product safety. If you can not restore the data value of each service item, please initialize the momory IC following to the below description "INITIALIZATION OF MEMORY IC" and re-adjust all of service adjustments.

[REGULAR]

Item No.	OSD	Description	
1	1VC1	B/G VCO Adjustment	
2	2VC2	France-L/L' VCO Adjustment	
3	3AGC	AGC Adjustment	
4	4SCR	Screen Adjustment	
5	5GRY	White Balance Adjustment	
6	6CUT	Cut-Off Drive Adjustment	<-- Not required this adjustment
7	7CTR	Contrast Adjustment	<-- Not required this adjustment
8	8OSD	OSD Positioning Adjustment	

[WIDE]

Item No.	OSD	Description
4	4.P V-WA	Vertical Height Adjustment
6	6.P V-L	Vertical Linearity Adjustment
8	8.P H-P	Horizontal Centring Adjustment
9	9.P H-W	Horizontal Width Adjustment
11	11.P-PCC	PCC Adjustment
16	16.P-TRP	PCC-Tilt Adjustment

Exit from the Service Mode

+ Press the **RECALL button** or turn off the TV set by using the Mains switch.

[INITIALIZATION OF MEMORY IC]
To initialize the memory IC (IC803), press and hold the "**NORMAL**" **button** and then press the **P▼ button** on the front control panel, **and then turn the Mains switch Off and On**. Now the initialization is completed.
When initialized the memory IC, all of the setting data (feature setting data, option data and service adjustment data) stored in the IC are reset to the default value. So it is necessary to set the feature setting, option setting and readjust the service adjustments listed on left page.

WB5-B chassis

[ADJUSTMENTS]

How to adjust the each service data, Please see "SERVICE ADJUSTMENT on page 12 for Entering the Service mode , Selecting service item and Adjusting the service data value.

IMPORTANT NOTICE

Do not attempt to adjust the following service adjustments except requiring the readjustments in servicing otherwise it may cause loss of performance and product safety.

Adjustment Tools
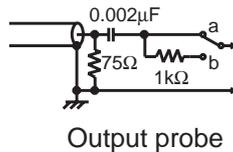
Output probe
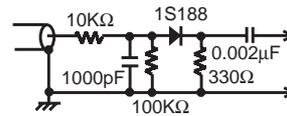
Input probe for CH trap alignment

CH TRAP ADJUSTMENT

1. Apply 8.0Vdc to pin "C156 +" and GND.
2. Connect output probe to terminal "TUNER IF".
3. Connect input probe to pin "Q131-C".
4. Set the sweep attenator to 11dB.
5. By using T131, adjust "A" to be minimum amplitude.

A = 40.4 MHz

IF VCO ADJUSTMENT

PAL BG VCO ADJUSTMENT

1. Apply 38.9MHz signal to IF terminal on the tuner.
2. Enter to the service mode and select mode "REGULAR", item "REGULAR 1VC1".
3. Press the ◀ or ▶ **button** to set data value to be "10".

L' VCO ADJUSTMENT

1. Apply 34.3MHz signal to IF terminal on the tuner.
2. Enter to the service mode and select mode "REGULAR", item "REGULAR 2VC2".
3. Press the ◀ or ▶ **button** to set data value to be "10".

RF-AGC ADJUSTMENT

1. Receive a colour bar pattern with 63dBuV/75Ω terminated signal gain.
2. Connect digital voltmeter to TP-AGC and GND.
3. Enter to the service mode and select mode "REGULAR", item "REGULAR 3AGC".
4. Press the ◀ or ▶ **button** to adjust voltage to be 3.2Vdc.

VIDEO LEVEL ADJUSTMENT

1. Receive a colour bar pattern.
2. Connect oscilloscope to terminal "TPVIDEO" and GND.
3. Adjust amplitude "a" to be 2.0Vp-p by using VR181.

Y-OUT LEVEL ADJUSTMENT

1. Receive a colour bar pattern.
2. Connect oscilloscope to terminal "TPYOUT" and GND.
3. Adjust amplitude "a" to be 1.0Vp-p by using VR7001.

SCAN Y LEVEL ADJUSTMENT

1. Receive a colour bar pattern.
2. Connect oscilloscope to C7383 and GND.
3. Adjust amplitude "a" to be 1.0Vp-p by using VR7351.
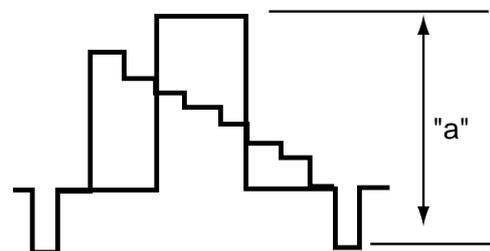
FOCUS ADJUSTMENT

By using FOCUS VR, adjust focus control for well defined scanning lines.

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GREY SCALE ADJUSTMENT

SCREEN ADJUSTMENT
1. Select AV1 mode and no signal input.
2. Enter to the service mode and select mode "REGULAR", item "REGULAR 4SCR".
3. Turn the **SCREEN VR** to set data value to "11".

GREY SCALE ADJUSTMENT
4. Select item "REGULAR 5GRY".
5. Adjust [R-Drive] and [B-Drive] control to obtain proper white balance by using **LEVEL+** or **LEVEL -** button.
   a) Select [R-Drive] or [B-Drive] by using the **P▲** or **P▼** button.
   b) Adjust [R-Drive] or [B-Drive] by using the ◀ **or** ▶ **button**.

```
REGULAR
5GRY              22  ── [R-Drive]
                  22  ── [B-Drive]
```
Adjustable Range:
00 ~ 3F, 4F ~ 7F, 80 ~ BF, C0 ~ FF
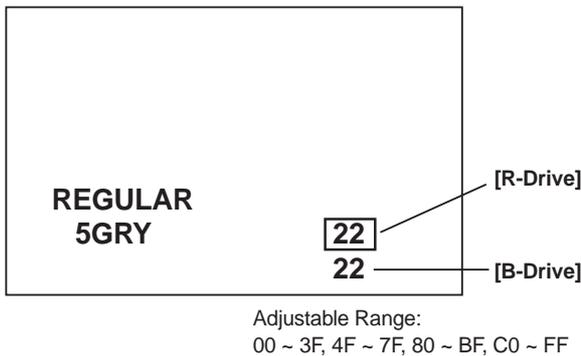
+B VOLTAGE CHECK

1. Receive a circular pattern..
2. Connect a digital voltmeter to terminal of R652.
3. Set controls to normal.
4. Check the voltage reading is 150V ±1V dc.

VERTICAL ADJUSTMENT

VERTICAL CENTRING ADJUSTMENT
1. Receive a circular pattern..
2. Enter to the service mode and select mode "WIDE, item "WIDE 2.P V-PS".
3. Press the ◀ or ▶ **button**to adjust vertical centre.

VERTICAL HEIGHT ADJUSTMENT
1. Receive a circular pattern .
2. Enter to the service mode and select mode "WIDE", item "WIDE 4.P V-WA".
3. Press the ◀ or ▶ **button** to adjust the vertical height.
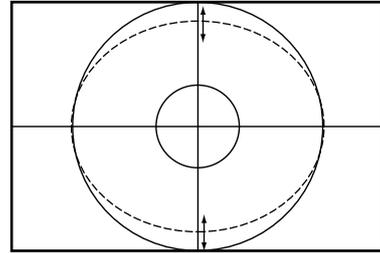
HORIZONTAL ADJUSTMENT

HORIZONTAL CENTRING ADJUSTMENT
1. Receive a circular pattern .
2. Enter to the service mode and select mode "WIDE", item "WIDE 8.P H-P".
3. Press the ◀ or ▶ **button** to adjust horizontal centre.

HORIZONTAL WIDTH ADJUSTMENT
1. Receive circular pattern.
2. Enter to the service mode and select mode "WIDE", item "WIDE 9. P H-W" (Coarse) / "WIDE 10 HAD" (Fine)
3. Press the ◀ or ▶ **button** to adjust the horizontal width.

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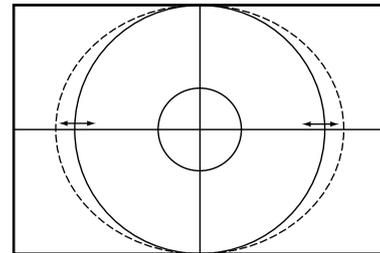
PCC ADJUSTMENT

PCC ADJUSTMENT

1. Receive a cross-hatch pattern.
2. Enter to the service mode and select mode "WIDE", item "WIDE 11.P-PCC".
3. Press the ◄ or ► **button** to adjust the vertical line arround the left and right side edges of the screen to be straight.
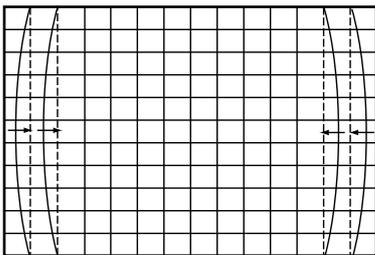
PCC-TILT ADJUSTMENT

4. Select item "WIDE 16.P-TRP".
5. Press the ◄ or ► **button** to correct the tilt of vertical lines.
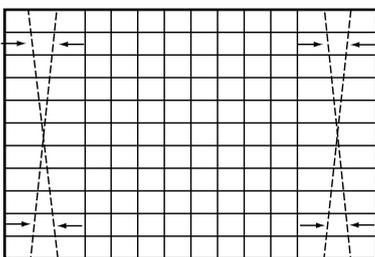
SUB PCC ADJUSTMENT

SUB PCC ADJUSTMENT

1. Receive a cross-hatch pattern.
2. Adjust left and right vertical lines to be straight by switching the housing socket "JWPH" to pins "LOW", "MID" or "HIGH".
3. If the vertical lines can not be straight in step 2, use VR2301 to make straight vertical lines.
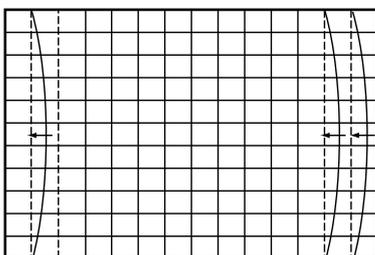
RASTER SHIFT ADJUSTMENT

4. If the linearity of the right side screen becomes bad due to the above adjustment, switch housing socket "JWRS" to pin "RIGHT". The right side linearity will be improved by the raster shifting.

HIGH-VOLTAGE CONFIRMATION

1. Receive a circular pattern.
2. Connect the high voltage meter to CRT anode and GND.
3. Set controls to maximum.
4. Confirm high voltage to be 30.5 ± 1 KV.

OSD CENTRING ADJUSTMENT

1. Receive a circular pattern.
2. Enter to the service mode and select mode "REGULAR", and select item no. 8 "REGULAR 8 OSD". The OSD test bar will appear on the top of screen.
3. Press the ◄ or ► **button** to adjust proper OSD positioning.

SUB PCC BOARD

WB5-B chassis