

295R8

S/M No. 1 CM870P010

295P8 - Ver. P1P.

Service Manual

Color Television

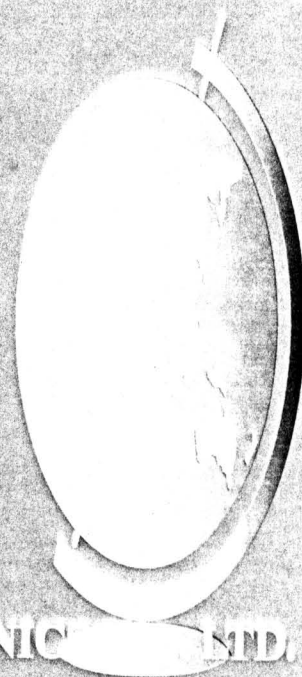
CHASSIS : CM870

MODEL : DTH-25G1EST/ESP/ES

DTH-29G1EST/ESP/ES

DTH-29G3EST/ESP/ES

DAEWOO

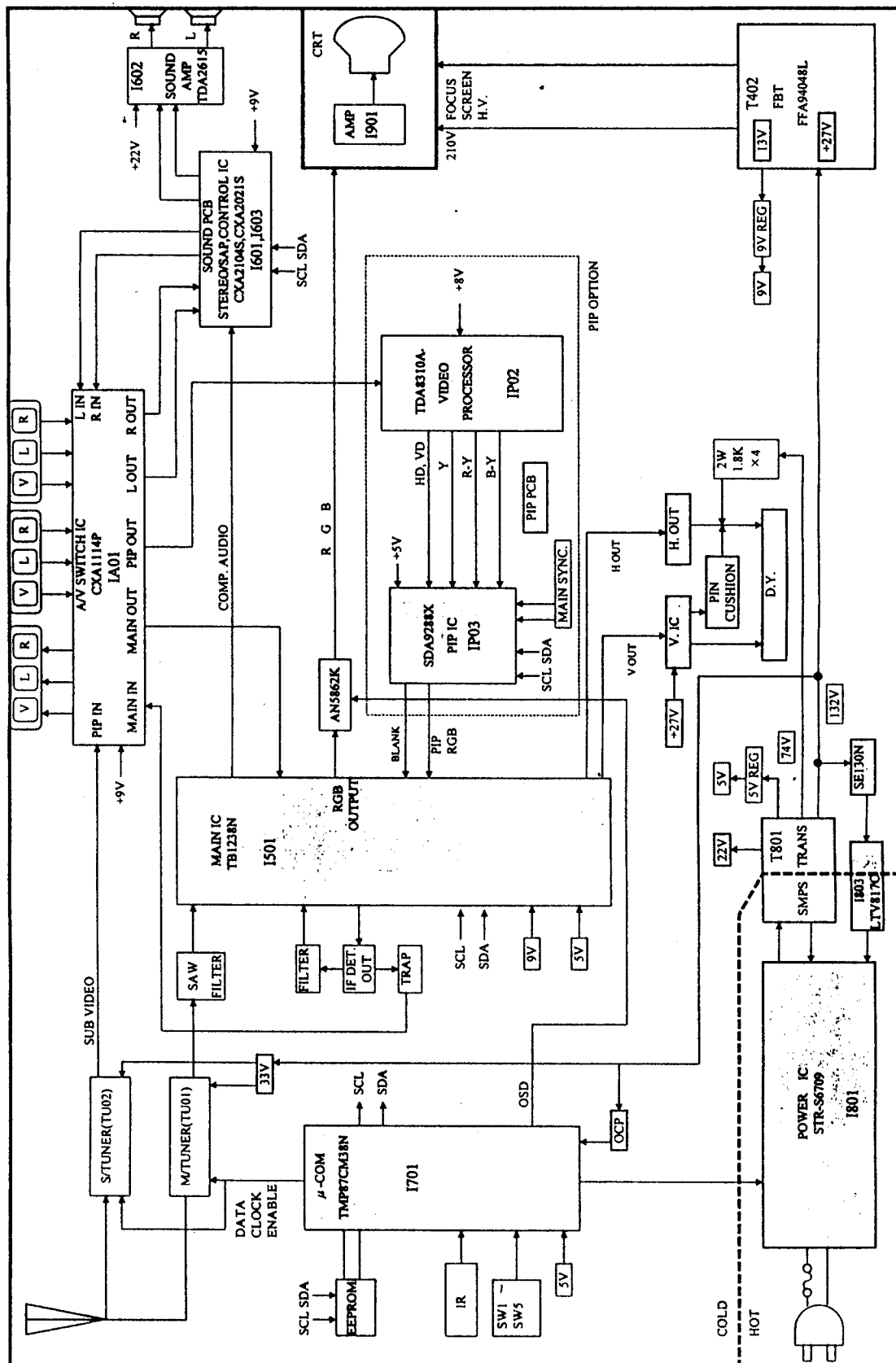


DAEWOO ELECTRONICS LTD.

SPECIFICATIONS

MODEL	DTH-25G1FST DTH-25G1FSP DTH-25G1FS	DTH-29G1FST, DTH-29G3FST DTH-29G1FSP, DTH-29G3FSP DTH-29G1FS, DTH-29G3FS
TV STANDARD	NTSC/PAL-M/PAL-N	
MAINS VOLTAGE	100~250V AC, 50/60Hz	
POWER CONSUMPTION	110W	120W
SOUND OUTPUT	5W+5W	
SPEAKER	7W 8Ohm(2EA)	
ANTENNA IMPEDANCE	75 ohm unbalanced	
TUNING SYSTEM	Frequency Synthesize Tuning System	
MEMORY CHANNEL	181 Channels	
RECEPTION CHANNEL UNIT	VHF TV LOW : CH2 - CH6 HIGH : CH7 - CH13 CH1, CH14 - CH125 UHF TV CH14 - CH69	
REMOTE CONTROL UNIT	R-23B04	
SCREEN SIZE	25" Diagonal	29" Diagonal
WEIGHT	35Kg	42Kg
TUNER TYPE	Varactor Type with PLL	
AUX. TERMINAL(INPUT)	Front : Video, Audio(L/R) Rear : Video, Audio(L/R)	
AUX. TERMINAL(OUTPUT)	Rear : Video, Audio(L/R)	

BLOCK DIAGRAM



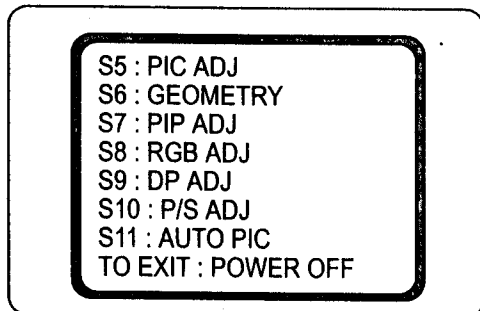
ALIGNMENT INSTRUCTIONS

- ALIGNMENT BY USER REMOCON

1. SERVICE MODE ADJUSTMENT

◆ How to enter into Service Mode.

- 1) Direct the remote control to the reception window of TV.
- 2) Push button of remote control in sequence.
1 → MUTE → RECALL → MUTE
- 3) Then, the screen will appear as follows.

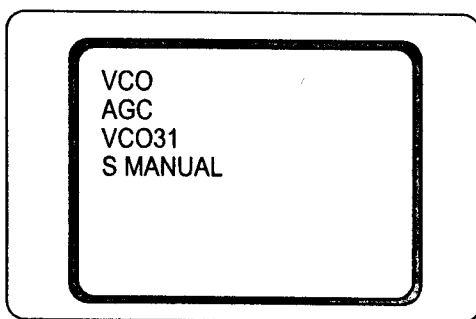


When you select a item, its turns into the green.

How to memorize the adjusted settings in service mode; Must press RECALL button the state which the screen is displaying each of service menus after all adjustments are completed each of all service menu.

2. VCO/AGC ADJUSTMENT

- 1) Receive the COLOR BAR signal. (INPUT LEVEL : 60 dBuV)
- 2) Select the S10 of service mode to display items, then press the ◀ VOL ▶ buttons on the remote control.
- 3) Press ▼ CH ▲ buttons on the remote control to select VCO or AGC
- 4) It will start auto adjustment if you press ◀ VOL ▶ buttons.
- 5) After adjustment, the "VCO OK ***" or "AGC OK ***" OSD will be displayed.



3. PIP VIDEO GAIN ADJUSTMENT

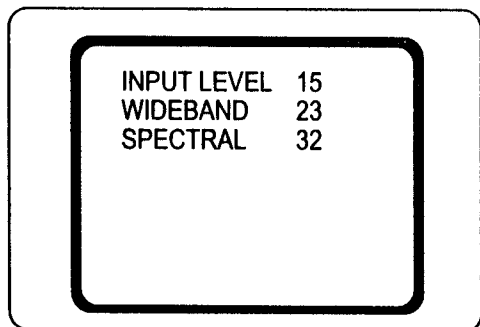
- 1) Turn ON the PIP and receive the COLOR BAR PATTERN.
- 2) Turn the volume R128 to set 1Vp-p on TP1.

4. SOUND INPUT LEVEL ADJUSTMENT

- 1) Receive the 100% mod. MONO. Signal.

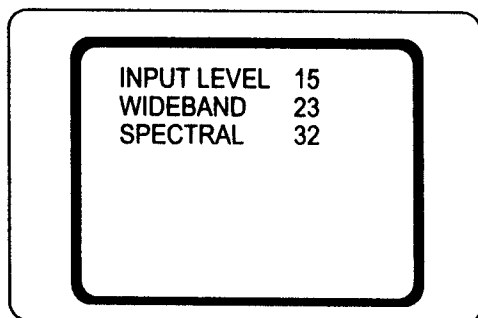
ALIGNMENT INSTRUCTIONS

- 2) Select the S10 of service mode to display items, then press the ◀ VOL ▶ buttons on the remote control.
- 3) Press ▼ CH ▲ buttons on the remote control to select S MANUAL and press ◀ VOL ▶ buttons on the remote control.
- 4) Press ▼ CH ▲ buttons on the remote control to select INPUT LEVEL and press ◀ VOL ▶ buttons to set TP2 become 490mV(+20mV/-5mV).
- 5) Press the RECALL button of remote control to store.



5. STEREO ADJUSTMENT

- 1) Receive the Zenith MTS signal of 1KHz CH(L only).
- 2) Connect scope at TP2 to verify Rout correspondent.
- 3) Select the S10 of service mode to display items, then press the ◀ VOL ▶ buttons on the remote control.
- 4) Press ▼ CH ▲ buttons on the remote control to select S MANUAL and press ◀ VOL ▶ buttons on the remote control.
- 5) Press ▼ CH ▲ buttons on the remote control to select WIDEBAND and press ◀ VOL ▶ Buttons on the remote control.
- 6) Adjust with ◀ VOL ▶ buttons till the Rout(scope) become minimum.
- 7) Press ▼ CH ▲ buttons on the remote control to select SPECTRAL and press ◀ VOL ▶ Buttons on the remote control.
- 8) Adjust with ◀ VOL ▶ buttons till the Rout(scope) become minimum.
- 9) Press the RECALL button on the remote control to store.



6. FOCUS ADJUSTMENT

- 1) Receive the RETMA PATTERN signal.
- 2) Adjust the FOCUS VOLUME of FBT to obtain the clearest picture

7. GEOMETRY

7-1. VERTICAL CENTER ADJUSTMENT

- 1) Receive the RETMA PATTERN signal.
- 2) Set the user control AUTO PICTURE to STANDARD mode.
- 3) Select the S6 of service mode to display items, then press the ◀ VOL ▶ buttons on the remote control.

- 4) Press ▼CH ▲ buttons on the remote control to select V CENTER and press ◀ VOL ▶ buttons on the remote control to adjust the horizontal line of RETMA PATTERNS center may meet with the mechanical CENTER of CRT.
- 5) Press the RECALL button on the remote control to store.

V CENTER	05
V SIZE	31
H CENTER	18
V LIN	10
VS COR	09
GEO ADJ	ON

7-2. VERTICAL SIZE ADJUSTMENT

- 1) Receive the RETMA PATTERN signal.
- 2) Set the user control AUTO PICTURE to STANDARD mode.
- 3) Select the S6 of service mode to display items, then press the ◀ VOL ▶ buttons on the remote control.
- 4) Press ▼CH ▲ buttons on the remote control to select V SIZE and press ◀ VOL ▶ buttons on the remote control to adjust the CENTER OF CIRCUMFERENCE of big circle may meet with the upper and Lower sides of screen.
- 5) Press the RECALL button on the remote control to store.

V CENTER	05
V SIZE	31
H CENTER	18
V LIN	10
VS COR	09
GEO ADJ	ON

7-3. VERTICAL LINEARITY ADJUSTMENT

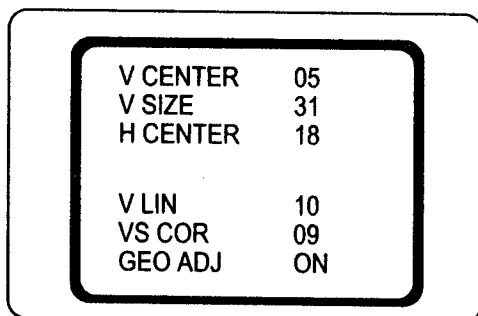
- 1) Receive the RETMA PATTERN signal.
- 2) Set the user control AUTO PICTURE to STANDARD mode.
- 3) Select the S6 of service mode to display items, then press the ◀ VOL ▶ buttons on the remote control.
- 4) Press ▼ CH ▲ buttons on the remote control to select V LIN,VS COR
- 5) Adjust ◀ VOL ▶ buttons to be round center circle of RETMA PATTERN
- 6) Press the RECALL button on the remote control to store.

V CENTER	05
V SIZE	31
H CENTER	18
V LIN	10
VS COR	09
GEO ADJ	ON

ALIGNMENT INSTRUCTIONS

7-4. HORIZONTAL CENTER ADJUSTMENT

- 1) Receive the RETMA PATTERN signal.
- 2) Set the user control AUTO PICTURE to STANDARD mode.
- 3) Select the S6 of service mode to display items, then press the ◀ VOL ▶ buttons on the remote control.
- 4) Press ▼ CH ▲ buttons on the remote control to select H CENTER and press ◀ VOL ▶ buttons on the remote control to adjust the left and right WIDTH of RETMA PATTERN become symmetrical.
- 5) Press the RECALL button on the remote control to store.



7-5. HORIZONTAL WIDTH ADJUSTMENT

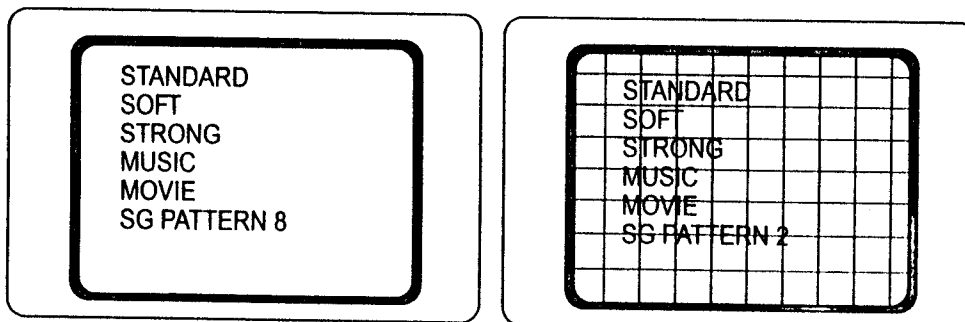
Receive the RETMA PATTERN signal.

Set the user control AUTO PICTURE to STANDARD mode.

Adjust R406 in order to set the left and right end of RETMA PATTERN on point 5.

7-6. SIDE PINCUSHION ADJUSTMENT

- 1) Receive the RETMA PATTERN signal.
- 2) Set the user control AUTO PICTURE to STANDARD mode.
- 3) Select the S11 of service mode to display items, then press the ◀ VOL ▶ buttons on the remote control.
- 4) Press ▼ CH ▲ buttons on the remote control to select SG PATTERN 8 and press ◀ VOL ▶ buttons on the remote control to select SG PATTERN 2 of SG PATTERN 8
- 5) Adjust R409 in order to set the second line from right side become straight.
- 6) After POWER OFF/ON readjust HORIZONTAL WIDTH with R406.



8. WHITE BALANCE ADJUSTMENT

- 1) Execute HEAT RUN of the TV set over 30 minutes.
- 2) Connect the signal output of white balance tester(Nitsuki 2840) to the ANTENNA(or VIDEO IN) input of the TV SET.
Stick and fix the SENSOR to the center position of CRT.
- 3) Select the S8 of service mode to display items, then press the ◀ VOL ▶ buttons on the remote control.

- 4) Adjust the R.G.B BIAS and G.B DRIVE, with ◀ VOL ▶ buttons, in order that R.G.B of the High and Low BEAM may meet with the CENTER LED of each measuring instrument.
- 5) At this time, the memorized coordinates of the white balance tester, unless otherwise specified, use above coordinates and color temperature(9600°K 265X295).
- 6) Press the RECALL button on the remote control to store.

G DRIVE	061
B DRIVE	070
R CUT	127
B CUT	060
G CUT	087

9. SUB-BRIGHT ADJUSTMENT

- 1) Receive the RETMA PATTERN signal.
- 2) Set the user control AUTO PICTURE to STANDARD mode.
- 3) Select the S9 of service mode to display items, then press the ◀ VOL ▶ buttons on the remote control.
- 4) Press ▼ CH ▲ buttons on the remote control to select BRIGHTNESS and press ◀ VOL ▶ buttons on the remote control to adjust Sub bright level in order that the gradation pattern may serve 18% of BRIGHTNESS.
- 5) Press the RECALL button on the remote control to store.

DP ADJUST	
BRIGHTNESS	32
CONTRAST	14
COLOR	20
TINT	45

10. PIP DATA ADJUSTMENT

- 1) Select the S7 of service mode to display items, then press the ◀ VOL ▶ buttons on the remote control.
- 2) Adjust PIP sub data.(TINT : 057, Y DELAY : 00, SYNC DELAY : 15, VSIDEL : 06, VSPDEL : 00)
- 3) Press the RECALL button on the remote control to store.

PIP TINT	057
H POS	146
V POS	032
Y DELAY	00
SYNC DELAY	15
VSIDEL	06
VSPDEL	00