

## General Information

Chassis: EC3-A-25

CRT's: A59ECY13X38

A59ECF20X05

Remote Control:

6450089572

Battery Lid: 6102516890

Main Power Button:

6102552423

## Matrix

Item	See Model
Safety Notice	Sanyo CB 1443
Memory IC Replacement	Sanyo CB 1443
VIF Adjustments	Sanyo CB 1456

## Specifications

Give complete "Service Ref. No." for parts order or servicing, it is shown on the rating sheet on the cabinet back of the TV set.

Power Source:	AC 220 - 240V 50 Hz
Television System:	System 1
Colour System:	PAL
Receiving Channel:	UHF 21 - 69
Aerial Input Impedance:	75 ohm
AV Terminal 21 pin socket:	CENELEC standard
Sound Output:	3.0 watts
Picture Tube:	55cm diagonal, 90 degree
	(Visible picture diagonal) 51cm

## Recommended Safety Parts

Item	Part No.	Description
C301, C302	4040473602	MT-Polyest 0.1U M 125V
C301, C302	4040666707	MT-Polyest 0.1U M 250V
C301, C302	4040440901	MT-Compo 0.1U M 250V
C331	4040606505	Ceramic 2200P M 400V
C331	4040606604	Ceramic 2200P M 400V
C420	4040644200	MT-Polypro 8200P J 1.5K
C420	4040468400	MT-Polypro 8200P J 1.5K
C437	4031657301	Ceramic 330P K 3K
C437	4031860107	Ceramic 330P K 3K
C441	4030827804	Polypro 0.18U J 200V
C442	4030828009	Polypro 0.2U J 200V
D315	4071058700	Photo Couple PC113B
D315	4080098407	Photo Couple CNY17F-30PT6
F301	4230222102	Fuse 250V 4A
L301	6102216912	Line Filter
L901	6450025624	Degaussing Coil
L901	6450025631	Degaussing Coil
PS301	4080036805	Thermistor 902P44E180MR14
PS301	4080151904	Thermistor PA3A5180B270
PS301	4080003906	Thermistor PTH451A112BF180M270
Q901	4140054404	CRT A51EBV122X09
R301	4010088607	Carbon 220K JA 1/2W
R331, R332	4020008305	Solid 5.6M KA 1/2W
SW301	6450036811	Switch, Push Power 2P - 2T
T311	6450077487	Trans, Power, Pulse
T311	6450090332	Trans, Power, Pulse
T471	6102336078	FBT
W901	6450118838	Power Cord

## Service Adjustments

## Service Control Adjustment

## B1 Power Supply Adjustment

- 1: Set VR351 to be mechanical centre before pressing the main switch.
- 2: Tune the receiver to PAL circular pattern.
- 3: Set brightness and contrast controls to normal.
- 4: Connect digital voltmeter to R350 and R354.
- 5: By using VR351, adjust voltage to  $130 \pm 0.5V$ .

## AFT Adjustment

- 1: Tune the receiver to the clearest station.
- 2: By using L230, adjust AFT to obtain best picture.

## AGC Adjustment

**Note:** Do not attempt this adjustment with a weak signal.

- 1: Tune the receiver to the clearest station.
- 2: Set AGC VR (VR120) in direction which causes snow noise to appear, then in the opposite direction until snow noise just disappears.

## Grey Scale Adjustment

## (Screen VR Adjustment)

- 1: Tune the receiver to white pattern.
- 2: Set brightness and contrast control to normal.
- 3: Set SW220 to "SERVICE" position.
- 4: Set VR601 and VR611 to be mechanical centre.
- 5: Turn VR602, VR612 and VR622 fully counter-clockwise.
- 6: Set screen VR for one colour to be just visible.

## (Bias VR Adjustment)

- 7: By using VR602, VR612 or VR622, adjust line until white.

## (Drive VR Adjustment)

- 9: By using VR601 and VR611, adjust white balance.

## High Voltage and Width Adjustment

## (High Voltage Adjustment)

- 1: Tune the receiver to PAL circular pattern.
- 2: Set brightness and contrast controls to maximum.
- 3: Connect digital voltmeter to both terminals of R232 (left side) (+), and a high voltage meter to the CRT anode.
- 4: Confirm high voltage to be  $26.0 \pm 1kV$  at beam current 1.1mA and less than 29.0kV at 0 beam current.

## (H-Width Adjustment)

- 5: If H-width is too wide or narrow, connect or disconnect a lead wire AJ1.
- 6: Reconfirm high voltage.

## H-Centre Adjustment

- 1: Tune the receiver to the circular pattern.
- 2: Adjust H-centre by using VR401.

## V-Centre Adjustment

- 1: Tune the receiver to circular pattern.
- 2: Adjust V-centre by using SW451.

## V-Size Adjustment

- 1: Tune the receiver to the circular pattern.
- 2: Adjust V-size by using VR431.

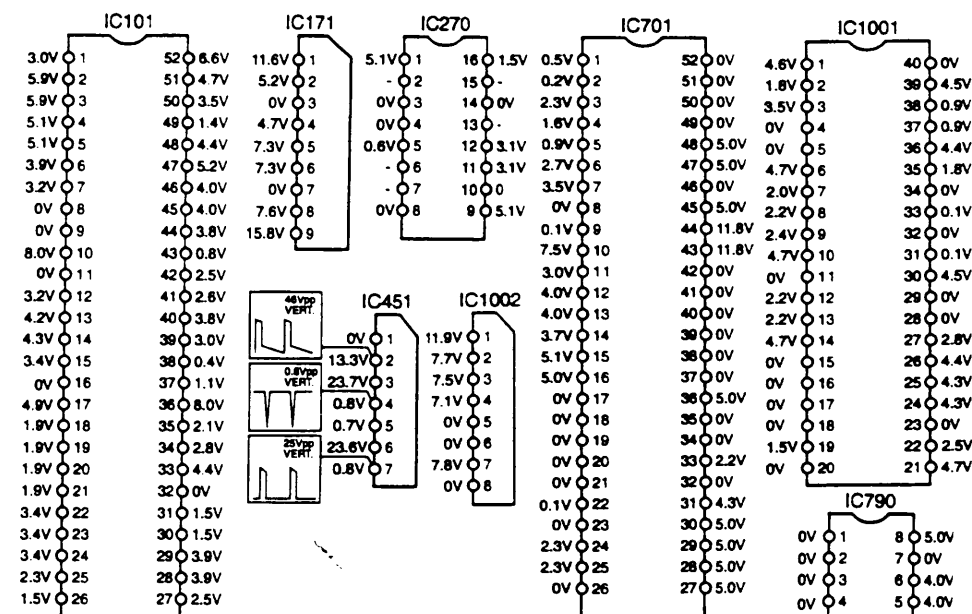
## Focus Adjustment

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

## Recommended Safety Parts Cont'd.

Item	Part No.	Description
<b>Panasonic CRT</b>		
C420	4040441502	MT-Polypro 6200P J 1.5K
C420	4040408806	MT-Polypro 6200P J 1.5K
C441	4030827804	Polypro 0.18U J 200V
Q901	4140086405	CRT A59ECF20X05 (Panasonic)

## ICs - Main Diagram



## Voltage Charts - Main Diagram

IC350 VOLT. 1 5.7V 2 0V 3 5.0V	IC352 VOLT. 1 12.2V 2 0V 3 8.0V	Q101 VOLT. B 1.2V C 5.9V E 0.5V	Q131 VOLT. B 3.2V C 0V E 3.9V	Q132 VOLT. B 3.6V C 9.0V E 3.0V	Q133 VOLT. B 9.0V C 3.5V E 9.4V	Q134 VOLT. B 3.7V C 0V E 4.7V	Q152 VOLT. B 3.8V C 8.0V E 3.2V	Q202 VOLT. B 0.7 C 0V E 0V	Q311 VOLT. B 4.9V C -0.7V E 15.2V
Q462 VOLT. B 0.6V C 0V E 0V	Q703 VOLT. B 2.4V C 11.9V E 4.7V	Q708 VOLT. B 4.4V C 5.0V E 5.0V	Q711 VOLT. B 0.6V C 5.3V E 0V	Q722 VOLT. B 0V C 5.0V E 0V	Q851 VOLT. B 0V C 0V E 0V	Q852 VOLT. B 0V C 0V E 0.6V	Q857 VOLT. B 3.0V C 4.2V E 2.3V	Q858 VOLT. B 4.3V C 0V E 5.0V	Q881 VOLT. B 4.4V C 11.8V E 3.7V
Q351 VOLT. B 23.1V C 23.7V E 23.8V	Q352 VOLT. B 0.7V C 0V E 0V	Q353 VOLT. B 6.8V C 36.8V E 6.2V	Q354 VOLT. B 14.9V C 15.5V E 15.7V	Q371 VOLT. B 0.6V C 36.6V E 1.0V	Q372 VOLT. B 36.7V C 0V E 36.7V	Q381 VOLT. B 12.6V C 11.9V E 11.9V	Q436 VOLT. B 0V C 6.4V E 0V	Q437 VOLT. B 0.6V C 0V E 0V	Q461 VOLT. B 8.00V C 0V E 5.0V
Q1001 VOLT. B 0V C 4.7V E 0V	Q1002 VOLT. B 0V C 4.7V E 0V	Q1003 VOLT. B 0V C 4.7V E 0V	Q1005 VOLT. B 4.4V C 11.9V E 3.7V	Q1006 VOLT. B 2.9V C 11.8V E 2.2V	Q1007 VOLT. B 0V C 0.6V E 0V	Q1008 VOLT. B 0.6V C 0.6V E 0V			

## Waveforms - Main Diagram

Q312 VOLT. B -0.7V C -0.6V E 0V	Q313 VOLT. B -0.6V C - E 0V	Q431 VOLT. B 0.5V C 14.0V E 0V	Q432 VOLT. B 0.1V C - E 0V
WAVEFORM 6.6Vp-p	WAVEFORM 4.0Vp-p	WAVEFORM 0.5Vp-p HORIZ 50Vp-p HORIZ	WAVEFORM 12Vp-p HORIZ 1100Vp-p HORIZ

## Difference Points

	C25EG95B-00	C25EG95B-02
Q901	A59ECY13X38 (Videocolour)	A59ECF20X05 (Panasonic)
C420	1500MJ6000 (XD:XE)	1500MJ6200 (XD:XE)
C441	200NJ0.2	200NJ0.18
L442	AA0006	N/A
R442	N/A	J1
R452	3.9K	6.8K
R454	120	270
R455	2.2K	2.7K
R460	1/2DJ560	1/2DJ330
R463	1.8K	1.5K
R481	2SJ1.5C	2SJ3.9C

