SHARP 66AS-05H

General Information

4BS-C Chassis

Matrix

Item	See Model	Book
Remote Control Unit	Sharp 66AS-06H	5

Recommended Safety Parts

Item	Part No.	Description
V1	VB66EAK7111*N	CRT 71 cm (28 inch) with Deflection Yoke Purity Magnet and Wedges
L1702	CCiLG0304WEV1	Degaussing (ADG) Coil
	MSPRT0001CEFJ	CRT Spring
TU200	VTUATEKB7-022	Tuner, UHF
IC700	RH-iX1487BMZZ	Regulating Pulse Width Modulator
IC701,702	RH-FX0101BMZZ	Photo Coupler
Q700	VS2SD1546//2E	2SD1546
Q701	VS2SC2412KQ-1	2SC2412
Q702	VS2SA1037KQ-1	2SA1037
D701	RH-DX0299BMZZ	BY228
D703	RH-EX0478BMZZ	Zener Diode, 4.7V
D704	RH-EX0423BMZZ	Zener Diode, 20V
D705	RH-DX0045BMZZ	1N4148
D706	RH-DX0511BMZZ	1N4935
D707	RH-DX0045BMZZ	1N4148
D708	RH-EX0477BMZZ	Zener Diode
D709	RH-DX0045BMZZ	1N4148
D712	RH-DX0502BMZZ	1N4005
D713	VHDDAN202K/-1	DAN202K
L700	VP-CF3R3K0000	Coil, 3.3µH
L701	VP-CF1R0M0000	Coil, 1µH
T600	RTRNF2021 BMZZ	FlybackTrans. (F.B.T)
T700	RTRNZ0519BMZZ	Switching ModeTrans.
C702	RC-EZ0109BMZZ	330 385V Electrolytic
C703	VCEAGA1EW337M	330 25V Electrolytic
C704	RC-FZ9103BMNJ	0.01 63V Mylar
C705	RC-FZ9222BMNJ	2200p 63V Mylar
C706	RC-KZ0036CEZZ	330p 2kV Ceramic
C707	RC-FZ9104BMNJ	0.1 63V Mylar
C708	RC-FZ9102BMNJ	1000p 63V Mylar
C709	VCKYPA2HB102K	1000p 500V Ceramic
C710	RC-FZ9104BMNJ	0.1 63V Mylar
C711	VCFPPD3CA472H	4700p 1.6kV Polypro Film
C712	VCEAGA1HW107M	100 50V Electrolytic
C714	VCEAGA1HW475M	4.7 50V Electrolytic
C715	VCEAGA0JW107M	100 6.3V Electrolytic
C749	RC-KZ0156CEZZ	3300p 4kV Ceramic
R200,R202	RR-XZ0212BMZZ	10 1/2W Fuse Resistor
R310,R311	RR-XZ0208BMZZ	4.7 1/2W Fuse Resistor
R363	RR-XZ0112BMZZ	10 1/3W Fuse Resistor
R413	RR-XZ0212BMZZ	10 1/2W Fuse Resistor
R475	RR-XZ0112BMZZ	10 1/3W Fuse Resistor
R503	RR-XZ0200BMZZ	1 1/2W Fuse Resistor
R611	RR-XZ0204BMZZ	2.2 1/2W Fuse Resistor
R615	RR-XZ0200BMZZ	1 1/2W Fuse Resistor
R620	RR-XZ0219BMZZ	39 1/2W Fuse Resistor
R626,R631	RR-XZ0200BMZZ	1 1/2W Fuse Resistor
R701	VRS-TV1JD123J	12k 1/10W Metal Oxide
R702	VRD-RA2BE562J	5.6k 1/8W Carbon
R705	VRD-RA2EE474J	470k 1/4W Carbon
R706	VRS-TV1JD392J	3.9k 1/10W Metal Oxide
R707	VRD-RA2HD271J	270 1/2W Carbon
R708	VRD-RA2HD102J	1k 1/2W Carbon
R710	VRS-VV3DB104J	100k 2W Metal Oxide
R711	VRS-VV3DB473J	47k 2W Metal Oxide
R712	VRS-VV3DB120J	12 2W Metal Oxide
R714	VRD-RA2BE102J	1k 1/8W Carbon
R715	VRN-VV3DBR56J	0.56 2W Metal Film
R716	VRS-TV1JD101J	100 1/10W Metal Oxide
R718,R719	VRS-TV1JD472J	4.7k 1/10W Metal Oxide
R720	VRS-TV1JD223J	22k 1/10W Metal Oxide
R721	VRD-RA2HD273J	27k 1/2W Carbon
R722	VRS-TV1JD103J	10k 1/10W Metal Oxide
R723	VRS-TV1JD102J	1k 1/10W Metal Oxide
R724	VRD-RA2HD101J	100 1/2W Carbon
R725	VRN-VV3DBR56J	0.56 2W Metal Film
R729,R730	VRC-UA2HG825K	8.2M 1/2W Solid
R801	RR-XZ0108BMZZ	4.7 1/3W Fuse Resistor
R806,R839,R844	RR-XZ0112BMZZ	10 1/3W Fuse Resistor
F751	QFS-J2521GEZZ	IC Protector
F753	QFS-J4021GEZZ	IC Protector
FB700,FB751,FB752	RBLN-0037CEZZ	Ferrite Bead
P700	QPLGN0304CEZZ	Plug, 3-pin (B)
R1872	VRG-RL2HB221J	220 1/2W Fuse Resistor
R1873	RR-XZ0017CEZZ	10 1/2W Fuse Resistor
Z1801	QSOCV0919CEZZ	CRT Socket
D1700,D1701,D1702,D1703	RH-DX0240CEZZ	DX0240CE
VA1700	RH-VX0033CEZZ	Varistor
PR1700	RMPTP0028CEZZ	Positive Coefficient Themistor
L1700	RCiLF0108BMZZ	Line Filter
C1700	RC-FZ0145BMZZ	0.1 AC300V Mylar
C1701,C1703,C1704	RC-KZ0029CEZZ	0.01 AC250V Ceramic
C1705,C1706	RC-KZ0029CEZZ	0.01 AC250V Ceramic
R1700	VRW-KQ41C4R7K	4.7 15W Cement
F1700	QFS-C2050BMZZ	Fuse,T2AH
P1700	QPLGN0304CEZZ	Plug, 3-pin (A)
P1701	QPLGN0207CEZZ	Plug, 2-pin (G)
P1702	QPLGN0304CEZZ	Plug, 3-pin (B)
S1700	QSW-P0566CEZZ	Main Power
R3439,R3461	RR-XZ0116BMZZ	22 1/3W Fuse Resistor
ACC701	CACCB5002BMV0	AC Cord Assy

Service Adjustments

Important Service Notes
Maintenance and repair of this receiver should be done by qualified personnel only.

Servicing of High Voltage System and Picture Tube
When servicing the high voltage system, remove static charge from it by connecting a 10 k W Resistor in series with an insulated wire (such as a test probe) between picture tube ground tag and high voltage lead. (AC line cord should be disconnected from AC outlet.)

1: Picture tube in this receiver employs integral implosion protection.
2: Replace with tube of the same type number for continued safety.
3: Do not lift picture tube by the neck.
4: Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.

X-Ray
This receiver is designed so that any X-Ray radiation is kept to an absolute minimum. Since certain malfunctions or servicing may produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed:
1: When repairing the circuit, be sure not to increase the high voltage to more than 30.0 kv, (at beam 1000µA) for the set.
2: To keep the set in a normal operation, be sure to make it function on 25.7 kv ± 1.5 kv (at beam 1300 µA) in the case of the set. The set has been factory — Adjusted to the above-mentioned high voltage. If there is a possibility that the high voltage fluctuates as a result of the repairs, never forget to check for such high voltage after the work.
3: Do not substitute a picture tube with unauthorised types and/or brands which may cause excess X-ray radiation.

Before Returning The Receiver
Before returning the receiver to the user, perform the following safety checks.

1: Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2: Inspect all protective devices such as non-metallic control knobs, insulating fish papers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators etc.

PIF/SIF/AGC/G2 Adjustment

1: Trap adjustment

Adjusting Point
T1201: Trap Coil (Adj.-P Trap)
T1200:Trap Coil (Adj.-S Trap)

1: Connect sweep generator output to IF in (FA (1)).
2: Connect response cable with detector to collector line of Q1200 (See fig.1)

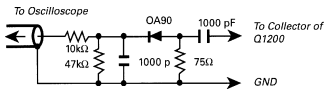


Fig. 1

3: Adjust T1200 (Adj.-S Trap) and T1201 (Adj.-P Trap) so that traps are (41.5 MHz) and (32.0 MHz). (See fig. 2)

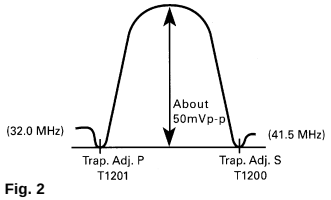


Fig. 2

2: VCO Adjustment

Adjusting Point
T1202: VCO Adjust Coil

1: Feed the following signal to pin (1) of connector (FA) in IF unit. Frequency: 39.5 MHz (CW) ± 5 kHz Level approx. 85 dB
2: Adjust T1202 so that voltage at pin (7) (AFT output) of connector (FA) in IF unit is 2.5 ± 0.2v.

3: RF AGC Adjustment

Adjusting Point
R1216: RF AGC Control

1: Receive “COLOUR BAR” signal.
2: Connect DC voltmeter to Test Point TP1200 (RF AGC).
3: Set AGC control (R1216) to maximum position (memory).
4: Adjust R1216 to obtain voltage of 0.1v below maximum voltage (step 3).

4: G2 Adjustment

1: Receive “MONOSCOPE PATTERN” signal.
2: Connect DC voltmeter with Test probe attenuator (∏ 1000) to HH1 Test point on PWB-C.
3: Adjust G2 to obtain 730v on HH1.

Service Mode Function
This mode function is provided to assist with the settings of those adjustments that may vary from one Picture Tube to another, or between models.

In order to use the Service Mode
1: Connect Test Pattern signal to antenna terminal.
2: Press main switch to off.
3: Press ▼◿ and CH▲ buttons and main switch to on simultaneously.
4. Service mode is now entered.

The required adjustments can then be made from the Remote Control Unit.
The only buttons required are the following: ▲ CH ▼ for movement in adjustment options menu; ▲◿▼ are used to carry out an adjustment in said menu; ON/OFF is used to memorise a new adjustment.

Adjustment menu is as follows:

— SERVICE SOFTWARE
— CROMA-LUNA DELAY
— VERT. SHIFT
— HOR. SHIFT
— E-W WIDTH
— E-W PALABOLA
— E-W CORNER
— E-W TRAPEZOID
— VERT. SLOPE
— VERT. AMPLITUDE
— S-CORRECTION
— RED REFERENCE
— GREEN REFERENCE
— BLUE REFERENCE
— ALTER NVM POS.
— ALTER NVM VAL.
— AUTO INSTALLATION

To exit service mode, press main switch to off.

Adjustment Note:
The procedure for making adjustments to Vertical Corrections is as follows:

— Adjust S-CORRECTION
— Adjust VERT. SHIFT
— Adjust VERT. AMPLITUDE

Geometry Adjustment Procedure

Chroma-Luma Delay
a: Receive Philips pattern signal.
b: When volume-up button is pressed, luma phase delays.
c: When volume-down button is pressed, chroma phase delays.
d: Adjust the Chroma-Luma delay.

Vert. Shift
a: Receive Philips pattern signal.
b: When volume-down button is pressed, picture moves up.
c: When volume-up button is pressed, picture moves down.
d: Adjust the Vertical location to obtain picture centring (fig. 3).

Hor. Shift
a: Receive Philips pattern signal.
b: When volume-up button is pressed, picture moves to the left.
c: When volume-down button is pressed, picture moves to the right.
d: Adjust the horizontal location to obtain picture centring (fig. 4).

E-W Width
a: Receive Philips pattern signal.
b: When volume-up button is pressed, horizontal scanning increases.
c: When volume-down button is pressed, horizontal scanning decreases.
d: Adjust the horizontal amplitude to obtain 9% overscan (fig. 5).

E-W Parabola
a: Receive Philips pattern signal.
b: When volume-up button is pressed, slide pincushion changes from pincushion to barrel shape.
c: When volume-down button is pressed, slide pincushion changes from barrel to pincushion shape.
d: Adjust the E-W PARABOLA to obtain condition as in fig. 6.

E-W Corner
a: Receive Philips pattern signal.
b: When volume-down button is pressed, slide pincushion changes from pincushion to barrel shape.
c: When volume-up button is pressed, slide pincushion changes from barrel to pincushion shape.
d: Adjust the E-W CORNER to obtain condition as in fig. 7.

E-W Trapezoid
a: Receive Philips pattern signal.
b: When volume-up button is pressed, slide pincushion changes.
c: When volume-down button is pressed, slide pincushion changes.
d: Adjust the E-W TRAPEZOID to obtain condition as in fig. 8.

Vert. Amplitude
a: Receive Philips pattern signal.
b: When volume-up button is pressed, vertical size of picture increases.
c: When volume-down button is pressed, vertical size of picture decreases.
d: Adjust the vertical size to obtain overscan as in fig. 9.

S-Correction
a: Receive Philips pattern signal.
b: When volume-up button is pressed, upper and lower scanning decreases, and centre scanning increases.
c: When volume-down button is pressed, upper and lower scanning increases and centre scanning decreases.
d: Adjust the S-correction to obtain a balance between upper, lower and centre (fig. 10).

The following adjustments are only required when the Picture Tube is changed.

Red Reference/Green Reference/Blue Reference

a: Adjust G2.
b: Tune in white card.
c: Adjust colour to minimum.
d: Position colourmeter in centre of screen.
e: Using brightness and contrast buttons, select a luminance of ≈ 120 NITS.
f: Operate again in Service Mode and select location RED REFERENCE/GREEN REFERENCE/BLUE REFERENCE to obtain colour co-ordinates:

X = 0.290 ± 0.0015
Y= 0.284 ± 0.015

g: Exit Service Mode and check colour co-ordinates ‘X’ and ‘Y’ at 20 and 120-NITS. It may be necessary to repeat procedure.

Note:
Locations: RED REFERENCE alter ‘X’ co-ordinate; GREEN REFERENCE alter the ‘Y’ co-ordinates; BLUE REFERENCE alter the ‘X’ and ‘Y’ co-ordinates.

Alter NVM POS

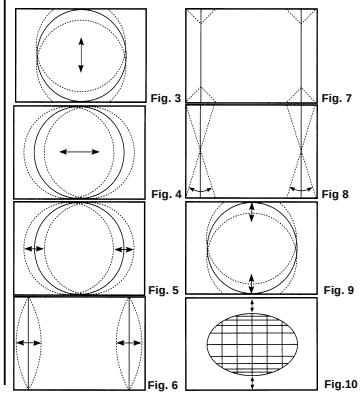
XX---> Storage location
XX---> Assigned value

When ▼◿ ▲ buttons are pressed, alter Storage Location.

Alter NVM VAL

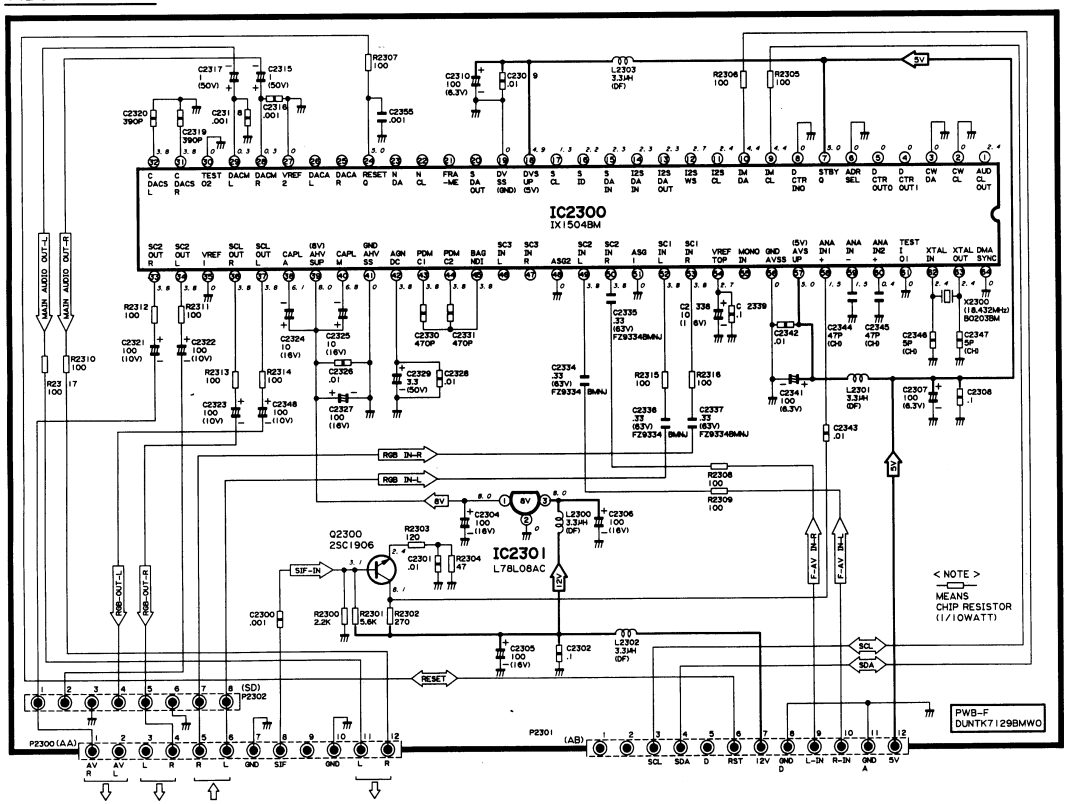
XX---> Storage location
XX---> Assigned value

When ▼◿ ▲ buttons are pressed, alter Assigned Value.



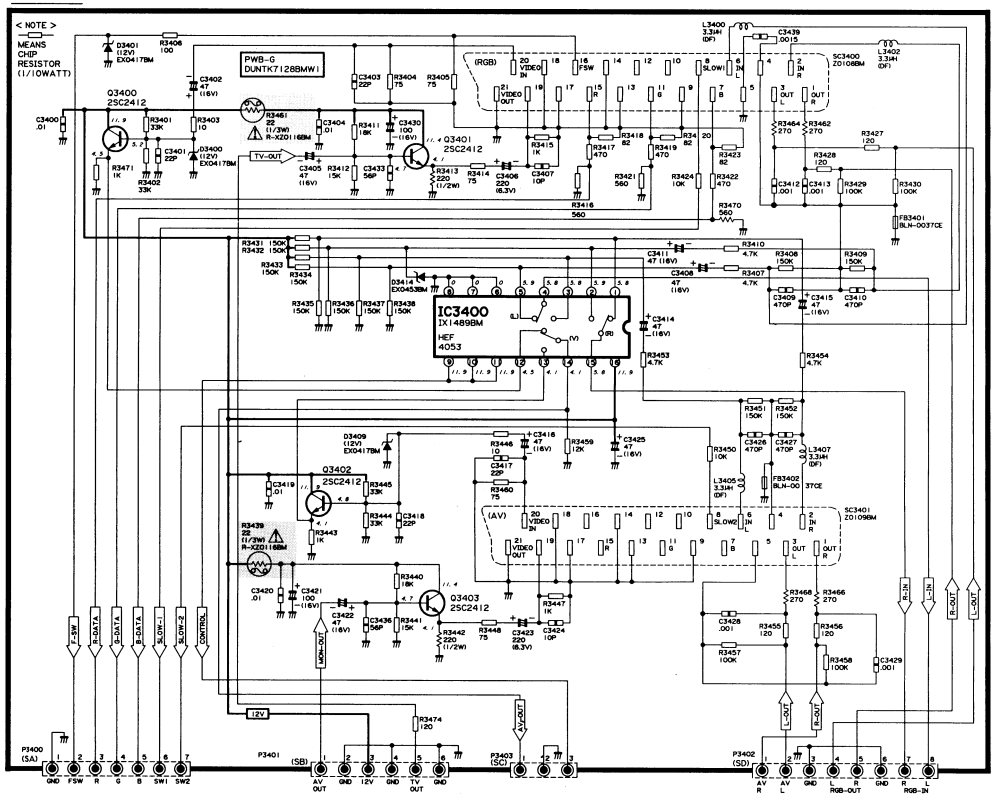
NICAM Diagram

NICAM/IGR

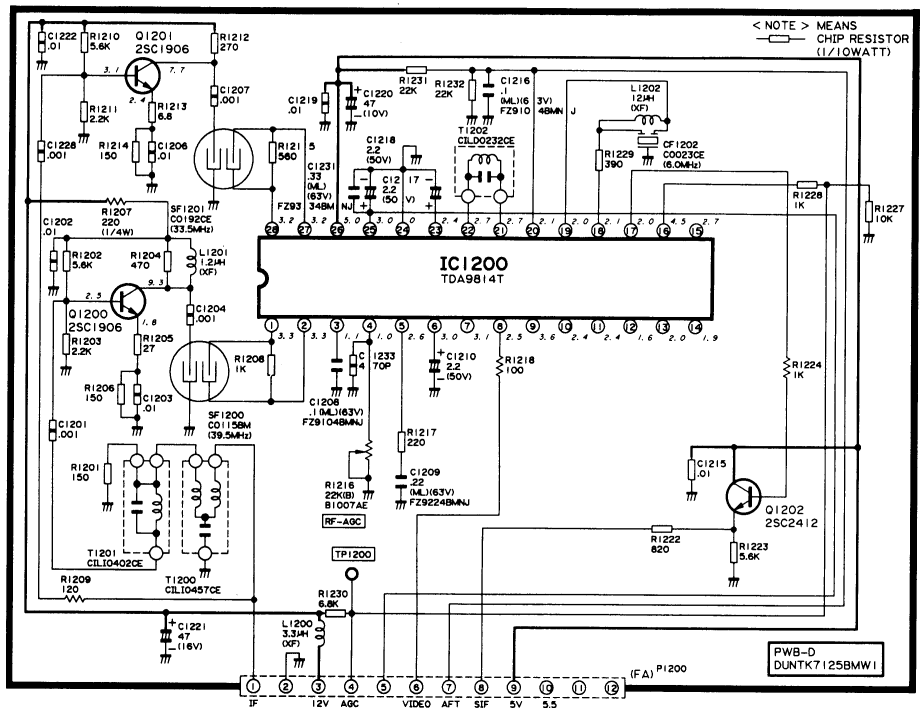


Scart Diagram

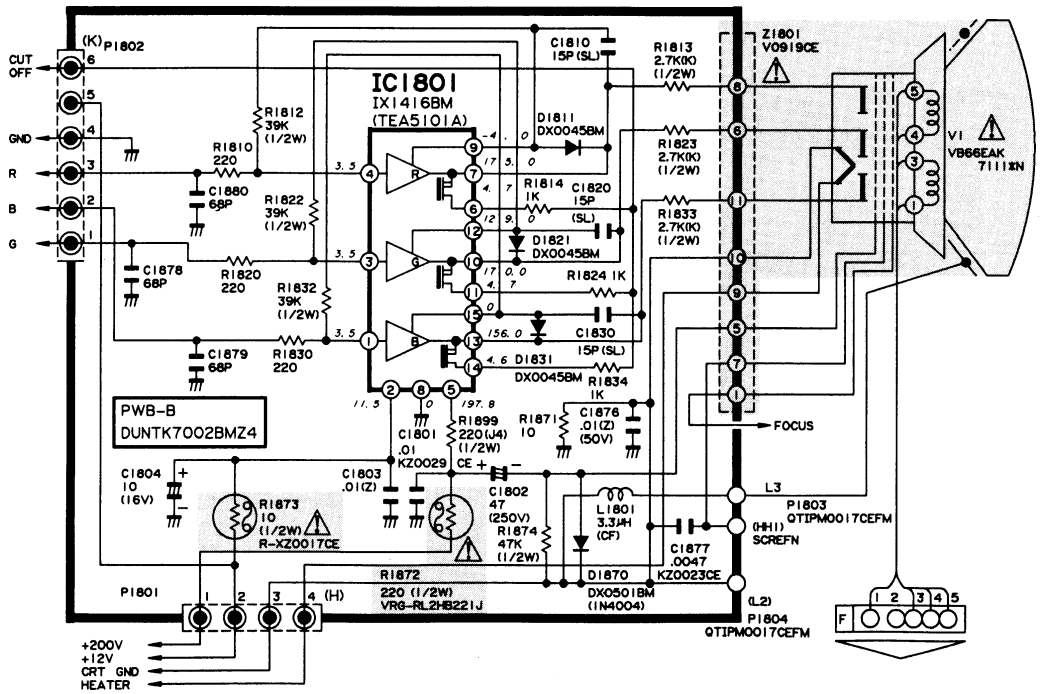
21-PIN



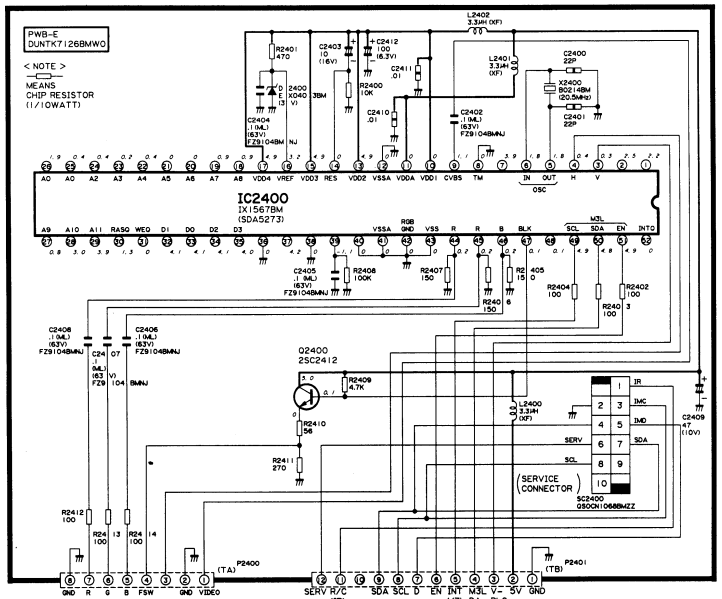
IF Diagram



CRT Control Diagram

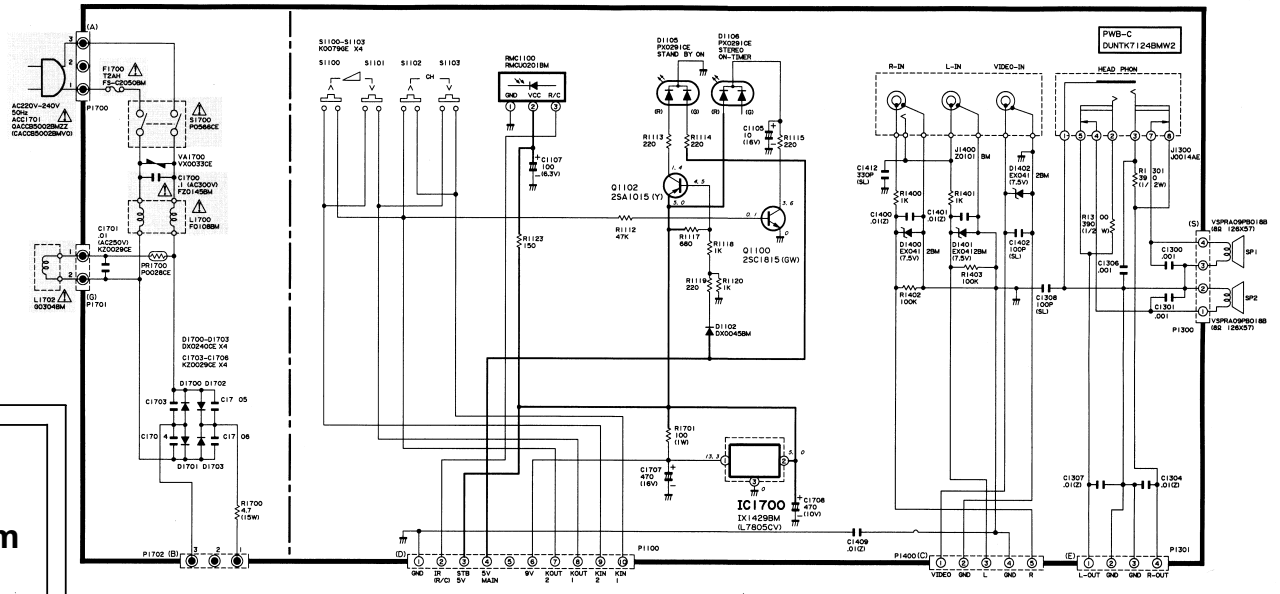


TEXT



Text Diagram

CRT Socket Diagram



Main Diagram