PRECISION

PICTURE MONITORS

Types: 842843, 842844, 842845

Including: 842843/00, 842844/00, 842845/00,
842843/01, 842844/01, 842845/01

This service manual is for the maintenance of Pye T.V.T. equipment. The performance figures quoted are typical and are subject to normal manufacturing and service tolerances.

The right is reserved to alter the equipment described in this manual in the light of future technical development.

SERVICE MANUAL

ISSUE 3

PYE T.V.T. LIMITED . P.O. BOX 41 . CAMBRIDGE . ENGLAND

TELEPHONE CAMBRIDGE 45115 TELEX 81103

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CHAPTER I

GENERAL DESCRIPTION AND SPECIFICATION

The 2843, 2844 and 2845 monitors are a range of precision picture monitors using transistors throughout with the exception of the E. H. T. rectifier diodes and the cathode ray tubes themselves. The range of cathode ray tubes has been chosen to enable all the monitors to have electrically similar circuits and, in the majority of cases, identical sub-assemblies within monitors of different sizes.

The majority of the circuitry is carried on the two main printed circuit panels mounted vertical each side of the cathode ray tube and arranged to hinge down from the bottom to allow easy access for servicing. The lefthand printed board contains the sync separator, video amplifier and vertical scan generator circuits, the righthand printed board contains the power unit regulation amplifier and the horizontal scan generator.

The E. H. T. generator is completely contained in a large screened box in the centre of the unit, access to this is obtained by inverting the monitor and removing the base-plate. This generator provides all the high voltages required in the monitor, + 100 volts for the video output stage, + 500 volts for the first anode and focus electrodes of the C. R. T. and + 15kV for the final anode supply. All other circuits are supplied from a -11 volt stabilised supply from the power unit.

Both the horizontal and vertical scan generator output stages have been protected from voltage transients by safety circuits and the whole of the d. c. circuits have been protected from short circuit by a magnetic cut-out relay on the back panel. The A. C. input circuits are protected by miniature fuses on the rear panel, spare fuses are available on clips attached to the righthand printed circuit board.

Reliability of operation has been ensured by giving all the power transistors large area heat sinks, thus keeping the device temperature well below that allowed within the operating ambient temperature range of -10°C to +50°C.

Cooling of the monitor is achieved by using an air extractor fan on the back of the unit, cool air being drawn in from a grill underneath the front control panel. This arrangement has allowed all louvres in the sides, top and bottom of the unit to be dispensed with, thus enabling monitors to be stacked closely together and still obtain adequate ventilation.

Remote facilities. The control of brightness and contrast and the selection of either of the two available video inputs, as well as being available on the front control panel are controllable from a remote position, this has been found operationally advantageous by having P. L. U. G. E. test signal available on the second video input. By switching to this test signal the sensitivity of each monitor in a bank of monitors can not only be adjusted for optimum at normal viewing distance, but also the balance of picture content between monitors can be adjusted much more critically.

Two versions of each monitor are available, these are distinguished by two suffix figures after the type number. The /01 version is designed to work on 525 or 625 line systems only, and the /00 version is designed to be switchable between 405, 525 and 625 line systems.

The /00 version of the monitor is fitted with an additional small printed circuit board containing the necessary switching relays and additional balancing controls for the scan generators. The monitor can be switched to the required system by means of a switch on the rear panel or from a remote position enabling several monitors to be switched simultaneously by means of a centrally available systems switch.

SPECIFICATION

Systems

405 lines, 50 fields, 25 pictures per second
525 lines, 60 fields, 30 pictures per second
625 lines, 50 fields, 25 pictures per second
(Selectable by a local or remote switch)

Signal Requirements

a) Composite video 0.25 volts to 1.4 volts peak to peak, whites positive, or

b) Video and Blanking, 0.2 volts to 1 volt peak to peak, whites positive, and

c) Complete sync, 0.2 volts to 4 volts, negative pulses.

INPUTS

Video: 2 Video inputs are available, both of which may be used for bridging a signal through the monitor or terminating it in 75 ohm ± 1%. Either of these signals may be selected for display by a local or a remote switch.

Sync: A separate sync. signal input is provided which may be bridged or terminated in 75 ohm ± 1%.

Isolation between any input and another is better than 60db on a 625T pulse (0.1μS) and bar signal.

Return loss on any input is better than 30db on a 625T pulse (0.1μS) and bar signal.

Video Amplifier Characteristics

H.F. Response

K rating on a 625, 2T pulse (0.2μS) and bar signal is better than 1%.

K_T rating on a 625, T pulse (0.1μS) and bar signal is better than 2%.

L.F. Response

The tilt from a 50 c/s square wave is less than 2%.

Linearity

Incremental Gain distortion at 1 Mc/s is better than 12%.

Scanning, Linearity and Geometry

Maximum positional error on any part of a standard raster is better than 1%. (Maximum rate of change of error is 5%)

Standard raster on 11" Monitor is 8.25" x 6.2" (21 cm x 15.8 cm)
Standard raster on 14" Monitor is 10" x 7.5" (25.4 cm x 19 cm)
Standard raster on 17" Monitor is 12" x 9" (30.5 cm x 23 cm)

A.C. INPUT

Single Phase, 47 - 70 c/s.

Voltage ranges 100 - 125 volts and 200 - 250 volts ± 10% selected by a single, rear panel, selector plug at 5% intervals.

Power Consumption

100VA

Overall Dimensions

	11"	14"	17"
Height	$10\frac{1}{2}$" (26.6 cm)	$13\frac{3}{4}$" (35 cm)	$15\frac{1}{2}$" (39.5 cm)
Width	$10\frac{1}{2}$" (26.6 cm)	$14\frac{1}{4}$" (36.5 cm)	$16\frac{5}{8}$" (42 cm)
Depth	$17\frac{3}{4}$" (45 cm)	18" (45.5 cm)	$17\frac{3}{4}$" (45 cm)
Weight:	34 lbs (15.5 Kgms)	48 lbs (21.8 Kgms)	54 lbs (24.5 Kgms)

CHAPTER II

CIRCUIT DESCRIPTION

Monitor Block Diagram

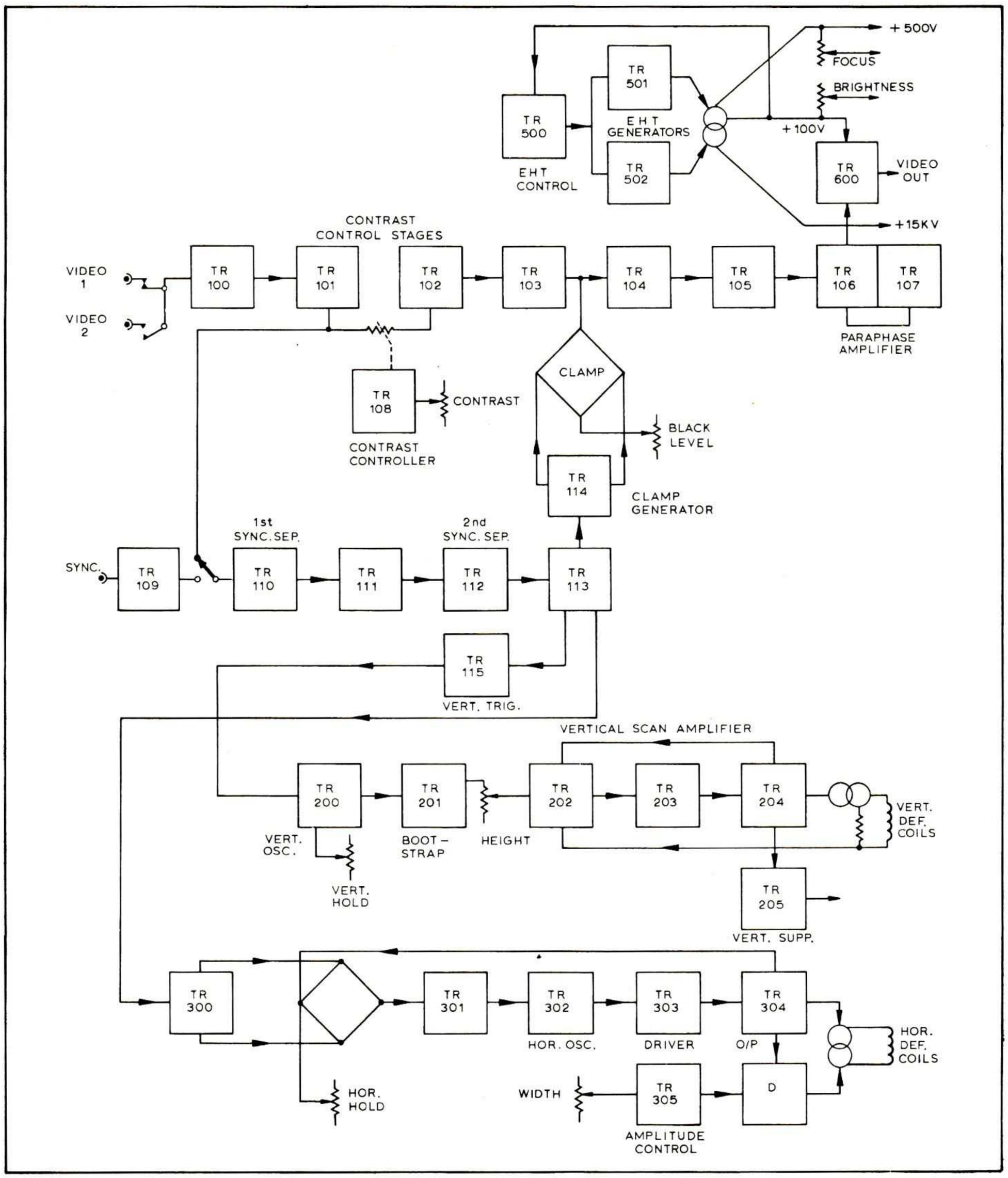


Fig. 1 Monitor Block Diagram

Detailed Description

Video Amplifier

The input to the video amplifier is selected by means of reed relays which are operated by the local or remote video selector switch. The relays are followed by a diode protection circuit which protects the amplifier from surges or excessive D.C. voltages on the incoming signal. After the emitter follower TR100 the signal passes through TR101 and 102 which together form the variable gain stage. The gain is controlled by adjusting the resistance of R114 which is a light sensitive resistance with a built in lamp, the brightness of which is controlled by the contrast control via TR108 emitter follower. After the gain control stage the signal is clamped to reinsert the d.c. component of the signal then through two emitter followers which provide the necessary high impedance input to allow the clamp to operate satisfactorily and a low impedance for driving the video output stage, the two transistors TR104 and 105 are complimentary types to minimise drift due to temperature. The video output stage consists of a paraphase amplifier, again to minimise drift, one half of which is cascade connected to the high voltage stage TR600 to provide the necessary high level video for modulating the cathode ray tube.

Sync Separation

The sync separator obtains its signal either from the first half of the video gain stage or from a separate sync input via the standard protection circuit. Sync separation is done in two stages, the first stage TR110 has a short time constant base network to reduce the errors due to possibly distorted input signals and is only a partial separator. TR110 also provides gain to provide a signal of useful amplitude for the accurate separation of video in TR112. The output of the sync separator is passed to an emitter follower the output of which is split three ways, directly to the horizontal scan generator, via an integrating network to clipper TR115 to the vertical scan oscillator and via a differentiating network to the clamp pulse generator TR114. The differentiating transformer in the base circuit of TR114 enables the clamp pulse generator to be triggered by either the leading or trailing edges of horizontal sync enabling the clamp bridge to reference either on sync tips for C.C.T.V. applications or black level for broadcast applications.

Vertical Scan Generator

The vertical scan generator consists of a blocking oscillator TR200 feeding a bootstrap controlled charging network, linearity of the final scan is controlled by distorting the linear charge network with adjustable exponential and parabolic functions, this signal is then fed to the vertical output amplifier consisting of TR202, 203 and 204 which have a high degree of d.c. and a.c. negative feedback to maintain stability and linearity. The discharge pulse voltage at the collector of TR204 is partially integrated then clipped in TR205 to form the suppression pulse applied to the C.R.T. during vertical retrace time.

Horizontal Scan Generator

Negative horizontal scan trigger pulses are received from the sync separator circuit and are partially differentiated before being passed to the phase splitter TR300, this is to reduce the interference due to the vertical sync pulse train. After the phase-splitter, the horizontal trigger pulses are used to gate the A.F.C. bridge, reference for which is obtained from the horizontal output stage via the integration network R310, C306, the control voltage from the A.F.C. bridge is passed via an emitter follower to the horizontal oscillator TR302 which generates the switching waveform for the output circuit. A buffer stage TR303 is placed between the oscillator and the output transistor to provide a low impedance drive source to the output transistor TR304.

The output transistor TR304 and diode D307 form a conventional series efficiency scan circuit, the important criterion being that the transistor is switched on and off as rapidly as possible to reduce the switching dissipation within the device, condensers C314, 315 and 316 control the duration of the flyback time. The network D308, R318, C318 is a safety circuit to limit the peak volts across the collector of TR304 to ground during transients, particularly during the change of television systems. Another safety network is formed by D300 and C302 which again protects the output stage by keeping the horizontal oscillator operating until the output stage energy has been removed during the switch off cycle.

Horizontal linearity is obtained by two components, one is the parabolic component generated by C321, 322 and magnified by T303, the second is the lefthand side correction provided by the saturated choke L301.

Control of width is by varying the H.T. voltage available to the output stage, this is controlled by varying the potential on the base of TR305 and hence varying the voltage drop across TR305.

E.H.T. Generator

The E.H.T. is obtained by full wave rectification of the sine wave output from transformer T501 which is generated by the two transistors TR501 and 502 operating in class B, push-pull. All the other auxiliary supplies are also obtained from this transformer and the +100 volts 'A' supply is used as a reference voltage for the d.c. control amplifier TR500. Potentiometer R501 in the collector circuit of TR500 is adjusted to saturate the transistor when the main H.T. current to the generator exceeds 2 amps. This limits the dissipation in the driver transistors to a safe current and regulates the maximum power obtainable from the combined output loads of the generator. This limit of operation is easily seen on the screen as a rapid defocussing and increase in size of the picture, reducing the contrast or brightness of the picture will bring the generator back into regulation. The normal running frequency of the oscillator is 20 - 25 kc/s.

Power Unit

Power for the monitor is obtained from the A.C. transformer on the back panel through full wave rectification and capacitor smoothing to the regulator

amplifier which is a conventional series control transistor TR400, controlled by a high gain feedback amplifier, TR401, 402 and 403. The output from the power unit is -11 volts having an output impedance of less than 20 milli-ohms and hum level of less than 4 millivolts.

The A.C. transformer T1 has a mumetal screen around it on the 14" and 17" models to reduce the radiated hum distorting the picture, this is particularly important when operating asynchronously.

Since transistor circuits are low voltage, high current circuits they are particularly prone to inter-action when using common H.T. supply lines, for this reason each separate circuit function is connected back to the power unit reference points by separate leads and care must be exercised when repairing the unit that the original lay of cableforms is retained.

CHAPTER III

INSTALLATION AND OPERATION

After removing the monitor from its packing case, check the unit for any signs of damage in transit. Check that the base connector to the C.R.T. and the E.H.T. rectifiers are securely mounted.

Before switching on, check on the back panel that the A.C. voltage selector setting is correct for the A.C. supply in use, check that the correct fuses are securely in position. Set the systems selector switch to the system required, and turn the front panel Brightness and Contrast controls to minimum. Connect the signal into one of the video input sockets, set the front panel video selector switch to the appropriate input. Switch on and advance the Brightness control for a faint raster, turn back the control until the raster is just extinguished and advance the Contrast control until an acceptable picture is received.

CHAPTER IV

MAINTENANCE

General Treatment of Transistors

Because of their very small size, transistors have a very low thermal inertia and can be easily damaged by heat either from a soldering iron or from electrical dissipation in the device. The following points should be observed when working with transistor circuits.

1. Use a small soldering iron, with a clean, tinned bit and hold it on the joint for as short a time as possible, consistant with a good joint. Use a heat shunt, i.e. a pair of pliers between the joint and the transistor whenever possible.

2. Check for the correct polarity before connecting a transistor to its circuit.

3. Transistors are easily damaged by quite low voltages which may exist between terminals of test equipment or between soldering iron and ground. When soldering it is recommended that either the iron or the equipment be unplugged from the A.C. supply. The use of a low voltage soldering iron is advisable.

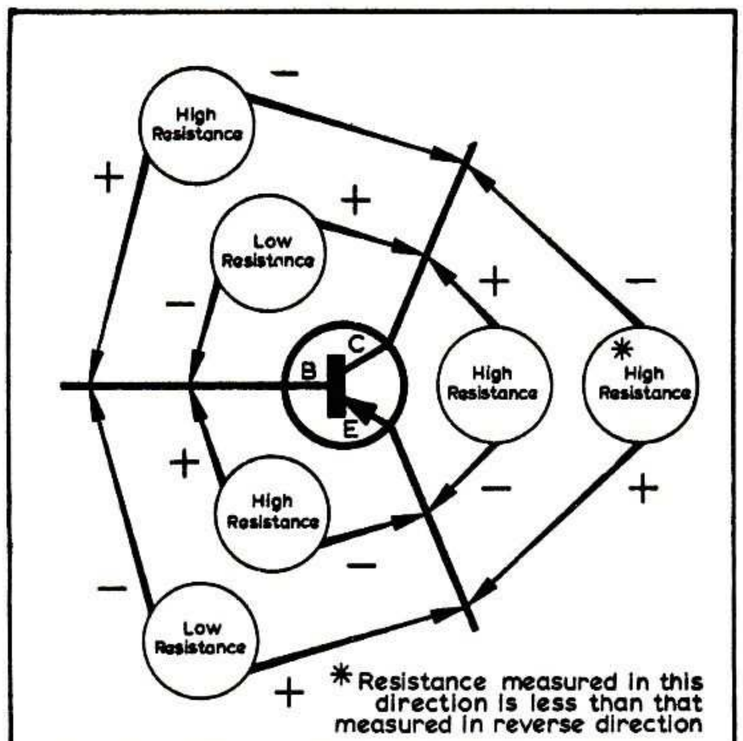
4. Do not remove or replace components with the unit switched on as the resultant surge voltages can easily damage adjacent transistors.

5. Switch off the unit before connecting any test equipment as the act of connecting the equipment can cause damaging surges.

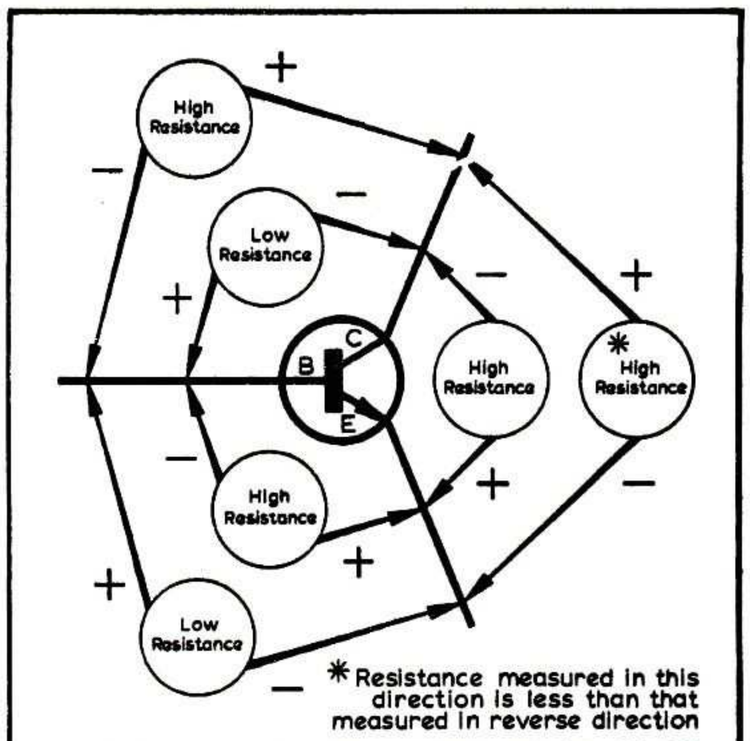
6. Take care that all test probes are insulated to prevent inadvertant short circuits.

7. The metal case of most transistors is connected to the collector electrode and is not earthed. In the case of power transistors the case is insulated from the heat sink by a mica washer and insulating bushes when replacing these transistors care must be taken not to damage the insulators. Efficient heat transfer from the transistor to the heat sink is ensured by keeping the surfaces clean and flat and coating the mating surfaces with a film of silicone compound. The screws holding the transistor to the heat sink must be tight.

8. If transistor damage is suspected, remove the transistor from the circuit and carry out continuity checks as shown in the diagram. The diagram shows the polarities for an NPN transistor, the polarities for PNP transistor (diagrammatically shown with the emitter arrowhead pointing towards the base) are the reverse. When using a standard Avometer for continuity checks the red meter lead is negative. Resistances can vary from one transistor type to another, comparison of values with a known good transistor of the same type is useful when in doubt. If a transistor has been damaged the cause of the damage should be sought before a replacement is fitted.



(a) P-N-P Type



(b) N-P-N Type

Fig. 2 Transistor Continuity Diagram

General Treatment of Printed Circuits

Printed circuits can be damaged by misuse and the following notes are provided to minimise damage.

1. The bond strength of the copper pattern to the base material can be weakened by the use of excessive heat and a low wattage soldering iron is recommended. Whilst a joint is hot the bond strength is very low so that pressure used to remove component leads can easily lift the copper from the base material. Repeated soldering of a joint is to be avoided wherever possible.

2. Damaged circuits can be repaired by bridging the gap with tinned copper wire, or in the case of hairline cracks, can be bridged with solder.

3. When taking readings from the circuit use a terminal or component lead wherever possible. When this is impossible use a needle point probe to contact directly to the printed copper.

Circuit Routine Maintenance and Fault Finding Guide

Test Equipment Required:

1. A high grade oscilloscope. A Tektronix 524AD or equivalent.
2. A high impedance attenuator test probe - 10meg-ohm, 14pF.
3. A high impedance cathode follower test probe - 10meg-ohm 2pF.

4. A multipurpose meter - Avometer Model 8 or equivalent.
5. An 18kV Electrostatic voltmeter.
6. A pulse and bar Test Signal Generator.
7. A grid Pattern Test Signal Generator.
8. A Differential Gain Test Signal Generator.

The following procedure is a fault finding guide with the recommended realignment after replacing damaged components. Routine alignment tests follow the same procedure as the realignment.

1. Repetative "blow-out" of the magnetic overload relay R.L.C. This usually indicates a fault in either the EHT generator or the horizontal scan output stage. Remove -11 volt supply from both circuits and insert a meter in series with the supply to the E.H.T. generator on the 10 amp range. Reset R.L.C. switch on and check that the H.T. supply current is less than 2.2 amps.

   If the H.T. current is high, check TR500 for possible short circuit using transistor resistance test routine. If TR500 is satisfactory check diodes D500 through to D506 for short circuit, if satisfactory remove diodes V501 and V502 and re-check for HT current.

   Replace faulty component and recheck, if TR500 is the faulty component. When repaired obtain a picture on the screen, turn up the Contrast control until EHT overload point is reached, then readjust R501 "Set EHT Overload" until the HT supply current is between the limits 2 amps and 2.2 amps.

   Damage can be caused to the EHT generator, video output stage or the scan output stages by arcing in the EHT supply circuit. Take care that all high voltage and any adjacent low voltage soldered joints are well rounded and free from spikes of solder, mould the plastic covering around leads and joints keeping as smooth a profile as possible.

2. In all other cases treat area of fault by a waveform check around the unit, comparing the waveforms with those in the circuit diagram. Having discovered the area of fault, first check the transistors using the resistance test routine. Transistor damage is the most likely effect of a fault but is not a likely cause, establish the cause of fault before replacing damaged transistors.

3. <u>Video Alignment</u>

a) Contrast control alignment. This may be necessary if TR101, 102 or 108 or R114 has to be replaced.

   Insert a grid pattern test signal into the monitor at standard level of 1 volt peak to peak composite and observe the signal on the video output stage, pin 7 of V1 the C.R.T., using a 10M-ohm attenuator probe. Turn Contrast to zero and select R166 to obtain zero. Attenuate the input signal by 12db, turn Contrast to maximum and select R165 to provide 50 volts of video at the output stage .* If the EHT generator

(* on /01 version R165 is variable)

overloads before 50 volts of signal is obtained then adjust R165 to provide the maximum signal possible.

Repeat the exercise using a remote contrast control, selecting R169 and R168 respectively. (On /01 version R168 is variable).

b) Black Level adjustment, this may be necessary if any of the video output transistors TR104 to 107 or TR600 have to be replaced.

The correct position of black level is 90 volts on the collector of TR600 where V_{CE} is 100 volts at I_C = 0mA.

R124 sets the signal black level and the signal should be observed on a DC oscilloscope setting using the high impedance attenuator probe on pin 7 of the C.R.T.

c) H.F. response. This parameter should be checked if any of the video amplifier transistors have to be changed. Observe the waveform at pin 7 of the C.R.T. base with the base removed from the C.R.T. using a cathode follower attenuator probe having a maximum loading of 3pF. If the probe has less than 3pF loading add capacity to give 3pF total.

Insert 625 T pulse and bar waveform at standard level into the monitor input and with 25 volts of video at the output, adjust trimmer C114 until a K_T rating of 2% is obtained for both amplitude and phase parameters.

d) Differential Gain. Insert the differential gain test signal into monitor input at standard level and select 1 Mc/s carrier frequency, observe the signal using the attenuator probe at pin 7 of the C.R.T. Adjust the gain to give 25 volts of video at the output and measure the envelope distortion using a 1 Mc/s detector probe. The differential gain error should be less than 12% under all conditions of the test signal. If the specification is not met change TR106 or 107 for a transistor having a higher gain at low currents.

4. Sync Separator Alignment

When changing transistors TR110 to 113 the setting of R149 may have to be readjusted to compensate for change in Separator gain.

Insert a Grid Pattern signal of standard level into the monitor input and observe the waveform at tag 4 on the Video and Sync printed circuit board. The waveform should consist of a clean train of complete sync pulses of 5 volts amplitude and polarity negative.

Distort the input signal by passing it through a 1 milli-second time constant, and vary the input amplifude from 0 to -12db and observe that clean sync pulses, free from video information is obtained under all conditions, a compromise setting of R149 may be necessary.

5. Setting up Procedure for the Contrast Control Circuit

Connect an AVO meter (on 10 volt d.c. range), across the lamp connections of the Raysistor. During adjustment of the contrast range this voltage must not exceed 5 volts. (Normal maximum is about 3 volts).

a) With Contrast Control at maximum and the video input at -12db, set R165 to give 50 volts of video only, at the collector of the video output stage, then set the Black Level control R124 so that video black is 80 volts on the collector of TR600. TR600 collector voltage should then be 100 volts for 0mA collector current, 80 volts for Black Level and 40 volts for white level; these can be set up using a 10:1 attenuator probe and Tektronix oscilloscope connected to TR600 Collector.

Notes

1. The probe adds considerable capacity to the output stage so that the H.F. response will be poor.

2. The "Set Lin" control R116 may at this point require adjustment to avoid limiting in the gain control stage.

b) Adjustment of the LF and HF Set Zero Controls R108 and C104 must be made at the same time, the minimise residual crosstalk across the Raysistor finally recheck the sweep of the Contrast Control.

c) Plug in the "Remote Contrast" control and repeat test 5A to set up R168 the Black Level control will not need to be adjusted.

d) Continue and complete remainder of test to 5C.

Insert sawtooth signal into Video 2 input and select Video 2 on the selector switch, this will check that the relays are connected correctly and are operating.

Injecting a sawtooth waveform observe the signal output at the emitter of TR103, advance the Contrast Control until non-linearity of the sawtooth is observed, position "Set Lin" (R116) for equal distortion of white and sync tip crushing this occurs at around 2 volts composite video signal. Normal signal amplitude is approximately $\frac{1}{2}$ volt at this point.

6. Geometry and Linearity

To check geometry and linearity accurately, it is necessary to compare the intersections of a Grid Pattern Test Signal with an accurate crosses chart.

The most convenient method has been found to project an amage from Pye 2" x 2" chart, ref. 844279 onto the phospher surface of the CRT, thus eliminating any parallax errors.

The projected image from the chart should be adjusted for magnification until its boundary lines are set on the standard raster as set out in the specification on page 3.

Adjustment of Height, Width and vertical and horizontal linearity controls together with shift magnets and raster correction magnets on the deflector coil and if necessary rotation of the deflector coil will enable linearity of the raster to be adjusted to within the limits specified in the specification.

For easy measurements of error the standard cross on the Pye Test Chart is dimensioned as follows:-

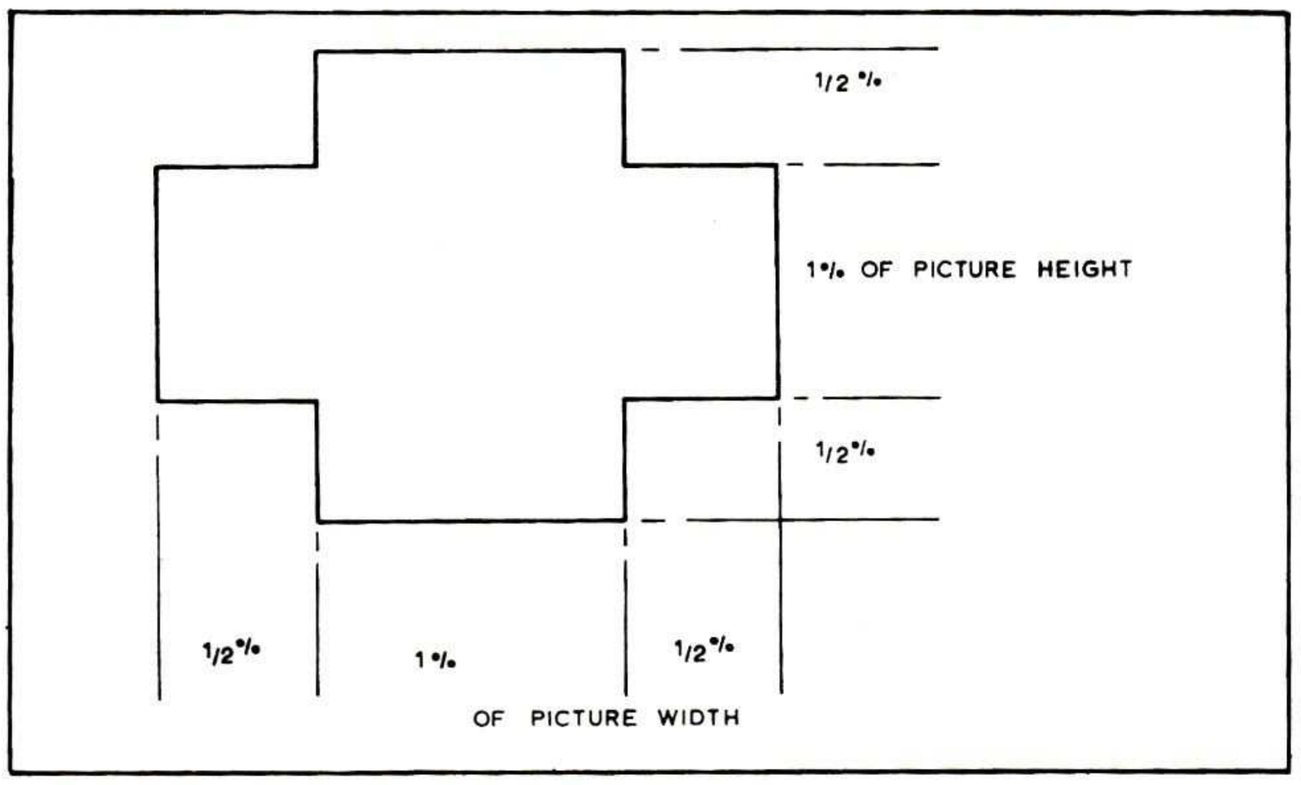


Fig.3 Setting of Picture Width & Height

7. Picture Tube Replacement

To replace the cathode ray tube first remove the tube base board from the C.R.T. and unsolder the scan leads from the deflector coil.

Undo the four screws holding the perspex implosion shield and the escutcheon, rest the monitor on its back panel so that is is stable and remove the four hexagonal pillars holding the C.R.T. strap and lift the tube complete deflector coils from the unit and rest it face downwards on a smooth, flat surface.

Remove the tube strap, rubber band and deflector coils from the old C.R.T. and fit them to the new C.R.T. as follows:

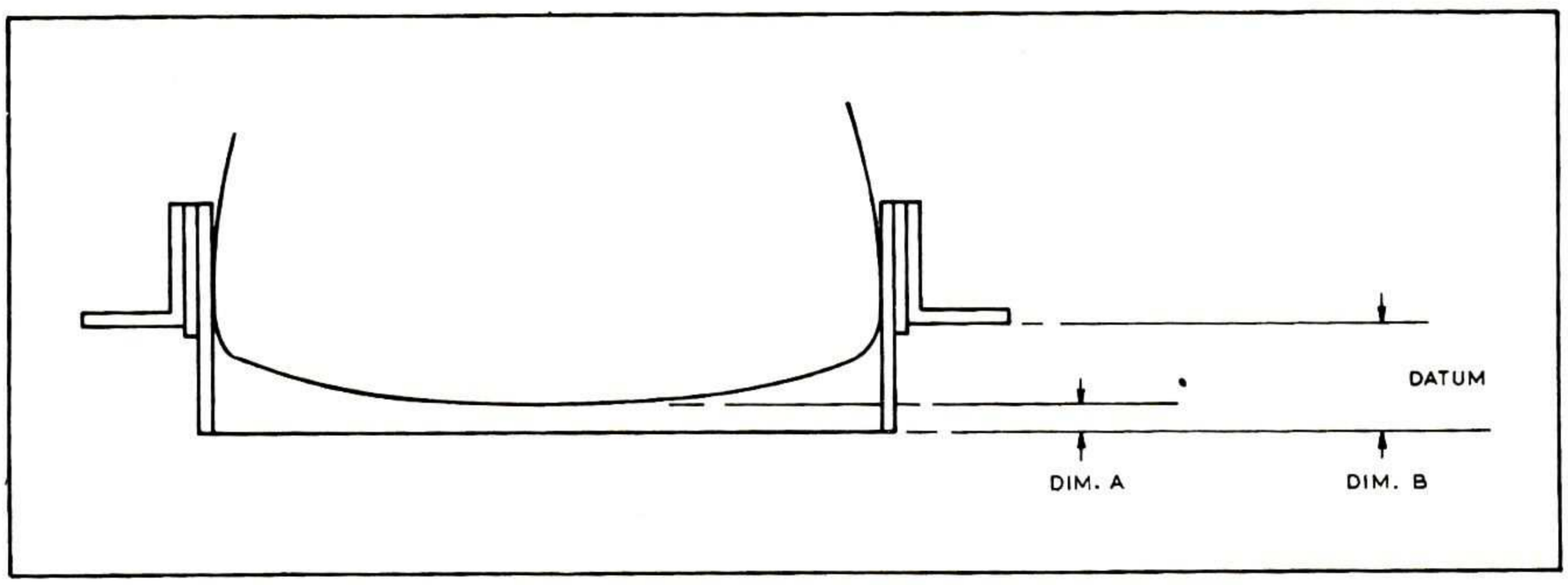


Fig.4 Replacement G.C.R.T.

	11" C.R.T.	14" C.R.T.	17" C.R.T.
DIM. A		3/16" (0.5 cm)	3/16" (0.5 cm)
DIM. B		$1\frac{1}{8}$" (2.7 cm)	$1\frac{3}{8}$" (3.5 cm)

Working to the diagram above, rest the C.R.T. on a surface dimension A above datum, slide on the rubber band to touch the datum all round, then replace the tube strap so that the four corner brackets are dimension B above datum. Replace the deflector coil so that its orientation is the same as it was on the old C.R.T.

Replace the C.R.T. assembly into the monitor by reversing the procedure used for removal.

PARTS LIST

VIDEO, SYNC. & VERT. SCAN BOARD ASSEMBLY

Code	Value	Type	Rating	Tol. ±%	Part No.
C100	1000	Electrolytic	15V	-	PS51063
C101	50	Reversible Electrolytic	50V	-	PS33091
C102 & C103	64	Electrolytic	16V	-	PS34023
C104	0.5-3.5pF	Silvered Ceramic Trimmer	350V	-	PV05048
C105	0.047	Metallised Plastic Foil	250V	10	PQ29466
C106	0.15	Metallised Plastic Foil	250V	10	PQ32202
C107	0.033	Metallised Plastic Foil	250V	10	PQ28360
C108 & C109	0.15	Metallised Plastic Foil	250V	10	PQ32202
C110	1	Metallised Plastic Foil	250V	10	PQ37513
C111	180pF	Silvered Mica	350V	5	PP09663
C112 & C113		Not used			
C114	250-750pF	Compression Mica Trimmer		-	PV05136
C115	0.15	Metallised Plastic Foil	250V	10	PQ32202
C116	64	Electrolytic	16V	-	PS34023
C117	50	Reversible Electrolytic	50V	-	PS33091
C118 & C119	64	Electrolytic	16V	-	PS34023
C120	0.22	Metallised Plastic Foil	250V	10	PQ33018
C121	0.1	Metallised Plastic Foil	250V	10	PQ32026
C122	0.0022	Polyester	400V	10	PR05000
C123	1	Metallised Plastic Foil	250V	10	PQ37513
C124	0.033	Metallised Plastic Foil	250V	10	PQ28360
C125	1	Metallised Plastic Foil	250V	10	PQ37513
C200	1000	Electrolytic	15V	-	PS51063
C201	0.33	Metallised Plastic Foil	250V	10	PQ33451
C202 to C204	1	Metallised Plastic Foil	250V	10	PQ37513
C205	40	Electrolytic	25V	-	PS30027
C206	10	Electrolytic	16V	-	PS23080
C207	200	Electrolytic	10V	-	PS40073
C208	0.68	Metallised Plastic Foil	250V	10	PQ35810
C209	1000	Electrolytic	15V	-	PS51063
C210	0.047	Metallised Plastic Foil	250V	10	PQ29466
C211	0.022	Metallised Plastic Foil	400V	10	PQ27015
C212	200	Electrolytic	10V	-	PS40073
C213	0.047	Metallised Plastic Foil	250V	10	PQ29466
R100 & R101	75	Metal Oxide Film	0.5W	1	PC75065
R102	3.9k	Metal Oxide Film	0.5W	5	PE39265
R103	7.5k	Metal Oxide Film	0.5W	5	PE75265
R104 & R105	3.9k	Metal Oxide Film	0.5W	5	PE39265

Code	Value	Type	Rating	Tol. ±%	Part No.
R106	7.5k	Metal Oxide Film	0.5W	5	PE75265
R107	1.2k	Metal Oxide Film	0.5W	5	PE12265
R108	5.6k	Composition Potentiometer	0.25W	20	PL02634
R109	2.7k	Metal Oxide Film	0.5W	5	PE27265
R110	10k	Metal Oxide Film	0.5W	5	PE10365
R111	10	Carbon Film	0.5W	5	PL22050
R112	1.2k	Metal Oxide Film	0.5W	5	PE12265
R113	33k	Metal Oxide Film	0.5W	5	PE33365
R114	-	Raysistor	-	-	PL23054
R115	330	Metal Oxide Film	0.5W	5	PE33165
R116	100	Composition Potentiometer	0.25W	20	PL02624
R117	220	Metal Oxide Film	0.5W	5	PE22165
R118	560	Metal Oxide Film	0.5W	5	PE56165
R119	1.2k	Metal Oxide Film	0.5W	5	PE12265
R120	10	Carbon Film	0.5W	5	PL22050
R121	2.7k	Metal Oxide Film	0.5W	5	PE27265
R122	2.2k	Metal Oxide Film	0.5W	5	PE22265
R123	220	Metal Oxide Film	0.5W	5	PE22165
R124	220	Composition Potentiometer	0.25W	20	PL02626
R125	680	Metal Oxide Film	0.5W	5	PE68165
R126	680	Metal Oxide Film	0.5W	5	PE68165
R127	2.7k	Metal Oxide Film	0.5W	5	PE27265
R128		Not used			
R129	3.3k	Metal Oxide Film	0.5W	5	PE33265
R130		Not used			
R131	1.8k	Metal Oxide Film	0.5W	5	PE18265
R132	10	Carbon Film	0.5W	5	PL22050
R133	12	Metal Oxide Film	0.5W	2	PL21346
R134	10	Carbon Film	0.5W	5	PL22050
R135	180	Metal Oxide Film	0.5W	5	PE18165
R136	27	Metal Oxide Film	0.5W	5	PE27065
R137	-	Thermistor	-	-	PL23005
R138	22	Metal Oxide Film	0.5W	5	PE22065
R139	10	Carbon Film	0.5W	5	PL22050
R140	75	Metal Oxide Film	0.5W	1	PC75065
R141	3.9k	Metal Oxide Film	0.5W	5	PE39265
R142	7.5k	Metal Oxide Film	0.5W	5	PE75265
R143 & R144	3.9k	Metal Oxide Film	0.5W	5	PE39265
R145	7.5k	Metal Oxide Film	0.5W	5	PE75265
R146	10	Carbon Film	0.5W	5	PL22050
R147	2.7k	Metal Oxide Film	0.5W	5	PE27265
R148	56k	Metal Oxide Film	0.5W	5	PE56365
R149	470k	Composition Potentiometer	0.25W	20	PL02640
R150	100	Metal Oxide Film	0.5W	5	PE10165
R151	560	Metal Oxide Film	0.5W	5	PE56165
R152	1.8k	Metal Oxide Film	0.5W	5	PE18265
R153	10	Carbon Film	0.5W	5	PL22050
R154	3.3k	Metal Oxide Film	0.5W	5	PE33265
R155	12k	Metal Oxide Film	0.5W	5	PE12365
R156 & R157	560	Metal Oxide Film	0.5W	5	PE56165
R158	10	Carbon Film	0.5W	5	PL22050

Code	Value	Type	Rating	Tol.±%	Part No.
R159	10k	Metal Oxide Film	0.5W	5	PE10365
R160	10k	Metal Oxide Film	0.5W	5	PE10365
R161	1k	Metal Oxide Film	0.5W	5	PE10265
R162	1M	Carbon Film	0.5W	5	PL22923
R163	10k	Metal Oxide Film	0.5W	5	PE10365
R164	3.3k	Metal Oxide Film	0.5W	5	PE33265
R165	1k	Composition Potentiometer	0.25W	20	PL02631
R166	150	Metal Oxide Film	0.5W	5	PE15165
R167	3.6k	Metal Oxide Film	0.5W	5	PE36265
R168	1k	Composition Potentiometer	0.25W	20	PL02631
R169	150	Metal Oxide Film	0.5W	5	PE15165
R170 & R171	100	Metal Oxide Film	0.5W	5	PE10165
R200	47k	Metal Oxide Film	0.5W	5	PE47365
R201	1k	Metal Oxide Film	0.5W	5	PE10265
R202	82k	Carbon Film	0.5W	5	PL22690
R203	1.8k	Metal Oxide Film	0.5W	5	PE18265
R204	47	Metal Oxide Film	0.5W	5	PE47065
R205	47k	Composition Potentiometer	0.25W	20	PL02637
R206	5.6k	Metal Oxide Film	0.5W	5	PE56265
R207	6.8k	Metal Oxide Film	0.5W	5	PE68265
R208	100k	CompositionPotentiometer	0.25W	20	PL02638
R209	10k	Metal Oxide Film	0.5W	5	PE10365
R210	10	Carbon Film	0.5W	5	PL22050
R211	15k	Metal Oxide Film	0.5W	5	PE15365
R212	(27k	Metal Oxide Film (ON /00)	0.5W	5	PE27365
	(33k	Metal Oxide Film (ON /01)	0.5W	5	PE33365
R213	15k	Metal Oxide Film	0.5W	5	PE15365
R214	5.6k *	Metal Oxide Film	0.5W	5	PE56265
R215	33k	Metal Oxide Film	0.5W	5	PE33365
R216	6.8k	Metal Oxide Film	0.5W	5	PE68265
R217	3.3k	Carbon Film	0.5W	5	PL22521
R218	100	Metal Oxide Film	0.5W	5	PE10165
R219	4.7k	Metal Oxide Film	0.5W	5	PE47265
R220	100	Metal Oxide Film	0.5W	5	PE10165
R221	10k	Metal Oxide Film	0.5W	5	PE10365
R222	680	Metal Oxide Film	0.5W	5	PE68165
R223	3.3k	Metal Oxide Film	0.5W	5	PE33265
R224	1.8k	Metal Oxide Film	0.5W	5	PE18265
R225	0.35	Wire wound	-	1	PL21270
R226 & R227	100	Metal Oxide Film	0.5W	5	PE10165
R228	68k	Carbon Film	0.5W	5	PL22688
D100 & D101		Diode IN3194			FV07568
D102 to D105		Diode 1S44			FV09818
D106 & D107		Diode BYX10			FV05129
D108 & D109		Diode IN3194			FV07568
D110 to D112		Diode 1S44			FV09818
D200 D201		Diode 1S44			FV09818

Code	Value	Type	Rating	Tol. ±%	Part No.
D202		Zener Diode OAZ242			FV09012
D203		Diode 1S44			FV09818
D204		Zener Diode Z3B240CF			FV09963
D205 to D208		Diode 1N2069			FV09877
TR100 to TR104		Transistor BSY95A			FV09940
TR105		Transistor BSX29			FV07771
TR106 to TR109		Transistor BSY95A			FV09940
TR110		Transistor BSX29			FV07771
TR111 to TR113		Transistor BSY95A			FV09940
TR114		Transistor BSY27			FV07002
TR115		Transistor BSX29			FV07771
TR200 to TR202		Transistor BSY95A			FV09940
TR203		Transistor BSX29			FV07771
TR204		Transistor 40250			FV07563
TR205		Transistor BSY95A			FV09940
T100		Clamp			AL20040
T101		Diff.			AL22324
T200		Vert Osc.			AL22327
L100		Choke			AL51107
L101 & L102	12μH	Choke			AL50013
L200	12μH	Choke			AL50013
SWA-D		DPDT Slide Switch			FS03149
RLA & B		Dry Reed Relay	12V		FR01185
SK100 to SK102		Video Socket			FS16150

Video, Sync. & Vert. Scan Printed Circuit Board Assembly (Less Components)	on 11" Unit	AG27466
	on 14" & 17" Units	AG27148
Video, Sync. & Vert. Scan Board Assembly (Comp.)	on 11" Unit	AG27467
	on 14" & 17" Units	AG27140

Capacitors in μF unless otherwise marked.

Resistors in Ω

HOR. SCAN & POWER UNIT BOARD ASSEMBLY

Code	Value	Type	Rating	Tol. ±%	Part No.
C300	0.0022	Polyester	400V	10	PR05000
C301	64	Electrolytic	16V	-	PS34023
C302	1000	Electrolytic	15V	-	PS51063
C303 & C304	0.0022	Polyester	400V	10	PR05000
C305	0.0022	Polyester	400V	10	PR05000
C306	0.033	Metallised Plastic Foil	250V	10	PQ28360
C307	0.1	Polyester	400V	10	PR19530
C308	0.47	Metallised Plastic Foil	250V	10	PQ34065
C309	0.015	Metallised Plastic Foil	400V	10	PQ26012
C310	0.47	Metallised Plastic Foil	250V	10	PQ34065
C311	0.033	Metallised Plastic Foil	250V	10	PQ28360
C312	220pF	Silvered Mica	350V	5	PP10051
C313	5000	Electrolytic	16V	-	PS59014
C314 & C315	0.033*	Metallised Plastic Foil	250V	10	PQ28360
C316	0.047*	Metallised Plastic Foil	250V	10	PQ29466
C317		Not used			
C318	32	Electrolytic	350V	-	PS29050
C319	5000	Electrolytic	16V	-	PS59014
C320	125	Electrolytic	16V	-	PS38213
C321 & C322	(0.047	Metallised Plastic Foil	250V	10	PQ29466
	(	(on 11" Unit)			
	(0.1	Metallised Plastic Foil	250V	10	PQ32026
	(	(on 14" & 17" Units)			
C400	40	Electrolytic	25V	-	PS30027
C401	(1 *	Metallised Plastic Foil	250V	10	PQ37513
	(0.47*	Metallised Plastic Foil	250V	10	PQ34065
C402	10	Electrolytic	16V	-	PS23080
C403	2000	Electrolytic	16V	-	PS53016
C404	0.22	Metallised Plastic Foil	250V	10	PQ33018

NOTE * Value selected on test.

R300 & R301	5.6k	Metal Oxide Film	0.5W	5	PE56265
R302 & R303	1k	Metal Oxide Film	0.5W	5	PE10265
R304	470	Carbon Film	0.5W	5	PL22356
R305	1.2k	Carbon Film	0.5W	5	PL22511
R306	1k	Metal Oxide Film	0.5W	5	PE10265
R307 & R308	1.8k	Metal Oxide Film	0.5W	5	PE18265
R309	10k	Metal Oxide Film	0.5W	5	PE10365
R310	39k	Metal Oxide Film	0.5W	5	PE39365
R311	4.7k	Metal Oxide Film	0.5W	5	PE47265
R312	10k	Carbon Film	0.5W	5	PL22533
R313	1k	Metal Oxide Film	0.5W	5	PE10265
R314	220	Metal Oxide Film	0.5W	5	PE22165
R315	6.8k	Metal Oxide Film	0.5W	5	PE68265

Code	Value	Type	Rating	Tol. ±%	Part No.
R316	10	Carbon Film	0.5W	5	PL22050
R317	100	Metal Oxide Film	0.5W	5	PE10165
R318	100k	Carbon Film	0.5W	5	PL22692
R319	12	Carbon Film	0.5W	5	PL22052
R320	1.8k	Metal Oxide Film	0.5W	5	PE18265
R321	56 *	Metal Oxide Film	0.5W	5	PE56065
R400	220	Carbon Film	0.5W	5	PL22163
R401	470	Carbon Film	0.5W	5	PL22356
R402	15k	Carbon Film	0.5W	5	PL22588
R403	15k	Carbon Film	0.5W	5	PL22588
R404	470	Carbon Film	0.5W	5	PL22356
R405	220	Composition Potentiometer	0.25W	20	PL02626
R406	820	Carbon Film	0.5W	5	PL22362
D300		Diode BYX10			FV05129
D301 to D306		Diode 1S44			FV09818
D307		Diode 1N4785			FV07564
D308		Diode 1N2071			FV09882
D309		Diode BYX10			FV05129
D310		Diode 1N2071			FV09882
D400		Zener Diode MZ6.8T5			FV09631
D401		Zener Diode 1S2062A			FV09797
TR300		Transistor BSY95A			FV09940
TR301		Transistor V205			FV07770
TR302		Transistor BSY95A			FV09940
TR303		Transistor 2N2147			FV07560
TR304		Transistor 2N3731			FV07561
TR305		Transistor 2N2147			FV07560
TR400		Transistor 40251			FV07559
TR401		Transistor 40250			FV07563
TR402		Transistor BCY40			FV09347
TR403		Transistor BCY32			FV05092
T300		Oscillator			AL22325
T301		Driver			AL22322
T302		Output			AL22326
T303		S. Correction			AL22321
L300		Isolation Choke			AL51107
L301		Hor. Lin. Choke			AL51106

Hor. Scan & Power Unit Printed Circuit Board Assy. (Less Components)
(on 11" Unit AG27468
(on 14" & 17" Units AG27150

Hor. Scan & Power Unit Board Assembly Complete
(on 11" Unit AG27469
(on 14" & 17" Units AG27141

Capacitors in μF unless otherwise marked.

Resistors in Ω

E.H.T. UNIT

Code	Value	Type	Rating	Tol.±%	Part No.
C500	1000	Electrolytic	15V	-	PS51063
C501 & C502	1	Metallised Plastic Foil	250V	10	PQ37513
C503	0.1	Metallised Plastic Foil	630V	10	PQ32025
C504	1	Metallised Plastic Foil	250V	10	PQ37513
C505	4	Electrolytic	150V	-	PS18046
C506	0.1	Metallised Plastic Foil	630V	10	PQ32025
C507	500pF	Ceramicon	20KV	20	PN23006
C508	0.001	Ceramicon	20KV	-20+50	PN26311
C509	500pF	Ceramicon	20KV	20	PN23006
R500		Not used			
R501	1k	Composition Potentiometer	0.25W	20	PL02631
R502	470	Carbon Film	0.5W	5	PL22356
R503	5.6k	Carbon Film	0.5W	5	PL22527
R504 & R505	5.6	Deposited Carbon Film	0.5W	5	NE05638
R506	750	Carbon Film	0.5W	5	PL22361
R507	39k	Metal Oxide Film	0.5W	5	PE39365
R508	100	Metal Oxide Film	0.5W	5	PE10165
R509	5.6	Deposited Carbon Film	0.5W	5	NE05638
R510 & R511	100k	Carbon Film	0.5W	5	PL22692
R512 & R513	250M	Metal Oxide	0.25W	5	PL21857
D500 to D503		Diode 1N2069			FV09877
D504		Diode 1N2071			FV09882
D505		Zener Diode Z3B1000CF			FV09978
D506		Diode 1N2071			FV09882
TR500		Transistor BCY32			FV05092
TR501 & TR502		Transistor 2N2147			FV07560
V501 & V502		Rectifier EY87			FV00744
T500		Feedback			AL22323
T501		E.H.T.			AL20142
L1		Choke			AL51107
E.H.T. Printed Circuit Board (Less Components) Assembly					AG27152
E.H.T. Box Assembly Complete					AG27142
E.H.T. Board Assembly Complete					AG27151

Capacitors in μF unless otherwise marked.

Resistors in Ω

C.R.T. BASE BOARD ASSEMBLY

Code	Value	Type	Rating	Tol.±%	Part No.
C601	32	Electrolytic	150V	-	PS29028
C602 to C604	0.1	Metallised Plastic Film	630V	10	PQ32025
R600	10	Carbon Film	0.5W	5	PL22050
R601	3.3k	Wire wound	3W	5	JS03728
R602	220k	Carbon Film	0.5W	5	PL22907
R603	47k	Carbon Film	0.5W	5	PL22684
R604	47k	Carbon Film	0.5W	5	PL22684
R605	27k	Metal Oxide Film	0.5W	5	PE27365
R606	470	Metal Oxide Film	0.5W	5	PE47165
D600		Diode 1S44			FV09818
D601 & D602		Diode 1S922			FV08106
TR600		Transistor 2N699			FV07570
L600	12µH	Choke			AL50013
Ferroxcube Beads (2 Off)					FC02138
TUBE BASE					FH02626
C.R.T. Base Printed Circuit Board Assy. (Less Components)					AG27157
C.R.T. Base Board Assembly Complete					AG27145

Capacitors in µF

Resistors in Ω

SYSTEM SWITCHING BOARD ASSEMBLY

C700 & C701	250-750pF	Compression Mica Trimmer	-	-	PV05136
C702	0.022µF	Metallised Plastic Film	250V	10	PQ27015
C703	0.47µF*	Metallised Plastic Film	250V	10	PQ34065
C704	400	Electrolytic	4V	-	PS44008
	* Value selected on test				
R700	1k	Composition Potentiometer	0.25W	20	PL02631
R701	56k	Metal Oxide Film	0.5W	5	PE56365
R702	470k	Composition Potentiometer	0.25W	20	PL02640
R703	47k	Composition Potentiometer	0.25W	20	PL02637
R704	220	Composition Potentiometer	0.25W	20	PL02626
R705	1k	Carbon Film	0.5W	5	PL22364
R706	100	Carbon Film	0.5W	5	PL22074
D700 & D701		Diode BYX10			FV05129
D702 to D705		Diode 1S44			FV09818
L700	1mH	Choke			AL50002
L701	5mH	Choke			AL51108
RLD & E		4-pole C.O. Relay			FR07061
System Switching Printed Circuit Board Assy. (Less Components)					AG27154
System Switching Board Assy. Complete (On/00 Versions only)					AG27144

Resistors in Ω

BACK PANEL ASSEMBLY, CONTROL PANEL ASSEMBLY & OTHER ITEMS NOT ON ANY ASSEMBLY

Code	Value	Type	Rating	Tol. ±%	Part No.
C1	(6	Metallised Polyester (On 11" Unit)	160V AC	-	PQ40001
	(5	Paper (On 14" & 17" Units)	250V AC	10	PR28502
C2 & C3	4000	Electrolytic	40V	-	PS57003
R1 & R2	1.2k	Carbon Film) on /00 version units only	0.5W	5	PL22511
R3 & R4	220 *	Wire Wound)	1.5W	5	JS02190
R5	470	(Composition (on 11" Unit	2W	(20	PL09522
		(Pot. (on 14" & 17" (Unit	0.25W	(	PL04603
R6	150k	(Composition (on 11" Unit	2W	(20	PL05523
		(Pot. (on 14" & 17" (Unit	0.25W	(	PL04024
R7	15k	(Composition (on 11" Unit	2W	(20	PL05515
		(Pot. (on 14" & 17" (Unit	0.25W	(	PL04016
R8	1k	(Composition (on 11" Unit	2W	(20	PL05506
		(Pot. (on 14" & 17" (Unit	0.25W		PL04006
R9	220	(Composition (on 11" Unit	2W	(20	PL05500
		(Pot. (on 14" & 17" (Unit	0.25W	(	PL04001
R10	470	Metal Oxide Film	0.5W	5	PE47165
R11	100k	(Composition (on 11" Unit	2W	(20	PL09523
		(Pot. (on 14" & 17" (Unit	0.25W	(	PL04623
R12	470k	Carbon Film	0.5W	5	PL22915
R13	220k	Carbon Film	0.5W	5	PL22907
R14	2.2M	Composition Potentiometer	2W	20	PL04034
R15 & R16	150	Metal Oxide Film	0.5W	5	PE15165
D1 & D2		Diode BYZ13			FV05000
V1		(C.R.T. M28-11W (11" Unit)			FV04888
		(C.R.T. M36-12W (14" Unit)			FV04884
		(C.R.T. M43-12W (17" Unit)			FV04886
T1		Mains			AL21562
L1		See E.H.T. Box Assembly			
L2		Vertical Output Choke			AL51103
L3-6 & centring magnets)		Deflector (11" Unit) Coil (14" Unit) Assembly (17" Unit			FT06049 FT06042 FT06048
RLC		Cut-Out Relay (65°C)	5A		FR03272
SWE		Video Selector Switch			BJ21605

* Deleted on /01 version

Code	Value	Type	Rating	Tol. ±%	Part No.
SWF		System Selector Switch (on /00 Versions Only)			BJ21606
SWG		D. P. D. T. Switch 'A. C.'			FS04700
LP1	12-14V	Lamp 'A. C. ON' (white)	0.5W		FL12907
LP2	24-28V	Lamp 'ON AIR' (red)	1W		FL12908
FS1 & 2	(1A	Fuse	For 200-250V		FF00889
	(2A	Fuse	For 100-125V		FF00890
PL1		4-Contact Plug 'A. C. IN'			FP00895
SK1		15-Contact Socket 'Remote'			FS42033
FAN	127V	1400 r. p. m. 4-pole	25W		FF00019
Voltage Selector Plate					FS16500
Ferroxcube Beads (7 Off)					FC02138
KNOB		Black			FK00052

Components on		
Back Panel Assembly	(on 11" Unit	AG27541
	(on 14" Unit	AG27143
	(on 17" Unit	AG27357
Control Panel Assembly	(on 11" Unit	AG27537
	(on 14" Unit	AG27125
	(on 17" Unit	AG27358

Capacitors in μF

Resistors in Ω

LOOSE SHIPPING ITEMS

Coaxial Plug (3 Supplied)	FP00136
4-way Socket	FS17406
15-way Plug	FP00887

AMENDMENTS

Amendment No. 1

	Part No.
TR104 - changed - is now 2N3707 type	FV09879
C126 - 680pF added in parallel with C114	PP12203
R170 and R171 100Ω resistors added to base circuits of TR100 and TR109	PE10165

Amendment No. 2

Parts List Changes

P. 16	Add C126, 680pF, Silver Mica, 350V, ±10%	PP62203
P. 19	D202, Zener Diode to read, BZY88-C5-V6,	FV05236
	Amend TR100 to read: TR100 to TR103, Transistor BSY95A,	FV09940
	Amend TR104 to read: Transistor 2N3707,	FV09879
P. 22	After R513 add: D1, D2. Diode BYZ12	FV05202
P. 23	C601 value to be 50µF	PS33078
P. 24	Delete, D1, D2, line following R16.	

Note: Circuit Diagram Issue now Issue 7.

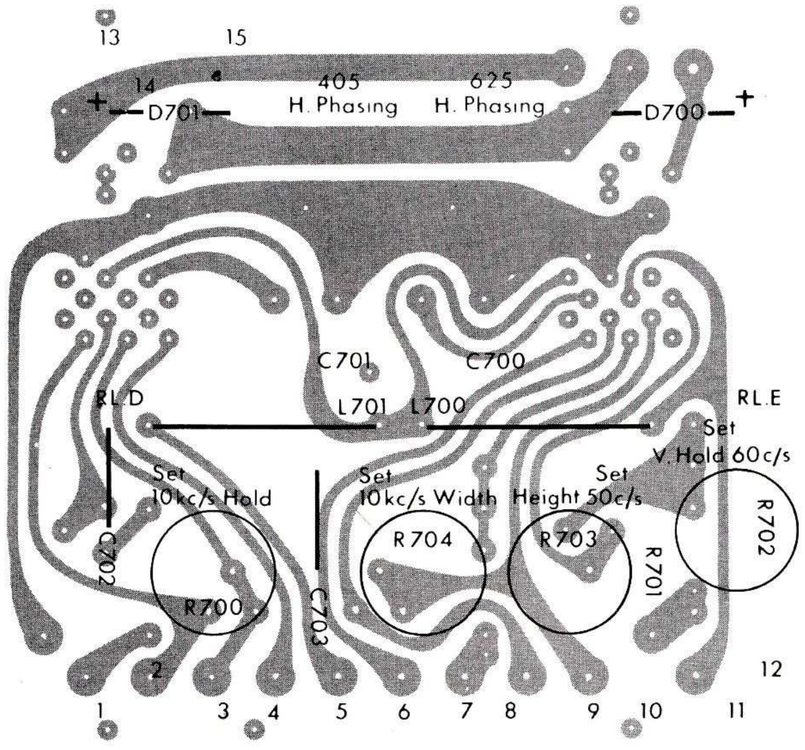


Fig. 5 SYSTEM SWITCHING BOARD

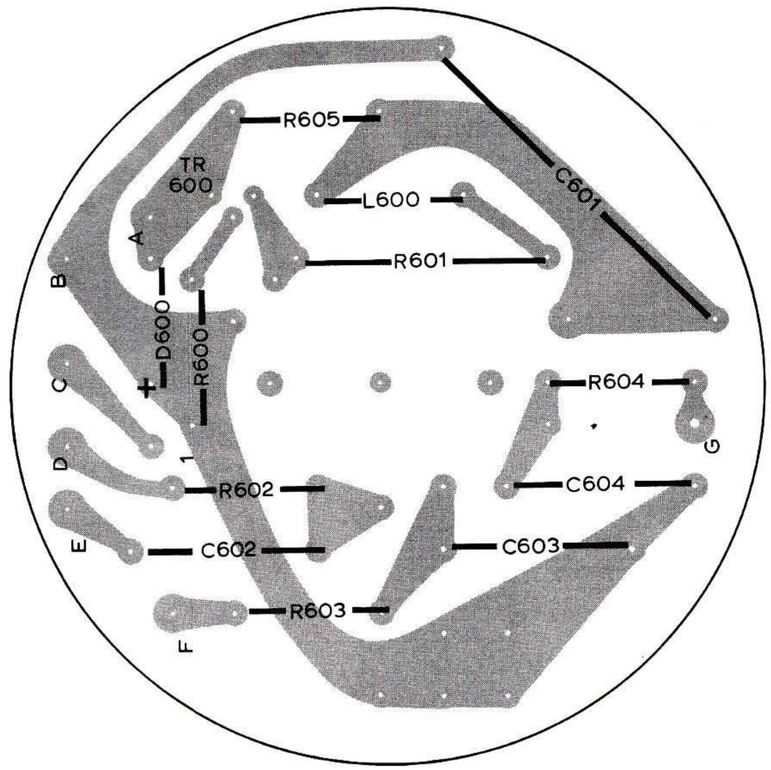


Fig. 6 C.R.T. BASE CIRCUIT BOARD

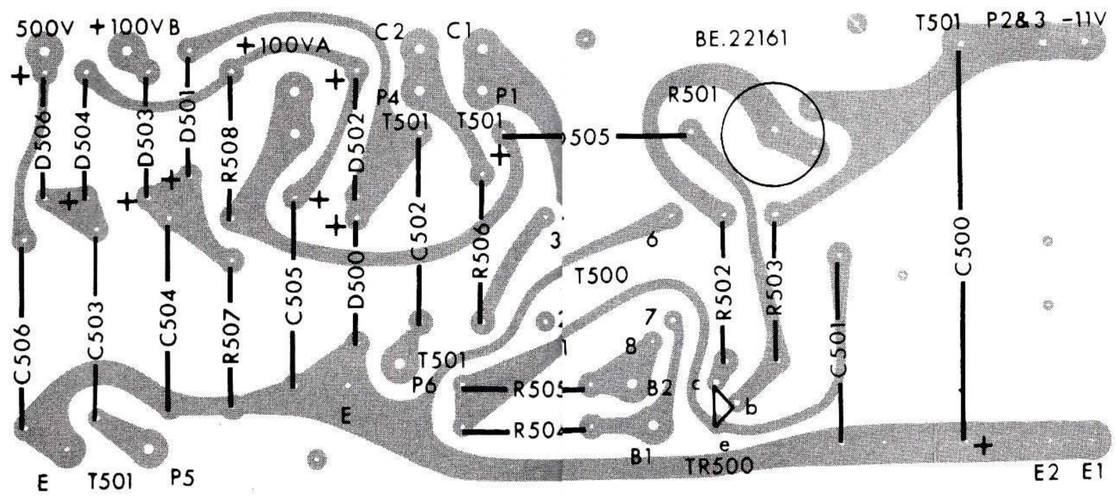


Fig. 7 E.H.T. CIRCUIT BOARD

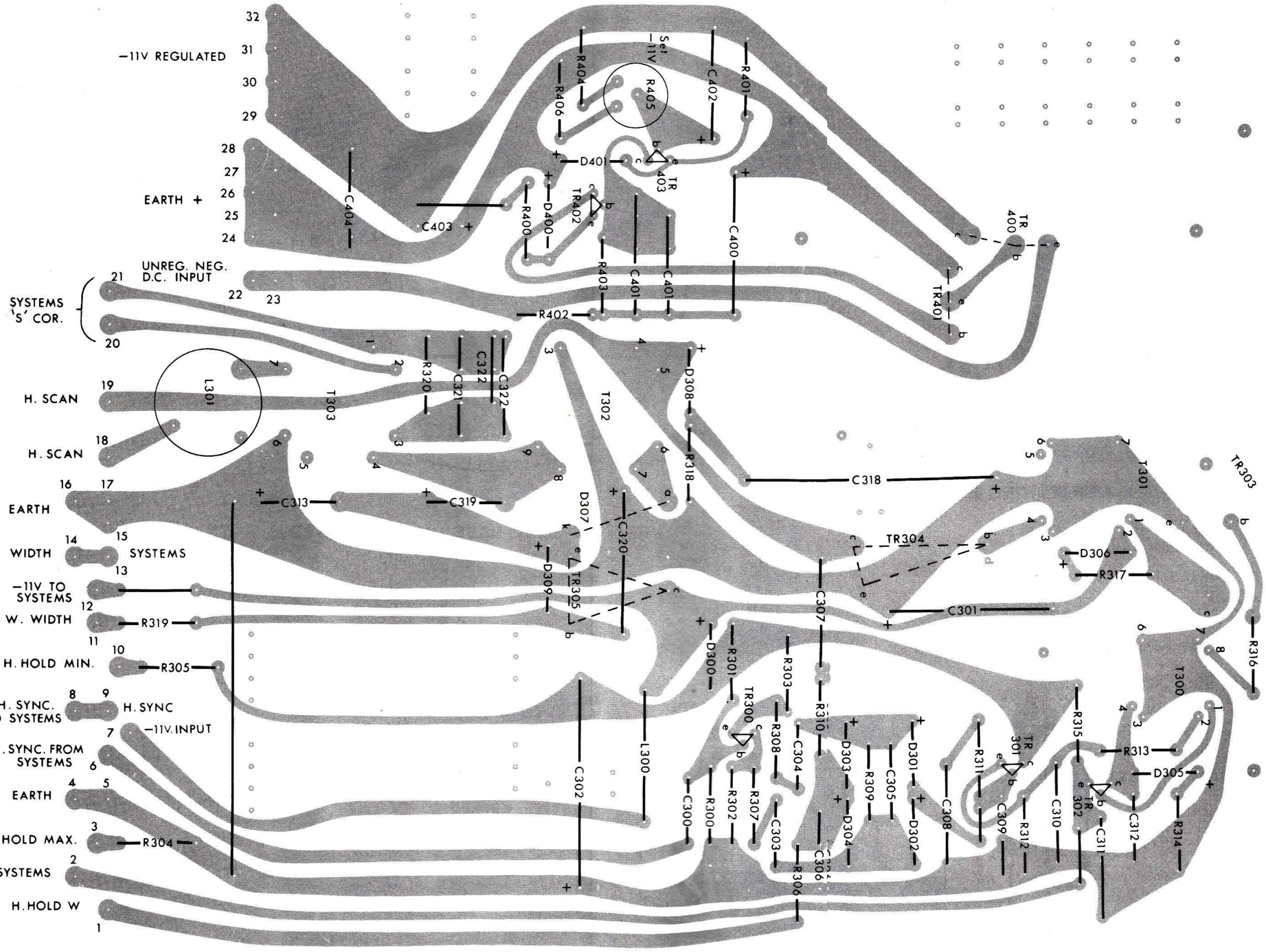


Fig. 8 POWER UNIT & HOR: SCAN CIRCUIT BOARD

Fig. 9 TUNING CIRCUIT BOARD

Fig. 10 VIDEO & VERTICAL SCAN CIRCUIT BOARD

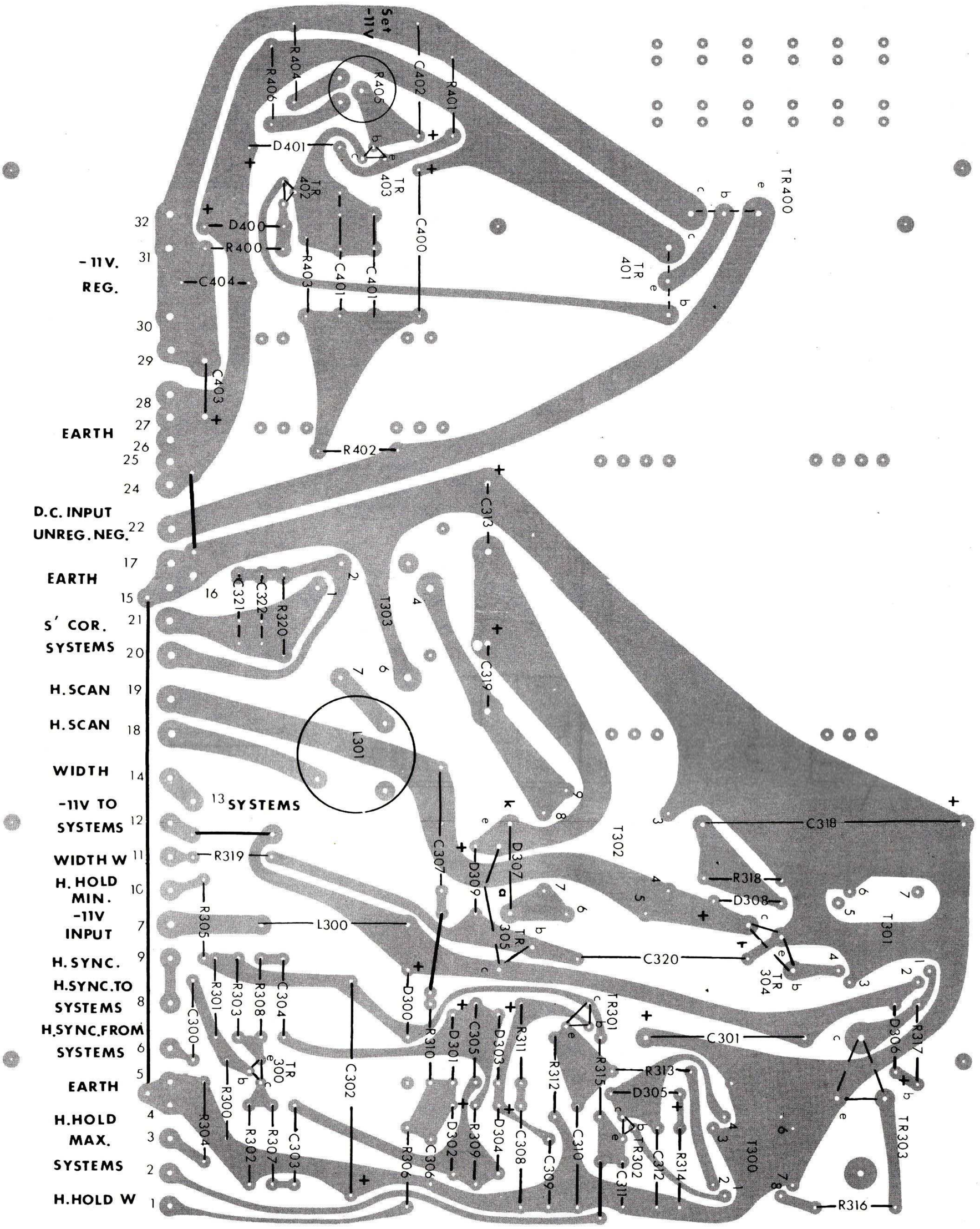
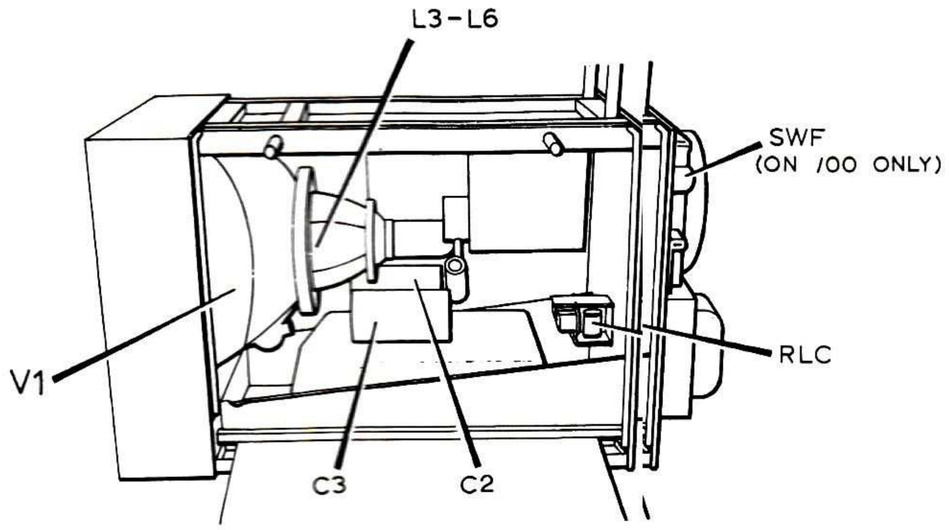
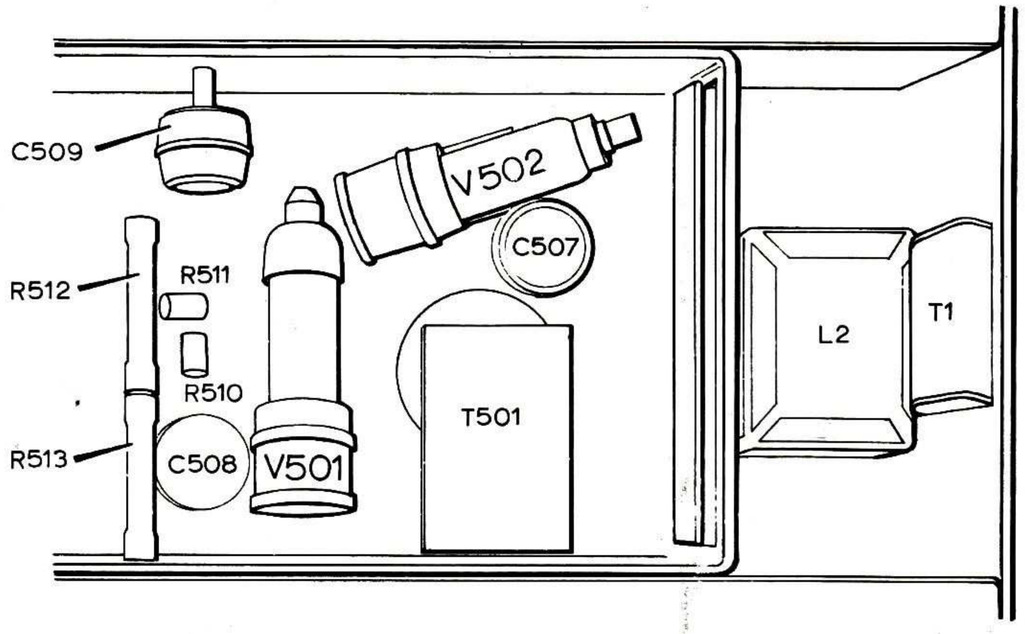


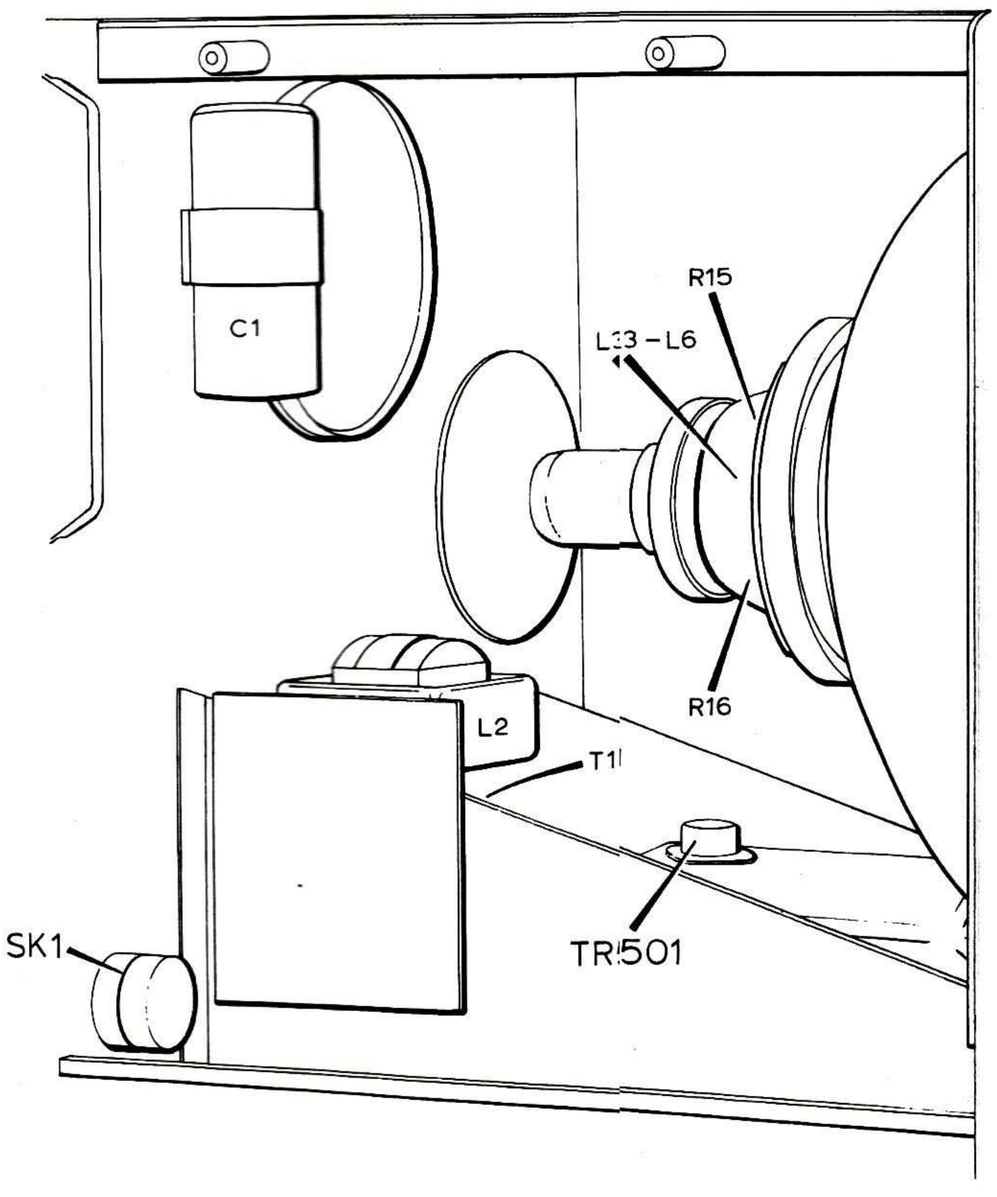
Fig. 12 POWER UNIT & HOR: SCAN CIRCUIT BOARD



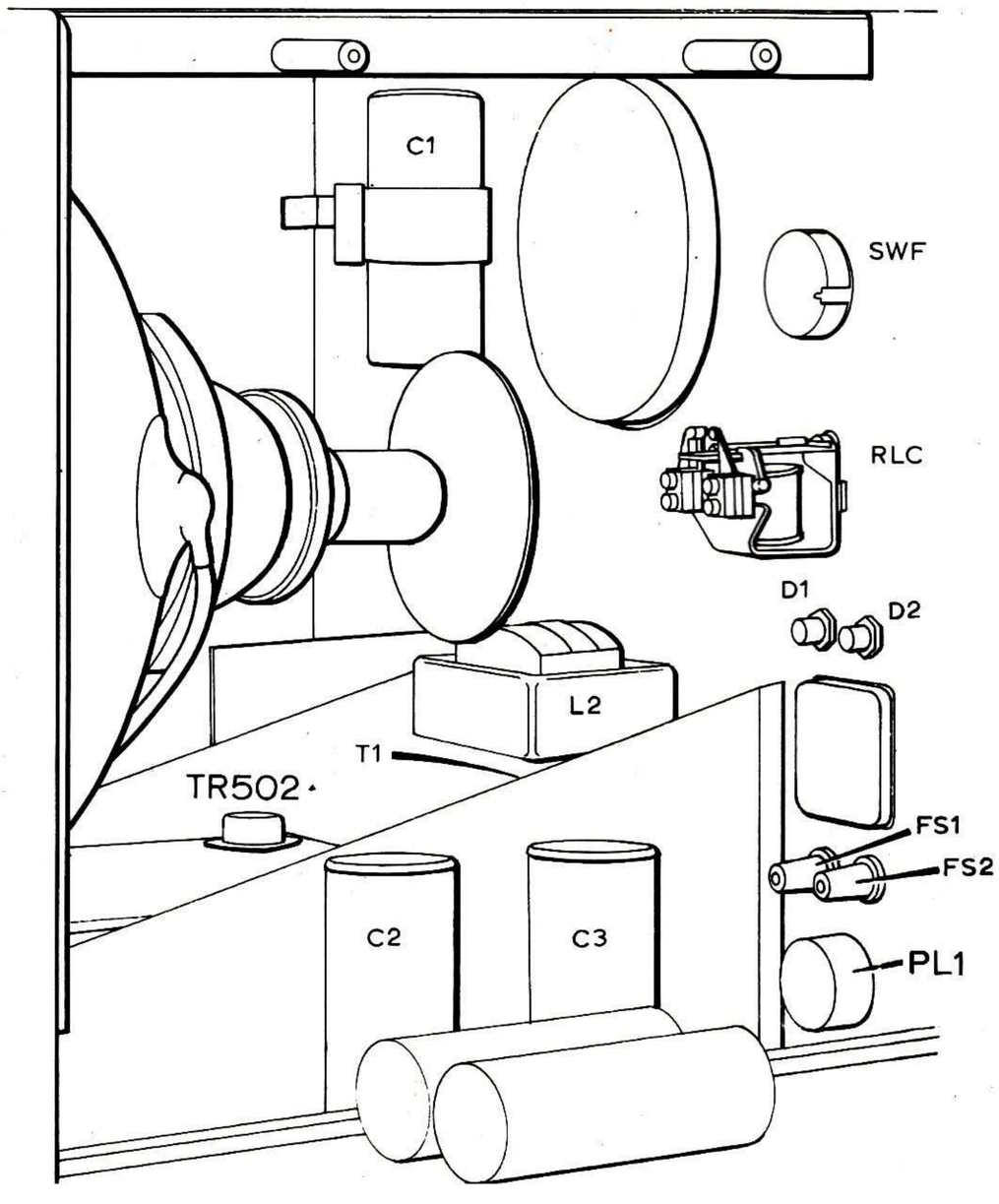
Left-hand Side View - 111" Model



Underside View - 11", 14" & 17" Models

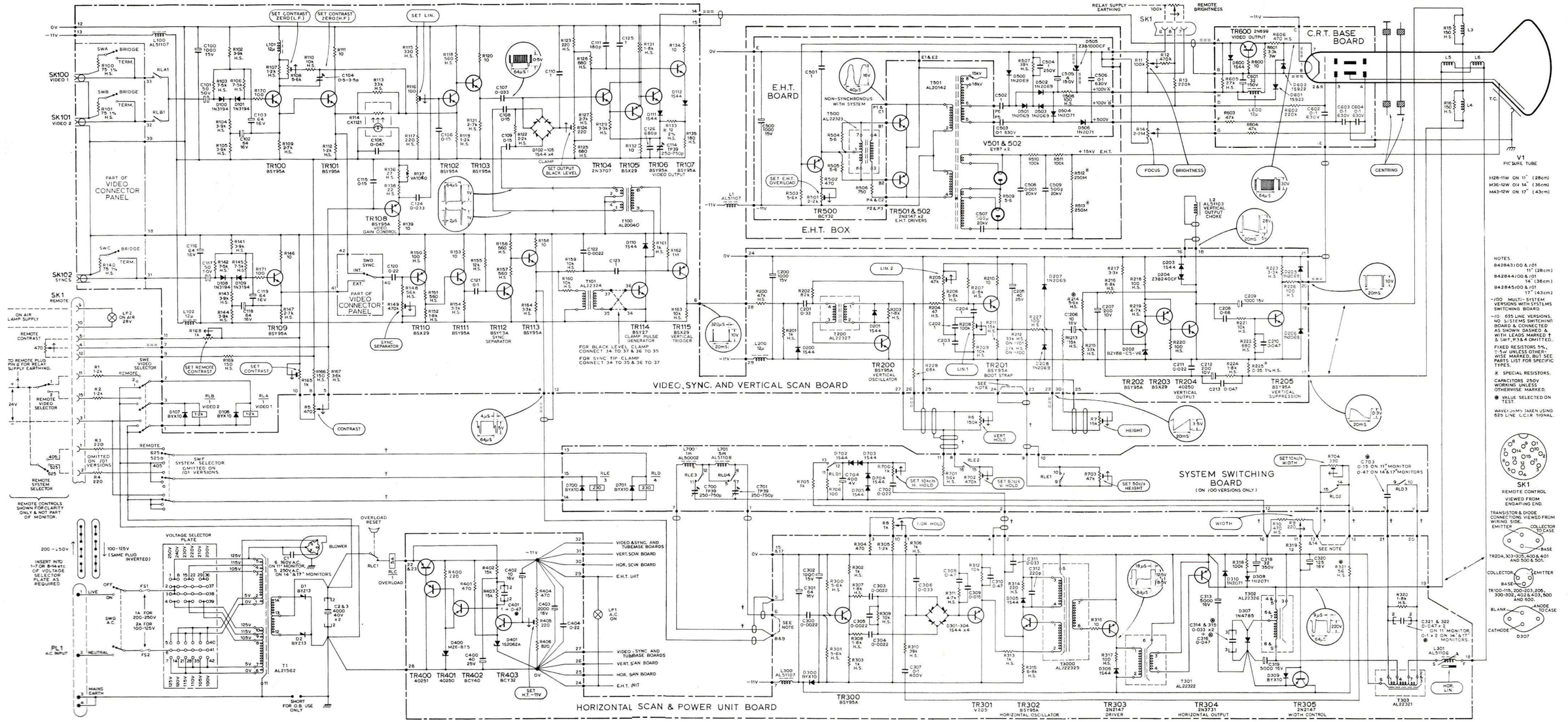


Right-hand Side View - 14" & 17" Models



Left-hand Side View - 14" & 17" Models

Fig. 13 COMPONENT LOCATION DIAGRAMS


VIDEO, SYNC. AND VERTICAL SCAN BOARD
HORIZONTAL SCAN & POWER UNIT BOARD
SYSTEM SWITCHING BOARD
(ON /00 VERSIONS ONLY)
E.H.T. BOARD
E.H.T. BOX
C.R.T. BASE BOARD
V1 PICTURE TUBE
M28-11W ON 11" (28cm)
M36-12W ON 14" (36cm)
M43-12W ON 17" (43cm)
SK1 REMOTE CONTROL VIEWED FROM ENGAFING END.
TRANSISTOR & DIODE CONNECTIONS VIEWED FROM WIRING SIDE.
TR204,303-305,400 & 401 AND 500 & 501.
TR100-115, 200-203, 206, 300-302, 402 & 403, 500 AND 600.
D307
REMOTE CONTROLS SHOWN FOR CLARITY ONLY & NOT PART OF MONITOR.
PART OF VIDEO CONNECTOR PANEL
SHORT FOR O.B. USE ONLY
SEE NOTE 24
SEE NOTE
NOTES.
842843/00 & /01 11" (28cm)
842844/00 & /01 14" (36cm)
842845/00 & /01 17" (43cm)
-/00 MULTI-SYSTEM VERSIONS WITH SYSTEMS SWITCHING BOARD.
-/10 625 LINE VERSIONS. NO SYSTEMS SWITCHING BOARD & CONNECTED AS SHOWN DASHED & WITH LEADS MARKED † & SWF, P3 & 4 OMITTED.
FIXED RESISTORS 5%, 0.5W UNLESS OTHERWISE MARKED, BUT SEE PARTS LIST FOR SPECIFIC TYPES.
* SPECIAL RESISTORS.
CAPACITORS 250V WORKING UNLESS OTHERWISE MARKED.
● VALUE SELECTED ON TEST.
WAVEFORMS TAKEN USING 625 LINE C.C.I.R. SIGNAL.