SERVICE MANUAL

COLOUR TELEVISION RECEIVER

"K" SERIES

MODEL	DESCRIPTION	CHASSIS	CABINET
T14TK70	PAL I, TELETEXT	KAT00-I	14CX7
T14RK70	PAL I, NON-TEXT	KAT00-W	14CX7
T14TK40	PAL I, TELETEXT	KAT00-I	14CX4
T14RK40	PAL I, NON-TEXT	KAT00-W	14CX4
T20TK70	PAL I, TELETEXT	KBT00-I	20CX7
T21TK70	PAL I, TELETEXT	KCT00-I	21CX7
D14TKG5	PAL I, TELETEXT	KAT00-I	14CX7
D14RKG5	PAL I, NON-TEXT	KAT00-W	14CX7
D14TKD5	PAL I, TELETEXT	KAT00-I	14CX4
D14RKD5	PAL I, NON-TEXT	KAT00-W	14CX4
D20TKG5	PAL I, TELETEXT	KBT00-I	20CX7
D20RKG5	PAL I, NON-TEXT	KBT00-W	20CX7

CAUTION

Before servicing this television, it is important that the service technician read the 'Safety and Isolation' notes.

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Section 1 Safety and Isolation

1.1 General

Under no circumstances should any form of repair or maintenance be attempted by any person other than a competent technician or engineer. The following precautions should be observed:

For purposes of servicing, the chassis should be supplied from an isolation transformer of at least 150W rating.

1) If disturbed, the original lead dressing should be restored. In addition to safety, the position of the leads may also affect the EMC performance of the TV.
2) Components marked ⚠ on the circuit diagram are safety approved types and have special safety related characteristics. Only the manufacturers replacement components should be used. Replacement with alternative or 'up-rated' parts e.g. higher power resistors definitely does not guarantee the same level of protection and may create a fire, electric shock or X-radiation hazard.
3) Components not bearing the ⚠ mark should still be replaced with the originally fitted type and should be mounted in the same way.

1.2 The Isolation Barrier

To maintain barrier integrity care should be taken not to reduce any air gaps, e.g. by protruding wires, following component replacement.

1.3 Semiconductor Device Handling Precautions

The chassis contains devices which may be damaged by static electrical charge during handling. To avoid damage, soldering irons should be earthed and service engineers should ideally wear wrist straps earthed through a 1M resistor or at least discharge themselves to an earthed point.

Section 2 TECHNICAL SPECIFICATION

TV Transmission system	PAL I or PAL BG (see Model Description)	
Sound system	FM 6MHz (for PAL I), FM 5.5MHz (for PAL BG)	
Channel Coverage	UHF channels 21 to 69 (PAL I)	
	or UHF channels 21 to 69 VHF I–III and Cable S1–S41 (PAL BG)	
Antenna resistance	75Ω unbalanced	
Headphones	Impedance 32 ohms or more, with 3.5mm stereo jack plug	
Mains voltage	230v AC ± 10% 50Hz	
Power consumption	Stand-by ~7W, normal ~44W(34cm); ~59W(48cm); ~59W(51cm)	
Remote control batteries	2xIEC R6 or equivalent AA type	
Diagonal screen size	34cm; 48cm; 51cm	
Width, Height, Depth, and approximate weight.	37(34)cm model: W 355 x H 355 x D 390 mm	9.5kg
	51(48)cm model: W 505 x H 491 x D 500 mm	18 kg
	55(51)cm model: W 505 x H 491 x D 480 mm	20 kg

(These specifications may change.)

Section 3 SWITCHED MODE POWER SUPPLY

3.1 Summary

The power supply is a quasi-resonant flyback switching type based upon integrated circuit IC501 (KA3S0765), which contains a high voltage MOSFET with current mode control and protection circuitry. The operating frequency and pulse duty ratio vary according to load and input voltage conditions. The MOSFET switches the main primary winding of T501 across the rectified ac supply voltage stored in the reservoir capacitor C507. Output voltages are generated on secondary windings and are half-wave rectified and smoothed by separate diode/capacitor networks to produce DC voltages of +110V(B+), +15V, +17V (audio). The +15V rail supplies, via series resistor R507, a 5V regulator (IC503) for microcontroller circuits. It also feeds the 12V regulator (IC504) and 8V regulator (IC505). The 8V regulator output then feeds a second 5V regulator (IC506).

3.2 Detailed Description

The ac mains supply is connected to XP502 and filtered by C501, T502 and C502. The degauss coil is connected to thermistor RT501 via XP503. At switch on, the positive coefficient thermistor is low resistance and a high current flows in the degauss coil. As the thermistor warms up, its resistance increases and the current is gradually reduced to almost zero. The filtered mains supply is full-wave rectified by diode bridge D506, and filtered by C807 to produce a high DC voltage supply. An inrush limit is provided by RT502 which is a negative temperature coefficient thermistor.

At start-up of the power supply, C511 is charged via the start-up resistor R504 from the rectified ac supply. When the start-up voltage reaches 15V (typical), the control circuit within IC501 starts switching the internal MOSFET. When the PSU has started switching, current in the control IC increases to 12mA, which cannot be supplied via R504 alone. Supply to pin 3 of IC501 is then provided via D502 and C511 from a primary winding on T501. This winding is also used to charge the sync capacitor C508 on pin 5 of IC501 (via D501/R503).

When the MOSFET is switched on, current flows through the primary of T501 (pin 8 to pin 4), to the internal drain terminal (IC501 pin 1) to power supply primary-side 0V. The MOSFET has an internal current sense, hence no external sensing resistors are required. The current in the primary circuit ramps up linearly from zero to a maximum value determined by the on-time control of the PWM controller, IC501. The transformer is now magnetised.
When the MOSFET switches off, this stored energy is released into the secondaries as the induced voltage now reverses and current flows through each of the output rectifier diodes.

When all the energy has been discharged, the induced voltage across across T501 primary collapses and the cycle starts again. As the voltage collapses, the primary inductance of T501 rings with C513. This is used to implement quasi-resonant switching. C513 and T501 ring with a predetermined frequency which allows the timing of the switch-on of the next cycle to occur at the precise moment that the voltage is at a minimum. This reduces switching losses and EMI emissions.

Switching frequency varies with load and ac line voltage, which minimises display noise. The frequency is determined according to the charging and discharging of the sync circuit on IC501 pin 5.

The 110V B+ supply is maintained at a constant voltage regardless of load or input conditions (Note: All other secondary rails without secondary regulation will vary slightly). This is achieved by comparing an attenuated

representation of the 110V rail to a reference voltage source Q501, and using this error signal to control IC501 on-time via opto-isolator IC502. As a consequence, the output voltage is kept stable. VR501 adjusts the level of attenuated voltage applied to Q501, and therefore indirectly controls the output voltage.

3.3 Standby Operation

When the chassis is in standby mode, pin 6 of microcontroller IC101 is low. This keeps Q503 off, which in turn holds Q502 (+15V supply switch) in the off state. In this condition, +5V is still supplied to the microcontroller from IC503, while it waits for the signal to come out of standby. +17V is still fed to the audio amplifier, IC901, although this is muted. +110V B+ is still fed to the flyback transformer, T601, although the horizontal drive is inoperative. Since Q502 is off, regulators IC504 (12V), IC505 (8V) and IC506 (5V) have no supply.

As the power supply load is much-reduced in standby, the MOSFET on-time is very short. The time available to charge the sync circuit on pin 5 is also short, thus the sync pin voltage does not reach its internal threshold (6.4V typical). IC501 begins to execute burst-mode operation, whereby it switches for a fixed interval and stops and repeats this intermittent switching, reducing switching losses which in turn reduce standby power.

Section 4 TUNER AND IF STAGE

The One-Chip IC201 interfaces directly with the tuner and performs all picture and sound IF functions plus video, chroma, sync and deflection processing. The design as implemented passes the combined picture/sound IF signal from the tuner through a single SAW filter and demodulates the combined signal before separating the sound and picture signals (intercarrier sound method).

The main chassis is fitted with a voltage synthesis tuner. Control of the tuned frequency is achieved by a voltage on pin 2 of the tuner. This voltage is derived from integrating a 31V PWM switched waveform on Q104's collector. This PWM waveform is derived from pin 54 of the microcontroller IC101.

AFC is accomplished by I2C communication between IC201 to IC101, the latter adjusting the duty cycle of its PWM output to correct the tuner frequency.
The IF output of the tuner has the picture carrier at 38.9MHz. This is fed to a SAW filter which allows picture and sound content to pass through to IC201's picture IF input (pins 6,7).

A VCO within IC201 is tuned with an LC circuit on pins 15,16 to run at 38.9MHz. This is used by a PLL synchronous demodulator to extract the baseband signal.
The IF amplifier output within IC201 is maintained at a constant level by an AGC system, and an AGC signal is fed from IC201 pin 8 to keep the tuner's output amplitude constant.
The signal extracted from the PLL contains video and audio. This signal goes to two paths:
i) it is presented on IC201 pin 13, then fed through sound-trap(s), Z201/2/3, to give a CVBS signal,
ii) it is taken internally via a sound bandpass circuit to the FM demodulator, which provides an FM mono output on pin 11.

Section 5 SOURCE SELECTION

5.1 Video Switching

IC201 contains a video switch with three CVBS inputs. Video input is selected with the switch by I2C commands from IC101. The source can be selected as:
i) demodulated signal from tuner from IC201 pin 13 (after sound-trap), fed to pin 18,
ii) SCART socket pin 20, fed to IC201 pin 20,
iii) Front AV yellow phono socket, fed to IC201 pin 22.
There is a CVBS output (pin 44) which sends out whatever source is selected, which is used in this design by IC101 (pins 33,34) for teletext decoding.
The internally demodulated CVBS on IC201 pin 13 is buffered by Q203 and made permanently available on the SCART socket pin 19.

5.2 Audio Switching

IC201 contains an audio switch which can select between internally demodulated audio or external audio (applied to pin 14). There are two sources of external audio: SCART and front AV. Left and right audio input pins on the SCART socket are summed by R221, R222 and then go, via XP5, to the front AV panel. ICA601 (74HC4053) is used to switch between audio from SCART (on ICA601 pin 13) or front AV (on ICA601 pin 12). The selecting signal comes from IC101 pin 9, which controls QA601, which in turn drives pin 11 of ICA601. The selected audio signal comes out on ICA601 pin 14 and goes to the main chassis via XP5, to IC201 pin 14.

5.3 AV Switching

Microcontroller IC101 pin 8 is used to monitor SCART pin 8 voltage via potential divider R111, R109. If pin 8 of the SCART socket is seen to be high ($\geq$ 6V) then the set switches its source to AV1, ready to display CVBS from the SCART socket.

5.4 RGB

External RGB signals from SCART pins 15, 11, 7 are fed directly to IC201 pins 27, 26, 25 respectively. Fast blanking from SCART pin 16 is fed to IC201 pin 28. If pin 8 of the SCART socket is high, AV1 mode is selected - if fast blanking is then active on SCART pin 16, this is detected by IC201 and external RGB will then be inserted into the picture automatically. External RGB is matrixed into YUV signals within IC201, hence colour and contrast controls are still operative.

Section 6 COLOUR DECODER

The luma signal processing and colour decoding are implemented in IC201. An internal luma delay line compensates for the difference between luma and chroma processing times. There are no adjustments required on the colour decoder.

Section 7 HORIZONTAL AND VERTICAL DEFLECTION

7.1 Auxiliary Scanning Supply Voltages

A flyback transformer is used to generate auxiliary scanning supply voltages: vertical power (+27V), video HT (+175V), CDT heaters (6.3Vrms after series resistor R5 on tubebase panel), and the main EHT (23.5/25kV depending on CDT type).

7.2 Horizontal Deflection

Horizontal pulses are fed to the deflection stage from IC201 pin 48 to the horizontal drive transistor Q602. Under start-up conditions, Q602 is powered by the +15V rail via D603. Once the deflection stage is running, the +27V rail will take over via D602. T602 provides a low impedance drive to the deflection transistor Q601. When Q601 conducts, the B+ voltage is effectively placed across the horizontal deflection coil (C617 is charged up to this voltage). This causes current to ramp up through the deflection coil, creating the right-hand half of one horizontal scan line. When Q601 turns off, horizontal flyback takes place and the scan re-traces. As the flyback pulse tries to go negative, the internal damper diode in Q602 starts to conduct, and in doing so draws current through the deflection coil which forms the left-hand half of the next scan line. As the scan current reaches zero, Q601 is turned on again by the horizontal drive to repeat the process.

Nominal amplitude of the flyback pulse is 900Vpp. The flyback time is 10.4µs. L601 and C617 are used for linearity correction. Horizontal flyback pulses are attenuated by R632 before being routed back to IC201 pin 49 (combined flyback input/super-sandcastle output).

Beam current information measured at the bottom of the FBT via R617 is fed to R325 then to IC201 pin 46 which provides beam current limit by restricting firstly contrast, then brightness. Also connected to R617 is R616 which goes to IC601 pin 7 to modify vertical scan amplitude in proportion to EHT to improve vertical picture regulation.

7.3 Vertical Deflection

IC201 provides a vertical output pulse which is fed to IC601 pin 3 via R601.
This IC has its own internal ramp generator, power amplifier and flyback generator to provide the required vertical scan current.

Vertical scan amplitude is determined by the dc level on IC601 pin 4 (height adjustment), which is fed from the vertical amplitude DAC on pin 46 of IC201, which in turn is controlled from microcontroller IC101 via the I2C bus. IC201 also controls the vertical scan position by varying its vertical pulse amplitude. This is rectified to a dc level by D609, C607 to drive Q902, which acts as an emitter-follower and imposes a voltage onto the inverting input of IC601's power amplifier (pin 9). This allows the dc level across the vertical scan coil to be changed.

Section 8 TUBEBASE PANEL

8.1 Video Amplifiers

The low voltage red, blue and green video signals from IC201 are amplified to high voltage by discrete transistor cascode amplifier stages based around Q4, Q5, Q7, Q8, Q10, Q11. Emitter followers Q6, Q9, Q12 then buffer each cascode stage output before driving the CDT cathodes.

8.2 Auto Grey Scale

The return path for the summed collector currents of Q6, Q9, Q12 is taken back to R324 on the main chassis so that the voltage across R324 can be sampled at pin 33 of IC201, as an indication of cathode current. During the vertical blanking period, IC201 sends out test pulses and measures each cathode cut-off current in turn, then measures the total leakage current. The results are used by IC201 to automatically adjust black current and video drive levels for each channel; thus black level beam current and black to white video drives are maintained.

Section 9 AUDIO AMPLIFIER

The audio power stage, IC901 is a mono 5W amplifier. This is constrained to 1W into a 16 ohm speaker by the design. The amplifier is powered by the +17V rail. Muting of the amplifier in standby/switch-on is done by a signal from IC101 pin 4, which switches Q901 on. This pulls the threshold pin of IC901 down into its non-opererative region, which in turn causes muting by drastically dropping the impedance of the mute pin (pin 5), severely attenuating the input signal.

Section 10 MICROCONTROLLER

10.1 Summary

The ST92195 microcontroller (IC101) is specifically designed for TV applications and has OSD and teletext decoder functions built-in. It requires a single 4MHz crystal, X101.
IC101 controls the television by serial (I2C) bus communication, digital switching inputs and outputs, analogue-to-digital inputs and pulse-width-modulation (PWM) outputs.

10.2 Reset

The circuit around Q105 ensures that IC101's reset input, on pin 2, is held in the reset state (low) until the supply voltage exceeds approximately 4.7V. At this point Q105 turns on and pulls the reset pin high (normal operation).

10.3 User Control

Decoded signals from the infra-red receiver (Philips' RC5 protocol) come in on pin 1.
Three local control keys are connected to one ADC input. Depending on which key is pressed, a different dc voltage is measured on pin 56 (ADC input) due to the different values of R141, R142 and R143.

10.4 OSD/Teletext (if available)

The OSD RGB and fast-blanking outputs are available on pins 15 – 18. These are taken, with a potential divider in each line to reduce the level, to the OSD inputs on IC201. Synchronisation with the display is achieved by the horizontal and vertical-related signals applied on pins 40 and 41. CVBS for teletext decoding is fed in on pin 33, 34 at 1Vpp.

10.5 Non-Volatile Memory

IC102 is an 8k-bit non-volatile RAM. It stores configuration information, user settings and programme tuning records. It is accessed by the I2C bus.

Section 11. REMOTE CONTROL

11.1 Infra-Red Transmitter

The hand unit is controlled by U1, type PT2211, surface-mounted on the keypad side of the PCB. A 455kHz ceramic resonator, X1, governs the frequency of U1's oscillator. This is divided down internally (f/120) to give a 38kHz carrier onto which pulses are modulated.

11.2 Infra-Red Receiver

The chassis uses an integrated receiver, IC103, which provides a fully demodulated output to the microcontroller (IC101 pin 1).

Section 12 ADJUSTMENTS

12.1 General Information

In order to carry out alignment of the chassis the following are required : -

Suitable r.f. signal source (Philips Complex Test Pattern or equivalent).
Multimeter to 1000V with an input impedance of no less than 10Mohms.
Oscilloscope with 1:100 and 1:10 probes (low capacitance).
Remote Control Hand Unit incorporating the 'Service' access key.
38.9MHz 50mV carrier source.

To enter the Service mode depress the **Service** key on the hand unit.
To select the parameter requiring adjustment, use the **P+** / **P-** keys
To adjust the selected parameter use the and keys.

Note: Further parameters are accessed by depressing the **OK** key whilst in 'Service' mode.

After adjustment is completed, the parameter is automatically stored.

Table 1 - Service Parameters

Parameter	Default	Value
Tuner A.G.C.	37	46
Red gain	32	38
Red cut-off	32	32
Green gain	32	38
Green cut-off	32	32
Blue gain	32	38
H Position	32	32
VPOS 50	07	07
VPOS 60	15	08
VAMP 50	31	40
VAMP 60	00	48
VCO Coarse	06	05
VCO Fine	080	070
VCO Coarse L1	05	05
VCO Fine L1	080	080

Table 2 - Extended Service Default Parameters
(selected by the **OK** key on the hand unit when in the 'Service' mode).

Parameter	Default	Value
A.G.C. Gain	00	01
Misc 1	00	02
Misc 2	00	00
Misc 3	00	00
HPOS OSD	048	009
VPOS OSD	07	01
HPOS TXT*	032	046
HVPOS TXT*	07	05
VHF / UHF	VHF	Note 1
Crystal 3.58Mhz	YES	NO

* Teletext models only

Note 1: For PAL BG models = VHF
For PAL I models = UHF

12.2 H.T. Setting

The H.T. should be set by adjusting VR501 (see fig.1) to obtain 107V +/- 0.5V HT supply at C514 + which results in a nominal display width.

12.3 A1 Setting

The A1 should be set by monitoring with the oscilloscope and 1:100 probe on the 'Blue' cathode (R23 on the tube base panel).
Observe the 'black level' of the video signal (normally visible immediately before and after the blanking pulse) and adjust the A1 so that the black level is 120 volts.

12.4 White levels

An approximate setting of the white levels can be achieved by monitoring the red, green, and blue cathode outputs in turn on the tube base panel and adjusting the relevant parameter in the Service mode to achieve 50 volts black-to-white amplitude. Ensure that the waveform on the oscilloscope is displaying both black and white level signals (an ideal signal for this test is colour bars with colour adjustment set to minimum).

12.5 A.F.C.

Remove any R.F. signal source and prevent any stray signal source from entering the tuner by shorting the tuner input inner contact to the outer screen.
Inject the 38.9MHz. carrier into the tuner output pin (pin 11).
Select service mode 'VCO Fine' and adjust until the A.F.C. status bar is central in the scale (white). If this cannot be achieved adjust the 'VCO Coarse' (adjust higher if the bar is to the left of centre and adjust lower if the bar is to the right of centre). Then adjust 'VCO Fine' as previously described. When correct 'ok' will appear alongside the AFC status bar.

12.6 A.G.C.

The A.G.C. should be adjusted by measuring the tuner R.F. output signal envelope amplitude (pin 11) with the oscilloscope and 1:10 probe. This test may require the use of the 1:100 probe to source an H sync. signal, for example by connecting to the insulation of one of the H scan coil leads.
In service mode, with an input signal of 70dBuV, adjust the A.G.C. parameter so that the sync. voltage measures 500mV peak to peak (approx. 50).

12.7 Focus

Adjust the upper control on the F.B.T (T601) to achieve the best resolution.

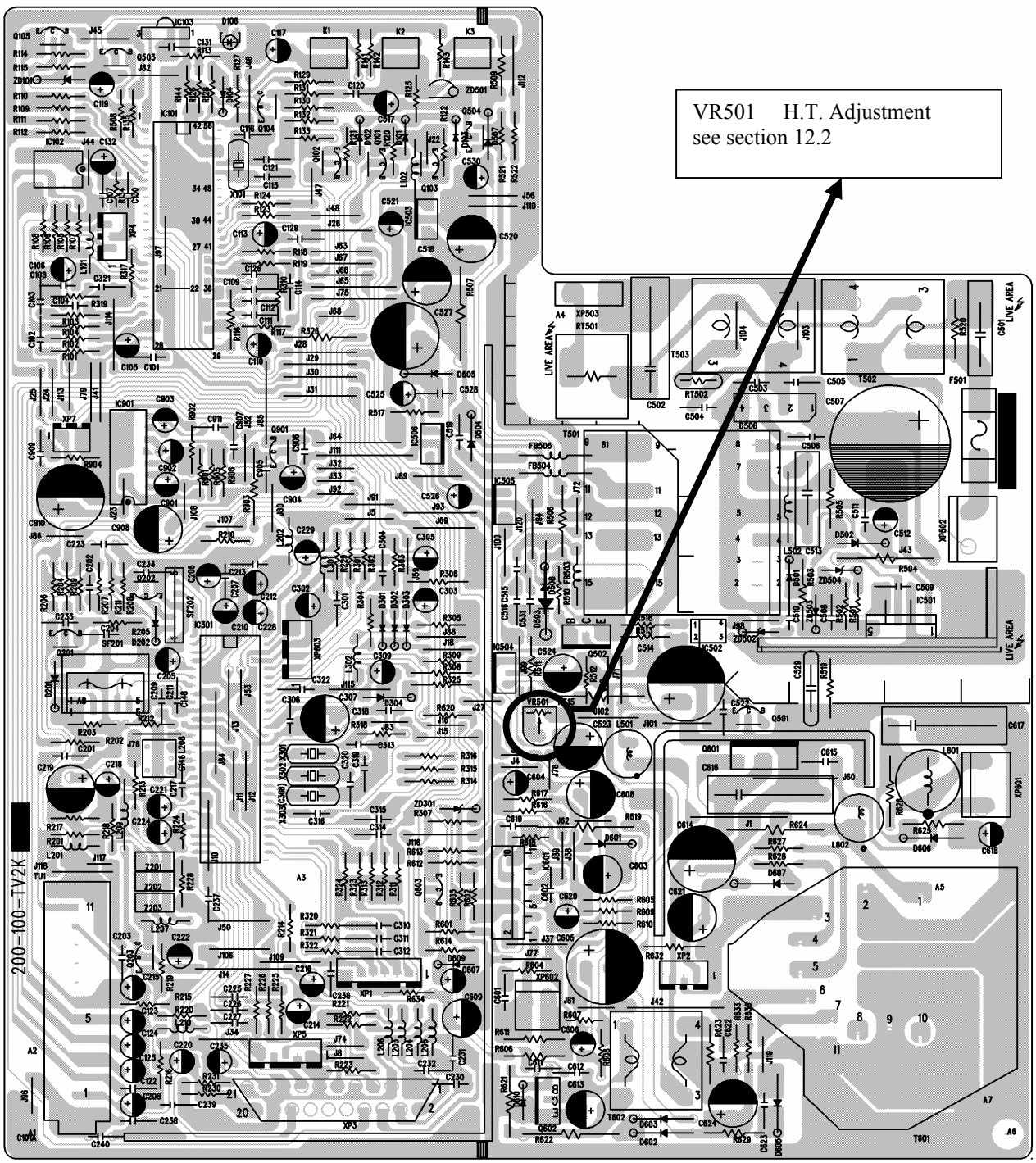
12.8 Geometry

For horizontal size (width) see **H.T. setting** above.
To adjust the picture position and vertical size, select the appropriate parameter in service mode and adjust as necessary.

12.9 Extended Service Parameters

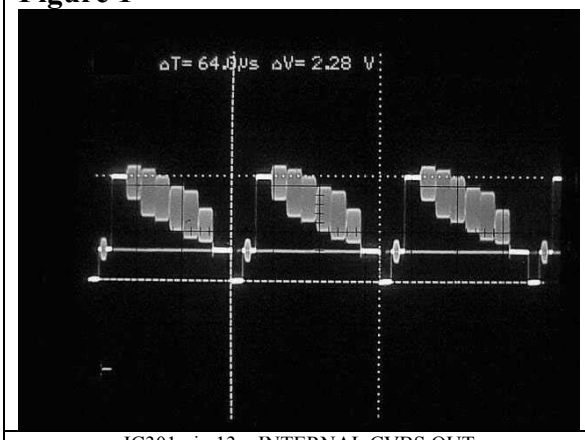
Select this mode by depressing the **OK** key on the hand unit and ensure that the values are as shown in Table 2 above.

Fig. 1 ADJUSTMENT LOCATIONS



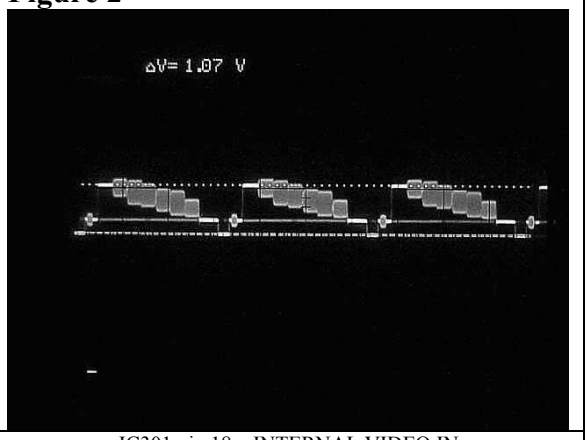
Section 13 WAVEFORMS

Figure 1



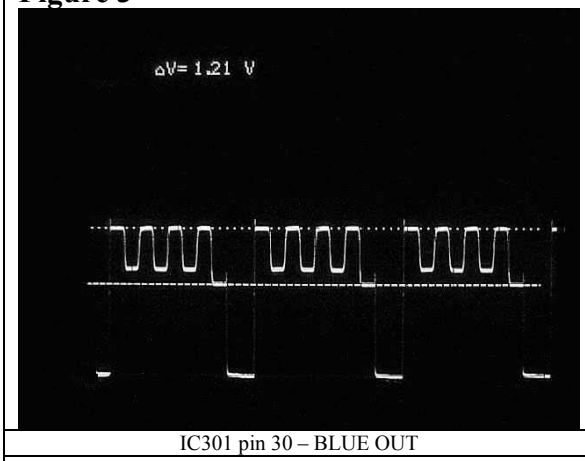
IC301 pin 13 – INTERNAL CVBS OUT

Figure 2



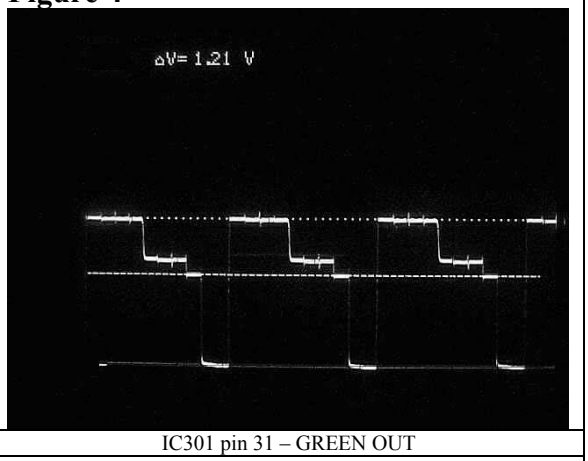
IC301 pin 18 – INTERNAL VIDEO IN

Figure 3



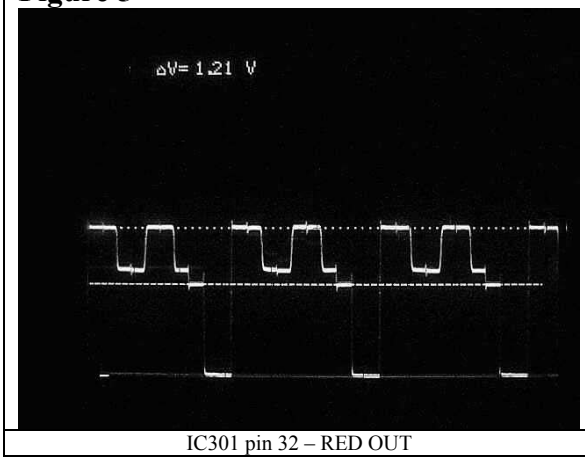
IC301 pin 30 – BLUE OUT

Figure 4



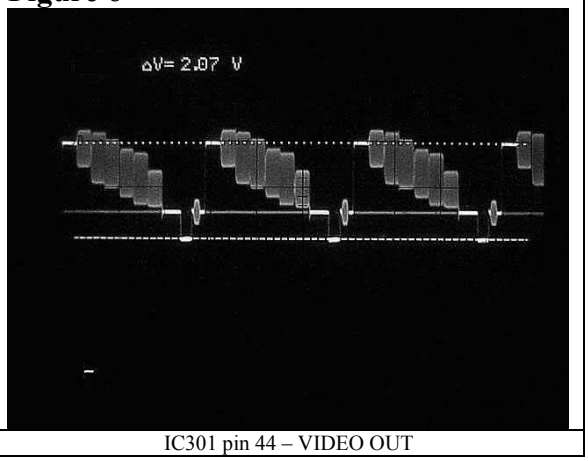
IC301 pin 31 – GREEN OUT

Figure 5



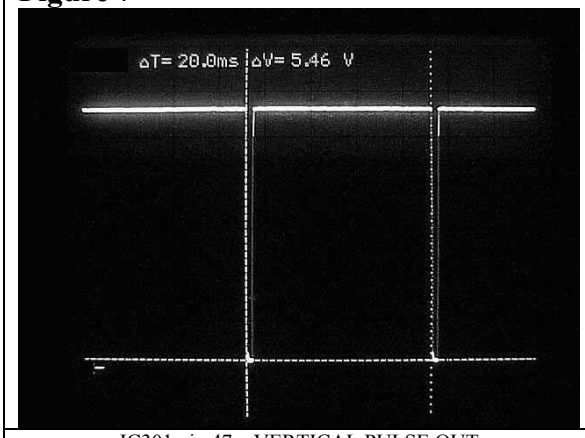
IC301 pin 32 – RED OUT

Figure 6



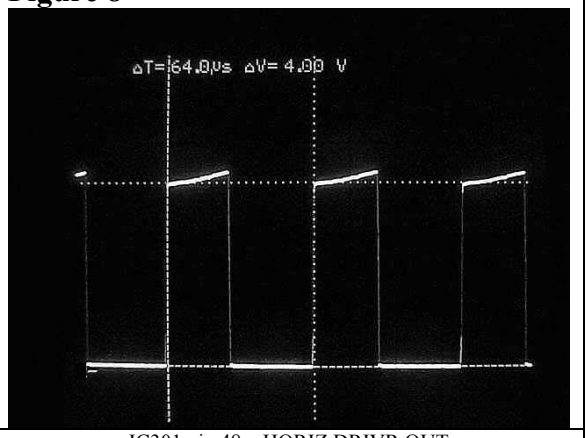
IC301 pin 44 – VIDEO OUT

Figure 7



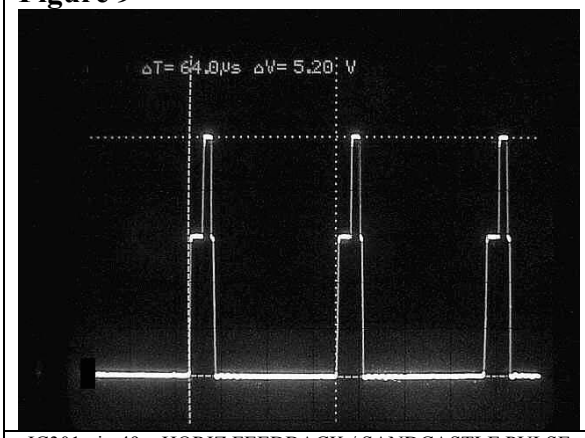
IC301 pin 47 – VERTICAL PULSE OUT

Figure 8



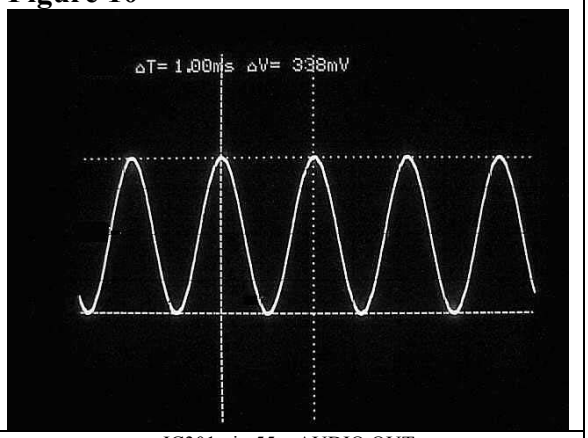
IC301 pin 48 – HORIZ DRIVR OUT

Figure 9



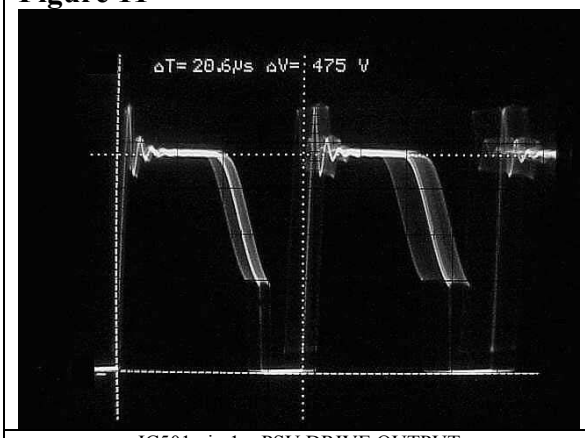
IC301 pin 49 – HORIZ FEEDBACK / SANDCASTLE PULSE

Figure 10



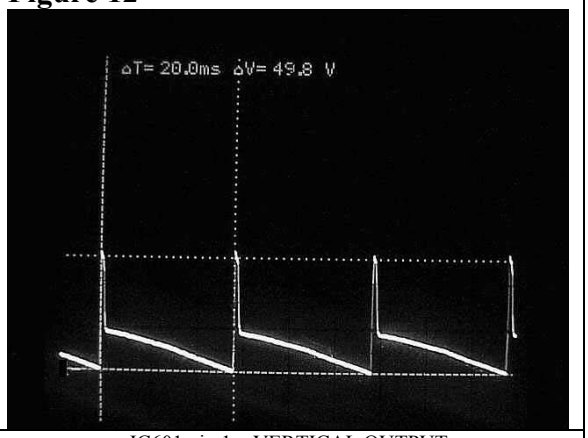
IC301 pin 55 – AUDIO OUT

Figure 11



IC501 pin 1 – PSU DRIVE OUTPUT
(ref. PSU 0 volts)

Figure 12



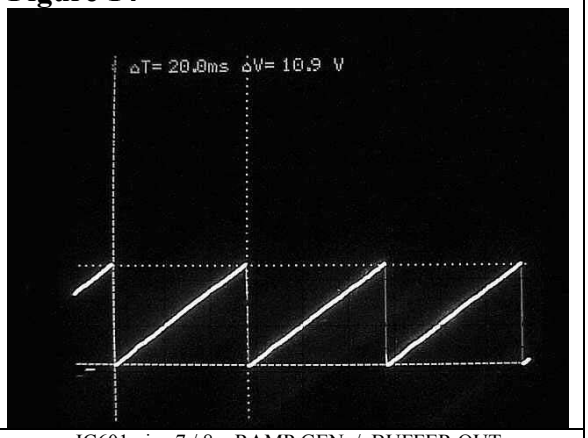
IC601 pin 1 – VERTICAL OUTPUT

Figure 13



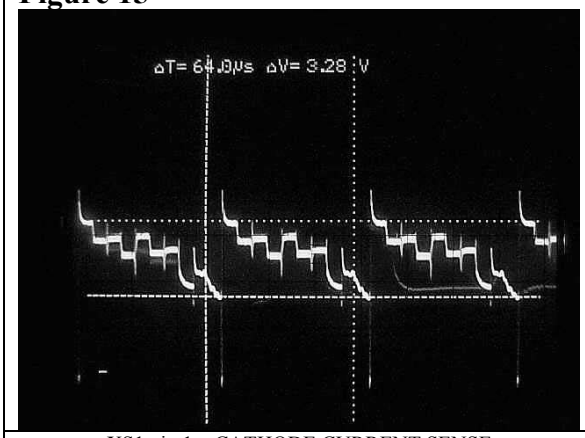
IC601 pin 3 – VERTICAL TRIGGER PULSE

Figure 14



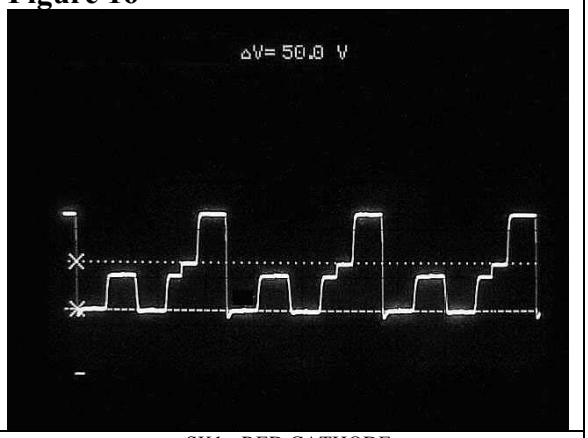
IC601 pins 7 / 8 – RAMP GEN. / BUFFER OUT

Figure 15



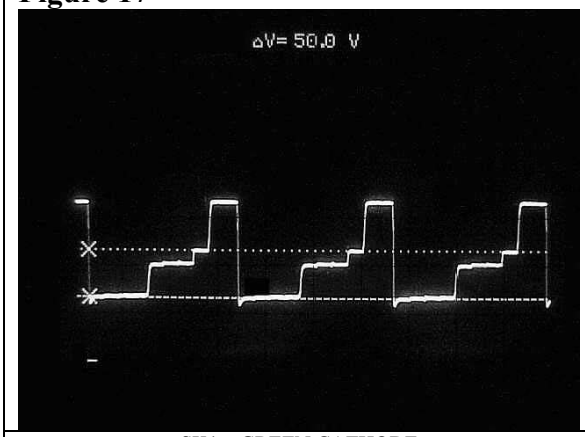
XS1 pin 1 – CATHODE CURRENT SENSE

Figure 16



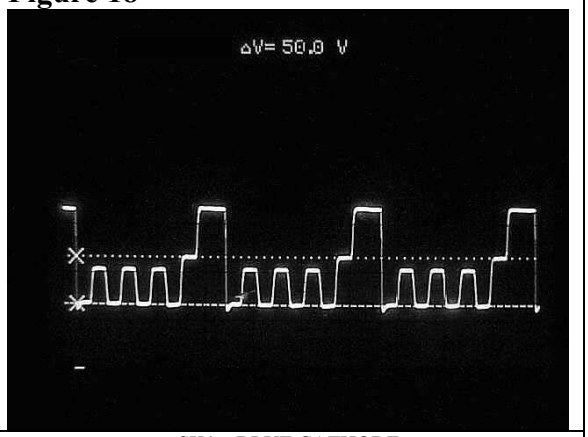
SK1 - RED CATHODE

Figure 17



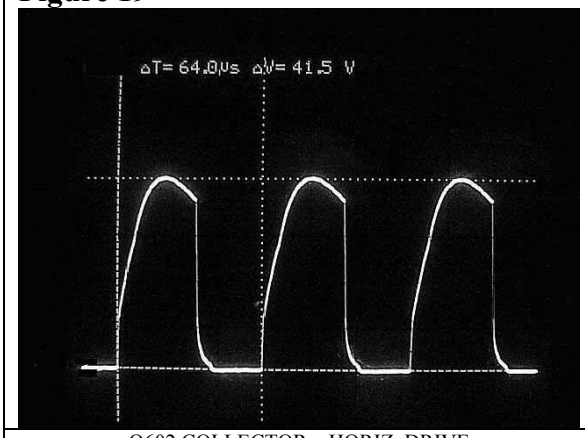
SK1 – GREEN CATHODE

Figure 18



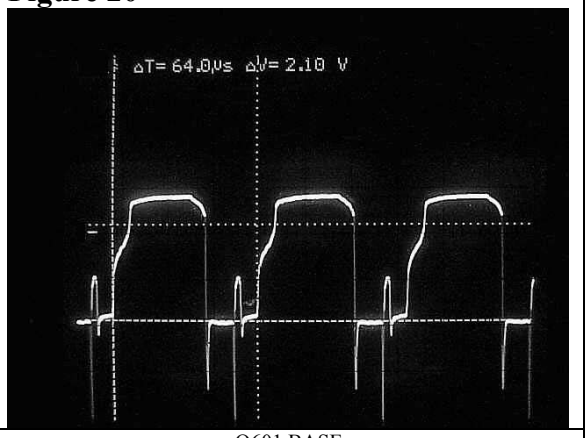
SK1 – BLUE CATHODE

Figure 19



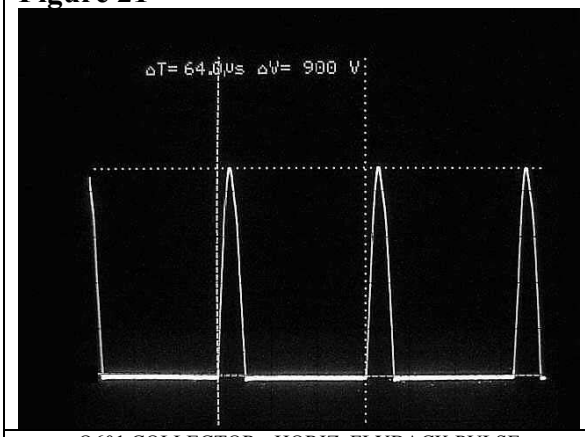
Q602 COLLECTOR – HORIZ. DRIVE

Figure 20



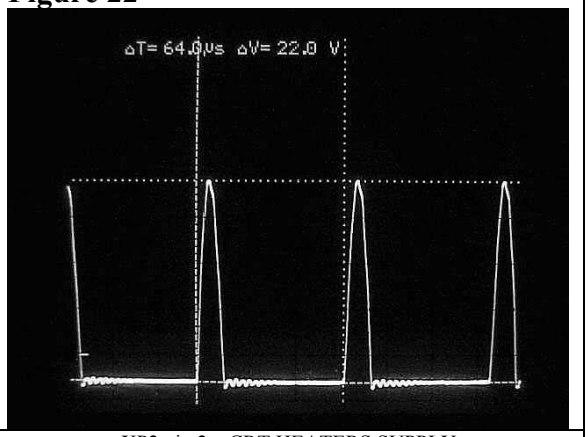
Q601 BASE

Figure 21



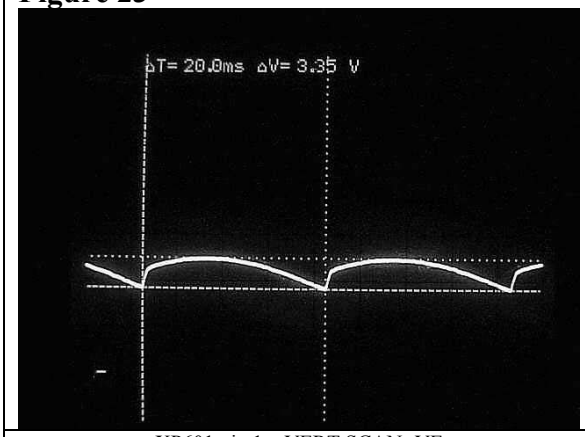
Q601 COLLECTOR - HORIZ. FLYBACK PULSE

Figure 22



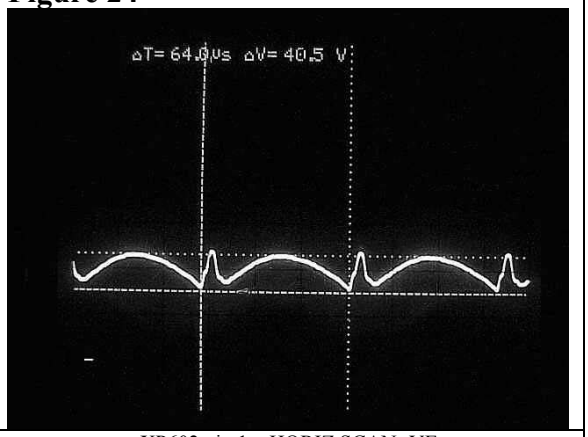
XP2 pin 2 – CRT HEATERS SUPPLY

Figure 23



XP601 pin 1 – VERT SCAN -VE

Figure 24



XP602 pin 1 – HORIZ SCAN -VE

Section 14 COMPONENTS LIST

Note: Some components are not fitted on certain models, see circuit diagram for details.

14.1 RESISTORS

Ct. Ref	Value	Type	Part No.
R1	1K0 5% 1W	CARBON FILM.	210-102-1059
R2	56R 5% 1/8W	CARBON FILM.	210-560-0856
R3	56R 5% 1/8W	CARBON FILM.	210-560-0856
R4	56R 5% 1/8W	CARBON FILM.	210-560-0856
R5	14”/37cm 1R5 5% 2W 20”/51cm; 21”/55cm 2R2 5% 2W	CARBON FILM. CARBON FILM	210-1R5-2059 210-2R2-2059
R6	470R 5% 1/8W	CARBON FILM.	210-471-0856
R7	15K 5% 2W	CARBON FILM.	210-153-2059
R8	1K2 5% 1/8W	CARBON FILM.	210-122-0856
R9	15K 5% 2W	CARBON FILM.	210-153-2059
R10	470R 5% 1/8W	CARBON FILM.	210-471-0856
R11	1K2 5% 1/8W	CARBON FILM.	210-122-0856
R12	15K 5% 2W	CARBON FILM.	210-153-2059
R13	470R 5% 1/8W	CARBON FILM.	210-471-0856
R14	220R 5% 1/8W	CARBON FILM.	210-221-0856
R15	1K5 5% 1/8W	CARBON FILM.	210-152-0856
R16	220R 5% 1/8W	CARBON FILM.	210-221-0856
R17	1K5 5% 1/8W	CARBON FILM.	210-152-0856
R18	220R 5% 1/8W	CARBON FILM.	210-221-0856
R19	1K5 5% 1/8W	CARBON FILM.	210-152-0856
R20	1K2 5% 1/8W	CARBON FILM.	210-122-0856
R21	470R 5% 1W	CARBON FILM.	210-471-1059
R22	470R 5% 1W	CARBON FILM.	210-471-1059
R23	470R 5% 1W	CARBON FILM.	210-471-1059
⚠ R24	22R 5% 1/2W	FLAME RETARDENT.	214-220-0259
R25	220K 5% 1/4W	CARBON FILM.	210-224-0456
R26	10K 5% 1/8W	CARBON FILM.	210-103-0856
R27	10K 5% 1/8W	CARBON FILM.	210-103-0856
R28	10K 5% 1/8W	CARBON FILM.	210-103-0856
R101	5K6 5% 1/4W	CARBON FILM.	210-562-0456
R101a	5K6 5% 0.1W	S.M. 0805	281-045-0562
R102	BEAD, INDUCTOR	3.5x6x0.8	760-100-0002
R103	5K6 5% 1/4W	CARBON FILM.	210-562-0456
R104	6K8 5% 1/4W	CARBON FILM.	210-682-0456
R105	4K7 5% 1/4W	CARBON FILM.	210-472-0456
R106	4K7 5% 1/4W	CARBON FILM.	210-472-0456
R107	WIRE LINK	WIRE LINK	622-10A-1001
R108	WIRE LINK	WIRE LINK	622-10A-1001
R109	10K 5% 1/4W	CARBON FILM.	210-103-0456
R110	10K 5% 1/4W	CARBON FILM.	210-103-0456
R111	4K7 5% 1/4W	CARBON FILM.	210-472-0456
R112	6K8 5% 1/4W	CARBON FILM.	210-682-0456
R113	WIRE LINK	WIRE LINK	622-10A-1001
R114	470R 5% 1/4W	CARBON FILM.	210-471-0456
R115	10K 5% 1/4W	CARBON FILM.	210-103-0456
R116	15K 5% 1/4W	CARBON FILM.	210-153-0456
R117	BEAD, INDUCTOR	3.5x6x0.8	760-100-0002
R118	BEAD, INDUCTOR	3.5x6x0.8	760-100-0002
R119	5K6 5% 1/4W	CARBON FILM.	210-562-0456
R120	2K7 5% 1/4W	CARBON FILM.	210-272-0456
R121	2K7 5% 1/4W	CARBON FILM.	210-272-0456
R122	2K7 5% 1/4W	CARBON FILM.	210-272-0456
R123	2K7 5% 1/4W	CARBON FILM.	210-272-0456
R124	2K7 5% 1/4W	CARBON FILM.	210-272-0456
R125	4K7 5% 1/4W	CARBON FILM.	210-472-0456
R126	1K5 5% 1/4W	CARBON FILM.	210-152-0456
R127	1K0 5% 1/4W	CARBON FILM	210-102-0456

Resistors continued

R128	3K9 5% 1/4W	CARBON FILM.	210-392-0456
R129	10K 5% 1/4W	CARBON FILM.	210-103-0456
R130	33K 5% 1/4W	CARBON FILM.	210-333-0456
R131	22K 5% 1/4W	CARBON FILM.	210-223-0456
R132	33K 5% 1/4W	CARBON FILM.	210-333-0456
R133	33K 5% 1/4W	CARBON FILM.	210-333-0456
R134	22K 5% 1/8W	CARBON FILM.	210-223-0856
R135	22K 5% 1/4W	CARBON FILM.	210-223-0456
R141	680R 1% 1/4W	CARBON FILM	221-041-6800
R142	470R 1% 1/4W	CARBON FILM	221-041-4700
R143	1K0 1% 1/4W	CARBON FILM	221-041-1001
R144	4K7 5% 1/4W	CARBON FILM.	210-472-0456
R212	150R 5% 1/4W	CARBON FILM.	210-151-0456
R213	120R 5% 1/4W	CARBON FILM.	210-121-0456
R214	220R 5% 1/4W	CARBON FILM.	210-221-0456
R215	4K7 5% 1/4W	CARBON FILM.	210-472-0456
R216	27K 5% 1/4W	CARBON FILM.	210-273-0456
R217	1K5 5% 1/4W	CARBON FILM.	210-152-0456
R218	1K5 5% 1/4W	CARBON FILM.	210-152-0456
R219	470R 5% 1/4W	CARBON FILM.	210-471-0456
R220	68R 5% 1/4W	CARBON FILM.	210-680-0456
R221	5K6 5% 1/4W	CARBON FILM.	210-562-0456
R222	5K6 5% 1/4W	CARBON FILM.	210-562-0456
R223	100K 5% 1/4W	CARBON FILM.	210-104-0456
R224	330K 5% 1/8W	CARBON FILM.	210-334-0856
R225	75R 5% 1/4W	CARBON FILM.	210-750-0456
R226	75R 5% 1/4W	CARBON FILM.	210-750-0456
R227	75R 5% 1/4W	CARBON FILM.	210-750-0456
R228	75R 5% 1/4W	CARBON FILM.	210-750-0456
R229	10K 5% 1/4W	CARBON FILM.	210-103-0456
R230	75R 5% 1/4W	CARBON FILM.	210-750-0456
R231	75R 5% 1/4W	CARBON FILM.	210-750-0456
R301	100R 5% 1/4W	CARBON FILM.	210-101-0456
R302	100R 5% 1/4W	CARBON FILM.	210-101-0456
R303	15K 5% 1/4W	CARBON FILM.	210-153-0456
R304	2K2 5% 1/4W	CARBON FILM.	210-222-0456
R305	8K2 5% 1/4W	CARBON FILM.	210-822-0456
R306	10K 5% 1/4W	CARBON FILM.	210-103-0456
R307	1K0 5% 1/4W	CARBON FILM.	210-102-0456
R308	56K 5% 1/4W	CARBON FILM.	210-563-0456
R309	2K2 5% 1/4W	CARBON FILM.	210-222-0456
R310	1K5 5% 1/4W	CARBON FILM.	210-152-0456
R311	680R 5% 1/4W	CARBON FILM.	210-681-0456
R312	680R 5% 1/4W	CARBON FILM.	210-681-0456
R313	680R 5% 1/4W	CARBON FILM.	210-681-0456
R314	1K0 5% 1/4W	CARBON FILM.	210-102-0456
R315	1K0 5% 1/4W	CARBON FILM.	210-102-0456
R316	1K0 5% 1/4W	CARBON FILM.	210-102-0456
R317	1K2 5% 1/4W	CARBON FILM.	210-122-0456
R318	27K 5% 1/4W	CARBON FILM.	210-273-0456
R319	820R 5% 1/4W	CARBON FILM.	210-821-0456
R320	56R 5% 1/4W	CARBON FILM.	210-560-0456
R321	56R 5% 1/4W	CARBON FILM.	210-560-0456
R322	56R 5% 1/4W	CARBON FILM.	210-560-0456
R323	1K0 5% 1/4W	CARBON FILM.	210-102-0456
R324	14”/37cm; 20”/51cm 47K 5% 1/4W 21”/55cm 15K 5% 1/4W	 CARBON FILM. CARBON FILM.	 210-473-0456 210-153-0456
R325	10K 5% 1/4W	CARBON FILM.	210-103-0456
R326	1K5 5% 1/4W	CARBON FILM.	210-152-0456
R501	39R 1% 1/4W	CARBON FILM.	221-041-39R0
R502	1K6 1% 1/4W	CARBON FILM	221-041-1601
R503	120R 1% 1W	METAL FILM	212-121-1019

Resistors continued

R504	120K 5% 2W	CARBON FILM.	210-124-2059
R505	3R9 5% 1/4W	CARBON FILM.	210-3R9-0456
R506	12K 5% 1W	CARBON FILM.	210-123-1053
R507	91R 5% 2W	METAL FILM	213-910-2059
R508	6K8 5% 1/4W	CARBON FILM.	210-682-0456
R509	2K2 5% 1/2W	CARBON FILM.	210-222-0256
R510	1K0 5% 1/4W	CARBON FILM.	210-102-0456
R511	180K 5% 1/4W	CARBON FILM.	210-184-0456
R512	4K7 5% 1/4W	CARBON FILM.	210-472-0456
R513	1K0 5% 1/4W	CARBON FILM.	210-102-0456
R515	10R 5% 3W	METAL OXIDE.	220-100-3059
R517	WIRE LINK	WIRE LINK	622-10A-1001
R518	3K3 5% 1/4W	CARBON FILM.	210-332-0456
⚠ R519	10M 5% 1/2W	HIGH VOLTAGE BARRIER	217-106-0256-V
R521	10K 5% 1/4W	CARBON FILM.	210-103-0456
R522	56K 5% 1/4W	CARBON FILM.	210-563-0456
R601	4K7 5% 1/4W	CARBON FILM.	210-472-0456
R602	120K 5% 1/4W	CARBON FILM.	210-124-0456
R603	100K 5% 1/4W	CARBON FILM.	210-104-0456
R604	2R2 5% 1/4W	CARBON FILM.	210-2R2-0456
R605	14”/37cm using Rev.A and Rev. B PWB 1K8 5% 1/4W 14”/37cm Rev. B+ PWB and all 20”/51cm and 21”/55cm. 4K7 5% 1/4W	CARBON FILM. CARBON FILM	210-182-0456 210-472-0456
R606	27R 5% 1/2W	CARBON FILM.	210-270-0256
R607	1K8 5% 1/8W	CARBON FILM.	210-182-0856
R608	14”/37cm using Rev.A and Rev. B PWB 14”/37cm using Rev. B+ PWB and all 20”/51cm and 21”/55cm 270R 5% 1/4W	WIRE LINK CARBON FILM	622-10A-1001 210-271-0456
R609	14”/37cm using Rev.A and Rev. B PWB 1K8 5% 1/4W 14”/37cm using Rev. B+ PWB and all 20”/51cm and 21”/55cm 3K3 5% 1/4W	CARBON FILM. CARBON FILM	210-182-0456 210-332-0456
R610	2R2 5% 1/4W	CARBON FILM.	210-2R2-0456
R611	14”/37cm 270R 5% 1/2W 20”/51cm 150R 5% 1/2W 21”/55cm 1R5 5% 1/2W	CARBON FILM. CARBON FILM CARBON FILM	210-271-0256 210-151-0256 210-1R5-0256
R612	10K 5% 1/4W	CARBON FILM.	210-103-0456
R613	3K9 5% 1/4W	CARBON FILM.	210-392-0456
R614	100K 5% 1/4W	CARBON FILM.	210-104-0456
R615	10K 5% 1/8W	CARBON FILM.	210-103-0856
R616	8M2 5% 1/4W	CARBON FILM.	210-825-0456
R617	22K 5% 1/4W	CARBON FILM.	210-223-0456
R619	1R8 5% 1W	CARBON FILM.	210-1R8-1059
R620	1K0 5% 1/4W	CARBON FILM.	210-102-0456
R621	68R 5% 1W	CARBON FILM.	210-680-1059
R622	68R 5% 2W	CARBON FILM.	210-680-2059
R623	1R8 5% 1/2W	CARBON FILM.	210-1R8-0256
R624	100R 5% 2W	CARBON FILM.	210-101-2059
R625	10K 5% 1/2W	CARBON FILM.	210-103-0256
⚠ R626	1K0 5% 1W	FUSIBLE	214-102-1059
R627	WIRE LINK		622-10A-1001
R628	WIRE LINK		622-10A-1001
⚠ R629	0R47 5% 1/2W	FLAME RETARDENT.	214-R47-0259

Resistors continued

R630	14”/37cm. 15K 5% 1/4W 20”/51cm; 21”/55cm 22K 5% 1/4W	 CARBON FILM. CARBON FILM	 210-153-0456 210-223-0456
R632	680R 5% 1/4W	CARBON FILM.	210-681-0456
R633	14”/37cm 8K2 5% 1/4W 20”/51cm; 21”/55cm 10K 5% 1/4W	 CARBON FILM. CARBON FILM.	 210-822-0456 210-103-0456
R634	14”/37cm using Rev..A and Rev.B PWB 39R 5% 1/4W 14”/37cm using Rev.B+ PWB and all 20”/51cm and 21”/55cm 4R7 5% 1/4W	 CARBON FILM. CARBON FILM	 210-390-0456 210-4R7-0456
R635	120K 5% 1/8W	CARBON FILM	210-124-0856
RA601	12K 5% 1/4W	CARBON FILM.	210-123-0456
RA602	100R 5% 1/4W	CARBON FILM.	210-101-0456
RA603	1K0 5% 1/4W	CARBON FILM.	210-102-0456
RA604	22K 5% 1/4W	CARBON FILM.	210-223-0456
RA605	100K 5% 1/4W	CARBON FILM.	210-104-0456
RA606	100K 5% 1/4W	CARBON FILM.	210-104-0456
RA607	4R7 5% 1/4W	CARBON FILM.	210-4R7-0456
R901	6K8 5% 1/4W	CARBON FILM.	210-682-0456
R902	220R 5% 1/4W	CARBON FILM	210-221-0456
R903	10K 5% 1/4W	CARBON FILM	210-103-0456
R904	4R7 5% 1/4W	CARBON FILM.	210-4R7-0456
R905	33K 5% 1/4W	CARBON FILM	210-333-0456
R906	10K 5% 1/4W	CARBON FILM	210-103-0456
RT501	PTC 18R 20%	THERMISTOR	219-180-0171
RT502	NTC 8ohm 3A 20%	POSITOR	218-8R0-0371
VR501	50K B	POTENTIOMETER	231-503-0677
L1	68R 5% 1/4W	CARBON FILM.	210-680-0456
L2	68R 5% 1/4W	CARBON FILM.	210-680-0456
L3	68R 5% 1/4W	CARBON FILM.	210-680-0456
Q504	3K3 5% 1/4W	CARBON FILM.	210-332-0456

14.2 CAPACITORS

Ct. Ref	Value	Type	Part No.
C1	0.1uF +-20% 50V Y5V	CERAMIC	307-104-1770
C2	820pF +-10% 50V Y5P	CERAMIC	307-821-1160
C3	820pF +-10% 50V Y5P	CERAMIC	307-821-1160
C4	820pF +-10% 50V Y5P	CERAMIC	307-821-1160
C5	0.01uF 1KV	CERAMIC	319-103-1062
C6	22uF +-20% 250V	ELECTROLYTIC	300-220-0422
C9	470pF +-5% 50V	CERAMIC	307-471-1150
C10	470pF +-5% 50V	CERAMIC	307-471-1150
C11	470pF +-5% 50V	CERAMIC	307-471-1150
C13	100pF +-5% 50V	CERAMIC	307-101-1150
C14	470pF +-5% 50V	CERAMIC	307-471-1150
C15	470pF +-5% 50V	CERAMIC	307-471-1150
C16	470pF +-5% 50V	CERAMIC	307-471-1150
C101	22pF +-5% 50V	CERAMIC.	308-220-1150
C101a	Teletext models 0R 5% LINK Non-teletext models 22pF +-5% 50V NP0	 S.M. 0805 S.M. 0805	 281-045-R00 381-220-045052
C102	4700pF +-5% 63V	POLYESTER MEM.	318-472-0650-B
C102a	4700pF +-10% 50V X7R	S.M. 0805	382-472-045062
C103	0.22uF +-10% 63V	POLYESTER MEM	318-224-0660-B
C104	220pF +-5% 50V	CERAMIC.	307-221-1150
C105	10uF +-20% 50V	ELECTROLYTIC.	300-100-5020

C106	100uF +-20% 25V	ELECTROLYTIC.	300-101-2520

Capacitors continued

C107	0.1u +-20% 50V Y5V	CERAMIC	307-104-1770
C108	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770
C109	2200pF 10% 50V HI-K Y5P	CERAMIC.	307-222-1160
C110	10uF +-20% 50V	ELECTROLYTIC.	300-100-5020
C111	82pF +-5% 50V	CERAMIC.	308-820-1150
C112	0.47uF +-5% 50V	POLYESTER MEM.	318-474-0550
C113	10uF +-20% 50V	ELECTROLYTIC.	300-100-5020
C114	4700pF +-5% 63V	POLYESTER MEM.	318-472-0650-B
C115	82pF +-5% 50V	CERAMIC.	308-820-1150
C116	82pF +-5% 50V	CERAMIC.	308-820-1150
C117	22uF +-20% 25V	ELECTROLYTIC.	300-220-2520
C119	0.47uF +-20% 50V	ELECTROLYTIC.	300-R47-5020
C120	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770
C121	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770
C122	0.1uF +-5% 50V	POLYESTER MEM.	318-104-0550
C123	0.47uF +-20% 50V	ELECTROLYTIC.	300-R47-5020
C124	0.47uF +-20% 50V	ELECTROLYTIC.	300-R47-5020
C125	0.47uF +-20% 50V	ELECTROLYTIC.	300-R47-5020
C126	22pF +-5% 50V	CERAMIC.	308-220-1150
C129	0.01uF +-10% 50V	CERAMIC.	307-103-1160
C131	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770
C132	100uF +-20% 25V	ELECTROLYTIC.	300-101-2520
C140	0.01uF +-10% 50V X7R	S.M.0805	382-103-045062
C141	0.01uF +-10% 50V X7R	S.M.0805	382-103-045062
C142	0.01uF +-10% 50V X7R	S.M.0805	382-103-045062
C143	47pF +-5% 50V NPO	S.M.0805	381-470-045052
C144	0.01uF +-10% 50V X7R	S.M.0805	382-103-045062
C145	0.1uF +80%,-20% 50V Y5V	S.M.0805	385-104-045082
C146	0.1uF +80%,20% 50V Y5V	S.M.0805	385-104-045082
C147	0.01uF +-10% 50V X7R	S.M.0805	382-103-045062
C148	0.01uF +-10% 50V X7R	S.M.0805	382-103-045062
C201	1000pF +-20% 50V	CERAMIC.	307-102-1170
C203	1000pF +-20% 50V	CERAMIC.	307-102-1170
C205	1uF +-20% 50V	ELECTROLYTIC.	300-1R0-5020
C206	1uF +-20% 50V	ELECTROLYTIC.	300-1R0-5020
C207	0.022uF +-20% 50V Z5U	CERAMIC.	307-223-1570
C208	47uF +-20% 25V	ELECTROLYTIC.	300-470-2520
C209	0.33uF +-20% 63V	POLYESTER MEM.	318-334-0670-B
C210	10uF +-20% 50V	ELECTROLYTIC.	300-100-5020
C211	1000pF +-20% 50V	CERAMIC.	307-102-1170
C212	47uF +-20% 25V	ELECTROLYTIC.	300-470-2520
C213	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770
C214	22uF +-20% 50V	ELECTROLYTIC.	300-220-5020
C215	22uF +-20% 25V	ELECTROLYTIC.	300-220-2520
C216	10uF +-20% 50V	ELECTROLYTIC.	300-100-5020
C217	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770
C218	1uF +-20% 50V	ELECTROLYTIC.	300-1R0-5020
C219	470uF +-20% 16V	ELECTROLYTIC.	300-471-1620
C220	1uF +-20% 50V	ELECTROLYTIC.	300-1R0-5020
C221	1uF +-20% 50V	ELECTROLYTIC.	300-1R0-5020
C222	10uF +-20% 50V	ELECTROLYTIC.	300-100-5020
C223	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770V
C224	1uF +-20% 50V	ELECTROLYTIC.	300-1R0-5020
C225	0.1uF +-5% 50V	POLYESTER MEM.	318-104-0550
C226	0.1uF +-5% 50V	POLYESTER MEM.	318-104-0550
C227	0.1uF +-5% 50V	POLYESTER MEM.	318-104-0550
C228	1uF +-20% 50V	ELECTROLYTIC.	300-1R0-5020
C229	10uF +-20% 50V	ELECTROLYTIC.	300-100-5020
C230	270pF +-5% 50V	CERAMIC.	307-271-1150
C231	270pF +-5% 50V	CERAMIC.	307-271-1150
C232	0.01uF +-10% 50V	CERAMIC.	307-103-1160
C235	1uF +-20% 50V	ELECTROLYTIC.	300-1R0-5020
C236	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770

C237	270pF +-5% 50V	CERAMIC.	307-271-1150

Capacitors continued

C238	270pF +-5% 50V	CERAMIC.	307-271-1150
C239	1000pF +-20% 50V	CERAMIC.	307-102-1170
C240	0.1uF +-5% 63V	POLYESTER MEF.	318-104-0650-B
C301	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770V
C302	100uF +-20% 25V	ELECTROLYTIC.	300-101-2520
C303	10uF +-20% 50V	ELECTROLYTIC.	300-100-5020
C304	4700pF +-5% 63V	POLYESTER MEM.	318-472-0650-B
C305	2.2uF +-20% 50V	ELECTROLYTIC.	300-2R2-5020
C306	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770
C307	470uF +-20% 25V	ELECTROLYTIC.	300-471-2520
C308	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770
C309	4.7uF +-20% 50V	ELECTROLYTIC.	300-4R7-5020
C313	4700pF +-5% 63V	POLYESTER MEM.	318-472-0650-B
C314	0.1uF +-10% 63V	POLYESTER MEF.	318-104-0660-B
C315	0.1uF +-10% 63V	POLYESTER MEF.	318-104-0660-B
C316	0.1uF +-10% 63V	POLYESTER MEF.	318-104-0660-B
C318	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770
C319	12pF +-5% 50V	CERAMIC.	308-120-1150
C320	22pF +-5% 50V	CERAMIC.	308-220-1150
C321	100pF +-5% 50V	CERAMIC.	307-101-1150
C322	100pF +-5% 50V	CERAMIC.	307-101-1150
⚠ C501	0.1uF 250V	X CAPACITOR	315-104-2572-V
⚠ C502	0.1uF 250V	X CAPACITOR	315-104-2572-V
C503	4700pF +-10% 1KV	CERAMIC	307-472-4162
C504	4700pF +-10% 1KV	CERAMIC	307-472-4162
C507	100uF +-20% 400V	ELECTROLYTIC.	300-101-0522
C508	0.068uF +-5% 100V	POLYPROPYLENE, PPN.	313-683-0152
C509	0.01uF +-10% 50V	CERAMIC.	307-103-1160
C510	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770
C511	220pF +-5% 50V	CERAMIC.	307-221-1150
C512	47uF +-20% 50V	ELECTROLYTIC.	300-470-5020
C513	2200pF +-5% 1KV	POLYPROPYLENE, PHM.	309-222-1052
C514	100uF +-20% 160V	ELECTROLYTIC.	300-101-0222
C515	1000pF +-10% 500V	CERAMIC.	307-102-3560
C516	1000pF +-10% 500V	CERAMIC.	307-102-3560
C517	1uF +-20% 50V	ELECTROLYTIC.	300-1R0-5020
C518	330uF +-20% 50V 105C	ELECTROLYTIC.	300-331-5025
C519	330pF +-5% 500V	CERAMIC.	307-331-3550
C520	330uF +-20% 50V	ELECTROLYTIC.	300-331-5022
C521	100uF +-20% 25V	ELECTROLYTIC.	300-101-2520
C522	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770
C523	220uF +-20% 50V 105C	ELECTROLYTIC.	300-221-5025
C524	220uF +-20% 25V	ELECTROLYTIC.	300-221-2520
C525	100uF +-20% 25V	ELECTROLYTIC.	300-101-2520
C526	100uF +-20% 25V	ELECTROLYTIC.	300-101-2520
C527	470uF +-20% 50V	ELECTROLYTIC.	300-471-5022
C528	330pF +-5% 500V	CERAMIC.	307-331-3550
⚠ C529	2200pF 250V AC (Y1)	CERAMIC Y-CAP.	317-222-2572AK
C530	10uF +-20% 50V	ELECTROLYTIC.	300-100-5020
C531	0.01uF +-5% 250V	POLYESTER MEM.	318-103-2550-B
C601	0.47uF +-5% 50V	POLYESTER MEM.	318-474-0550
C602	0.047uF +-5% 100V	POLYPROPYLENE, PPN.	313-473-0152
C603	100uF +-20% 50V	ELECTROLYTIC.	300-101-5020
C604	4.7uF +-20% 50V	ELECTROLYTIC.	300-4R7-5020
C605	14”/37cm using Rev. A and Rev. B PWB 2200uF +-20% 50V 14”/37cm using Rev. B+ PWB and all 20”/51cm and 21”/55cm 1000uF +- 20% 50V	 ELECTROLYTIC. ELECTROLYTIC	 300-222-5020 300-102-5020

Capacitors continued

C606	14”/37cm using Rev. A and Rev. B PWB 100uF +-20% 50V	ELECTROLYTIC.	300-101-5020
	14”/37cm using Rev. B+ PWB and all 20”/51cm and 21”/55cm 22uF +-20% 50V	ELECTROLYTIC.	300-220-5020
C607	1uF +-20% 50V	ELECTROLYTIC.	300-1R0-5020
C608	220uF +-20% 35V	ELECTROLYTIC.	300-221-3520
C609	220uF +-20% 25V	ELECTROLYTIC.	300-221-2520
C611	0.1uF +-5% 63V	POLYESTER MEF.	318-104-0650-B
C612	0.047uF +-5% 63V	POLYESTER MEM.	318-473-0650-B
C613	100uF +-20% 50V	ELECTROLYTIC.	300-101-5020
C614	47uF +-20% 160V 13D	ELECTROLYTIC.	300-470-0222
C616	14”/37cm with EKRANAS CRT type A33LPE 02X01 6600pF +-2% 2KV 14”/37cm with EKRANAS CRT type A33LPE 02X02 6800pF +-2% 2KV 20”/51cm with EKRANAS CRT 7500pF +-5% 2KV 21”/55cm with EKRANAS CRT 6500pF +-5% 2KV	POLYPROPYLENE, PHM POLYPROPYLENE, PHM POLYPROPYLENE, PHM POLYPROPYLENE, PHM.	309-662-2052 309-682-2052 309-752-2052 309-652-2052
C617	14”/37cm; 20”/51cm 0.47uF +-5% 400V 21”/51cm 0.33uF +- 5% 400V	POLYPROPYLENE MPP. POLYPROPYLENE MPP.	310-474-0452-A 310-334-0452-A
C618	2.2uF +-20% 160V	ELECTROLYTIC.	300-2R2-0220
C619	0.1uF +-5% 63V	POLYESTER MEF.	318-104-0650-B
C620	10uF +-20% 50V	ELECTROLYTIC.	300-100-5020
C621	10uF +-20% 250V	ELECTROLYTIC.	300-100-0422
C622	0.047uF +-5% 100V	POLYESTER, PEI	305-473-0150
C623	470pF +-10% 500V	CERAMIC.	307-471-3560
C624	220uF +-20% 50V	ELECTROLYTIC.	300-221-5022
C901	47uF +-20% 50V	ELECTROLYTIC.	300-470-5020
C902	2.2uF +-20% 50V	ELECTROLYTIC.	300-2R2-5020
C903	4.7uF +-20% 50V	ELECTROLYTIC.	300-4R7-5020
C904	10uF +-20% 50V	ELECTROLYTIC.	300-100-5020
C905	1000pF +-5% 50V	POLYESTER, PEI.	305-102-0550
C907	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770
C908	470uF +-20% 35V	ELECTROLYTIC.	300-471-3520
C909	0.1uF 5% 63V	POLYESTER MEF.	318-104-0650-B
C910	470uF +-20% 50V	ELECTROLYTIC.	300-471-5022
C911	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770
CA501	270pF +-5% 50V	CERAMIC.	307-271-1150
CA601	0.022uF +-20% 50V Z5U	CERAMIC.	307-223-1570
CA603	0.1u +-20% 50V Y5V	CERAMIC.	307-104-1770V
CA604	0.47uF +-20% 50V	ELECTROLYTIC.	300-R47-5020
CA605	0.47uF +-20% 50V	ELECTROLYTIC.	300-R47-5020
CA606	0.01uF +-10% 50V	CERAMIC.	307-103-1160
CA607	0.01uF +-10% 50V	CERAMIC.	307-103-1160

14.3 TRANSISTORS

Ct. Ref	Type	Part No.
Q4	2SC945P NEC	510-023-0945
Q5	BF422 NPN	510-200-0422
Q6	BF423 PNP	510-200-0423
Q7	2SC945P NEC	510-023-0945
Q8	BF422 NPN	510-200-0422
Q9	BF423 PNP	510-200-0423
Q10	2SC945P NEC	510-023-0945
Q11	BF422 NPN	510-200-0422
Q12	BF423 PNP	510-200-0423
Q101	2SA733	510-000-0733
Q102	2SA733	510-000-0733
Q103	2SA733	510-000-0733
Q104	2N3904	510-050-3904
Q105	2SA733	510-000-0733
Q203	2SC945P NEC	510-023-0945
Q501	TL431 CURRENT REGULATOR	504-200-0431
Q502	BD238	510-130-D238
Q503	BF422 NPN	510-200-0422
Q504	3K3 5% 1/4W CARBON FILM RESISTOR	210-332-0456
Q601	BU2507DX SOT399 MOUNTING ASSEMBLY HEAT SINK	510-128-2507 820-004-2507 120-003-TV95N
QA601	2SC945P NEC	510-023-0945
Q602	H2N6718V 100V 1A	510-050-6718V
Q603	2SC945P NEC	510-023-0945
Q901	2SC945P NEC	510-023-0945

14.4 DIODES

Ct. Ref	Type	Part No.
D4	1N4007	520-010-4007
D9	1N4007	520-010-4007
D10	1N4148	520-001-4148
D11	1N4148	520-001-4148
D12	1N4007	520-010-4007
D101	1N4148	520-001-4148
D102	1N4148	520-001-4148
D103	1N4148	520-001-4148
D104	BAT85	520-007-BAT85
D106	LED L-9341D LED HOLDER	520-005-943ID 154-001-TV2K
D301	1N4148	520-001-4148
D302	1N4148	520-001-4148
D303	1N4148	520-001-4148
D304	1N4148	520-001-4148
D501	1N4148	520-001-4148
D502	IN4002 1A 200V	520-010-4002
D503	FUF5408 1000V 3A ASSOCIATED FERRITE BEAD	522-030-5408 760-100-0007
D504	FR154	522-015-R154
D505	FR154	522-015-R154
D506	BRIDGE KBP08 2A 800V	523-020-BP08
D507	1N4007	520-010-4007
D508	1N4007	520-010-4007
D601	IN4002 1A 200V	520-010-4002
D602	IN4002 1A 200V	520-010-4002
D603	IN4002 1A 200V	520-010-4002
D605	BYT42G	522-010-T42G
D606	BYT42G	522-010-T42G
D607	BYT42G	522-010-T42G
D609	1N4148	520-001-4148
D610	1N4148	520-001-4148

Diodes continued

ZD101	ZENER 3.9V	521-005-03C9
ZD301	ZENER HZ5C1 5.1V 0.5W	521-005-05C1
ZD501	UPC574J REGULATOR	505-092-574J
ZD502	ZENER 3.9V	521-005-03C9
ZD503	ZENER HZ9A2	521-005-09A2
ZD504	ZENER 5.6V	521-005-05C6

14.5 INTEGRATED CIRCUITS

Ct. Ref	Type	Part No.
IC101	Teletext models: ST92195 Non-teletext models: ST92185	 503-000-2195 503-000-2185
IC102	24WC08P, 8K EEPROM	501-000-2408
IC103	TSOP1738	842-380-1738
IC301	STV2246	504-450-2246
IC501	KA3S0765 IC ASSY HEAT SINK	504-000-S765 820-002-S765 120-002-TV2K
⚠ IC502	TLP721F D4-GR TOSHIBA	504-150-721F-A
IC503	REGULATOR KA7805 1A	505-001-7805
IC504	HA17812 IC ASSY HEAT SINK	505-1R5-7812 820-002-8174 133-001-TV2K
IC505	REGULATOR KA7808 IC ASSY HEAT SINK	505-001-7808 820-002-8174 133-001-TV2K
IC506	REGULATOR KA7805 1A	505-001-7805
ICA601	74HC4053N	502-500-4053
IC601	TDA8174A IC ASSY HEAT SINK	504-900-8174 820-002-8174 120-001-TV2K
IC901	TDA1905	504-A00-1905

14.6 FERRITE BEADS

Ct. Ref	Type	Part No.
L502	3.5x9x0.8)	760-100-0008
FB503	3.5x9x0.8)	760-100-0008
FB504	3.5x9x0.8)	760-100-0008
FB505	3.5x9x0.8)	760-100-0008
R102	3.5x6x0.8	760-100-0002
R117	3.5x6x0.8	760-100-0002
R118	3.5x6x0.8	760-100-0002

14.7 COILS CHOKES AND TRANSFORMERS

Ct. Ref	Type	Part No.
L1	RESISTOR CARBON FILM. 68 ohm 1/4W +-5%	210-680-0456
L2	RESISTOR CARBON FILM. 68 ohm 1/4W +-5%	210-680-0456
L3	RESISTOR CARBON FILM. 68 ohm 1/4W +-5%	210-680-0456
L101	PEAKING COIL 10uH 1/4W +-5%	745-100-1152
L102	PEAKING COIL 10uH 1/4W +-5%	745-100-1152
L203	PEAKING COIL 1.0uH +-5% 1/4W	745-1R0-1152
L204	PEAKING COIL 1.0uH +-5% 1/4W	745-1R0-1152V
L205	PEAKING COIL 1.0uH +-5% 1/4W	745-1R0-1152
L206	PEAKING COIL 1.0uH +-5% 1/4W	745-1R0-1152
L207	PEAKING COIL 6.8uH +-5% 1/4W	745-6R8-1152
L208	IF COIL LX680	843-389-TV2K
L209	PEAKING COIL 1.0uH +-5% 1/4W	745-1R0-1152

Coils chokes and transformers continued

L210	PEAKING COIL 1.0uH +-5% 1/4W	745-1R0-1152
L301	PEAKING COIL 10uH 1/4W +-5%	745-100-1152
L302	PEAKING COIL 1.0uH +-5% 1/4W	745-1R0-1152
L501	CHOKE COIL 100uH 8X10	745-101-2064
L601	LINEARITY COIL 14"/37cm 20"/51cm 21"/55cm	 740-200-TV81 740-200-TV91 740-200-TV91
L602	CHOKE COIL 30uH +-10%	745-300-2064
LA601	PEAKING COIL 10uH 1/4W +-5%	745-100-1152
LA602	PEAKING COIL 100uH 1/4W +-5%	745-101-1062
LA603	PEAKING COIL 100uH 1/4W +-5%	745-101-1062
⚠ T501	MAINS TRANSFORMER	730-102-TV95-B
T502	POWER FILTER	750-400-TV2K
⚠ T601	TRANSFORMER FLYBACK PET-22-08	5062690600
T602	H-DRIVER TRANSFORMER	730-202-TV83

14.8 CRYSTALS AND FILTERS

Ct. Ref	Type	Part No.
X101	QUARTZ CRYSTAL 4.0MHZ	531-040-0000
X301	QUARTZ Crystal 4.43 MHZ	531-443-3619
X302	QUARTZ CRYSTAL 3.579545MHZ	531-035-7954
SF201	SAW FILTER PAL I chassis: OFWK2962M PAL BG chassis: G1963M	 844-389-0004 844-389-0002
Z201	TRAP X5.5B	844-5R5-0201
Z202	TRAP TPS6.0MB	844-6R0-0201

14.9 PLUGS, PINS, SOCKETS AND CHASSIS WIRE ASSEMBLIES

Ct. ref	Type	Part No.
	CRT SOCKET	411-100-0018
P1	BASE 2.36D 1P	630-001-3001
P2	BASE 2.36D 1P	630-001-3001
PA501	JACK AR2-8.4-17A	409-004-1100
PA601	CKX3-3.5-02	409-005-0102
XP1	BASE 0.6D 6P	630-006-4001
XP2	BASE 0.6D 3P	630-003-4001
XP3	SCART CONNECTOR	412-400-0001
XP4	BASE 0.6D 3P	630-003-4001
XP5	BASE 0.6D 5P	630-005-4001
XP6	BASE 0.6D 2P 14"/37cm. 20"/51cm: /21"/55cm.	 630-002-4001 631-002-1069
XP7	BASE 0.6D 2P	630-002-4001
XP501	BASE 1.1D 2PIN PITCH 7.5mm	630-002-5005
XP502	BASE 1.1D 2PIN PITCH 7.5mm	630-002-5005
XP503	BASE 1.56D 2P VDE 94-0	630-002-2002
XP601	BASE 1.1D PITCH 10mm (P2 NC)	630-003-5002
XP602	BASE 1.1D 2P PITCH 5mm	630-002-5006
XS1	6Pin TUBE BASE VIDEO WIRE HARNESS	624-320-0506
XS2	3Pin TUBE BASE SUPPLY WIRE HARNESS	624-400-0503
XS5	8Pin FRONT AV WIRE HARNESS 14"/37cm. 20"/51cm; 21"/55cm	 624-300-0908 624-320-0908
XS502	2Pin 1.1D MAINS SWITCH LEAD	631-002-5016
XS7	2Pin FRONT AV AUDIO OUT WIRE HARNESS 14"/37cm 20"/51cm; 21"/55cm.	 624-120-0502 624-290-0502

Plugs pins and wire assemblies continued

SPK	2Pin SPEAKER LEAD 14”/37cm. 20”/51cm; 21”/55cm.	 624-340-0502-T 631-002-1070
V-DY	VERTICAL DEFLECTION WIRE HARNESS 14”/37cm. 20”/51cm; 21”/55cm	 626-230-0500-T 626-240-0500-T
H-DY	HORIZONTAL DEFLECTION WIRE HARNESS 14”/37cm 20”/51cm; 21”/55cm	 626-231-1000-T 626-241-1000-T

14.10 SWITCHES

Ct. Ref	Type	Part No.
K1	TACTILE SWITCH	401-170-0403
K2	TACTILE SWITCH	401-170-0403
K3	TACTILE SWITCH	401-170-0403
⚠ SW501	MAINS SWITCH	400-050-2004-A

14.11 MISCELLANEOUS

Ct. Ref	Type	Part No.
	TUNER PAL I chassis: UHF KS-D-131 SELTEKA PAL BG chassis: VHF/UHF KS-H-131 SELTEKA	 5052190010 5052190011
⚠ F501	FUSE LINK T3.15A 250V FUSE CLIPS	550-141-3150B 551-021-0001
	IF SCREEN 0.3mm	123-000-TV2K

14.12 CABINET PARTS

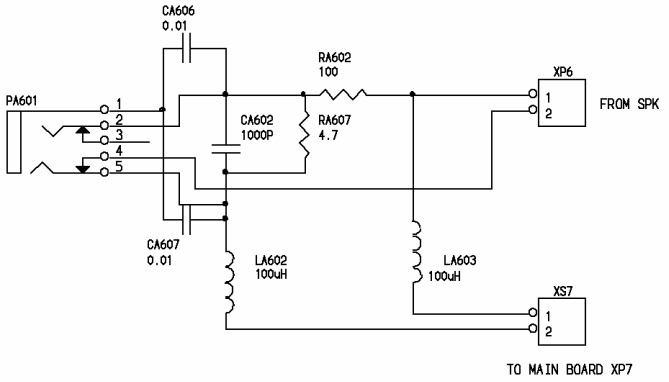
Description	Part Number
⚠ CRT	
14”/37cm: A33LPE02X01 EKRANAS	5051290019
ALTERNATIVE : A33LPE02X02 EKRANAS (Note: requires change to C616	5051290021
20”/51cm: A48LPE01X02 EKRANAS	5051290020
21”/55cm: A51EJJ01X01 EKRANAS	5051290023
SCREW T/F(PLASTIC)5x20 BLT PT (qty 4) for 14”/37cm CX4/CX7 cabinets.	41-1442-6
WASHER TUBE MTG (TOOTHED) For 14”/37cm CX4/CX7 cabinets. For 20”/51cm; 21”/55cm. cabinets.	 47-1186-6 5649490041
WASHER TUBE MOUNTING: 14”/37cm CX4/CX7 cabinets.	5649490001
CRT MOUNTING BRACKET: 20”/51cm. cabinet. (includes bracket 83-3687-3; stud 40-0950-9)	01-0076-5
CRT MOUNTING STUD PT-K55X20 (M5x20): 21”/55cm	5649490040
NUT M6 PLATFORM : 20”/51cm cabinet	85-4698-3
NUT FULL M5: 21”/55cm cabinet.	7076340012
PLATFORM / FINGER NUT M5 for 21”/55cm. cabinet.	83-6850-3-001
WIRE ASSEMBLY GROUND 14”/37cm CX4/CX7 cabinets. 20”/51cm. cabinet. 21”/55cm. cabinet.	 800-100-TV2K 800-101-TV2K 800-102-TV2K
⚠ DEGAUSSING COIL 14”/37cm. 20”/51cm. 21”/55cm.	 5060191403 5060192003 5060192103
CABLE TIE T18L NATURAL (qty 4)	57-2900-9
PURSE CLIP for 20”/51cm and 21”/55cm.	5649490051
SPRING: 14”/37cm CX4 cabinet	83-1985-5
AV BRACKET	121-000-TV2K
SWITCH BRACKET	121-001-TV2K

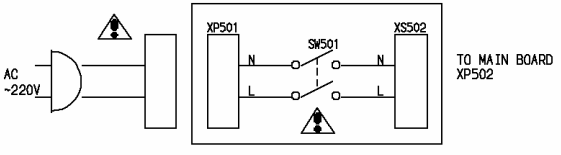
Cabinet parts continued

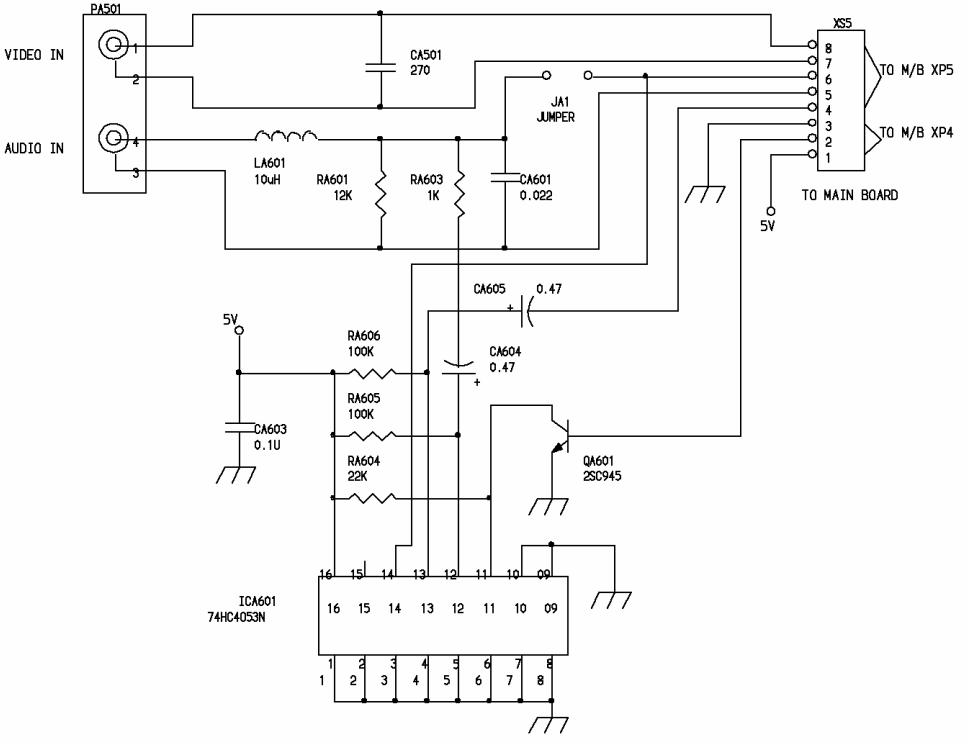
ANTENNA:	
Loop type for PAL I, 14”/37cm CX7 cabinet.	5052490001
Loop type for PAL I, 14”/37cm CX4 cabinet.	5649090231
Rod type for PAL BG, 14”/37cm CX7 cabinet.	83-5702-1-002
BATTERY PACK (2xAA) Mn/Zn	5050190005
SCREW BRB M4,0 x 16 S-ZN-CC	7033252252
SCREW T/F(PLASTIC) 3.5x10 BLPT	5640226600
SCREW BRB M5x20mm (qty.12): for 20”/51cm; 21”/55cm cabinets	7033332552
NUT FULL STL M6 PLT (qty 4): for 20”/51cm cabinet.	7079390012
KNOB ON/OFF:	
14”/37cm CX7 cabinet.	5649090090
14”/37cm CX4 cabinet.	5649090235
20”/51cm; 21”/55cm CX7 cabinet.	5649090105
ACTUATOR:	
14”/37cm CX7 cabinet.	5649090091
14”/37cm CX4 cabinet.	5649090236
20”/51cm CX7 cabinet.	5649090099
21”/55cm CX7 cabinet.	5649090106
PRISM:	
14”/37cm CX7 cabinet.	5649090092
14”/37cm CX4 cabinet.	5649090159
20”/51cm CX7 cabinet.	5649090100
21”/55cm CX7 cabinet.	5649090107
LOUDSPEAKER	
14”/37cm CX4/CX7 cabinets: 16 OHM 2W 77mm	710-302-TV2K
20”/37cm; 21”/55cm CX7 cabinets: 16 OHM 3W 56x125mm	710-301-TV2K
L/SPEAKER FIXING CLIP: 14”/37cm CX7 cabinet.	5649090095
L/SPEAKER FIXING SCREW 4x10 BLT PT: 20”/51cm; 21”/55cm cabinet.	41-1446-9
RETAINING PLATE (PHONO PCB) 14”/37cm CX7 cabinet.	5649190043
CHASSIS RAIL CENTRE: 14”/37cm CX7 cabinet.	5649090094
CHASSIS RAIL R.H.	
14”/37cm CX7 cabinet.	5649090093
20”/51cm; 21”/55cm. cabinet	5649090102
CHASSIS RAIL L.H.: 20”/51cm; 21”/55cm. cabinets.	5649090101
FRONT MOULDING:	
14”/37cm CX7 cabinet.	5649090113
14”/37cm CX4 REMOTE TATUNG cabinet.	5649090232
14CX4 TELETEXT TATUNG cabinet.	5649090233
14CX4 REMOTE DECCACOLOUR cabinet.	5649090243
14CX4 TELETEXT DECCACOLOUR cabinet.	5649090242
20CX7 cabinet.	5649090096
21CX7 cabinet.	5649090103
BACKCOVER:	
14”/37cm CX7 cabinet.	5649090115
14”/37cm CX4 cabinet.	5649090234
20”/51cm; 21”/55cmCX7 cabinet.	5649090121
COVER MOULDING BACK COVER: 20”/51cm; 21”/55cm cabinets.	5649090122
FACIA:	
14”/37cm. CX7 REMOTE TATUNG cabinet.	5649090130
14”/37cm. CX7 TELETEXT TATUNG cabinet.	5649090089
14”/37cm. CX7 REMOTE DECCACOLOUR cabinet.	5649090131
14”/37cm. CX7 TELETEXT DECCACOLOUR cabinet.	5649090126
20”/51cm. CX7 REMOTE cabinet.	5649090129
20”/51cm. CX7 TELETEXT cabinet.	5649090098
21”/55cm. CX7 TELETEXT cabinet.	5649090104
BADGE	
For DECCACOLOUR: 20”/51cm.; 21”/55cm. CX7 cabinet.	5649290024
For TATUNG: 20”/51cm.; 21”/55cm CX7 cabinet.	5649290020
FOOT NON-SLIP CX4 cabinet.	83-2829-3
FOOT RUBBER (WHITE) for 20”/51cm.; 21”/55cm CX7 cabinet.	5649090047
FOOT SELF ADHESIVE (internal chassis support) 14”/37cm.CX4; CX7 cabinets.	155-190-1570 5649490048

Cabinet parts continued

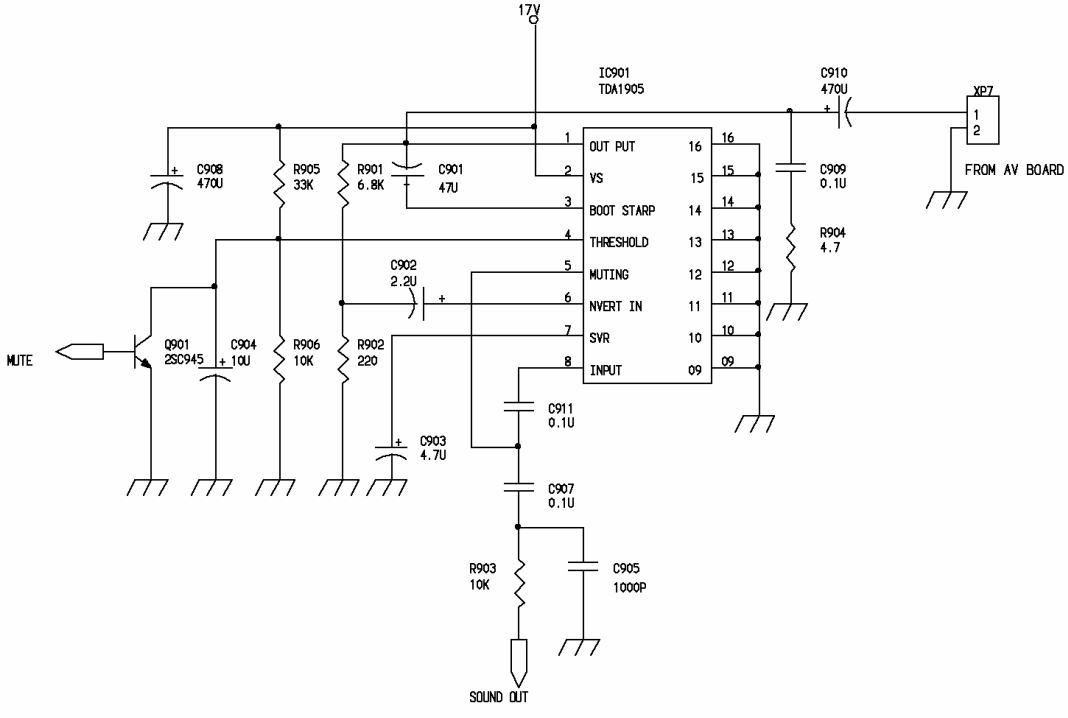
LABEL BACK WARNING:	
Model T14RK70	5635690387
Model T14TK70	5635690389
Model T14RK40	5635690391
Model T14TK40	5635690385
Model T20TK70	5635690397
Model T21TK70	5635690399
Model D14RKG5	5635690403
Model D14TKG5	5635690409
Model D14RKD5	5635690407
Model D14TKD5	5635690405
Model D20RKG5	5635690413
Model D20TKG5	5635690411
LABEL CARTON:	
Model T14RK70	5635690388
Model T14TK70	5635690390
Model T14RK40	5635690392
Model T14TK40	5635690386
Model T20TK70	5635690398
Model T21TK70	5635690400
Model D4RKG5	5635690404
Model D14TKG5	5635690410
Model D14RKD5	5635690408
Model D14TKD5	5635690406
Model D20RKG5	5635690414
Model D20TKG5	5635690412
LABEL BARCODE	5635690381
CARTON PRINTED:	
14”/37cm. CX7 TATUNG	9510050037
14”/37cm. CX7 DECCACOLOUR	9510051037
14”/37cm. CX4 TATUNG	9510049037
14”/37cm. CX4 DECCACOLOUR	9510052037
20”/51cm; 21”/55cm CX7 TATUNG	9510053037
20”/51cm.; 21”/55cm. CX7 DECCACOLOUR	9510054037
EPS REAR:	
14”/37cm. CX7 cabinet.	9520010037
14”/37cm. CX4 cabinet.	83-5553-3-001
EPS FRONT:	
14”/37cm. CX7 cabinet.	9520011037
14”/37cm. CX4 cabinet.	83-5552-5-002
EPS BOTTOM	
20”/51cm. CX7 cabinet.	9520008037
21”/55cm. CX7 cabinet.	9520012037
EPS TOP	
20”/51cm. CX7 cabinet.	9520013037
21”/55cm. CX7 cabinet.	9520014037
OPERATING INSTRUCTIONS	
PAL I (English)	79-1867-4
BG (English, German, Italian)	79-1863-1
POWER CORD	
3 PIN UK 13 AMP PLUG WITH 5 AMP FUSE AND 300uHx2 FILTER	600-181-4900-T
2 PIN EUROPLUG WITH 300uHx2 FILTER	600-181-6600
REMOTE CONTROL HANDUNIT – OWNER USE	RK100
- SERVICE USE	SK100



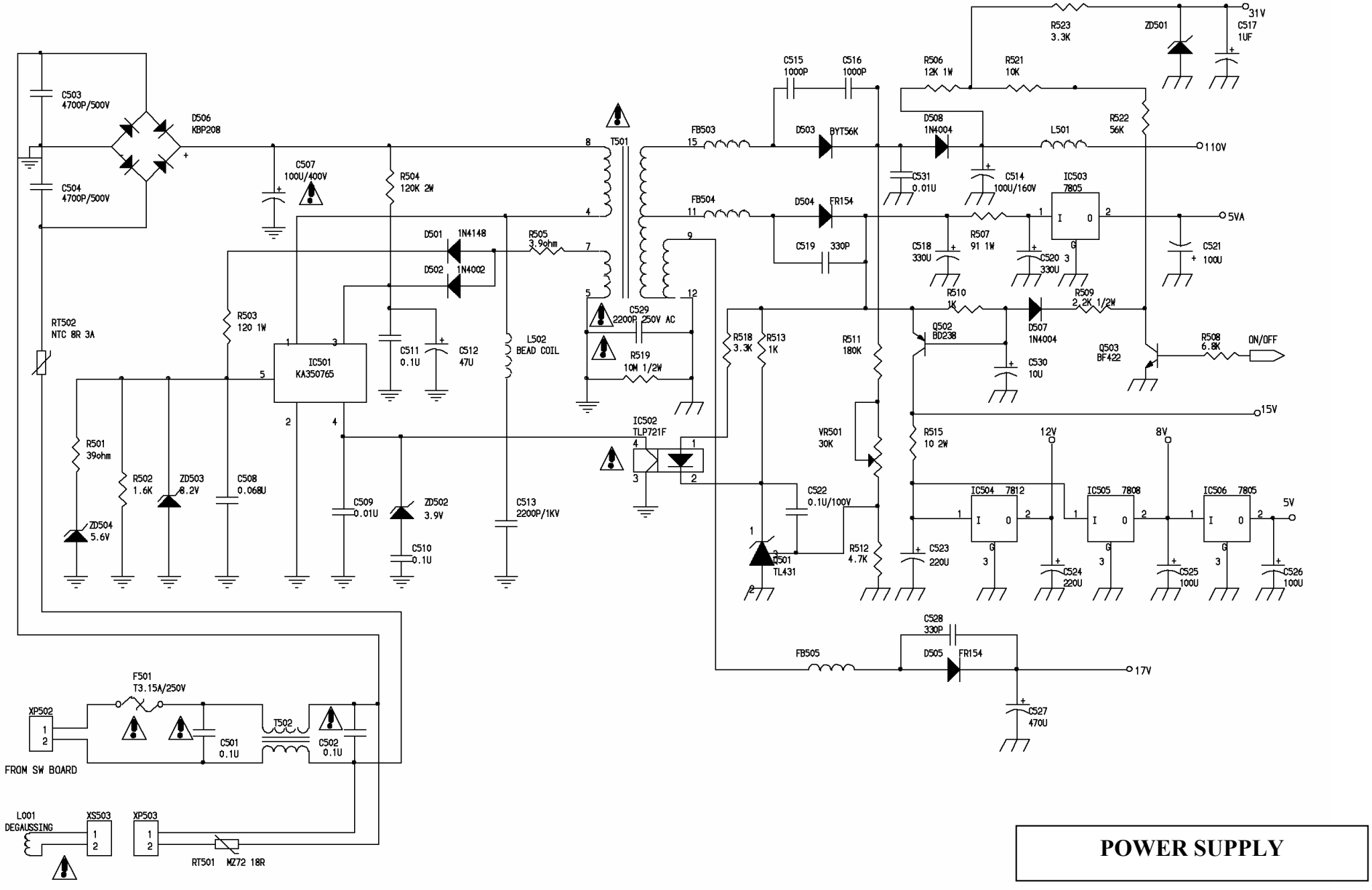




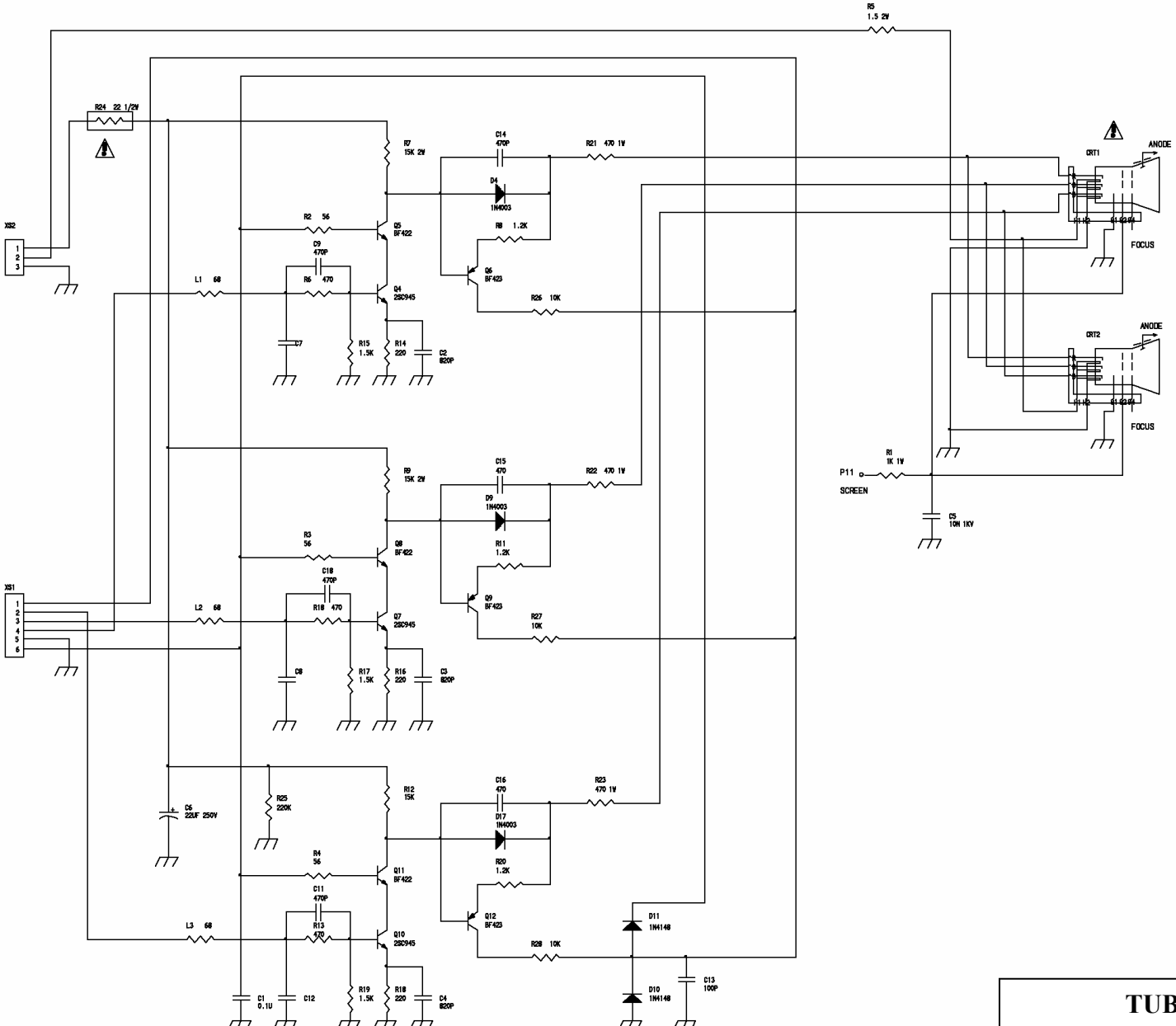
AV and POWER SWITCH



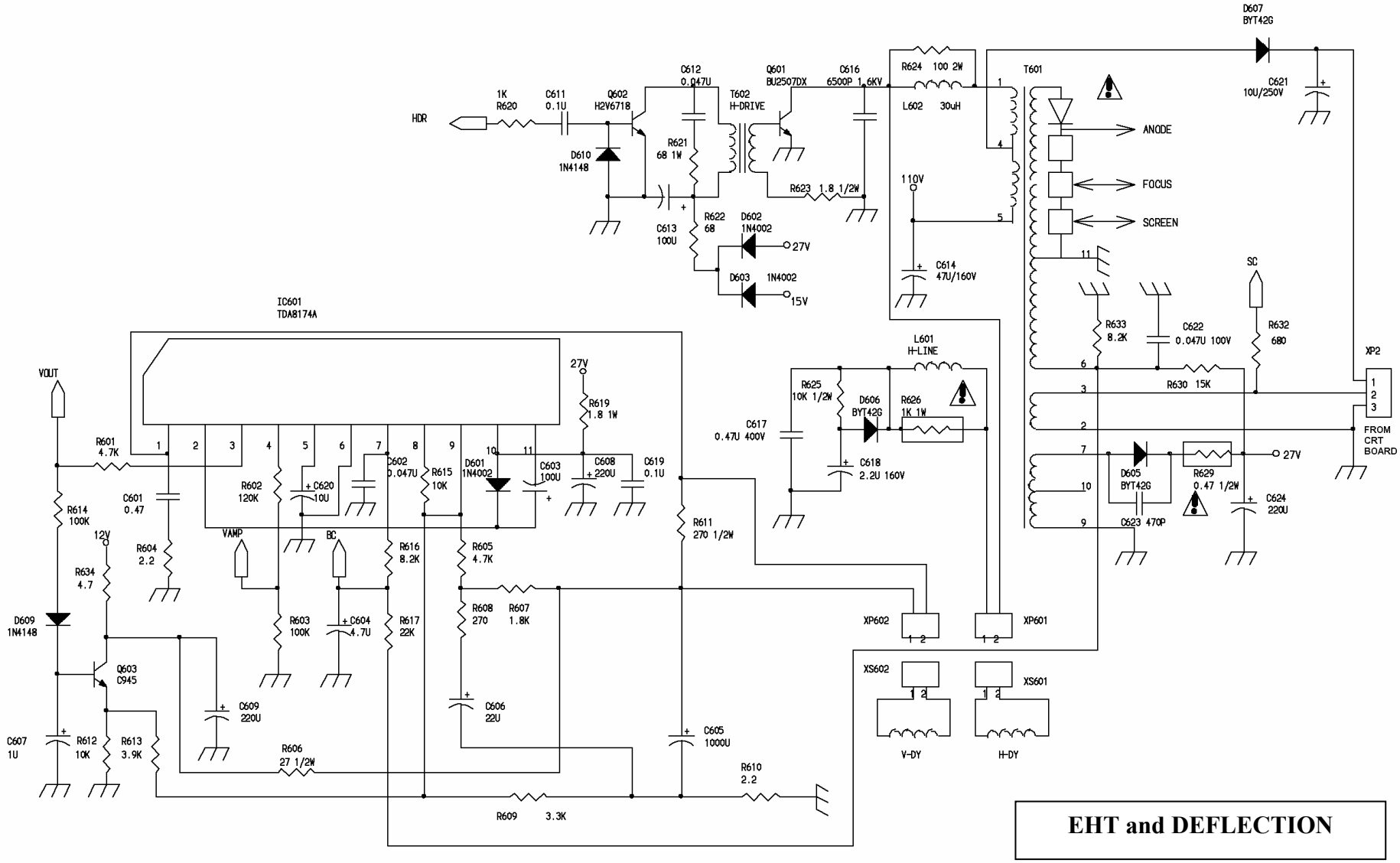
AUDIO AMPLIFIER

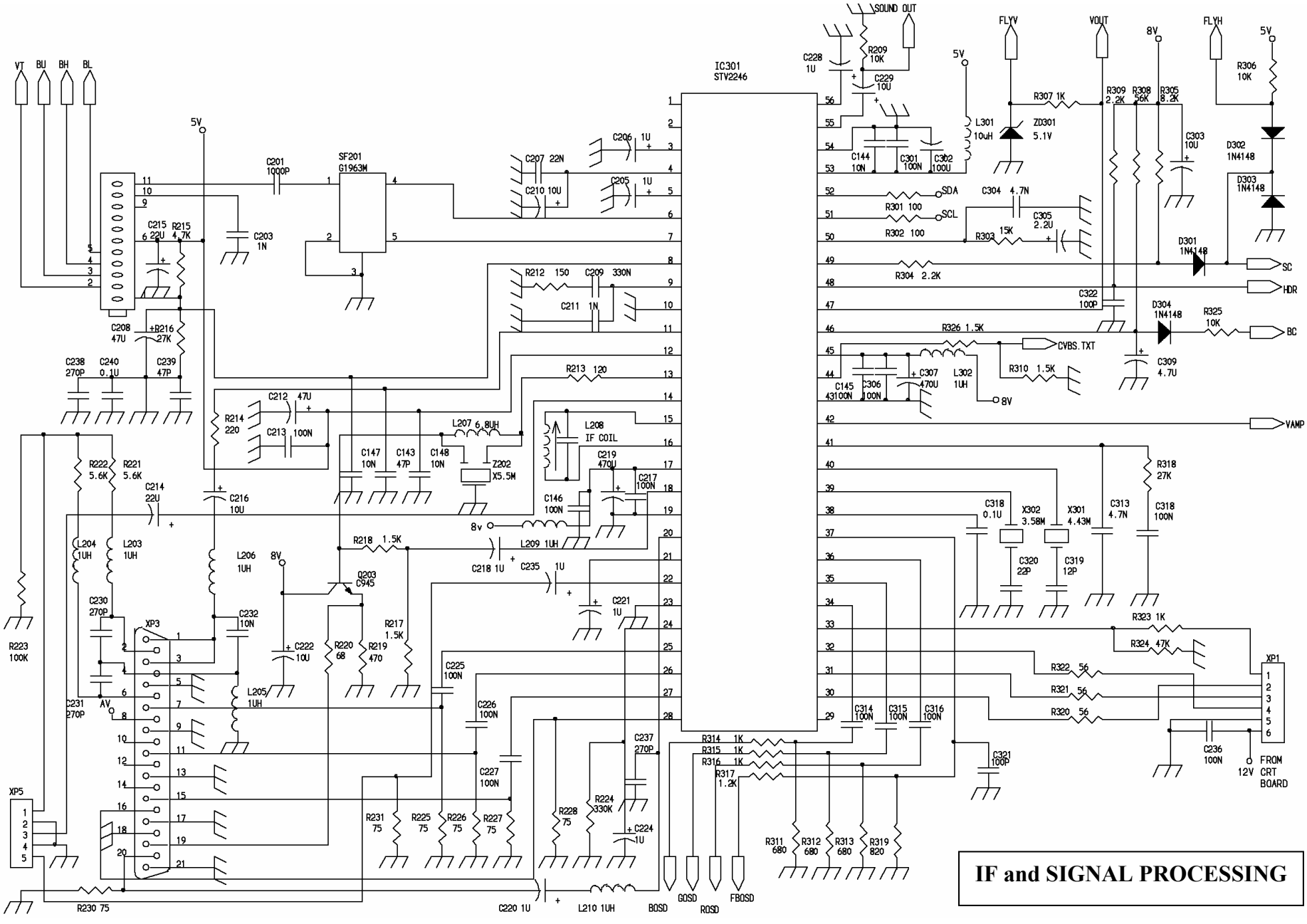


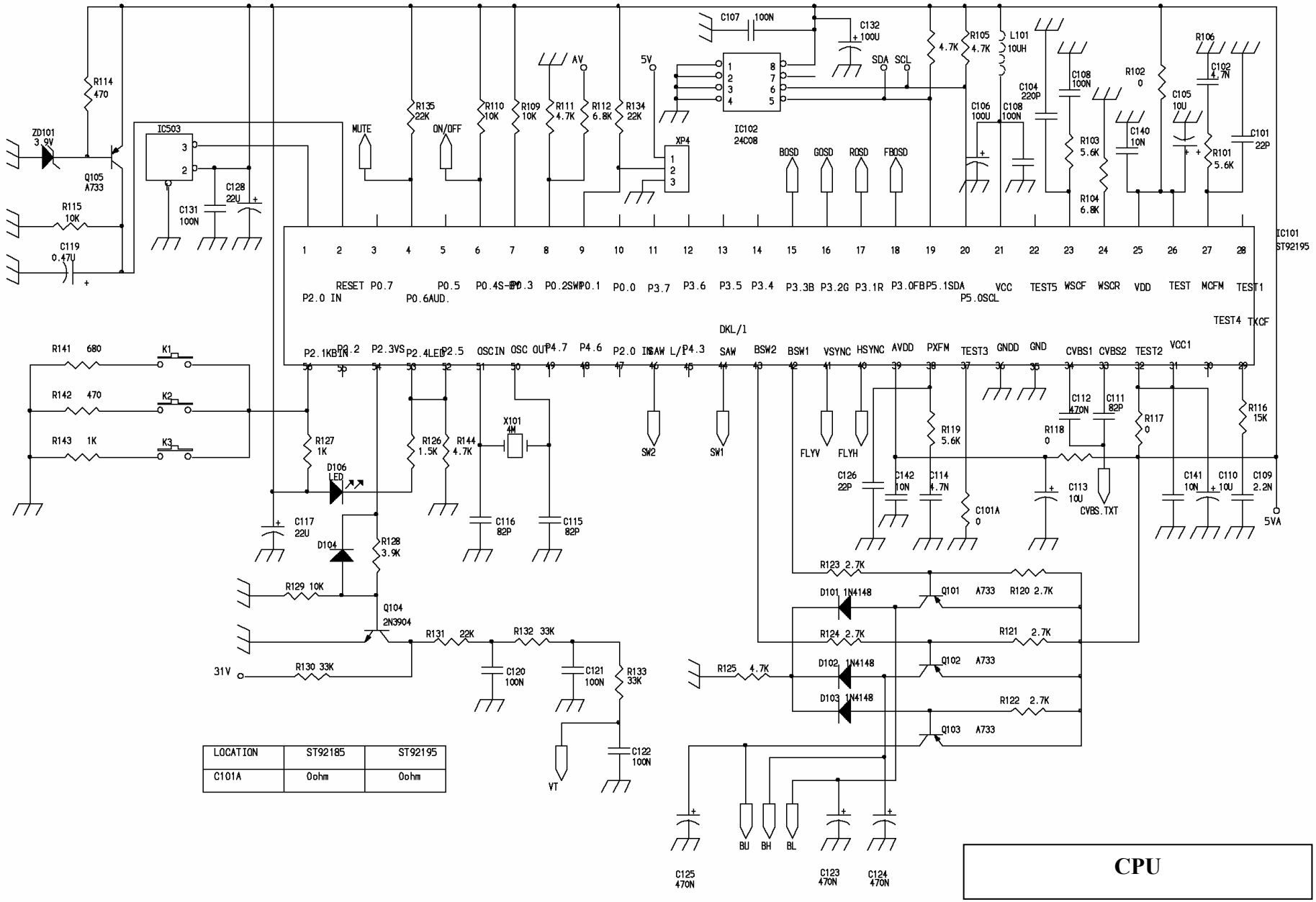
POWER SUPPLY


R5
1.5 2W
R24 22 1/2W
XS2
1
2
3
R7
15K 2W
C14
470P
R21 470 1W
D4
1N4003
R8 1.2K
Q5
BF422
R2 56
C9
470P
L1 68
R6 470
Q4
2SC945
R26 10K
C7
R15
1.5K
R14
220
C2
820P
CRT1
ANODE
FOCUS
CRT2
ANODE
FOCUS
R1
1K 1W
P11
SCREEN
C5
10N 1KV
R9
15K 2W
C15
470
R22 470 1W
D9
1N4003
R11
1.2K
Q9
BF423
R3
56
Q8
BF422
C18
470P
L2 68
R18 470
Q7
2SC945
R27
10K
C8
R17
1.5K
R16
220
C3
820P
XS1
1
2
3
4
5
6
C6
220UF 250V
R25
220K
R12
15K
C16
470
R23
470 1W
D17
1N4003
R20
1.2K
R4
56
Q11
BF422
C11
470P
L3 68
R13
470
Q10
2SC945
Q12
BF423
D11
1N4148
R28 10K
D10
1N4148
C13
100P
C1
0.1U
C12
R19
1.5K
R18
220
C4
820P

TUBE BASE


HDR
1K
R620
C611
0.1U
Q602
H2V6718
C612
0.047U
T602
H-DRIVE
Q601
BU2507DX
C616
6500P 1.6KV
R624 100 2W
L602 30uH
T601
D607
BYT42G
C621
10U/250V
D610
1N4148
R621
68 1W
R623 1.8 1/2W
110V
C613
100U
R622
68
D602
1N4002
27V
D603
1N4002
15V
C614
47U/160V
ANODE
FOCUS
SCREEN
SC
R633
8.2K
C622
0.047U 100V
R632
680
R630 15K
XP2
FROM
CRT
BOARD
IC601
TDA8174A
VOUT
R601
4.7K
R614
100K
C601
0.47
R604
2.2
12V
R634
4.7
D609
1N4148
Q603
C945
C607
1U
R612
10K
R613
3.9K
C609
220U
R606
27 1/2W
VAMP
BC
R602
120K
C620
10U
R603
100K
C604
4.7U
C602
0.047U
R615
10K
R616
8.2K
R617
22K
D601
1N4002
C603
100U
C608
220U
C619
0.1U
R605
4.7K
R608
270
R607
1.8K
C606
22U
27V
R619
1.8 1W
R611
270 1/2W
C605
1000U
R610
2.2
R609
3.3K
L601
H-LINE
R625
10K 1/2W
D606
BYT42G
R626
1K 1W
C617
0.47U 400V
C618
2.2U 160V
D605
BYT42G
C623 470P
R629
0.47 1/2W
C624
220U
27V
XP602
XP601
XS602
XS601
V-DY
H-DY
EHT and DEFLECTION


IF and SIGNAL PROCESSING
IC301
STV2246
SOUND OUT
VT
BU
BH
BL
5V
8V
VOUT
FLYV
FLYH
SDA
SCL
SC
HDR
BC
CVBS.TXT
VAMP
AV
FROM CRT BOARD
12V
BOSD
GOSD
ROSD
FBOSD



LOCATION	ST92185	ST92195
C101A	0ohm	0ohm

CPU

NOTES



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