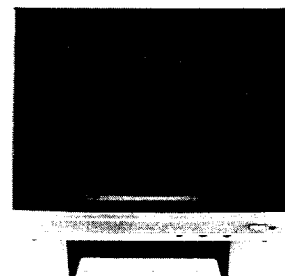


Service
Service
Service



38 602 A12

Service Manual

(GB)

Mains voltage
Power consumption at 220 Vac
EHT
Loudspeaker impedance
LF output power
Input impedance
Input spec's
CVBS
Sound input
Character display
Picture tube

(NL)

Bedrijfsspanning
Verbruik bij 220 V~
Hoogspanning
Luidspreker impedantie
LF uitgangsvermogen
Ingangsimpedantie
Ingangs specificaties
CVBS
Geluidsingang
Karakter uitlezing
Beeldbuis

(F)

Tension de travail
Consommation à 220 V~
Haute tension
Impédance H.P.
Puissance de sortie BF
Impédance d'entrée
Données d'entrée
CVBS
Entrée son
Affichage caractère
Tube image

220-240 V~
30 W
11,5-12,5 kV
8 Ω
0,3 W
75 Ω

1 Vtt \pm 0,5 Vtt
150 mV-10 k Ω
80x25
M31-344 W

(D)

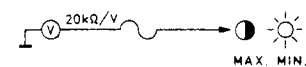
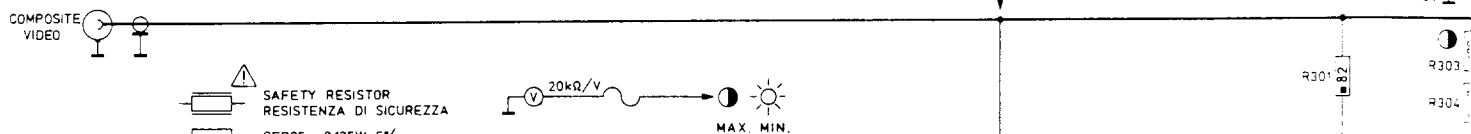
Betriebsspannung
Verbrauch bei 220 V~
Hochspannung
Lautsprecherimpedanz
NF-Ausgangsleistung
Eingangsimpedanz
Eingangsspezifikationen
FBAS
Toneingang
Zeichenauslesung
Bildröhre

(I)

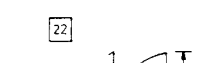
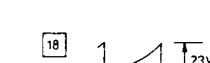
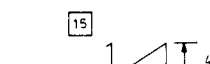
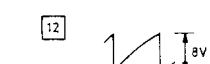
Tensione rete
Consumo rete a 220 V~
EAT
Impedenza altoparlante
Potenza uscita BF
Impedenza ingresso
Dati d'ingresso
CVBS
Ingresso suono
Display carattere
Cinescopio

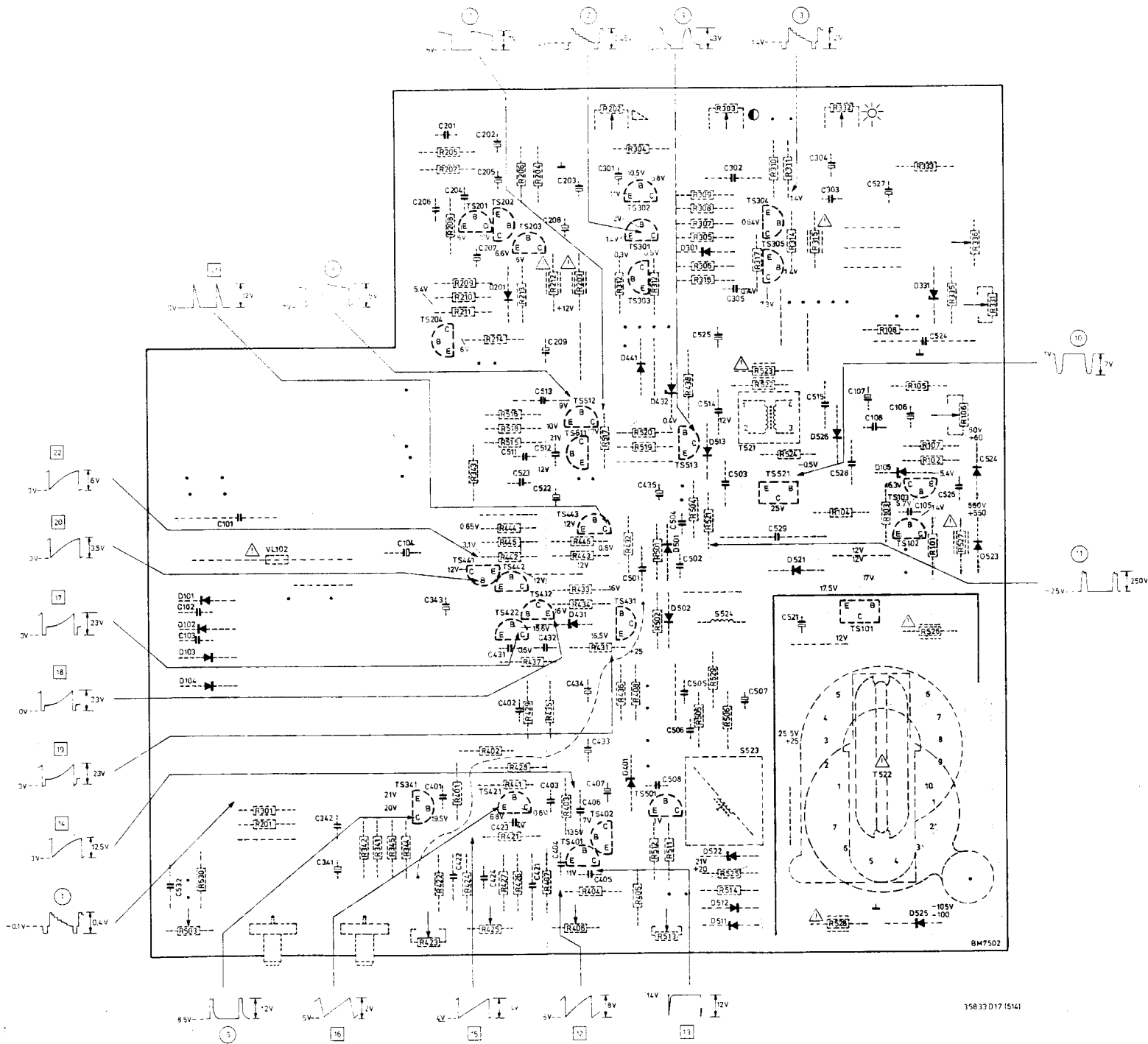
220-240 V~
30 W
11,5-12,5 kV
8 Ω
0,3 W
75 Ω


1 Vtt \pm 0,5 Vtt
150 mV-10 k Ω
80x25
M31-344 W



OSCILLOGRAMS: (PM5519)
GENERATOR ON GREY SCALE AND
VIDEO OUTPUT ADJUST ON 0.4Vpp





- The DC voltages specified in the circuit diagram are average voltages. They have been measured while:
 - Brightness had been adjusted to minimum and contrast to maximum.
- The oscillograms have been measured while:
 - A signal from a pattern generator in grey scale position; adjust video output for 0.4 Vpp (PM5519).
 - Brightness had been adjusted to maximum. Contrast had been adjusted to maximum.
- Defective safety resistors must be replaced by the types specified in the list of electrical parts. These resistors are labelled with the symbol: .
- When the picture tube is being replaced, safety glasses must be worn.
- Safety regulations require that the receiver be restored to its original state and that therefore components are used which are identical with the components replaced.
- The semi-conductors, mentioned in the circuit diagram and the parts list, and the semi-conductors in the receiver are interchangeable per item in this chassis irrespective of the type designation on these semi-conductors.

MECHANICAL INSTRUCTIONS

1. Removing the chassis

- Remove the backcover.
- Slide out the chassis.
- Remove the screws of the mains transformer so that, if desired, this can be slid out as well.
- After repair the connecting cables of the chassis should be fixed in the original way.

ADJUSTMENTS

1 Supply voltage

- Connect a voltmeter to the collector of TS101 (+12).
- Adjust R106 until the voltmeter indicates 12 V.

2 Horizontal time base

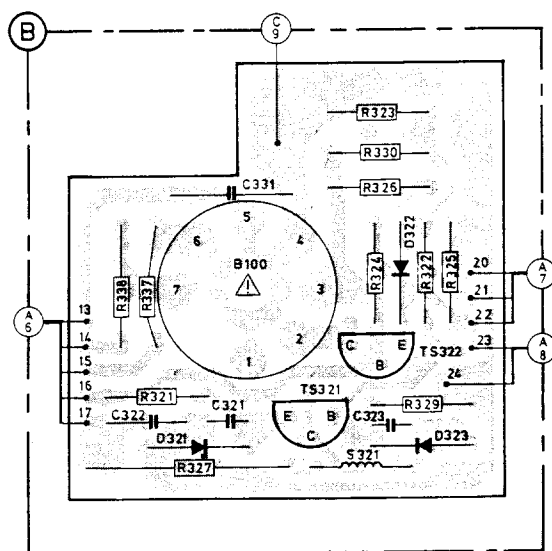
- Short circuit C503/R504 and earth.
- Adjust R513 until the picture is vertical.
- Remove the short circuit.

3 Focusing

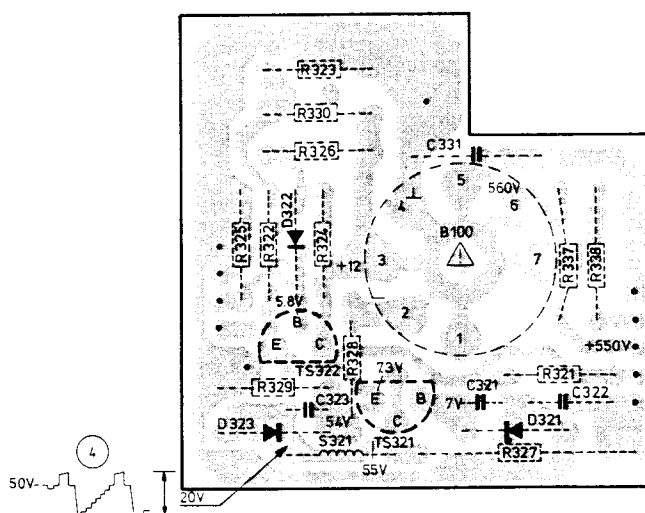
Optimum adjustment of focusing can be realized with R336.

4. Preliminary brightness adjustment

- Apply a signal to the video input.
- Brightness control to maximum (R332).
- Contrast control to minimum (R303).
- Adjust preliminary brightness adjustment R331 until the flyback lines are just not visible.



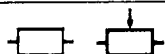
35732 B2



35835 B17 (514)



C102	4822 122 31989	2,2 nF-100 V
C103	4822 122 31989	2,2 nF-100 V
C104	4822 124 21502	4700 µF-25 V
C105	4822 122 32156	100 pF-50 V
C201	4822 122 32156	100 pF-50 V
C204	4822 122 32157	820 pF-50 V
C323	4822 124 21678	1,5 µF-100 V
C342	4822 122 32158	15 nF-63 V
C423	4822 122 32157	820 pF-50 V
C432	4822 122 32156	100 pF-50 V
C513	4822 121 50538	6.8 nF-63 V
C527	4822 124 40387	4.7 µF-160 V
C528	4822 121 42111	15 nF-400 V



R106	4822 100 10236	4.7 kΩ-lin
R202	4822 100 30045	470 kΩ-log
R203	4822 111 30517	22 Ω-safety
R212	4822 111 30506	8.2 Ω-safety
R303	4822 100 20121	470 Ω-lin
R315	4822 111 30524	39 Ω-safety
R327	5322 116 54403	1 kΩ
R328	4822 116 51105	470 Ω
R331	4822 100 10103	1 MΩ-lin
R332	4822 100 20122	470 kΩ-lin
R336	4822 101 20727	2 MΩ
R337	4822 111 50482	33 kΩ
R338	4822 111 50482	33 kΩ
R406	4822 101 10547	10 kΩ-lin
R423	4822 100 10076	47 kΩ-lin
R425	4822 101 10548	330 kΩ-lin
R503	4822 101 20859	5 kΩ
R513/00	4822 100 20054	330 Ω
R513/05	4822 100 10865	330 Ω-lin
R523	4822 111 30506	8.2 Ω-safety
R526	4822 111 30561	1 kΩ-safety
R527	4822 111 30502	5.6 Ω-safety
R528	4822 111 30535	100 Ω-safety



S321	4822 158 10594
T521	4822 150 50051
T522	4822 140 10262
S523	4822 157 51717
S524	4822 157 51914



1N4003	4822 130 31878
GP15D	4822 130 31173
BZX79-C6V2	4822 130 34167
BZX79-C6V8	4822 130 34278
BZX79-C8V2	4822 130 34382
BZX79-C12	4822 130 34197
BZX79-C20	4822 130 34499
BZX79-C24	4822 130 34398
BZV85-C51V	5322 130 31931
BA317	4822 130 30847
1N4148	4822 130 30621
RGP15G	4822 130 31168
BYV96E	5322 130 34979
BAV21	4822 130 34189
BA157	4822 130 41487
CQW11B	4822 130 42242



BC548C	4822 130 44196
BC549C	4822 130 44246
BC558B	4822 130 44197
BC559B	4822 130 44358
BC328	4822 130 44104
BC338	4822 130 44121
BC635	5322 130 44349
BC636	4822 130 44283
BC637	4822 130 41041
BF422	4822 130 41782
BU406	4822 130 42241
BD534L	4822 130 42239
2SC1473NCQ	4822 130 41589

Various

U102	4822 150 10188	Deflection unit
S100	4822 240 30266	Loudspeaker
T110-/00G	4822 146 30491	Mains trafo
T110-/05G	4822 146 30493	Mains trafo
VL110	4822 252 20007	Thermal fuse
VL102	4822 253 30025	Fuse T2A
	4822 267 20241	RCA jack
	4822 255 70189	CRT socket
	4822 265 20235	Micro connector

GB

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

NL

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

F

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

D

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden. für Reparaturen sind Original-Ersatzteile zu verwenden.

I

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.