Practical guide to chassis repair

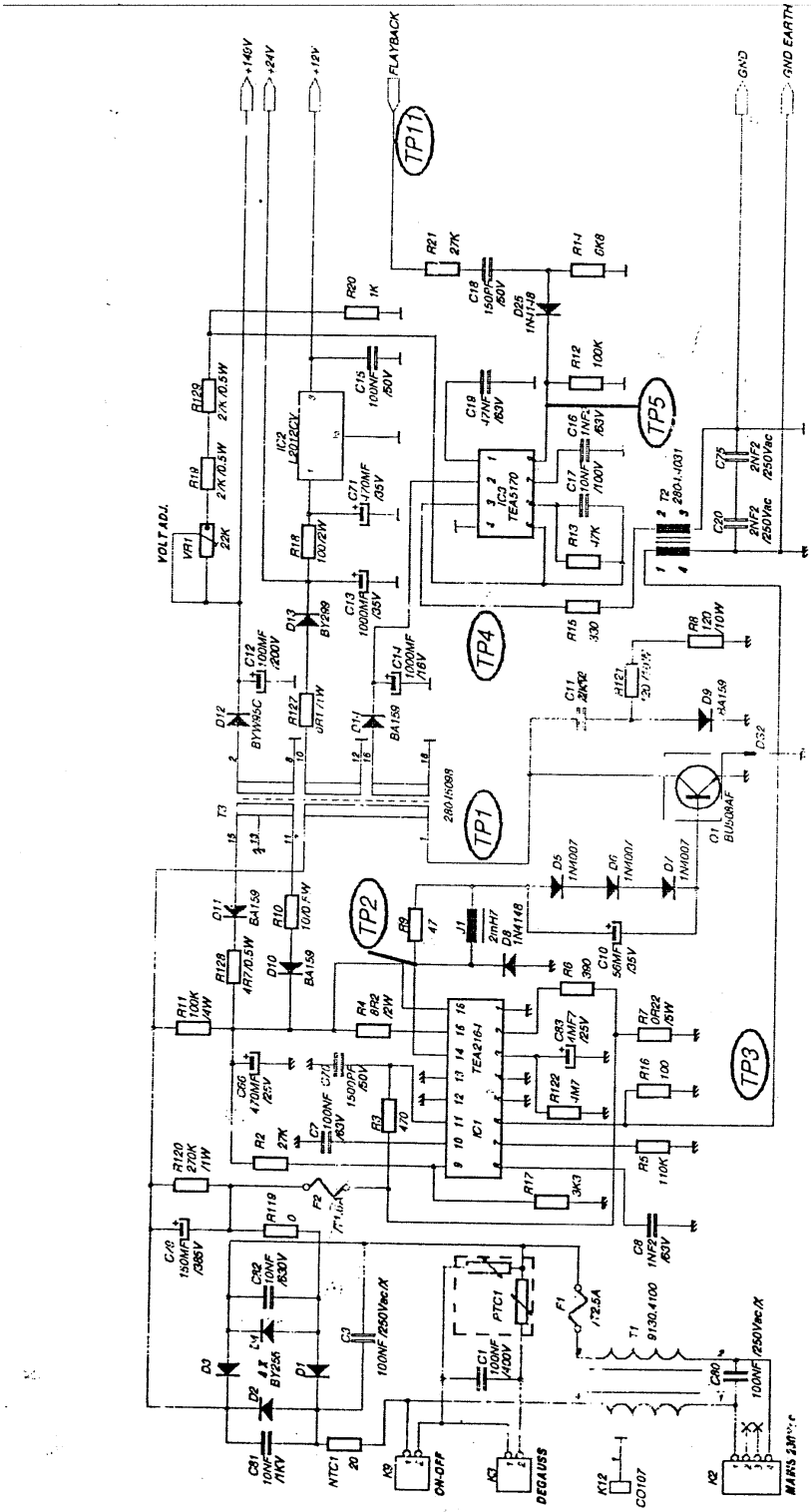

Fig. 1 – Monitor Standard (15 kHz)
Alimentazione

*** Questi componenti possono variare in base ai modelli: vedi tabella I Pag. 41**

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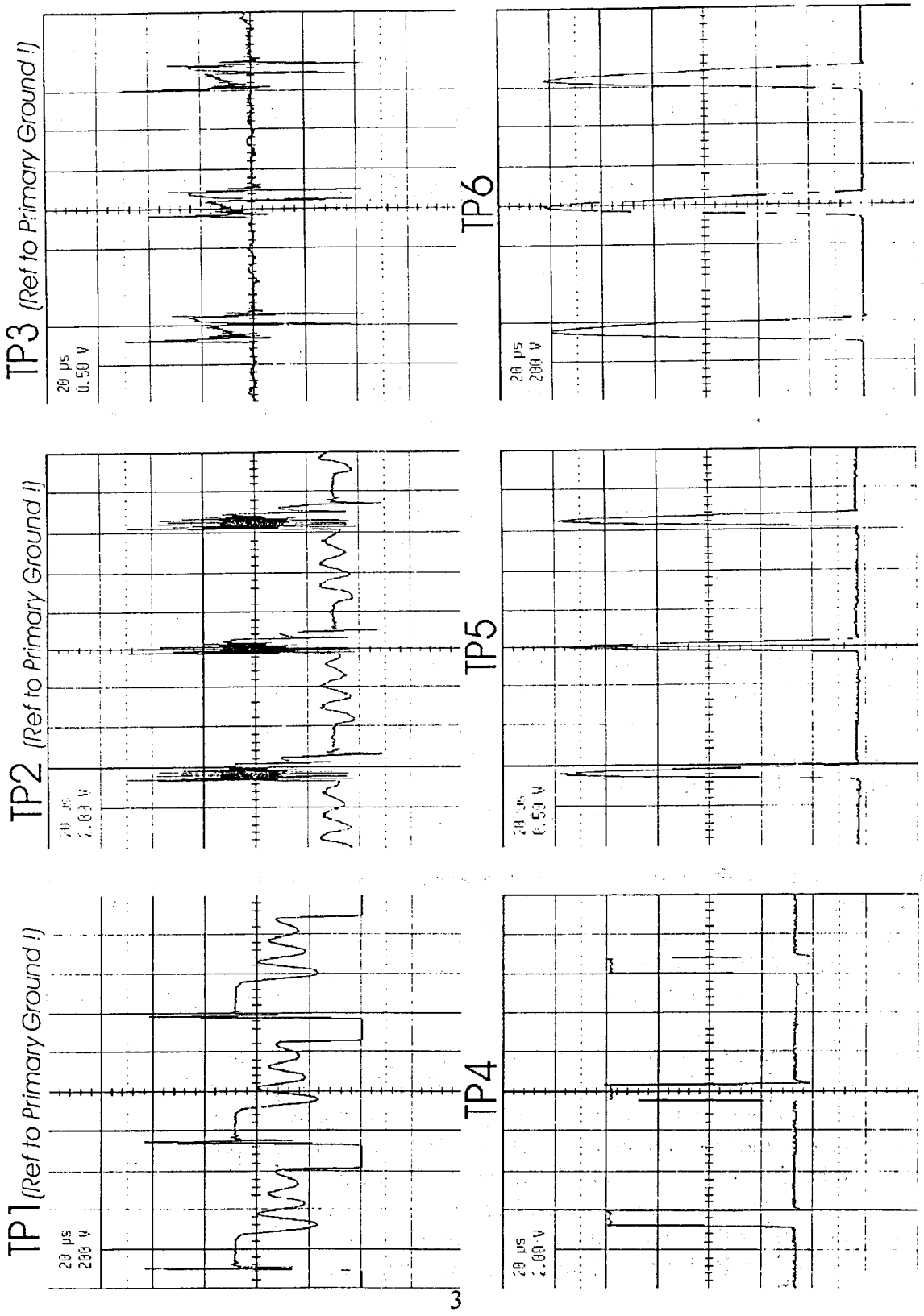

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Standard (15kHz)

In case you are facing difficulties, our technicians suggest the following procedures:

Power Supply (Fig.1)

Defect:

- **No power, check :**
  1. T1 Main filter (if interrupted).
  2. NTC1(if interrupted).

- **F1 fuse open circuit, check :**
  1. D1 – D2 – D3 – D4 Diodes = BY254.
  2. C79 Electrolytic Capacitor = 150 µF 385 V.

- **F2 fuse open circuit, check :**
  1. Q1 Transistor = BU508 AFI.
  2. R8 – R121 Resistor = 120 Ω 10 W.
  3. T3 Switching Transformer.
  4. J1 Impedance.
  5. C10 Electrolytic Capacitor = 56 µF 35V.

- **No or low HT, check:**

A.) If disconnecting the K6 – K7 connector from the chassis, the power becomes regular, there must be a defect in the Horizontal deflection.

B.) If disconnecting the K6 – K7 connector from the chassis, the power is off or not constant,
Dry the joints in the switching area and check:
  1. Integrated Circuits IC1 = TEA2164; IC3 = TEA5170.
  2. Electrolytic Capacitor C83 = 4,7 µF 100 V.
  3. Electrolytic Capacitor C66 = 100 µF 35 V.
  4. Diode D5 – D6 – D7 = 1N4007.
  5. Resistor R19 = 56 kΩ ½ W.
  6. Diode D12 – D13 = BY299

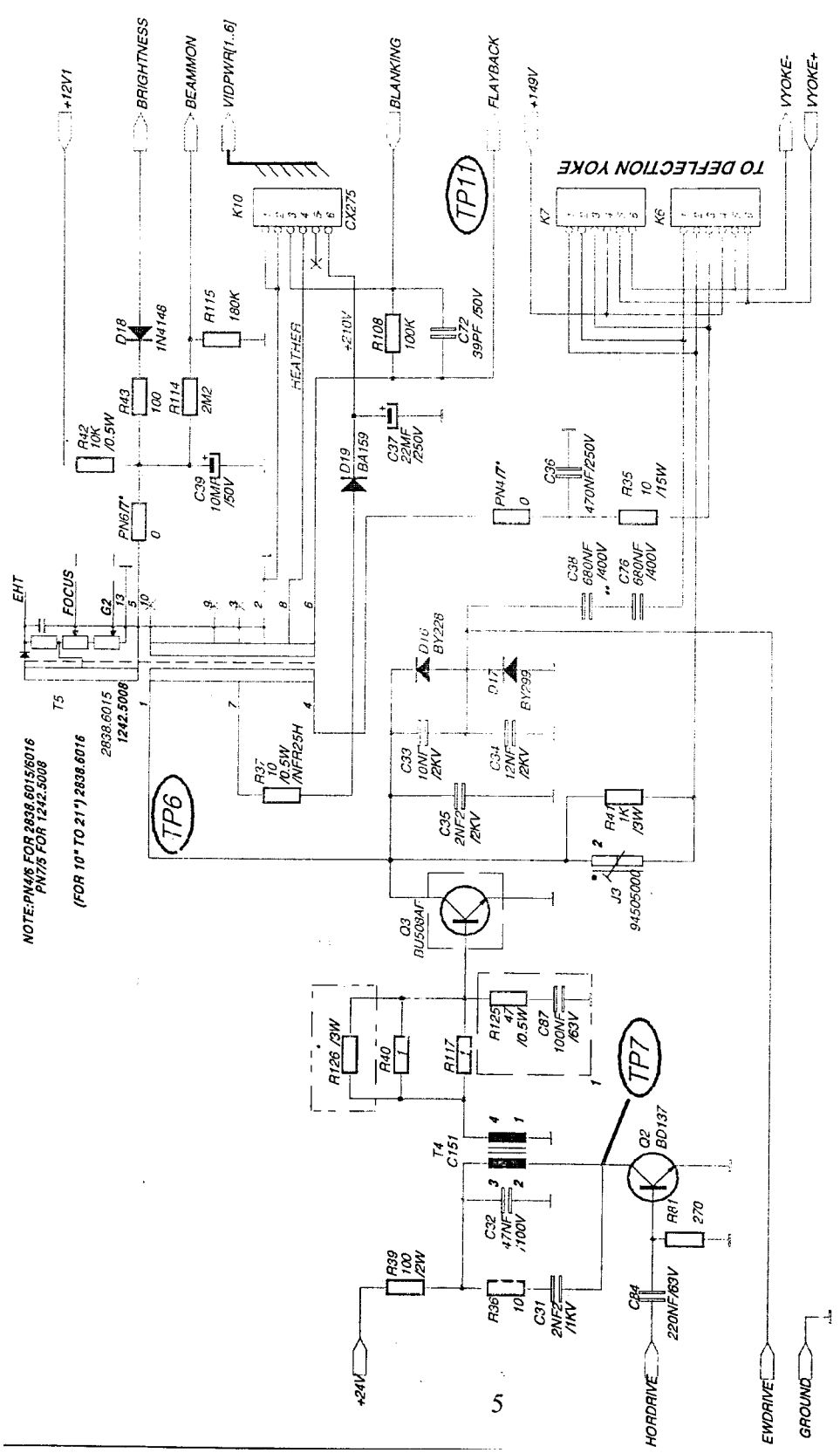

Fig. 2 – Monitor Standard (15 kHz)
Deflessione orizzontale

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Standard (15kHz)

Horizontal Deflexion (Fig.2)

Defect:

- **No high tension, check that the power supply to the following diodes D12 = 149 Vcc; D13 = 24 Vcc; D14 = 12 Vcc is correct (Fig.1); in the opposite case, please check the following:**
    1. Transistor Q3 = BU508 AFI.
    2. Transformer T5 = EHT.
    3. Dry the joints in the EHT area, on the Integrated Circuit IC5 = TDA 2595 (TDA 2593).
    4. Integrated Circuit IC2 = LM7812-L2012CV-UA7812.
    5. Resistor R18 = 100 Ω 2 W.

Synchronism (Fig.3)

Defect:

- **Synchronism does not work, check:**
    1. Switch 1 (if badly positioned o defective).
    2. Adjustments board (broken trimmers or defective contacts).
    3.

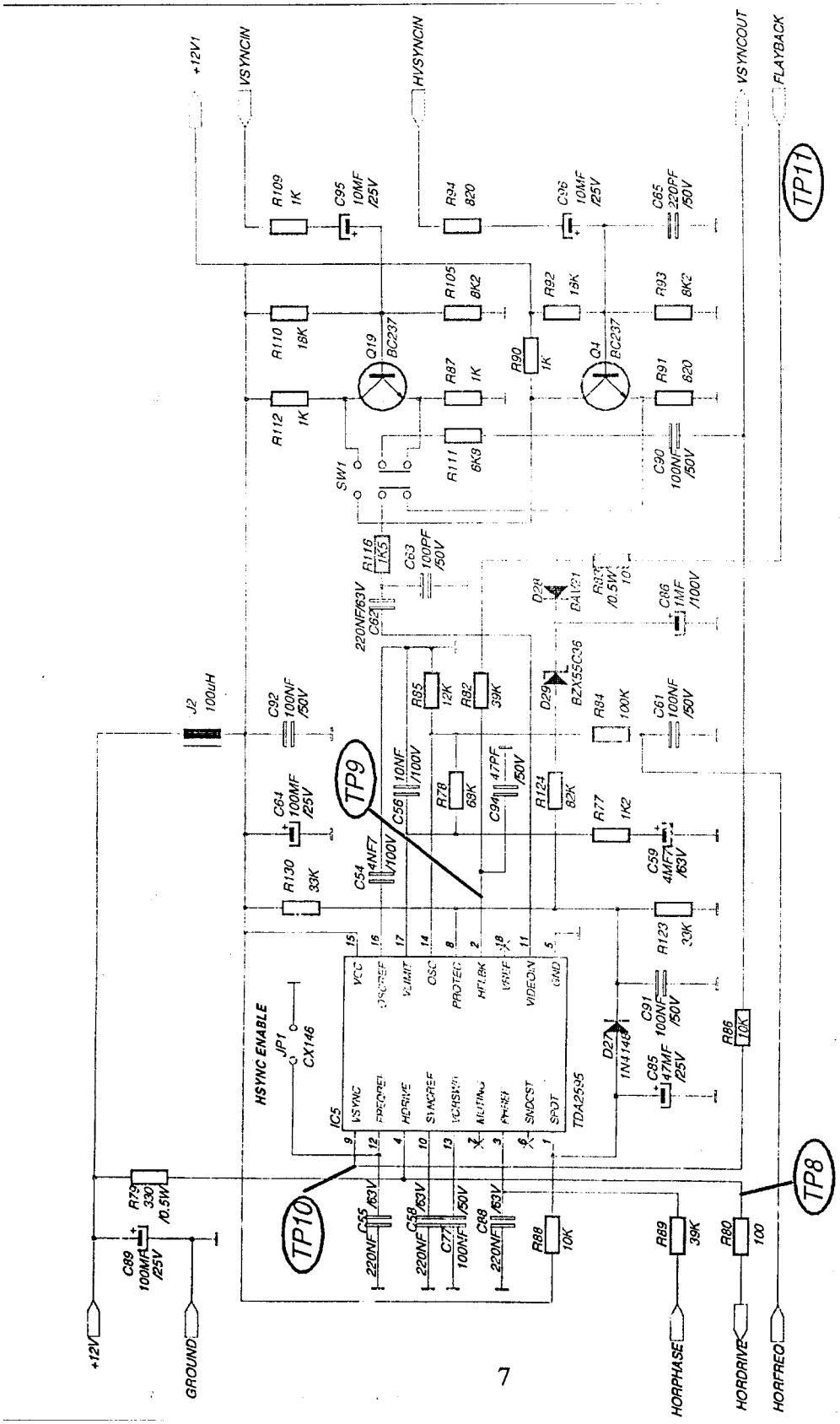

Fig. 3 – Monitor Standard (15 kHz)
Sincronismi

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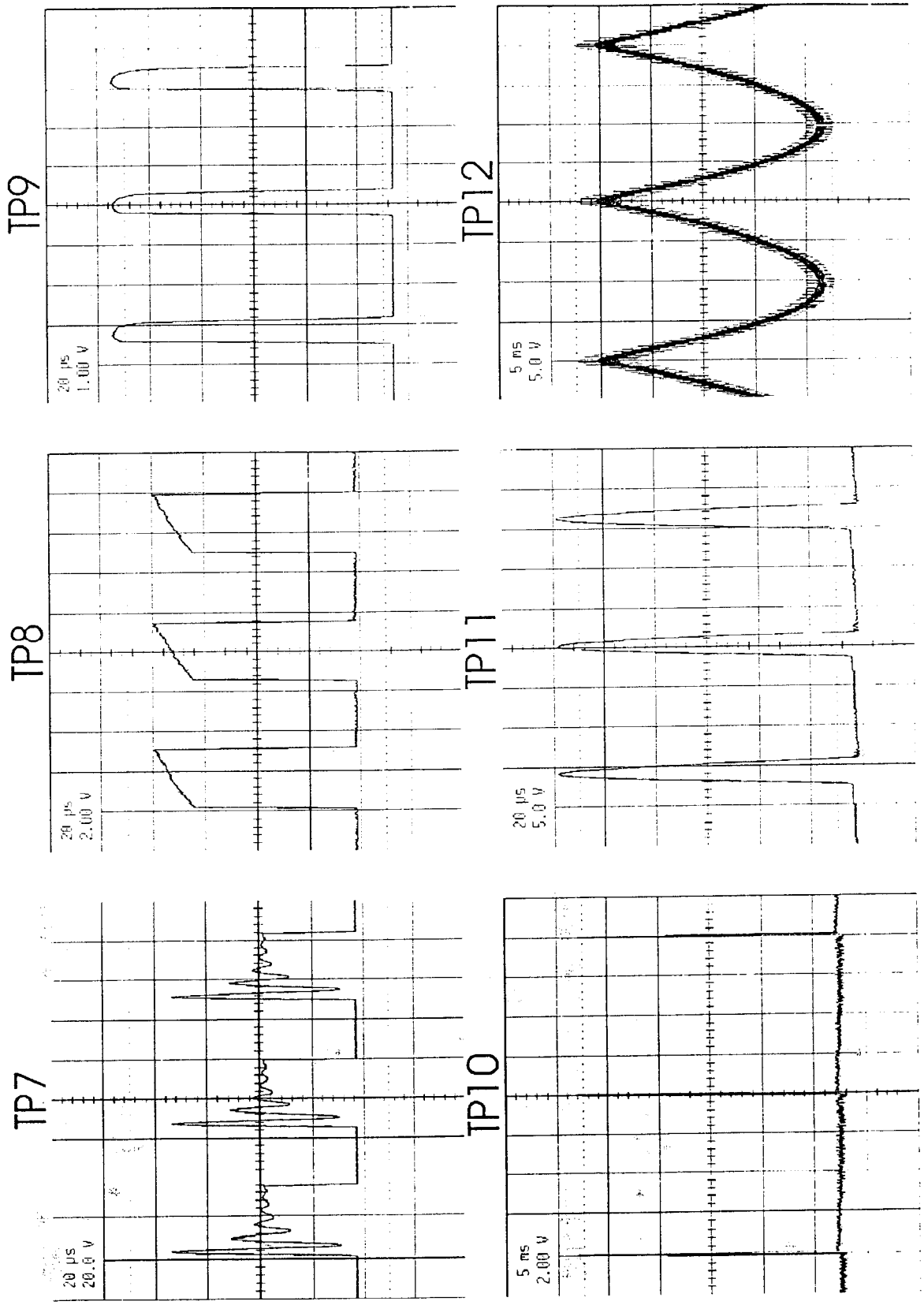
TP9
20 µs
1.00 V
TP12
5 ms
5.0 V
TP8
20 µs
2.00 V
TP11
20 µs
5.0 V
TP7
20 µs
20.0 V
TP10
5 ms
2.00 V

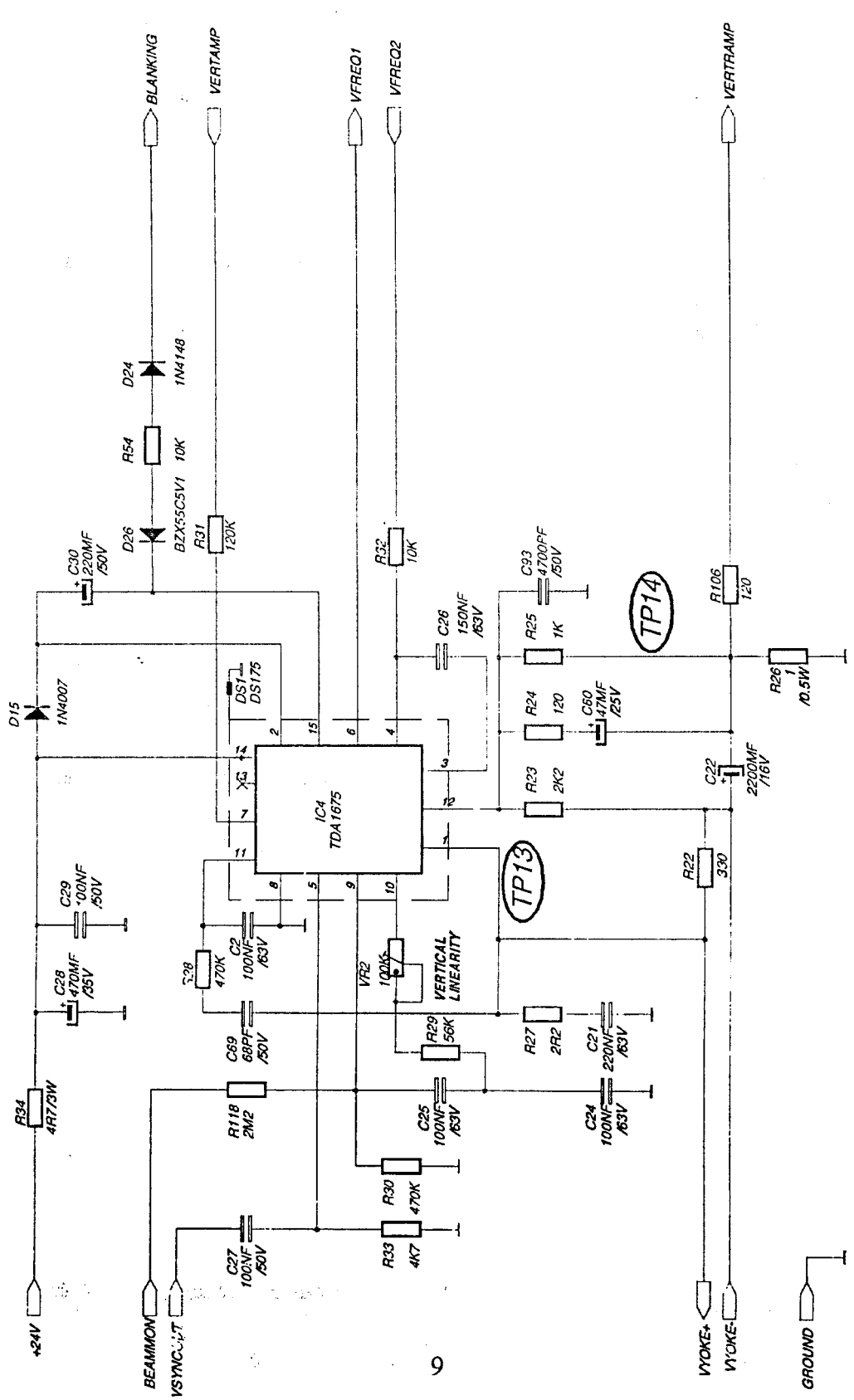

Fig. 4 – Monitor Standard (15 kHz)
Deflessione Verticale

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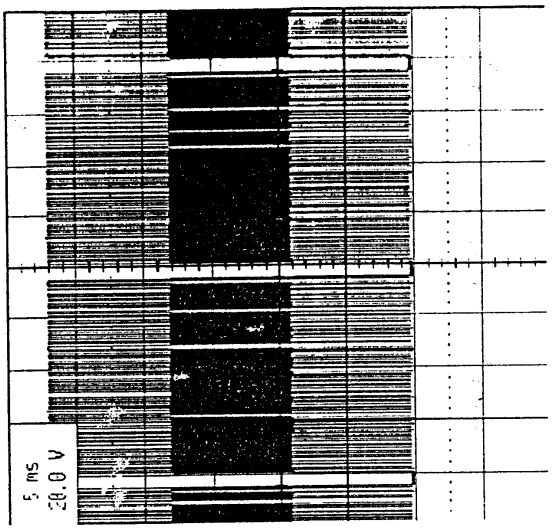
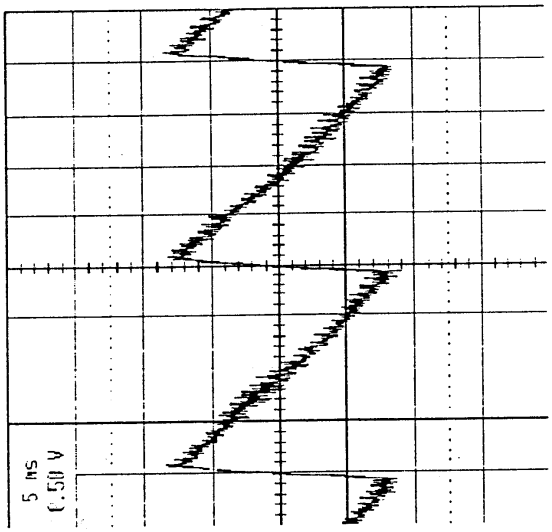
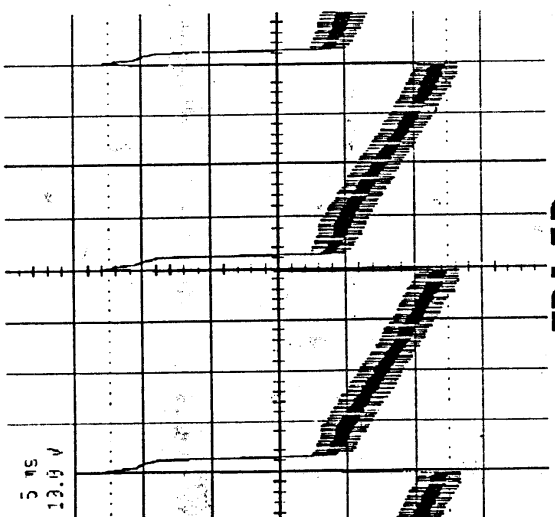
TP15A



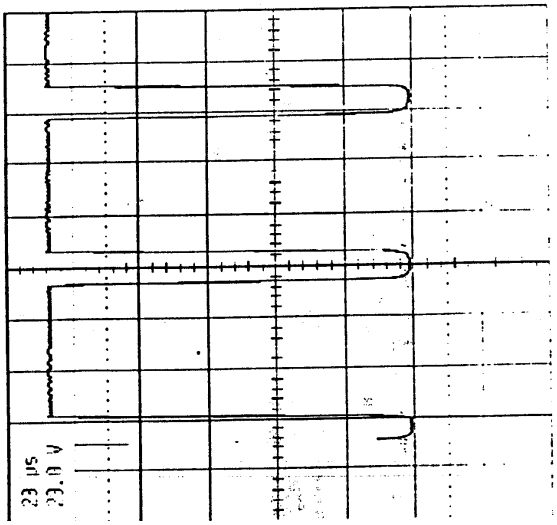
TP14



TP13



TP15B



Standard (15kHz)

Vertical Deflexion (Fig.4)

Defect:

- **Horizontal white line, check:**
  1. Resistor R34 = 4,7 Ω 2 W
  2. Integrated Circuit IC4 = TDA 1675.
  3. Electrolytic capacitor C30=220 µF50 V
  4. Adjustments Board.

EAST-WEST (pincushion – keystone)

Defect:

- **It is not possible to adjust the horizontal amplitude, or the lateral lines, check:**
  1. Diode D17 = BY299. (Fig.2)
  2. Transistor Q16 = BC237; Q17 = BC307; Q18 = BDX53C (Fig.5).
  3. Insulator Q18 (Fig.5)
  4. Coil J4 (Fig.5)

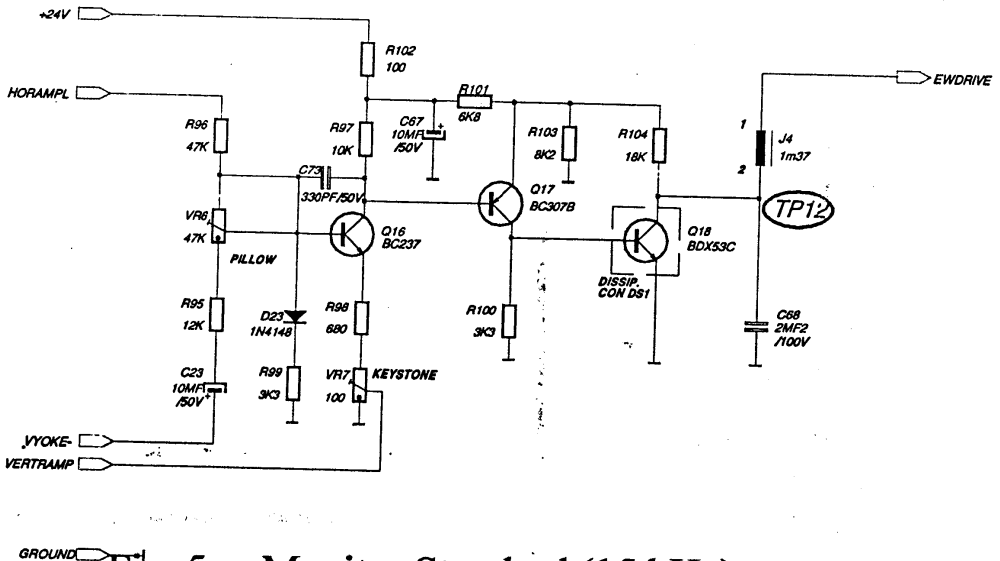


Fig. 5 – Monitor Standard (15 kHz)
EST – OVEST

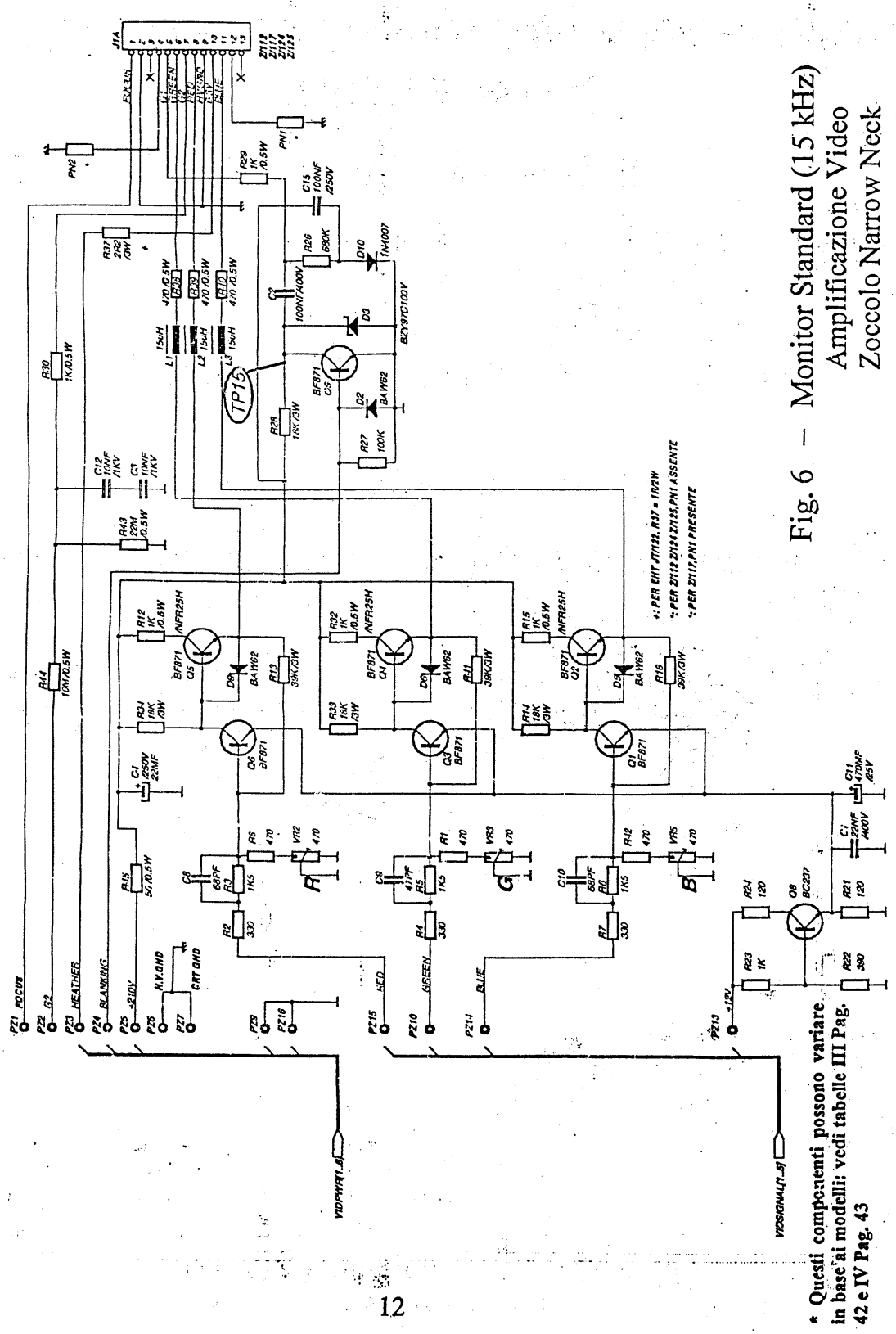


Fig. 6 – Monitor Standard (15 kHz)
Amplificazione Video
Zoccolo Narrow Neck

*** Questi componenti possono variare in base ai modelli: vedi tabelle III Pag. 42 e IV Pag. 43**

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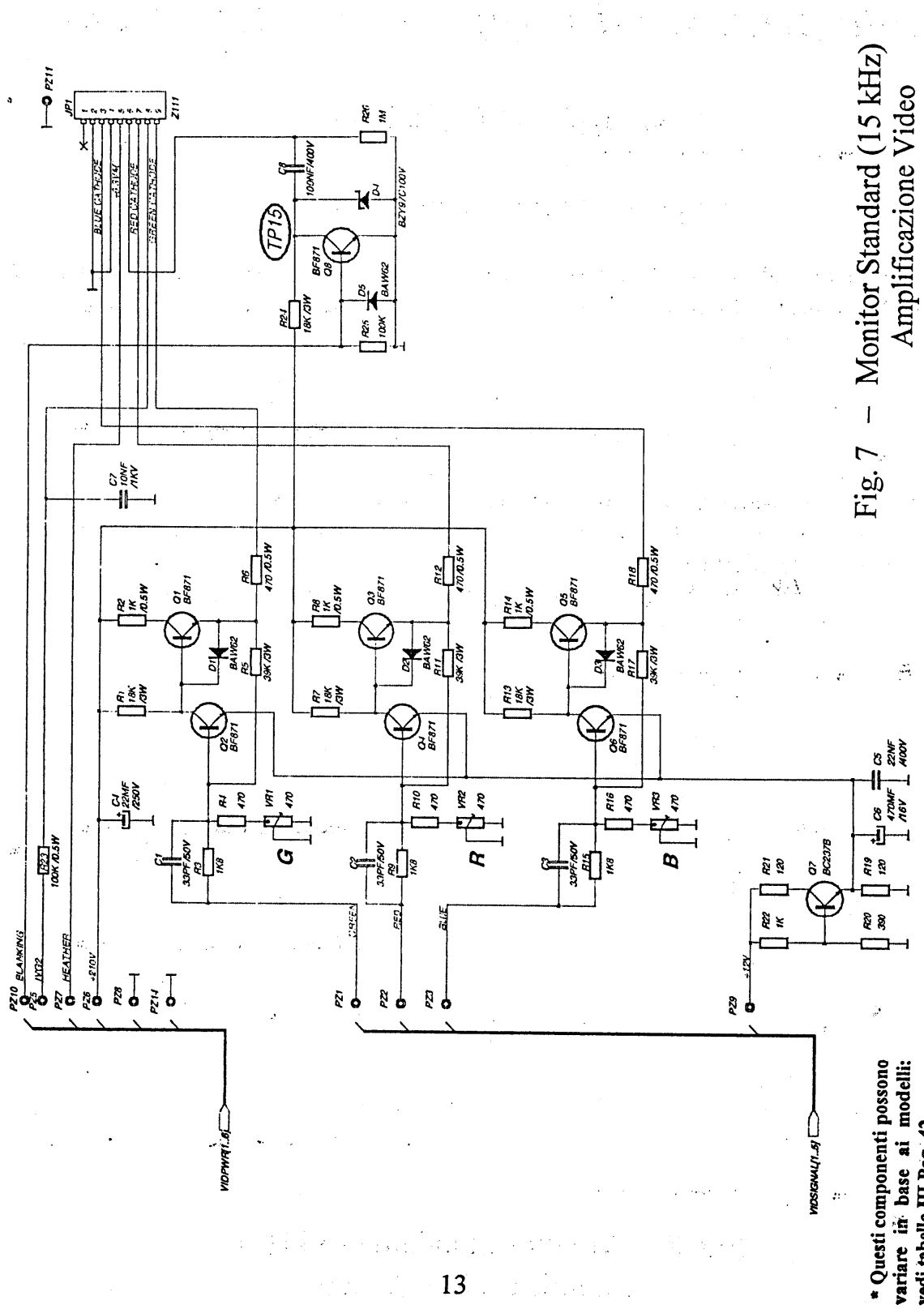

Fig. 7 – Monitor Standard (15 kHz)
Amplificazione Video
Zoccolo Mini Neck

*** Questi componenti possono variare in base ai modelli: vedi tabella III Pag. 42**

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S*tandard* (15kHz)

Video Amplification (Fig.6-7)

Defect:

- **One colour missing; predominance of one colour; or "tailing", check on the little CRT board:**
  1. Transistor Q1- Q2 – Q3 – Q4 – Q5 – Q6 = BF871.
  2. Resistors R14 – R33 – R34 = 18 kΩ 2 W.
  3. Resistors R13 – R16 – R41 = 39 kΩ 2 W.

- **No vertical Blanking, check:**
  1. Transistor Q9 = BF871 (Narrow Neck board), Q8 = BF871 (Minineck board).
  2. Diode D3 = Zener BY97C 100V (Narrow Neck board), D4 = Zener BY97C 100V (Minineck board)

1.

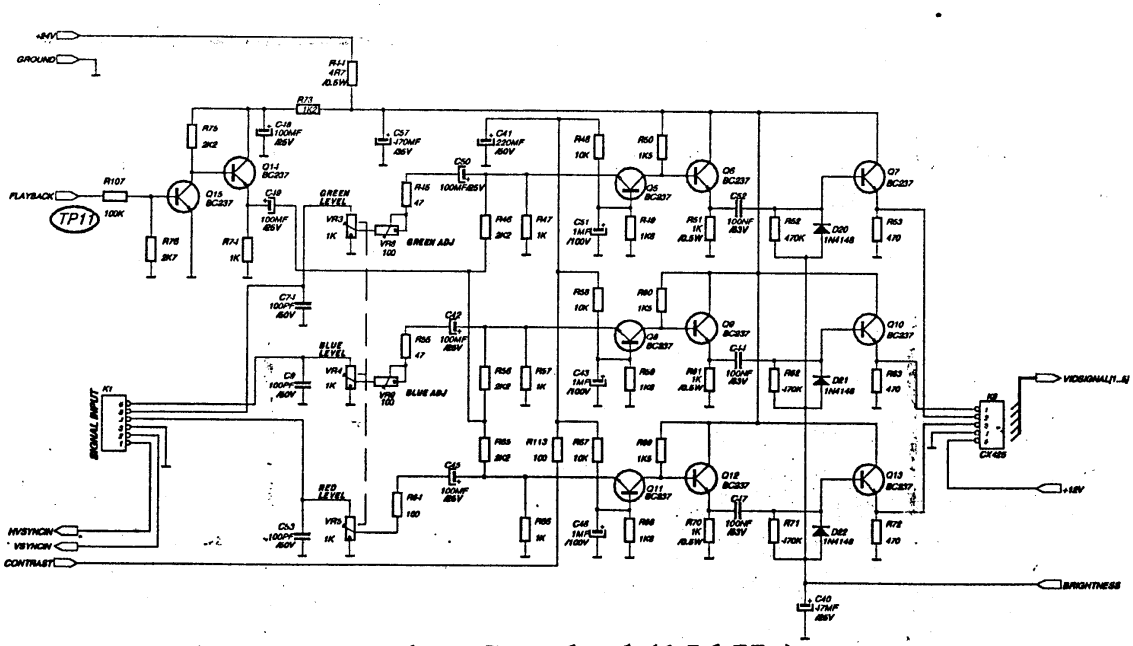

Fig. 8 – Monitor Standard (15 kHz)
Preamplificazione Video

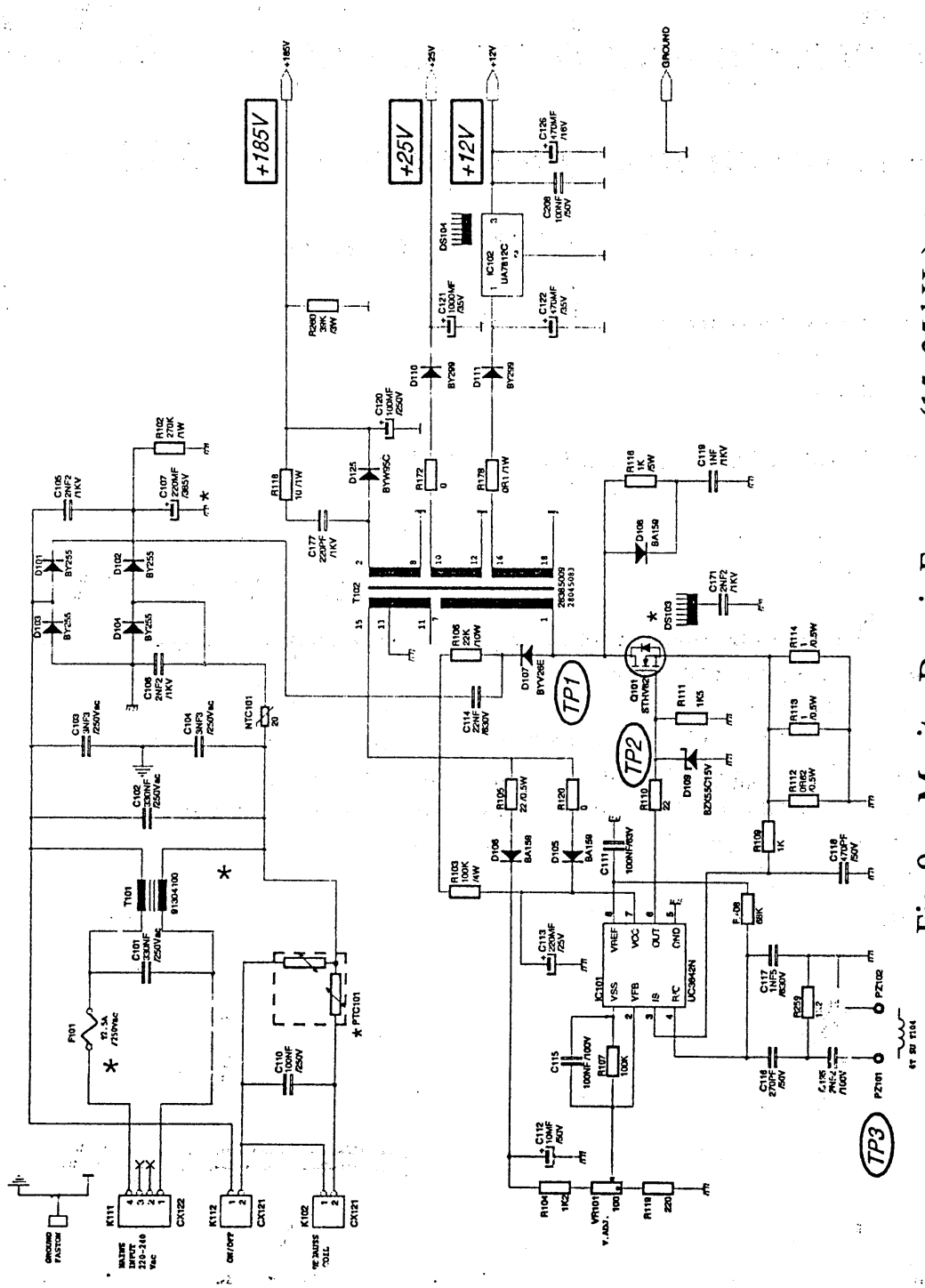

Fig. 9 – Monitor Doppia Frequenza (15- 25 kHz)
Alimentazione

*. Questi componenti possono variare in base ai modelli: vedi tabella II Pag. 41

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Automatic Dual Frequency (15 – 25 kHz)

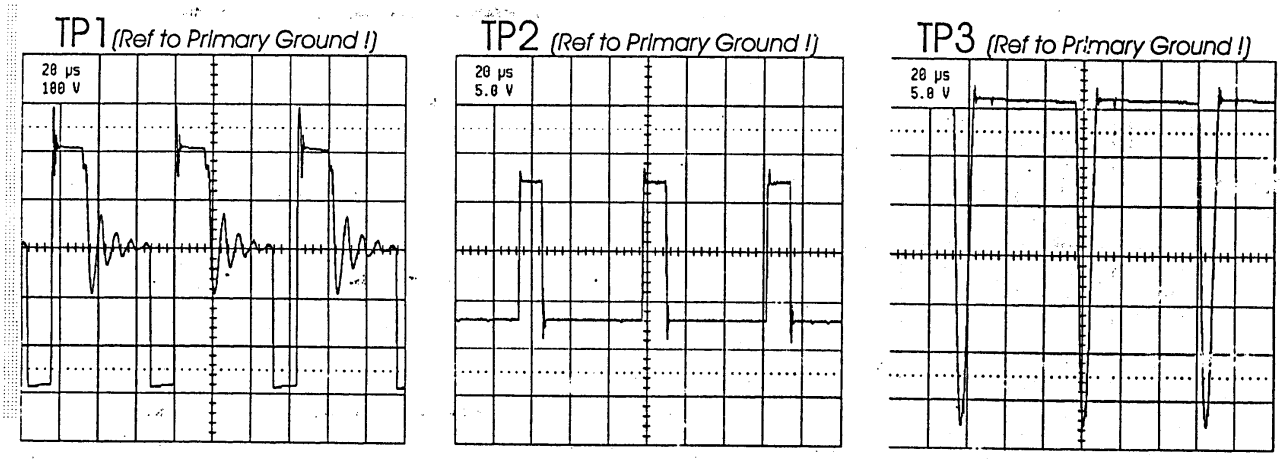
POWER SUPPLY (Fig. 9)

Defect:

- **No power, check :**
  1. Main filter T101.
  2. NTC1.

- **F101 open circuit, check :**
  1. Diode D101 – D102 – D103 – D104 = BY254.
  2. Electrolytic Capacitor C100 = 220 µF 400 V.
  3. PTC1.

- **No or low power, dry the joints in the switching area and check:**
  1. Integrated Circuit IC101 = UC3842.
  2. Transistor MOSFET Q101 = W7NA80.
  3. Diode D125 = BY299.
  4. Transistor MOSFET Q126 = IRF644.
  5. Diode D109 = Zener 15V ½ W.
  6. Resistor R112 = 0.82 Ω ½ W.
  7. Resistors R113 – R114 = 1 Ω ½ W.



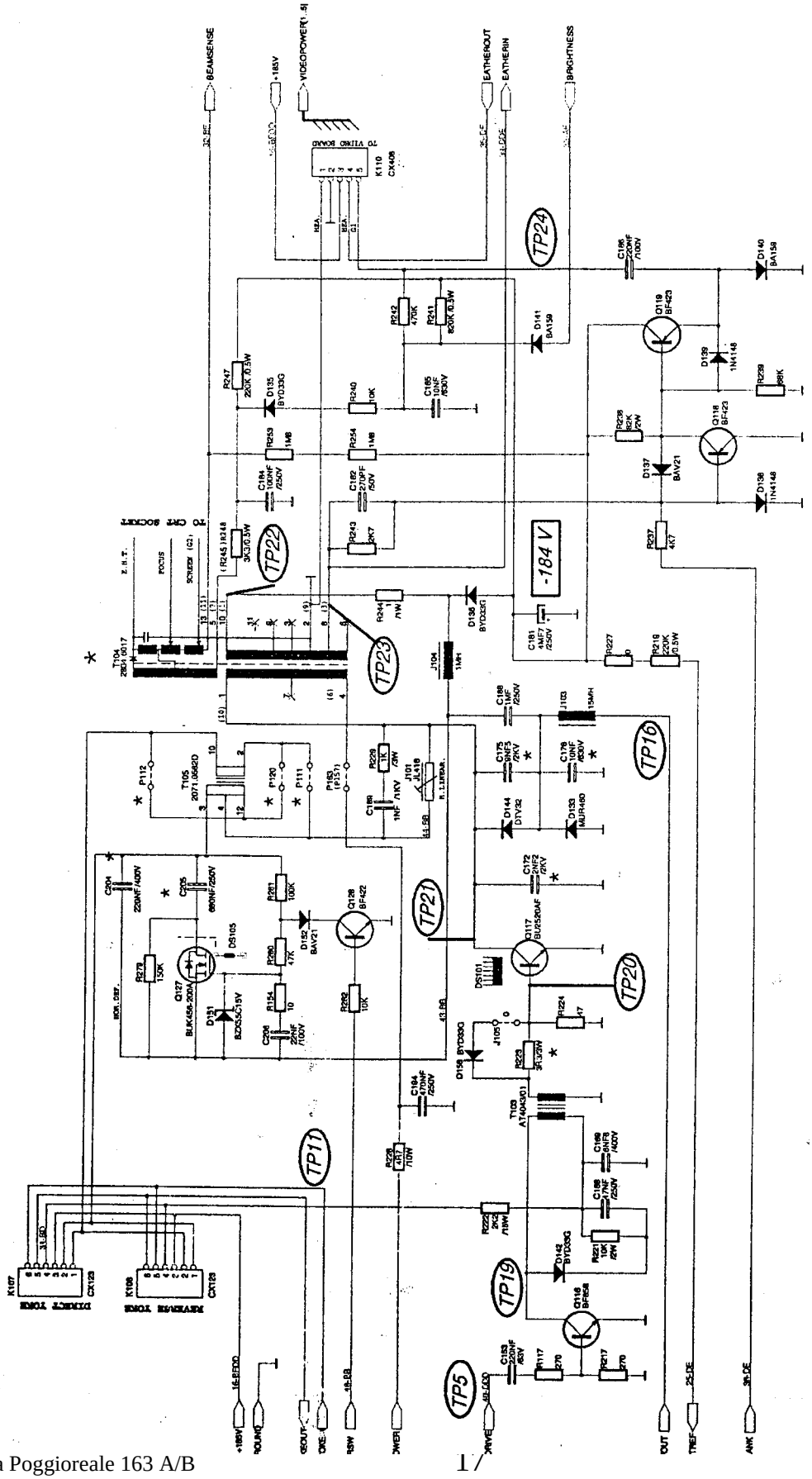


Fig. 10 – Monitor Doppia Frequenza (15 – 25 kHz)
Deflessione Orizzontale

Questi componenti possono variare in base ai modelli: vedi Tabella IV Pag.43

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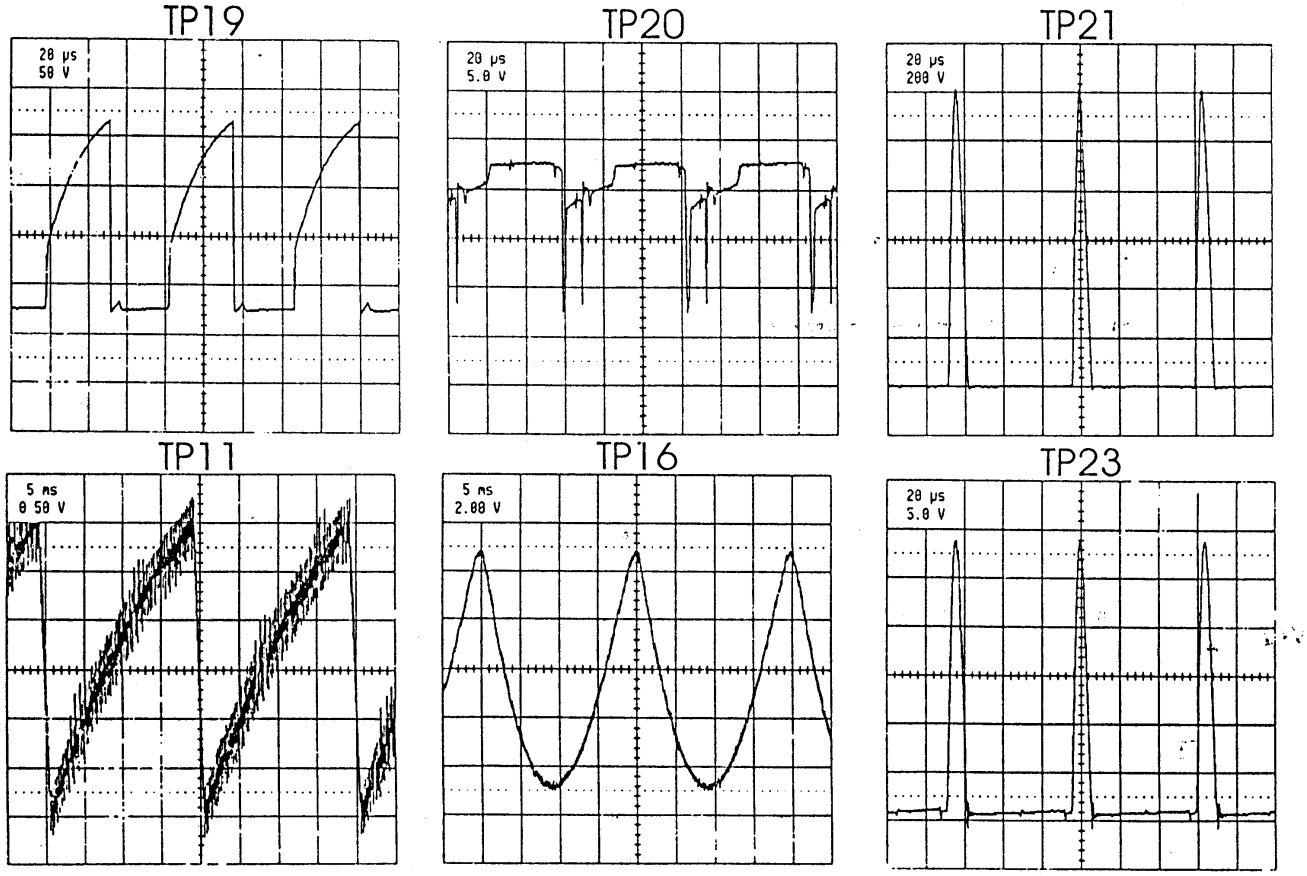
Automatic Dual Frequency (15 – 25 kHz)

Horizontal Deflexion

Defect:

- **No high tension, check:**
  1. Transistor Q117 = BU2520 (Fig.10).
  2. Transformer T104 = EHT (Fig.10).
  3. Integrated Circuit IC105 = TDA2595 (Fig.11).
  4. Resistor R222 = 2,2 kΩ 15 W (Fig.10).
  5. Transistor MOSFET DS105 = IRF 640 (Fig.10).

  Diode D144 = DTV32 (Fig.10).



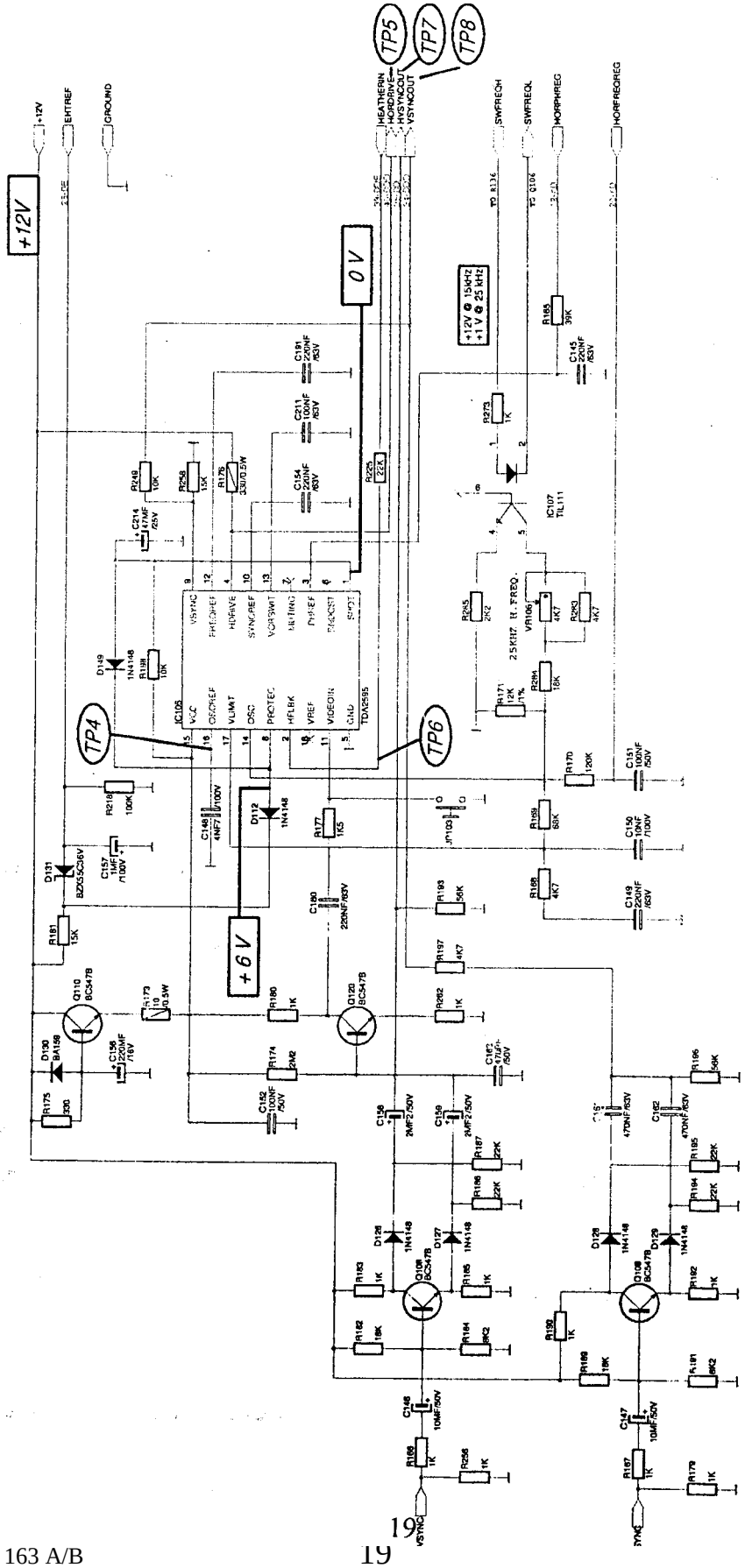


Fig. 11 – Monitor Doppia Frequenza (15- 25 kHz)
Oscillatore Orizzontale

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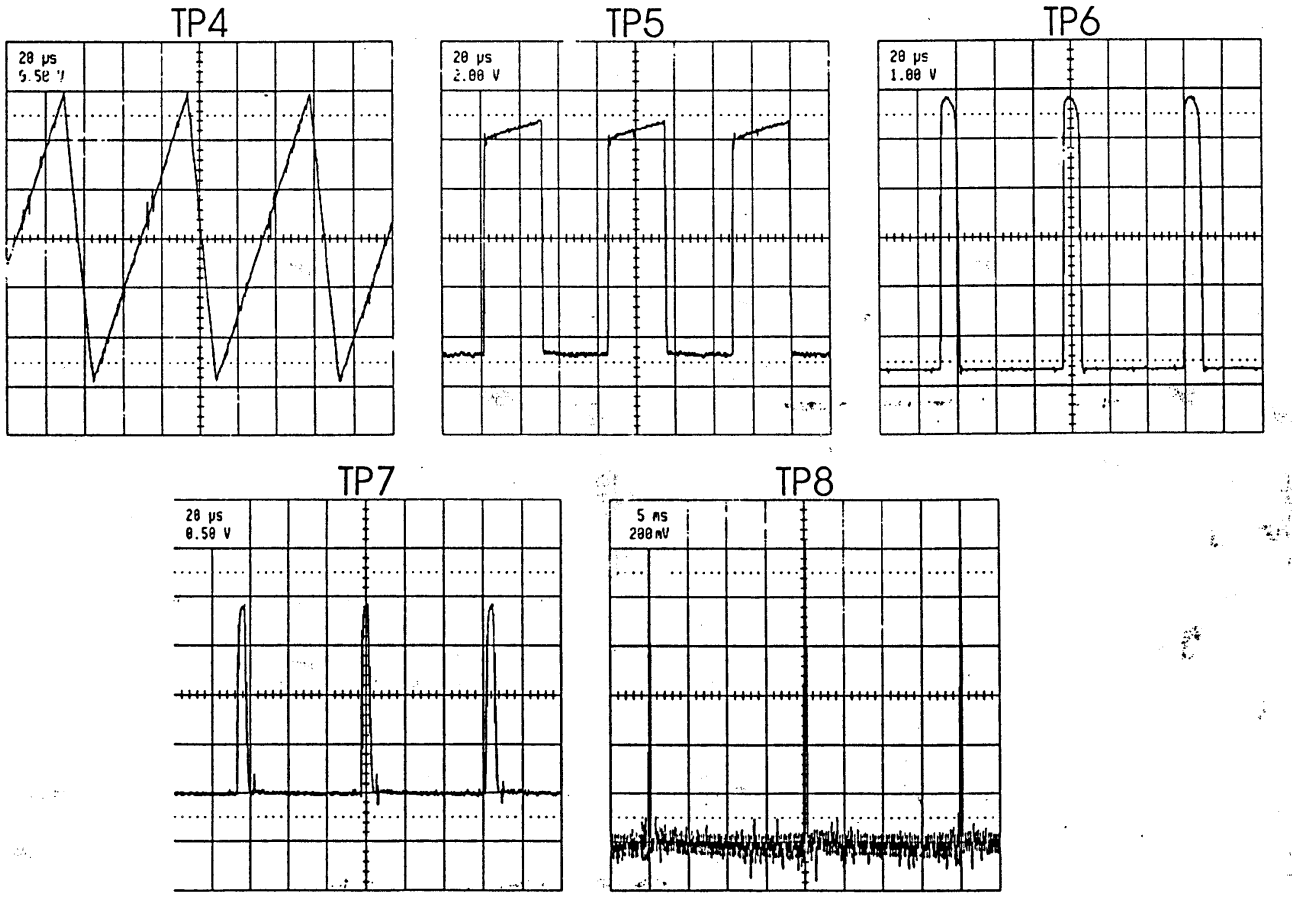
Automatic Dual Frequency (15 – 25 kHz)

Synchronism – horizontal oscillator

Defect:

- **Synchronism does not work, check:**
  1. Integrated Circuit IC105 = TDA2595. (Fig.11)
  2. Integrated Circuit IC106 = MC14538. (Fig.12)

- **One only frequency works (15 or 25 kHz) :**
  1. Integrated Circuit IC103 = HCF4049. (Fig.12)



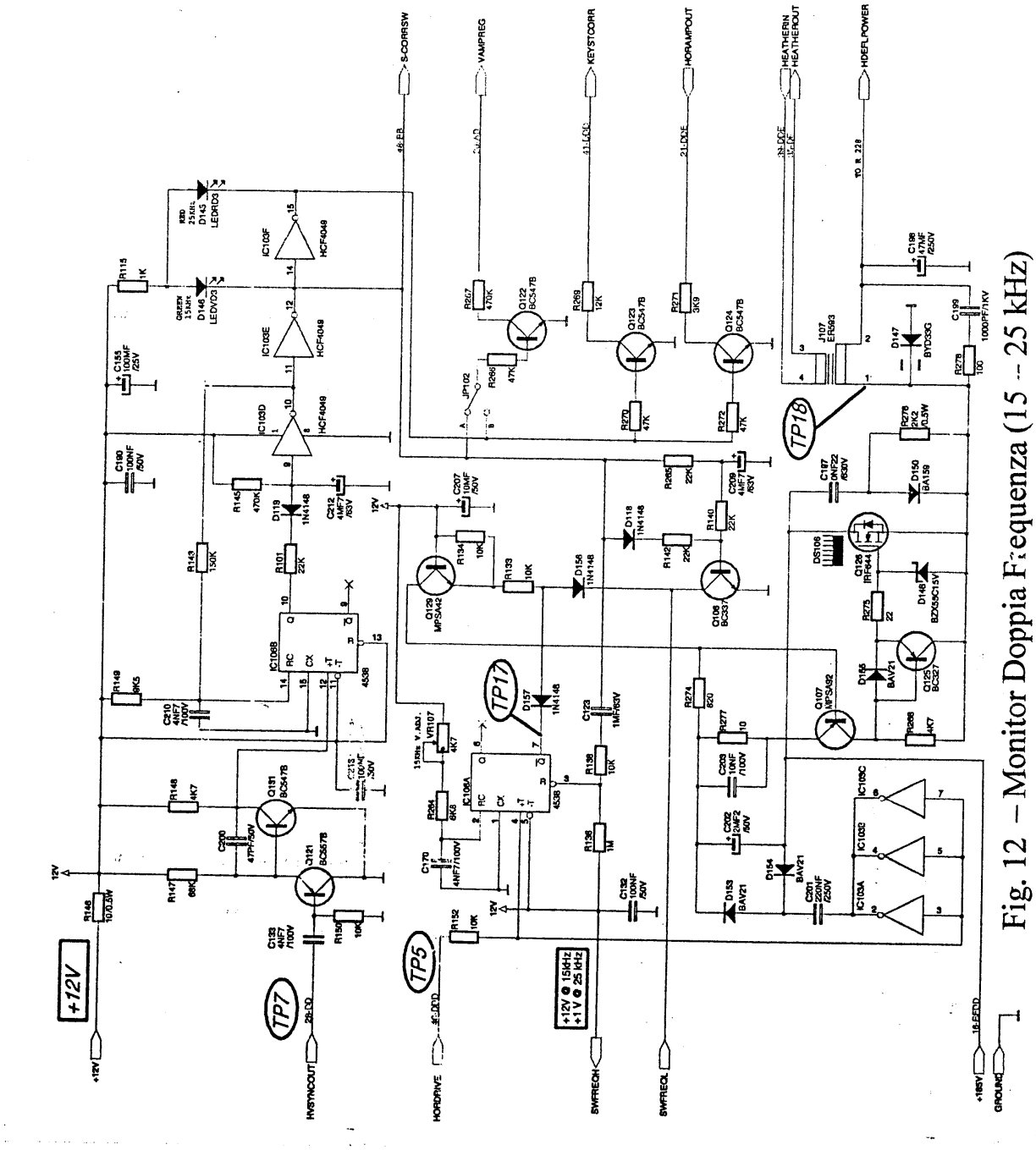
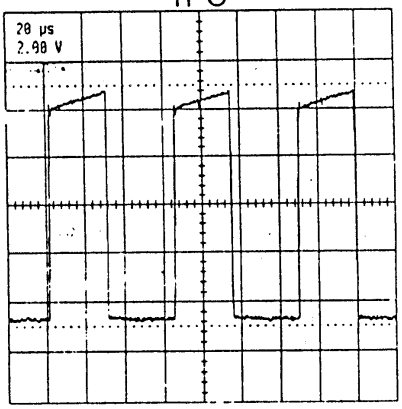


Fig. 12 – Monitor Doppia Frequenza (15 – 25 kHz)
Sincronismi

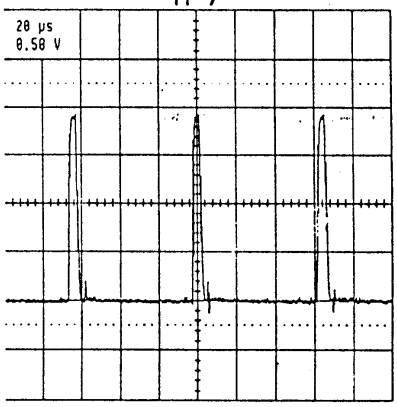
Automatic Dual Frequency (15 – 25 kHz)

Synchronism – horizontal oscillator

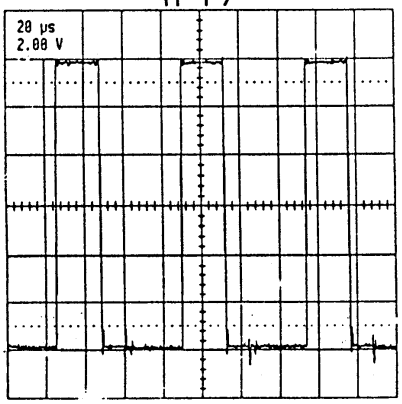
TP5



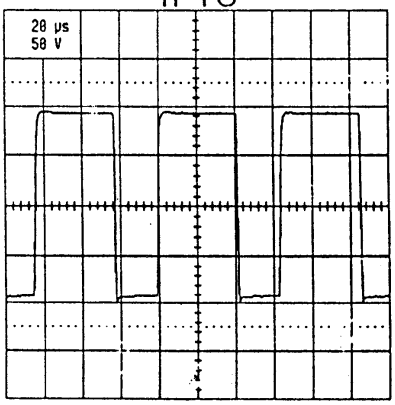
TP7



TP17



TP18



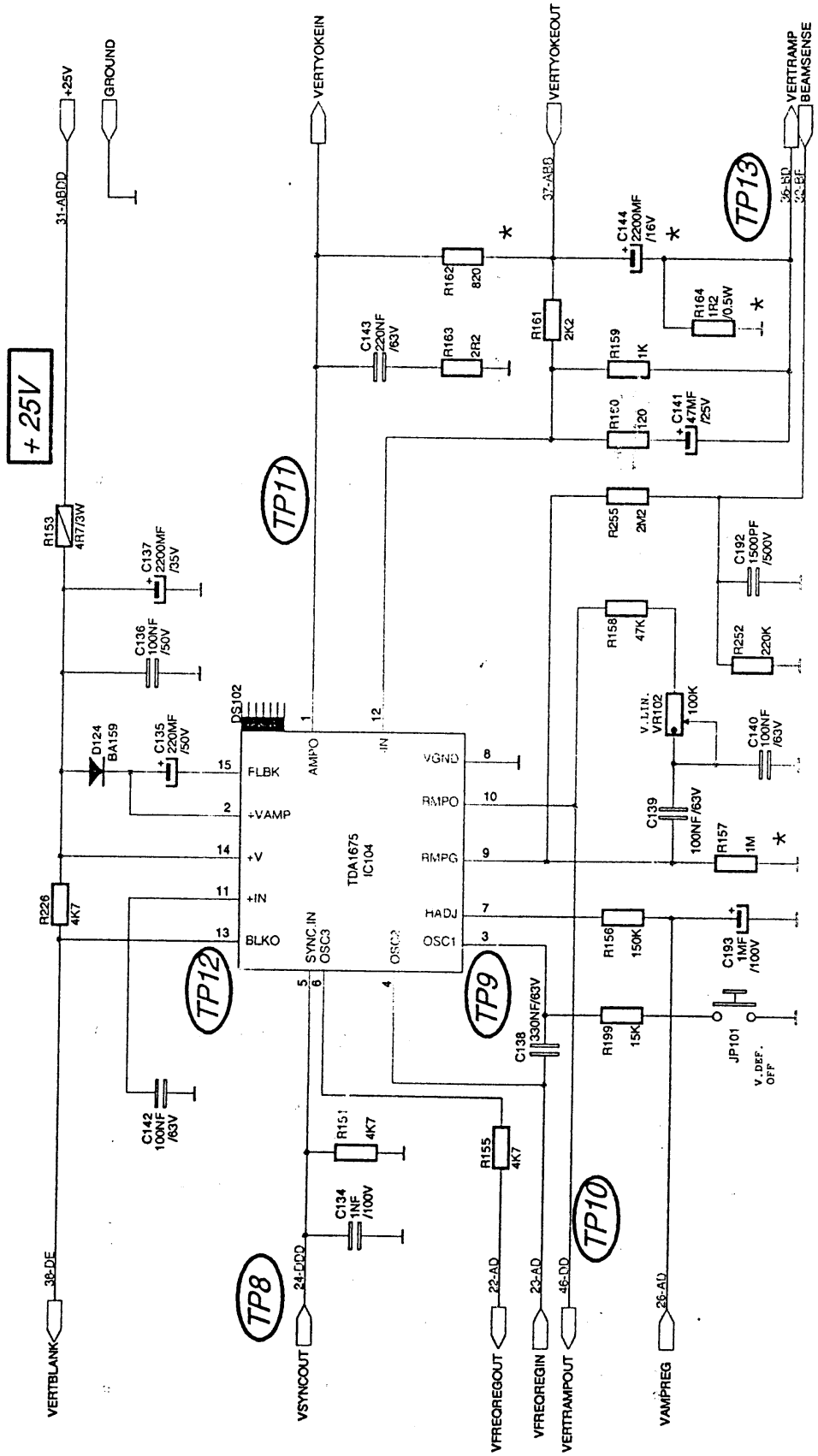


Fig. 13 – Monitor Doppia Frequenza (15- 25 kHz)
Deflessione Verticale

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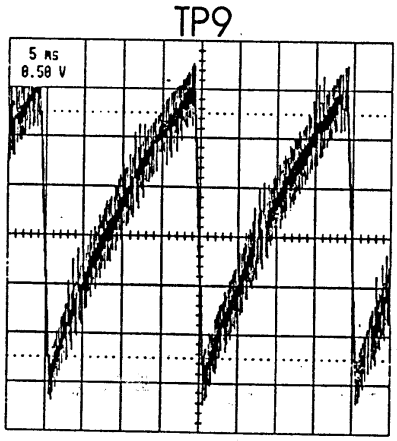
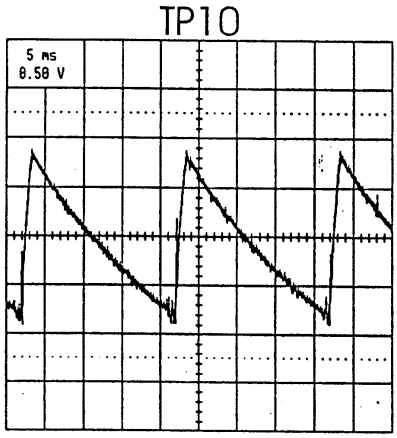
Automatic Dual Frequency (15 – 25 kHz)

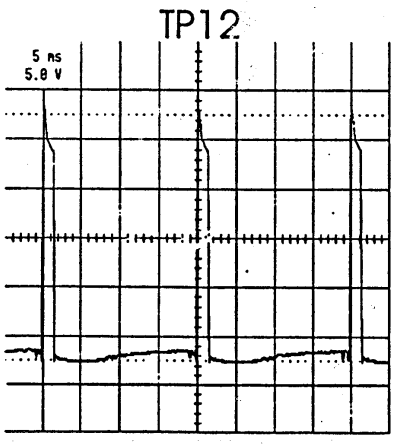
Vertical Deflexion (Fig. 13)

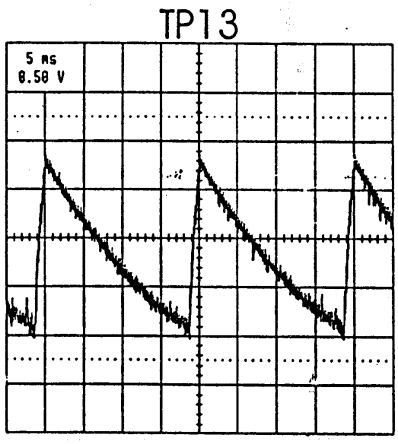
Defect:

- **Horizontal white line, it is recommended to check:**
  1. Resistor R153 = 4,7 Ω 3 W.
  2. Integrated Circuit IC104 = TDA1675.
  3. Adjustments Board K105, see fig.14.
  4. Diode D124 = BA159.









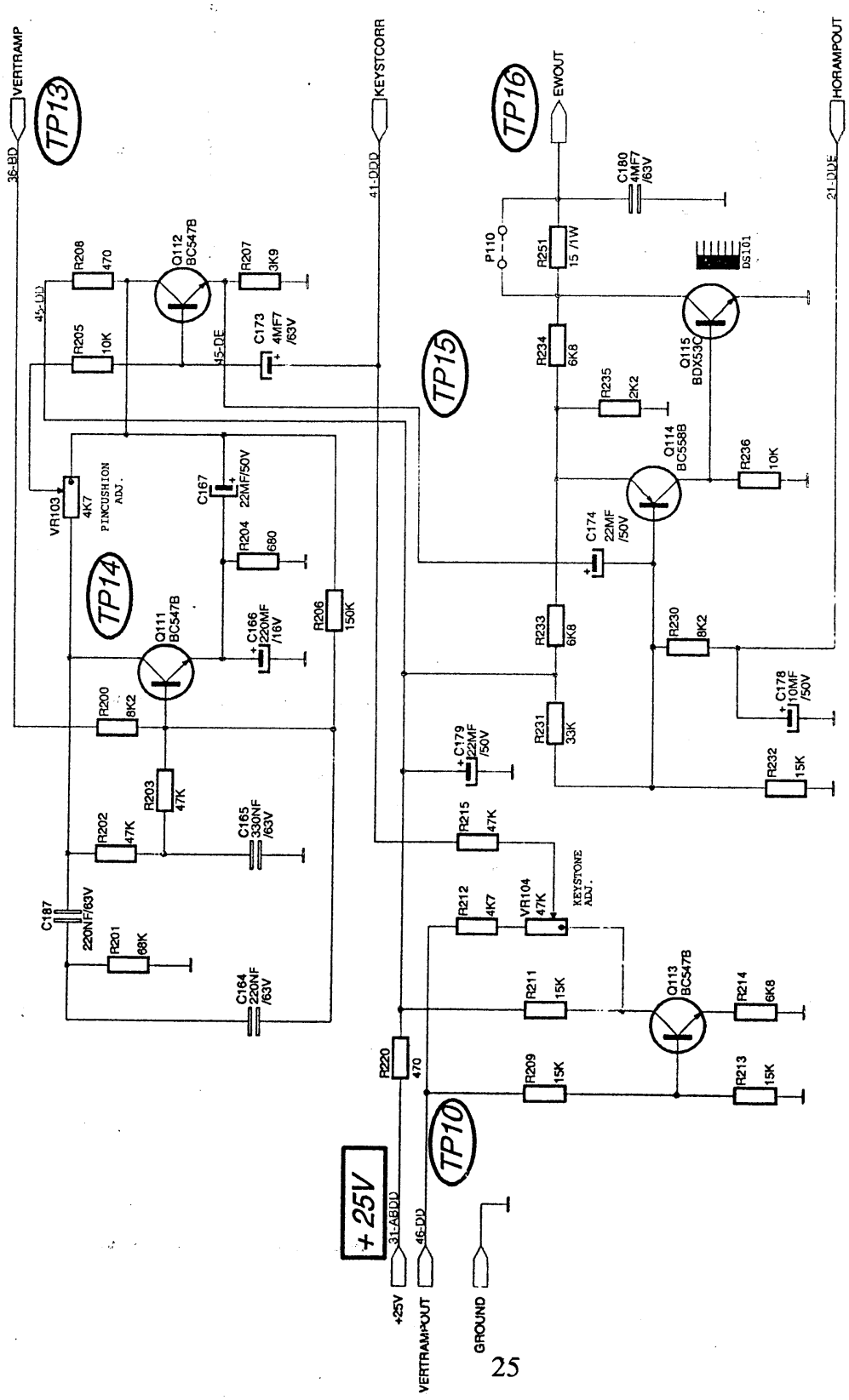


Fig. 14 – Monitor Doppia Frequenza (15- 25 kHz)
EST – OVEST

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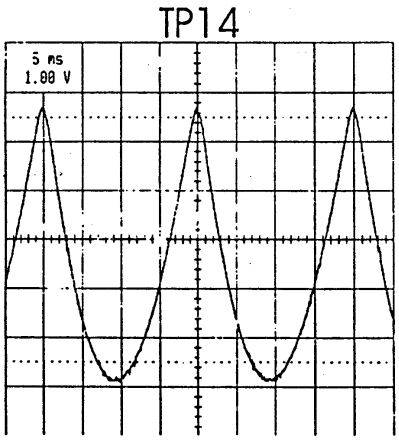
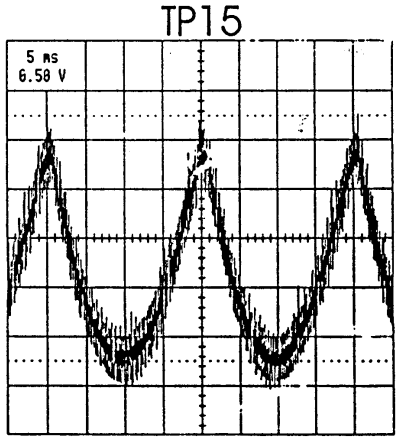
Automatic Dual Frequency (15 – 25 kHz)

EAST-WEST (pincushion – keystone)

Defect:

- **It is not possible to adjust the horizontal amplitude, or the lateral lines, check:**
  1. Diode D133 = MUR460 (Fig.10).
  2. Transistors Q111 – Q112 – Q113 = BC547B; Q114 = BC558B; Q115 = BDX53C (Fig.14).
  3. Resistor R251 = 15 Ω 1 W (Fig.14).
  4. Resistor R244 = 1 Ω 1 W (Fig.10).
  5. Insulator Q115 (Fig.10).





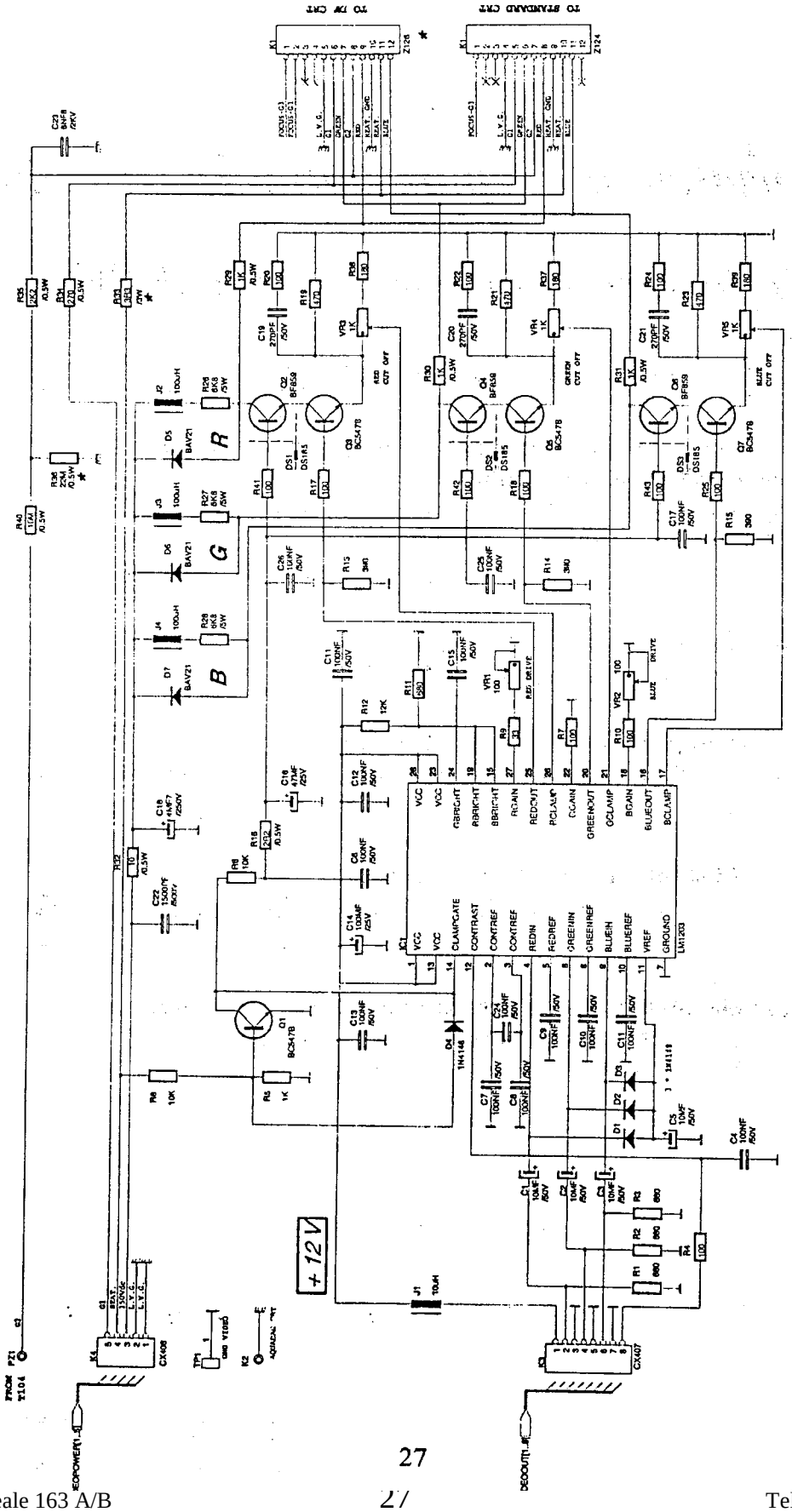


Fig. 15 – Monitor Doppia Frequenza (15- 25 kHz)
Amplificazione Video

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Automatic Dual Frequency (15 – 25 kHz)

Video Amplification (Fig.15)

Defect:

- **One colour missing; predominance of one colour; or "tailing", check on the little CRT board:**
  1. Transistors Q2– Q4– Q6 = BF859.
  2. Integrated Circuit IC1 = LM1203.
  3. Resistors R26 – R27 – R28 = 6,8 kΩ 5 W.

- **The screen is white, check:**
  1. Resistor R32 = 10 Ω ½ W.

- **The screen is too dark, check:**
  1. Resistor R36 = 22 MΩ ½ W (see version for Philips / Videocolor CRT – see pag.14).

- **The screen is discoloured, check:**
  1. Resistor R33 = 8,2 Ω 3 W or 3,3 Ω 3 W (see version for Philips / Videocolor CRT).

- **No vertical Blanking, check:**
  1. Transistor Q118 –Q119 = BF423 (Fig.10).
  4. Resistor R244 = 1Ω 1W (Fig.10).

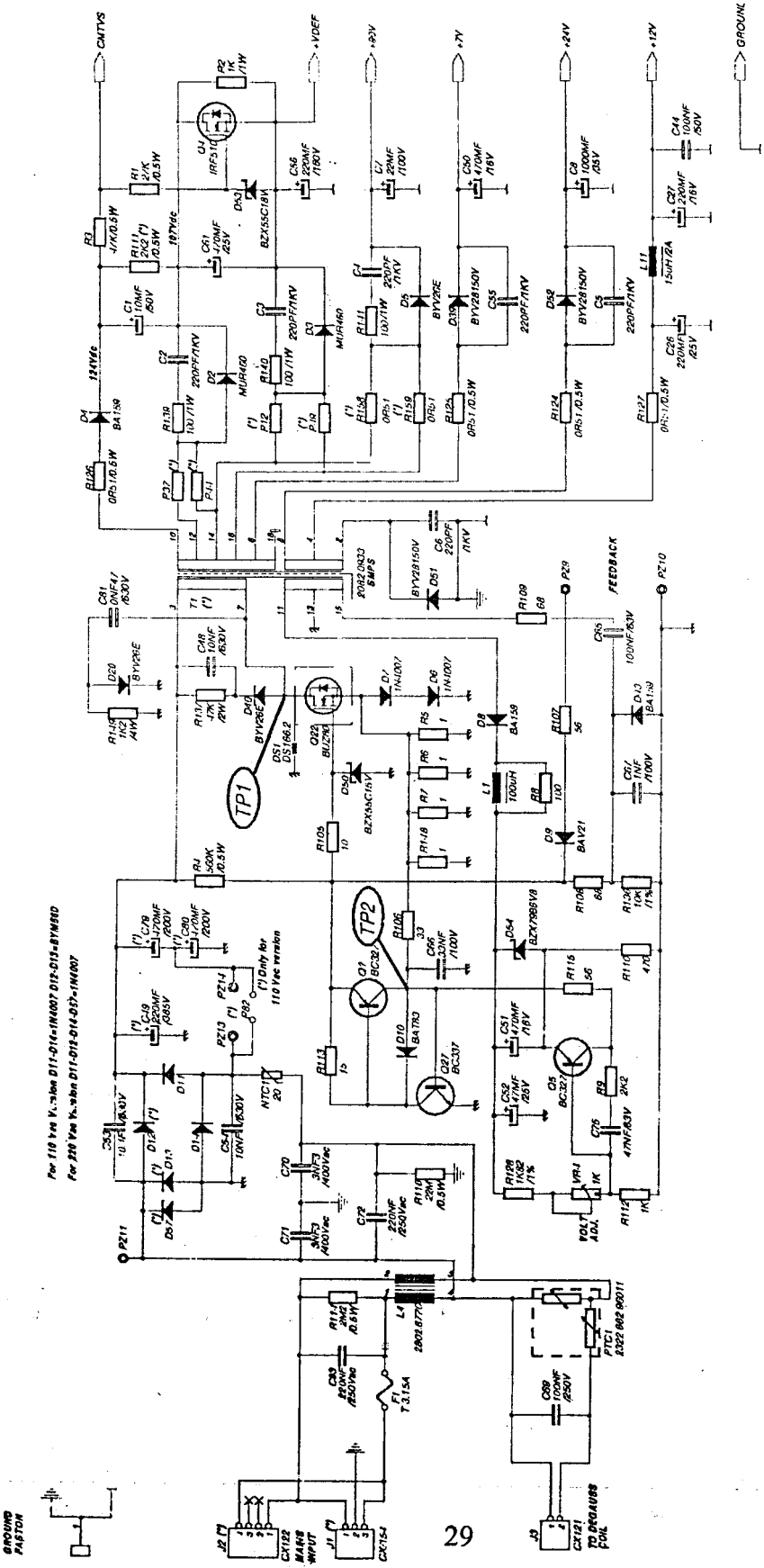

Fig. 16 – Monitor VGA/SVGA (32 – 38 kHz)
Alimentazione

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VGA/SVGA (32 – 38 kHz)

POWER SUPPLY (Fig.16)

Defect:

- **No power, check :**
  1. Main filter L4.
  2. NTC1.

- **F1 fuse open circuit, check :**
  1. Diodes D11 – D12 – D13 – D14 = 1N4007.
  2. Transistor MOSFET Q22 = BUZ80 (BUK455).

- **No or low HT, check:**
  1. Diodes D39 – D51 – D52 = BYV28.
  2. Diodes D2 – D3 = MUR460.
  3. Diode D5 = BYV26E.
  4. Resistors R124 – R125 – R126 – R158 = 0,51 Ω ½ W.

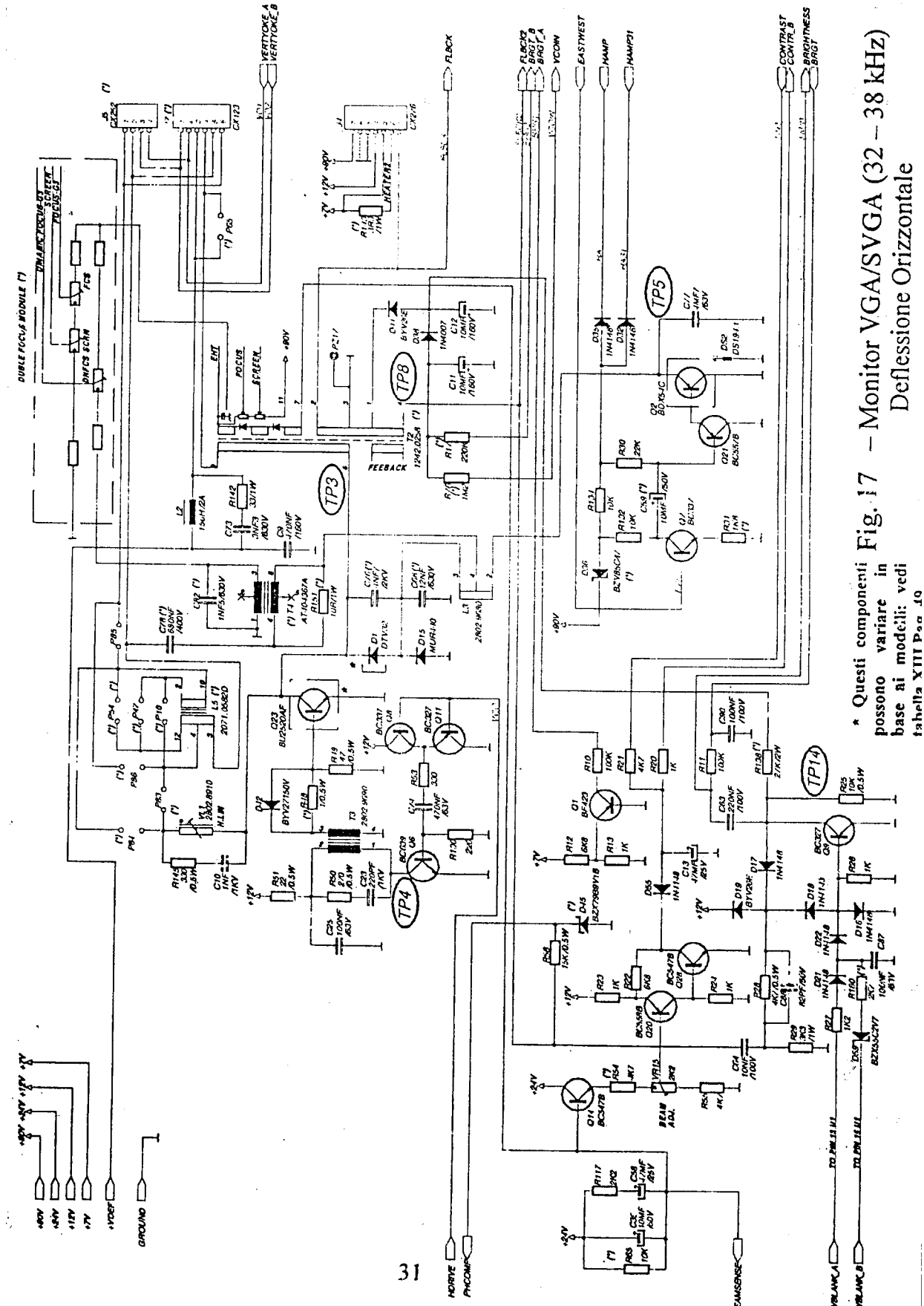

Fig. 17 – Monitor VGA/SVGA (32 – 38 kHz)
Deflessione Orizzontale

* Questi componenti possono variare in base ai modelli: vedi tabella XIII Pag. 40

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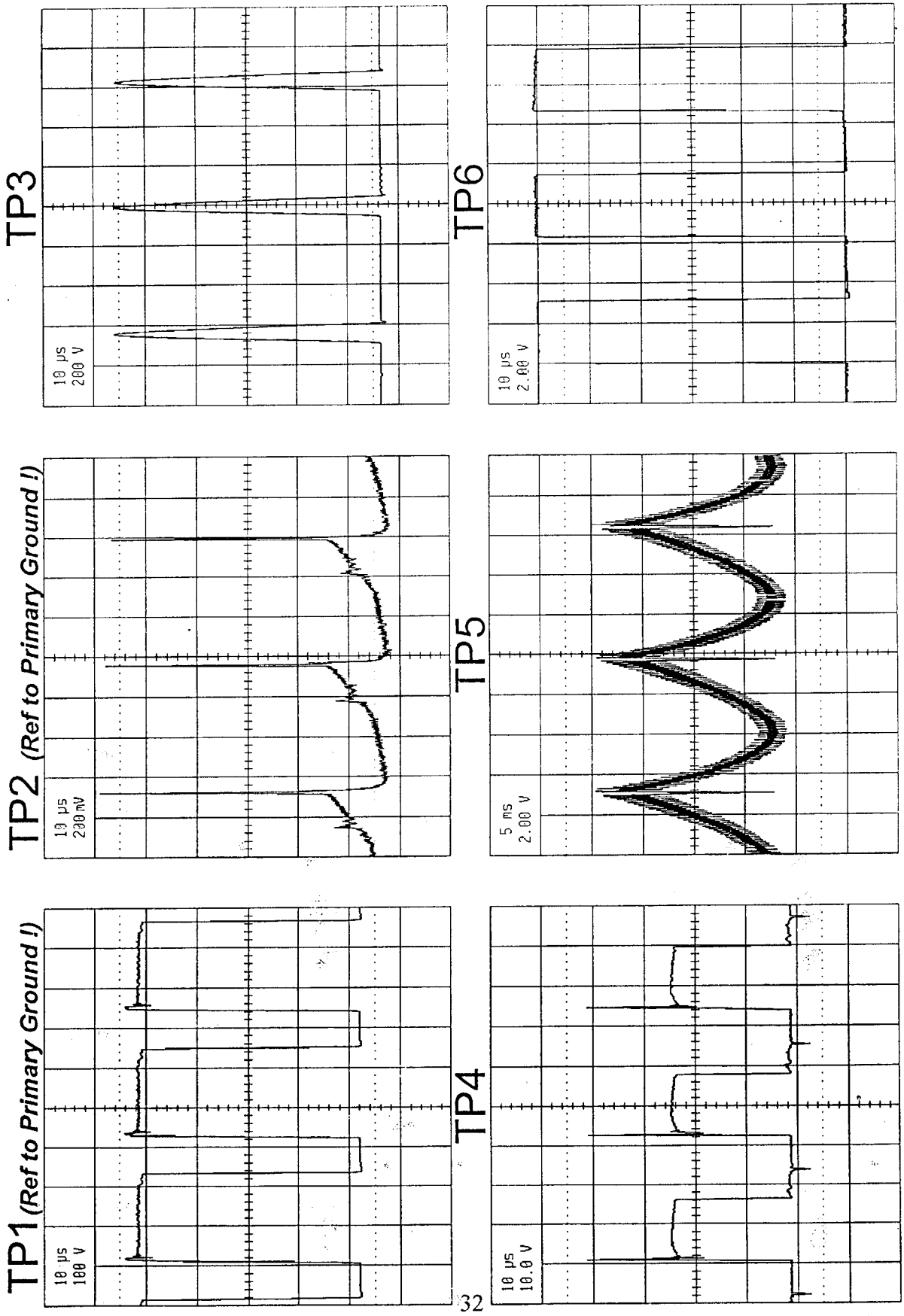

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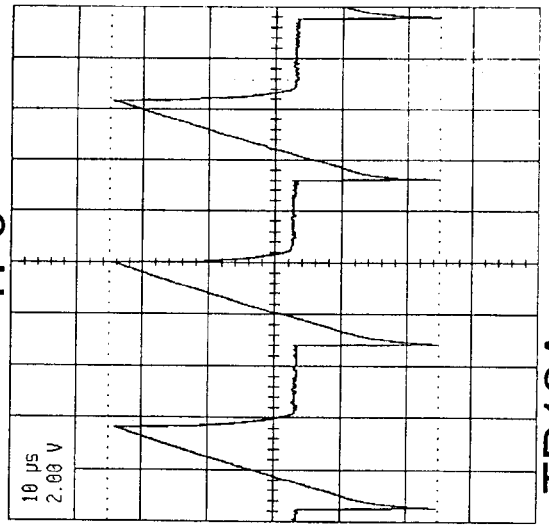
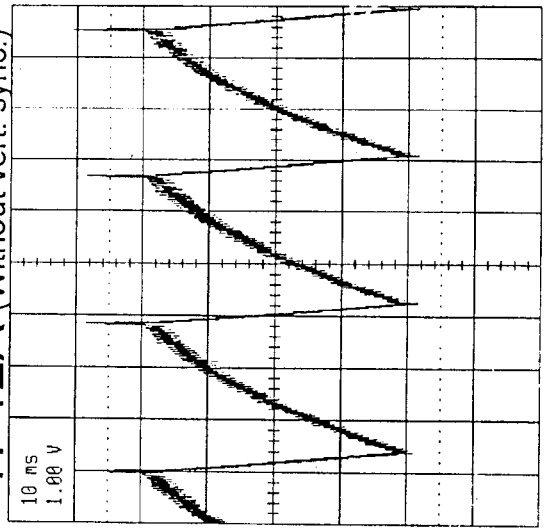
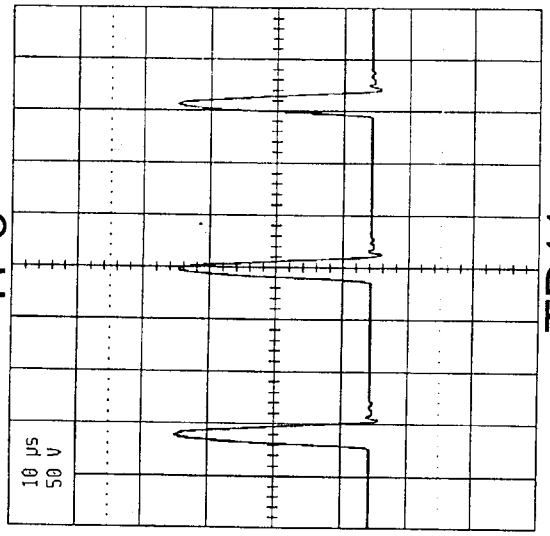
TP9



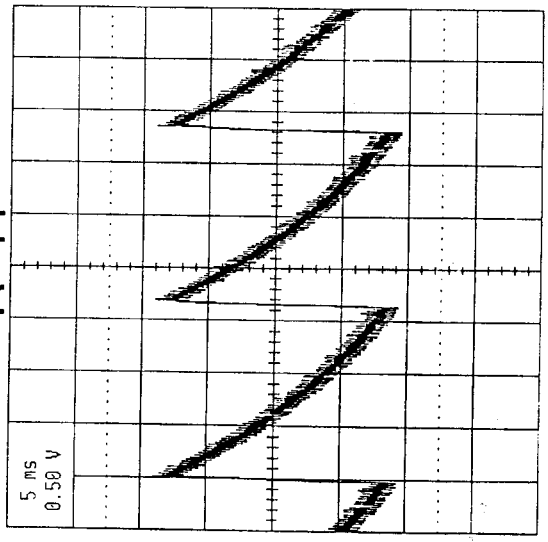
TP12A (Without vert. sync.)



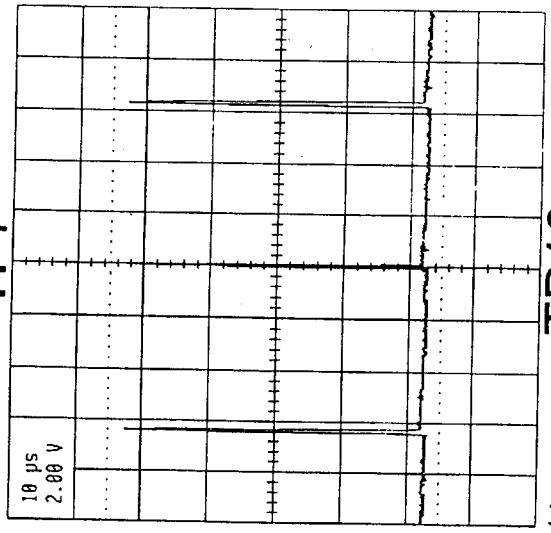
TP8



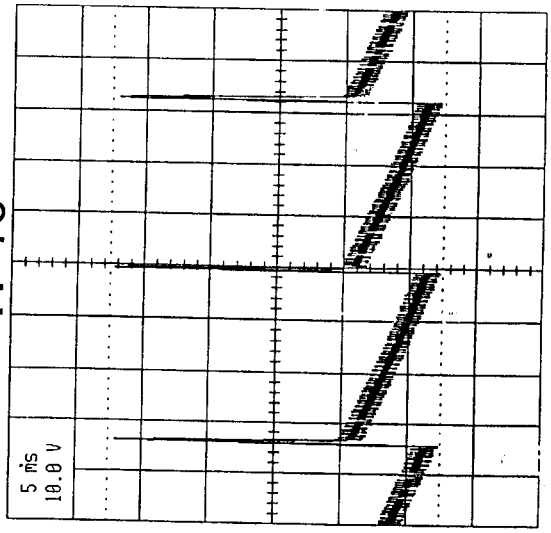
TP11



TP7



TP10



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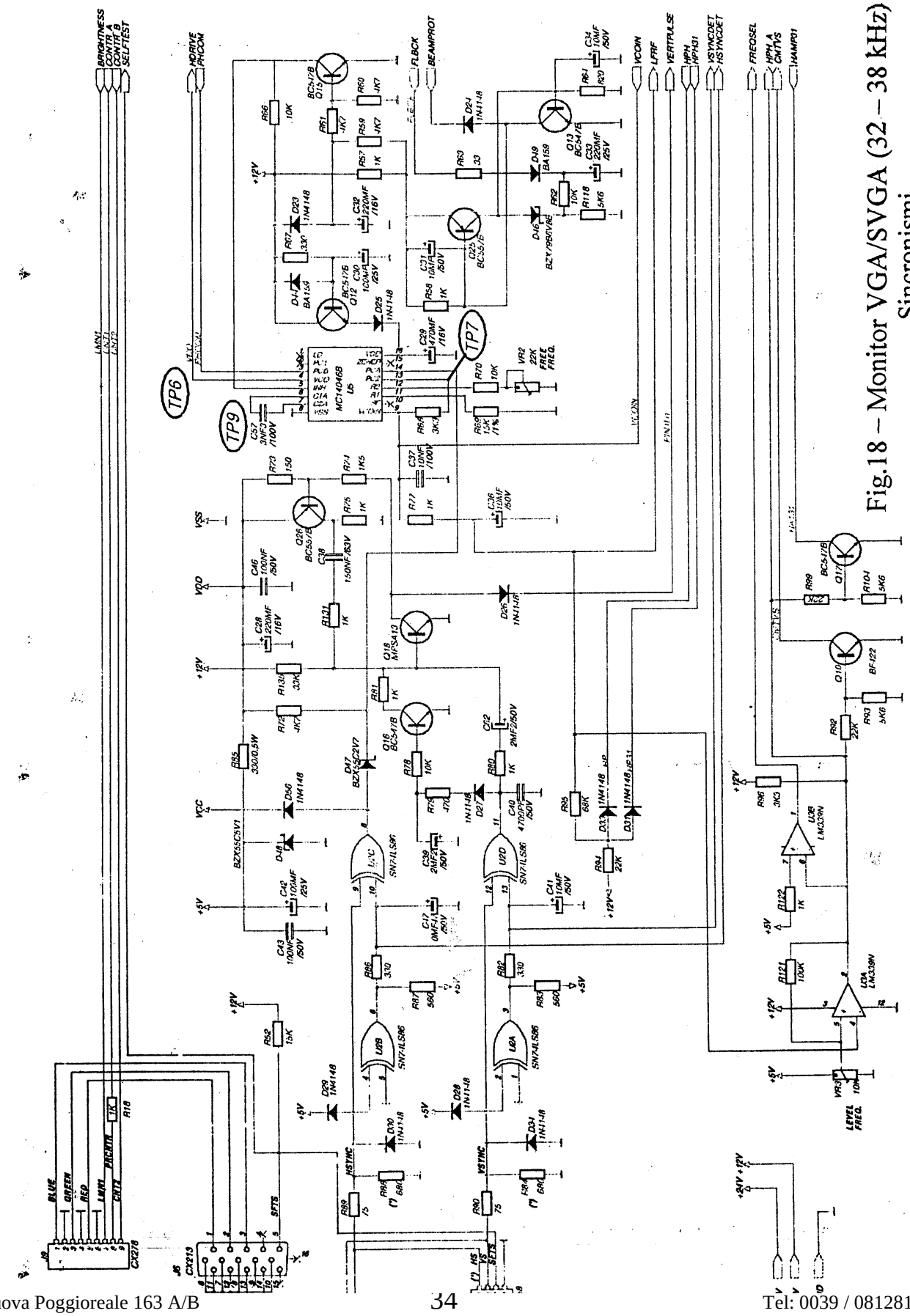
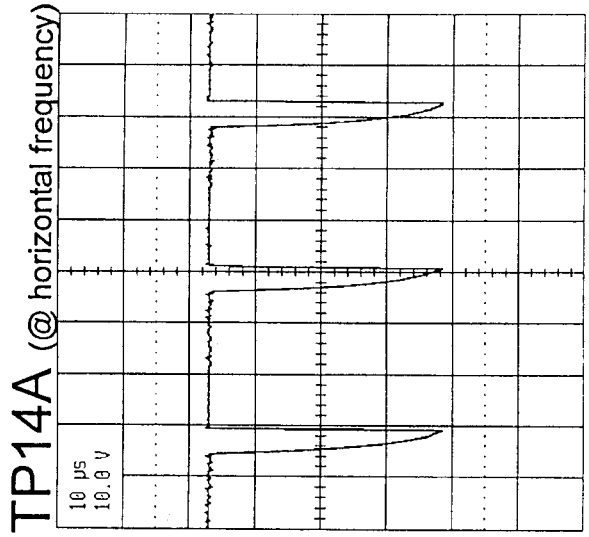
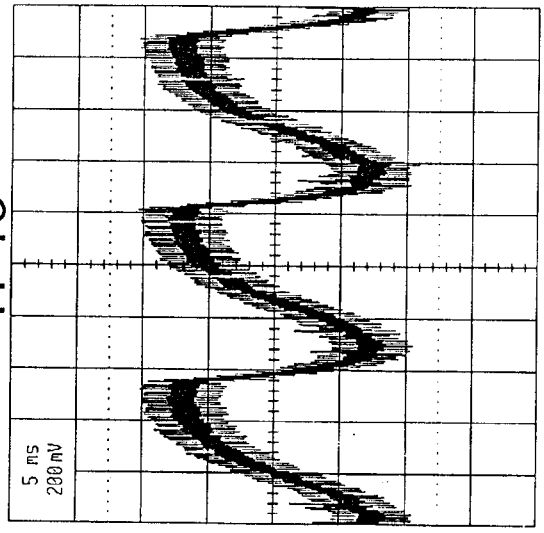


Fig.18 – Monitor VGA/SVGA (32 – 38 kHz)
Sincronismi

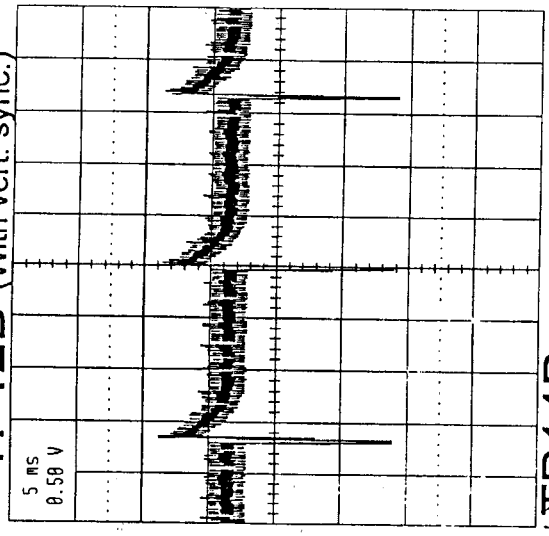
TP14A (@ horizontal frequency)



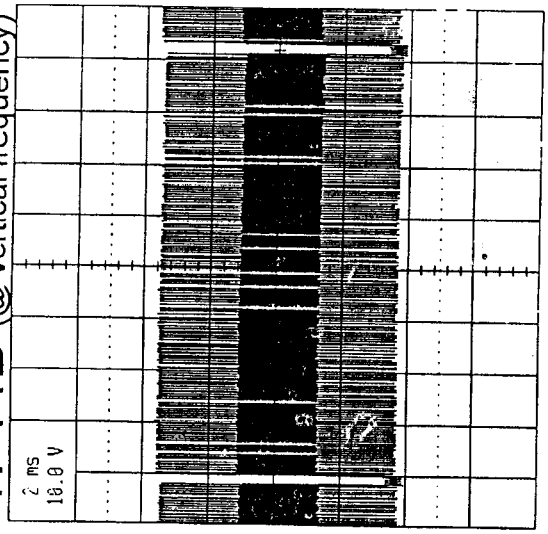
TP13



TP12B (With vert. sync.)



TP14B (@ vertical frequency)



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VGA/SVGA (32 – 38 kHz)

Horizontal Deflexion (Fig.17)

Defect:

- **No high tension, check:**
  1. Transistor Q23 = BU2520A.
  2. Transformer T2 = EHT.
  3. Integrated Circuit U5 = MC14046B.
  4. Transistor MOSFET Q4 = IRF510.
  5. Electrolytic Capacitor C12 = 10µF 160 V.
  6. Diode D41 = BYV26E.

Synchronism – horizontal oscillator

Defect:

- **Synchronism does not work, check:**
  1. Integrated Circuit U2 = 74LS86 (Fig.18).
  2. Integrated Circuit U5 = MC14046B (Fig.17).
  3. Transistors Q16 – Q18 = BC547 (Fig.18).
  4. Transistor Q26 = BC557 (Fig.18).
  5. Trimmer VR2 = 22 kΩ (Free Freq.) (adjust frequency) (Fig.17).

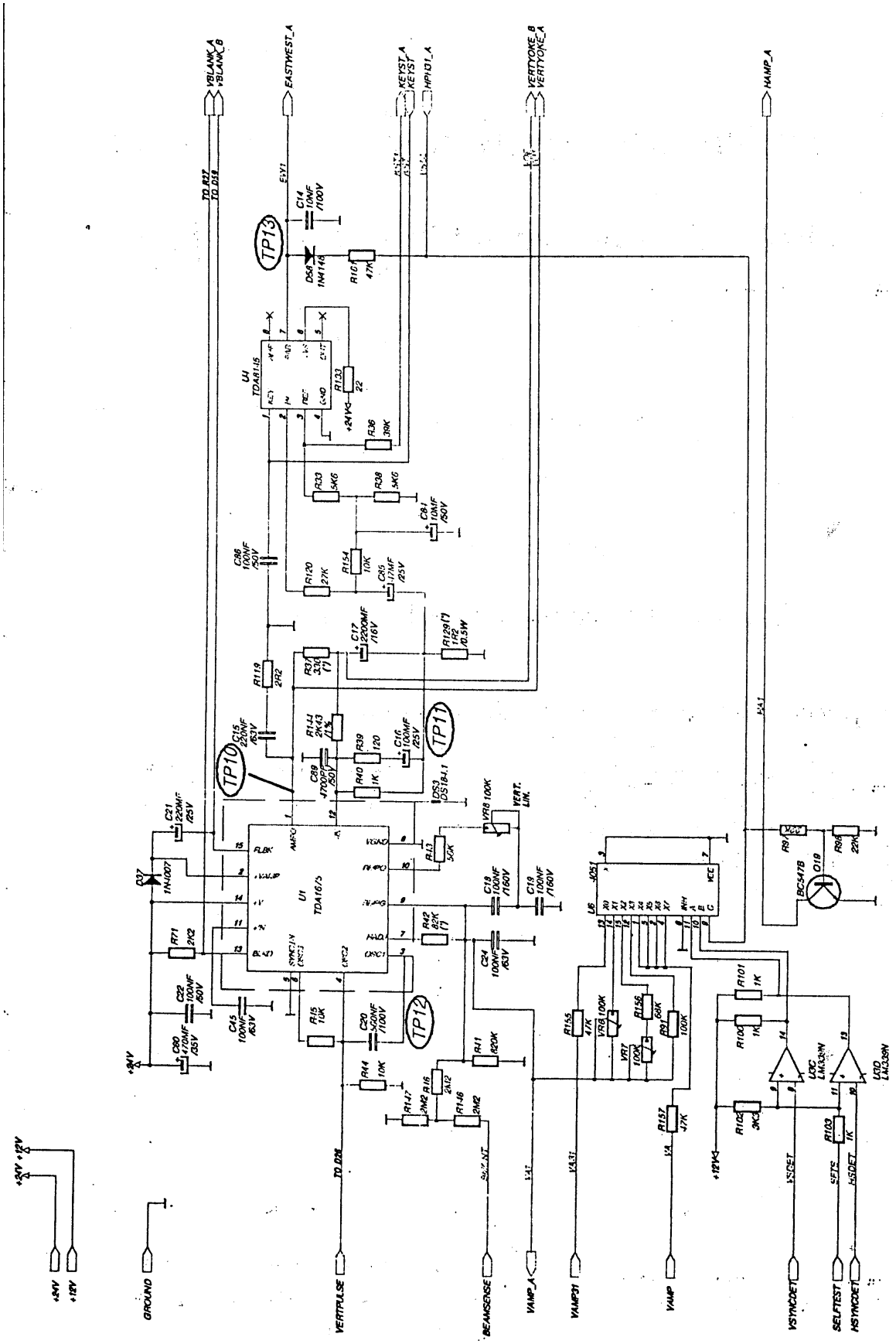

Fig. 19 – Monitor VGA/SVGA (32 – 38 kHz)
Deflessione Verticale
EST – OVEST

Questi componenti possono variare in base ai modelli: vedi tabella XIV Pag. 52

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90° VGA/SVGA CRTs (32 – 38 kHz)

Vertical Deflexion

Defect:

- **Horizontal white line, it is recommended to check:**
  1. Integrated U1 = TDA1675 (Fig.18).
  2. Resistor R124 = 0,51 Ω ½ W (Fig.16).
  3. Diode D52 = BYV28 (Fig.16).
  4. Integrated U6 = HEF4051 (if vertical synchronism does not work) (Fig.18).

EAST-WEST (pincushion – keystone) (Fig. 19)

Defect:

- **It is not possible to adjust the lateral lines, check:**
  1. Integrated U4 = TDA8145.
  2. Transistor Q7 = BC337.
  3. Transistor Q21 = BC557B.
  4. Transistor Q2 = BDX54C.
  5. Insulator Q2
  6. Coil L3

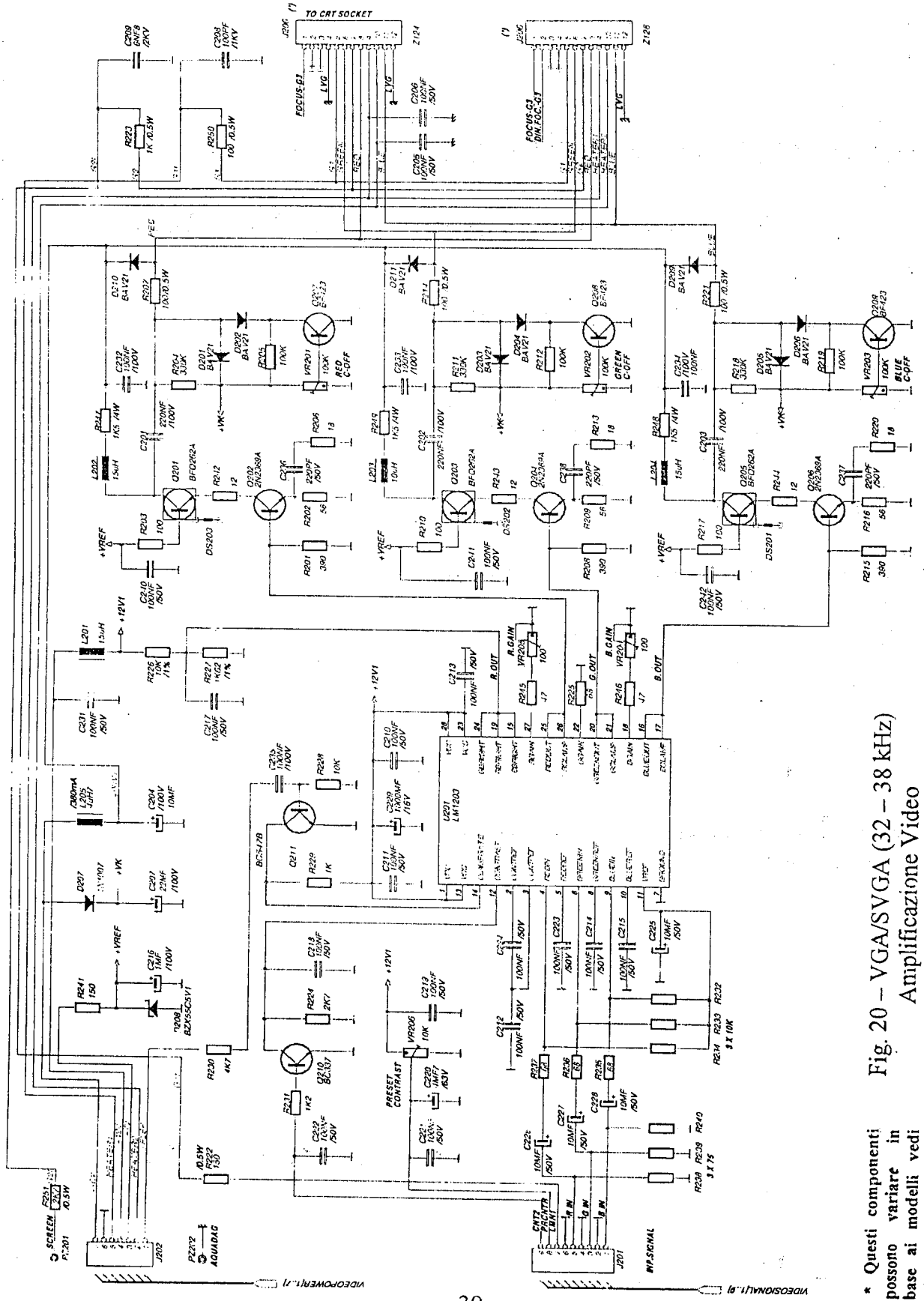


Fig. 20 – VGA/SVGA (32 – 38 kHz)
Amplificazione Video

* Questi componenti possono variare in base ai modelli vedi tabella XV Pag. 52

VGA/SVGA (32 – 38 kHz)

Video Amplification (Fig.20)

Defect:

- **One colour missing; predominance of one colour; or "tailing", check on the CRT little board:**
  1. Transistors Q201– Q203– Q205 = BF262.
  2. Integrated Circuit U201 = LM1203.
  3. Resistors R247 – R248 – R249 = 1,5 kΩ 4 W.

- **The screen is white, check:**
  1. 12Vcc power supply on IC201 = LM1203 23to28 pins. If this is missing, make sure that J202 connector is well inserted.
  2. Make sure that the removable adjustments board is well inserted.

- **The image is too discoloured :**
  1. Turn the trimmer VR206 clockwise (contrast pre-set).

- **No vertical Blanking, check:**
  3. Transistor Q9 = BC237 (Fig.17).

Standard (15kHz)

Modification power supply 220 / 110 V~:

Table I:

Co-ordinates	Description Component	Code		Quantity
		110V~	220V~	
T1	Main filter	Rossoni 91304200	Rossoni 91304200	1
C79	Electrolytic Capacitor 150 µF – 385 V	NO	YES	1
C6 – C78	Electrolytic Capacitor 470 µF – 200 V	YES	NO	2
R120	Resistor 270 kΩ 1W	NO	YES	1
R120 – R1	Resistor 120 kΩ ½ W	YES	NO	2
PN4	Wire	NO	YES	1
PN3	Wire	YES	NO	1
PTC1	Resistor PTC	96013 Philips	96009 Philips	1

Automatic Dual Frequency (15 – 25 kHz)

Modification power supply 220 / 110 V~:

Table II:

Co-ordinates	Description Component	Code		Quantity
		110V~	220V~	
T101	Main filter	Rossoni 91304200	Rossoni 91304200	
C107	Electrolytic Capacitor 220 µF – 385 V	NO	YES	1
C108 – C109	Electrolytic Capacitor 470 µF – 200 V	YES	NO	1
F101	T3,18A 250V	YES	NO	1
F101	T2,5A 250 V	NO	YES	1
P144	FR/100	YES	NO	1
PTC101	Resistor PTC 96209	96013 Phil	96009 Phil	1

Modifications on Standard Chassis (15 kHz) with 90° CRTs:

Table III:

Videocolor CRTs	Deflection yoke		Socket type	EHT SEMAR EHT DIEMEN HR1ACP-8017		EHT ELDOR 1182.0448	
				CRT Board		CRT Board	
	LH mH	LV mH		R37	R43	R37	R43
A34EFU33X01	2,40	24,3	Standard Narrow Neck	2,2 Ω 2W	Absent	0,1 Ω 1W	Absent
A34EDU13X01	2,40	24,3					
A48EAX13X01							
A51EBV13X01	2,40	27,0					
Philips CRTs							
A34EAC01X06	2,50	27,5	Mini neck	4,7 Ω 2W on PZ7pin	Absent	2,2 Ω 2W	Absent
A41EAM40X01	2,43	26,2					
Samsung CRTs							
A23KQU22X01	2,70	27,0	Mini neck	4,7 Ω 2W on PZ7pin	Absent	2,2 Ω 2W	Absent
A34KQV42X01	2,70	27,0					
A48KRD89X01	2,60	27,0					
A51KQK99X01							

Modifications on Standard Chassis (15 kHz) with 110° CRTs:

Table IV:

Videocolor CRTs	Deflection yoke		Socket type	EHT SEMAR EHT DIEMEN HR1ACP-8017		EHT ELDOR 1182.0448	
				CRT Board		CRT Board	
	LH mH	LV mH		R37	R43	R37	R43
A59ECY13X01	1,50	27,5	Single Focus	2,2 Ω 2W	22 MΩ 1/2W	0,1 Ω 1W	22 MΩ 1/2W
A59ECY13X38	1,50	12,0					
A66ECY13X01	1,50	27,5					
A66ECY13X38	1,50	12,0					
A79ECU13X01	1,50	24,6					
W66EDX013X010	1,50	26,1					
A76ECT93X01	1,50	24,6	Double Focus				
A76ECT13X01	1,50	24,6					
A86ECT13X01	1,50	24,6					
A66EHJ43X01	1,50	27,5	Single Focus		Not present		Not present
Philips CRTs							
A59EAK71X11	1,58	8,6	Single Focus	4,7 Ω 2W	Not present	2,2 Ω 2W	Not present
A66EAK71X11	1,58	8,6					
A80EFF002X11	1,58	10,7					
Samsung CRTs A68QBT89X02	1,35	24,4	Single Focus	2,2 Ω 2W	Not present	0,1 Ω 1W	Not present

Modifications on Automatic (15 / 25 kHz) Dual Frequency chassis with the following CRTs:

Table V:

Videocolor CRTs	Deflection yoke		Socket type	R 164	R 33	R 36
	LH (mH)	LV (mH)				
A59ECY13X01	1,50	27,5	Single Focus	1,2 Ω 1/2W	3,3 Ω 3W	22 MΩ 1/2W
A59ECY13X38	1,50	12,0				
A66ECY13X01	1,50	27,5				
A66ECY13X38	1,50	12,0				
A79ECU13X01	1,50	24,6				
W66EDX013X010	1,50	26,1				
A76ECT93X01	1,50	24,6	Double Focus			
A76ECT13X01	1,50	24,6				
A86ECT13X01	1,50	24,6				
A66EHJ43X01	1,50	27,5	Sing.Foc			
Philips CRTs						
A59EAK71X11	1,58	8,6	Single Focus	0,82 Ω 1/2W	8,2 Ω 2W	Absent
A66EAK71X11	1,58	8,6				
A80EFF002X11	1,58	10,7				
Samsung CRTs A68QBT89X02	1,35	24,4	Single Focus	1,2 Ω 1/2W	3,3 Ω 3W	Absent

Low Impedance (USA) CRTs list for Automatic (15 / 25 kHz) Dual Frequency 34" / 38" 0,96 mH Chassis

Table VI:

INTERVIDEO CRTs	Deflection yoke		Socket type
	LH (mH)	LV (mH)	
A80 AEJ 15 X 01	0,96	24,4	Single Focus
A80 AEJ 16 X 01	0,96	24,4	Single Focus
A89 AEJ 15 X 01	0,96	24,4	Single Focus

Modifications on Automatic Dual Frequency (15 / 25 kHz) Chassis for Low Impedance (USA) CRTs

Table VII:

P111		P112		P120		C172		C175		C176		C204		C205	
USA Imp.	EU Imp.	USA Imp.	EU Imp.	USA Imp.	EU Imp.	USA Imp.	EU Imp.	USA Imp.	EU Imp.	USA Imp.	EU Imp.	USA Imp.	EU Imp.	USA Imp.	EU Imp.
Yes	No	Yes	No	No	Yes	2,7 nF 2000V	2,2 nF 2000V	8,2 nF 2000V	9,5 nF 2000V	6,8 nF 2000V	10 nF 2000V	0,33µF 400V	0,22µF 400 V	1µF 250 V	0,68µF 400 V

Technical differences between chassis for 90° & 110° CRTs

Table VIII:

CRTs (90°) 14" to 21"		CRTs (110°) 25" to 33"	
Position	Value	Position	Value
C33	6,8 nF 2000 V	C33	10 nF 2000 V
C35	1,5 nF 2000 V	C35	2,2 nF 2000 V
R26	1,5 Ω ½ W	R26	1 Ω ½ W
R18	68 Ω 2 W	R18	100 Ω 2 W
C23	Eliminate	C23	10 µF 50V
R43	Eliminate	R43	22 MΩ ½ W
R25	1 kΩ ¼ W	R25	1 kΩ ¼ W
R40	1 Ω ¼ W	R40	1 Ω ¼ W
R117	1 Ω ¼ W	R117	1 Ω ¼ W
Adjustment		Adjustment	
Cathode D12	140 Vcc	Cathode D12	149 Vcc

Table IX:

CRTs (90°) 10" only	
Position	Value
C33	6,8 nF 2000 V
C35	1,5 nF 2000 V
R26	1,5 Ω ½ W
R18	68 Ω 2 W
C23	Eliminate
R25	1,5 kΩ ¼ W
R40	2,2 Ω ¼ W
R117	Eliminate
Adjustment	
Cathode D12	130 Vcc

EHT transformers range

From the beginnings of its production INTERVIDEO has used several types of EHT transformers. They are listed here below, in chronological order of production, with the corresponding characteristics and adaptations.

Table X:

Company	Code	CR-Block	Pins diameter	Chassis	Jumpers	
					SEM	ELD
Sicte	GTA 5033/B	Present	Large	Standard	4 – 6	
Eldor	1182.0747	Absent	Large	Standard	4 – 6	
	1182.0448					
	1192.0547	Present	Small	Standard		5 – 7
	1242.5008					
Semar	28386005	Present	Small	Dual Frequency	4 – 6	
	28386012					
	28386015					
	28386017					
	528046103					
	528046106 *					
	28386016	Absent		Standard		
	528046104					
Diemen HR	1BP1 – 6227	Absent	Large	Standard	4 – 6	
	1ACP – 7232	Present	Small	Dual Frequency	4 – 6	
	1AP1 – 8018	Absent	Small	Standard	4 – 6	
	1ACP – 8017	Present	Small	Dual Frequency	4 – 6	

*** This EHT is already supplied with the wiring on the ferrite core.**

P.S. The transformers in bold are assembled on the current production model.

IMP! ⇒ In case of replacement on Standard chassis, check the correct value of R37 – R43 (see table III on Page 33 e table IV on Page 34).

Automatic (15 / 25 kHz) Dual Frequency Chassis 34" – 38" 0,96 mH

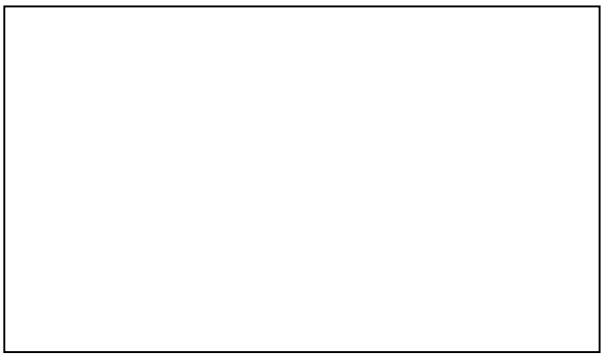
We inform the technicians that starting from the 1st of September 1999 we have been producing a new model of Automatic (15 / 25 kHz) Dual Frequency chassis to be used for the 34" and 38" CRTs with a 0,96 mH impedance. On this chassis we made few changes to get a better image quality on brightness and focus.

Table XI:

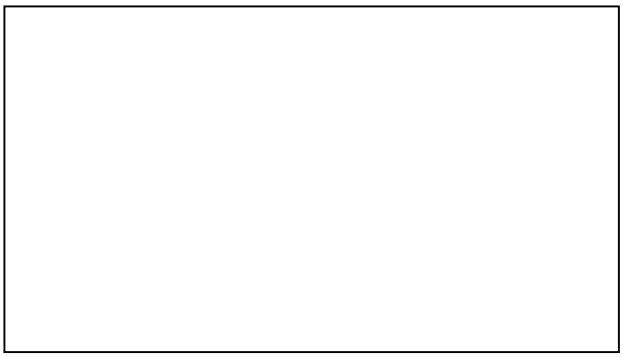
Chassis	1st Version	2nd Version
T104	Semar 28386017 Diemen HR 1ACP8017	Diemen HR 1ACP8052
T102	Semar 28385018-28045095	Semar 28385009
C112	Electrolytic 10 µF 50V	Polyester 1 µF 50V
C172	3,3nF 2kV	2,7 nF 2kV
C175	8,2 nF 2kV	10 nF 2 kV
C176	6,8 nF 2kV	10 nF 2kV
R113	1 Ω ½ W	0,5 Ω ½ W
R223	3,3 Ω 3 W	2,2 Ω 3 W
DX	Not Present	BA 159**
Power supply 15 kHz, on P113 adjusting VR 107	115 V	110 V

** The DX = BA159 diode is mounted on parallel of the R242 = 470 kΩ ¼ W, with the cathode to the T104 (EHT Transformer).

IMP! ⇒ The plate around the T102 Transformer has to be connected to the ground of C126 by wiring.



1st version label



2nd version label

EHT Transformers

Technical information for EHT transformers replacement on automatic dual frequency chassis (15 – 25 kHz).

1st Version type

- The cable wound on the EHT transformer ferrite core (four turns) on a dual frequency chassis must be re-assembled, on the replaced transformer, respecting the number of coils, the direction (anticlockwise) and the polarity printed on the ends of the cable in order to guarantee the best working of the chassis. In fact the end with 3 circles printed on must be positioned on PZ101 (K113), the other one on PZ102 (K113) on the monitor chassis, as shown in Fig. B.

- The cable wound on the EHT transformer ferrite core (only two turns) must be positioned, trough a two pins green connector, on K402 coordinate on the little board (22.0458) fixed on the chassis main board (Fig. A).

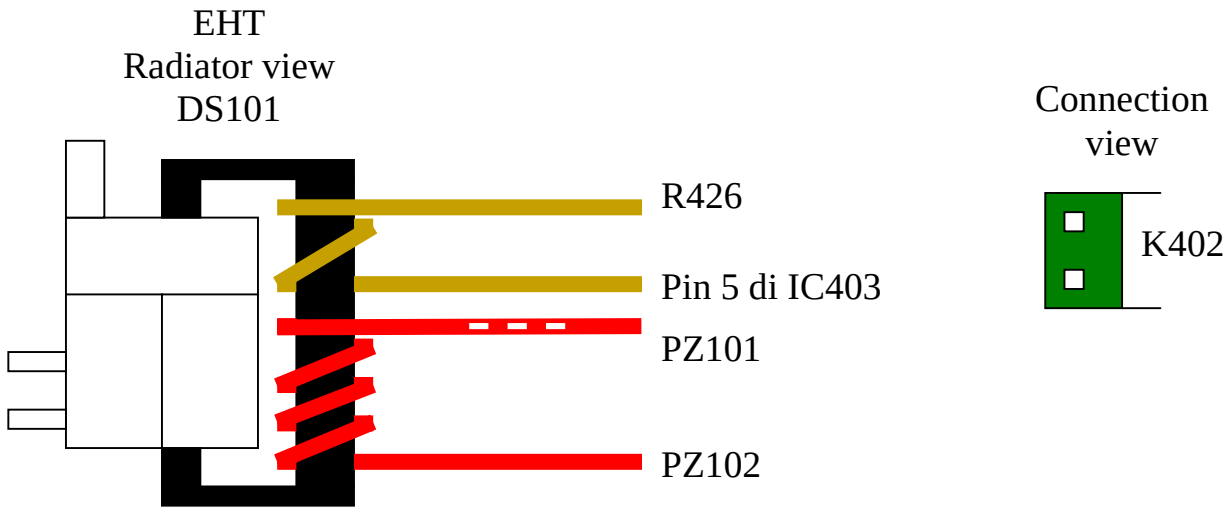


Fig.A

EHT Transformers
Technical information on EHT transformer replacement on automatic dual frequency chassis (15 – 25 kHz).

Current Model

The cable wound on the EHT transformer ferrite core on a dual frequency chassis must be re-assembled, on the replaced transformer, respecting the number of coils, the direction (anticlockwise) and the polarity printed on the ends of the cable in order to guarantee the best working of the chassis.

In fact the end with 3 circles printed on must be positioned on PZ101 (K113), the other one on PZ102 (K113) on the monitor chassis, as shown in Fig. B.

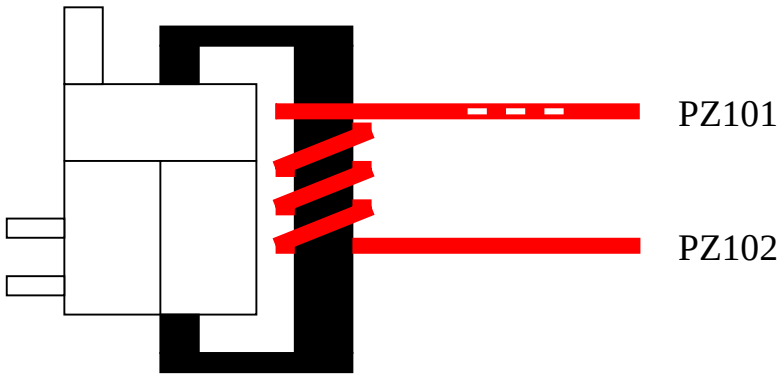


Fig.B

VGA/SVGA 90° CRTs (32 – 38 kHz)

Table XII:

Jumpers positions in several versions														
		P10	P12	P37	P44	P47	P49	P54	P65	P82	P83	P84	P85	P86
Power	110V Power									Yes				
	220V Power													
15"	**Chungwa** M36AES83X46	Yes			Yes		Yes	Yes	Yes			Yes		Yes
17"	**Chungwa** M41AGE93X46C	Yes			Yes		Yes	Yes	Yes			Yes		Yes
	Philips M41EHN323X160	Yes			Yes		Yes	Yes	Yes			Yes		Yes
20"	**Samsung** A48KRD89X03	Yes	Yes	Yes		Yes		Yes			Yes			Yes
21"	**Philips** A51EHE175X50		Yes	Yes		Yes					Yes		Yes	

Tabella XIII:

Components according to power							
		C49	C79	C80	D12	D13	D57
Power	110V Power		470 µF 200V	470 µF 200V	BYM56D	BYM56D	
	220V Power	220 µF 400V			1N4007		1N4007

VGA/SVGA 90° CRTs (32 – 38 kHz)

Table XIV:

Components according to CRT																
	CRT *	C59	C68 (MKP)	C76 (MKP)	C78 (MKP)	D36	J5	J7	L5	R37 Ω	R42 Ω	R48 Ω	R111 Ω	R129 Ω	R143 Ω	R160 Ω
15"	**Chungwa** M36AES83X46	10µF 50V	8,2 nF 630V	5,6 nF 2kV	1µF 250V	33V	Yes		Yes	680	82k	0,68 ½ W	3,3 k ½ W	1,2 ½ W	4,7 3 W	
17"	**Chungwaa** M41AGE93X46C	10µF 50V	8,2 nF 630V	5,6 nF 2kV	1µF 250V	33V	Yes		Yes	680	82k	0,68 ½ W	3,3 k ½ W	1,2 ½ W	4,7 3 W	
	Philips M41EHN323X160	10µF 50V	8,2 nF 630V	5,6 nF 2kV	1µF 250V	33V	Yes		Yes	680	82k	0,68 ½ W	3,3 k ½ W	1,2 ½ W	5,6 3 W	
20"	**Samsung** A48KRD89X03		12 nF 630V	4,7 nF 2kV	820 nF 250V	47V		Yes		680	120k	1 ½ W	2,2 k ½ W	1,2 ½ W	1,2 1 W	2,7 k
21"	**Philips** A51EHE175X50	10µF 50V	12 nF 630V	4,7 nF 2kV	820nF 250V	47V		Yes	Yes	2,2k	82k	1 ½ W	2,2 k ½ W	1,5 ½ W	4,7 3 W	2,7 k

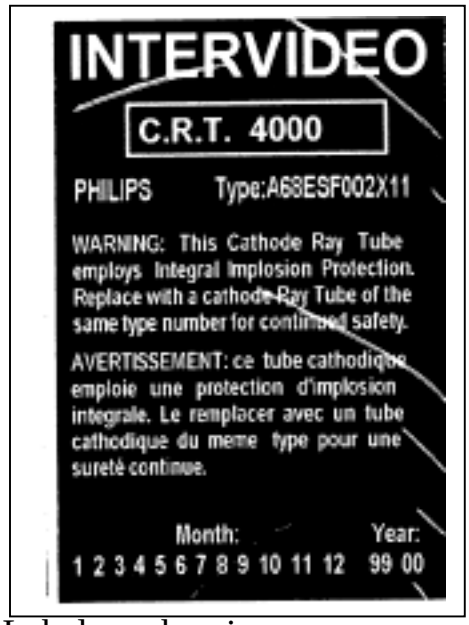
Table XV:

Power adjustments on D3 cathode		
15"	**Chungwa** M36AES83X46	80 V
17"	**Chungwa** M41AGE93X46C	80 V
	Philips M41EHN323X160	80 V
20"	**Samsung** A48KRD89X03	90 V
21"	**Philips** A51EHE175X50	95 V

Identification labels for INTERVIDEO Monitors:

Each Monitor is provided with an identification label as shown in the below reported examples.

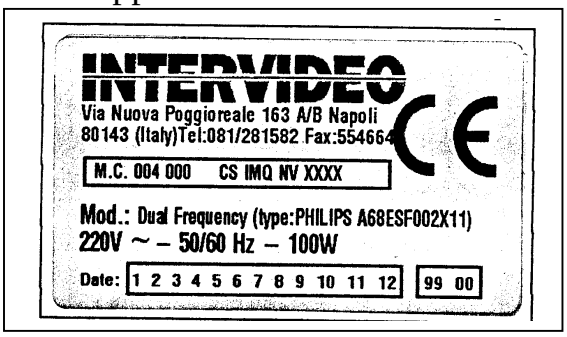
Label on CRT:



INTERVIDEO	Supplier
C.R.T. 4000	CRT Serial Number
PHILIPS	CRT Manufacturer
Type: A68ESF002X11	CRT type
Warning	Manufacturer's instructions
Month:	Month of assembling
Year:	Year of assembling

Label on chassis:

- If supplied with CRT:



INTERVIDEO	Supplier
MC 4000	Chassis serial number
PHILIPS Type: A68ESF002X11	Brand & type of CRT assembled with chassis
Month:	Month of assembling
Year:	Year of assembling

- If supplied without CRT:

INTERVIDEO	Supplier
CH 4000	Chassis serial number
PHILIPS Type: A68ESF002X11	Brand & type of CRT utilised to calibrate the chassis
Month:	Month of assembling
Year:	Year of assembling

Practical guide to chassis repair

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