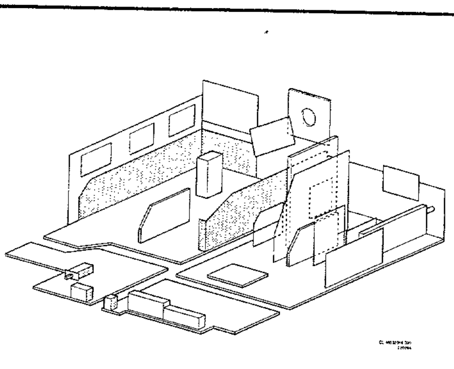
Colour television

Chassis

FL2.24
FL2.26
FL4.27

AA

Service
Service
Service



Service Manual

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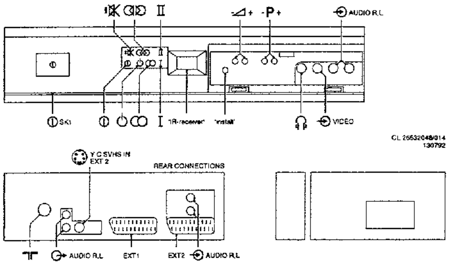
1. Technical data

Mains voltage : 220 - 240 V (± 10%)
: 50 Hz - 60 Hz (± 5%)
Aerial input impedance : 75 Ω - koaxial
Minimum aerial voltage : 30 µV (VHF), 40 µV (UHF)
Maximum aerial voltage VHF/S/UHF : 180 mV

Programmes : 0 - 99
VCR programmes : 0, 50 - 99

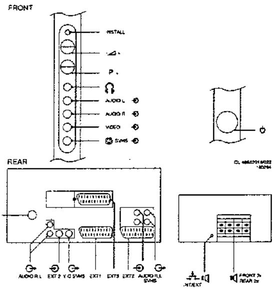
2. Connection facilities and Chassis overview

FL1



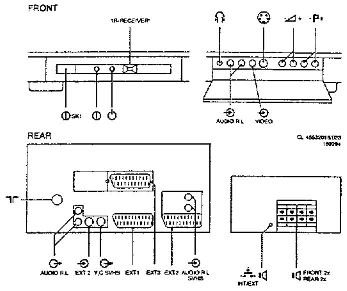
AUDIO R.L
II
SK1
I
1R-receiver
install
VIDEO
CL 26532048/014
130792
Y.C SVHS IN
EXT 2
REAR CONNECTIONS
AUDIO R.L
EXT1
EXT2
AUDIO R.L

FL2



FRONT
INSTALL
P
AUDIO L
AUDIO R
VIDEO
SVHS
REAR
AUDIO R.L
EXT 2
Y.C SVHS
EXT1
EXT3
EXT2
AUDIO R.L
SVHS
INT/EXT
FRONT 2x
REAR 2x

FL4



FRONT
1R-RECEIVER
P
SK1
AUDIO R.L
VIDEO
REAR
CL 46632018/023
160294
AUDIO R.L
EXT 2
Y.C SVHS
EXT1
EXT3
EXT2
AUDIO R.L
SVHS
INT/EXT
FRONT 2x
REAR 2x

Specification of the connectors

EXT1 (AUX): RGB+CVBS

1 -Audio ○→ R(0,5VRMS ≤ 1kΩ)
2 -Audio →○ R(0,2-2VRMS ≥ 10kΩ)
3 -Audio ○→ L(0,5VRMS ≤ 1kΩ)
4 -Audio ⊥
5 -Blue ⊥
6 -Audio →○ L(0,2-2VRMS ≥ 10kΩ)
7 -Blue (0,7V_{pp}/75Ω)
8 -CVBS-status →○ 0-2V: INT
4,5-7V: EXT 16:9
9,5-12V: EXT 4:3
9 -Green ⊥
10 --
11 -Green (0,7V_{pp}/75Ω)
12 --
13 -Red ⊥
14 -RGB-status
15 -Red (0,7V_{pp}/75Ω)
16 -RGB-status (0-0,4V: INT)
(1-3V: EXT/75Ω)
17 -CVBS ⊥
18 -CVBS ⊥
19 -CVBS ○→ (1V_{pp}/75Ω)
20 -CVBS →○ (1V_{pp}/75Ω)
21 -Earthscreen

EXT2 (VCR): Y/C+CVBS

1 -Audio ○→ R(0,5VRMS ≤ 1kΩ)
2 -Audio →○ R(0,2-2VRMS ≥ 10kΩ)
3 -Audio ○→ L(0,5VRMS ≤ 1kΩ)
4 -Audio ⊥
5 --
6 -Audio →○ L(0,2-2VRMS ≥ 10kΩ)
7 --
8 -CVBS-status →○ 0-2V: int
4,5-7V: EXT 16:9
9,5-12V: EXT 4:3
→○ 4,5: EXT 16:9
9 --
10 --
11 --
12 --
13 -CHROMA ⊥
14 --
15 -CHROMA →○ (1V_{pp}/75Ω)
16 --
17 -CVBS ⊥
18 -CVBS ⊥
19 -CVBS ○→ (1V_{pp}/75Ω)
20 -CVBS/Y →○ (1V_{pp}/75Ω)
21 -Earthscreen

EXT3: CVBS

1 --
2 -Audio →○ R(0,2-2VRMS ≥ 10k
3 --
4 -Audio ⊥
5 --
6 -Audio →○ L(0,2-2VRMS ≥ 10k
7 --
8 --
9 --
10 --
11 --
12 --
13 --
14 --
15 --
16 --
17 --
18 -CVBS ⊥
19 --
20 -CVBS →○ (1V_{pp}/75Ω)
21 -Earthscreen

EXT2 (SVHS) (rear)

SVHS
1 - ⊥
2 - ⊥
3 - Y →○ (1V_{pp}; 75Ω)
4 - C →○ (0,3V_{pp}; 75Ω)

◎ CINCH Audio →○ L(0,5VRMS; ≥ 10kΩ)
◎ CINCH Audio →○ R(0,5VRMS; ≥ 10kΩ)

EXT3 (front)

◎ CINCH Video →○ 300mV_{pp}/75Ω
◎ CINCH Audio →○ L(0,5VRMS; ≥ 10kΩ)
◎ CINCH Audio →○ R(0,5VRMS; ≥ 10kΩ)

◎ 3.5mm 🔈/🎧 32-2000Ω ≥ 10mW

Audio out (rear)

◎ CINCH Audio ○→ L(0,5VRMS; ≤ 1kΩ)
◎ CINCH Audio ○→ R(0,5VRMS; ≤ 1kΩ)

Erratum

GB

In this reprinted service manual the following diagrams have been replaced:

Diagram		Page
Block diagram		4
Source Select	(Diagram C)	7
Synchronisation FLx.26/.27	(Diagram B)	8
Video processing	(Diagram D)	9
Synchronisation FLx.24	(Diagram B)	10
Sound Processing	(Diagram F)	11
Power supply FLx.26/.27	(Diagram A)	12
SCAVEM	(Diagram Z)	18
PiP	(Diagram J)	21
LFR box	(Diagram M)	22

The following Service Informations are included:

FL 94.03
FL 94.05

Corrections to Chapter 7

Paragraph 3.2 and 3.4

Actual	Must be
(fig. 7.9)	(fig. 7.4)
7.64µs	6.4µs
Figure 7.4	
744µs ± 175ns	6.4µs ± 175ns

Corrections to Chapter 8

Paragraph 5

In some versions it is not possible to re-route the signal path after removing the PiP module because of the use of different connectors.

Paragraph 8.4.1 and 8.4.2

Error message 99 (software protection) is not indicated by the LED's any more.
In case of hardware protection the set switches to stand-by and back on again, once in every few seconds.
Just before switching to stand-by, in case of protection, both red and green LED's light up.

Erratum

D

In diese Nachdruck der Service Manual sind die folgende Schaltbilder geändert worden.

Schaltbild		Seite
Blockschaltbild		4
Quellenwahl	(Schaltbild C)	7
Synchronisierung FLx.26/.27	(Schaltbild B)	8
Video Verarbeitung	(Schaltbild D)	9
Synchronisierung FLx.24	(Schaltbild B)	10
Ton Verarbeitung	(Schaltbild F)	11
Stromversorgung FLx.26/.27	(Schaltbild A)	12
SCAVEM	(Schaltbild Z)	18
Bild im Bild	(Schaltbild J)	21
LFR box	(Schaltbild M)	22

Die folgenden Service Informationen sind Beigeliefert:

FL 94.03
FL 94.05

Korrekturen zur Kapitel 7

Paragraph 3.2 und 3.4

Jetzt	Muß sein
(Abb. 7.9)	(Abb. 7.4)
7.64µs	6.4µs
Abbildung 7.4	
744µs ± 175ns	6.4µs ± 175ns

Korrekturen zur Kapitel 8

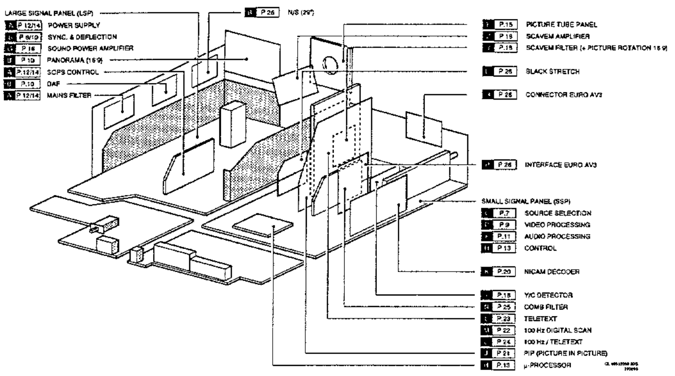
Paragraph 5

In manche Versionen ist es nicht möglich um das Signal durch zu fuhren, wenn das Bild im Bild Modul entfernt ist, weil unterschiedliche Stecker gebraucht worden sind.

Paragraph 8.4.1 und 8.4.2

Fehlermeldung 99 (Software-Schutz) wird nicht mehr angezeigt von der LED's.
Wenn die Hardware-Schutz aktiv ist, schaltet das Gerät zu Stand-by und wieder ein, mit ein Frequenz von einmal in einige Sekunden.
Kurz bevor das Gerät zu Stand-by geschaltet wird, leuchten beide LED's gleichzeitig auf.

Chassis overview


LARGE SIGNAL PANEL (LSP)
P 12/14 POWER SUPPLY
P 8/10 SYNC. & DEFLECTION
P 16 SOUND POWER AMPLIFIER
P 10 PANORAMA (16:9)
P.12/14 SCPS CONTROL
P.10 DAF
P 12/14 MAINS FILTER
P 26 N/S (29")
P.15 PICTURE TUBE PANEL
P 19 SCAVEM AMPLIFIER
P.19 SCAVEM FILTER (+ PICTURE ROTATION 16:9)
P 26 BLACK STRETCH
P 26 CONNECTOR EURO AV3
P 26 INTERFACE EURO AV3
SMALL SIGNAL PANEL (SSP)
P.7 SOURCE SELECTION
P 9 VIDEO PROCESSING
P.11 AUDIO PROCESSING
P 13 CONTROL
P.20 NICAM DECODER
P.18 Y/C DETECTOR
P 25 COMB FILTER
P.23 TELETEXT
P 22 100 Hz DIGITAL SCAN
P 24 100 Hz / TELETEXT
P 21 PIP (PICTURE IN PICTURE)
P.13 µ-PROCESSOR

3. Warnings and Notes

Warnings

1. Safety regulations require that the unit should be returned in its original condition and that components identical to the original components are used. The safety components are indicated by the symbol ⚠.

2. In order to prevent damage to ICs and transistors, all high-voltage flashovers must be avoided. In order to prevent damage to the picture tube, the method shown in Fig. 3.1 should be used to discharge the picture tube. Use a high-voltage probe and a multimeter (position DC-V). Discharge until the meter reading is OV (after approx. 30s).

3. **ESD** ⚠

   All ICs and many other semiconductors are sensitive to electrostatic discharges (ESD). Careless handling during repair can drastically shorten the life. Make sure that during repair you are connected by a pulse band with resistance to the same potential as the earth of the unit. Keep components and tools also at this same potential.

4. When repairing a unit, always connect it to the mains voltage via an isolating transformer.

5. Be careful when taking measurements in the high-voltage section and on the picture tube.

6. Never replace modules or other components while the unit is switched on.

7. It is recommended that safety goggles are worn when replacing the picture tube.

8. When making settings, use plastic rather than metal tools. This will prevent any short circuits and the danger of a circuit becoming unstable.

9. After repair the wiring should be fastened once more in the cable clamps for this purpose.

10. In order to prevent measuring errors, the heat sinks should not be used as reference points for measurements. **The heat sink for the sound output amplifier is connected to the -16/-11 volts.**

11. On this unit the 140 volt supply voltage is not supplied via an interconnection on the deflection yoke to the line output transformer. When the deflection cable is detached, the +140 volt supply remains loaded. In order to unload the +140 volts, coil 5511 should be removed.

12. Together with the deflection unit and any multipole unit, the flat square picture tubes used form an integrated unit. The deflection and the multipole units are set optimally at the factory. Adjustment of this unit during repair is therefore not recommended.

Notes

1. The direct voltages and oscillograms should be measured with regard to the tuner earth (⊥ϟ), or hot earth (⊥) as this is called.

2. The direct voltages and oscillograms shown in the diagrams should be measured in the **Service Default Mode** (see chapter 8) with a colour bar signal and stereo sound (L: 3 kHz, R: 1 kHz unless stated otherwise) and picture carrier at 475.25 MHz.

3. Where necessary, the oscillograms and direct voltages are measured with (┐┌) and without aerial signal (✕) Voltages in the power supply section are measured both for normal operation (⏻) and in standby (⏼). These values are indicated by means of the appropriate symbols.

4. The picture tube PCB has printed spark gaps. Each spark gap is connected between an electrode of the picture tube and the Aquadag coating.

5. The semiconductors indicated in the circuit diagram and in the parts lists are completely interchangeable per position with the semiconductors in the unit, irrespective of the type indication on these semiconductors.

6. The connectors used for the modules (board to board) are gold-plated and should only be replaced by the same type.

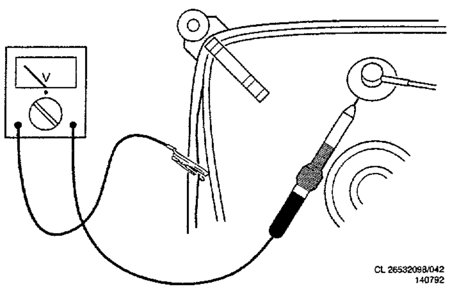

V
CL 26532098/042
140792

Fig. 3.1

4. Mechanical instructions

It is extremely important that following disassembly all cables are replaced in their original positions in order that safety and sound and picture quality may be guaranteed.

1. Model overview (fig. 1)

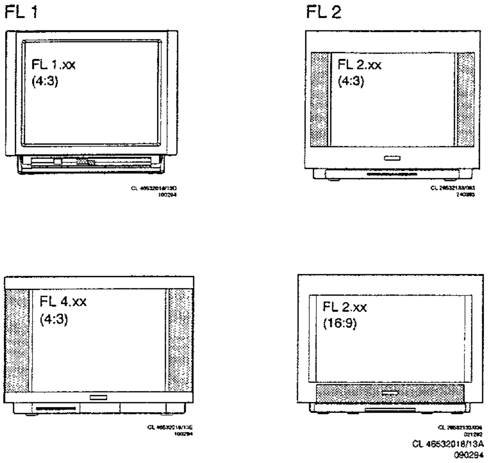


Fig. 4.1

2. Removing the rear panel (fig. 2 + 3)

Before the rear panel is removed the connection to the subwoofer should first be disconnected:

FL1: Open the flap in the rear panel. Disconnect the subwoofer cable. (connector L36)

FL2: Remove the three screws A with which the grille is fixed. Tap the grille downwards as indicated by arrow 1, so that the grille becomes loose. Remove the grille from the rear panel by pulling it in the direction indicated by arrow 2.

Disconnect the cable from the subwoofer as indicated by arrow 3. Remove screws B and C, and also screws D if present or lugs E for FL4.

Remove the rear panel from the set.

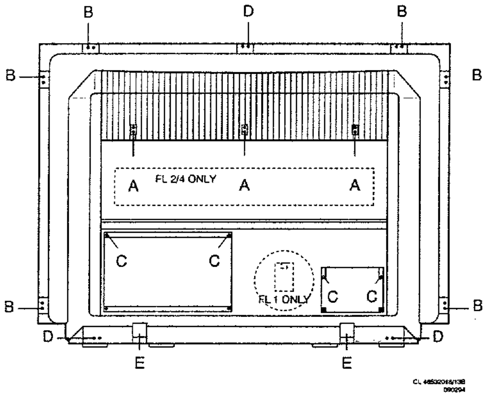


Fig. 4.2

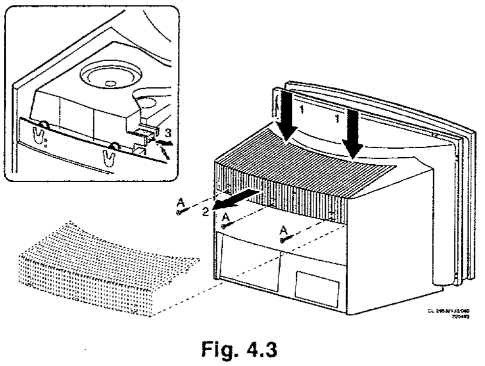


Fig. 4.3

3. Service positions FL1

FL1 can be placed in two service positions. (Fig. 4) Remove the rear panel. Remove the screw behind the flap on the front side of the set.

Service position 1:

If present, press down the lugs with which the chassis is secured and pull both panels simultaneously to the rear, removing any hindering cables from the cable ties if necessary. Place the panels vertically behind the set as illustrated in figure 4a.

Service position 2:

Disconnect connectors L01, L02 and L03 that connect the small (SSP) and large signal panel (LSP) together. Pull the panel concerned backwards out of the set. Using extension cable set 4822 320 20209 (fig.5) reconnect both panels together. Place the panel concerned behind the set as illustrated in figure 4b.

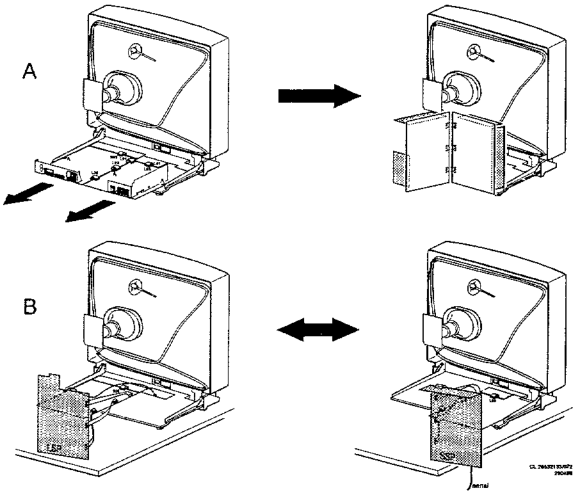


Fig. 4.4

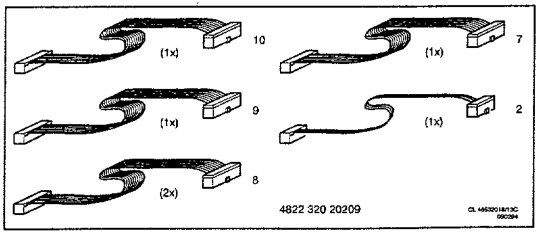


Fig. 4.5

4. Service positions FL2 (fig. 6)

FL2 can be placed in two service positions. (fig.6) Remove the rear panel.

Service position 1:

Disconnect connectors E47 and E48. These connectors are located on the side of the set and connect the chassis with the audio, video and headphone connections (FRONT).

Lift the chassis frame at the rear and remove it from the cabinet, removing any hindering cables from the cable ties if necessary. Place the frame one position to the rear, taking care to ensure that the chassis frame lugs are located into the correct recesses.

Service position 2:

Place the chassis in service position 1.

Click the infra-red receiver (IR) out of the retainer located under the picture tube.

Remove the cables to the panel with buttons for

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ecessary.
et as

)3 that
al panel
d
on cable
oth
rned

.6)

iese
e set and
o and

move it
g cables
ie frame
nsure
nto the

e retainer

tons for

local operation from their ties and then click the operating panel out of its holder.
Disconnect the cable to the degaussing coil on the picture tube from the mains filter panel.
Remove the cables from and to the mains filter from their cable ties. Click the two service legs loose and place them vertically in the holes as indicated in the diagram. Tilt the entire chassis frame and place the entire unit on both service legs so that the solder side is accessible.

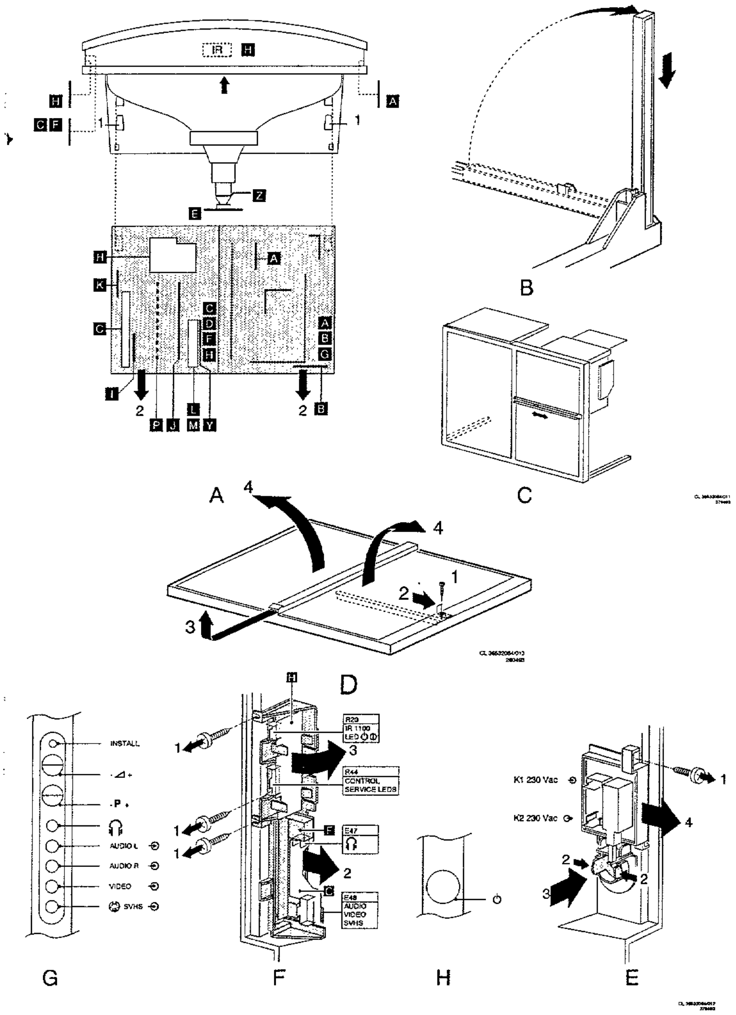


Fig. 4.6

5. Service position FL4 (fig. 7)

An FL4 model can be put into service position 1 in the same manner as an FL2 model.
Service position 2 is accomplished by tilting the whole frame once the cabling has been disconnected (the cable to the front connectors (E47, E48) may be disconnected). A stud on the frame and a hook on the case ensure a stable service position.

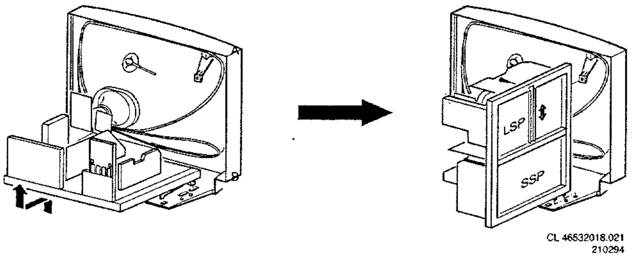


Fig. 4.7

6. Removing the mask from FL2 (fig. 8)

Remove the rear panel. Remove the chassis frame with the chassis from the cabinet.
Remove screws E as indicated in the diagram. Loosen the snap connection under the picture tube. Remove the masker in the manner illustrated in the diagram.

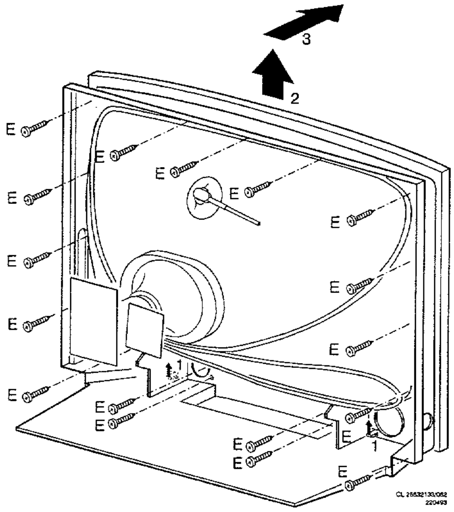


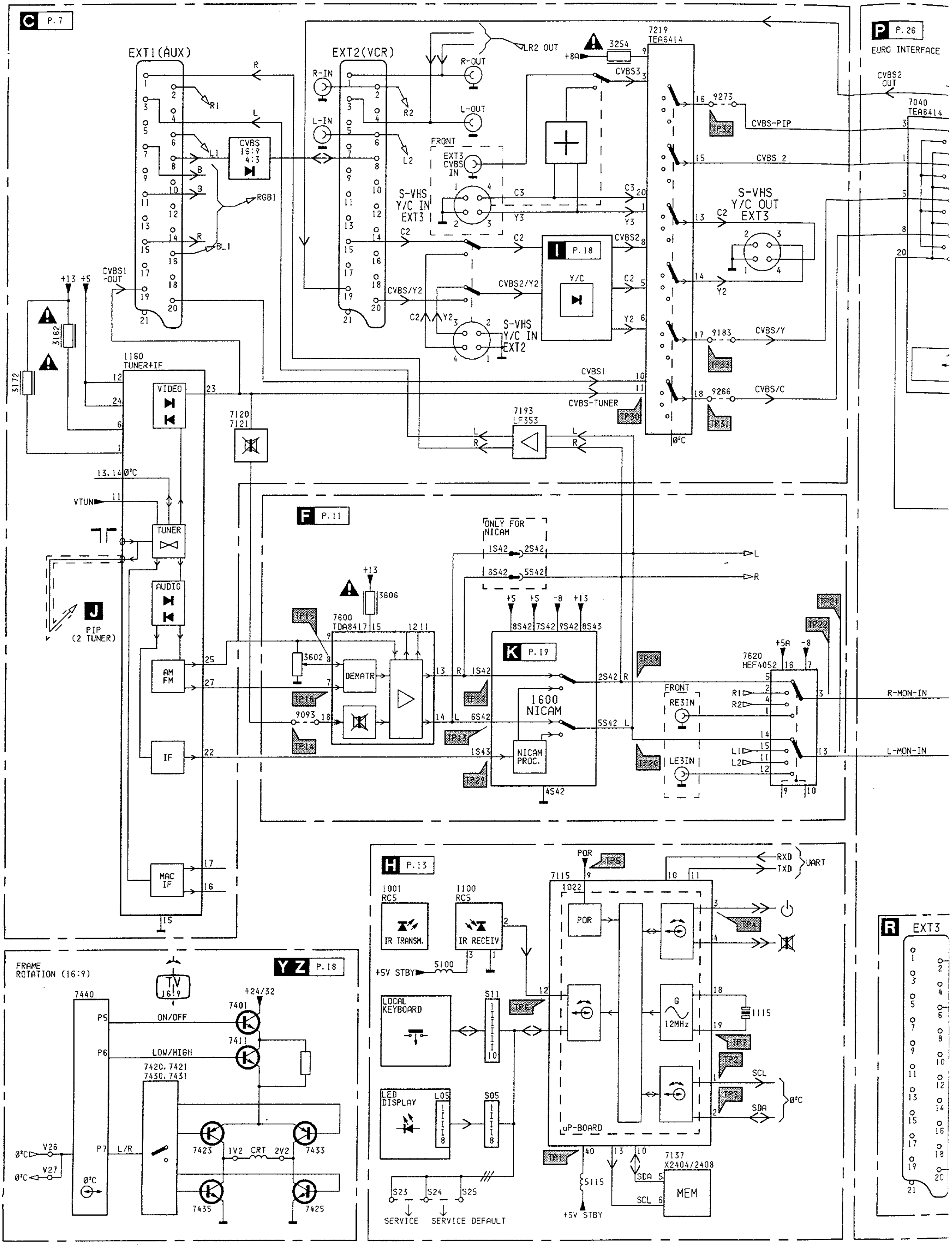
Fig. 4.8

7. Replacing the picture tube.

Remove the rear panel.
Discharge the picture tube in the manner described in chapter 3. Remove the chassis, or the chassis with the chassis frame from the cabinet. Disconnect all cabling to the picture tube. Tilt the set so that the front of the picture tube is pointing downwards, taking care that the picture tube comes to rest on a soft and clean surface. Loosen the four bolt on the picture tube corners and drop the cabinet gently down onto the work surface.
The picture tube can now be removed from the cabinet.

In FL2 special nylon picture tube tubular rivets have been applied. In order to guarantee optimum strength these should not be re-used. Take care to fit correctly when replacing. Tighten the picture tube screws one-by-one until a torque of approximately 1kgm (10Nm) is achieved. The picture tube tubular rivets are obtainable under code numbers:
For 28" picture tubes and smaller: 4822 532 12243 (≤ 28")
For 29" picture tubes and larger: 4822 404 31294 (≥ 29")
Four tubular rivets are required per picture tube.

Blockdiagram / Blockschaltbild /



C P.7
EXT1(AUX)
EXT2(VCR)
R-IN
L-IN
R-OUT
L-OUT
LR2 OUT
R1
R2
L1
L2
CVBS 16:9 4:3
RGB1
BL1
FRONT
EXT3 CVBS IN
S-VHS Y/C IN EXT3
S-VHS Y/C IN EXT2
C2
C3
Y2
Y3
CVBS/Y2
CVBS2/Y2
CVBS2
CVBS3
CVBS1 -OUT
CVBS1
CVBS-TUNER
I P.18
Y/C
3254
+8A
7219 TEA6414
9273
9183
9266
CVBS-PIP
CVBS 2
CVBS/Y
CVBS/C
S-VHS Y/C OUT EXT3
TP30
TP31
TP32
TP33
Ø²C
P P.26
EURO INTERFACE
CVBS2 OUT
7040 TEA6414
+13
+5
3162
3172
1160 TUNER+IF
VIDEO
TUNER
AUDIO
AM FM
IF
MAC IF
13.14Ø²C
VTUN
J
PIP (2 TUNER)
7120 7121
7193 LF353
F P.11
ONLY FOR NICAM
1S42
2S42
6S42
5S42
4S42
1S43
8S42
7S42
9S42
8S43
+5
-8
+13
3606
3602
7600 TDA8417
DEMATR
9093
K P.19
1600 NICAM
NICAM PROC.
TP12
TP13
TP14
TP15
TP16
TP19
TP20
TP21
TP22
TP29
7620 HEF4052
+5A
RE3IN
LE3IN
R-MON-IN
L-MON-IN
H P.13
1001 RC5
IR TRANSM.
1100 RC5
IR RECEIV
+5V STBY
5100
LOCAL KEYBOARD
S11
LED DISPLAY
L05
S05
S23
S24
S25
SERVICE
SERVICE DEFAULT
POR
TP1
TP2
TP3
TP4
TP5
TP6
TP7
7115
1022
uP-BOARD
G 12MHz
1115
RXD
TXD
UART
SCL
SDA
7137 X2404/2408
MEM
5115
R
EXT3
FRAME ROTATION (16:9)
TV 16:9
Y Z P.18
7440
+24/32
7401
7411
ON/OFF
LOW/HIGH
7420.7421 7430.7431
L/R
V26
V27
7423
7433
7435
7425
1V2
CRT
2V2

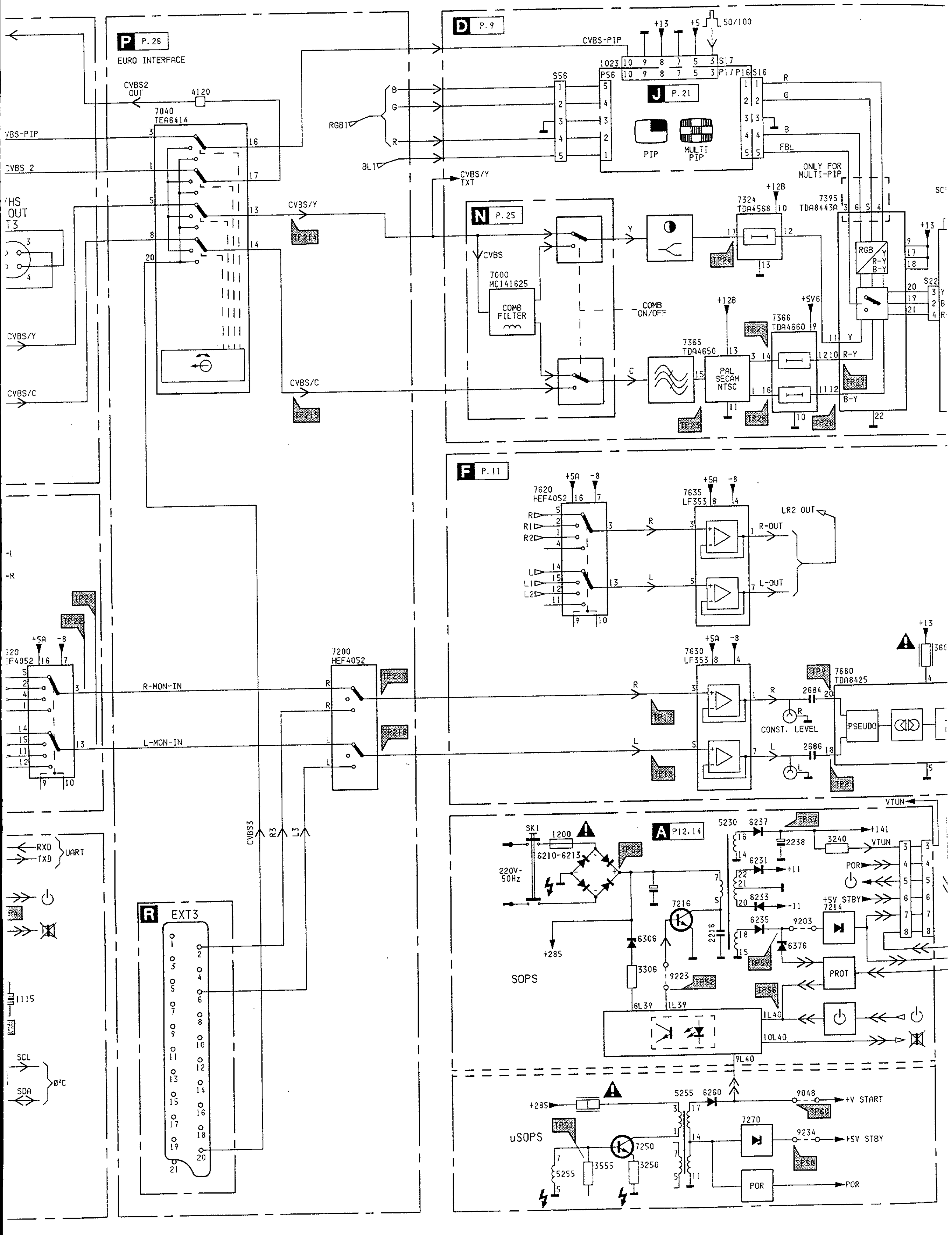
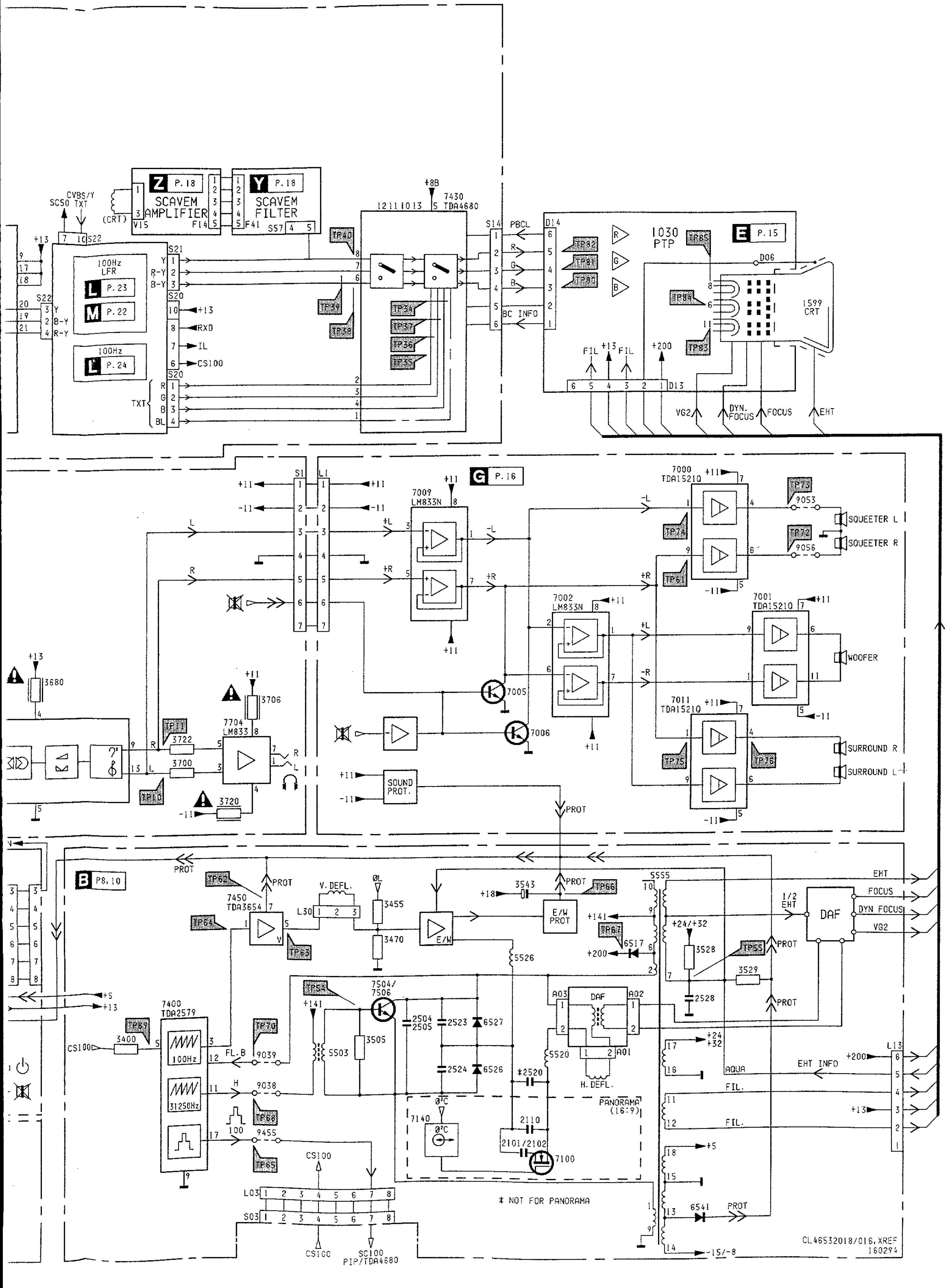
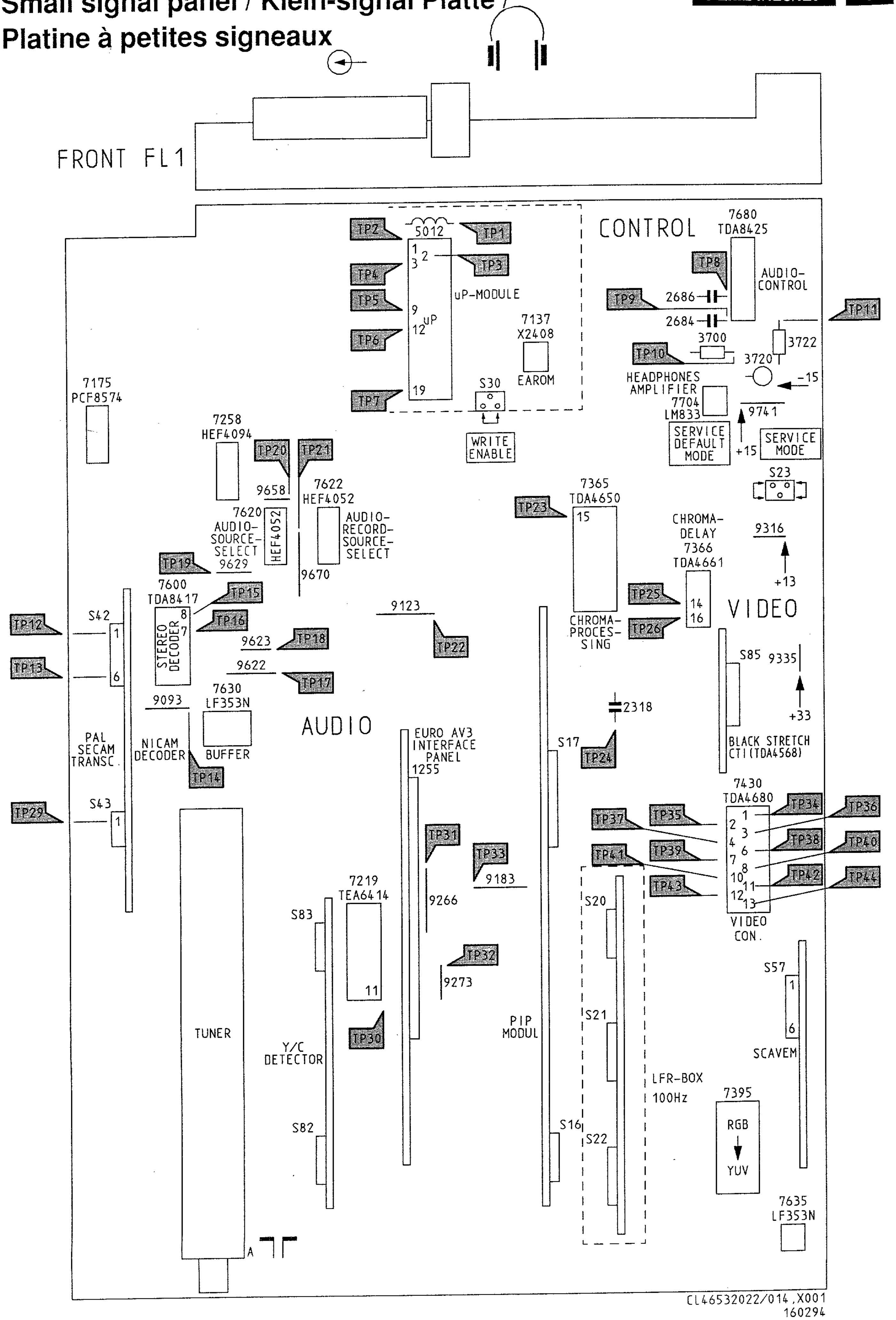

P P.26
EURO INTERFACE
CVBS2 OUT
4120
7040 TEA6414
VBS-PIP
CVBS 2
/HS OUT
T3
CVBS/Y
CVBS/C
TP214
TP215
D P.9
CVBS-PIP
+13
+5
50/100
1023
S17
P56
P17 P16 S16
S56
J P.21
PIP
MULTI PIP
RGB1
BL1
R
G
B
FBL
ONLY FOR MULTI-PIP
CVBS/Y TXT
N P.25
CVBS
7000 MC141625
COMB FILTER
COMB ON/OFF
Y
C
+12B
7324 TDA4568
TP24
7395 TDA8443A
RGB
R-Y
B-Y
+13
S22
+5V6
7366 TDA4660
7365 TDA4650
PAL SECAM NTSC
TP25
TP23
TP26
TP27
TP28
F P.11
+5A
-8
7620 HEF4052
R1
R2
L1
L2
7635 LF353
LR2 OUT
R-OUT
L-OUT
TP21
TP22
520 EF4052
R-MON-IN
L-MON-IN
7200 HEF4052
TP219
TP218
7630 LF353
TP17
TP18
TP9
7680 TDA8425
2684
2686
CONST. LEVEL
PSEUDO
TP8
+13
368
VTUN
A P12.14
SK1
1200
6210-6213
TP53
220V~ 50Hz
+285
5230
6237
TP57
+141
2238
3240
6231
+11
6233
-11
7216
2216
6235
9203
6376
+5V STBY
7214
POR
TP59
PROT
6306
3306
9223
TP52
TP56
SOPS
6L39
1L39
1L40
10L40
9L40
RXD
TXD
UART
SCL
SDA
I²C
1115
CVBS3
R3
L3
R EXT3
+285
5255
6260
9048
+V START
TP60
7270
9234
+5V STBY
TP50
uSOPS
TP51
7250
3555
3250
5255
POR

Diagramme schématique

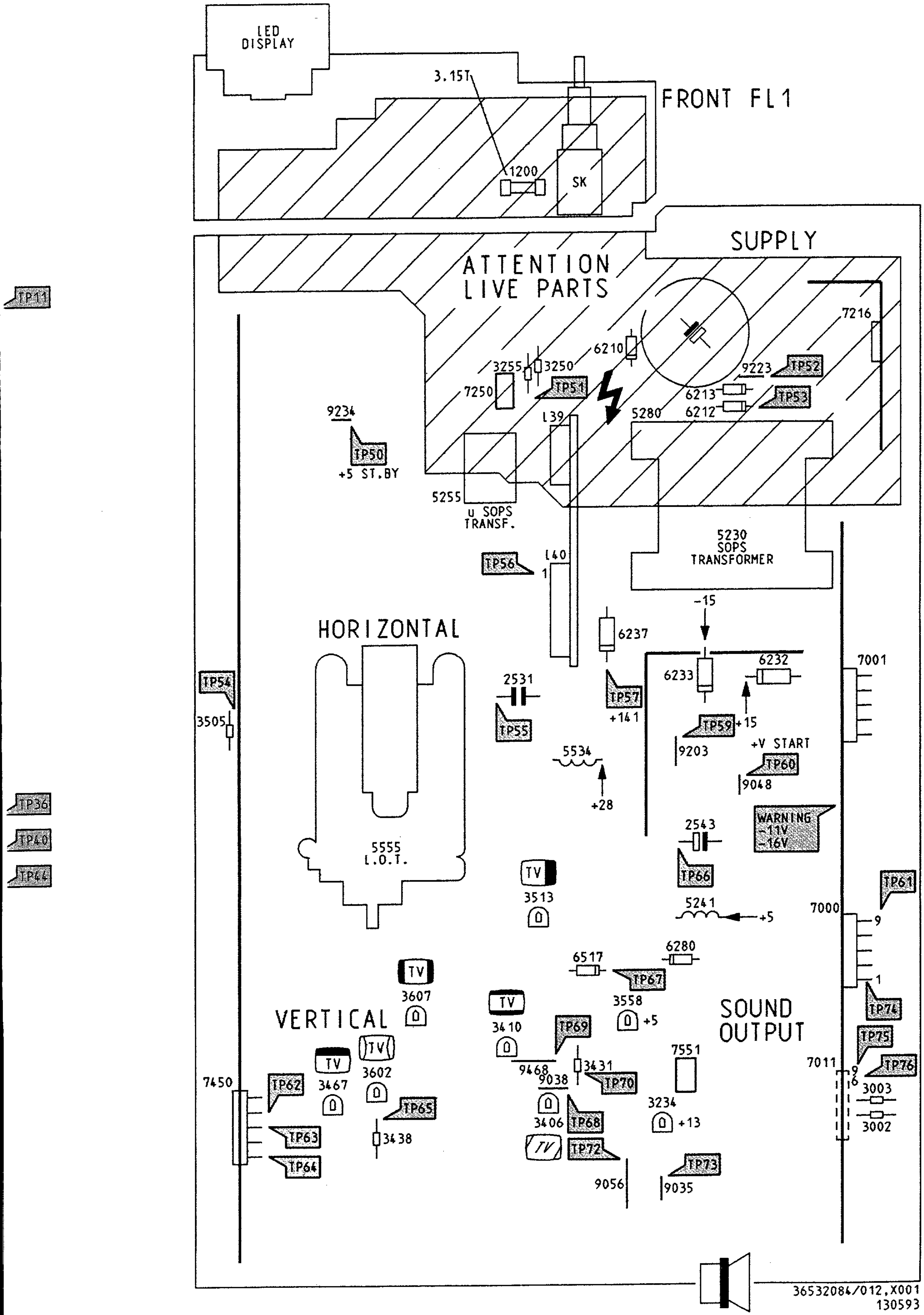

Z P.18
SCAVEM AMPLIFIER
Y P.18
SCAVEM FILTER
(CRT)
V15
F14
F41
S57
CVBS/Y TXT
SC50
S22
+13
S21
100Hz LFR
L P.23
M P.22
100Hz
L' P.24
Y
R-Y
B-Y
S20
+13
RXD
IL
CS100
TXT
R G B BL
+8B
7430 TDA4680
12 11 10 13 5
TP40
TP39
TP38
TP34
TP37
TP36
TP35
S14
PBCL
R G B
BC INFO
D14
1030 PTP
TP82
TP81
TP80
TP85
TP84
TP83
E P.15
D06
1599 CRT
FIL
+13
FIL
+200
D13
VG2
DYN. FOCUS
FOCUS
EHT
G P.16
S1
L1
+11
-11
L
R
+L
+R
-L
7009 LM833N
7002 LM833N
7000 TDA1521Q
7001 TDA1521Q
7011 TDA1521Q
TP73
9053
SQUEETER L
TP72
9056
SQUEETER R
TP74
TP61
WOOFER
TP75
TP76
SURROUND R
SURROUND L
7005
7006
+13
3680
+11
3706
7704 LM833
TP11
3722
3700
TP10
3720
SOUND PROT.
PROT
B P8,10
PROT
TP62
7450 TDA3654
V.DEFL.
L30
0L
3455
3470
TP64
TP63
+18
3543
E/W
E/W PROT
TP66
5555
+141
TP67
+200
6517
5526
+24/+32
3528
TP55
3529
2528
1/2 EHT
DAF
EHT
FOCUS
DYN FOCUS
VG2
+5
+13
7400 TDA2579
TP69
3400
CS100
100Hz
31250Hz
TP70
FL.B
9039
H
9038
TP68
100
9455
TP65
TP54
7504/7506
+141
5503
3505
2504
2505
2523
6527
2524
6526
A03
A02
A01
5520
H. DEFL.
*2520
2110
2101/2102
7100
0°C
7140
PANORAMA (16:9)
CS100
L03
S03
CS100
SC100 PIP/TDA4680
* NOT FOR PANORAMA
+24 +32
AQUA
EHT INFO
+200
L13
FIL.
+13
FIL.
+5
6541
PROT
-15/-8
CL46532018/016.XREF 160294

Small signal panel / Klein-signal Platte / Platine à petites signeaux

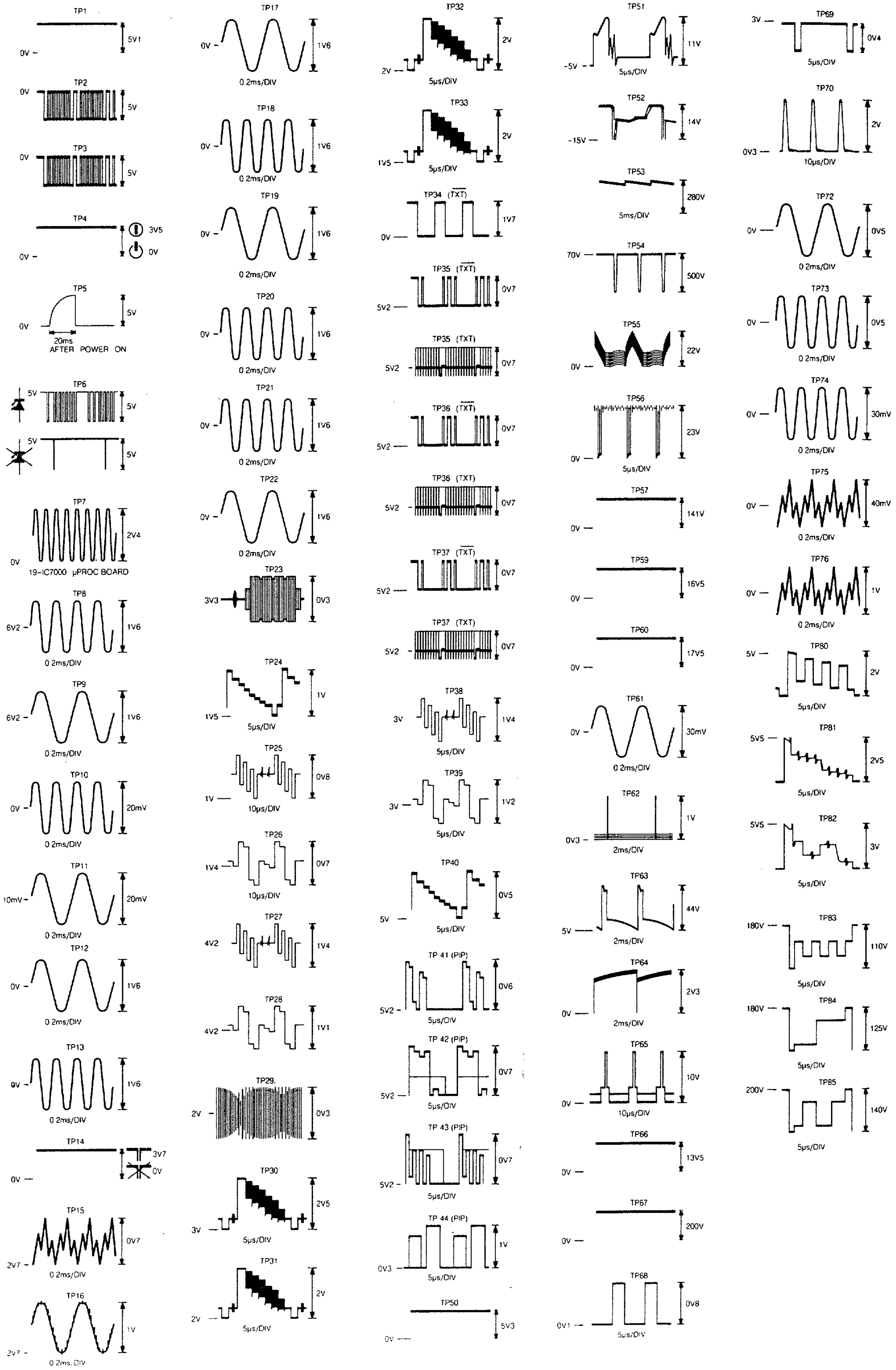

FRONT FL1
CONTROL
7680
TDA8425
AUDIO-CONTROL
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
TP10
TP11
5012
uP-MODULE
uP
1
2
3
9
12
19
7137
X2408
EAROM
S30
WRITE ENABLE
2686
2684
3700
3722
3720
-15
HEADPHONES AMPLIFIER
7704
LM833
9741
SERVICE DEFAULT MODE
+15
SERVICE MODE
S23
7175
PCF8574
7258
HEF4094
TP20
TP21
9658
7622
HEF4052
7620
AUDIO-SOURCE-SELECT
HEF4052
9629
AUDIO-RECORD-SOURCE-SELECT
9670
TP19
7600
TDA8417
TP15
TP16
8
7
STEREO DECODER
TP12
TP13
S42
1
6
9623
TP18
9622
TP17
9123
TP22
TP23
7365
TDA4650
15
CHROMA-PROCES-SING
CHROMA-DELAY
7366
TDA4661
TP25
TP26
14
16
9316
+13
VIDEO
S85
9335
+33
BLACK STRETCH
CTI (TDA4568)
9093
7630
LF353N
BUFFER
AUDIO
PAL SECAM TRANSC.
NICAM DECODER
TP14
EURO AV3 INTERFACE PANEL
1255
2318
S17
TP24
TP29
S43
1
7430
TDA4680
TP34
TP35
TP36
TP37
TP38
TP39
TP40
TP41
TP42
TP43
TP44
1
2
3
4
6
7
8
10
11
12
13
VIDEO CON.
TP31
TP33
9183
9266
7219
TEA6414
11
S83
TP32
9273
TP30
TUNER
Y/C DETECTOR
S82
PIP MODUL
S16
S20
S21
S22
LFR-BOX
100Hz
S57
1
6
SCAVEM
7395
RGB
YUV
7635
LF353N
A

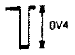
CL46532022/014.X001
160294

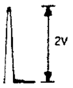
Large signal panel / Groß-signal Platte / Platine forts signeaux

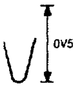

LED DISPLAY
3.15T
1200
SK
FRONT FL1
SUPPLY
ATTENTION LIVE PARTS
TP11
7216
6210
3255
3250
9223
TP52
7250
TP51
6213
6212
TP53
9234
L39
5280
TP50
+5 ST.BY
5255
u SOPS TRANSF.
5230 SOPS TRANSFORMER
TP56
L40
1
-15
HORIZONTAL
6237
6232
7001
TP54
2531
6233
3505
TP57
+141
TP55
TP59
+15
9203
+V START
5534
TP60
9048
+28
TP36
TP40
TP44
2543
WARNING -11V -16V
5555 L.O.T.
TP66
TV
3513
TP61
5241
+5
7000
9
6280
6517
1
TP67
TV
3607
TV
3558
+5
SOUND OUTPUT
VERTICAL
3410
TP69
TP74
TV
TV
3602
TP75
7551
7011
TP76
9468
3431
9038
TP70
7450
TP62
3467
9
16
3003
3234
TP65
3406
TP68
+13
3002
TP63
3438
TV
TP72
TP73
TP64
9056
9035
36532084/012,X001
130593

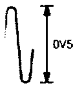
Oscillograms / Oscillogrammes

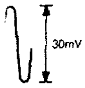

TP1
5V1
0V
TP2
0V
5V
TP3
0V
5V
TP4
3V5
0V
0V
TP5
5V
0V
20ms
AFTER POWER ON
TP6
5V
5V
5V
5V
TP7
2V4
0V
19-IC7000 µPROC BOARD
TP8
6V2
1V6
0.2ms/DIV
TP9
6V2
1V6
0.2ms/DIV
TP10
0V
20mV
0.2ms/DIV
TP11
10mV
20mV
0.2ms/DIV
TP12
0V
1V6
0.2ms/DIV
TP13
0V
1V6
0.2ms/DIV
TP14
3V7
0V
0V
TP15
0V7
2V7
0.2ms/DIV
TP16
1V
2V7
0.2ms/DIV
TP17
0V
1V6
0.2ms/DIV
TP18
0V
1V6
0.2ms/DIV
TP19
0V
1V6
0.2ms/DIV
TP20
0V
1V6
0.2ms/DIV
TP21
0V
1V6
0.2ms/DIV
TP22
0V
1V6
0.2ms/DIV
TP23
3V3
0V3
TP24
1V
1V5
5µs/DIV
TP25
0V8
1V
10µs/DIV
TP26
1V4
0V7
10µs/DIV
TP27
4V2
1V4
TP28
4V2
1V1
TP29.
2V
0V3
TP30
3V
2V5
5µs/DIV
TP31
2V
2V
5µs/DIV
TP32
2V
2V
5µs/DIV
TP33
2V
1V5
5µs/DIV
TP34 (TXT)
1V7
0V
TP35 (TXT)
0V7
5V2
TP35 (TXT)
5V2
0V7
TP36 (TXT)
0V7
5V2
TP36 (TXT)
5V2
0V7
TP37 (TXT)
0V7
5V2
TP37 (TXT)
5V2
0V7
TP38
3V
1V4
5µs/DIV
TP39
3V
1V2
5µs/DIV
TP40
0V5
5V
5µs/DIV
TP 41 (PIP)
0V6
5V2
5µs/DIV
TP 42 (PIP)
0V7
5V2
5µs/DIV
TP 43 (PIP)
0V7
5V2
5µs/DIV
TP 44 (PIP)
1V
0V3
5µs/DIV
TP50
5V3
0V
TP51
11V
-5V
5µs/DIV
TP52
14V
-15V
TP53
280V
5ms/DIV
TP54
70V
500V
TP55
22V
0V
TP56
23V
0V
5µs/DIV
TP57
141V
0V
TP59
16V5
0V
TP60
17V5
0V
TP61
0V
30mV
0.2ms/DIV
TP62
1V
0V3
2ms/DIV
TP63
44V
5V
2ms/DIV
TP64
2V3
0V
2ms/DIV
TP65
10V
0V
10µs/DIV
TP66
13V5
0V
TP67
200V
0V
TP68
0V8
0V1
5µs/DIV
TP69
3V
0V4
5µs/DIV
TP70
2V
0V3
10µs/DIV
TP72
0V
0V5
0.2ms/DIV
TP73
0V
0V5
0.2ms/DIV
TP74
0V
30mV
0.2ms/DIV
TP75
0V
40mV
0.2ms/DIV
TP76
0V
1V
0.2ms/DIV
TP80
5V
2V
5µs/DIV
TP81
5V5
2V5
5µs/DIV
TP82
5V5
3V
5µs/DIV
TP83
180V
110V
5µs/DIV
TP84
180V
125V
5µs/DIV
TP85
200V
140V
5µs/DIV

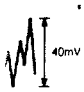

0V4

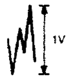

2V

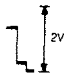

0V5

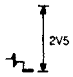

0V5

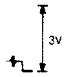

30mV

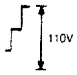

40mV

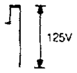

1V

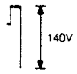

2V


2V5

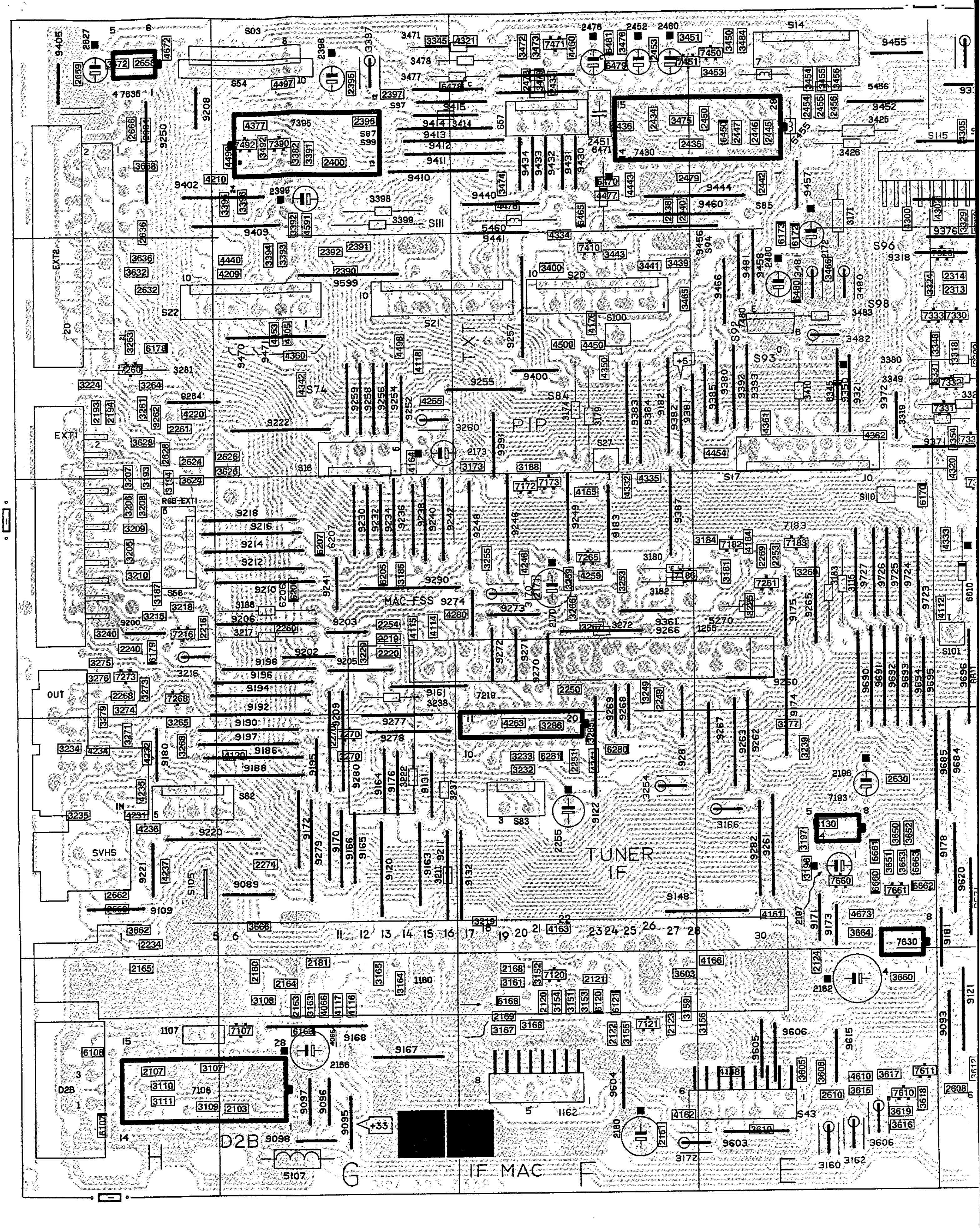

3V


110V

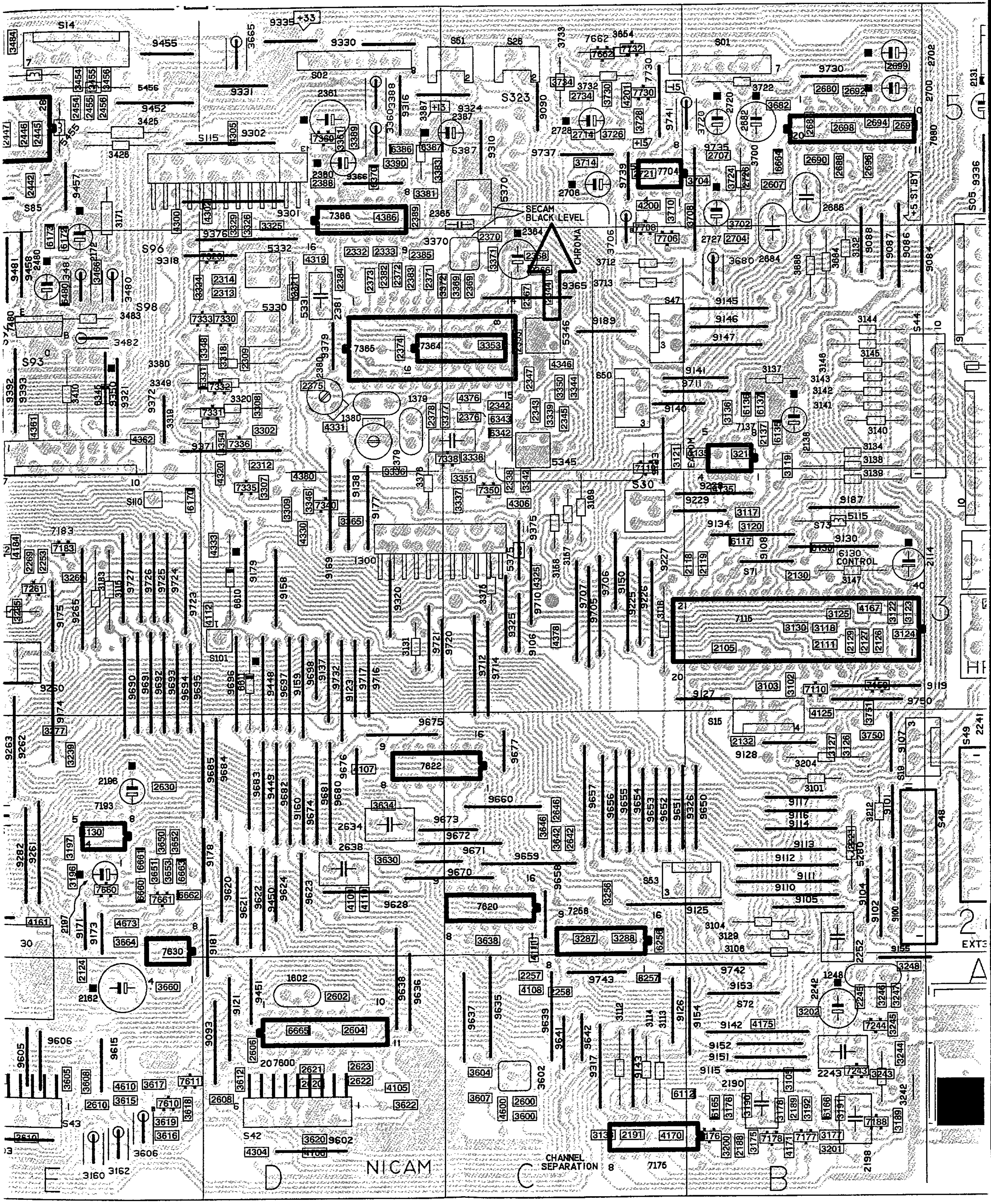

125V

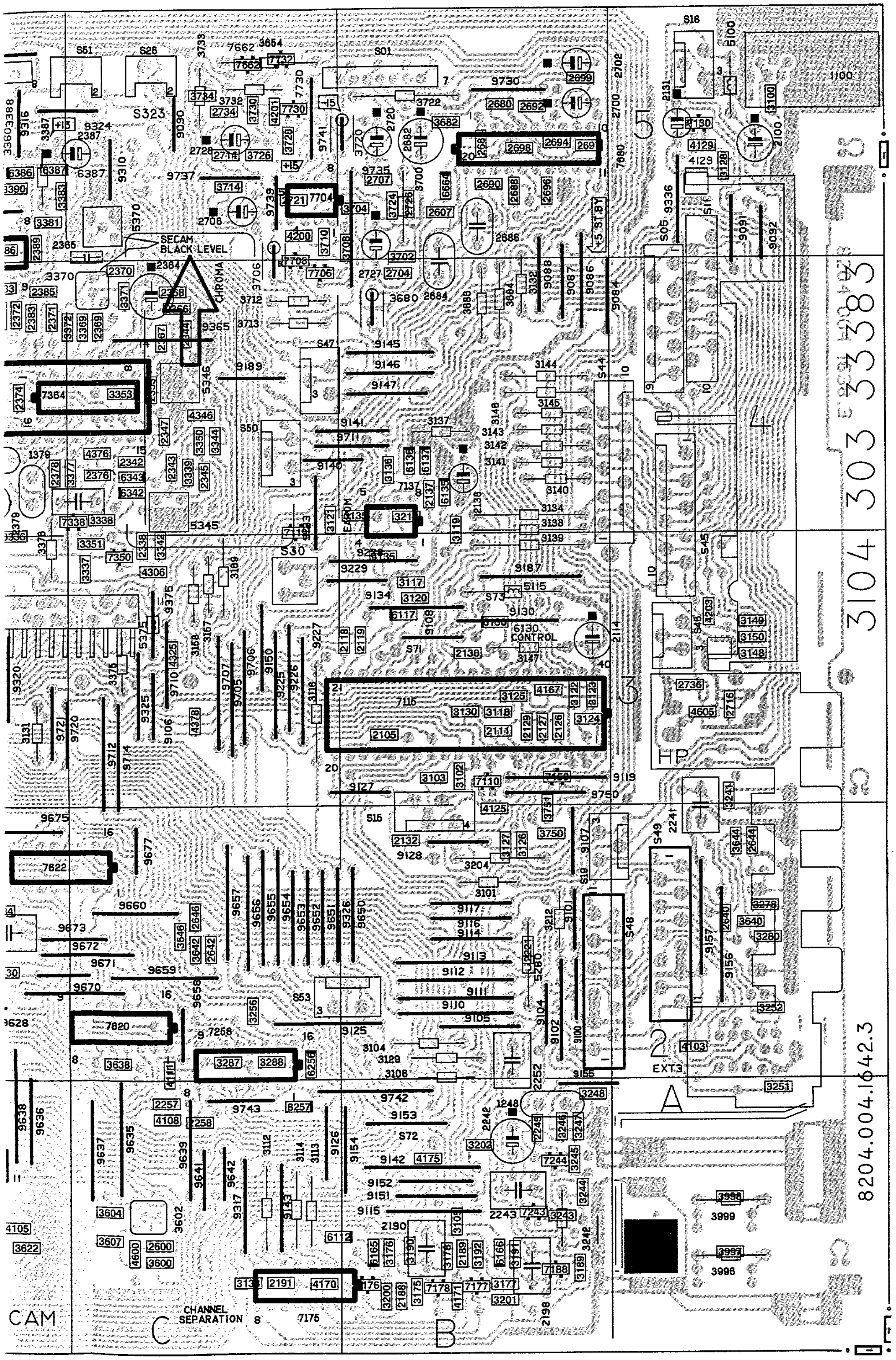

140V

Small signal panel / Klein-signal Platte / Platine à petites signeaux


EXT2
EXT1
RGB-EXT1
OUT
IN
SVHS
D2B
PIP
TXT
MAC-FSS
TUNER
IF
IF MAC
+33
+5
H
G
F
E

igneaux

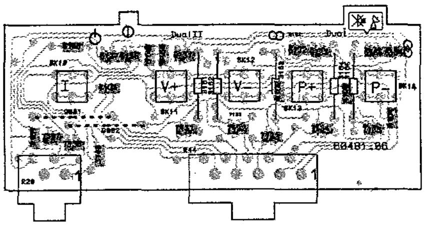

SECAM BLACK LEVEL
CHROMA
CONTROL
NICAM
CHANNEL SEPARATION
E
D
C
B
A
EXT3



EXT1	H3	2332	D4	3100
EXT2	H4	2333	D4	3101
EXT3	A3	2338	C3	3102
D2B	H1	2342	C4	3103
SVHS	H2	2343	C4	3104
S01	C5	2344	C4	3105
S02	D5	2345	C4	3106
S03	H5	2347	C4	3107
S05	A5	2353	C4	3108
S11	A5	2360	D5	3109
S14	E5	2361	D5	3110
S15	B3	2364	C4	3111
S16	G4	2365	C5	3112
S17	E4	2366	C4	3113
S18	A5	2367	C4	3114
S19	B2	2368	C4	3115
S20	F4	2369	C4	3116
S21	F4	2370	C5	3117
S22	G4	2371	D4	3118
S26	C5	2372	D4	3119
S27	F4	2373	D4	3120
S42	D1	2374	D4	3121
S43	F1	2375	D4	3122
S44	B4	2376	C4	3123
S45	A4	2377	D4	3124
S46	A3	2378	D4	3125
S47	C4	2379	D4	3126
S48	B2	2380	D4	3127
S49	A2	2381	D4	3128
S50	C4	2382	D4	3129
S51	C5	2383	D4	3130
S53	B2	2384	D4	3131
S54	H5	2385	D4	3132
S56	H3	2387	D5	3133
S57	F5	2388	D5	3134
S82	H2	2389	D5	3135
S83	F2	2390	G4	3136
S100	F4	2391	G5	3137
S101	D3	2392	G4	3138
S105	H2	2395	G5	3139
S115	E5	2396	G5	3140
1100	A5	2397	G5	3141
1107	H1	2398	G5	3142
1160	E2	2399	G5	3143
1162	F1	2400	G5	3144
1248	B1	2433	F5	3145
1300	D3	2434	F5	3146
1379	D4	2435	F5	3147
1380	D4	2436	F5	3148
1602	D1	2438	F5	3149
2100	A5	2440	F5	3150
2103	H1	2442	E5	3151
2105	B3	2445	E5	3152
2107	H1	2446	E5	3153
2111	B3	2447	E5	3154
2114	B3	2450	F5	3155
2118	C3	2451	F5	3156
2119	B3	2452	F5	3157
2120	F1	2453	F5	3158
2121	F1	2454	E5	3159
2122	F1	2455	E5	3160
2123	F1	2456	E5	3161
2124	E1	2460	F5	3162
2126	B3	2476	F5	3163
2127	B3	2478	F5	3164
2129	B3	2479	F5	3165
2130	B3	2480	E4	3166
2131	A5	2600	C1	3167
2132	B2	2602	D1	3168
2137	B4	2604	D1	3169
2138	B4	2606	D1	3170
2160	F1	2607	B5	3171
2161	F1	2608	D1	3172
2162	E1	2610	E1	3173
2163	G1	2620	D1	3174
2164	G1	2621	D1	3175
2165	H1	2622	D1	3176
2166	G1	2623	D1	3177
2168	F1	2624	H4	3178
2169	F1	2626	H4	3179
2170	F3	2627	H5	3180
2171	F3	2628	H4	3181
2172	E5	2630	E2	3182
2173	G4	2632	H4	3183
2180	G1	2634	D2	3184
2181	G1	2636	H5	3185
2188	B1	2638	D2	3186
2189	B1	2640	A2	3187
2190	B1	2642	C2	3188
2191	C1	2644	A2	3189
2193	H4	2646	C2	3190
2194	H4	2658	H5	3191
2196	E2	2659	H5	3192
2197	E2	2660	H2	3193
2198	B1	2662	H2	3194
2216	H3	2664	H5	3196
2219	G3	2666	H5	3197
2220	G3	2680	B5	3200
2221	B2	2681	B5	3201
2234	H2	2682	B5	3202
2240	H3	2684	B5	3204
2241	A3	2686	B5	3205
2242	B1	2688	B5	3206
2243	B1	2690	B5	3207
2245	B1	2692	B5	3208
2249	F3	2694	B5	3209
2250	F3	2696	B5	3210
2251	F2	2697	B5	3211
2252	B2	2698	B5	3212
2253	E3	2699	B5	3213
2254	G3	2700	B5	3215
2255	F2	2702	B5	3216
2257	C1	2704	B4	3217
2258	C1	2706	C5	3218
2260	G3	2707	B5	3219
2261	H4	2714	C5	3220
2268	H3	2716	A3	3222
2269	E3	2720	B5	3224
2270	G2	2721	C5	3225
2274	G2	2726	B5	3232
2309	D4	2727	B5	3233
2312	D4	2728	C5	3234
2313	D4	2734	C5	3235
2314	D4	2736	A3	3237

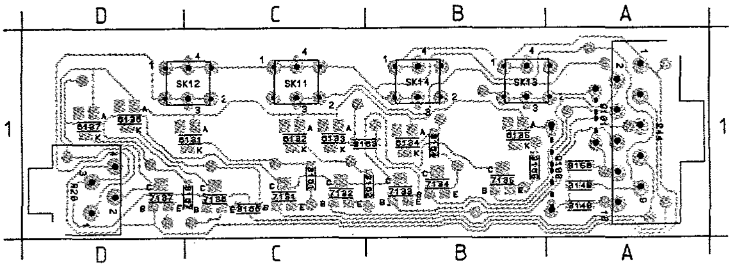
3100	A5	3238	G3	3480	E4	4259	F3	7172	F3	9159	D3	9383	F4
3101	B2	3239	E2	3481	E4	4263	F2	7173	F4	9160	D2	9384	F4
3102	B3	3240	H3	3482	E4	4280	G3	7175	B1	9161	G3	9385	F4
3103	B3	3241	A3	3483	E4	4300	E5	7176	B1	9163	G2	9387	F3
3104	B2	3242	B1	3484	E5	4302	E5	7177	B1	9164	G2	9391	F4
3105	B1	3243	B1	3492	G5	4304	D1	7178	B1	9165	G2	9392	E4
3106	B2	3244	B1	3600	C1	4305	D5	7182	E3	9166	G2	9393	E4
3107	H1	3245	B1	3602	C1	4306	C3	7183	E3	9167	G1	9400	F4
3108	G1	3246	B1	3603	F1	4319	D4	7186	F3	9168	G1	9402	H5
3109	H1	3247	B1	3604	C1	4320	D4	7188	B1	9169	D3	9403	F5
3110	H1	3248	B1	3605	E1	4321	G5	7193	E2	9170	G2	9404	F5
3111	H1	3249	F3	3606	E1	4325	C3	7216	H3	9171	E2	9405	H5
3112	C1	3251	A1	3607	C1	4330	D3	7219	F2	9172	G2	9409	H5
3113	C1	3252	A2	3608	E1	4331	D4	7243	B1	9173	E2	9410	G5
3114	C1	3253	F3	3610	E1	4332	F3	7244	B1	9174	E3	9411	G5
3115	E3	3254	F2	3612	D1	4333	E3	7258	C1	9175	E3	9412	G5
3116	C3	3255	F3	3615	E1	4334	F5	7260	H4	9176	G2	9413	G5
3117	B3	3256	C2	3616	E1	4335	F4	7261	E3	9177	D3	9414	G5
3118	B3	3257	C1	3617	E1	4342	G4	7265	F3	9178	E2	9415	G5
3119	B4	3259	F3	3618	E1	4346	C4	7268	H3	9179	D3	9416	G5
3120	B3	3260	G4	3619	E1	4350	F4	7270	G2	9180	H2	9430	F5
3121	C4	3261	H4	3620	D1	4360	G4	7273	H3	9181	E2	9431	F5
3122	B3	3262	H4	3622	D1	4361	E4	7326	E4	9182	F4	9432	F5
3123	B3	3263	H4	3624	H4	4362	E4	7330	D4	9183	F3	9433	F5
3124	B3	3264	H4	3626	H4	4376	C4	7331	E4	9186	G2	9434	F5
3125	B3	3265	H3	3628	H4	4377	G5	7332	D4	9187	B3	9440	F5
3126	B2	3266	F3	3630	D2	4378	C3	7333	E4	9188	G2	9441	F5
3127	B2	3267	F3	3632	H4	4380	D4	7335	D3	9189	C4	9444	F5
3128	A5	3268	H2	3634	D2	4386	D5	7336	D4	9190	G2	9448	D3
3129	B2	3269	E3	3636	H4	4440	H4	7338	D4	9192	G3	9449	D2
3130	B3	3270	G2	3638	C2	4443	F5	7340	D3	9194	G3	9450	D2
3131	D3	3271	H2	3640	A2	4450	F4	7350	C3	9195	G2	9451	D1
3132	B4	3272	F3	3642	C2	4453	G4	7360	D5	9196	G3	9452	E5
3133	C1	3273	H3	3644	A2	4454	E4	7364	D4	9197	G2	9455	E5
3134	B4	3274	H3	3646	C2	4460	F5	7365	D4	9198	G3	9456	F5
3135	B4	3275	H3	3650	E2	4476	F5	7366	D5	9200	H3	9457	E5
3136	B4	3276	H3	3651	E2	4477	F5	7390	G5	9202	G3	9458	E4
3137	B4	3277	E2	3652	E2	4496	H5	7395	G5	9203	G3	9460	F5
3138	B4	3278	A2	3653	E2	4497	G5	7410	F4	9205	G3	9466	E4
3139	B4	3279	H3	3654	C5	4498	G4	7430	E5	9206	G3	9470	G4
3140	B4	3280	A2	3660	E1	4500	F4	7450	E5	9208	H5	9471	G4
3141	B4	3281	H4	3662	H2	4591	G5	7451	F5	9209	G2	9481	E4
3142	B4	3285	F2	3664	E2	4600	C1	7471	F5	9210	G3	9599	G4
3143	B4	3286	F2	3665	D5	4605	A3	7480	E4	9211	G2	9602	D1
3144	B4	3287	C2	3666	G2	4610	E1	7492	G5	9212	G3	9603	E1
3145	B4	3288	C2	3668	H5	4672	H5	7600	D1	9214	G3	9604	F1
3146	B4	3302	D4	3672	H5	4673	E2	7610	E1	9216	G3	9605	E1
3147	B3	3307	D3	3680	B4	5100	A5	7611	E1	9218	G3	9606	E1
3148	A3	3308	D4	3682	B5	5107	G1	7620	C2	9220	H2	9615	E1
3149	A3	3309	D3	3684	B4	5115	B3	7622	C2	9221	H2	9620	D2
3150	A3	3318	D4	3686	B4	5270	E3	7630	E1	9222	G4	9621	D2
3151	F1	3319	E4	3700	B5	5280	B2	7635	H5	9225	C3	9622	D2
3152	F1	3320	D4	3702	B5	5303	F5	7660	E2	9226	C3	9623	D2
3153	F1	3321	D4	3704	B5	5304	F5	7661	E2	9227	C3	9624	D2
3154	F1	3324	E4	3706	C5	5330	D4	7662	C5	9228	B3	9628	D2
3155	F1	3325	D5	3708	C5	5331	D4	7680	B5	9229	B3	9635	C1
3156	F1	3326	D5	3710	C5	5332	D4	7704	C5	9230	G3	9636	D1
3157	C3	3329	D5	3712	C4	5345	C4	7706	C5	9232	G3	9637	C1
3158	C3	3336	D4	3713	C4	5346	C4	7708	C5	9234	G3	9638	D1
3159	F1	3337	C3	3714	C5	5370	C5	7730	C5	9236	G3	9639	C1
3160	E1	3338	C4	3720	C5	5375	C3	7732	C5	9238	G3	9641	C1
3161	F1	3339	C4	3722	B5	5454	E5	9084	B4	9240	G3	9642	C1
3162	E1	3342	C3	3724	B5	5455	E5	9086	B4	9241	G3	9650	B2
3163	G1	3344	C4	3726	C5	5456	E5	9087	B4	9242	G3	9651	C2
3164	G1	3345	G5	3728	C5	5460	F5	9088	B5	9246	F3	9652	C2
3165	G1	3346	D3	3730	C5	6107	H1	9089	G2	9248	G3	9653	C2
3166	E2	3348	E4	3732	C5	6108	H1	9090	C5	9249	F3	9654	C2
3167	F1	3349	D4	3733	C5	6112	C1	9091	A5	9250	H5	9655	C2
3168	F1	3350	C4	3734	C5	6117	B3	9092	A5	9252	G4	9656	C2
3169	C3	3351	C4	3750	B2	6120	F1	9093	E1	9254	G4	9657	C2
3170	F3	3353	C4	3751	B3	6121	F1	9095	G1	9255	F4	9658	C2
3171	E5	3354	D4	3996	A1	6130	B3	9096	G1	9256	G4	9659	C2
3172	F1	3360	D5	3997	A1	6135	B4	9097	G1	9257	F4	9660	C2
3173	G4	3361	D5	3998	A1	6136	B4	9098	G1	9258	G4	9670	D2
3174	F4	3365	D3	3999	A1	6137	B4	9100	B2	9259	G4	9671	D2
3175	B1	3369	C4	4066	G1	6163	G1	9101	B2	9260	E3	9672	C2
3176	B1	3370	D4	4103	A2	6165	B1	9102	B2	9261	E2	9673	D2
3177	B1	3371	C4	4105	D1	6166	B1	9104	B2	9262	E2	9674	D2
3178	B1	3372	D4	4106	D1	6168	F1	9105	B2	9263	E2	9675	D2
3179	F4	3375	C3	4107	D2	6170	E3	9106	C3	9264	H4	9676	D2
3180	F3	3376	D3	4108	C1	6172	E5	9107	B2	9265	E3	9677	C2
3181	E3	3377	D4	4109	D2	6173	E5	9108	B3	9266	F3	9680	D2
3182	F3	3380	D4	4110	D2	6178	H4	9109	H2	9267	F2	9681	D2
3183	E3	3381	D5	4111	C2	6179	H3	9110	B2	9268	F3	9682	D2
3184	F3	3382	G5	4112	E3	6205	G3	9111	B2	9269	F3	9683	D2
3185	G3	3383	D5	4114	G3	6206	G3	9112	B2	9270	F3	9684	E2
3186	G3	3387	D5	4115	G3	6207	G3	9113	B2	9271	F3	9685	E2
3187	H3	3388	D5	4116	G1	6256	C2	9114	B2	9272	F3	9690	E3
3188	F4	3389	D5	4117	G1	6257	C1	9115	B1	9273	F3	9691	E3
3189	B1	3390	D5	4118	G4	6280	F2	9116	B2	9274	G3	9692	E3
3190	B1	3391	G5	4120	H2	6281	F2	9117	B2	9277	G3	9693	E3
3191	B1	3392	G5	4125	B3	6331	E4	9119	B3	9278	G2	9694	E3
3192	B1	3393	G4	4129	A5	6342	C4	9120	G2	9279	G2	9695	E3
3193	H4	3394	G4	4130	E2	6343	C4	9121	D1	9280	G2	9696	D3
3194	H4	3395	H5	4135	B3	6345	E4	9122	F2	9281	F3	9697	D3
3196	E2	3396	G5	4148	E1	6370	D5	9123	D3	9282	E2	9698	D3
3197	E2	3397	G5	4161	E2	6386	D5	9125	C2	9290	G3	9705	C3
3200	B1	3398	G5	4162	F1	6387	D5	9126	C1	9301	D5	9706	C3
3201	B1	3399	G5	4163	F2	6450	E5	9127	B3	9302	D5	9707	C3
3202	B1	3400	F4	4164	G4	6465	F5	9128	B2	9310	C5	9710	C3
3204	B2	3410	E4	4165	F3	6470	F5	9130	B3	9316	D5	9711	C4
3205	H3	3414	G5	4166	F1	6471	F5	9131	G2	9317	C1	9712	C3
3206	H3	3425	E5	4167	B3	6478	G5	9132	G2	9318	E4	9714	C3
3207	H4	3426	E5	4170	C1	6479	F5	9133	C4	9320	D3	9716	D3
3208	H3	3439	F4	4171	B1	6480	E4	9134	B3	9321	E4	9717	D3
3209	H3	3441	F4	4175	B1	6481	F5	9137	D3	9324	D5	9720	D3
3210	H3	3443	F4	4176	F4	6610	D3	9138	D3	9325	C3	9721	D3
3211	G2	3450	E5	4184	E3	6611	D3	9140	B4	9326	C2	9723	E3
3212	B2	3451	F5	4200	C5	6660	E2	9141	B4	9330	D5	9724	E3
3213	B4	3453	E5	4201	C5	6661	E2	9142	B1	9331	D5	9725	E3
3215	H3	3454	E5	4203	A3	6662	E2	9143	C1	9335	D5	9726	E3
3216	H3	3455	E5	4205	G4	6663	E2	9145	B4	9336	A5	9727	E3
3217	G3	3456	E5	4209	H4	6664	B5	9146	B4	9350	E4	9730	B5
3218	H3	3465	F4	4210	H5	6665	D1	9147	B4	9361	F3	9732	D3
3219	F2	3466	E4	4220	H4	7107	H1	9148	F2	9365	C4	9735	B5
3220	G3	3471	G5	4231	H2	7108	G1	9150	C3	9366	D5	9737	C5
3222	G2	3472	F5	4232	H2	7110	B3	9151	B1	9371	D4	9739	C5
3224	H4	3473	F5	4234	H2	7115	B3	9152	B1	9372	E4	9741	C5
3225	E3	3474	F5	4235	H2	7119	C4	9153	B1	9375	C3	9742	B1
3232	F2	3475	F5	4236	H2	7120	F1	9154	C1	9376	D5	9743	C1
3233	F2	3476	F5	4237	H2	7121	F1	9155	B1	9379	D4	9750	B3
3234	H2	3477	G5	4241	F2	7130	A5	9156	A2	9380	E4		
3235	H2	3478	G5	4246	F3	7137	B4	9157	A2	9381	F4		
3237	G2	3479	F5	4255	G4	7150	B3	9158	D3	9382	F4		

FL2 LED/Control

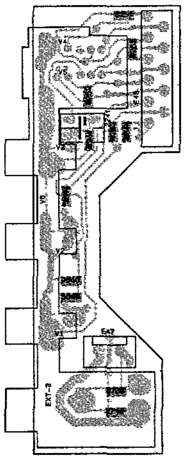


FL4 LED/Control

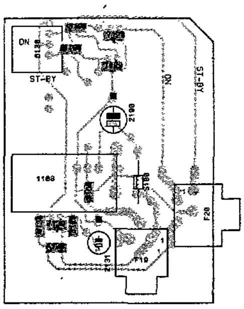
3148	A	1	3163	C	1	6131	C	1	6136	D	1	7134	B	1	9101	A	1	SK13	B
3149	A	1	3164	B	1	6132	C	1	6137	D	1	7135	B	1	R20	D	1	SK14	B
3158	A	1	3165	B	1	6133	C	1	7131	C	1	7136	C	1	R44	A	1		
3161	C	1	3166	C	1	6134	B	1	7132	C	1	7137	D	1	SK11	C	1		
3162	B	1	3167	C	1	6135	B	1	7133	B	1	9100	A	1	SK12	D	1		



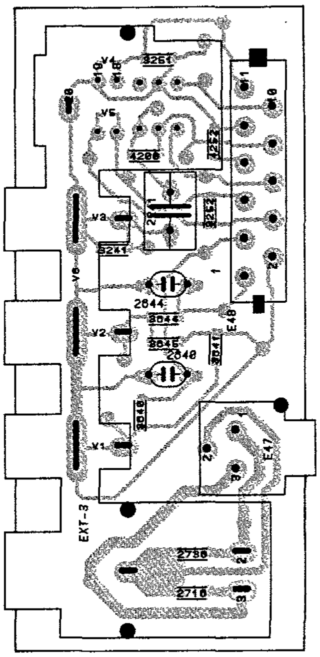
FL2 Front



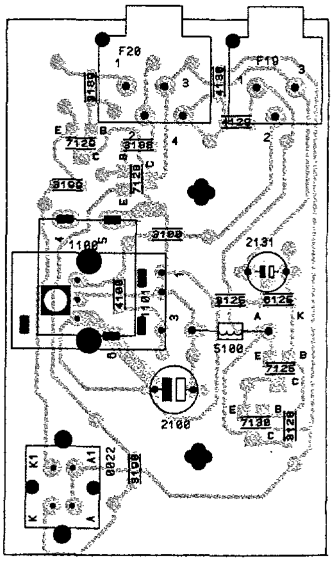
FL2 IR



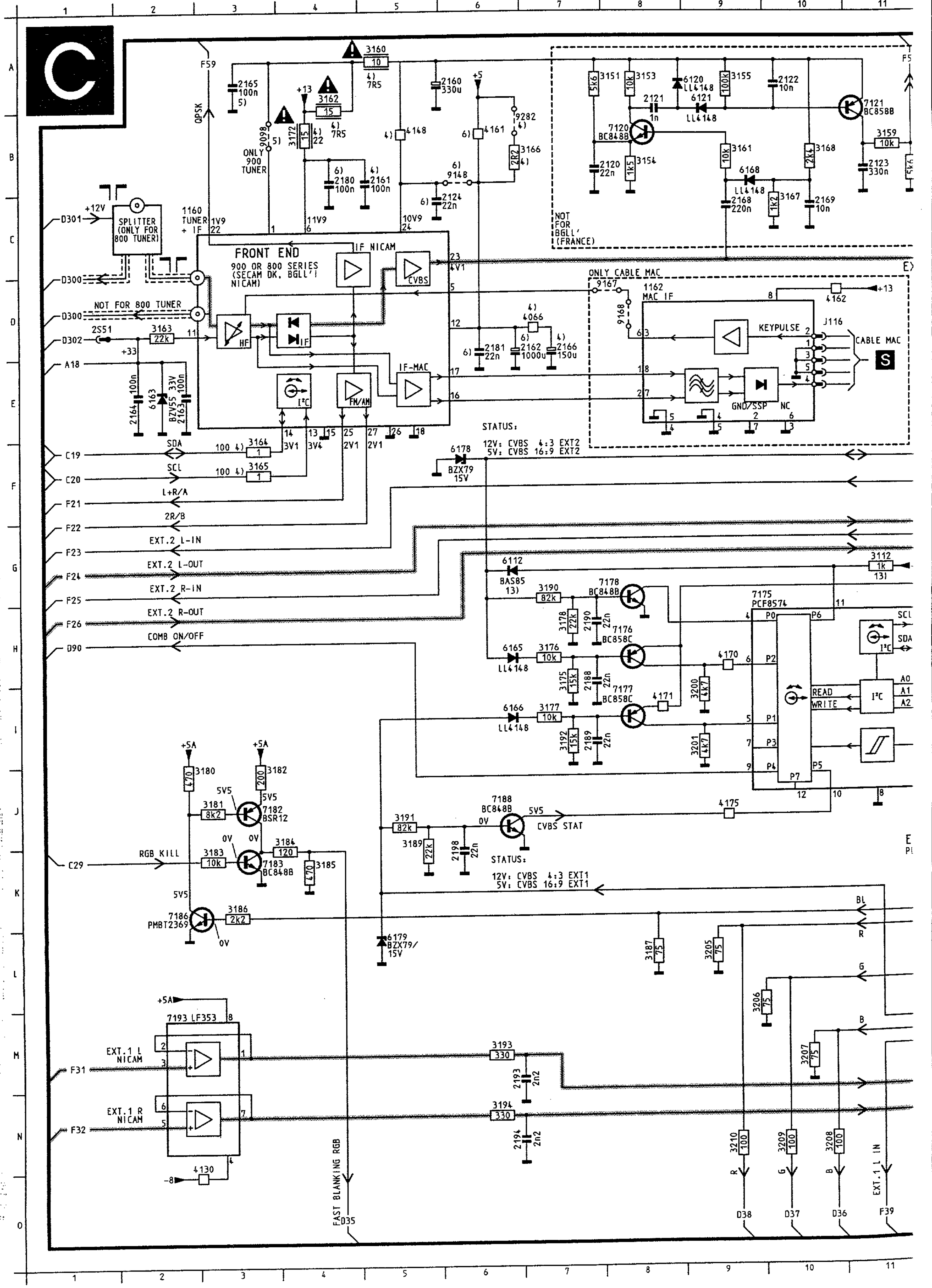
FL4 Front



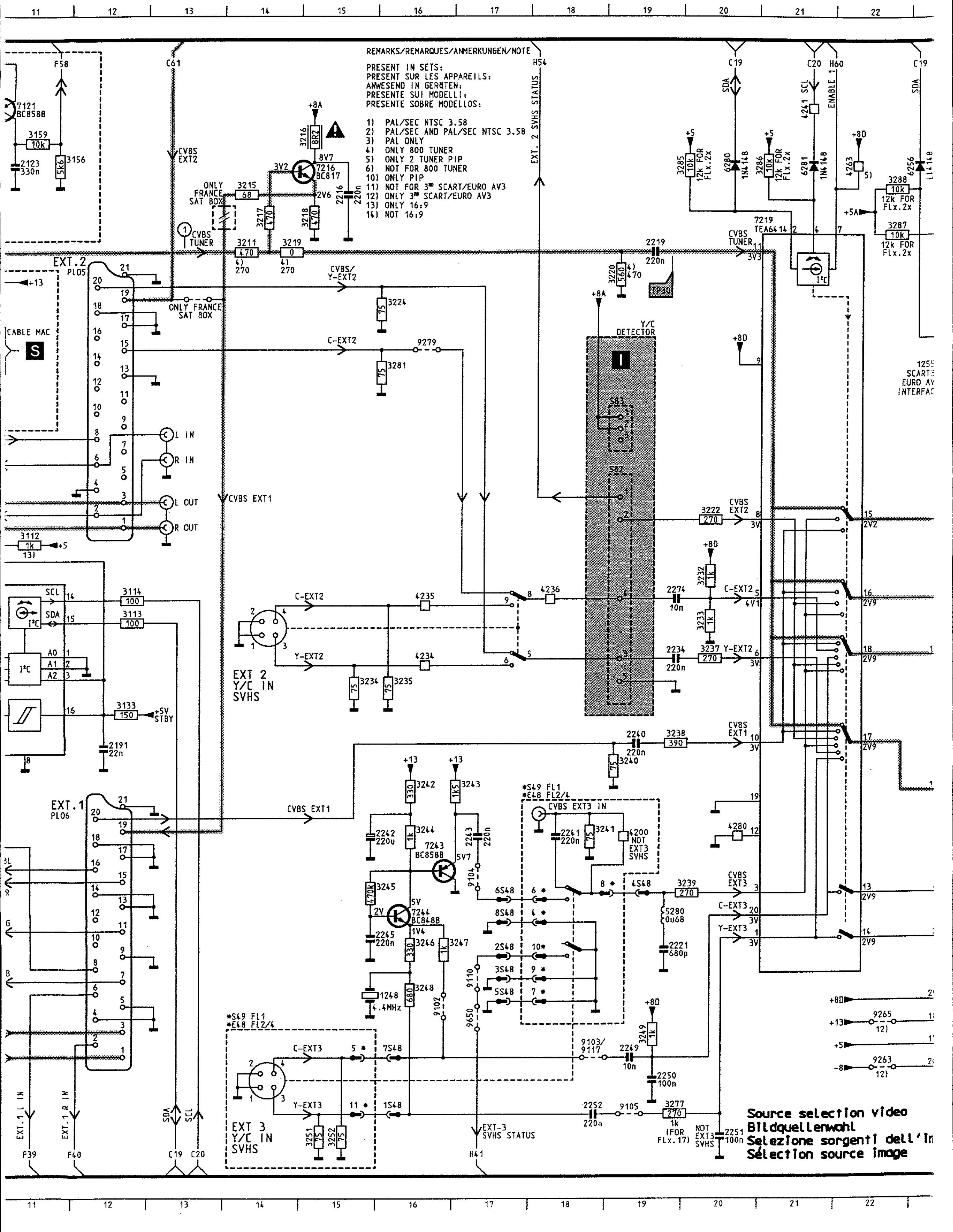
FL4 IR LED panel



Source selection / Quellenwahl /


C
FRONT END
900 OR 800 SERIES
(SECAM DK, BGLL'I NICAM)
IF NICAM
CVBS
HF
IF
IF-MAC
FM/AM
I²C
1160
TUNER + IF
SPLITTER (ONLY FOR 800 TUNER)
NOT FOR 800 TUNER
ONLY 900 TUNER
QPSK
F59
+12V
+13
+5
+33
D301
D300
D302
A18
C19
C20
F21
F22
F23
F24
F25
F26
D90
C29
F31
F32
SDA
SCL
L+R/A
2R/B
EXT.2 L-IN
EXT.2 L-OUT
EXT.2 R-IN
EXT.2 R-OUT
COMB ON/OFF
RGB KILL
EXT.1 L NICAM
EXT.1 R NICAM
7193 LF353
+5A
-8
4130
3160 10
3162 15
3172 15
2165 100n
2160 330u
2180 100n
2161 100n
2124 22n
9098
9148
9282
4148
4161
3166 2R2
2S51
3163 22k
2164 100n
6163 BZV55 33V
2163 100n
3164 1
3165 1
6178 BZX79 15V
STATUS:
12V: CVBS 4:3 EXT2
5V: CVBS 16:9 EXT2
4066
2181 22n
2162 1000u
2166 150u
NOT FOR BGLL' (FRANCE)
3151 5k6
3153 10k
6120 LL4148
6121 LL4148
3155 100k
2122 10n
2121 1n
7120 BC848B
7121 BC858B
3159 10k
2120 22n
3154 1k5
3161 10k
6168 LL4148
3168 2k4
2123 330n
2168 220n
3167 1k2
2169 10n
ONLY CABLE MAC
9167
9168
1162 MAC IF
4162
KEYPULSE
J116
CABLE MAC
S
GND/SSP
NC
6112 BAS85
3190 82k
7178 BC848B
3178 22k
2190 22n
7176 BC858C
6165 LL4148
3176 10k
3175 15k
2188 22n
7177 BC858C
6166 LL4148
3177 10k
3192 15k
2189 22n
4170
4171
3200 4k7
3201 4k7
7175 PCF8574
READ
WRITE
I²C
A0
A1
A2
3112 1k
3180 470
3182 200
3181 8k2
7182 BSR12
3183 10k
7183 BC848B
3184 120
3185 470
7186 PMBT2369
3186 2k2
5V5
0V
3191 82k
3189 22k
2198 22n
7188 BC848B
CVBS STAT
STATUS:
12V: CVBS 4:3 EXT1
5V: CVBS 16:9 EXT1
4175
6179 BZX79/15V
BL
R
G
B
3187 75
3205 75
3206 75
3207 75
3193 330
2193 2n2
3194 330
2194 2n2
3210 100
3209 100
3208 100
FAST BLANKING RGB
D35
D38
D37
D36
EXT.1 L IN
F39

Sélection de source



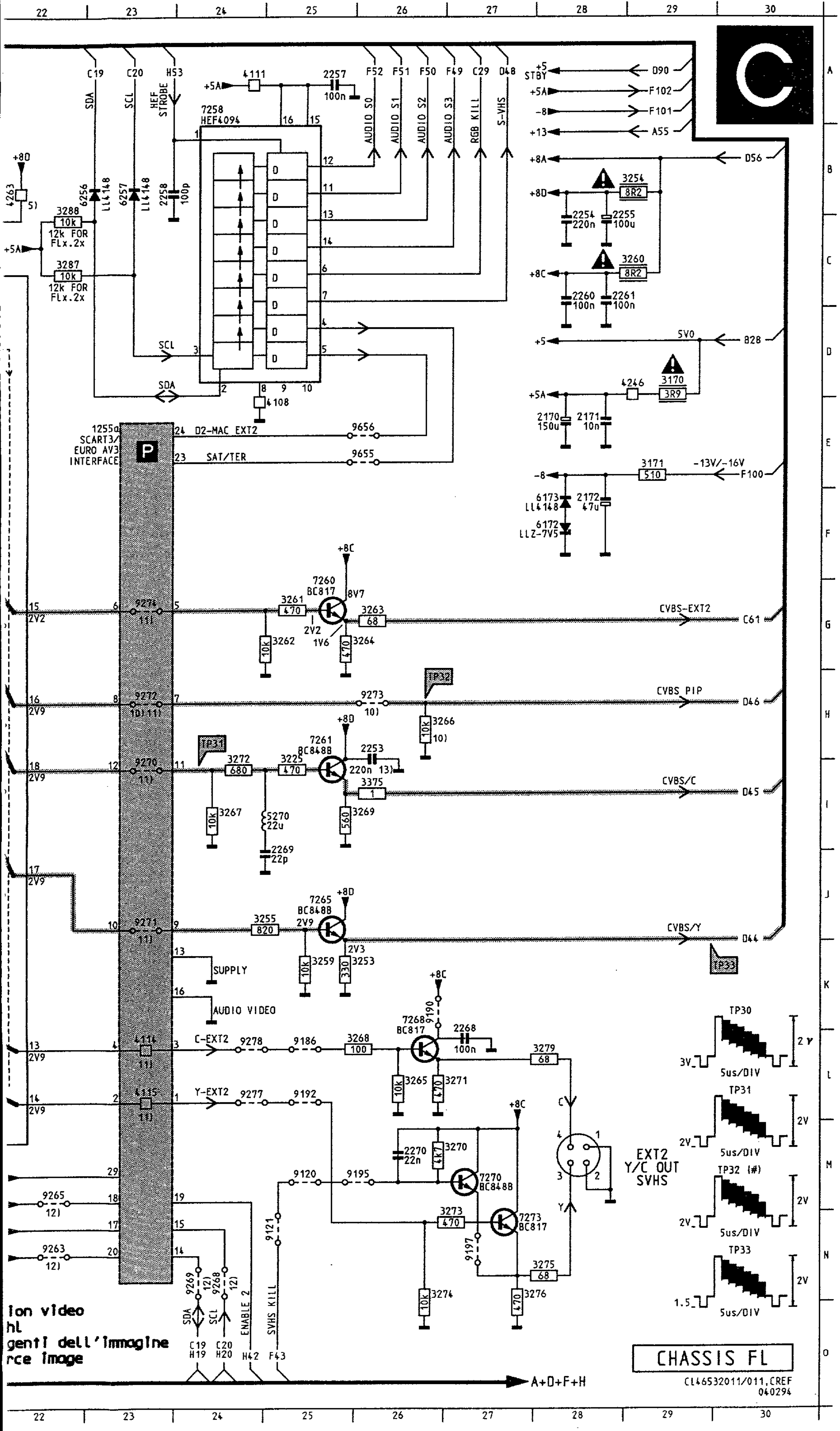
REMARKS/REMARQUES/ANMERKUNGEN/NOTE

PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERÄTEN:
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:

1) PAL/SEC NTSC 3.58
2) PAL/SEC AND PAL/SEC NTSC 3.58
3) PAL ONLY
4) ONLY 800 TUNER
5) ONLY 2 TUNER PIP
6) NOT FOR 800 TUNER
10) ONLY PIP
11) NOT FOR 3^{RD} SCART/EURO AV3
12) ONLY 3^{RD} SCART/EURO AV3
13) ONLY 16:9
14) NOT 16:9

Source selection video
Bildquellenwahl
Selezione sorgenti dell'In
Sélection source image

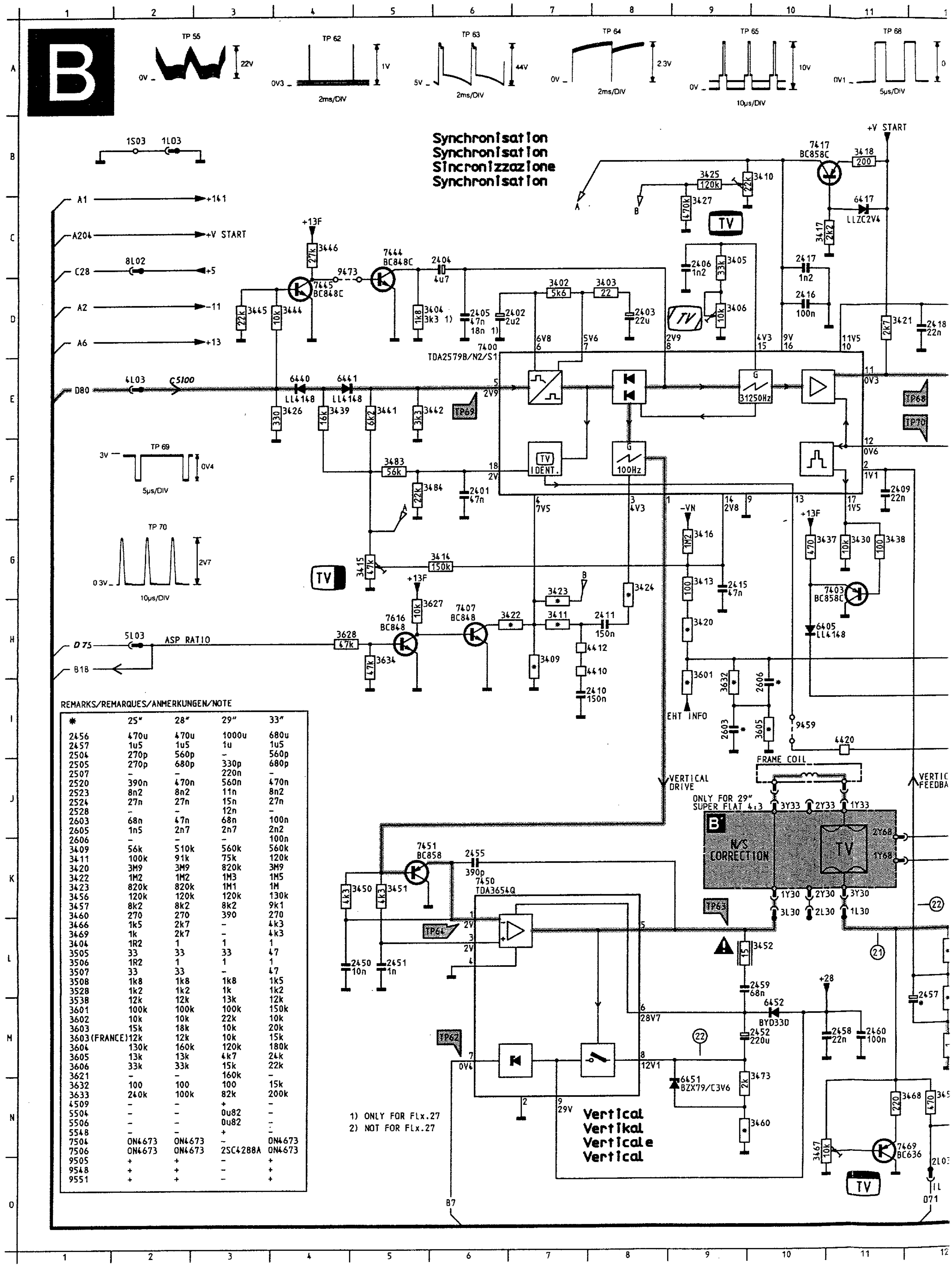
11
12
13
14
15
16
17
18
19
20
21
22
F58
C61
H54
C19
C20
H60
7121
BC858B
3159
10k
3156
5k6
2123
330n
CVBS EXT2
+8A
3216
8R2
8V7
3V2
7216
BC817
2V6
2216
220n
ONLY FRANCE SAT BOX
3215
68
3217
470
3218
470
CVBS TUNER
3211
470
4) 270
3219
0
4) 270
EXT.2
PL05
CVBS/ Y-EXT2
3224
75
ONLY FRANCE SAT BOX
CABLE MAC
S
C-EXT2
9279
3281
75
L IN
R IN
L OUT
R OUT
CVBS EXT1
3112
1k
13)
+5
+13
EXT. 2 SVHS STATUS
2219
220n
3220
560
4) 470
TP30
+8A
Y/C DETECTOR
I
S83
S82
SDA
SCL
ENABLE 1
3285
10k
12k FOR FLx.2x
6280
1N4148
3286
10k
12k FOR FLx.2x
4241
6281
1N4148
+8D
4263
5)
6256
3288
10k
12k FOR FLx.2x
+5A
3287
10k
12k FOR FLx.2x
7219
TEA6414
CVBS TUNER
3V3
I²C
+8D
1255 SCART3 EURO AV INTERFAC
3222
270
CVBS EXT2
3V
+8D
3232
1k
3233
1k
2274
10n
C-EXT2
4V1
2234
220n
3237
270
Y-EXT2
3V
15
2V2
16
2V9
18
2V9
17
2V9
SCL
SDA
3114
100
3113
100
I²C
A0
A1
A2
3133
150
+5V STBY
2191
22n
C-EXT2
4235
4236
Y-EXT2
4234
3234
75
3235
75
EXT 2 Y/C IN SVHS
2240
220n
3238
390
CVBS EXT1
3240
75
EXT.1
PL06
CVBS EXT1
+13
3242
330
+13
3243
1k5
2242
220u
3244
1k
7243
BC858B
5V7
2243
220n
9104
3245
470K
5V
2V
7244
BC848B
1V4
2245
220n
3246
330
3247
1k
1248
4.4MHz
3248
680
9102
9110
9650
*S49 FL1
*E48 FL2/4
CVBS EXT3 IN
2241
220n
3241
75
4200
NOT EXT3 SVHS
6S48
8S48
2S48
3S48
5S48
4S48
3239
270
CVBS EXT3
5280
0u68
2221
680p
C-EXT3
3V
Y-EXT3
3V
4280
13
2V9
14
2V9
+8D
+13
9265
12)
+5
-8
9263
12)
*S49 FL1
*E48 FL2/4
C-EXT3
7S48
Y-EXT3
1S48
3251
75
3252
75
EXT 3 Y/C IN SVHS
9103/ 9117
2249
10n
+8D
3249
1k
2250
100n
2252
220n
9105
3277
270
1k (FOR FLx.17)
NOT EXT3 SVHS
2251
100n
EXT-3 SVHS STATUS
EXT.1 L IN
EXT.1 R IN
SDA
SCL
F39
F40
C19
C20
H41



22
23
24
25
26
27
28
29
30
C19
C20
H53
SDA
SCL
HEF STROBE
+5A
4111
2257
100n
F52
F51
F50
F49
C29
D48
AUDIO S0
AUDIO S1
AUDIO S2
AUDIO S3
RGB KILL
S-VHS
7258
HEF4094
+5 STBY
+5A
-8
+13
D90
F102
F101
A55
+8A
D56
+8D
3254
8R2
2254
220n
2255
100u
+8C
3260
8R2
2260
100n
2261
100n
+5
5V0
B28
+5A
4246
3170
3R9
2170
150u
2171
10n
-8
3171
510
-13V/-16V
F100
6173
LL4148
2172
47u
6172
LLZ-7V5
+8D
4263
3288
10k
12k FOR FLx.2x
3287
10k
12k FOR FLx.2x
6256
LL4148
6257
LL4148
2258
100p
SCL
SDA
4108
1255a
SCART3/
EURO AV3
INTERFACE
D2-MAC EXT2
SAT/TER
9656
9655
+8C
7260
BC817
8V7
3261
470
3263
68
2V2
1V6
3262
10k
3264
470
CVBS-EXT2
C61
15
2V2
9274
TP32
9273
CVBS PIP
D46
16
2V9
9272
3266
10k
+8D
7261
BC848B
2253
220n
TP31
3272
680
3225
470
3375
1
CVBS/C
D45
18
2V9
9270
3267
10k
5270
22u
2269
22p
3269
560
17
2V9
7265
BC848B
+8D
3255
820
2V9
2V3
9271
CVBS/Y
D44
TP33
3259
10k
3253
330
SUPPLY
AUDIO VIDEO
+8C
9190
7268
BC817
2268
100n
13
2V9
4114
C-EXT2
9278
9186
3268
100
3279
68
3265
10k
3271
470
14
2V9
4115
Y-EXT2
9277
9192
+8C
2270
22n
3270
4K7
7270
BC848B
EXT2
Y/C OUT
SVHS
9120
9195
3273
470
7273
BC817
9121
9197
3275
68
3274
10k
3276
470
TP30
3V
2V
5us/DIV
TP31
2V
5us/DIV
TP32 (#)
2V
5us/DIV
TP33
1.5
2V
5us/DIV
9265
9263
9269
9268
SDA
SCL
ENABLE 2
SVHS KILL
C19
H19
C20
H20
H42
F43
A+D+F+H
lon video
hl
gentl dell'immagine
rce image
CHASSIS FL
CL46532011/011.CREF
040294

1160	C 2	3237	I20	9192	L25
1162	D 8	3238	J19	9195	M26
1248	M16	3239	L20	9197	N27
1255	E23	3240	J19	9263	N22
2120	B 7	3241	K18	9265	M22
2121	A 8	3242	J16	9268	N24
2122	A10	3243	J17	9269	N24
2123	B11	3244	K16	9270	I23
2124	C 6	3245	L16	9271	J23
2160	A 6	3246	L16	9272	H23
2161	B 5	3247	L16	9273	H26
2162	D 7	3248	M16	9274	G23
2163	E 2	3249	N19	9277	L24
2164	E 2	3251	O15	9278	L24
2165	A 3	3252	O15	9279	E16
2166	D 7	3253	K25	9282	B 6
2168	C 9	3254	B29	9650	M17
2169	C10	3255	J25	9655	E26
2170	E28	3259	K25	9656	E26
2171	E28	3260	C29		
2172	F28	3261	G25		
2180	B 4	3262	G25		
2181	D 6	3263	G26		
2188	I 7	3264	G25		
2189	I 7	3265	L26		
2190	H 7	3266	H26		
2191	J12	3267	I24		
2193	M 6	3268	L26		
2194	N 6	3269	I25		
2198	K 6	3270	M27		
2216	C15	3271	L27		
2219	C19	3272	I24		
2221	L19	3273	N27		
2234	I19	3274	N26		
2240	J19	3275	N28		
2241	K18	3276	N27		
2242	K15	3277	O19		
2243	K17	3279	L28		
2245	L15	3281	E16		
2249	N19	3285	B19		
2250	N19	3286	B21		
2251	O20	3287	C22		
2252	O18	3288	B22		
2253	H26	3375	I26		
2254	C28	4066	D 7		
2255	C28	4108	E25		
2257	A25	4111	A24		
2258	B23	4114	L23		
2260	C28	4115	L23		
2261	C28	4130	N 3		
2268	L27	4148	B 5		
2269	J25	4161	B 6		
2270	M26	4162	D10		
2274	H19	4170	H 9		
3112	G11	4171	I 8		
3113	H12	4175	J 9		
3114	H12	4200	K19		
3133	I12	4234	I16		
3151	A 7	4235	H16		
3153	A 8	4236	H18		
3154	B 8	4241	B21		
3155	A 9	4246	D29		
3156	B11	4263	B22		
3159	B11	4280	K20		
3160	A 5	5270	I25		
3161	B 9	5280	L19		
3162	A 4	6112	G 6		
3163	D 2	6120	A 9		
3164	F 3	6121	A 9		
3165	F 3	6163	E 2		
3166	B 7	6165	H 6		
3167	C10	6166	I 6		
3168	B10	6168	B 9		
3170	D29	6172	F28		
3171	E29	6173	F28		
3172	B 4	6178	F 6		
3175	I 7	6179	L 5		
3176	H 7	6256	B23		
3177	I 7	6257	B23		
3178	H 7	6280	B20		
3180	I 2	6281	B21		
3181	J 3	7120	B 8		
3182	I 3	7121	B11		
3183	K 3	7175	H 9		
3184	J 4	7176	H 8		
3185	K 4	7177	I 8		
3186	K 3	7178	G 8		
3187	L 8	7182	J 3		
3189	J 5	7183	K 3		
3190	G 7	7186	K 2		
3191	J 5	7188	J 6		
3192	I 7	7193	M 2		
3193	M 6	7216	B15		
3194	N 6	7219	C20		
3200	I 9	7243	K16		
3201	I 9	7244	L16		
3205	L 9	7258	A24		
3206	L 9	7260	G25		
3207	M10	7261	H25		
3208	N10	7265	J25		
3209	N10	7268	K26		
3210	N 9	7270	M27		
3211	C14	7273	N27		
3215	C14	9098	B 3		
3216	B15	9102	M16		
3217	C14	9103	N18		
3218	C15	9104	K17		
3219	C14	9105	O19		
3220	D19	9110	M17		
3222	G20	9120	M25		
3224	D16	9121	N25		
3225	I25	9148	B 6		
3232	H20	9167	D 8		
3233	H20	9168	D 8		
3234	I15	9186	L25		
3235	I16	9190	K26		

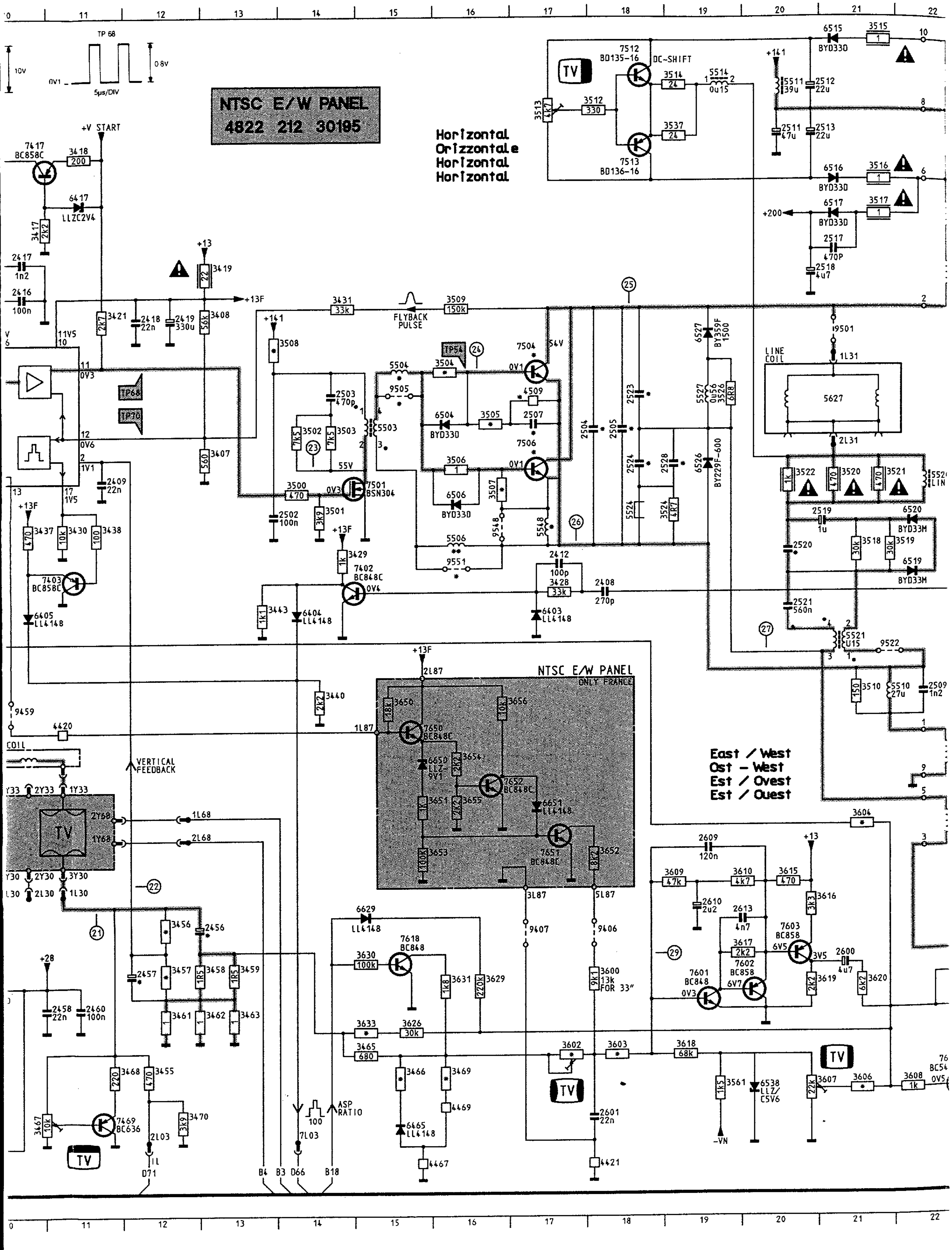
Synchronization / Synchronisierung / Synchronisation

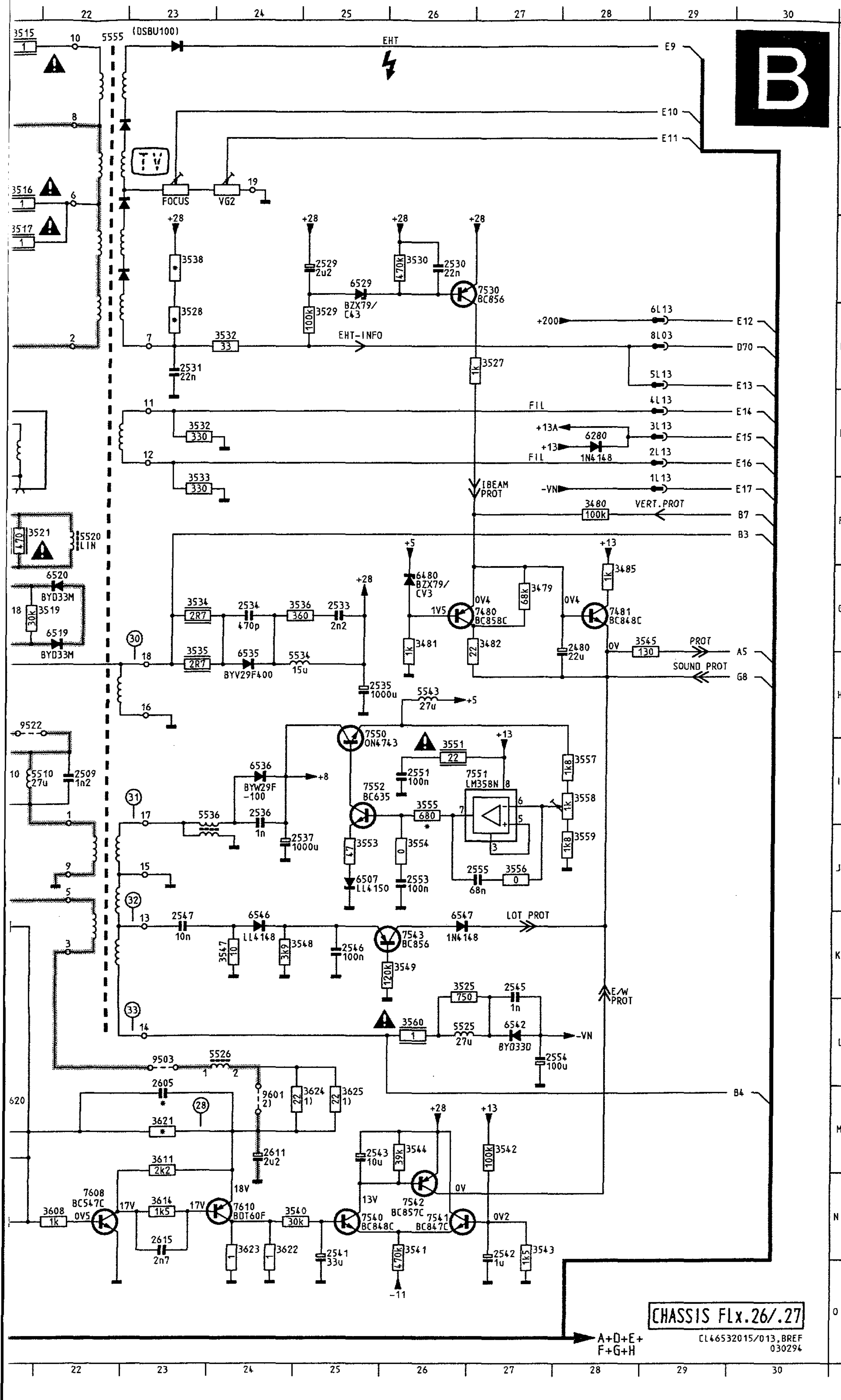

B
TP 55
TP 62
TP 63
TP 64
TP 65
TP 68
TP 69
TP 70
2ms/DIV
10µs/DIV
5µs/DIV
Synchronisation
Synchronisation
Sincronizzazione
Synchronisation
+V START
7417 BC858C
7400 TDA2579B/N2/S1
31250Hz
100Hz
TV IDENT.
7444 BC848C
7445 BC848C
7616 BC848
7407 BC848
7403 BC858C
7451 BC858
7450 TDA3654Q
ASP RATIO
EHT INFO
VERTICAL DRIVE
VERTICAL FEEDBACK
FRAME COIL
ONLY FOR 29" SUPER FLAT 4:3
N/S CORRECTION
6452 BYD33D
6451 BZX79/C3V6
7469 BC636
Vertical
Vertikal
Verticale
Vertical
1) ONLY FOR FLx.27
2) NOT FOR FLx.27

REMARKS/REMARQUES/ANMERKUNGEN/NOTE

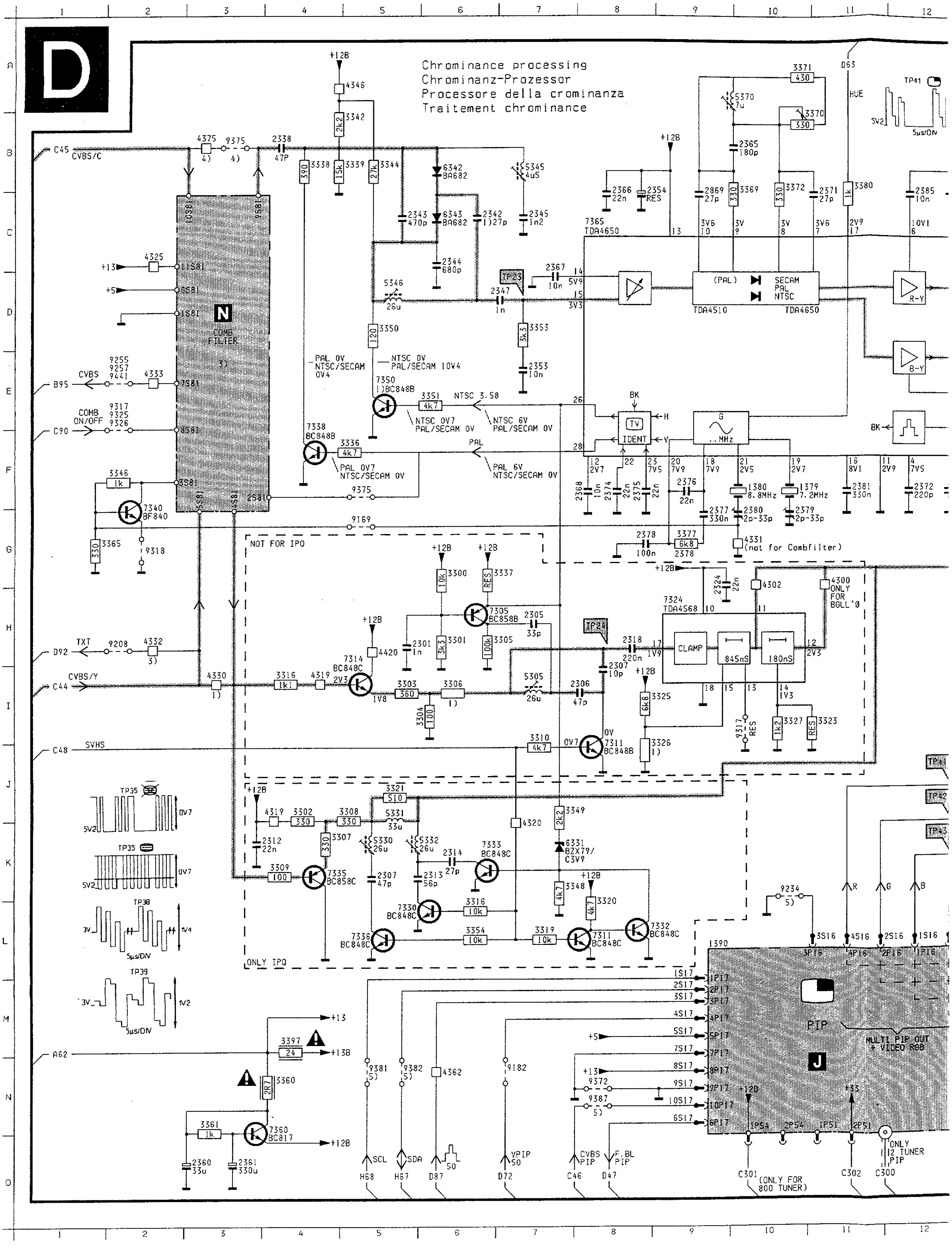
*	25"	28"	29"	33"
2456	470u	470u	1000u	680u
2457	1u5	1u5	1u	1u5
2504	270p	560p	–	560p
2505	270p	680p	330p	680p
2507	–	–	220n	–
2520	390n	470n	560n	470n
2523	8n2	8n2	11n	8n2
2524	27n	27n	15n	27n
2528	–	–	12n	–
2603	68n	47n	68n	100n
2605	1n5	2n7	2n7	2n2
2606	–	–	–	100n
3409	56k	510k	560k	560k
3411	100k	91k	75k	120k
3420	3M9	3M9	820k	3M9
3422	1M2	1M2	1M3	1M5
3423	820k	820k	1M1	1M
3456	120k	120k	120k	130k
3457	8k2	8k2	8k2	9k1
3460	270	270	390	270
3466	1k5	2k7	–	4k3
3469	1k	2k7	–	4k3
3404	1R2	1	1	1
3505	33	33	33	47
3506	1R2	1	1	1
3507	33	33	–	47
3508	1k8	1k8	1k8	1k5
3528	1k2	1k2	1k	1k2
3538	12k	12k	13k	12k
3601	100k	100k	100k	150k
3602	10k	10k	22k	10k
3603	15k	18k	10k	20k
3603 (FRANCE)	12k	12k	10k	15k
3604	130k	160k	120k	180k
3605	13k	13k	4k7	24k
3606	33k	33k	15k	22k
3621	–	–	160k	–
3632	100	100	100	15k
3633	240k	100k	82k	200k
4509	–	–	+	–
5504	–	–	0u82	–
5506	–	–	0u82	–
5548	–	–	+	–
7504	0N4673	0N4673	–	0N4673
7506	0N4673	0N4673	2SC4288A	0N4673
9505	+	+	–	+
9548	+	+	–	+
9551	+	+	–	+

FLx.26/.27 (4:3)

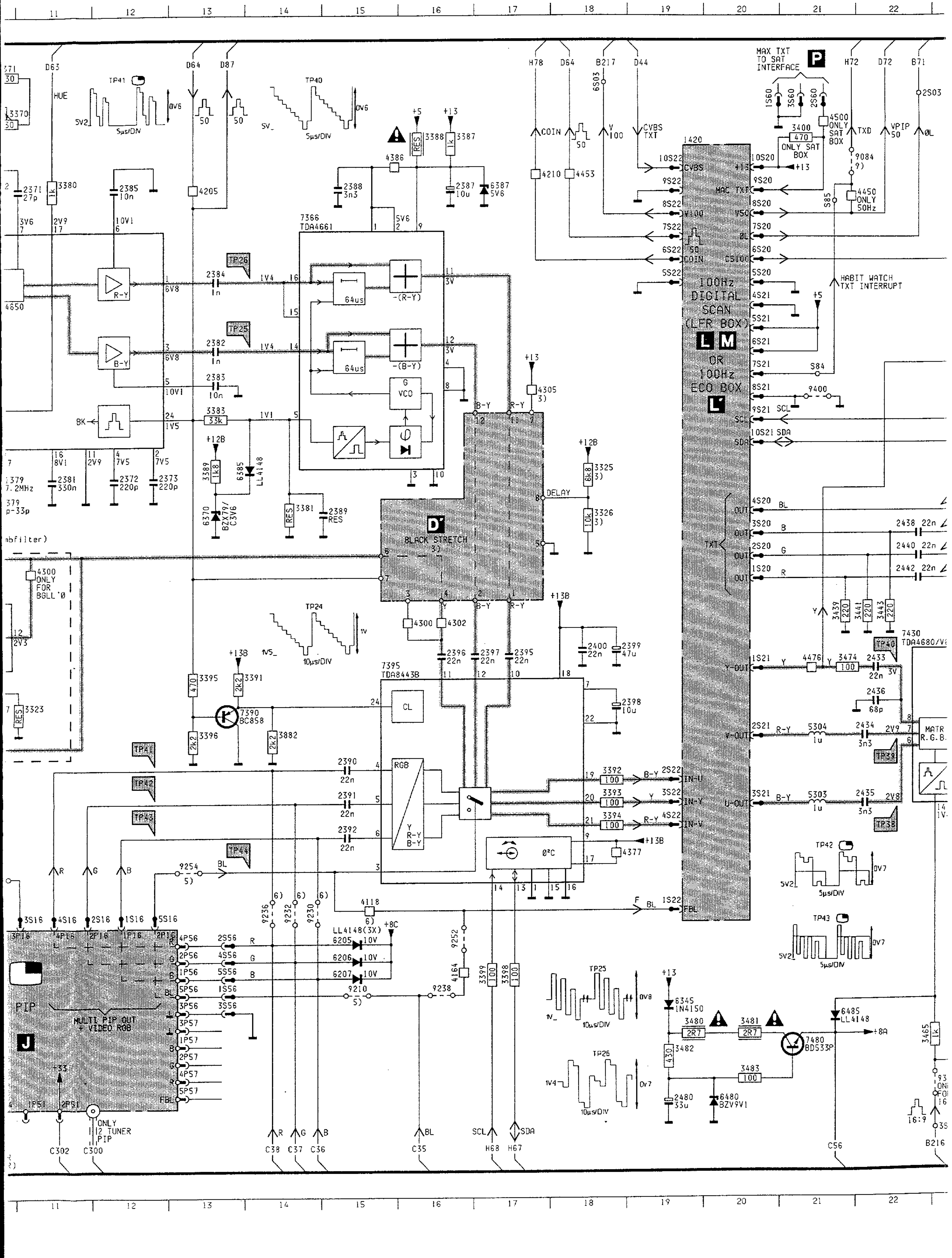

NTSC E/W PANEL
4822 212 30195
Horizontal
Orizzontale
Horizontal
Horizontal
East / West
Ost - West
Est / Ovest
Est / Ouest
TP 68
10V
0V1
0.8V
5µs/DIV
+V START
7417 BC858C
3418 200
6417 LLZC2V4
3417 2K2
2417 1n2
2416 100n
3421 2K7
2418 22n
2419 330u
+13
3419 22
3408 56K
+13F
11V5
0V3
0V6
1V1
1V5
TP68
TP70
3407 560
2409 22n
3437 470
3430 10K
3438 100
7403 BC858C
6405 LL4148
3431 33K
FLYBACK PULSE
3509 150K
+141
3508
TP54
5504
3504
9505
2503 470p
3502 7K5
3503 7K5
5503
55V
3500 470
7501 BSN304
2502 100n
3501 3K9
+13F
3429 1K
7402 BC848C
0V4
3443 1K1
6404 LL4148
7504
0V1
54V
4509
6504 BYD330
3505
2507
7506
3506 1
6506 BYD330
3507
9548
5548
5506
9551
2412 100p
3428 33K
2408 270p
6403 LL4148
2504
2505
2523
2524
2528
5524
3524 4R7
6527 BY359F 1500
5527 0u56
3526 6R8
6526 BY229F-600
TV
7512 BD135-16
DC-SHIFT
3513 4K7
3512 330
3514 24
5514 0u15
3537 24
7513 BD136-16
6515 BYD330
3515 1
5511 39u
2512 22u
2511 47u
2513 22u
6516 BYD330
3516 1
6517 BYD330
3517 1
+200
2517 470P
2518 4u7
9501
LINE COIL
1L31
5627
2L31
3522 1K
3520 470
3521 470
2519 1u
6520 BYD33M
2520
3518 30K
3519 30K
6519 BYD33M
2521 560n
5521 U15
9522
3510 150
5510 27u
2509 1n2
+13F
2L87
NTSC E/W PANEL ONLY FRANCE
3650 18K
3656 10K
1L87
7650 BC848C
6650 LLZ-9V1
3654 2K2
7652 BC848C
3651 1K
3655 2K2
6651 LL4148
7651 BC848C
3653 100K
3652 8K2
3L87
5L87
9407
9406
3440 2K2
9459
4420
COIL
VERTICAL FEEDBACK
2Y33
1Y33
2Y68
1Y68
2Y30
3Y30
2L30
1L30
1L68
2L68
+28
2458 22n
2460 100n
3456
2456
2457
3457
3458 1R5
3459 1R5
3461 1
3462 1
3463 1
3468 220
3455 470
3467 10K
7469 BC636
3470 3K9
2L03
D71
6629 LL4148
7618 BC848
3630 100K
3631 1K8
3629 220K
3633
3626 30K
3465 680
3466
3469
4469
6465 LL4148
4467
ASP RATIO
100
7L03
B4
B3
D66
B18
3600 9K1 13K FOR 33"
2601 22n
4421
3602
3603
3618 68K
3604
2609 120n
3609 47K
3610 4K7
3615 470
3616 3K3
2610 2u2
2613 4n7
3617 2K2
7603 BC858
6V5
3V5
2600 4u7
7602 BC858
6V7
7601 BC848
0V3
3619 2K2
3620 6K2
3561 1K5
6538 LLZ/C5V6
-VN
3607 22K
3606
3608 1K
BC54
0V5
10 11 12 13 14 15 16 17 18 19 20 21 22

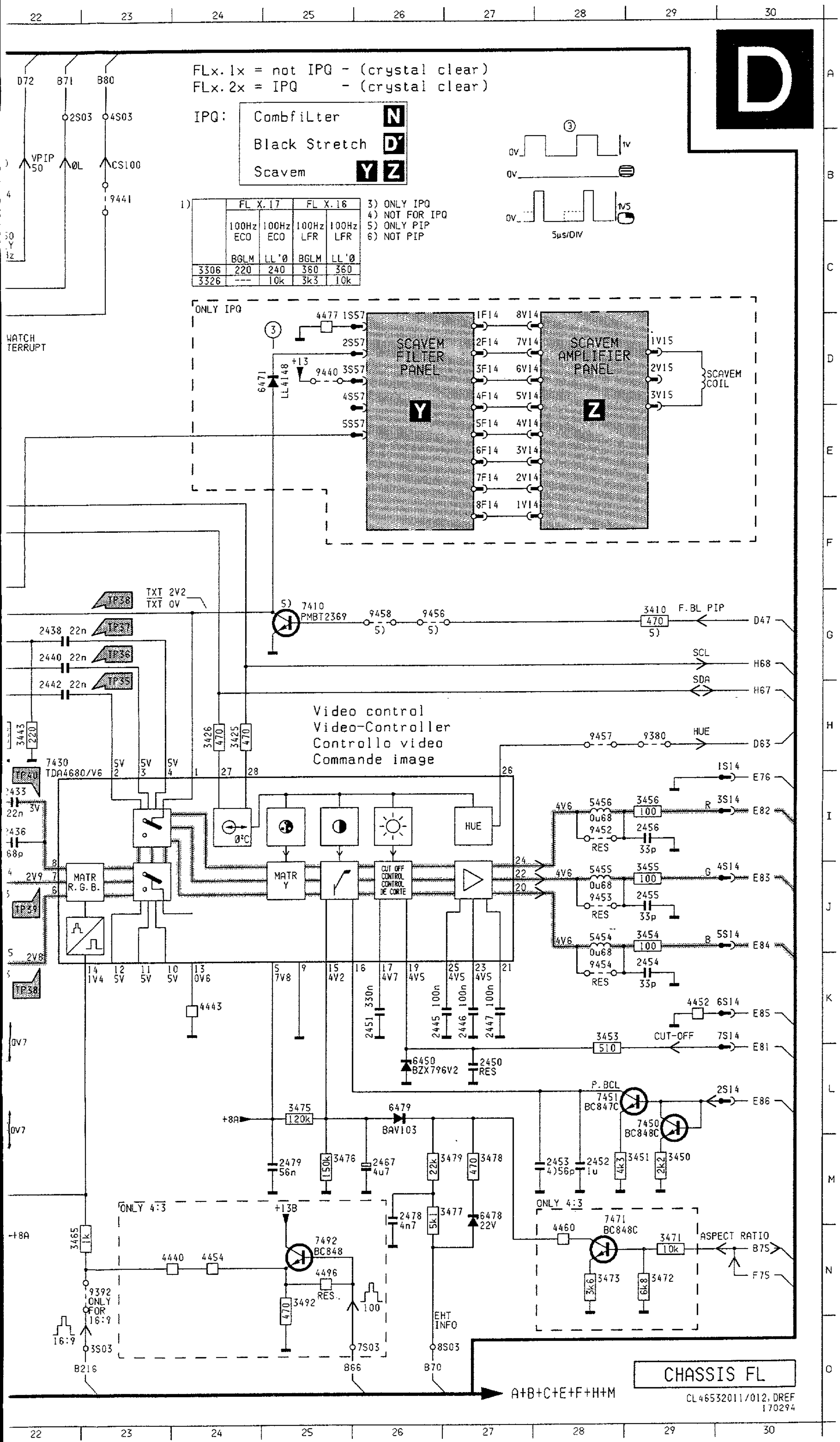

B
22
23
24
25
26
27
28
29
30
3515
1
10
5555
(DSBU100)
EHT
E9
8
E10
E11
TV
FOCUS
VG2
19
3516
1
6
3517
1
+28
+28
+28
+28
3538
*
3528
*
2529
2u2
6529
BZX79/
C43
3529
100k
3530
470k
2530
22n
7530
BC856
+200
6L13
E12
2
7
3532
33
EHT-INFO
8L03
D70
2531
22n
3527
1k
5L13
E13
11
FIL
4L13
E14
3532
330
+13A
3L13
+13
6280
1N4148
E15
12
FIL
2L13
E16
3533
330
IBEAM
PROT
-VN
1L13
E17
3480
100k
VERT.PROT
B7
B3
470
3521
5520
LIN
6520
BYD33M
18
3519
30k
6519
BYD33M
+28
+5
6480
BZX79/
CV3
+13
3485
1k
3534
2R7
2534
470p
3536
360
2533
2n2
3479
68k
0V4
0V4
1V5
7480
BC858C
7481
BC848C
30
18
3535
2R7
6535
BYV29F400
5534
15u
3481
1k
3482
22
2480
22u
0V
3545
130
PROT
A5
SOUND PROT
G8
2535
1000u
16
5543
27u
+5
9522
7550
ON4743
3551
22
+13
10
5510
27u
2509
1n2
6536
BYW29F
-100
+8
2551
100n
7551
LM358N
8
3557
1k8
31
17
5536
2536
1n
7552
BC635
3555
680
*
7
6
5
3
3558
1k
3559
1k8
1
2537
1000u
3553
47
3554
0
15
9
6507
LL4150
2553
100n
2555
68n
3556
0
5
32
13
2547
10n
6546
LL4148
3547
10
3548
3k9
2546
100n
7543
BC856
6547
1N4148
LOT PROT
3
3549
120k
3525
750
2545
1n
E/W
PROT
33
14
3560
1
5525
27u
6542
BYD33D
-VN
2554
100u
9503
5526
1
2
B4
620
2605
*
9601
2)
3624
22
1)
3625
22
1)
28
3621
*
2611
2u2
+28
+13
3611
2k2
18V
2543
10u
3544
39k
3542
100k
7608
BC547C
17V
3614
1k5
17V
7610
BDT60F
3540
30k
13V
7542
BC857C
0V
3608
1k
0V5
2615
2n7
3623
1
3622
1
2541
33u
7540
BC848C
7541
BC847C
0V2
3541
470k
2542
1u
3543
1k5
-11
CHASSIS FLx.26/.27
A+D+E+
F+G+H
CL46532015/013,BREF
030294
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

2401	F 6	3458	L13	4410	H 7
2402	D 6	3459	L13	4412	H 7
2403	D 8	3460	N10	4420	I11
2404	C 6	3461	M12	4421	O18
2405	D 6	3462	M13	4467	O15
2406	C 9	3463	M13	4469	N16
2408	H18	3465	N15	4509	E17
2409	F11	3466	N15	5503	F15
2410	I 7	3467	N10	5504	E15
2411	H 8	3468	N11	5506	G16
2412	G17	3469	N16	5510	I21
2415	G 9	3470	N12	5511	A20
2416	D10	3473	M10	5514	A19
2417	C10	3479	G27	5520	F22
2418	D12	3480	F28	5521	H21
2419	D12	3481	G26	5524	G18
2450	L 5	3482	G27	5525	L26
2451	L 5	3483	F 5	5526	L24
2452	M10	3484	F 5	5527	E19
2455	K 6	3485	F28	5534	H25
2456	L13	3500	F14	5536	I23
2457	M12	3501	G14	5543	H26
2458	M11	3502	F14	5548	G17
2459	L10	3503	F14	5555	A22
2460	M11	3504	E16	5627	E21
2480	G28	3505	E16	6280	E28
2502	G14	3506	F16	6403	H17
2503	E14	3507	F16	6404	H14
2504	F18	3508	D14	6405	H10
2505	F18	3509	D16	6417	C11
2507	E17	3510	I21	6440	E 4
2509	I22	3512	A18	6441	E 4
2511	B20	3513	B17	6451	N 9
2512	A20	3514	A19	6452	M10
2513	B20	3515	A21	6465	O15
2517	C21	3516	B21	6480	G26
2518	D20	3517	C21	6504	E16
2519	G21	3518	G21	6506	F16
2520	G20	3519	G21	6507	J25
2521	H20	3520	F21	6515	A21
2523	E18	3521	F21	6516	B21
2524	F18	3522	F20	6517	C21
2528	F19	3524	G19	6519	G22
2529	C25	3525	K26	6520	G22
2530	C26	3526	E19	6526	F19
2531	D23	3527	D27	6527	D19
2533	G25	3528	D23	6529	C25
2534	G24	3529	D25	6535	H24
2535	H25	3530	C26	6536	I24
2536	I24	3532	E23	6538	N20
2537	J24	3532	D24	6542	L27
2541	N25	3533	F23	6546	K24
2542	N27	3534	G23	6547	K26
2543	M25	3535	H23	6629	L15
2545	K27	3536	G25	6650	J15
2546	K25	3537	B19	6651	J17
2547	K23	3538	C23	7400	D 6
2551	I26	3540	N25	7402	G14
2553	J26	3541	N26	7403	G11
2554	L27	3542	M27	7407	H 6
2555	J27	3543	N27	7417	B10
2600	L21	3544	M26	7444	C 5
2601	N18	3545	G29	7445	D 4
2603	I 9	3547	K24	7450	K 6
2605	M23	3548	K24	7451	K 5
2606	I10	3549	K26	7469	N11
2609	K19	3551	I26	7480	G27
2610	L19	3553	J25	7481	G28
2611	M24	3554	J26	7501	F15
2613	L20	3555	I26	7504	E17
2615	N23	3556	J27	7506	F17
3402	D 7	3557	I28	7512	A18
3403	D 8	3558	I28	7513	B18
3404	D 5	3559	J28	7530	C27
3405	C 9	3560	L26	7540	N25
3406	D 9	3561	N19	7541	N26
3407	F13	3600	L18	7542	N26
3408	D13	3601	H 9	7543	K26
3409	H 7	3602	N17	7550	I25
3410	B10	3603	N18	7551	I26
3411	H 7	3604	K21	7552	I25
3413	G 9	3605	I10	7601	M19
3414	G 6	3606	N21	7602	M20
3415	G 5	3607	N20	7603	L20
3416	G 9	3608	N22	7608	N22
3417	C10	3609	K19	7610	N24
3418	B11	3610	K20	7616	H 5
3419	C13	3611	M23	7618	L15
3420	H 9	3614	N23	7650	I15
3421	D11	3615	K20	7651	K17
3422	H 7	3616	L20	7652	J16
3423	G 7	3617	L20	9406	L18
3424	G 8	3618	N19	9407	L17
3425	B 9	3619	M20	9459	I10
3426	E 4	3620	M21	9473	C 4
3427	C 9	3621	M23	9501	D21
3428	H17	3622	N24	9503	L23
3429	G14	3623	N24	9505	E15
3430	G11	3624	M25	9522	H21
3431	D14	3625	M25	9548	G16
3437	G10	3626	M15	9551	G16
3438	G11	3627	H 5	9601	M24
3439	E 4	3628	H 4		
3440	I14	3629	M16		
3441	E 5	3630	L15		
3442	E 5	3631	M16		
3443	H13	3632	I 9		
3444	D 4	3633	M15		
3445	D 3	3634	H 5		
3446	C 4	3650	I15		
3450	K 5	3651	J15		
3451	K 5	3652	K18		
3452	L10	3653	K15		
3455	N12	3654	J16		
3456	L12	3655	J16		
3457	L12	3656	I16		


D
Chrominance processing
Chrominanz-Prozessor
Processore della crominanza
Traitement chrominance
C45 CVBS/C
N COMB FILTER 3)
+13
+5
B95 CVBS 9255 9257 9441 4333
C90 COMB ON/OFF 9317 9325 9326
3346 1k
7340 BF840
3365 330
9318
D92 TXT 9208 4332 3)
C44 CVBS/Y 4330 1)
C48 SVHS
A62
3397 24 +13B
3360 2R7
3361 1k
7360 BC817 +12B
2360 33u
2361 330u
+12B 4346 3342 2k2
4375 9375 2338 47P
3338 390 3339 15k 3344 27k
6342 BA682
6343 BA682
2343 470p
2342 1)27p
2344 680p
5345 4u5
2345 1n2
5346 26u
3350 120
PAL 0V NTSC/SECAM 0V4
NTSC 0V PAL/SECAM 10V4
7350 1)BC848B
3351 4k7 NTSC 3.58
NTSC 0V7 PAL/SECAM 0V
NTSC 6V PAL/SECAM 0V
7338 BC848B
3336 4k7 PAL
PAL 0V7 NTSC/SECAM 0V
PAL 6V NTSC/SECAM 0V
9375
9169
TP23
2347 1n
2367 10n
3353 3k3
2353 10n
7365 TDA4650
(PAL) SECAM PAL NTSC
TDA4510 TDA4650
BK TV IDENT
G ..MHz
R-Y
B-Y
BK
3371 430
5370 7u
3370 330
2365 180p
2366 22n
2354 RES
2869 27p
3369 330
3372 330
2371 27p
3380 1k
2385 10n
D63 HUE
TP41
5V2 5µs/DIV
2368 10n
2374 22n
2375 22n
2376 22n
2377 330n
1380 8.8MHz
2380 2p-33p
1379 7.2MHz
2379 2p-33p
2381 330n
2372 220p
2378 100n
3377 6k8 2378
4331 (not for Combfilter)
NOT FOR IPQ
+12B 3300 10k
+12B 3337 RES
7305 BC858B
2305 33p
3301 3k3
3305 100k
2301 1n
4420
7314 BC848C
3316 1k1 4319
3303 360
3306 1)
3304 100
TP24
5305 26u
2306 47p
2307 10p
2318 220n
3325 6k8
3326 1)
3310 4k7
7311 BC848B
7324 TDA4568
CLAMP
845nS
180nS
4302
4300 ONLY FOR BGLL'0
2324 22n
9317 RES
3327 1k2
3323 RES
TP35
TP38
TP39
0V7
1V4
1V2
5µs/DIV
+12B 4319 3302 330
3308 330
3321 510
5331 33u
2312 22n
3307 330
5330 26u
5332 26u
2314 27p
7333 BC848C
3309 100
7335 BC858C
2307 47p
2313 56p
7330 BC848C
3316 10k
7336 BC848C
3354 10k
3319 10k
7311 BC848C
7332 BC848C
4320
3349 2k2
6331 BZX79/ C3V9
3348 4k7
3320 4k7
ONLY IPQ
9234 5)
1390
PIP
J
MULTI PIP OUT + VIDEO RGB
TP41
TP42
TP43
R G B
9381 5)
9382 5)
4362
9182
9372
9387 5)
SCL H68
SDA H67
D87
VPIP D72
CVBS PIP C46
F.BL PIP D47
C301 (ONLY FOR 800 TUNER)
C302
C300
ONLY I2 TUNER PIP

9 Traitement vidéo


11
12
13
14
15
16
17
18
19
20
21
22
D63
HUE
3380
1k
2371
27p
2385
10n
10V1
2V9
3V6
TP41
5V2
5µs/DIV
0V6
D64
D87
50
4205
TP40
SV_
5µs/DIV
0V6
+5
+13
RES
3388
1k
3387
4386
2388
3n3
2387
10u
6387
5V6
7366
TDA4661
5V6
TP26
2384
1n
1V4
6V8
R-Y
B-Y
TP25
2382
1n
2383
10n
10V1
BK
3383
33k
1V1
1V5
64us
-(R-Y)
-(B-Y)
G
VCO
11
3V
12
3V
+12B
3389
1k8
6385
LL4148
6370
BZX79/C3V6
3381
RES
2389
RES
2381
330n
2372
220p
2373
220p
8V1
7V5
4650
379
7.2MHz
p-33p
mbfilter)
4300
ONLY
FOR
BGLL'0
2V3
3323
RES
D'
BLACK STRETCH
3)
B-Y
R-Y
+13
4305
3)
+12B
3325
6k8
3)
DELAY
3326
10k
3)
TP24
1V5_
10µs/DIV
1V
4300
4302
+13B
2396
22n
2397
22n
2395
22n
2400
22n
2399
47u
7395
TDA8443B
+13B
3391
2k2
3395
470
7390
BC858
3396
2k2
3882
2k2
CL
2398
10u
TP41
TP42
TP43
TP44
2390
22n
2391
22n
2392
22n
RGB
Y
R-Y
B-Y
0°C
3392
100
3393
100
3394
100
B-Y
Y
R-Y
+13B
4377
9254
BL
5)
R
G
B
4118
6)
LL4148(3X)
+8C
6205
6206
6207
10V
9236
9232
9230
6)
9252
4164
9210
9238
5)
3399
100
3398
100
3S16
4S16
2S16
1S16
5S16
3P16
4P16
2P16
1P16
2P16
4P56
2P56
1P56
5P56
3P56
3P57
1P57
2P57
4P57
5P57
2S56
4S56
5S56
1S56
3S56
PIP
MULTI PIP OUT
+ VIDEO RGB
J
+33
1P51
2P51
ONLY
12 TUNER
PIP
C302
C300
C38
C37
C36
C35
H68
H67
SCL
SDA
FBL
H78
D64
B217
D44
6S03
COIN
Y
100
CVBS
TXT
4210
4453
MAX TXT
TO SAT
INTERFACE
P
1S60
3S60
2S60
4500
ONLY
SAT
BOX
3400
470
ONLY SAT
BOX
+13
9084
9)
4450
ONLY
50Hz
S85
H72
D72
B71
2S03
TXD
VPIP
50
0L
1420
10S22
CVBS
9S22
MAC TXT
8S22
V100
VS0
7S22
6S22
CS100
5S22
10S20
9S20
8S20
7S20
6S20
5S20
4S21
5S21
6S21
7S21
8S21
9S21
10S21
100Hz
DIGITAL
SCAN
(LFR BOX)
L M
OR
100Hz
ECO BOX
L'
HABIT WATCH
TXT INTERRUPT
+5
S84
9400
SCL
SDA
4S20
3S20
2S20
1S20
OUT
TXT
BL
B
G
R
2438 22n
2440 22n
2442 22n
3439
220
3441
220
3443
220
7430
TDA4680/V
TP40
1S21
Y-OUT
4476
3474
100
2433
22n
3V
2436
68p
2S21
V-OUT
5304
1u
2434
3n3
2V9
MATR
R.G.B.
TP39
3S21
U-OUT
5303
1u
2435
3n3
2V8
TP38
2S22
IN-U
3S22
IN-Y
4S22
IN-V
1S22
FBL
TP42
5V2
5µs/DIV
0V7
TP43
5V2
5µs/DIV
0V7
TP25
1V_
10µs/DIV
0V8
TP26
1V4
10µs/DIV
0V7
+13
6345
1N4150
3480
2R7
3481
2R7
7480
BD533P
+8A
3482
430
3483
100
2480
33u
6480
BZV9V1
6485
LL4148
3465
1k
16:9
C56
B216

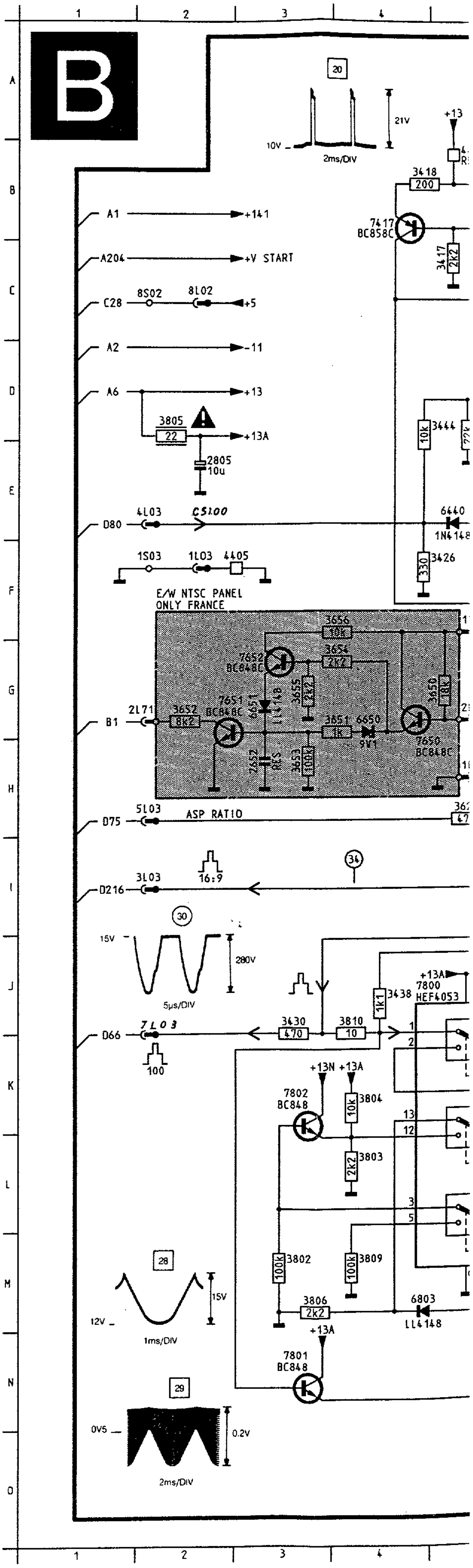

D
FLx.1x = not IPQ - (crystal clear)
FLx.2x = IPQ - (crystal clear)
IPQ:
CombfiLter N
Black Stretch D'
Scavem Y Z
1) FL X.17 FL X.16
100Hz ECO BGLM
100Hz ECO LL'0
100Hz LFR BGLM
100Hz LFR LL'0
3306 220 240 360 360
3326 --- 10k 3k3 10k
3) ONLY IPQ
4) NOT FOR IPQ
5) ONLY PIP
6) NOT PIP
0V 1V
0V
0V 1V5
5µs/DIV
ONLY IPQ
SCAVEM FILTER PANEL Y
SCAVEM AMPLIFIER PANEL Z
SCAVEM COIL
D72 B71 B80
2S03 4S03
VPIP 50
ØL
CS100
9441
WATCH
TERRUPT
TXT 2V2
TXT 0V
TP38 TP37 TP36 TP35
7410 PMBT2369
9458 9456
3410 470
F.BL PIP
D47
SCL H68
SDA H67
Video control
Video-Controller
Controllo video
Commande image
9457 9380 HUE D63
7430 TDA4680/V6
MATR R.G.B.
MATR Y
HUE
CUT OFF CONTROL CONTROL DE CORTE
1S14 E76
3S14 E82
4S14 E83
5S14 E84
6S14 E85
CUT-OFF 7S14 E81
2S14 E86
P.BCL 7451 BC847C
7450 BC848C
6450 BZX79C6V2
3475 120k
6479 BAV103
ONLY 4:3
7492 BC848
7471 BC848C
ASPECT RATIO B75 F75
EHT INFO
9392 ONLY FOR 16:9
3S03 7S03 8S03
B216 B66 B70
A+B+C+E+F+H+M
22 23 24 25 26 27 28 29 30
A B C D E F G H I J K L M N O

CHASSIS FL

CL 46532011/012.DREF
170294

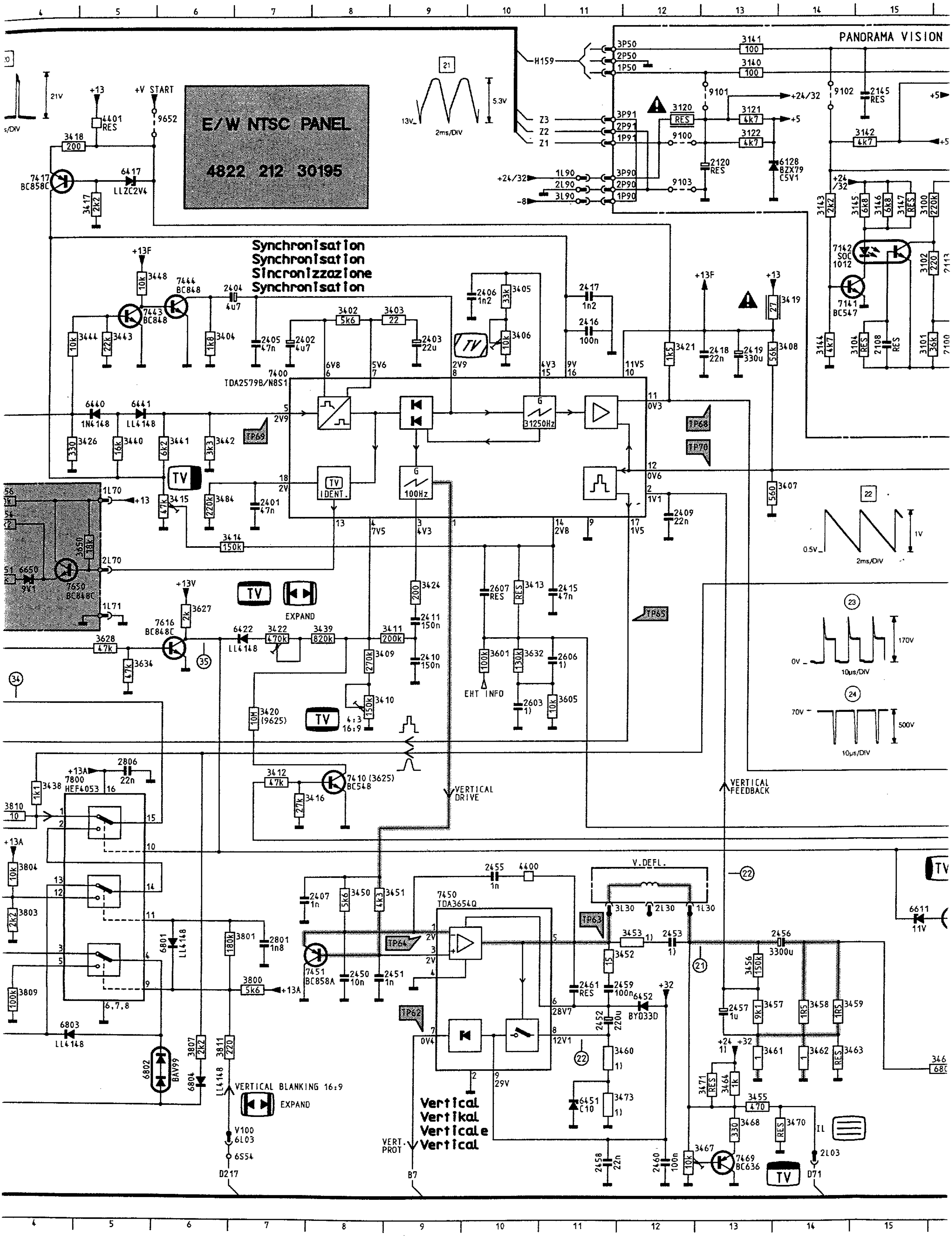
1379	F10	3370	B10	7332	L 8
1380	F10	3371	A10	7333	K 6
1390	L 9	3372	B10	7335	K 4
1420	B19	3377	G 9	7336	L 5
2301	H 5	3380	B11	7338	F 4
2305	H 7	3381	G14	7340	G 2
2306	I 8	3383	E13	7350	E 5
2307	I 8	3387	B16	7360	N 4
2307	K 5	3388	B16	7365	C 8
2312	K 3	3389	F13	7366	C14
2313	K 6	3391	I13	7390	I13
2314	K 6	3392	J18	7395	I15
2318	H 8	3393	J18	7410	G25
2324	H 9	3394	K18	7430	H22
2338	B 4	3395	I13	7450	L29
2342	C 6	3396	J13	7451	L28
2343	C 5	3397	M 4	7471	M28
2344	C 6	3398	M17	7480	N21
2345	C 7	3399	M17	7492	N25
2347	D 7	3400	B21	9084	B21
2353	E 7	3410	G29	9169	G 5
2354	C 8	3425	H24	9182	N 7
2360	O 3	3426	H24	9208	H 2
2361	O 3	3439	H21	9210	M15
2365	B10	3441	H22	9230	L14
2366	C 8	3443	H22	9232	L14
2367	D 7	3450	M29	9234	K10
2368	F 8	3451	M29	9236	L14
2371	C11	3453	K28	9238	M16
2372	F12	3454	J29	9252	L16
2373	F12	3455	J29	9254	K13
2375	F 8	3456	I29	9255	E 2
2376	F 9	3465	N22	9317	E 2
2377	G 9	3471	N29	9317	I10
2378	G 8	3472	N29	9318	G 2
2378	G 9	3473	N28	9372	N 8
2379	G10	3474	I21	9375	B 3
2380	G10	3475	L25	9375	F 5
2381	F11	3476	M25	9380	H29
2382	E13	3477	M26	9381	N 5
2383	E13	3478	M27	9382	N 5
2384	D13	3479	M26	9387	N 8
2385	C12	3480	M19	9392	N23
2387	C16	3481	M20	9400	E21
2388	C15	3482	N19	9440	D25
2389	G15	3483	N20	9441	B23
2390	J15	3492	N25	9452	I28
2391	J15	3882	J14	9453	J28
2392	K15	4118	L15	9454	K28
2395	I17	4164	M16	9456	G26
2396	I16	4205	C13	9457	H28
2397	I17	4210	B17	9458	G26
2398	I18	4300	H11		
2399	I18	4300	H16		
2400	I18	4302	H10		
2433	I22	4302	H16		
2434	J22	4305	E17		
2435	J22	4319	I 4		
2436	I22	4319	J 4		
2438	G22	4320	K 7		
2440	G22	4325	C 2		
2442	H22	4330	I 3		
2445	K26	4331	G10		
2446	K27	4332	H 2		
2447	K27	4333	E 2		
2450	L27	4346	A 5		
2451	K26	4362	N 6		
2452	M28	4375	B 3		
2453	M28	4377	K18		
2454	K29	4386	B15		
2455	J29	4420	H 5		
2456	I29	4440	N24		
2467	M26	4443	K24		
2478	M26	4450	C22		
2479	M25	4452	K29		
2480	N19	4453	B18		
2869	C 9	4454	N24		
3300	G 6	4460	N28		
3301	H 6	4476	I21		
3302	J 4	4477	D25		
3303	I 5	4496	N25		
3304	I 6	4500	B21		
3305	H 6	5303	K21		
3306	I 6	5304	J21		
3307	K 4	5305	I 7		
3308	J 5	5330	K 5		
3309	K 4	5331	J 5		
3310	I 7	5332	K 6		
3316	I 4	5345	B 7		
3316	L 6	5346	D 5		
3319	L 7	5370	A10		
3320	K 8	5454	J28		
3321	J 5	5455	J28		
3323	I11	5456	I28		
3325	F18	6205	L15		
3325	I 8	6206	M15		
3326	G18	6207	M15		
3326	I 8	6331	K 7		
3327	I10	6342	B 6		
3336	F 5	6343	C 6		
3337	G 6	6345	M19		
3338	B 4	6370	G13		
3339	B 5	6385	F13		
3342	B 5	6387	C17		
3344	B 5	6450	L26		
3346	F 2	6471	D25		
3348	K 7	6478	M27		
3349	J 7	6479	L26		
3350	D 5	6480	N20		
3351	E 6	6485	M21		
3353	D 7	7305	H 6		
3354	L 6	7311	J 8		
3360	N 4	7311	L 8		
3361	N 3	7314	H 5		
3365	G 1	7324	H 9		
3369	B10	7330	L 5		

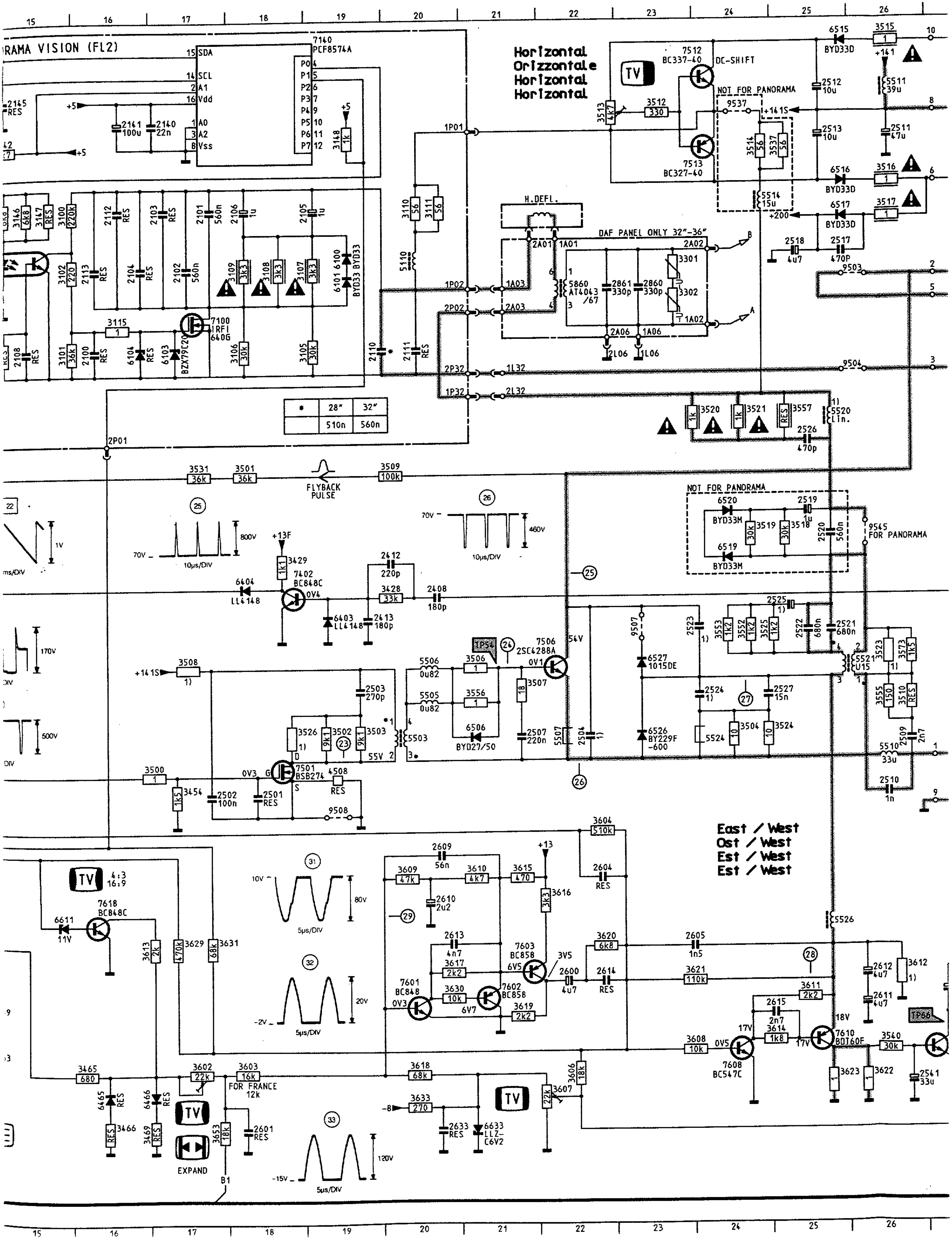
Synchro



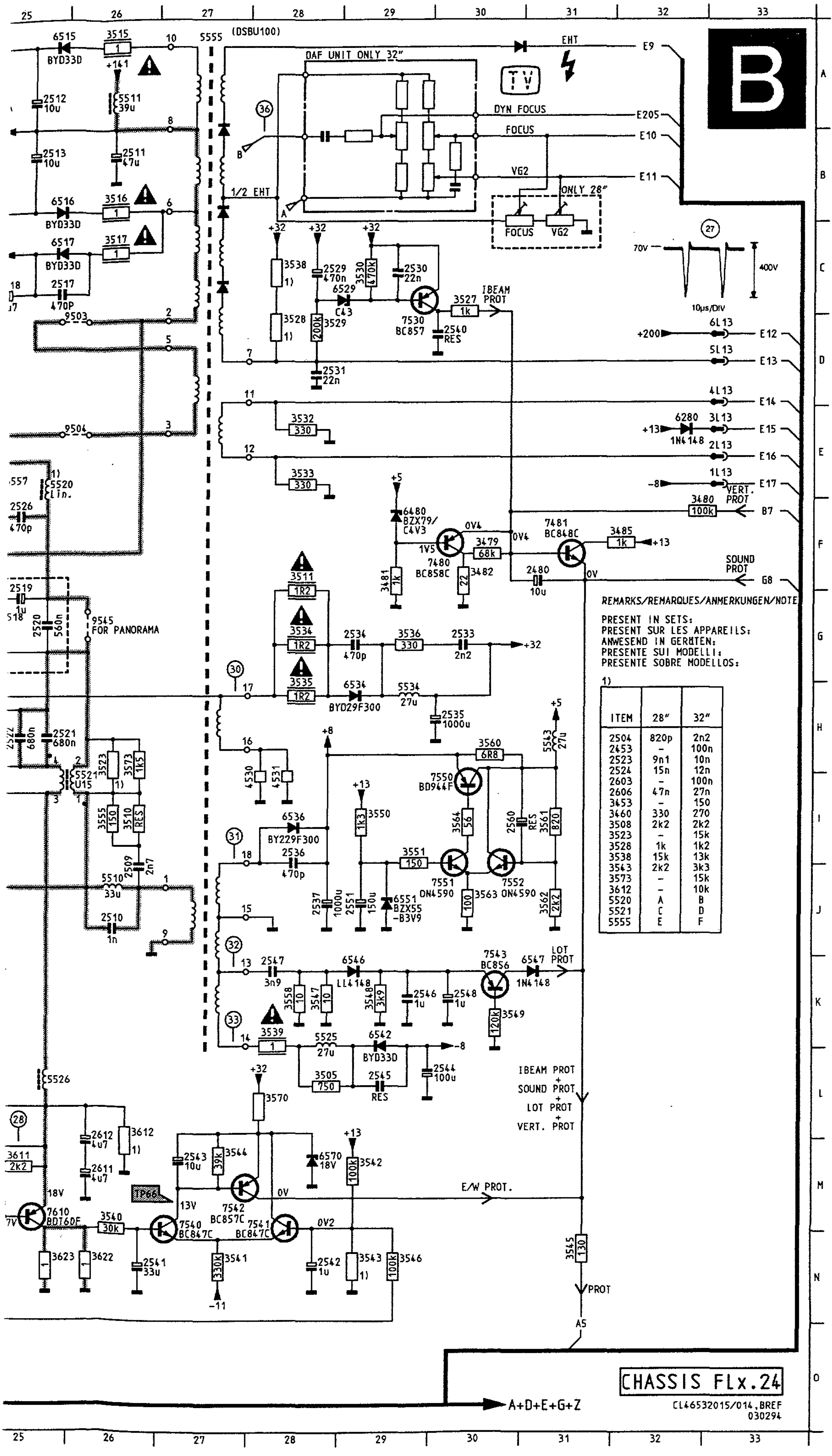
B
A1
+141
A204
+V START
C28
8S02
8L02
+5
A2
-11
A6
+13
3805
22
+13A
2805
10u
D80
4L03
C5100
1S03
1L03
4405
E/W NTSC PANEL
ONLY FRANCE
3656
10k
7652
BC848C
3654
2K2
3655
2K2
6651
LL4148
7651
BC848C
B1
2L71
3652
8K2
3651
1k
6650
9V1
7650
BC848C
3650
2652
RES
3653
100k
D75
5L03
ASP RATIO
D216
3L03
16:9
34
30
15V
280V
5µs/DIV
D66
7L03
100
3430
470
3810
10
3438
1k1
+13A
7800
HEF4053
+13N
7802
BC848
3804
10k
3803
2K2
3802
100k
3809
100k
3806
2K2
6803
LL4148
7801
BC848
28
12V
15V
1ms/DIV
29
0V5
0.2V
2ms/DIV
20
10V
21V
2ms/DIV
+13
3418
200
7417
BC858C
3417
2K2
3444
10k
6440
1N4148
3426
330

Synchronization / Synchronisierung / Synchronisation


PANORAMA VISION
E/W NTSC PANEL
4822 212 30195
Synchronisation
Synchronisation
Sincronizzazione
Synchronisation
7400
TDA2579B/N8S1
31250Hz
100Hz
IDENT.
21
5.3V
13V
2ms/DIV
21V
22
1V
0.5V
2ms/DIV
23
170V
0V
10µs/DIV
24
70V
500V
10µs/DIV
+13
+V START
9652
4401
RES
3418
200
7417
BC858C
6417
LLZC2V4
3417
2k2
+13F
3448
10k
7443
BC848
7444
BC848
2404
4u7
3444
10k
3443
22k
3404
1k8
2405
47n
2402
4u7
3402
5k6
3403
22
2403
22u
2406
1n2
3405
33k
3406
10k
2417
1n2
2416
100n
6440
1N4148
6441
LL4148
3426
330
3440
16k
3441
6k2
3442
3k3
TP69
TP68
TP70
TP65
TP63
TP64
TP62
3415
47k
3484
220k
2401
47n
3414
150k
1L70
2L70
1L71
6650
9V1
3650
18k
7650
BC848C
+13V
3627
2k
7616
BC848C
3628
47k
3634
47k
6422
LL4148
3422
470k
3439
820k
3411
200k
3409
270k
3410
150k
4:3
16:9
3424
200
2411
150n
2410
150n
2607
RES
3413
RES
2415
47n
3601
100k
3632
130k
2606
2603
3605
10k
EHT INFO
EXPAND
3420
10M
(9625)
3412
47k
3416
27k
7410 (3625)
BC548
VERTICAL DRIVE
VERTICAL FEEDBACK
H159
3P50
2P50
1P50
3141
100
3140
100
9101
+24/32
9102
2145
RES
+5
3P91
2P91
1P91
Z3
Z2
Z1
3120
RES
3121
4k7
3122
4k7
9100
2120
RES
6128
BZX79
C5V1
+24/32
1L90
2L90
3L90
-8
3P90
2P90
1P90
9103
3142
4k7
3143
2k2
3145
6k8
3146
6k8
3147
RES
3100
220k
7142
SOC
1012
7141
BC547
3102
220
3144
4k7
3104
RES
2108
RES
3101
36k
+13F
+13
3419
27
3421
1k5
2418
22n
2419
330u
3408
56k
3407
560
2409
22n
6V8
5V6
2V9
4V3
9V
11V5
0V3
0V6
1V1
2V
7V5
2V8
1V5
13
34
35
3810
10
+13A
7800
HEF4053
2806
22n
3438
1k1
3804
10k
3803
2k2
3809
100k
6803
LL4148
6802
BAV99
3807
2k2
6804
3811
220
LL4148
6801
LL4148
3801
180k
2801
1n8
3800
5k6
VERTICAL BLANKING 16:9
EXPAND
V100
6L03
6S54
D217
2407
1n
3450
5k6
3451
4k3
7451
BC858A
2450
10n
2451
1n
7450
TDA3654Q
2455
1n
4400
V.DEFL.
3L30
2L30
1L30
3453
2453
2456
3300u
3452
15
2461
RES
2459
100n
6452
BYD33D
+32
28V7
12V1
29V
0V4
2452
220u
3460
3473
6451
C10
2458
22n
2460
100n
VERT. PROT
B7
Vertical
Vertikal
Verticale
Vertical
3456
150k
3457
9k1
2457
1u
3458
1R5
3459
1R5
3461
3462
3463
RES
+24
+32
3471
RES
3464
1k
3455
470
3468
330
3470
RES
3467
10k
7469
BC636
IL
2L03
D71
6611
11V
346
68
TV


RAMA VISION (FL2)
7140 PCF8574A
SDA
SCL
A1
Vdd
A0
A2
Vss
P04 P15 P26 P37 P49 P510 P611 P712
Horizontal
Orizzontale
Horizontal
Horizontal
TV
7512 BC337-40
DC-SHIFT
7513 BC327-40
NOT FOR PANORAMA
9537
+141S
3513 4k7
3512 330
3514 56
3537 56
5514 15u
6515 BYD33D
3515 1
+141
5511 39u
2512 10u
2513 10u
2511 47u
6516 BYD33D
3516 1
6517 BYD33D
3517 1
+200
2518 4u7
2517 470P
9503
9504
1P01
1P02
2P02
2P32
1P32
2P01
H.DEFL.
2A01 1A01
1A03
2A03
DAF PANEL ONLY 32"-36"
2A02
1A02
5860 AT4043/67
2861 330p
2860 330p
3301
3302
2A06 1A06
2L06 1L06
1L32
2L32
3110 56
3111 56
5110
2110
2111 RES
3520 1k
3521 1k
3557 RES
5520 Lin.
2526 470p
3146 6k8
3147 RES
3100 270k
2112 RES
2103 RES
2101 560n
2106 1u
2105 1u
3102 220
2113 RES
2104 RES
2102 560n
3109 3k3
3108 3k3
3107 3k3
6101 6100 BYD33 BYD33
3115 1
7100 IRFI 640G
3101 36k
2100 RES
6104 RES
6103 BZX79C20
3106 30k
3105 30k
2108 RES
2145 RES
2141 100u
2140 22n
3148 1k
+5
* 28" 32"
510n 560n
3531 36k
3501 36k
FLYBACK PULSE
3509 100k
25
800V
70V
10μs/DIV
26
70V
460V
10μs/DIV
1V
ms/DIV
170V
500V
+13F
3429 1k1
7402 BC848C
0V4
6404 LL4148
2412 220p
3428 33k
2408 180p
6403 LL4148
2413 180p
TP54
24
7506 2SC4288A
54V
0V1
+141S
3508 1)
2503 270p
3526 1)
3502 9k1
3503 9k1
23
55V
5503
5506 0u82
3506 1
5505 0u82
3556 1
6506 BYD27/50
3507 18
2507 220n
5507
2504 1)
3500 1
0V3
7501 BSB274
4508 RES
3454 1k5
2502 100n
2501 RES
9508
9507
6527 1015DE
6526 BY229F -600
2523 1)
2524 1)
27
2527 15n
5524
3504 10
3524 10
NOT FOR PANORAMA
6520 BYD33M
3519 30k
3518 30k
2519 1u
2520 560n
6519 BYD33M
9545 FOR PANORAMA
2525 1)
3553 1k2
3552 1k2
3525 1k2
2522 680n
2521 680n
5521 U15
3523
3573 1k5
3555 150
3510 RES
2509 2n7
5510 33u
2510 1n
East / West
Ost / West
Est / West
Est / West
3604 510k
2604 RES
2609 56n
3609 47k
3610 4k7
3615 470
+13
2610 2u2
3616 3k3
31
10V
80V
5μs/DIV
29
32
20V
-2V
5μs/DIV
33
120V
-15V
5μs/DIV
2613 4n7
3617 2k2
7603 BC858
6V5
3V5
7601 BC848
0V3
3630 10k
7602 BC858
6V7
3619 2k2
2600 4u7
2614 RES
3620 6k8
2605 1n5
3621 110k
28
5526
2612 4u7
3612 1)
2611 4u7
3611 2k2
2615 2n7
3614 1k8
17V
17V
18V
7610 BDT60F
TP66
3540 30k
3608 10k
0V5
7608 BC547C
3623
3622
2541 33u
3606 18k
3607 22k
TV 4:3 16:9
7618 BC848C
6611 11V
3613 2k
3629 470k
3631 68k
3465 680
6465 RES
3466 RES
6466 RES
3469 RES
3602 22k
3603 16k FOR FRANCE 12k
3653 18k
2601 RES
EXPAND
B1
3618 68k
3633 270
-8
2633 RES
6633 LLZ-C6V2
1
2
3
5
6
8
9
10
15 16 17 18 19 20 21 22 23 24 25 26

*	28"	32"
	510n	560n


25
26
27
28
29
30
31
32
33
B
(DSBU100)
5555
6515
BYD33D
3515
1
10
+141
5511
39u
2512
10u
2513
10u
2511
47u
8
6516
BYD33D
3516
6
6517
BYD33D
3517
2517
470P
18
9503
2
5
9504
3
EHT
E9
DAF UNIT ONLY 32"
TV
DYN FOCUS
E205
FOCUS
E10
VG2
E11
ONLY 28"
FOCUS
VG2
1/2 EHT
36
B
A
+32
3538
1)
2529
470n
6529
C43
3530
470k
2530
22n
7530
BC857
3527
1k
IBEAM PROT
2540
RES
3528
1)
3529
200k
2531
22n
7
27
70V
400V
10µs/DIV
+200
6L13
E12
5L13
E13
11
4L13
E14
3532
330
6280
1N4148
3L13
E15
12
2L13
E16
3533
330
1L13
E17
VERT. PROT
-8
3480
100k
B7
+5
6480
BZX79/C4V3
0V4
1V5
7480
BC858C
3479
68k
3481
1k
3482
22
7481
BC848C
3485
1k
+13
2480
10u
0V
SOUND PROT
G8
5557
5520
Lin.
2526
470p
2519
2520
560n
9545
FOR PANORAMA
3511
1R2
3534
1R2
3535
1R2
2534
470p
3536
330
2533
2n2
+32
30
17
6534
BYD29F300
5534
27u
2535
1000u
16
4530
4531
+8
3560
6R8
7550
BD944F
5543
27u
2522
680n
2521
680n
3523
3573
1k5
5521
U15
3555
150
3510
RES
2509
2n7
31
18
6536
BY229F300
2536
470p
+13
3550
1k3
3564
56
2560
RES
3561
820
3551
150
7551
ON4590
7552
ON4590
3563
100
2537
1000u
2551
150u
6551
BZX55-B3V9
3562
2k2
5510
33u
1
15
2510
1n
9
32
13
2547
3n9
6546
LL4148
3558
10
3547
10
3548
3k9
2546
1u
2548
1u
7543
BC856
6547
1N4148
LOT PROT
3549
120k
33
14
3539
1
5525
27u
6542
BYD33D
-8
2544
100u
3505
750
2545
RES
5526
28
2612
4u7
3612
1)
2611
4u7
3611
2k2
+32
3570
2543
10u
3544
39k
6570
18V
+13
3542
100k
IBEAM PROT + SOUND PROT + LOT PROT + VERT. PROT
TP66
18V
13V
0V
E/W PROT.
7542
BC857C
7541
BC847C
0V2
7610
BD16DF
7V
3540
30k
7540
BC847C
3623
3622
2541
33u
3541
330k
-11
2542
1u
3543
1)
3546
100k
3545
130
PROT
A5
A+D+E+G+Z

REMARKS/REMARQUES/ANMERKUNGEN/NOTE

PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERÄTEN:
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:

1)

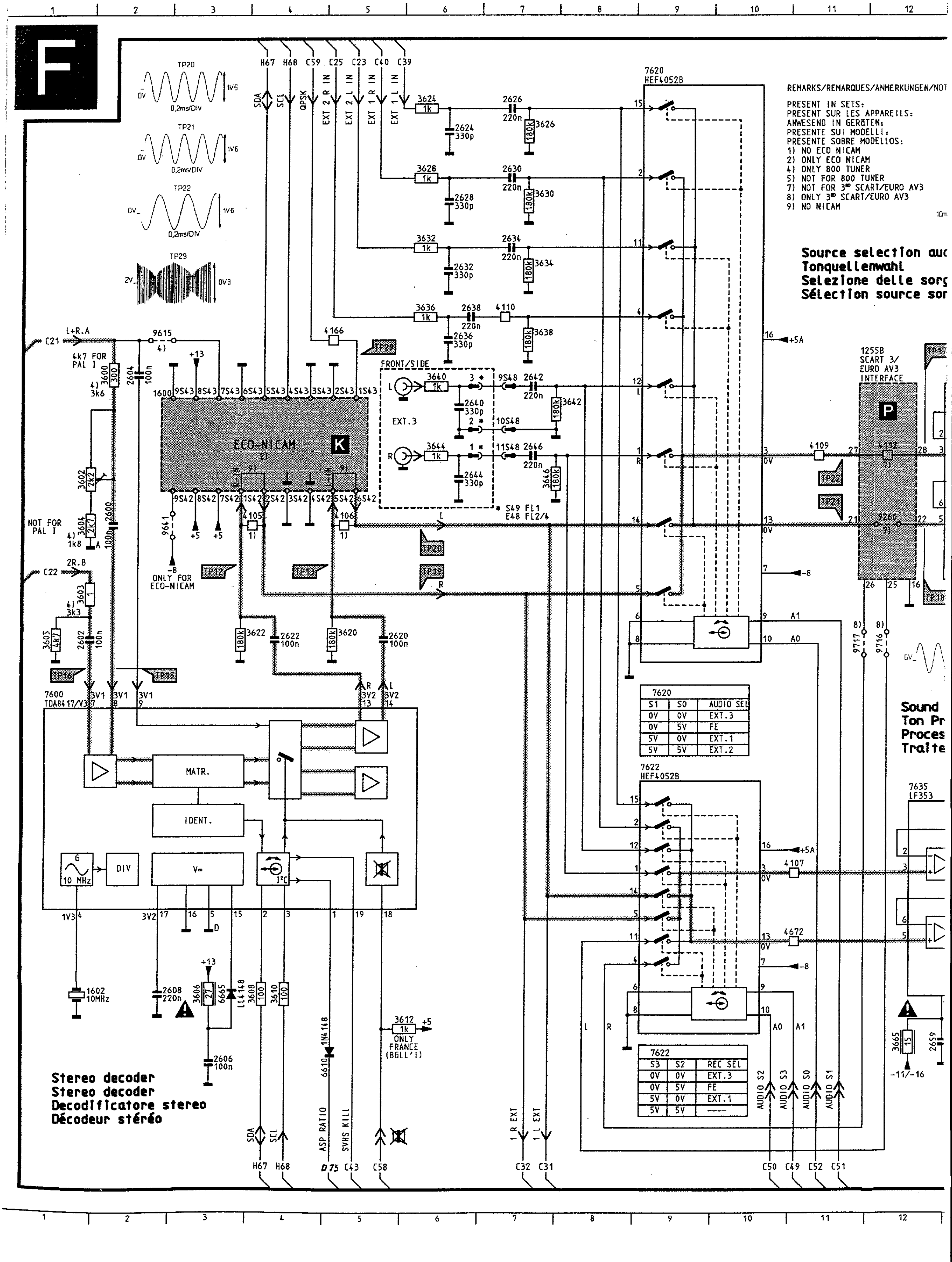
ITEM	28"	32"
2504	820p	2n2
2453	–	100n
2523	9n1	10n
2524	15n	12n
2603	–	100n
2606	47n	27n
3453	–	150
3460	330	270
3508	2k2	2k2
3523	–	15k
3528	1k	1k2
3538	15k	13k
3543	2k2	3k3
3573	–	15k
3612	–	10k
5520	A	B
5521	C	D
5555	E	F

CHASSIS FLx.24

CL46532015/014.BREF
030294

2100	D16	3110	C20	3538	C28	6466	N16
2101	C17	3111	C20	3539	K28	6480	F29
2102	C17	3115	D16	3540	M26	6506	I21
2103	C17	3121	B13	3541	N27	6515	A25
2104	C16	3122	B13	3542	M29	6516	B25
2105	C19	3140	A13	3543	N29	6517	C25
2106	C18	3141	A13	3544	M27	6519	G24
2108	D15	3142	B15	3545	N31	6520	F24
2110	D19	3143	C14	3546	N29	6526	I23
2111	D20	3144	D14	3547	K28	6527	I23
2112	C16	3145	C15	3548	K29	6529	C29
2113	C16	3146	C15	3549	K30	6534	H29
2120	B13	3147	C15	3550	I29	6536	I28
2140	B17	3148	B19	3551	I29	6542	K29
2141	B16	3301	C23	3552	H24	6546	K29
2145	A15	3302	D23	3553	H24	6547	K31
2401	G 7	3402	D 8	3555	I26	6551	J29
2402	D 7	3403	D 9	3556	I21	6570	M28
2403	D 9	3404	D 6	3557	E25	6611	L15
2404	D 7	3405	D10	3558	K28	6633	N21
2405	D 7	3406	D10	3560	H30	6650	G 4
2406	D10	3407	F14	3561	I31	6651	G 3
2407	L 8	3408	D14	3562	J31	6801	L 6
2408	H20	3409	H 8	3563	J30	6802	N 5
2409	G12	3410	I 8	3564	I30	6803	M 4
2410	I 9	3411	H 9	3570	L28	6804	N 6
2411	H 9	3412	J 7	3573	H26	7100	D17
2412	G20	3413	G10	3601	H10	7140	A19
2413	H19	3414	G 7	3602	N17	7141	D15
2415	H11	3415	F 6	3603	N18	7142	C14
2416	D11	3416	J 7	3604	K22	7400	E 7
2417	D11	3417	C 5	3605	I11	7402	G18
2418	E13	3418	B 4	3606	N22	7410	J 8
2419	E13	3419	D14	3607	N22	7417	B 4
2450	M 8	3420	I 7	3608	M23	7443	D 5
2451	M 8	3421	D12	3609	K20	7444	D 6
2452	M11	3422	H 7	3610	K21	7450	L 9
2453	L12	3424	G 9	3611	M25	7451	L 8
2455	K10	3426	F 5	3612	L26	7469	O13
2456	L14	3428	H20	3613	L16	7480	F30
2457	M13	3429	G18	3614	M25	7481	F31
2458	O11	3430	J 3	3615	K21	7501	J18
2459	M11	3438	J 4	3616	K22	7506	H22
2460	O12	3439	H 8	3617	L20	7512	A24
2461	M11	3440	F 5	3618	N20	7513	B24
2480	F31	3441	F 6	3619	M21	7530	D29
2501	J18	3442	F 6	3620	L22	7540	M27
2502	J17	3443	D 5	3621	M23	7541	M28
2503	I19	3444	D 5	3622	N26	7542	M27
2504	I22	3448	D 5	3623	N25	7543	K30
2507	I21	3450	K 8	3625	J 8	7550	I30
2509	J26	3451	K 9	3627	H 6	7551	J30
2510	J26	3452	L11	3628	H 5	7552	J30
2511	B26	3453	L12	3629	L17	7601	M20
2512	A25	3454	J17	3630	M20	7602	M21
2513	B25	3455	N13	3631	L17	7603	L21
2517	C25	3456	L13	3632	H10	7608	N24
2518	C25	3457	M13	3633	N20	7610	M25
2519	G25	3458	M14	3634	H 5	7616	H 6
2520	G25	3459	M14	3650	G 5	7618	L16
2521	H25	3460	M11	3651	G 4	7650	G 4
2522	H25	3461	M13	3652	G 2	7651	G 3
2523	H24	3462	M14	3653	H 3	7652	G 3
2524	I24	3463	M14	3653	O17	7800	J 4
2525	H25	3464	N13	3654	G 4	7801	N 3
2526	F25	3465	N16	3655	G 3	7802	K 3
2527	I25	3466	N16	3656	F 4	9100	B12
2529	C28	3467	O12	3800	M 7	9101	A13
2530	C29	3468	N13	3801	L 7	9102	A14
2531	D28	3469	O16	3802	M 3	9103	B12
2533	G30	3470	N14	3803	L 4	9503	D26
2534	G29	3471	N13	3804	K 4	9504	E26
2535	H30	3473	N11	3805	D 2	9507	H23
2536	I28	3479	F30	3806	M 3	9508	J19
2537	J28	3480	F32	3807	M 6	9537	A24
2540	D30	3481	F29	3809	M 4	9545	G26
2541	N26	3482	F30	3810	J 4	9625	I 7
2542	N28	3484	F 6	3811	M 6	9652	B 6
2543	M27	3485	F32	4400	K10		
2544	L30	3500	J17	4401	B 5		
2545	L29	3501	F18	4405	F 3		
2546	K29	3502	I19	4508	J19		
2547	K28	3503	I19	4530	I28		
2548	K30	3504	I24	4531	I28		
2551	J29	3505	L28	5110	C20		
2560	I30	3506	H21	5503	I20		
2600	M22	3507	I21	5505	I20		
2601	N18	3508	H17	5506	I20		
2603	I10	3509	F20	5507	I22		
2604	K22	3510	I26	5510	J26		
2605	L23	3511	F28	5511	A26		
2606	I11	3512	A23	5514	C24		
2607	H10	3513	B22	5520	E25		
2609	K20	3514	B24	5521	I26		
2610	L20	3515	A26	5524	I24		
2611	M26	3516	B26	5525	K28		
2612	M26	3517	C26	5526	L25		
2613	L20	3518	G25	5534	H29		
2614	M22	3519	G24	5543	H31		
2615	M25	3520	E24	5555	A27		
2633	N20	3521	E24	5860	D22		
2652	H 3	3523	H26	6100	C19		
2801	L 7	3524	I25	6101	D19		
2805	E 2	3525	H24	6103	D17		
2806	J 5	3526	I18	6104	D16		
2860	D23	3527	C30	6128	B14		
2861	D22	3528	C28	6280	E32		
3100	C15	3529	D28	6403	H19		
3101	D15	3530	C29	6404	G18		
3102	C15	3531	F17	6417	B 5		
3104	D15	3532	E28	6422	H 7		
3105	D19	3533	E28	6440	E 5		
3106	D18	3534	G28	6441	E 5		
3107	C19	3535	H28	6451	N11		
3108	C18	3536	G29	6452	M12		
3109	C18	3537	B25	6465	N16		

Audio processing / Ton Verarbeitung / Trait


F
1
2
3
4
5
6
7
8
9
10
11
12
TP20
0V
1V6
0,2ms/DIV
TP21
TP22
TP29
2V
0V3
H67
H68
C59
C25
C23
C40
C39
SDA
SCL
QPSK
EXT 2 R IN
EXT 2 L IN
EXT 1 R IN
EXT 1 L IN
3624 1k
2624 330p
2626 220n
3626 180k
3628 1k
2628 330p
2630 220n
3630 180k
3632 1k
2632 330p
2634 220n
3634 180k
3636 1k
2636 330p
2638 220n
4110
3638 180k
7620 HEF4052B
L+R.A
C21
9615 4)
4166
TP29
4k7 FOR PAL I
3600 300
2604 100n
4) 3k6
+13
1600
ECO-NICAM 2)
K
FRONT/SIDE
3640 1k
3 *
9S48
2642 220n
2640 330p
EXT.3
2 *
10S48
3642 180k
3644 1k
1 *
11S48
2646 220n
2644 330p
3646 180k
S49 FL1
E48 FL2/4
9S42 8S42 7S42 1S42 2S42 3S42 4S42 5S42 6S42
9S43 8S43 7S43 6S43 5S43 4S43 3S43 2S43 1S43
4105 1)
4106 1)
3602 2k2
2600 100n
3604 2k7
NOT FOR PAL I
4) 1k8
A
9641
+5
-8 ONLY FOR ECO-NICAM
TP12
TP13
TP20
TP19
L
R
C22
2R.B
3603 1
4) 3k3
3605 4k7
2602 100n
TP16
TP15
3622 180k
2622 100n
3620 180k
2620 100n
7600 TDA8417/V3
3V1
3V2
MATR.
IDENT.
G
10 MHz
DIV
V=
I²C
1V3
1602 10MHz
2608 220n
3606 27
6665 LL4148
+13
2606 100n
3608 100
3610 100
6610 1N4148
3612 1k +5 ONLY FRANCE (BGLL'I)
SDA
SCL
ASP RATIO
SVHS KILL
H67 H68 D75 C43 C58
1 R EXT
1 L EXT
C32 C31
+5A
1255B SCART 3/ EURO AV3 INTERFACE
P
4109
4112 7)
9260 7)
TP17
TP22
TP21
TP18
A1
A0
9717 8)
9716 8)
6V
7622 HEF4052B
4107
4672
L
R
AO
A1
AUDIO S2
AUDIO S3
AUDIO S0
AUDIO S1
C50 C49 C52 C51
7635 LF353
3665 15
2659
-11/-16
10m

REMARKS/REMARQUES/ANMERKUNGEN/NOT

PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERÄTEN:
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:
1) NO ECO NICAM
2) ONLY ECO NICAM
4) ONLY 800 TUNER
5) NOT FOR 800 TUNER
7) NOT FOR 3ᴿᴰ SCART/EURO AV3
8) ONLY 3ᴿᴰ SCART/EURO AV3
9) NO NICAM

Source selection auc
Tonquellenwahl
Selezione delle sorg
Sélection source sor

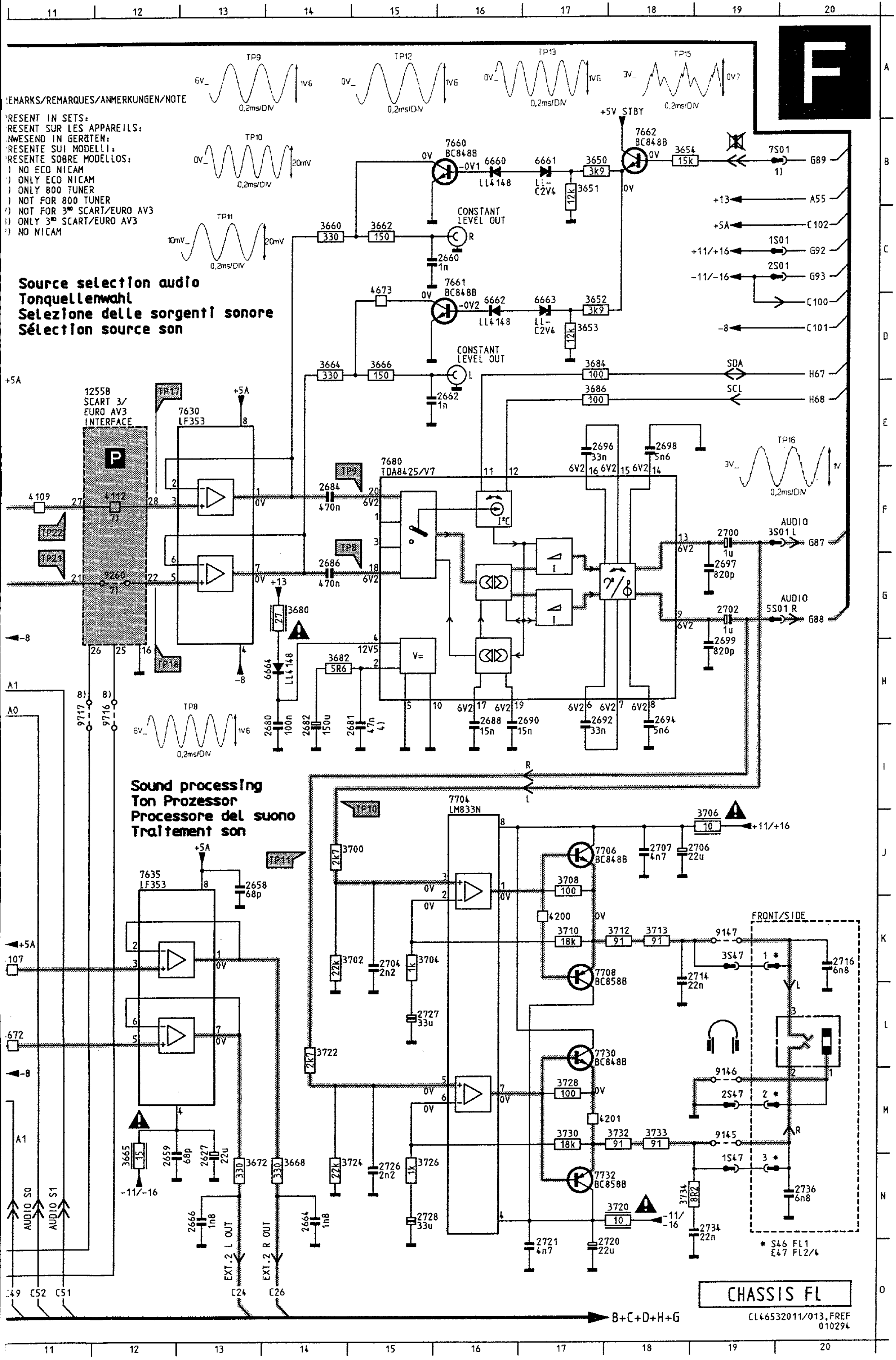
7620		
S1	S0	AUDIO SEL
0V	0V	EXT.3
0V	5V	FE
5V	0V	EXT.1
5V	5V	EXT.2

7622		
S3	S2	REC SEL
0V	0V	EXT.3
0V	5V	FE
5V	0V	EXT.1
5V	5V	----

Sound
Ton Pr
Proces
Traite

Stereo decoder
Stereo decoder
Decodificatore stereo
Décodeur stéréo

11 Traitement audio


F
TP9
TP12
TP13
TP15
TP10
TP11
TP16
TP8
0,2ms/DIV
+5V STBY
7660 BC848B
7661 BC848B
7662 BC848B
6660 LL4148
6661 LL-C2V4
6662 LL4148
6663 LL-C2V4
3650 3k9
3651 12k
3652 3k9
3653 12k
3654 15k
3660 330
3662 150
3664 330
3666 150
3684 100
3686 100
CONSTANT LEVEL OUT
2660 1n
2662 1n
7S01
1S01
2S01
G89
A55
C102
G92
G93
C100
C101
+13
+5A
+11/+16
-11/-16
-8
SDA
SCL
H67
H68
1255B SCART 3/ EURO AV3 INTERFACE
P
7630 LF353
4109
4112
9260
TP17
TP18
TP21
TP22
7680 TDA8425/V7
2684 470n
2686 470n
3680 27
6664 LL4148
3682 5R6
2680 100n
2682 150u
2681 47n
2688 15n
2690 15n
2692 33n
2694 5n6
2696 33n
2698 5n6
2700 1u
2697 820p
2702 1u
2699 820p
I²C
V=
AUDIO 3S01 L
AUDIO 5S01 R
G87
G88
9717
9716
A1
A0
Sound processing
Ton Prozessor
Processore del suono
Traitement son
7635 LF353
2658 68p
7704 LM833N
TP10
TP11
3700 2k7
3702 22k
2704 2n2
3704 1k
2727 33u
3706 10
2707 4n7
2706 22u
7706 BC848B
3708 100
4200
3710 18k
3712 91
3713 91
7708 BC858B
2714 22n
FRONT/SIDE
9147
3S47
2716 6n8
3722 2k7
7730 BC848B
3728 100
4201
3730 18k
3732 91
3733 91
7732 BC858B
9146
2S47
9145
1S47
2736 6n8
3734 8R2
2734 22n
3720 10
2721 4n7
2720 22u
3724 22k
2726 2n2
3726 1k
2728 33u
3665 15
2659 68p
2627 22u
3672 330
3668 330
2666 1n8
2664 1n8
4107
4672
AUDIO S0
AUDIO S1
EXT.2 L OUT
EXT.2 R OUT
C49
C52
C51
C24
C26
B+C+D+H+G
* S46 FL1 E47 FL2/4
CHASSIS FL
CL46532011/013.FREF 010294

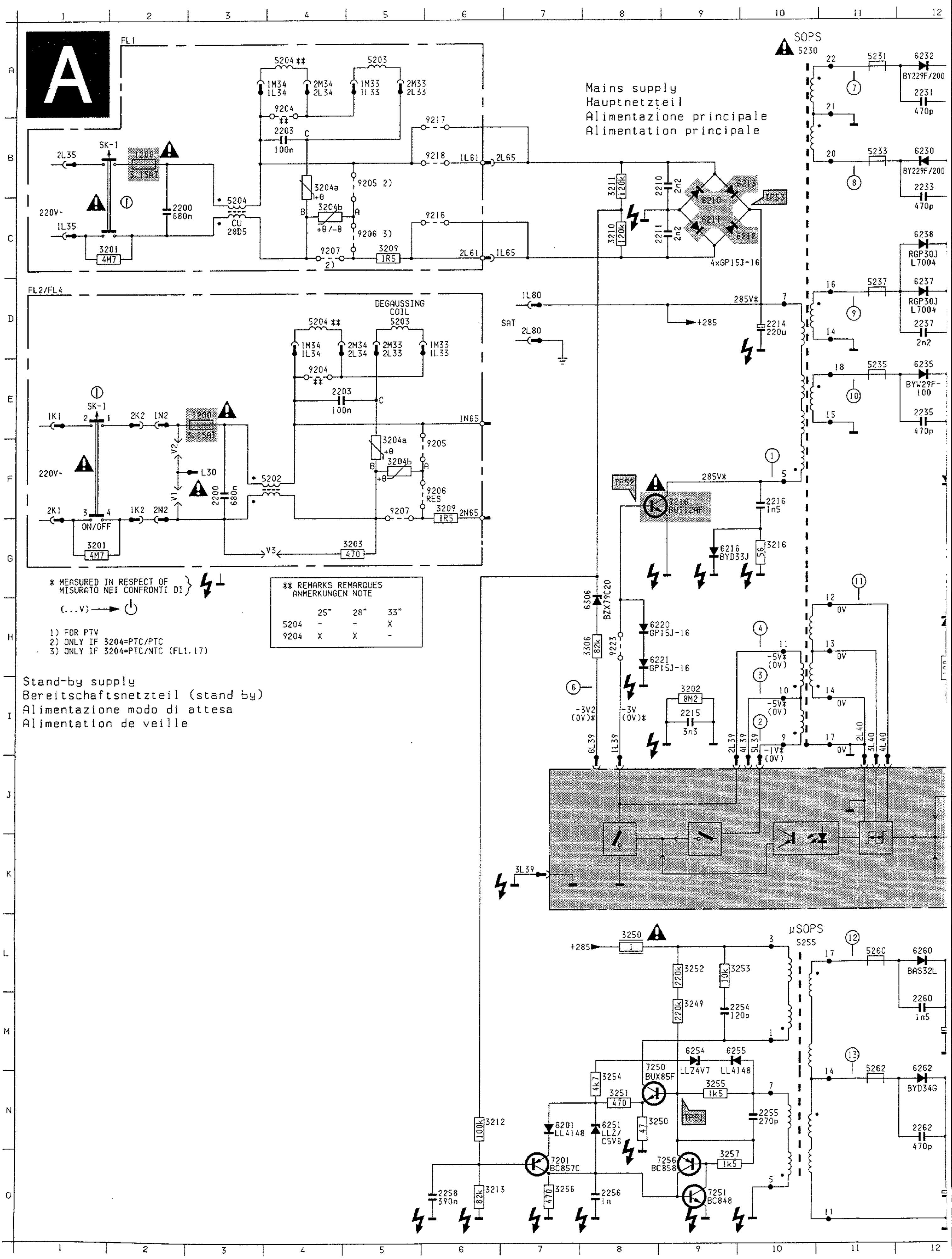
EMARKS/REMARQUES/ANMERKUNGEN/NOTE

RESENT IN SETS:
RESENT SUR LES APPAREILS:
NWESEND IN GERäTEN:
RESENTE SUI MODELLI:
RESENTE SOBRE MODELLOS:
) NO ECO NICAM
) ONLY ECO NICAM
) ONLY 800 TUNER
) NOT FOR 800 TUNER
) NOT FOR 3RD SCART/EURO AV3
) ONLY 3RD SCART/EURO AV3
) NO NICAM

Source selection audio
Tonquellenwahl
Selezione delle sorgenti sonore
Sélection source son

1255	E11	4110	D 7
1600	E 2	4112	F12
1602	M 1	4166	D 5
2600	G 2	4200	K17
2602	H 1	4201	M17
2604	E 2	4672	L11
2606	N 3	4673	C15
2608	M 2	6610	N 5
2620	H 5	6660	B16
2622	H 4	6661	B17
2624	B 6	6662	D16
2626	A 7	6663	D17
2627	M13	6664	H14
2628	C 6	6665	M 3
2630	B 7	7600	I 1
2632	D 6	7620	A 9
2634	C 7	7622	J 9
2636	D 6	7630	E12
2638	D 6	7635	J12
2640	E 6	7660	B16
2642	E 7	7661	C16
2644	F 6	7662	B18
2646	F 7	7680	E15
2658	J13	7704	I16
2659	M12	7706	J17
2660	C16	7708	K17
2662	E16	7730	L17
2664	N14	7732	N17
2666	N13	9145	M19
2680	H14	9146	M19
2681	H15	9147	K19
2682	H14	9260	G12
2684	F14	9615	D 2
2686	G14	9641	G 2
2688	H16	9716	H12
2690	H16	9717	H11
2692	H17		
2694	H18		
2696	E17		
2697	G19		
2698	E18		
2699	H19		
2700	F19		
2702	G19		
2704	K15		
2706	J18		
2707	J18		
2714	K18		
2716	K20		
2720	O17		
2721	O17		
2726	N15		
2727	L15		
2728	N15		
2734	N19		
2736	N20		
3600	E 2		
3602	F 1		
3603	H 1		
3604	G 1		
3605	H 1		
3606	M 3		
3608	M 4		
3610	M 4		
3612	M 6		
3620	H 5		
3622	H 3		
3624	A 6		
3626	B 7		
3628	B 6		
3630	C 7		
3632	C 6		
3634	C 7		
3636	D 6		
3638	D 7		
3640	E 6		
3642	E 8		
3644	F 6		
3646	F 7		
3650	B17		
3651	B17		
3652	D17		
3653	D17		
3654	B18		
3660	C14		
3662	C15		
3664	D14		
3665	M12		
3666	D15		
3668	N14		
3672	N13		
3680	G14		
3682	H14		
3684	D17		
3686	E17		
3700	J14		
3702	K14		
3704	K15		
3706	J19		
3708	J17		
3710	K17		
3712	K18		
3713	K18		
3720	N18		
3722	L14		
3724	N14		
3726	N15		
3728	M17		
3730	M17		
3732	M18		
3733	M18		
3734	N18		
4105	G 4		
4106	G 5		
4107	K11		
4109	F11		

Power supply / Stromversorgung / L'alimentation


A
FL1
FL2/FL4
SOPS
5230
µSOPS
5255
DEGAUSSING COIL
SK-1
ON/OFF
220V~
SAT
+285
285V*
TP51
TP52
TP53
7216 BUT12AF
7250 BUX85F
7201 BC857C
7256 BC858
7251 BC848
4xGP15J-16
1200 3.15AT
5204
5203
5202
3201 4M7
2200 680n
2203 100n
3204a
3204b
3209 1R5
3203 470
3250
3212 100k
3213 82k
2214 220u
6306 BZX79C20
3306 82k
6220 GP15J-16
6221 GP15J-16
-3V2 (0V)*
-3V (0V)*
-5V* (0V)
-1V* (0V)
0V
1
2
3
4
5
6
7
8
9
10
11
12
13
1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

Mains supply
Hauptnetzteil
Alimentazione principale
Alimentation principale

Stand-by supply
Bereitschaftsnetzteil (stand by)
Alimentazione modo di attesa
Alimentation de veille

* MEASURED IN RESPECT OF
MISURATO NEI CONFRONTI DI

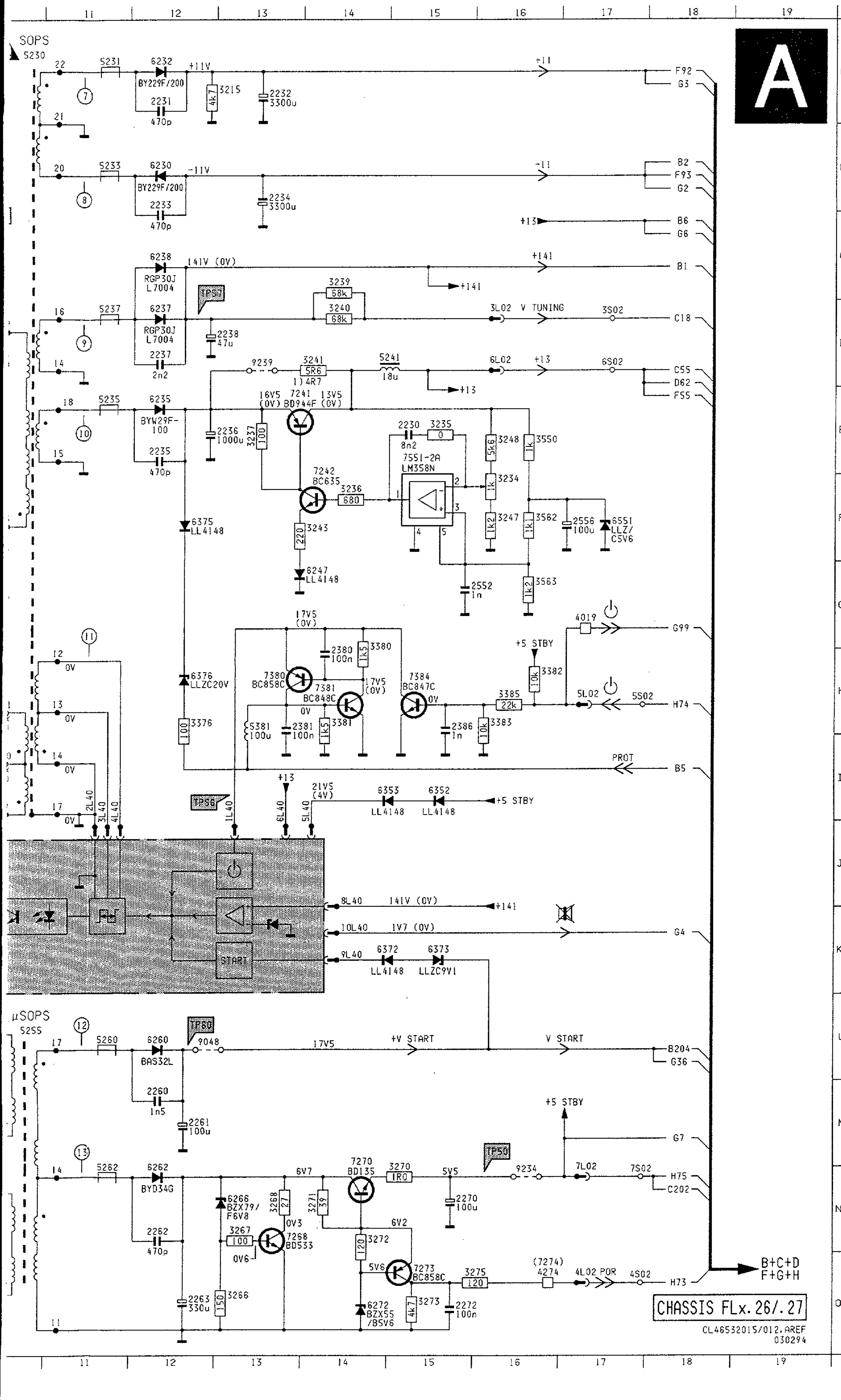
(...V) ──►

1) FOR PTV
2) ONLY IF 3204=PTC/PTC
3) ONLY IF 3204=PTC/NTC (FL1.17)

** REMARKS REMARQUES ANMERKUNGEN NOTE

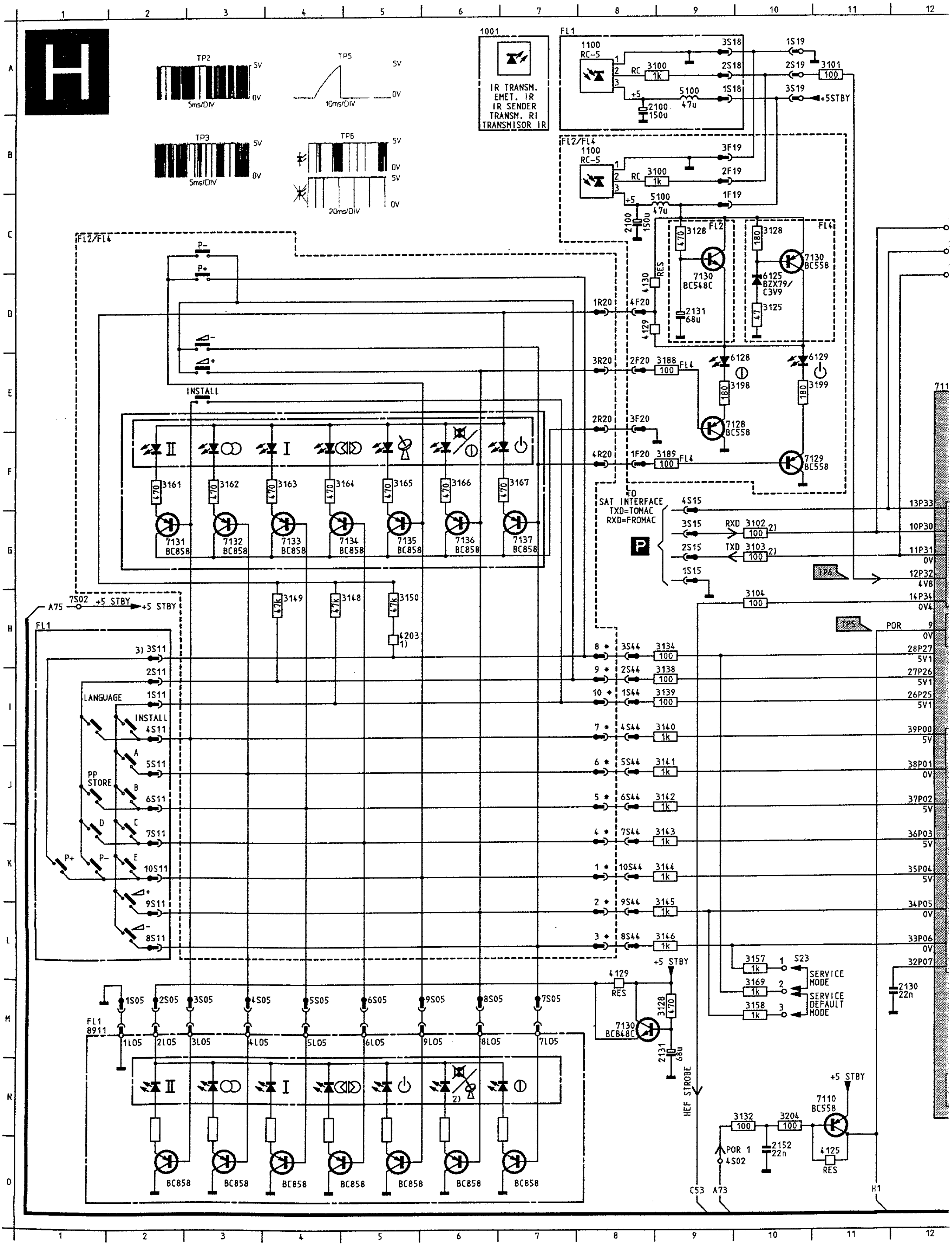
	25"	28"	33"
5204	-	-	X
9204	X	X	-

FLx.26/.27 (4:3)

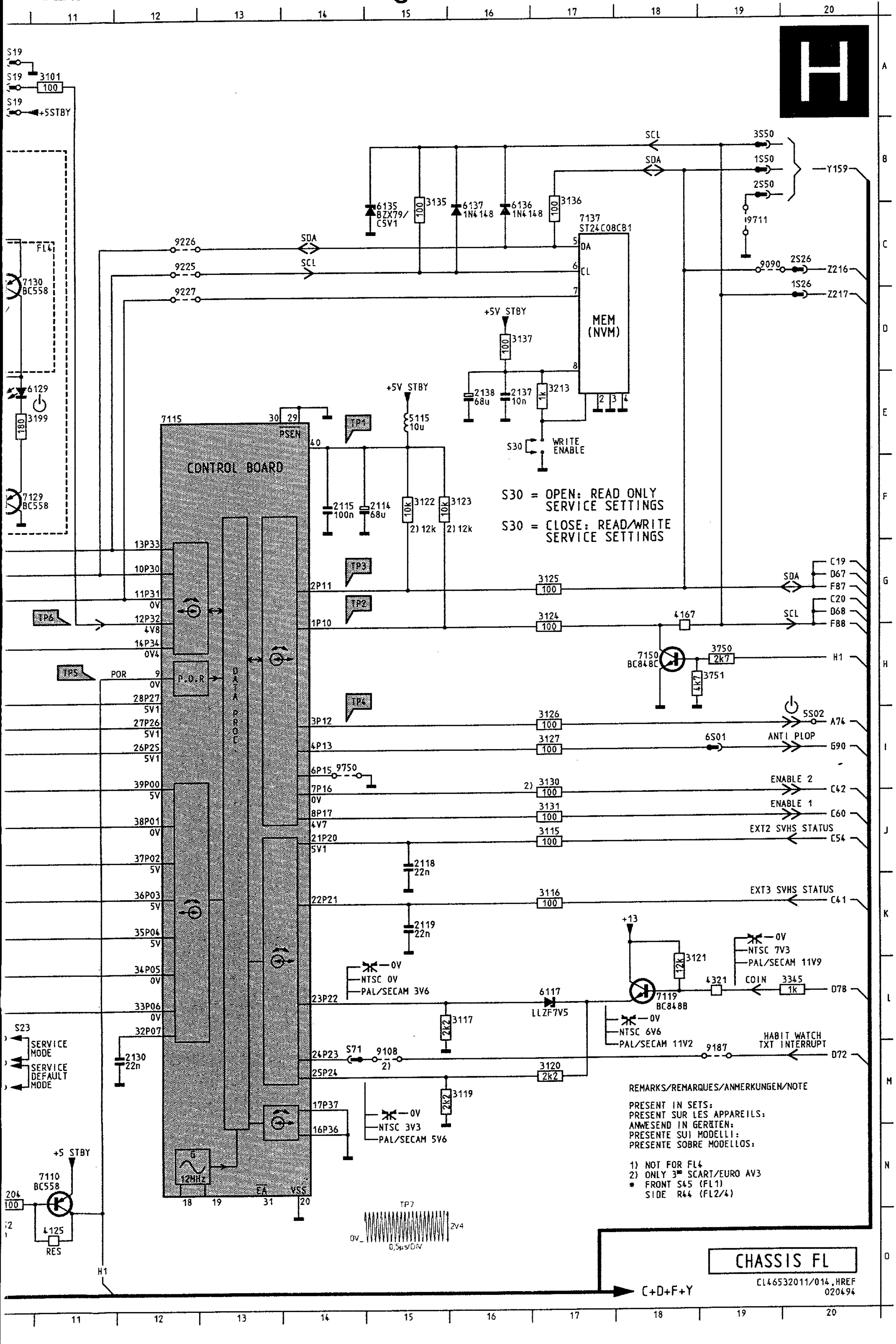

11
12
13
14
15
16
17
18
19
A
SOPS
5230
22
5231
6232
BY229F/200
2231
470p
+11V
3215
4k7
2232
3300u
+11
F92
G3
⑦
21
20
5233
6230
BY229F/200
2233
470p
-11V
2234
3300u
-11
B2
F93
G2
⑧
+13
B6
G6
6238
RGP30J
L7004
141V (0V)
+141
B1
+141
3239
68k
3240
68k
TP57
16
5237
6237
RGP30J
L7004
2238
47u
2237
2n2
⑨
14
3L02
V TUNING
3S02
C18
9239
3241
5R6
1) 4R7
5241
18u
6L02
+13
6S02
C55
D62
F55
+13
18
5235
6235
BYW29F-100
2235
470p
⑩
15
16V5 (0V)
7241
BD944F
13V5 (0V)
2236
1000u
3237
100
2230
8n2
3235
0
7551-2A
LM358N
3248
5k6
3550
1k
7242
BC635
3236
680
3234
1k
3243
220
3247
1k2
3562
1k
2556
100u
6551
LLZ/C5V6
6375
LL4148
6247
LL4148
2552
1n
3563
1k2
1
2
3
4
5
17V5 (0V)
2380
100n
3380
1k5
4019
G99
+5 STBY
3382
10k
7380
BC858C
7381
BC848C
17V5 (0V)
7384
BC847C
0V
3385
22k
5L02
5S02
H74
0V
6376
LLZC20V
5381
100u
2381
100n
3381
1k5
2386
1n
3383
10k
3376
100
PROT
B5
⑪
12
0V
13
0V
14
0V
17
0V
2L40
3L40
4L40
TP56
1L40
+13
6L40
21V5 (4V)
5L40
6353
LL4148
6352
LL4148
+5 STBY
8L40
141V (0V)
+141
10L40
1V7 (0V)
G4
9L40
6372
LL4148
6373
LLZC9V1
START
µSOPS
5255
⑫
17
5260
6260
BAS32L
TP60
9048
17V5
+V START
V START
B204
G36
2260
1n5
2261
100u
+5 STBY
G7
⑬
14
5262
6262
BYD34G
6V7
7270
BD135
3270
1R0
5V5
TP50
9234
7L02
7S02
H75
C202
6266
BZX79/F6V8
3268
27
3271
39
0V3
2270
100u
2262
470p
3267
100
0V6
7268
BD533
6V2
3272
120
5V6
7273
BC858C
3275
120
(7274)
4274
4L02 POR
4S02
H73
B+C+D
F+G+H
2263
330u
3266
150
6272
BZX55/B5V6
3273
4k7
2272
100n
11
CHASSIS FLx. 26/. 27
CL46532015/012.AREF
030294
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

1200	B 2	6232	A12
1200	E 3	6235	E12
2200	C 2	6237	D12
2200	F 3	6238	C12
2203	B 4	6247	G14
2203	E 4	6251	N 8
2210	B 9	6254	M 9
2211	C 9	6255	M 9
2214	D10	6260	L12
2215	I 9	6262	N12
2216	F10	6266	N13
2230	E15	6272	O14
2231	A12	6306	H 8
2232	A13	6352	I15
2233	B12	6353	I14
2234	B13	6372	K14
2235	E12	6373	K15
2236	E12	6375	F12
2237	D12	6376	H12
2238	D12	6551	F17
2254	M 9	7201	O 7
2255	N10	7216	F 9
2256	O 8	7241	E13
2258	O 6	7242	F14
2260	M12	7250	N 8
2261	M12	7251	O 9
2262	N12	7256	O 9
2263	O12	7268	N13
2270	N15	7270	M14
2272	O15	7273	O15
2380	H14	7274	O16
2381	H13	7380	H13
2386	H15	7381	H14
2552	G15	7384	H15
2556	F17	7551	E15
3201	C11	9048	L12
3201	G 1	9204	A 4
3202	I 9	9204	E 4
3203	G 5	9205	B 5
3204	B 4	9205	F 6
3204	C 4	9206	C 5
3204	E 5	9206	F 6
3204	F 5	9207	C 4
3209	C 5	9207	F 5
3209	F 6	9216	C 6
3210	C 8	9217	B 6
3211	B 8	9218	B 6
3212	N 6	9223	H 8
3213	O 6	9234	N16
3215	A13	9239	D13
3216	G10		
3234	E16		
3235	E15		
3236	F14		
3237	E13		
3239	C14		
3240	D14		
3241	D14		
3243	F14		
3247	F16		
3248	E16		
3249	M 9		
3250	L 8		
3250	N 8		
3251	N 8		
3252	L 9		
3253	L 9		
3254	N 8		
3255	N 9		
3256	O 7		
3257	O 9		
3266	O13		
3267	N13		
3268	N13		
3270	N15		
3271	N14		
3272	N14		
3273	O15		
3275	O16		
3306	H 8		
3376	H12		
3380	G14		
3381	H14		
3382	H16		
3383	H16		
3385	H16		
3550	E16		
3562	F16		
3563	G16		
4274	O16		
4L02	O17		
5202	F 4		
5203	A 5		
5203	D 5		
5204	A 4		
5204	C 3		
5204	D 4		
5230	A10		
5231	A11		
5233	B11		
5235	E11		
5237	D11		
5241	D14		
5255	L10		
5260	L11		
5262	N11		
5381	H13		
6201	N 7		
6210	C 9		
6211	C 9		
6212	C 9		
6213	B 9		
6216	G 9		
6220	H 8		
6221	H 8		
6230	B12		

Controls / Bedienung / Commande


H
TP2
5V
0V
5ms/DIV
TP5
10ms/DIV
TP3
TP6
20ms/DIV
1001
IR TRANSM.
EMET. IR
IR SENDER
TRANSM. RI
TRANSMISOR IR
FL1
1100
RC-5
RC
3100
1k
+5
5100
47u
2100
150u
3S18
2S18
1S18
1S19
2S19
3S19
3101
100
+5STBY
FL2/FL4
3F19
2F19
1F19
3128
470
180
FL2
FL4
7130
BC548C
BC558
6125
BZX79/
C3V9
3125
47
4130
RES
4129
2131
68u
1R20
4F20
3R20
2F20
3188
100
6128
6129
3198
3199
7128
7129
2R20
3F20
4R20
1F20
3189
P-
P+
INSTALL
3161
3162
3163
3164
3165
3166
3167
7131
7132
7133
7134
7135
7136
7137
BC858
3149
3148
3150
47k
4203
1)
A75
7S02
+5 STBY
3) 3S11
2S11
LANGUAGE
1S11
4S11
5S11
PP
STORE
6S11
7S11
10S11
9S11
8S11
A
B
C
D
E
TO
SAT INTERFACE
TXD=TOMAC
RXD=FROMAC
4S15
3S15
2S15
1S15
RXD 3102 2)
TXD 3103 2)
P
TP6
3104
TP5
POR
8 * 3S44 3134
9 * 2S44 3138
10 * 1S44 3139
7 * 4S44 3140
6 * 5S44 3141
5 * 6S44 3142
4 * 7S44 3143
1 * 10S44 3144
2 * 9S44 3145
3 * 8S44 3146
13P33
10P30
11P31
0V
12P32
4V8
14P34
0V4
9
28P27
5V1
27P26
26P25
39P00
5V
38P01
37P02
36P03
35P04
34P05
33P06
32P07
711
3157
3169
3158
S23
SERVICE
MODE
SERVICE
DEFAULT
MODE
2130
22n
1S05
2S05
3S05
4S05
5S05
6S05
9S05
8S05
7S05
8911
1L05
2L05
3L05
4L05
5L05
6L05
9L05
8L05
7L05
2)
HEF STROBE
3132
3204
7110
4125
2152
22n
POR 1
4S02
C53
A73
H1
1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

Controls / Bedienung / Commande


H
11
12
13
14
15
16
17
18
19
20
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
S19
3101
100
+5STBY
FL4
7130
BC558
6129
3199
180
7129
BC558
SCL
SDA
3S50
1S50
2S50
Y159
9711
6135
BZX79/
C5V1
3135
100
6137
1N4148
6136
1N4148
3136
100
7137
ST24C08CB1
DA
CL
MEM
(NVM)
9226
9225
9227
9090
2S26
Z216
1S26
Z217
+5V STBY
3137
100
2138
68u
2137
10n
3213
1k
S30
WRITE
ENABLE
+5V STBY
5115
10u
7115
CONTROL BOARD
PSEN
TP1
TP2
TP3
TP4
TP5
TP6
2115
100n
2114
68u
3122
10k
2) 12k
3123
10k
2) 12k
S30 = OPEN: READ ONLY
SERVICE SETTINGS
S30 = CLOSE: READ/WRITE
SERVICE SETTINGS
13P33
10P30
11P31
0V
12P32
4V8
14P34
0V4
POR
P.O.R
28P27
5V1
27P26
5V1
26P25
5V1
39P00
5V
38P01
0V
37P02
5V
36P03
5V
35P04
5V
34P05
0V
33P06
0V
32P07
DATA PROC.
2P11
1P10
3P12
4P13
6P15
9750
7P16
0V
8P17
4V7
21P20
5V1
22P21
23P22
24P23
25P24
17P37
16P36
3125
100
C19
D67
F87
3124
100
4167
C20
D68
F88
7150
BC848C
3750
2k7
3751
4k7
H1
3126
100
5S02
A74
3127
100
6S01
ANTI PLOP
G90
2) 3130
100
ENABLE 2
C42
3131
100
ENABLE 1
C60
3115
100
EXT2 SVHS STATUS
C54
2118
22n
3116
100
EXT3 SVHS STATUS
C41
2119
22n
+13
3121
12k
0V
NTSC 7V3
PAL/SECAM 11V9
0V
NTSC 0V
PAL/SECAM 3V6
6117
LLZF7V5
7119
BC848B
4321
COIN
3345
1k
D78
3117
2k2
0V
NTSC 6V6
PAL/SECAM 11V2
S71
9108
2)
9187
HABIT WATCH
TXT INTERRUPT
D72
3120
2k2
3119
2k2
0V
NTSC 3V3
PAL/SECAM 5V6
S23
SERVICE
MODE
SERVICE
DEFAULT
MODE
2130
22n
+5 STBY
7110
BC558
204
100
4125
RES
H1
G
12MHz
EA
VSS
TP7
2V4
0V
0,5µs/DIV
C+D+F+Y
CHASSIS FL
CL46532011/014.HREF
020494

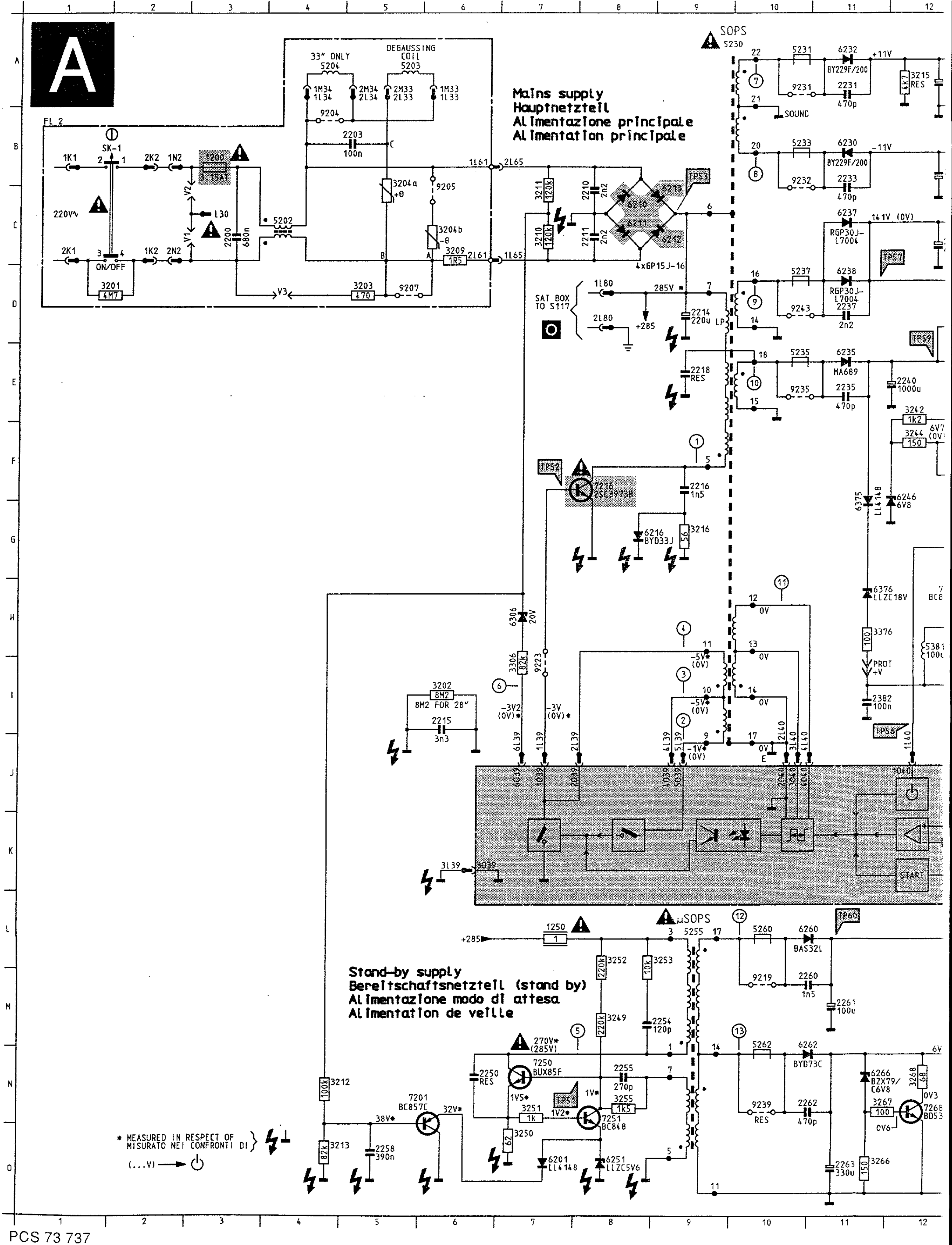
REMARKS/REMARQUES/ANMERKUNGEN/NOTE

PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERÄTEN:
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:

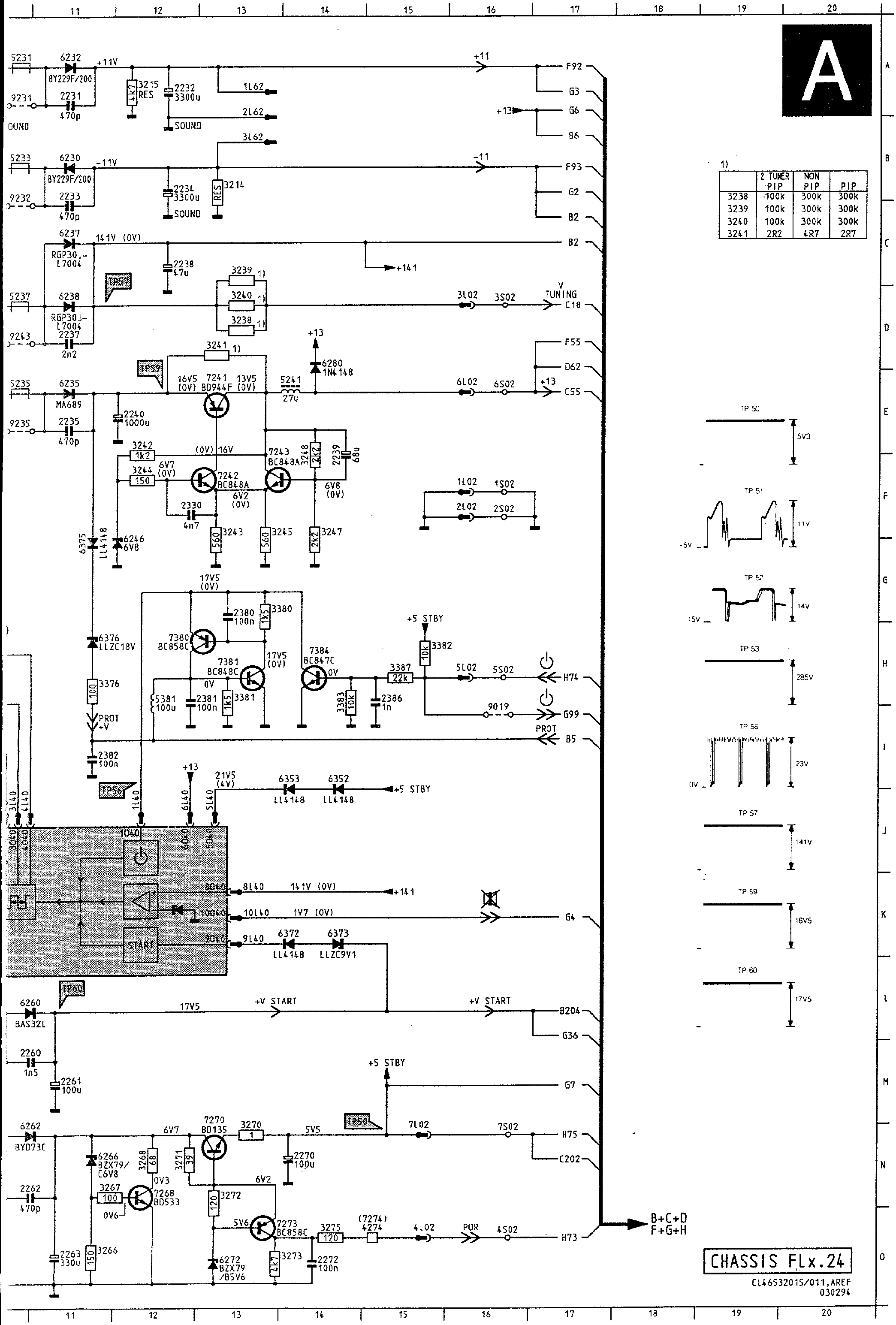
1) NOT FOR FL4
2) ONLY 3^e SCART/EURO AV3
* FRONT S45 (FL1)
SIDE R44 (FL2/4)

S23	L10	9750	I14
S30	E16		
1001	A 6		
1100	A 8		
1100	B 8		
2100	B 8		
2100	C 8		
2114	F15		
2115	F14		
2118	J15		
2119	K15		
2130	M12		
2131	M 9		
2131	D 9		
2137	E16		
2138	E16		
2152	O10		
3100	A 9		
3100	B 9		
3101	A11		
3102	G10		
3103	G10		
3104	H10		
3115	J17		
3116	K17		
3117	L16		
3119	M16		
3120	M17		
3121	K18		
3122	F15		
3123	F16		
3124	G17		
3125	D10		
3125	G17		
3126	I17		
3127	I17		
3128	M 9		
3128	C 9		
3128	C10		
3130	I17		
3131	J17		
3132	N10		
3134	H 9		
3135	B15		
3136	B17		
3137	D16		
3138	I 9		
3139	I 9		
3140	I 9		
3141	J 9		
3142	J 9		
3143	K 9		
3144	K 9		
3145	L 9		
3146	L 9		
3148	H 4		
3149	H 4		
3150	H 5		
3157	L10		
3158	M10		
3161	F 2		
3162	F 3		
3163	F 4		
3164	F 4		
3165	F 5		
3166	F 6		
3167	F 7		
3169	M10		
3188	E 9		
3189	F 9		
3198	E 9		
3199	E10		
3204	N10		
3213	E17		
3345	L20		
3750	H19		
3751	H19		
4125	O11		
4129	L 8		
4129	D 8		
4130	D 8		
4167	G18		
4203	H 5		
4321	L19		
5100	A 9		
5100	C 9		
5115	E15		
6117	L17		
6125	D10		
6128	E 9		
6129	E10		
6135	C15		
6136	C16		
6137	C16		
7110	N11		
7115	E12		
7119	L18		
7128	F 9		
7129	F10		
7130	M 8		
7130	D 9		
7130	C10		
7131	G 2		
7132	G 3		
7133	G 4		
7134	G 4		
7135	G 5		
7136	G 6		
7137	G 7		
7137	C17		
7150	H18		
8911	M 1		
9090	C19		
9108	M15		
9187	M19		
9711	C19		

Power supply / Stromversorgung / L'alimentation


A
Mains supply
Hauptnetzteil
Alimentazione principale
Alimentation principale
Stand-by supply
Bereitschaftsnetzteil (stand by)
Alimentazione modo di attesa
Alimentation de veille
SOPS
5230
µSOPS
5255
FL 2
SK-1
ON/OFF
220V∿
1K1
2K1
2K2
1K2
1N2
2N2
1200
3.15AT
V1
V2
V3
L30
2200
680n
3201
4M7
33" ONLY
5204
DEGAUSSING COIL
5203
1M34
1L34
2M34
2L34
2M33
2L33
1M33
1L33
9204
2203
100n
5202
3204a
+θ
3204b
-θ
9205
3209
1R5
3203
470
9207
1L61
2L65
2L61
1L65
3211
120k
3210
120k
2210
2n2
2211
2n2
6210
6211
6212
6213
4xGP15J-16
TP53
SAT BOX TO S117
1L80
2L80
285V *
+285
2214
220u
LP
2218
RES
22
21
20
16
14
18
15
SOUND
5231
9231
6232
BY229F/200
2231
470p
+11V
3215
4K7
RES
5233
9232
6230
BY229F/200
2233
470p
-11V
6237
RGP30J-L7004
141V (0V)
TP57
5237
9243
6238
RGP30J-L7004
2237
2n2
TP59
5235
9235
6235
MA689
2235
470p
2240
1000u
3242
1k2
3244
150
6V7
(0V)
6375
LL4148
6246
6V8
TP52
7216
2SC3973B
2216
1n5
6216
BYD33J
3216
56
6306
20V
3306
82k
9223
-3V2
(0V)*
-3V
(0V)*
3202
8M2
8M2 FOR 28"
2215
3n3
-5V*
(0V)
-1V*
(0V)
0V
E
12
13
11
10
9
17
6L39
1L39
2L39
4L39
5L39
2L40
3L40
4L40
1L40
6039
1039
2039
4039
5039
2040
3040
4040
1040
3L39
3039
START
6376
LLZC18V
3376
100
PROT
+V
2382
100n
TP56
5381
100u
BC8
1250
1
+285
3252
220k
3253
10k
3249
220k
2254
120p
270V*
(285V)
7250
BUX85F
2250
RES
1V5*
3251
1k
1V2*
TP51
1V*
7251
BC848
2255
270p
3255
1k5
3250
62
6201
LL4148
6251
LLZC5V6
3212
100k
3213
82k
2258
390n
7201
BC857C
38V*
32V*
5260
9219
6260
BAS32L
2260
1n5
2261
100u
TP60
5262
9239
RES
6262
BYD73C
2262
470p
2263
330u
6266
BZX79/
C6V8
3268
68
3267
100
7268
BD53
0V3
0V6
3266
150
6V
* MEASURED IN RESPECT OF
MISURATO NEI CONFRONTI DI
(...V)

FLx.24 (16:9)


A
11
12
13
14
15
16
17
18
19
20
5231
6232
BY229F/200
+11V
9231
2231
470p
OUND
3215
4K7
RES
2232
3300u
1L62
2L62
SOUND
3L62
+11
F92
G3
+13
G6
B6
5233
6230
BY229F/200
-11V
9232
2233
470p
2234
3300u
SOUND
RES
3214
-11
F93
G2
B2
6237
RGP30J-L7004
141V (0V)
2238
47u
B2
+141
TP57
3239 1)
3240 1)
3238 1)
5237
6238
RGP30J-L7004
2237
2n2
9243
3L02
3S02
V TUNING
C18
+13
3241 1)
6280
1N4148
F55
D62
TP59
16V5 (0V)
7241 BD944F
13V5 (0V)
5241
27u
6L02
6S02
+13
C55
5235
6235
MA689
9235
2235
470p
2240
1000u
3242
1k2
(0V) 16V
7243 BC848A
3248
2K2
2239
68u
6V7 (0V)
3244
150
7242 BC848A
6V2 (0V)
6V8 (0V)
2330
4n7
1L02
1S02
2L02
2S02
6375
LL4148
6246
6V8
3243
560
3245
560
3247
2K2
17V5 (0V)
2380
100n
3380
1K5
7380
BC858C
6376
LLZC18V
7381
BC848C
17V5 (0V)
7384
BC847C
0V
+5 STBY
3382
10k
3387
22k
5L02
5S02
H74
3376
100
5381
100u
0V
2381
100n
3381
1K5
3383
10k
2386
1n
9019
G99
PROT +V
PROT
B5
2382
100n
TP56
+13
21V5 (4V)
6353
LL4148
6352
LL4148
+5 STBY
3L40
4L40
1L40
6L40
5L40
3040
4040
1040
6040
5040
8040
8L40
141V (0V)
+141
10040
10L40
1V7 (0V)
G4
START
9040
9L40
6372
LL4148
6373
LLZC9V1
TP60
6260
BAS32L
17V5
+V START
+V START
B204
G36
2260
1n5
2261
100u
+5 STBY
G7
6262
BYD73C
7270
BD135
6V7
3270
1
5V5
TP50
7L02
7S02
H75
6266
BZX79/C6V8
3268
68
3271
39
2270
100u
C202
0V3
2262
470p
3267
100
7268
BD533
0V6
3272
120
6V2
5V6
7273
BC858C
3275
120
(7274)
4274
4L02
POR
4S02
H73
B+C+D
F+G+H
2263
330u
3266
150
6272
BZX79/B5V6
3273
4K7
2272
100n
TP 50
5V3
TP 51
11V
-5V
TP 52
14V
15V
TP 53
285V
TP 56
23V
0V
TP 57
141V
TP 59
16V5
TP 60
17V5

1)

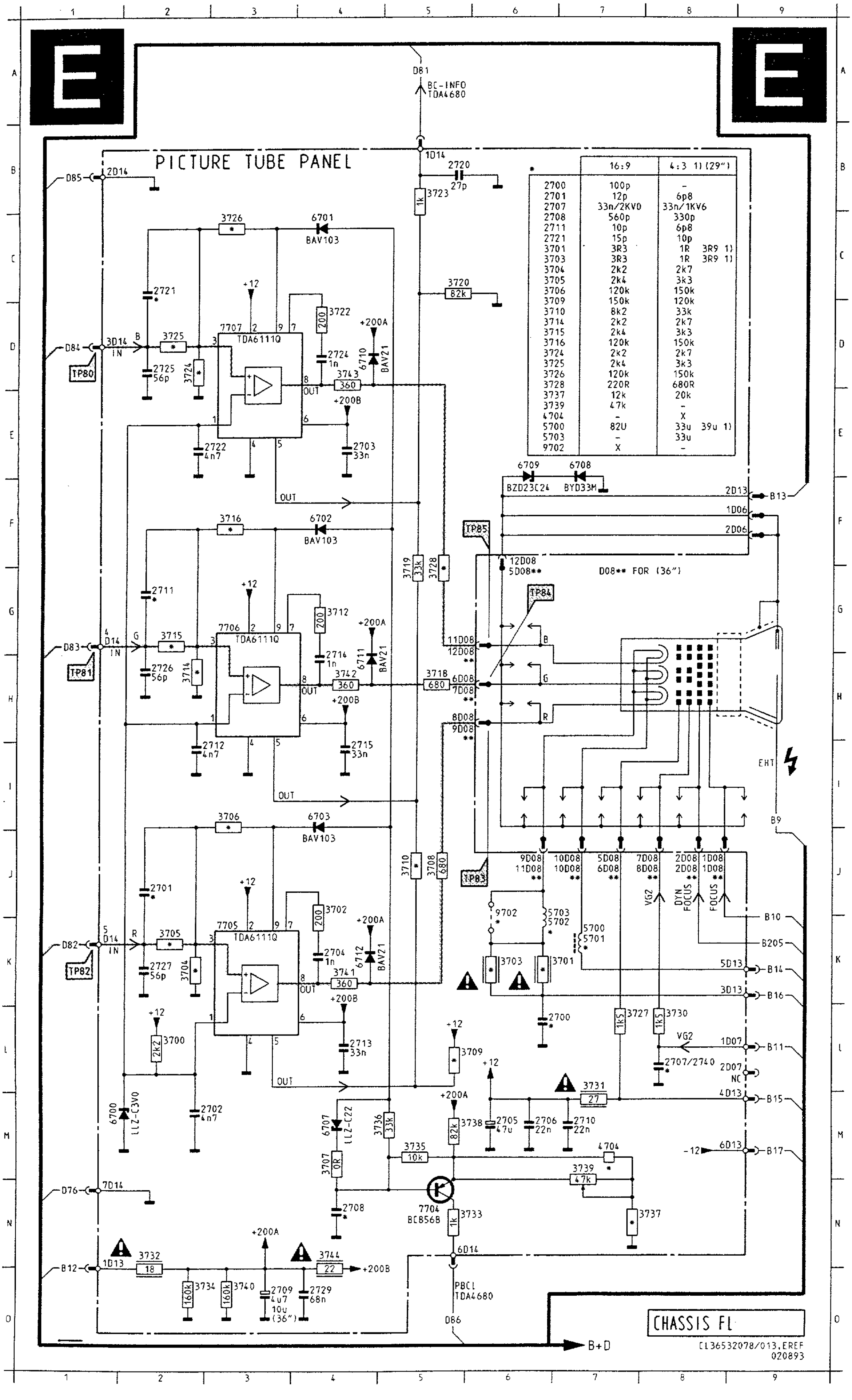
	2 TUNER PIP	NON PIP	PIP
3238	100k	300k	300k
3239	100k	300k	300k
3240	100k	300k	300k
3241	2R2	4R7	2R7

CHASSIS FLx.24

CL46532015/011.AREF
030294

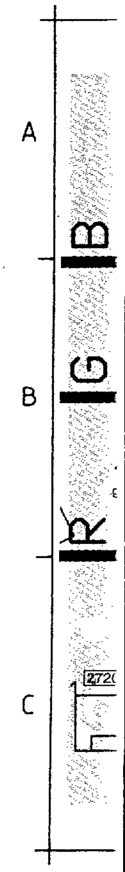
(727	O15
1200	B 3
1200	B 3
1250	L 7
2200	C 3
2200	C 3
2203	B 5
2203	B 5
2210	C 8
2211	C 8
2214	D 9
2215	I 6
2216	F 9
2218	E 9
2231	A11
2232	A12
2233	B11
2234	B12
2235	E11
2237	D11
2238	C12
2239	E14
2240	E12
2250	N 6
2254	M 9
2255	N 8
2258	O 5
2260	M11
2261	M11
2262	N11
2263	O11
2270	N14
2272	O14
2330	F12
2380	G13
2381	H12
2382	I11
2386	H15
3201	D 1
3201	D 1
3202	I 6
3203	D 5
3204	B 5
3204	C 5
3204	B 5
3204	C 6
3209	C 6
3209	C 6
3210	C 7
3211	C 7
3212	N 4
3213	O 4
3214	B13
3215	A12
3216	G 9
3238	D13
3239	C13
3240	D13
3241	D13
3242	E12
3243	F13
3244	F12
3245	F13
3247	F14
3248	E14
3249	M 8
3250	O 7
3251	N 7
3252	L 8
3253	L 9
3255	N 8
3266	O11
3267	N11
3268	N12
3270	N13
3271	N12
3272	N13
3273	O14
3275	O14
3306	I 7
3376	H11
3380	G13
3381	H13
3382	H15
3383	H14
3387	H15
5202	C 4
5203	A 5
5203	A 5
5204	C 4
5204	A 4
5204	A 4
5230	A 9
5231	A10
5233	B10
5235	E10
5237	D10
5241	E14
5255	L 9
5260	L10
5262	N10
5381	H12
6201	O 7
6210	C 8
6211	C 8
6212	C 9
6213	C 9
6216	G 8
6230	B11
6232	A11
6235	E11
6237	C11
6238	D11
6246	G12
6251	O 8
6260	L11
6262	N11
6266	N11
6272	O13
6280	D14
6306	H 7
6352	I14
6353	I14
6372	K14
6373	K14
6375	G11
6376	H11
7201	N 6
7216	F 8
7241	E13
7242	F13
7243	F13
7250	N 7
7251	N 8
7268	N12
7270	M13
7273	O13
7380	H12
7381	H13
7384	H14
9019	I16
9204	B 4
9205	C 6
9205	C 6
9207	C 5
9207	D 5
9218	B 5
9219	M10
9223	I 7
9231	A10
9232	B10
9235	E10
9239	N10
9243	D10

Picture tube panel / Bildröhren Platte /

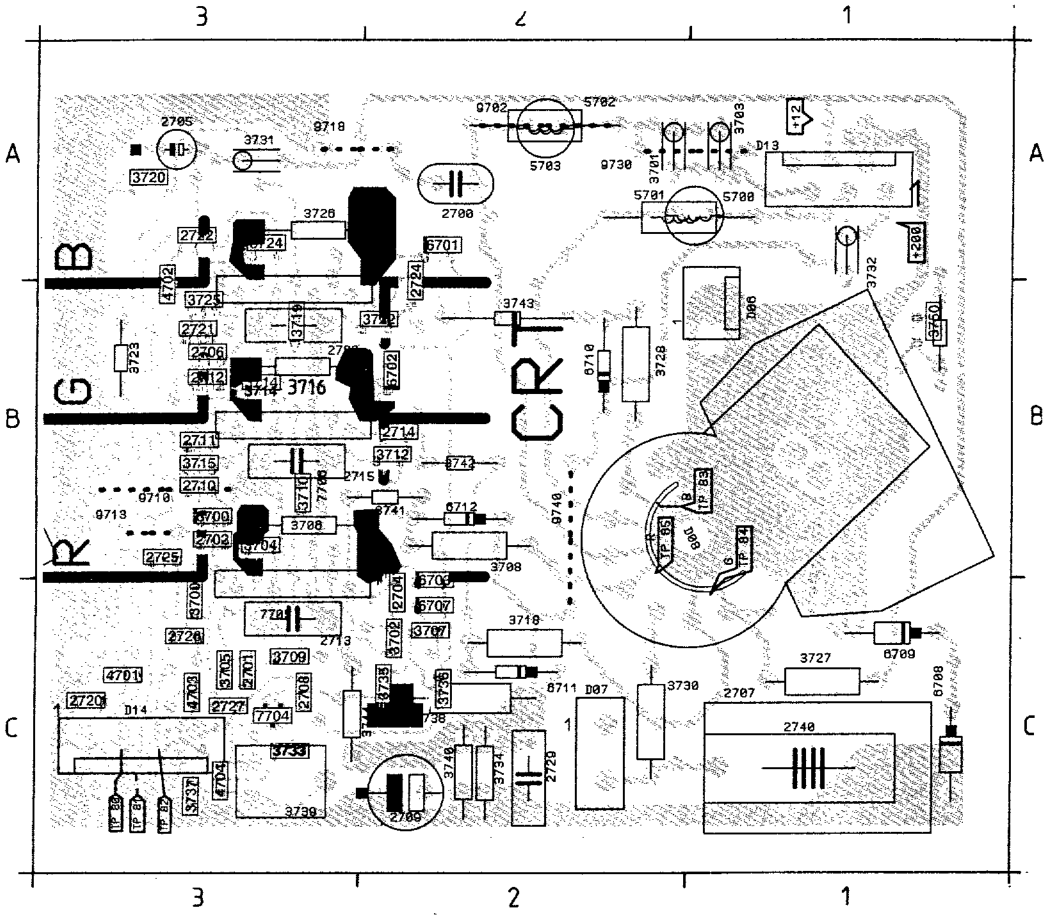

E
PICTURE TUBE PANEL
D81
BC-INFO
TDA4680
1D14
2720
27p
3723
1k
3720
82k
D85
2D14
D84
3D14
IN
TP80
3725
3724
2725
56p
2721
3726
6701
BAV103
7707
TDA6111Q
+12
3722
200
2724
1n
+200A
6710
BAV21
3743
360
+200B
2703
33n
2722
4n7
OUT
3716
6702
2711
3715
3714
2726
56p
7706
3712
2714
1n
6711
3742
3718
680
2715
33n
2712
4n7
D83
4D14
TP81
G
3706
6703
2701
3705
3704
2727
56p
7705
3702
2704
1n
6712
3741
2713
33n
3700
2k2
2702
4n7
6700
LLZ-C3V0
D82
5D14
TP82
R
B
3719
33k
3728
3710
3708
680
TP85
TP84
TP83
12D08
5D08**
D08** FOR (36")
11D08
12D08
6D08
7D08
8D08
9D08
6709
BZD23C24
6708
BYD33M
2D13
1D06
2D06
B13
EHT
B9
9D08
11D08
10D08
10D08
5D08
6D08
7D08
8D08
2D08
2D08
1D08
1D08
VG2
DYN FOCUS
FOCUS
9702
5703
5702
5700
5701
3703
3701
2700
B10
B205
5D13
B14
3D13
B16
3727
1k5
3730
1k5
VG2
1D07
B11
2707/2740
2D07
NC
3731
27
4D13
B15
+12
3709
+200A
3738
82k
2705
47u
2706
22n
2710
22n
4704
3739
47k
3737
3735
10k
3736
33k
6707
LLZ-C22
3707
0R
2708
7704
BC856B
3733
1k
6D13
-12
B17
D76
7D14
B12
1D13
3732
18
3734
160k
3740
160k
+200A
2709
4u7
10u
(36")
2729
68n
3744
22
+200B
6D14
PBCL
TDA4680
D86
B+D
CHASSIS FL
CL36532078/013.EREF
020893
1 2 3 4 5 6 7 8 9
A B C D E F G H I J K L M N O

*	16:9	4:3 1) (29")
2700	100p	-
2701	12p	6p8
2707	33n/2KV0	33n/1KV6
2708	560p	330p
2711	10p	6p8
2721	15p	10p
3701	3R3	1R 3R9 1)
3703	3R3	1R 3R9 1)
3704	2k2	2k7
3705	2k4	3k3
3706	120k	150k
3709	150k	120k
3710	8k2	33k
3714	2k2	2k7
3715	2k4	3k3
3716	120k	150k
3724	2k2	2k7
3725	2k4	3k3
3726	120k	150k
3728	220R	680R
3737	12k	20k
3739	47k	-
4704	-	X
5700	82U	33u 39u 1)
5703	-	33u
9702	X	-

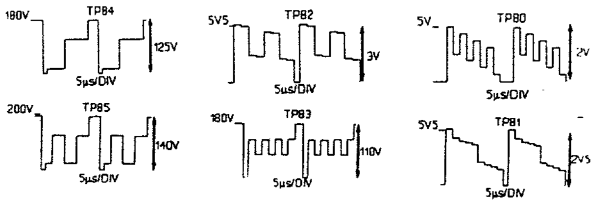
2700	K 6
2701	J 2
2702	M 2
2703	L 4
2704	K 4
2705	M 6
2706	M 6
2707	L 8
2708	N 4
2709	E 7
2710	M 7
2711	G 2
2712	I 2
2713	E 4
2714	H 4
2715	I 4
2720	B 5
2721	C 2
2722	E 2
2724	D 4
2725	D 2
2726	H 2
2727	K 2
2729	E 6
3700	L 2
3701	K 6
3702	J 4
3703	K 6
3704	K 2
3705	K 2
3706	I 3
3707	M 4
3708	J 5
3709	L 5
3710	J 5
3712	G 4
3714	H 2
3715	G 2
3716	F 3
3718	H 5
3719	G 5
3720	C 5
3722	D 4
3723	B 5
3724	D 2
3726	C 3
3727	K 7
3728	G 5
3730	K 8
3731	L 7
3732	D 8
3733	N 5
3734	E 8
3735	M 5
3736	M 5
3737	N 6
3738	M 5
3739	M 6
3740	E 7
3741	K 4
3742	H 4
3743	D 4
3744	D 6
4709	I 2
5700	J 7
6700	M 1
6701	C 4
6702	F 4
6703	I 4
6707	M 4
6708	E 7
6709	E 6
6710	D 4
6711	H 4
6712	K 4
7704	N 5
7705	K 3
7706	G 3
7707	D 3


A
B
C
R
G
B
2720

Platines Tube-image

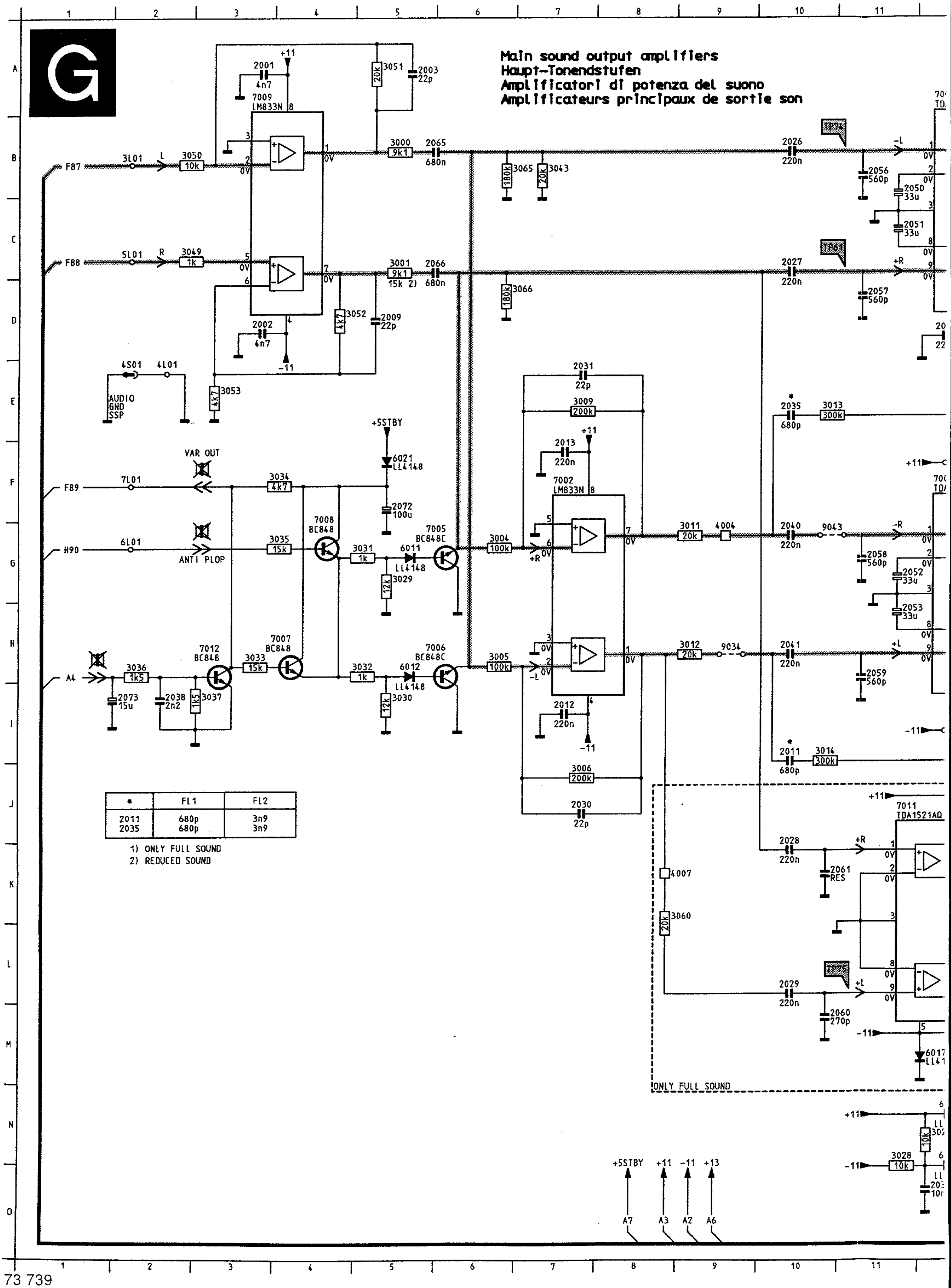

3
2
1
A
B
C
CRT
B
G
R
2705
3731
9718
9702
5702
5703
9730
3701
3703
D13
+12
3720
2700
5701
5700
3726
2722
3724
6701
+200
4702
3725
2724
3743
D06
3732
9760
2721
3719
3742
3723
2706
2708
6702
6710
3728
2712
3714
3716
2714
2711
3712
3715
3742
2715
2710
3710
7706
9740
TP83
9710
9713
3741
6712
D08
TP85
TP84
2700
3708
2702
7704
2725
3708
6700
3700
6707
7701
3707
2713
3718
2726
6709
3709
3705
2701
3735
3736
3727
4701
2708
6711
D07
3730
2707
6708
2720
D14
4703
2727
7704
738
2740
3733
3740
3734
2729
4704
3737
TP80
TP81
TP82
3739
2709

D06	B1	3708	B2	5701	A2
D07	C2	3709	C3	5702	A2
D08	B1	3710	B3	5703	A2
D13	A1	3712	B2	6700	B3
D14	C3	3714	B3	6701	A2
2700	A2	3715	B3	6702	B2
2701	C3	3716	B3	6703	C2
2702	B3	3718	C2	6707	C2
2703	B3	3719	B3	6708	C1
2704	C2	3720	A3	6709	C1
2705	A3	3722	B2	6710	B2
2706	B3	3723	B3	6711	C2
2707	C1	3724	A3	6712	B2
2708	C3	3725	B3	7704	C3
2709	C2	3726	A3	7705	C3
2710	B3	3727	C1	7706	B3
2711	B3	3728	B2	7707	B3
2712	B3	3730	C2	9702	A2
2713	C3	3731	A3	9710	B3
2714	B2	3732	A1	9713	B3
2715	B3	3733	C3	9718	A3
2720	C3	3734	C2	9730	A1
2721	B3	3735	C2	9740	B2
2722	A3	3736	C2		
2724	B2	3738	C2		
2725	B3	3739	C3		
2726	C3	3740	C2		
2727	C3	3741	B2		
2729	C2	3742	B2		
2740	C1	3743	B2		
3700	C3	3744	C3		
3701	A2	3750	B1		
3702	C2	3751	B1		
3703	A1	4701	C3		
3704	B3	4702	B3		
3705	C3	4703	C3		
3706	B3	4704	C3		
3707	C2	5700	A1		



G

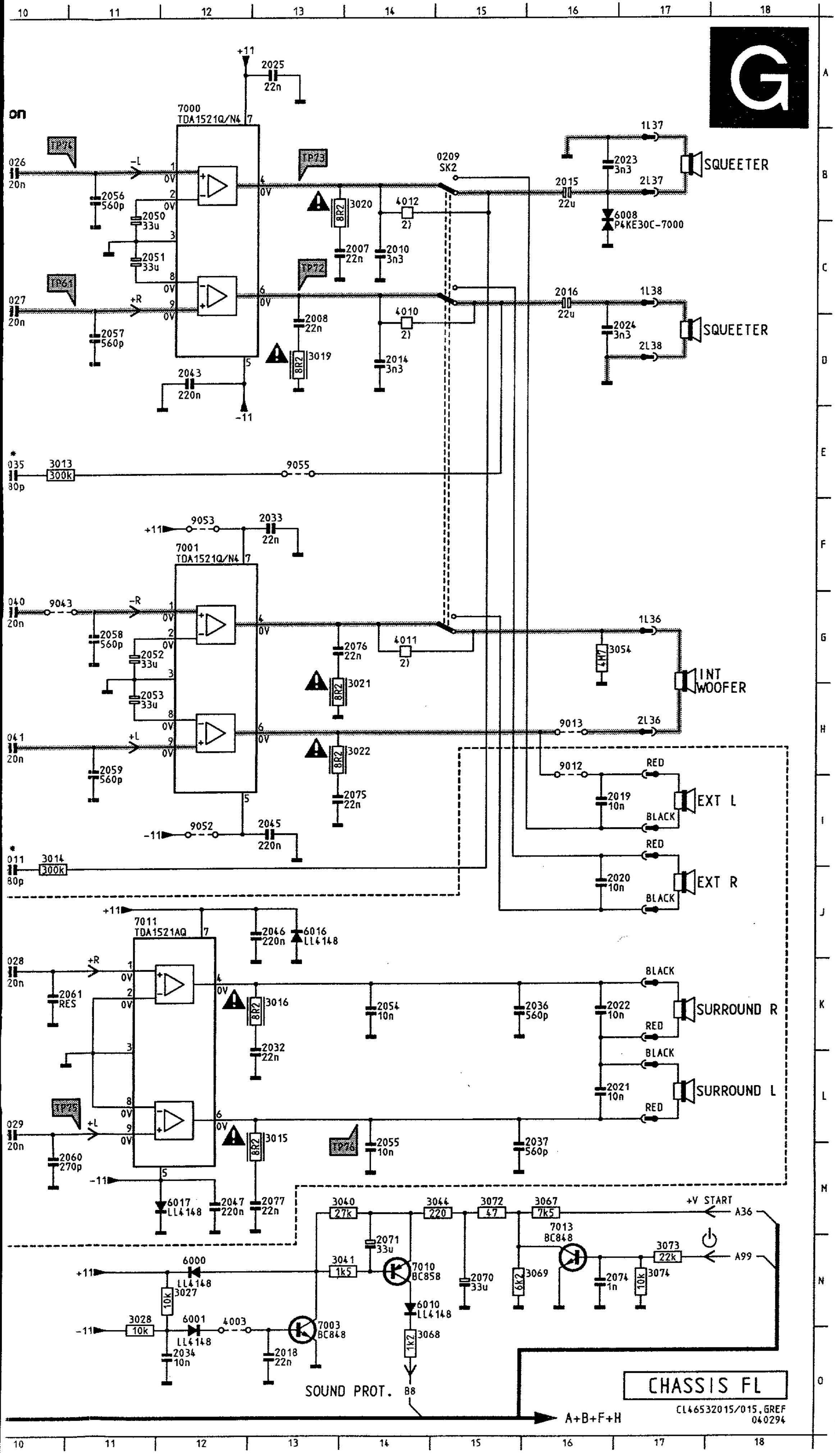
Main sound output amplifiers
Haupt-Tonendstufen
Amplificatori di potenza del suono
Amplificateurs principaux de sortie son


F87
F88
F89
H90
A4
3L01
5L01
7L01
6L01
4S01
4L01
AUDIO GND SSP
VAR OUT
ANTI PLOP
7009 LM833N
7002 LM833N
7011 TDA1521AQ
7008 BC848
7007 BC848
7012 BC848
7005 BC848C
7006 BC848C
6021 LL4148
6011 LL4148
6012 LL4148
3050 10k
3049 1k
3051 20k
2003 22p
2001 4n7
2002 4n7
3052 4k7
2009 22p
3053 4k7
3000 9k1
3001 9k1 15k 2)
2065 680n
2066 680n
3065 180k
3043 20k
3066 180k
3034 4k7
3035 15k
3031 1k
3032 1k
3029 12k
3030 12k
3033 15k
3036 1k5
3037 1k5
2038 2n2
2073 15u
2072 100u
3004 100k
3005 100k
2031 22p
3009 200k
2013 220n
2012 220n
3006 200k
2030 22p
3011 20k
3012 20k
4004
9043
9034
4007
3060 20k
2026 220n
2027 220n
2056 560p
2057 560p
2050 33u
2051 33u
2040 220n
2041 220n
2058 560p
2059 560p
2052 33u
2053 33u
2035 680p
3013 300k
2011 680p
3014 300k
2028 220n
2029 220n
2061 RES
2060 270p
3028 10k
TP74
TP61
TP75
+11
-11
+5STBY
+13
A7
A3
A2
A6
ONLY FULL SOUND

*	FL1	FL2
2011 2035	680p 680p	3n9 3n9

1) ONLY FULL SOUND
2) REDUCED SOUND

Amplificateur audio


10
11
12
13
14
15
16
17
18
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
on
G
+11
2025
22n
7000
TDA1521Q/N4
TP74
TP73
TP72
TP61
TP75
TP76
026
20n
027
20n
-L
+R
0V
2056
560p
2050
33u
2051
33u
2057
560p
2043
220n
-11
3020
8R2
4012
2)
2007
22n
2010
3n3
2008
22n
3019
4010
2014
3n3
0209
SK2
2015
22u
2016
22u
1L37
2L37
2023
3n3
6008
P4KE30C-7000
SQUEETER
1L38
2L38
2024
3n3
035
80p
3013
300k
9055
9053
2033
22n
7001
TDA1521Q/N4
040
9043
-R
2058
560p
2052
33u
2053
33u
041
+L
2059
560p
2076
22n
3021
4011
2)
3022
2075
22n
1L36
3054
4M7
INT
WOOFER
9013
2L36
9012
RED
BLACK
2019
10n
EXT L
2020
10n
EXT R
9052
2045
220n
011
3014
300k
7011
TDA1521AQ
2046
220n
6016
LL4148
028
2061
RES
3016
2032
22n
2054
10n
2036
560p
2022
10n
SURROUND R
2021
10n
SURROUND L
029
2060
270p
3015
2055
10n
2037
560p
6017
LL4148
2047
220n
2077
22n
3040
27k
3044
220
3072
47
3067
7k5
+V START
A36
2071
33u
7013
BC848
3073
22k
A99
6000
LL4148
3041
1k5
7010
BC858
2070
33u
3069
6k2
2074
1n
3074
10k
3027
10k
6010
LL4148
3028
10k
6001
LL4148
4003
7003
BC848
3068
1k2
2034
10n
2018
22n
SOUND PROT.
B8
A+B+F+H

CHASSIS FL

CL46532015/015.GREF
040294

0209	B15
2001	A 3
2002	D 3
2003	A 5
2007	C14
2008	D13
2009	D 5
2010	C14
2011	I 10
2012	I 7
2013	F 7
2014	D14
2015	B16
2016	C16
2018	O13
2019	I 16
2020	J16
2021	L16
2022	K16
2023	B16
2024	D16
2025	A13
2026	B10
2027	C10
2028	K10
2029	L10
2030	J 7
2031	E 7
2032	K13
2033	F13
2034	O12
2035	E10
2036	K16
2037	M16
2038	I 2
2040	G10
2041	H10
2043	D12
2045	I 13
2046	J13
2047	M12
2050	B11
2051	C11
2052	G11
2053	H11
2054	K14
2055	M14
2056	B11
2057	D11
2058	G11
2059	H11
2060	M10
2061	K10
2065	B 5
2066	C 5
2070	N15
2071	N14
2072	F 5
2073	I 2
2074	N16
2075	I 14
2076	G14
2077	M13
3000	B 5
3001	C 5
3004	G 6
3005	H 6
3006	J 7
3009	E 7
3011	G 9
3012	H 9
3013	E10
3014	I 10
3015	L13
3016	K13
3019	D13
3020	B14
3021	G14
3022	H14
3027	N12
3028	N11
3029	G 5
3030	I 5
3031	G 5
3032	H 5
3033	H 3
3034	F 4
3035	G 4
3036	H 2
3037	I 3
3040	M14
3041	N14
3043	B 7
3044	M15
3049	C 2
3050	B 2
3051	A 5
3052	D 4
3053	E 3
3054	G16
3060	K 8
3065	B 6
3066	D 6
3067	M16
3068	O14
3069	N16
3072	M15
3073	N17
3074	N17
4003	N12
4004	G 9
4007	K 8
6000	N12
6001	N12
6008	B16
6010	N14
6011	G 5
6012	H 5
6016	J13
6017	M12
6021	F 5
7000	A12
7001	F12
7002	F 7
7003	O13
7005	G 5
7006	H 5
7007	H 3
7008	G 4
7009	A 3
7010	N14
7011	J11
7012	H 3
7013	M16
9012	H16
9013	H16
9034	H 9
9043	G10
9052	I 12
9053	F12
9055	E13

Large signal panel FLx.26/.27 /

L01	F1
L02	E1
L03	A1
L08	C4
L13	C4
L27	B3
L28	G1
L30	A1
L31	E2
L33	G2
L34	G2
L35	G3
L36	A2
L37	A3
L38	A2
L39	F3
L40	E3
L61	G2
L62	E5
L65	G2
L67	D4
L68	C3
L69	A2
L80	G4
L87	B2
SK1	G3
SK2	B3
0207	A4
0211	A3
039	H5
040	H4
1200	G3
2001	G1
2002	G1
2003	G1
2004	G1
2005	G1
2007	B5
2008	B5
2009	G1
2010	A4
2011	D5
2012	C5
2013	C5
2014	A3
2015	A3
2016	A3
2018	A5
2019	A4
2020	A4
2021	A4
2022	A4
2023	A3
2024	A3
2025	C5
2026	B5
2027	C5
2028	B5
2029	B5
2030	C5
2031	C5
2032	B5
2033	D5
2034	A5
2035	C5
2036	A4
2037	A4
2038	D4
2039	A4
2040	D5
2041	D5
2042	C5
2043	C5
2044	D5
2045	D5
2046	B5
2047	B5
2048	B1
2049	A4
2050	C5
51	C5
52	D5
053	D5
2054	B5
2055	B5
2056	C5
2057	C5
2058	D5
2059	D5
2060	B5
2061	B5
2065	C4
2066	D5
2070	A4
2071	A5
2072	D4
2073	D4
2074	A5
2200	H3
2202	G2
2203	H2
2210	F4
2211	F4
2214	G4
2215	G4
2216	G5
2218	F5
2219	F5
2230	B4
2231	E4
2232	E5
2233	E4
2234	E5
2235	D3
2236	D4
2237	E3
2238	D4
2240	D4
2241	B4
2242	B4
2250	F3
2254	F2
2255	F3
2258	F3
2259	F3
2260	E3
2261	E3
2262	E3
2263	E2
2270	G1
2272	G2
2302	H5
2303	H5
2308	H5
2321	H5
2331	H4
2351	H4
2360	H4
2361	H4
2365	H4
2372	H4
2374	H4
2376	H4
2380	E3
2381	E3
2382	E3
2386	E3
2401	B3
2402	A2
2403	A2
2404	A2
2405	A2
2406	B3
2407	B2
2408	C3
2409	B2
2410	B2
2411	B2
2412	C3
2415	A3
2416	B3
2417	B3
2418	A3
2419	A2
2450	A1
2451	B1
2452	B1
2454	A2
2455	B1
2456	A2
2457	A2
2458	B1
2459	B1
2460	B1
2480	E2
2502	B2
2503	B2
2504	D1
2505	D1
2509	D2
2511	C2
2512	C3
2513	C3
2517	C3
2518	C3
2519	E2
2520	D2
2521	D1
2522	D1
2523	C1
2524	D1
2526	C1
2527	C1
2528	C1
2529	F1
2530	F1
2531	D3
2533	D3
2534	D3
2535	C4
2536	D3
2537	D3
2541	D4
2542	C4
2543	C4
2545	C4
2546	D2
2547	C2
2552	B4
2553	B4
2554	D4
2555	B3
2556	B4
2600	F1
2601	B2
2603	C2
2604	B2
2605	F1
2606	C3
2607	B3
2609	F1
2610	F1
2611	F1
2613	F1
2614	F1
2626	A2
3000	D4
3001	D5
3004	C5
3005	D5
3006	C5
3008	C5
3009	C5
3011	C5
3012	C5
3013	D4
3014	D4
3016	B5
3019	B5
3020	B5
3021	B5
3022	B5
3027	A5
3028	A5
3029	D5
3030	D5
3031	D5
3032	D5
3033	D4
3034	D4
3035	D5
3036	D4
3037	D4
3040	A5
3041	A5
3042	A5
3043	C4
3044	A5
3049	G1
3050	G1
3051	G1
3052	G1
3053	G1
3054	A2
3060	B5
3061	B5
3065	C4
3066	C5
3067	A4
3068	A4
3069	A4
3072	A5
3073	F5
3074	A5
3201	H3
3202	F5
3203	H2
3204	H1
3205	G1
3206	G1
3209	G1
3210	F3
3211	G3
3212	F3
3213	F3
3214	E5
3215	E5
3216	F4
3220	G4
3230	F3
3234	B4
3235	B4
3236	B4
3237	C4
3238	C4
3239	D3
3240	E3
3241	B4
3243	B4
3245	B4
3246	E1
3247	B4
3248	B4
3249	F3
3250	F3
3251	F3
3252	F3
3253	F2
3255	F3
3266	F2
3267	F2
3268	G2
3270	F2
3271	F2
3272	F2
3273	G2
3274	G1
3275	G2
3298	F5
3299	F5
3300	H5
3304	H5
3305	H5
3306	F3
3308	H5
3309	H5
3310	H5
3311	H5
3312	H5
3313	H5
3314	H5
3317	H5
3320	H5
3321	H5
3322	H5
3331	H4
3332	H4
3350	H4
3351	H4
3356	H4
3357	H4
3358	H4
3360	H4
3362	H4
3364	H4
3365	H4
3366	H4
3368	H4
3369	H4
3370	H4
3371	H4
3372	H4
3374	H4
3375	H4
3376	E3
3378	H4
3380	E3
3381	E3
3382	E3
3383	E3
3385	E3
3402	A2
3403	A2
3404	B2
3405	B3
3406	B3
3407	B3
3408	B3
3409	B3
3410	B3
3411	B2
3412	B3
3413	B3
3414	B3
3415	B3
3416	B3
3417	B3
3418	B3
3419	B3
3420	B3
3421	B3
3422	B3
3423	B3
3424	B2
3425	B3
3426	A2
3427	B3
3428	C3
3429	B3
3430	B3
3431	B3
3437	A1
3438	B2
3439	B3
3440	B1
3441	B3
3442	B3
3443	C3
3444	B2
3446	B2
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3451	A1
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3469	A1
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3484	B3
3485	E2
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3527	F1
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3533	C3
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3537	F2
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4006	D5
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4012	A3
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5237	E3
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9241	E3
9242	G2
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9545	C1
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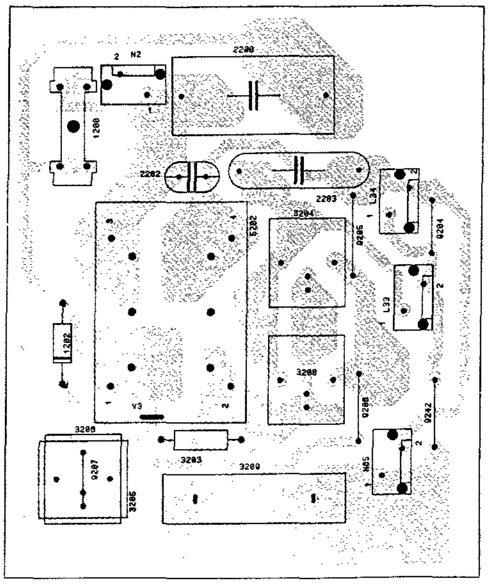
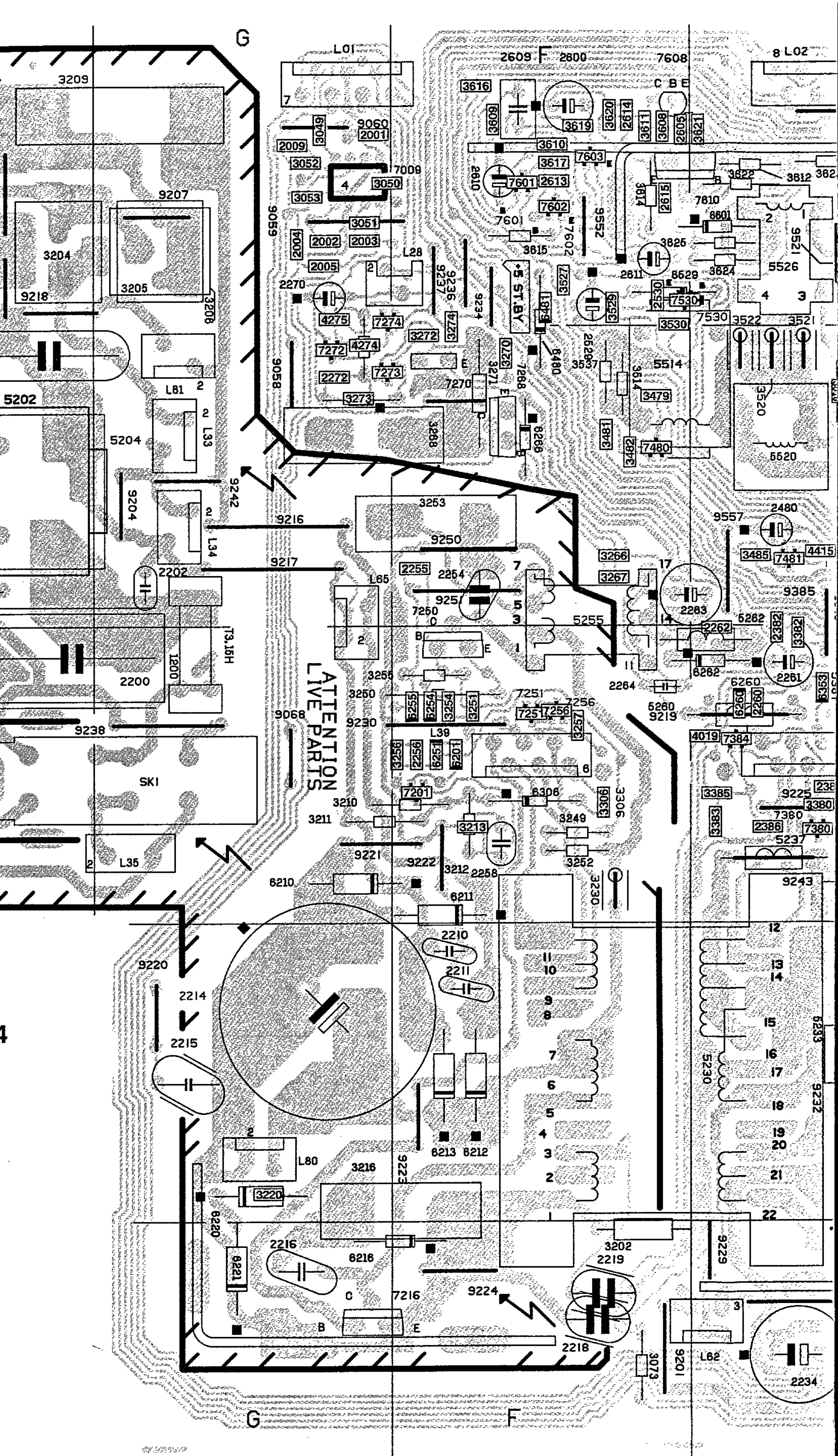
Mains filter FL4



Groß-signal Platte FLx.26/.27

Plati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5202
5204
L33
9204
9242
L34
2202
3203
T3.15H
1200
2200
9238
3201
SKI
L35
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L62
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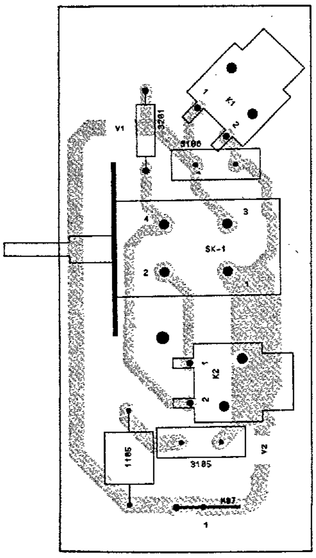
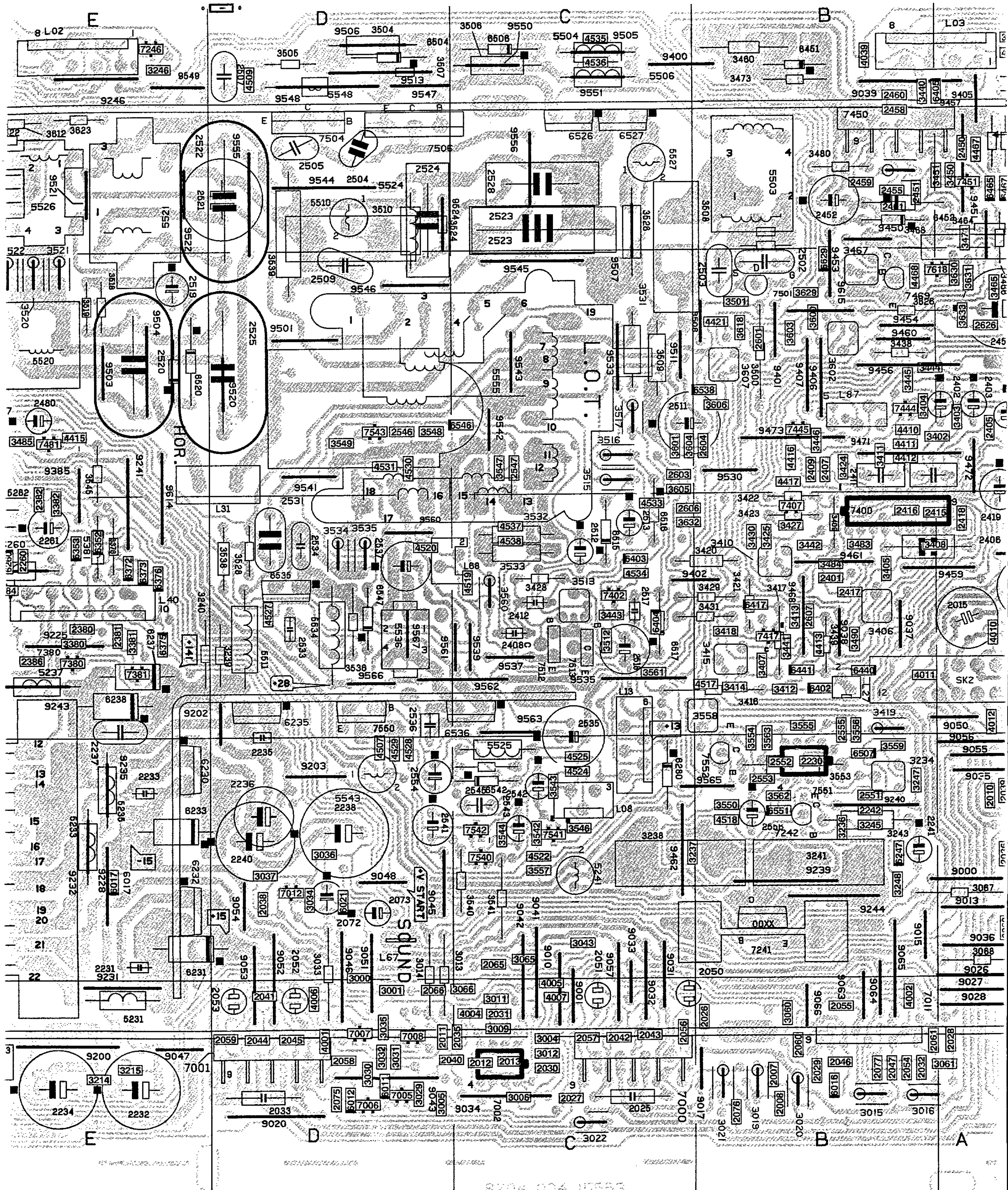
Mains switch FL4

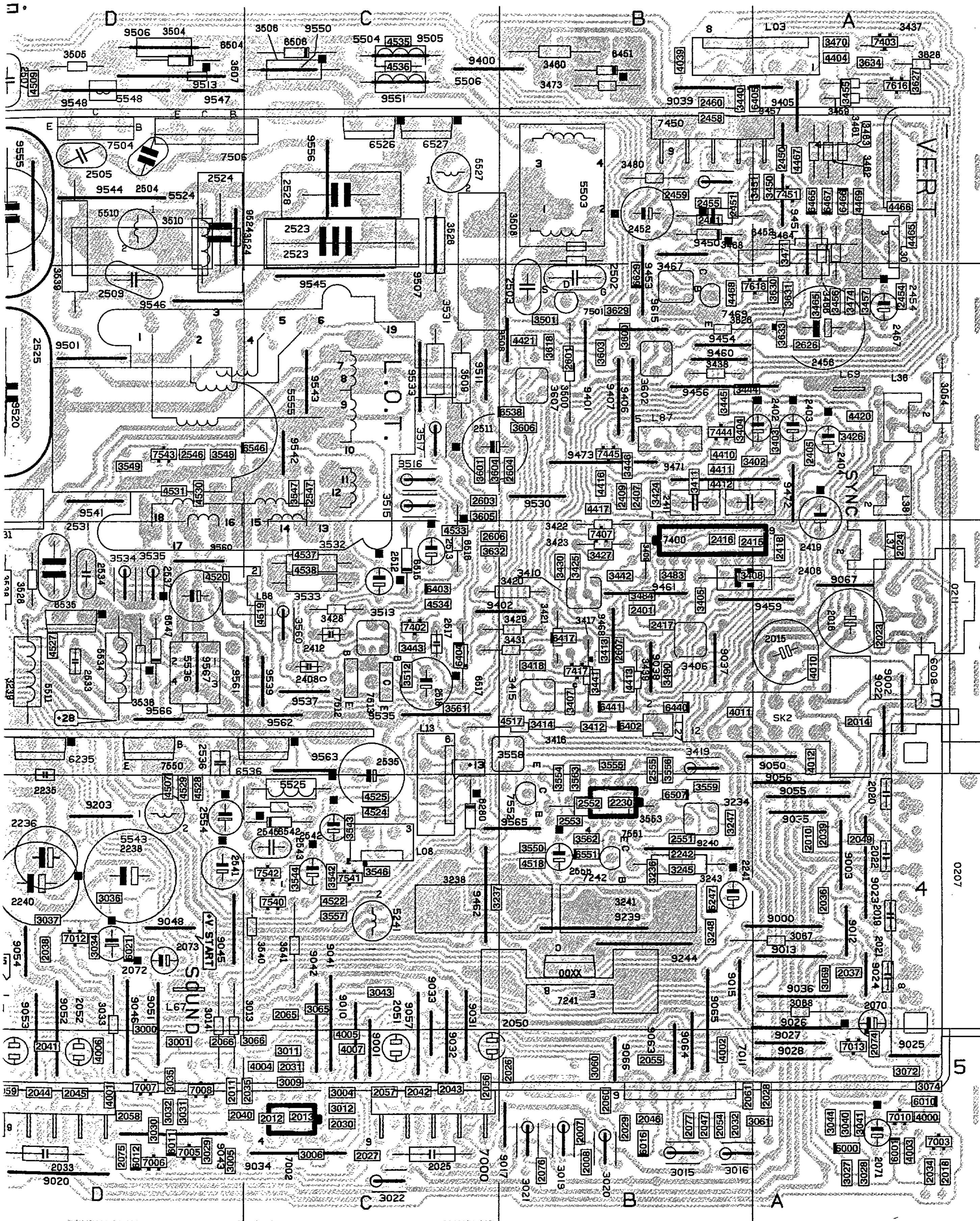

K1
3261
V1
3186
SK-1
K2
1185
3185
V2
K97
1
2
3
4

Platine forts signeaux FLx.26/.27


E
D
C
B
A
L02
L03
L.O.T.
HOR.
SOUND
+V START
SK2
L31
L67
L68
L87
L08
L13
+13
+14
+15
-15
+28
00XX

8204 004 15593

gneaux FLx.26/.27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C
B
A
VERT
SYNC
L.O.T.
SOUND
+V START
+28
SK2
L03
L13
L36
L38
L67
L69
L87
L88
L08
1
2
3
4
5

8204 004 15593

L01	F1
L02	E1
L03	A1
L06	C2
L13	C4
L30	A1
L32	E2
L33	G2
L34	G2
L35	G3
L36	A2
L37	A3
L38	A2
L39	F3
L40	E3
L61	G2
L65	G2
L70	A2
L71	B2
L80	G4
L90	C3
SK1	G3
SK2	B3
0211	A3
039	H5
040	H4
1200	G3
2001	G1
2002	G1
2003	G1
2004	G1
2005	G1
2007	B5
2008	B5
2009	G1
2010	A4
2011	D5
2012	C5
2013	C5
2014	A3
2015	A3
2016	A3
2018	A5
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2020	A4
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2022	A4
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2047	B5
2049	A4
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2052	D5
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2057	C5
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2074	A5
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2202	G2
2203	H2
2210	F4
2211	F4
2214	G4
2215	G4
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2218	F5
2219	F5
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2238	D4
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2255	F3
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2261	E3
2262	E3
2263	E2
2270	G1
2272	G2
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2303	H5
2308	H5
2321	H5
2330	B4
2331	H4
2351	H4
2360	H4
2361	H4
2365	H4
2372	H4
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3008	C5
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3012	C5
3013	D4
3014	D4
3016	B5
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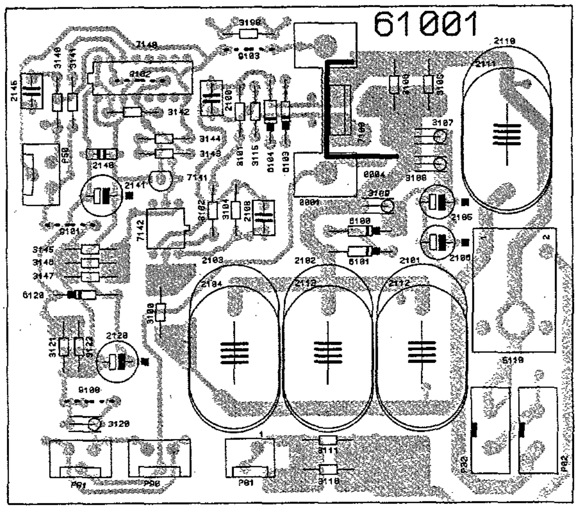

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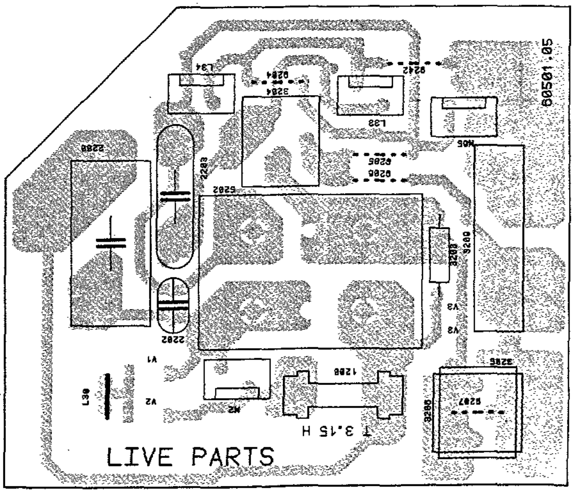
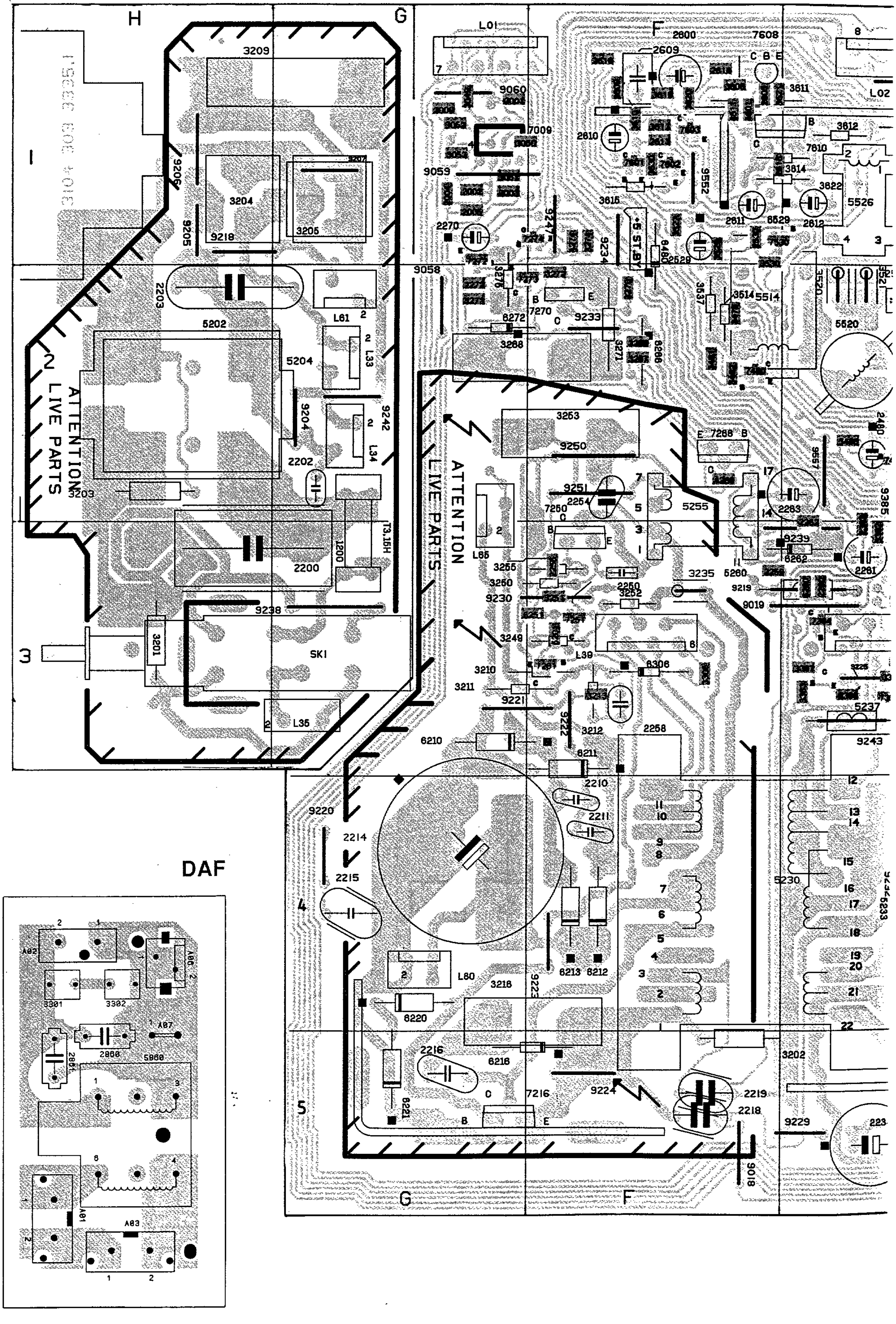


Large signal panel FLx.24 / Groß-signal Platte FLx.24 /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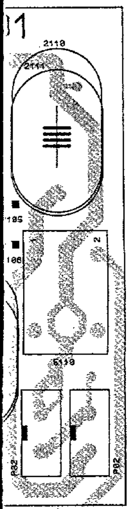
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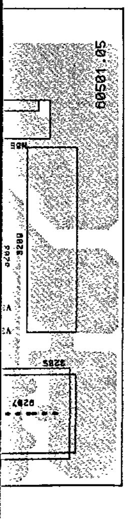
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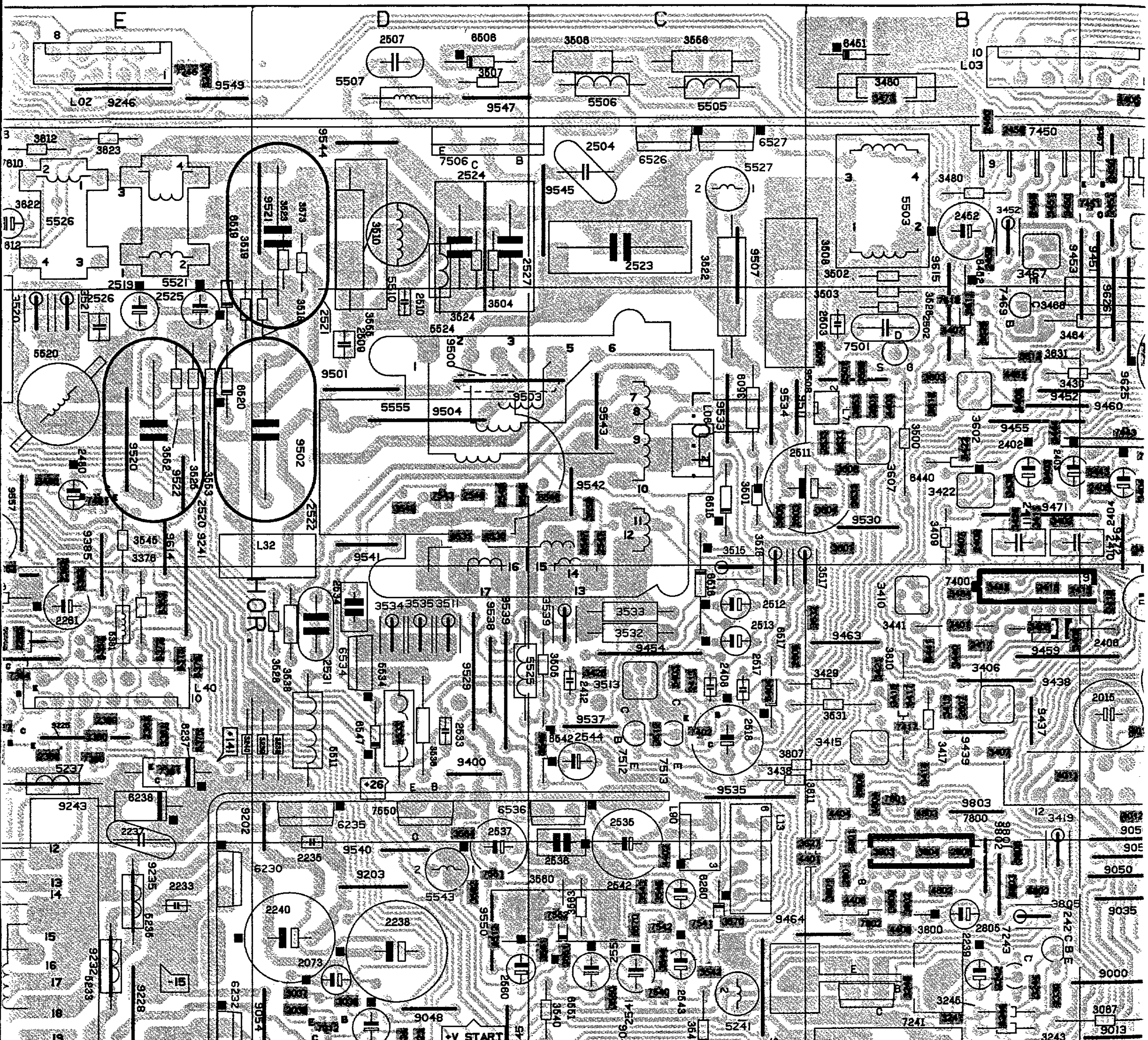
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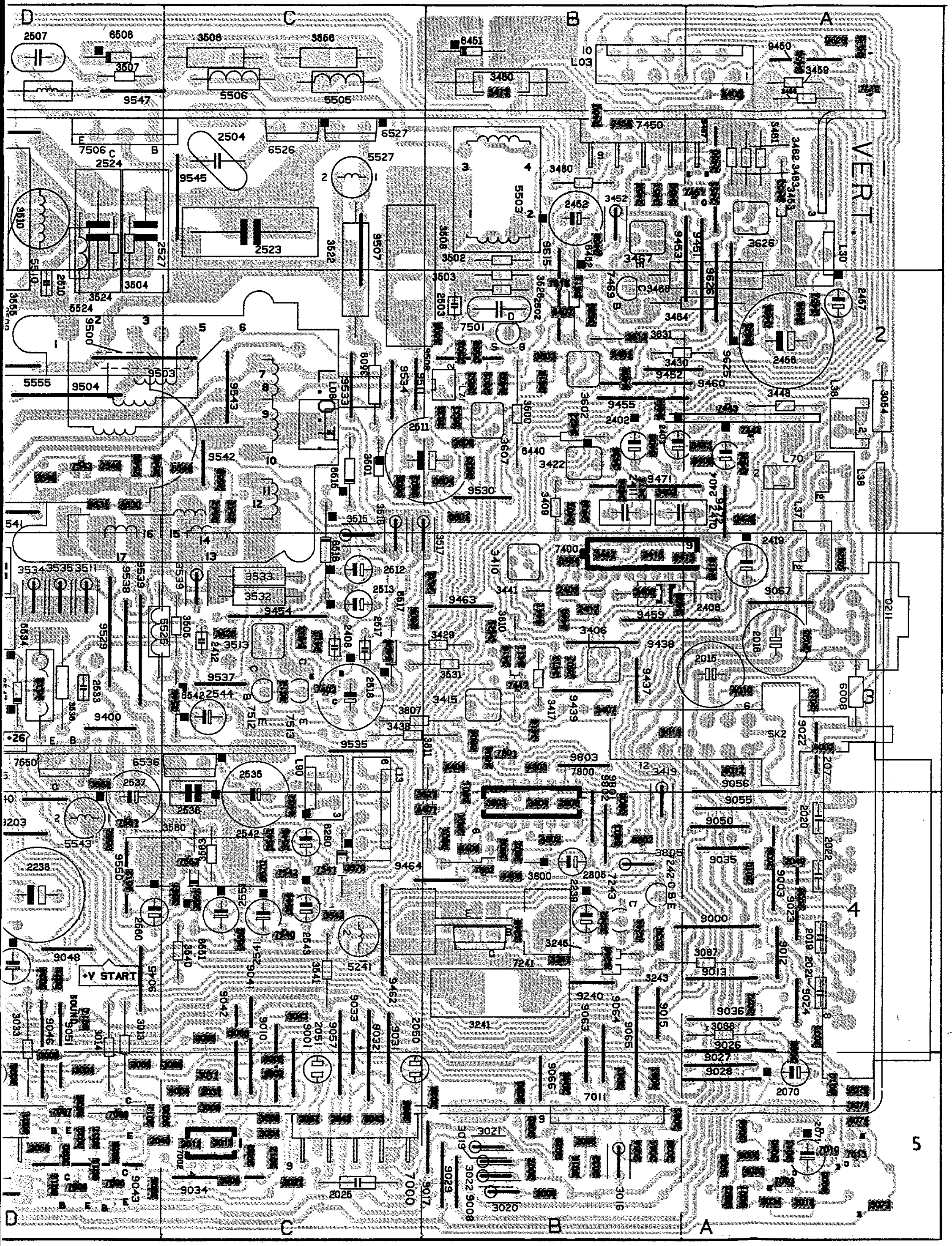
gneaux FLx.24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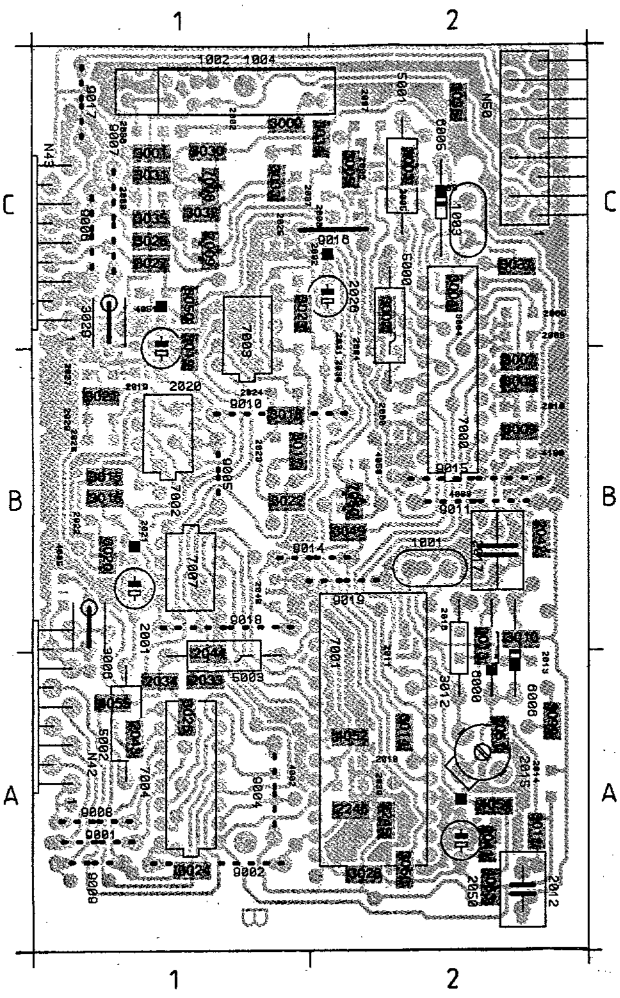

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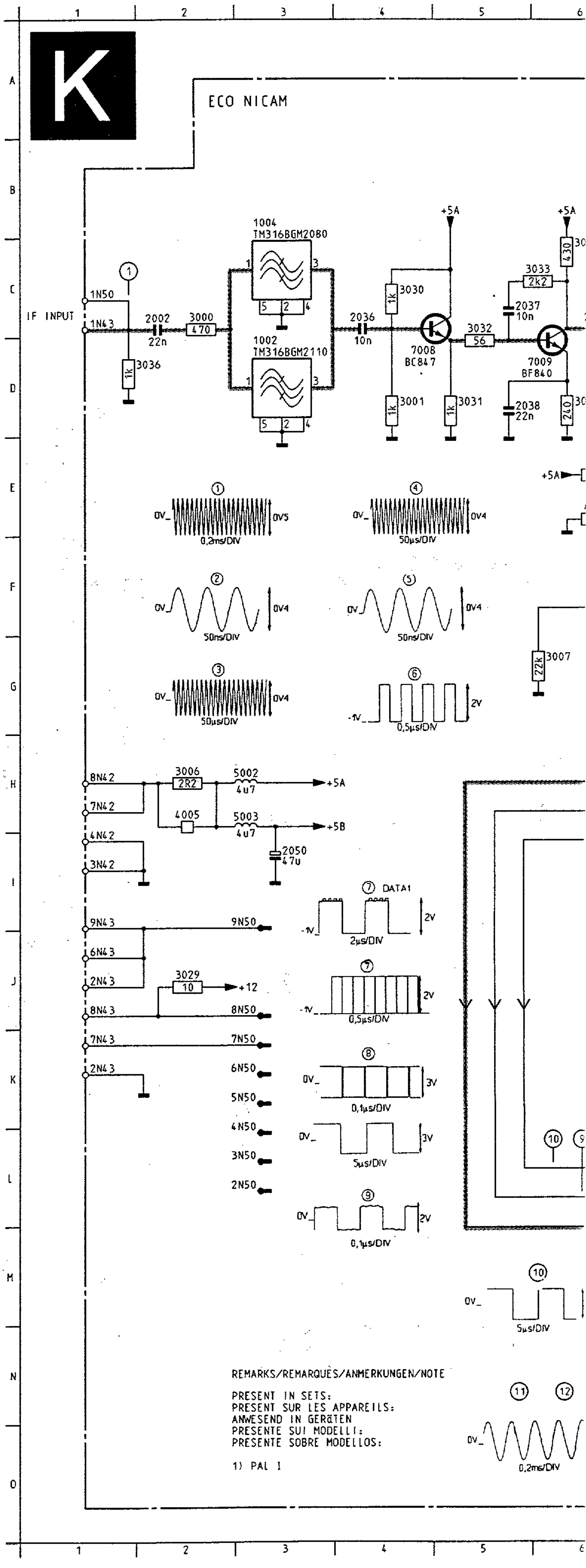

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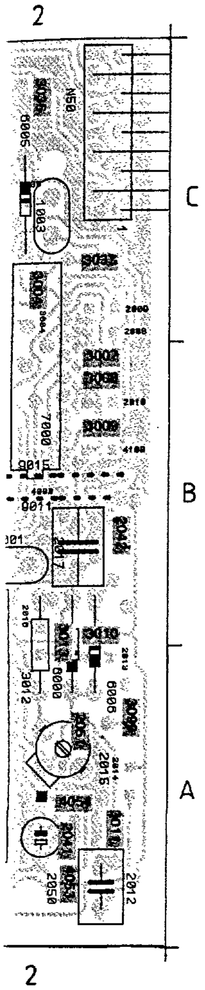
0V
-1V

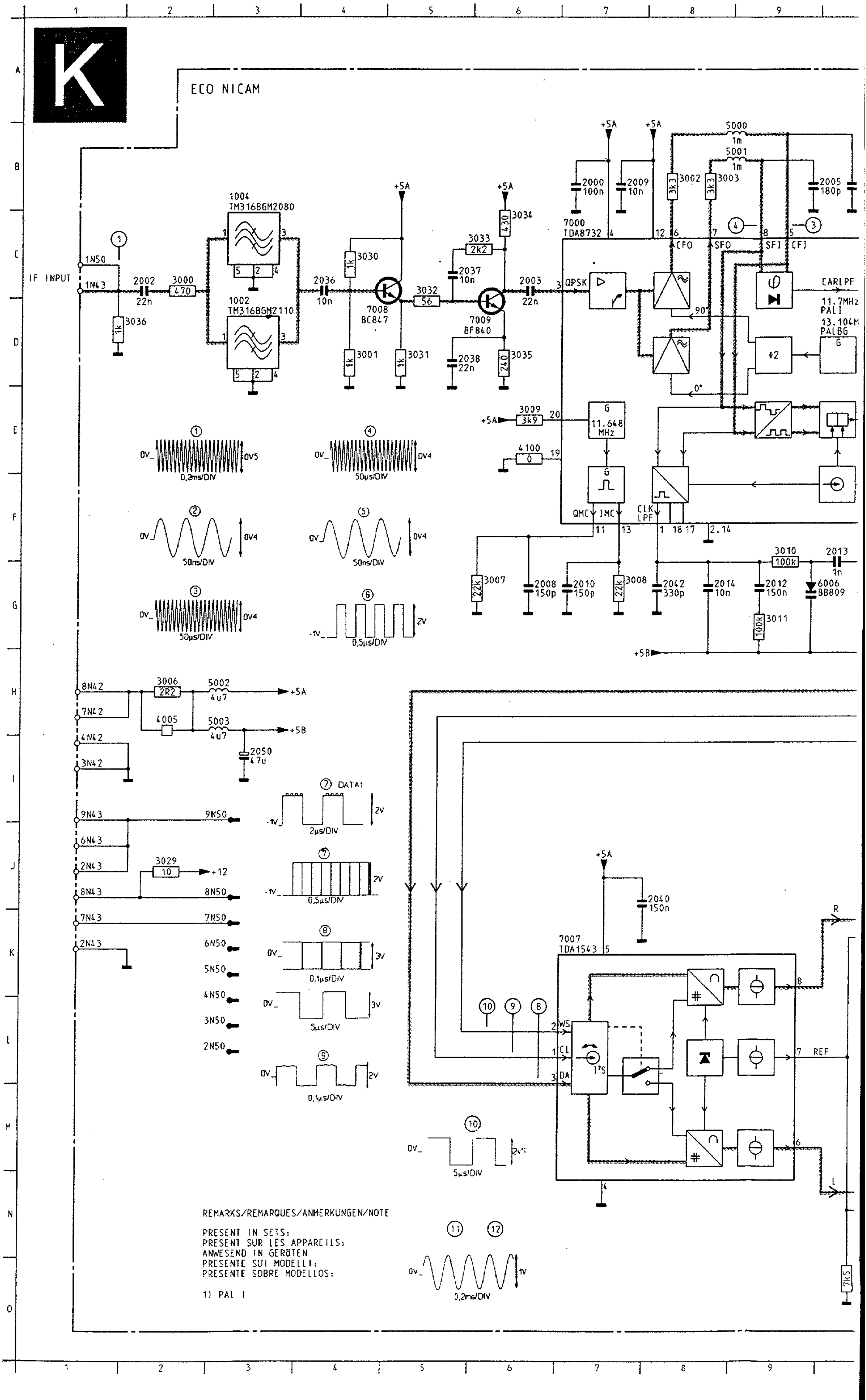
REMARKS/REMARQUES/ANMERKUNGEN/NOTE

PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERÄTEN
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:

1) PAL I


2
C
B
A
2
1003
7000
3012
3010
2012
2050
9015
9011

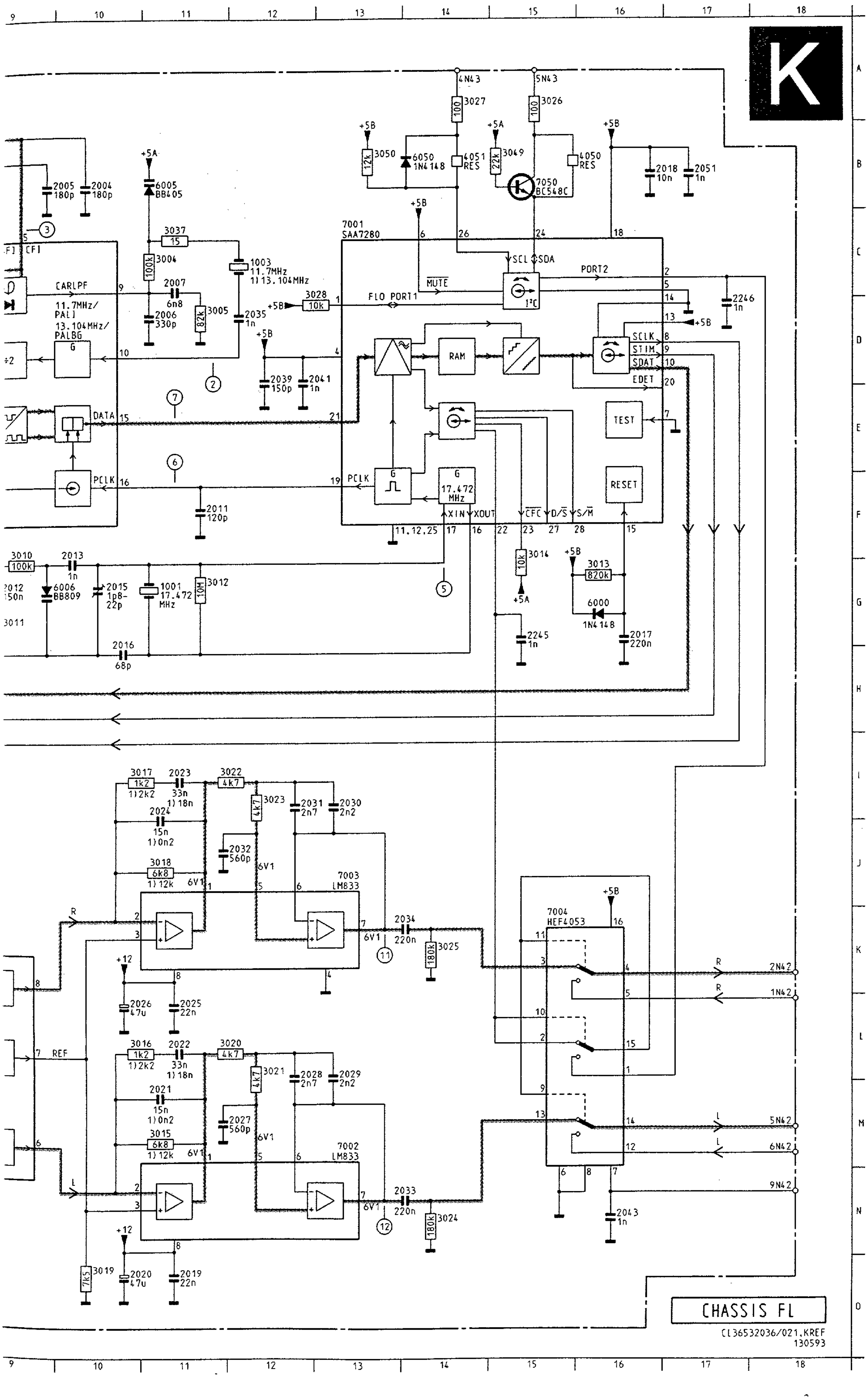
4050	B2	9002	A1
4051	C1	9004	A1
4052	A2	9005	B1
4053	A2	9006	C1
4054	A2	9007	C1
4055	A1	9008	A1
4100	B2	9009	A1
5000	C2	9010	B1
5001	C2	9011	B2
5002	A1	9014	B2
5003	A1	9015	B2
6000	A2	9016	C2
6005	C2	9017	C1
6006	A2	9018	B1
6050	C1	9019	B2
7000	B2		
7001	A2		
7002	B1		
7003	B1		
7004	A1		
7007	B1		
7008	C1		
7009	C1		
7050	B2		
9001	A1		


K
ECO NICAM
IF INPUT
1N50
1N43
2002 22n
3000 470
3036 1k
1004 TM316BGM2080
1002 TM316BGM2110
2036 10n
3030 1k
3001 1k
7008 BC847
+5A
3031 1k
3032 56
3033 2k2
2037 10n
2038 22n
7009 BF840
3034 430
3035 240
2003 22n
2000 100n
2009 10n
3002 3k3
3003 3k3
5000 1m
5001 1m
2005 180p
7000 TDA8732
QPSK
CFO
SFO
SFI
CFI
90°
0°
CARLPF
11.7MHz PAL I
13.104M PALBG
G
÷2
3009 3k9
4100 0
11.648 MHz
QMC
IMC
CLK LPF
3007 22k
2008 150p
2010 150p
3008 22k
2042 330p
2014 10n
2012 150n
3010 100k
3011 100k
2013 1n
6006 BB809
+5B
① 0V 0V5 0,2ms/DIV
② 0V 0V4 50ns/DIV
③ 0V 0V4 50µs/DIV
④ 0V 0V4 50µs/DIV
⑤ 0V 0V4 50ns/DIV
⑥ -1V 2V 0,5µs/DIV
8N42
7N42
4N42
3N42
3006 2R2
5002 4u7
4005
5003 4u7
2050 47u
+5A
+5B
9N43
6N43
2N43
8N43
7N43
2N43
9N50
8N50
7N50
6N50
5N50
4N50
3N50
2N50
3029 10
+12
⑦ DATA1 -1V 2V 2µs/DIV
⑦ -1V 2V 0,5µs/DIV
⑧ 0V 3V 0,1µs/DIV
0V 3V 5µs/DIV
⑨ 0V 2V 0,1µs/DIV
⑩ 0V 2V 5µs/DIV
⑪ ⑫ 0V 1V 0,2ms/DIV
2040 150n
7007 TDA1543
WS
CL
DA
I²S
R
REF
L
7k5
1 2 3 4 5 6 7 8 9
A B C D E F G H I J K L M N O

REMARKS/REMARQUES/ANMERKUNGEN/NOTE

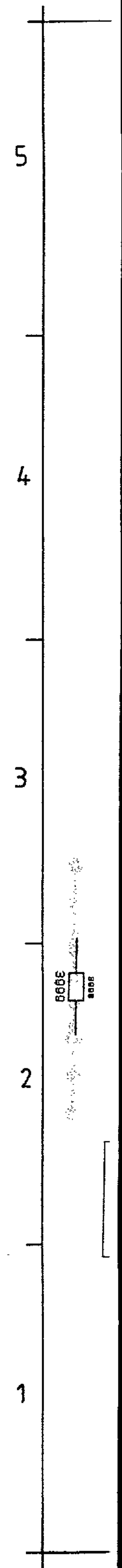
PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERÄTEN
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:

1) PAL I


K
7001
SAA7280
7003
LM833
7002
LM833
7004
HEF4053
7050
BC548C
6050
1N4148
6005
BB405
6006
BB809
6000
1N4148
1003
11.7MHz
1) 13.104MHz
1001
17.472
MHz
4N43
5N43
1N42
2N42
5N42
6N42
9N42
+5A
+5B
+12
SCL
SDA
PORT1
PORT2
MUTE
I²C
RAM
TEST
RESET
SCLK
STIM
SDAT
EDET
CARLPF
11.7MHz/
PALI
13.104MHz/
PALBG
DATA
PCLK
XIN
XOUT
CFC
D/S
S/M
REF
R
L
6V1
CHASSIS FL
CL36532036/021.KREF
130593

1001	G11
1002	D 3
1003	C12
1004	B 3
2000	B 7
2002	C 2
2003	C 6
2004	B10
2005	B 9
2006	D11
2007	C11
2008	G 6
2009	B 7
2010	G 7
2011	F11
2012	G 9
2013	F10
2014	G 8
2015	G10
2016	G10
2017	G16
2018	B16
2019	O11
2020	O10
2021	M11
2022	L11
2023	I11
2024	I11
2025	L11
2026	L10
2027	M12
2028	L12
2029	L13
2030	I13
2031	I12
2032	J12
2033	N14
2034	K14
2035	D12
2036	C 4
2037	C 5
2038	D 5
2039	D12
2040	J 8
2041	D12
2042	G 8
2043	N16
2050	I 3
2051	B17
2245	G15
2246	D17
3000	C 2
3001	D 4
3002	B 8
3003	B 8
3004	C11
3005	D11
3006	H 2
3007	G 6
3008	G 7
3009	E 6
3010	F 9
3011	G 9
3012	G11
3013	G16
3014	F15
3015	M11
3016	L10
3017	I10
3018	J11
3019	O10
3020	L12
3021	L12
3022	I12
3023	I12
3024	N14
3025	K14
3026	A15
3027	A14
3028	C13
3029	J 2
3030	C 4
3031	D 5
3032	C 5
3033	C 6
3034	C 6
3035	D 6
3036	D 1
3037	C11
3049	B15
3050	B13
4005	H 2
4050	B16
4051	B14
4100	E 6
5000	B 9
5001	B 9
5002	H 3
5003	H 3
6000	G16
6005	B11
6006	G 9
6050	B14
7000	C 7
7001	C13
7002	M13
7003	J13
7004	K15
7007	K 7
7008	D 5
7009	D 6
7050	B15

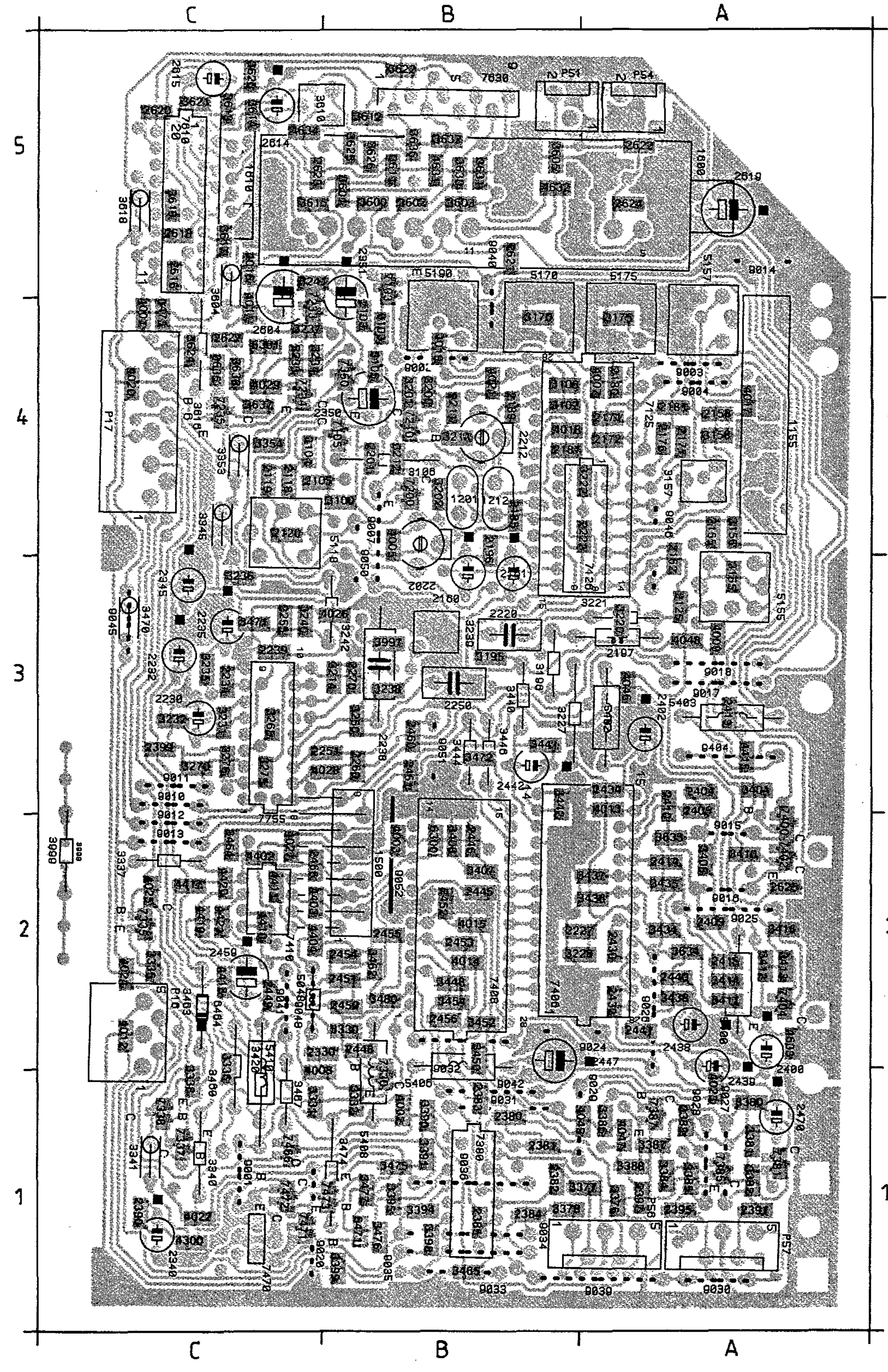
PIP p



P16	C2	21
P17	C4	21
P51	B5	21
P54	A5	21
P56	A1	21
P57	A1	21
1155	A4	21
1201	B4	21
1212	B4	21
1500	B2	21
1600	B5	21
1610	C5	21
2103	B4	21
2105	C4	21
2118	C4	21
2119	C4	21

PIP panel

1001	G11
1002	D 3
1003	C12
1004	B 3
2000	B 7
2002	C 2
2003	C 6
2004	B10
2005	B 9
2006	D11
2007	C11
2008	G 6
2009	B 7
2010	G 7
2011	F11
2012	G 9
2013	F10
2014	G 8
2015	G10
2016	G10
2017	G16
2018	B16
2019	D11
2020	D10
2021	M11
2022	L11
2023	I11
2024	I11
2025	L11
2026	L10
2027	M12
2028	L12
2029	L13
2030	I13
2031	I12
2032	J12
2033	N14
2034	K14
2035	D12
2036	C 4
2037	C 5
2038	D 5
2039	D12
2040	J 8
2041	D12
2042	G 8
2043	N16
2050	I 3
2051	B17
2245	G15
2246	D17
3000	C 2
3001	D 4
3002	B 8
3003	B 8
3004	C11
3005	D11
3006	H 2
3007	G 6
3008	G 7
3009	E 6
3010	F 9
3011	G 9
3012	G11
3013	G16
3014	F15
3015	M11
3016	L10
3017	I10
3018	J11
3019	D10
3020	L12
3021	L12
3022	I12
3023	I12
3024	N14
3025	K14
3026	A15
3027	A14
3028	C13
3029	J 2
3030	C 4
3031	D 5
3032	C 5
3033	C 6
3034	C 6
3035	D 6
3036	D 1
3037	C11
3049	B15
3050	B13
4005	H 2
4050	B16
4051	B14
4100	E 6
5000	B 9
5001	B 9
5002	H 3
5003	H 3
6000	G16
6005	B11
6006	G 9
6050	B14
7000	C 7
7001	C13
7002	M13
7003	J13
7004	K15
7007	K 7
7008	D 5
7009	D 6
7050	B15



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P17	C4	2125	A3	2197	A3	2255	C3	2395	A1	2439	A2	2459	C2	2625	A2	3196	B3	3235	C3
P51	B5	2155	A4	2201	B4	2260	B3	2397	A1	2440	A2	2460	B3	2627	C4	3200	B4	3236	C3
P54	A5	2158	A4	2202	B4	2270	B3	2399	C3	2441	A2	2461	B3	3100	B4	3201	B4	3237	C4
P56	A1	2160	B3	2211	B4	2330	C2	2400	A2	2442	B3	2466	C2	3103	B4	3202	B4	3238	B3
P57	A1	2161	B3	2212	B4	2340	C1	2402	A3	2445	B2	2470	A1	3104	C4	3211	B4	3239	B3
1155	A4	2162	A3	2220	B3	2345	C3	2404	A3	2446	B2	2604	C4	3105	B4	3212	B4	3240	C3
1201	B4	2171	A4	2222	B4	2350	B4	2405	A2	2447	B2	2614	C5	3106	B4	3214	B3	3241	C5
1212	B4	2172	A4	2227	B2	2351	B4	2409	A2	2448	B2	2615	C5	3107	B4	3220	A3	3242	B3
1500	B2	2176	A4	2230	C3	2380	B1	2410	A3	2449	C2	2616	C5	3108	B4	3221	A3	3250	B3
1600	B5	2177	A4	2232	C3	2381	B1	2413	A3	2450	B2	2618	C5	3155	A3	3222	B4	3265	C3
1610	C5	2180	A4	2234	C3	2382	B1	2414	A2	2451	B2	2619	A5	3156	A4	3227	B3	3270	C3
2103	B4	2181	A4	2235	C3	2383	B1	2415	A2	2452	B2	2620	C5	3157	A4	3228	B2	3275	C3
2105	C4	2185	B4	2238	B3	2384	B1	2430	A2	2453	B2	2621	B5	3158	A4	3231	C3	3276	C3
2118	C4	2187	B4	2239	C3	2385	B1	2432	A2	2454	B2	2622	A5	3170	B4	3232	C3	3330	B2
2119	C4	2189	B4	2250	B3	2390	C1	2434	A3	2455	B2	2623	C5	3175	A4	3233	C4	3331	C1

3332	B1	3636	B5	7473	B1
3335	C2	3637	C4	7610	C5
3336	C1	3638	C4	7630	B5
3337	C2	3997	B3	7755	C3
3338	C1	4001	C4	9001	C1
3340	C1	4002	B1	9002	B4
3341	C1	4003	B2	9003	A4
3345	C4	4005	B4	9004	A4
3353	C4	4007	A4	9007	B4
3354	C4	4008	C1	9010	C2
3376	A1	4009	A3	9011	C3
3377	A1	4011	C4	9012	C2
3378	B1	4012	C2	9013	C2
3380	A1	4013	A3	9014	A5
3381	A1	4014	B2	9015	A2
3382	A1	4015	B2	9016	A2
3383	A1	4016	C5	9017	A3
3384	A1	4017	A4	9018	A3
3385	A1	4018	B4	9020	C1
3386	A1	4019	B4	9024	B2
3387	A1	4020	C4	9025	A2
3388	A1	4021	B4	9026	A2
3390	B1	4022	C1	9027	A1
3391	B1	4023	A1	9028	A1
3394	B1	4024	C2	9029	A1
3395	B1	4025	C2	9030	A1
3398	B1	4026	B3	9031	B1
3399	B1	4027	C2	9032	B2
3404	A3	4028	C3	9033	B1
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3406	B2	4046	A3	9035	B1
3407	B2	4047	A1	9036	B1
3410	A2	4048	A3	9039	A1
3411	A2	4049	A1	9040	B4
3412	A2	4300	C1	9041	C2
3413	A2	4402	C2	9042	B1
3414	A2	4403	C2	9045	C3
3416	A2	4404	C2	9046	A4
3420	C1	4410	C2	9048	C2
3434	A2	4411	C2	9050	B3
3435	A2	4415	A3	9051	B3
3436	A2	4417	C2	9052	B2
3437	A2	4418	C2	9404	A3
3438	A2	4419	C2		
3440	B3	4420	C2		
3441	B3	4421	C2		
3442	B3	4631	B5		
3444	B3	4632	B5		
3446	B3	4633	A2		
3448	B2	4634	C5		
3450	B2	5048	C2		
3452	B2	5118	C4		
3454	B2	5155	A3		
3460	C1	5157	A4		
3462	B2	5170	B4		
3463	C2	5175	A4		
3464	C2	5190	B4		
3465	B1	5400	A2		
3467	C1	5402	A3		
3471	C3	5403	A3		
3472	B3	5406	B1		
3473	C4	5408	B1		
3474	B1	5410	C1		
3475	B1	6300	B2		
3476	B1	6301	C4		
3477	B1	6464	C2		
3480	B2	6471	B1		
3600	B5	7103	B5		
3601	B5	7105	B4		
3602	B5	7125	B4		
3603	B5	7126	B4		
3604	C4	7200	B4		
3605	B5	7210	B4		
3610	C5	7233	C4		
3611	B5	7234	C4		
3612	B5	7235	C4		
3613	C5	7330	B1		
3614	C5	7335	C2		
3615	C5	7337	C1		
3616	C4	7338	C1		
3617	C5	7350	B4		
3618	C5	7380	B1		
3619	C5	7381	A1		
3620	C5	7385	A1		
3621	C5	7387	A1		
3622	B5	7400	A2		
3624	C4	7402	A2		
3625	B5	7404	A2		
3626	B5	7406	A2		
3630	B5	7408	B2		
3631	B5	7410	C2		
3632	B5	7466	C1		
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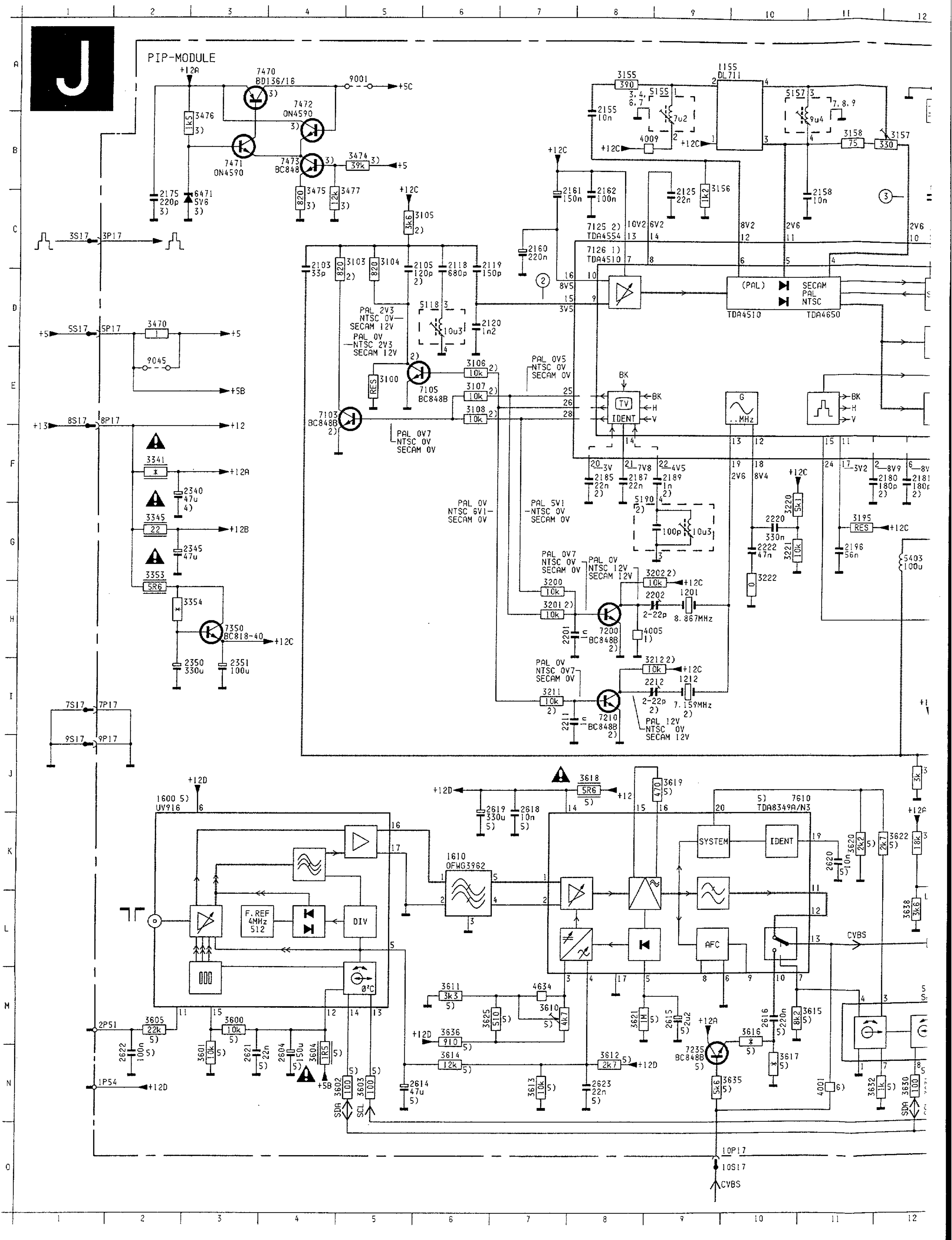
3635	C4	7472	C1		

Picture in picture / Bild im Bild / Ima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PIP-MODULE
+12A
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+5C
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3476 1k5
7471 0N4590
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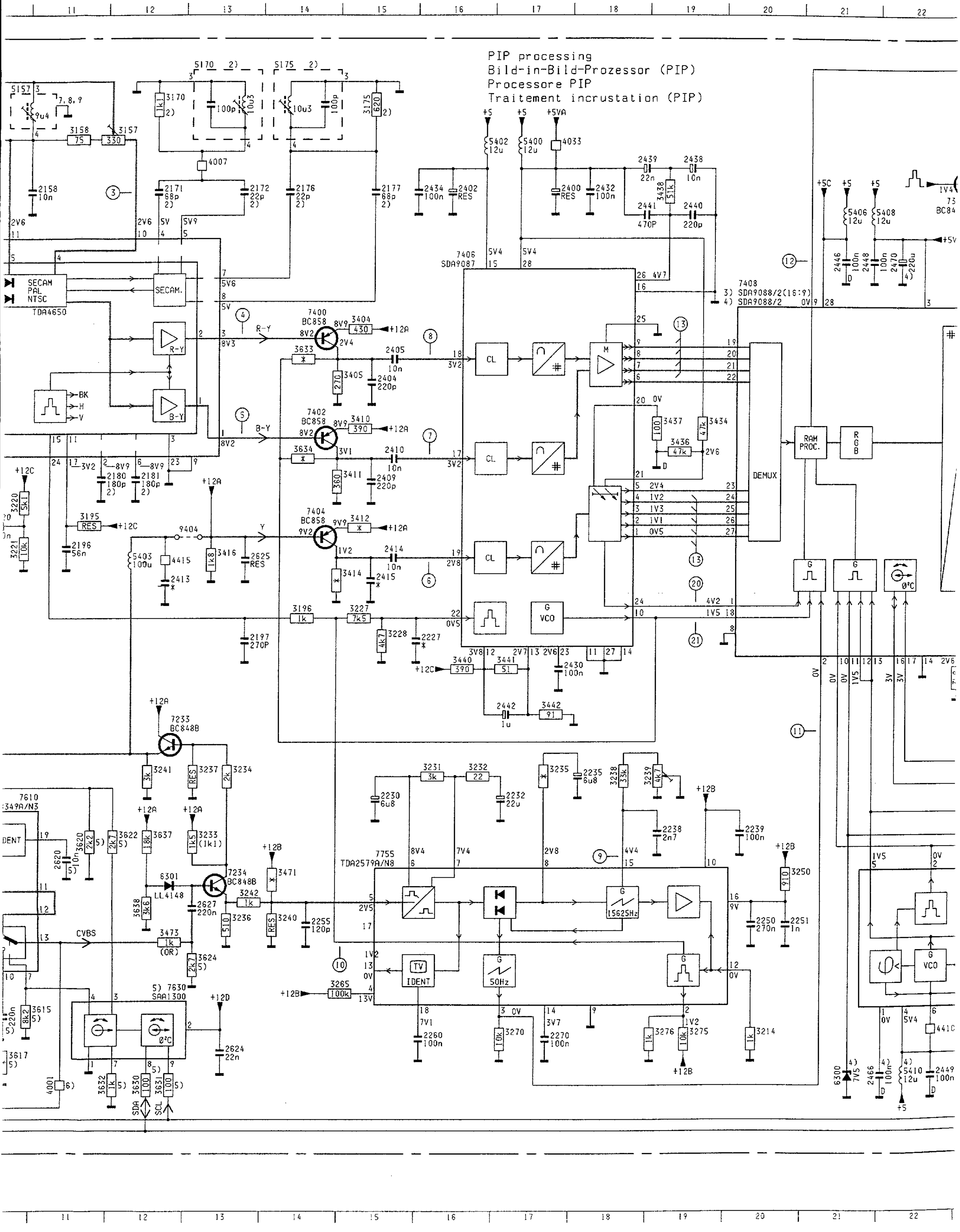
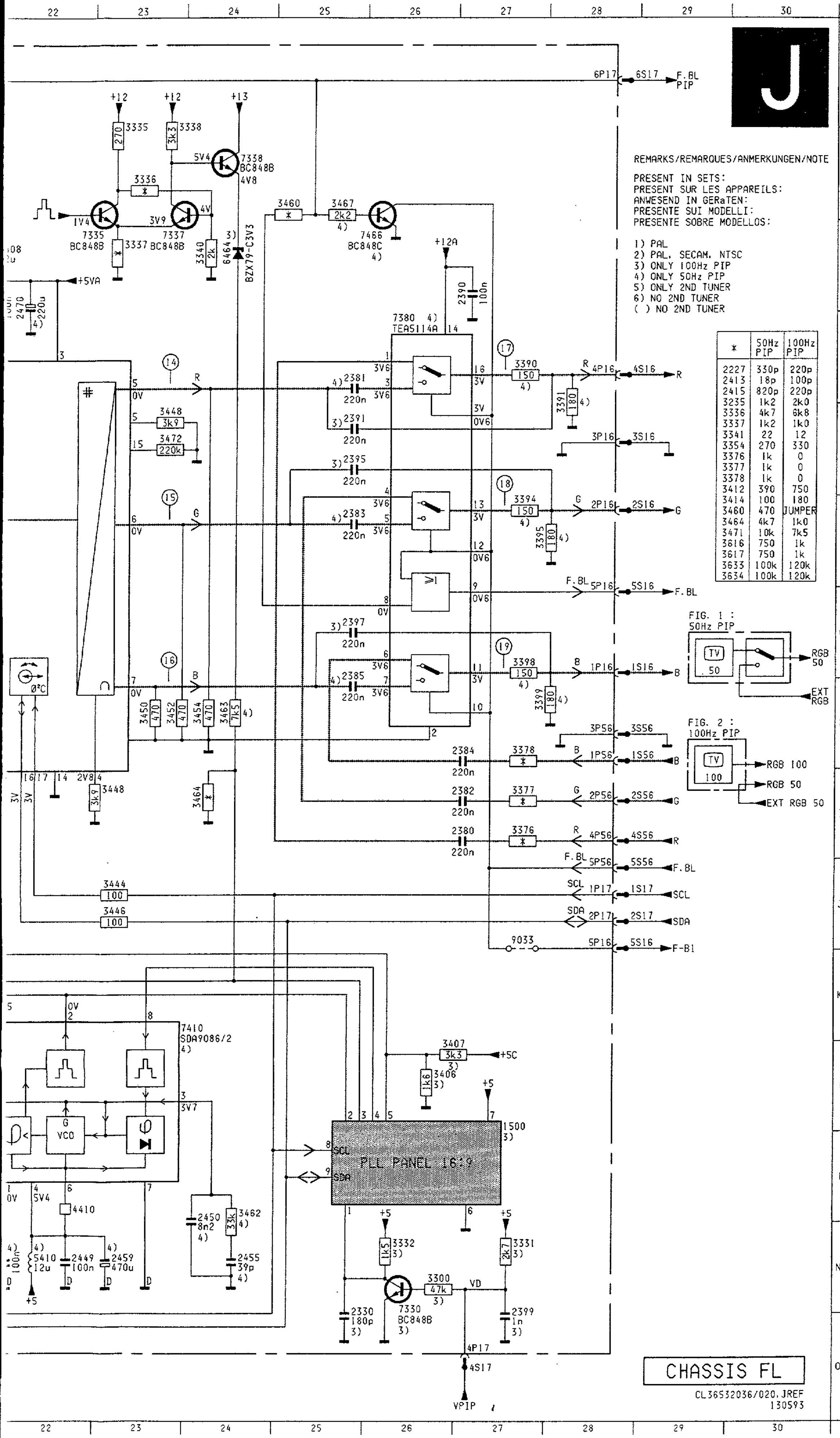
3474 39k
+5
2175 220p
6471 5V6
3475 820
3477 12k
3S17
3P17
+12C
3105 3k6
2103 33p
3103 820
3104 820
2105 120p
2118 680p
2119 150p
PAL 2V3 NTSC 0V SECAM 12V
PAL 0V NTSC 2V3 SECAM 12V
5118 10u3
2120 1n2
5S17
5P17
3470
9045
+5B
3100 RES
7105 BC848B
3106 10k
3107 10k
3108 10k
7103 BC848B
PAL 0V7 NTSC 0V SECAM 0V
8S17
8P17
+13
+12
3341
+12A
2340 47u
3345 22
+12B
2345 47u
3353 5R6
3354
7350 BC818-40
2350 330u
2351 100u
7S17
7P17
9S17
9P17
3155 390
2155 10n
5155 7u2
1155 DL711
4009
5157 9u4
3158 75
3157 330
2161 150n
2162 100n
2125 22n
3156 1k2
2158 10n
2160 220n
7125 TDA4554
7126 TDA4510
10V2 6V2
8V2 2V6 2V6
8V5
3V5
(PAL) SECAM PAL NTSC
TDA4510 TDA4650
PAL 0V5 NTSC 0V SECAM 0V
BK H V
IDENT
..MHz
2185 22n
2187 22n
2189 1n
3V 7V8 4V5
5190 100p 10u3
PAL 0V NTSC 6V1 SECAM 0V
PAL 5V1 NTSC 0V SECAM 0V
2V6 8V4
3220 5k1
2220 330n
2222 47n
3221 10k
3222 0
3V2 8V9 8V
2180 180p
2181 180p
3195 RES
2196 56n
5403 100u
PAL 0V7 NTSC 0V SECAM 0V
PAL 0V NTSC 12V SECAM 12V
3200 10k
3201 10k
3202 10k
2202 2-22p
1201 8.867MHz
7200 BC848B
4005
2201
PAL 0V NTSC 0V7 SECAM 0V
3211 10k
3212 10k
2212 2-22p
1212 7.159MHz
7210 BC848B
2211
PAL 12V NTSC 0V SECAM 12V
+12D
1600 UV916
F.REF 4MHz 512
DIV
0°C
2P51
3605 22k
2622 100n
3600 10k
3601 10k
2621 22n
2604 150u
3604 1R5
+5B
3602 100
3603 100
SDA SCL
1P54
2614 47u
2619 330u
2618 10n
3618 5R6
1610 OFWG3962
3619 470
7610 TDA8349A/N3
SYSTEM
IDENT
AFC
CVBS
3611 3k3
4634
3610 4k7
3625 510
3636 910
3614 12k
3612 2k7
3613 10k
2623 22n
3621 1M
2615 2u2
7235 BC848B
3616
3617
3635 5k6
2616 220n
3615 8k2
2620 10n
3620 2k2
3622 2k7
4001
3632 1k
3630 100
18k
3638 3k6
10P17
10S17
CVBS

Image dans l'image



PIP processing
Bild-in-Bild-Prozessor (PIP)
Processore PIP
Traitement incrustation (PIP)
11
12
13
14
15
16
17
18
19
20
21
22
5170 2)
5175 2)
5157
9u4
7, 8, 9
3158 75
3157 330
3170 1k1 2)
100p
10u3
620 3175 2)
4007
2158 10n
2171 68p 2)
2172 22p 2)
2176 22p 2)
2177 68p 2)
2V6
5V
5V9
SECAM PAL NTSC
TDA4650
SECAM.
R-Y
B-Y
BK
H
V
5V6
8V3
8V2
+12C
3220 5k1
3221 10k
3195 RES
2196 56n
2180 180p 2)
2181 180p 2)
3V2
8V9
+5
+5VA
5402 12u
5400 12u
4033
2434 100n
2402 RES
2400 RES
2432 100n
2439 22n
2438 10n
3438 51k
2441 470P
2440 220p
7406 SDA9087
5V4
4V7
7408
3) SDA9088/2(16:9)
4) SDA9088/2
0V9
+5C
5406 12u
5408 12u
2446 100n
2448 100n
2470 220u
1V4
73 BC84
+5V
7400 BC858
3404 430
+12A
3633 *
2405 10n
3405 270
2404 220p
7402 BC858
3410 390
3634 *
2410 10n
3411 360
2409 220p
7404 BC858
3412 *
9404
Y
5403 100u
4415
2413 *
3416 1k8
2625 RES
2414 10n
3414 *
2415 *
3196 1k
3227 7k5
3228 4k7
2227 *
2197 270P
CL
M
G VCO
DEMUX
RAM PROC.
R G B
0°C
2V4
3V2
3V1
1V2
2V8
0V5
3437 100
3434 47k
3436 47k
2V6
1V3
1V1
4V2
1V5
3440 390
3441 51
2430 100n
2442 1u
3442 91
3V8
2V7
+12A
7233 BC848B
3241 3k
3237 RES
3234 2k
7610
349A/N3
DENT
3620 2k2 5)
2620 10n 5)
3622 2k7 5)
3637 18k
3233 1k5 (1k1)
6301 LL4148
7234 BC848B
3638 3k6
2627 220n
3242 1k
3236 510
3471 *
3240 RES
2255 120p
+12B
CVBS
3473 1k (OR)
3624 2k7 5)
5) 7630 SAA1300
+12D
2624 22n
3615 8k2 5)
220n 5)
3617 5)
4001 6)
3632 1k 5)
3630 100 5)
3631 100 5)
SDA
SCL
3231 3k
3232 22
2230 6u8
2232 22u
3235 *
2235 6u8
3238 33k
3239 4k7
2238 2n7
2239 100n
7755 TDA2579A/N8
8V4
7V4
2V8
4V4
15625Hz
3250 910
2250 270n
2251 1n
9V
TV IDENT
50Hz
3265 100k
13V
2260 100n
7V1
3270 10k
3V7
2270 100n
3276 1k
3275 10k
3214 1k
1V5
0V
VCO
5V4
4410
6300 7V5 4)
2466 100n 4)
5410 12u 4)
2449 100n


22
23
24
25
26
27
28
29
30
6P17
6S17
F.BL PIP
+12
+12
+13
270
3335
3k3
3338
5V4
7338
BC848B
4V8
3336
1V4
3V9
4V
7335
BC848B
3337
7337
BC848B
3340
2k
6464
3)
BZX79-C3V3
3460
3467
2k2
4)
7466
BC848C
4)
+12A
2390
100n
+5VA
2470
220u
4)
7380 4)
TEA5114A
14
17
3390
150
4)
R
4P16
4S16
R
3391
180
4)
14
R
5
0V
2381
220n
3V6
3V6
3448
3k9
3472
220k
15
3V
0V6
2391
220n
3)
3P16
3S16
2395
220n
3)
15
G
6
0V
2383
220n
3V6
3V6
18
3394
150
4)
G
2P16
2S16
G
3395
180
4)
12
0V6
≥1
9
0V6
F.BL
5P16
5S16
F.BL
8
0V
2397
220n
3)
16
B
7
0V
2385
220n
3V6
3V6
19
3398
150
4)
B
1P16
1S16
B
3399
180
4)
10
2
Ø°C
3450
470
3452
470
3454
470
3463
7k5
4)
3P56
3S56
2384
220n
3378
B
1P56
1S56
B
2382
220n
3377
G
2P56
2S56
G
2380
220n
3376
R
4P56
4S56
R
F.BL
5P56
5S56
F.BL
3464
3448
3k9
2V8
3V
3V
3444
100
SCL
1P17
1S17
SCL
3446
100
SDA
2P17
2S17
SDA
9033
5P16
5S16
F-B1
FIG. 1 :
50Hz PIP
TV
50
RGB 50
EXT RGB
FIG. 2 :
100Hz PIP
TV
100
RGB 100
RGB 50
EXT RGB 50
7410
SDA9086/2
4)
0V
2
8
3
3V7
VCO
G
4
5V4
6
7
4410
5410
12u
2449
100n
2459
470u
2450
8n2
4)
3462
33k
4)
2455
39p
4)
+5
3407
3k3
3)
+5C
3406
1k6
3)
+5
1500
3)
PLL PANEL 16:9
SCL
SDA
+5
3332
1k5
3)
+5
3331
2k7
3)
3300
47k
3)
VD
7330
BC848B
3)
2330
180p
3)
2399
1n
3)
4P17
4S17
VPIP

J

REMARKS/REMARQUES/ANMERKUNGEN/NOTE

PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERaTEN:
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:

1) PAL
2) PAL, SECAM, NTSC
3) ONLY 100Hz PIP
4) ONLY 50Hz PIP
5) ONLY 2ND TUNER
6) NO 2ND TUNER
( ) NO 2ND TUNER

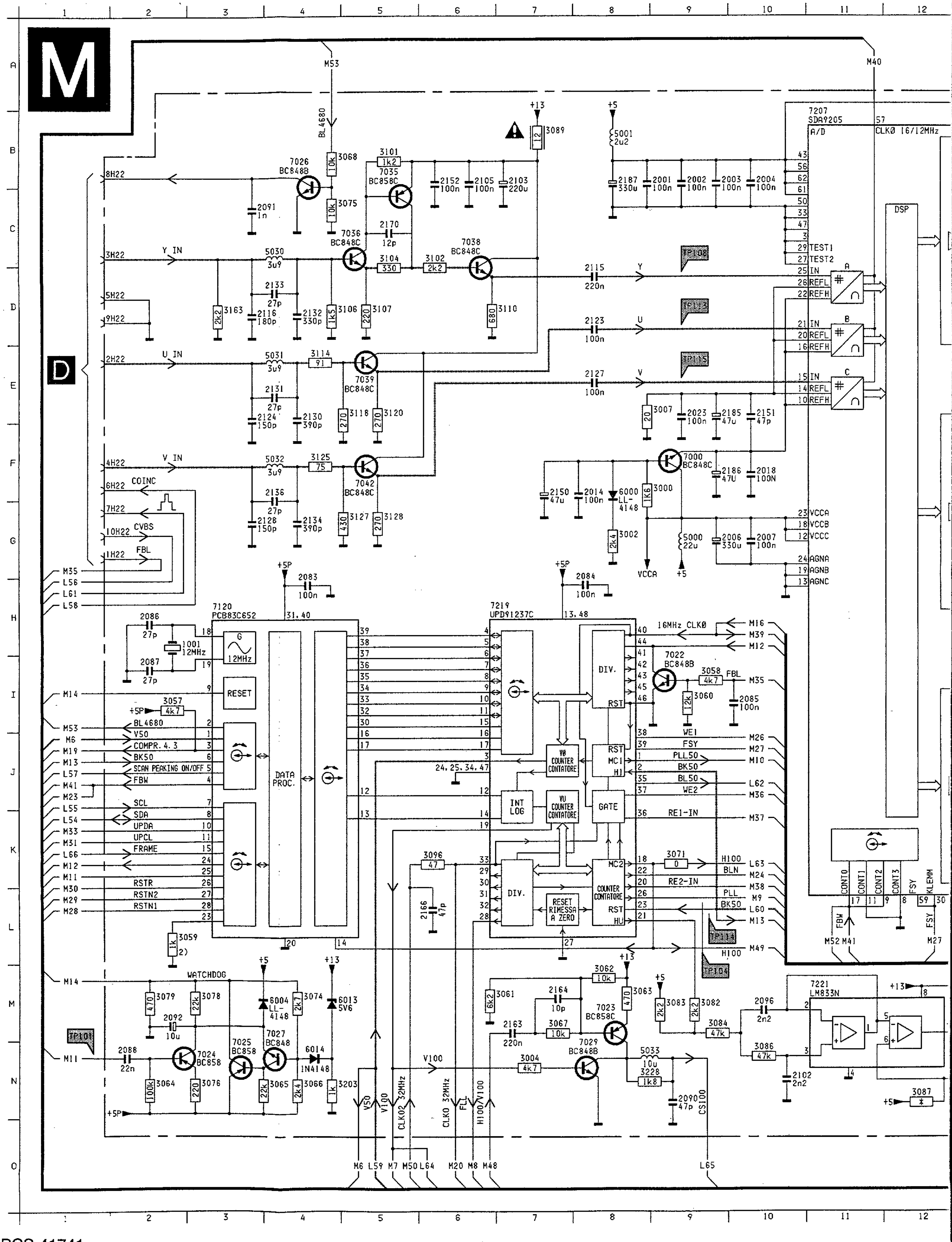
*	50Hz PIP	100Hz PIP
2227	330p	220p
2413	18p	100p
2415	820p	220p
3235	1k2	2k0
3336	4k7	6k8
3337	1k2	1k0
3341	22	12
3354	270	330
3376	1k	0
3377	1k	0
3378	1k	0
3412	390	750
3414	100	180
3460	470	JUMPER
3464	4k7	1k0
3471	10k	7k5
3616	750	1k
3617	750	1k
3633	100k	120k
3634	100k	120k

CHASSIS FL

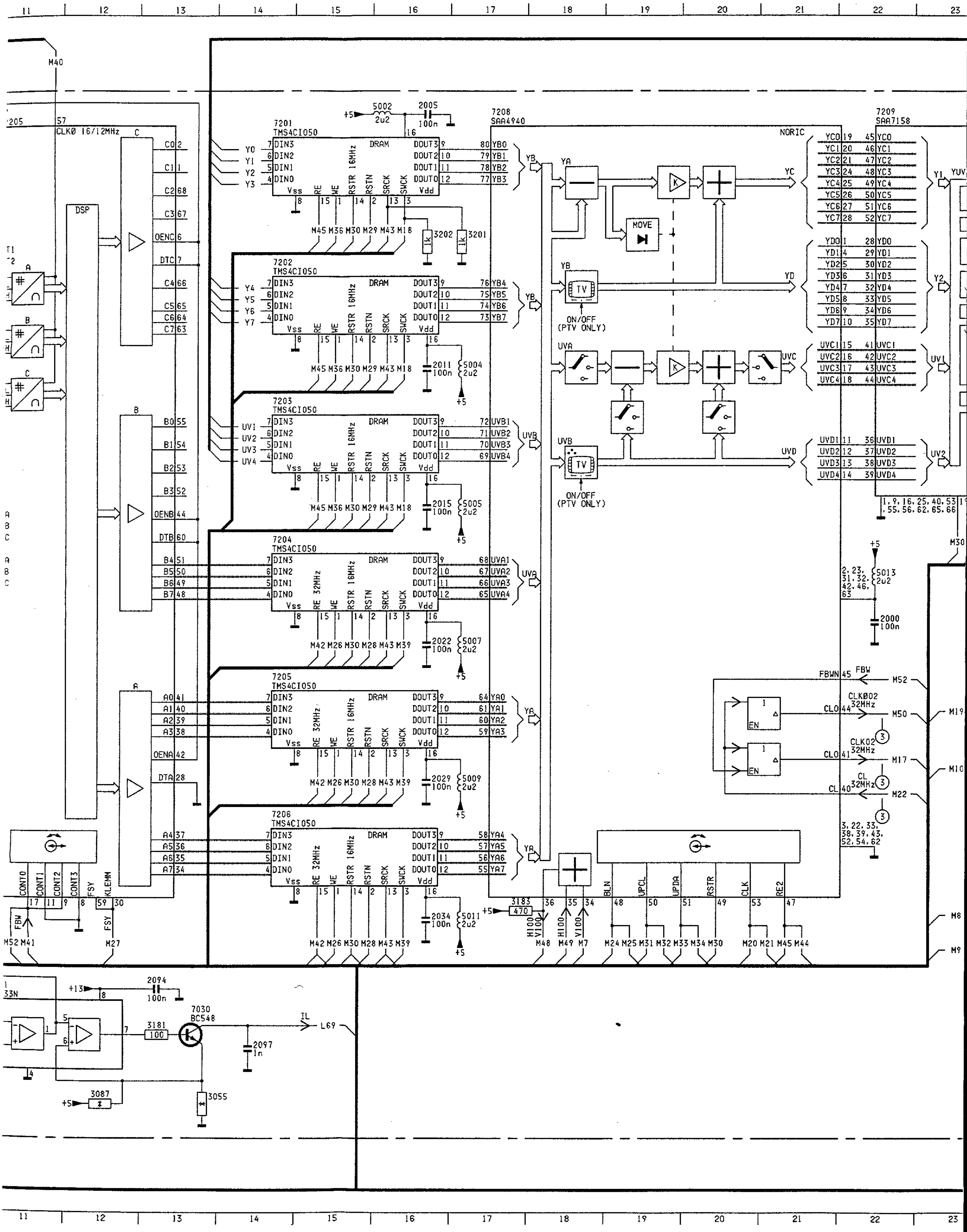
CL36532036/020.JREF
130593

1155	A 9	3201	H 7	4007	B13
1201	H 9	3202	G 9	4009	B 8
1212	I 9	3211	I 7	4033	B17
1500	L27	3212	I 9	4410	M22
1600	J 2	3214	M20	4415	G12
1610	K 6	3220	G10	4634	M 7
2103	D 4	3221	G10	5118	D 5
2105	D 5	3222	G10	5155	A 8
2118	D 6	3227	H15	5157	A10
2119	D 6	3228	H15	5170	A13
2120	D 6	3231	J16	5175	A14
2125	C 9	3232	J16	5190	G 8
2155	B 8	3233	K13	5400	B17
2158	C11	3234	J13	5402	B16
2160	C 7	3235	J17	5403	G12
2161	C 7	3236	L13	5406	C21
2162	C 8	3237	J13	5408	C21
2171	C12	3238	J18	5410	N22
2172	C13	3239	J19	6300	N21
2175	C 2	3240	L14	6301	K12
2176	C14	3241	J12	6464	C24
2177	C15	3242	L13	6471	C 3
2180	F11	3250	K20	7103	E 4
2181	F12	3265	M15	7105	E 5
2185	F 8	3270	M17	7125	C 8
2187	F 8	3275	M19	7126	C 8
2189	F 9	3276	M19	7200	H 8
2196	G11	3300	N26	7210	I 8
2197	H13	3331	N27	7233	I12
2201	H 7	3332	N26	7234	K13
2202	H 9	3335	A23	7235	N 9
2211	I 7	3336	B23	7330	N26
2212	I 9	3337	C23	7335	C23
2220	G10	3338	A23	7337	C23
2222	G10	3340	C24	7338	B24
2227	H16	3341	F 2	7350	H 3
2230	J15	3345	G 2	7380	D26
2232	J17	3353	G 2	7400	D14
2235	J18	3354	H 2	7402	E14
2238	K19	3376	I27	7404	G14
2239	K20	3377	I27	7406	C16
2250	L20	3378	H27	7408	D20
2251	L20	3390	D27	7410	K23
2255	L14	3391	D28	7466	C26
2260	M16	3394	F27	7470	A 3
2270	M17	3395	F27	7471	B 3
2330	O25	3398	G27	7472	A 4
2340	F 2	3399	H27	7473	B 4
2345	G 2	3404	D15	7610	J11
2350	I 2	3405	E15	7630	M13
2351	I 3	3406	L26	7755	K15
2380	I27	3407	L26	9001	A 5
2381	D25	3410	F15	9033	J27
2382	I27	3411	F15	9045	E 2
2383	F25	3412	G15	9404	G13
2384	H27	3414	G15		
2385	H25	3416	G13		
2390	C27	3434	E19		
2391	E25	3436	F19		
2395	E25	3437	E19		
2397	G25	3438	C19		
2399	O27	3440	I16		
2400	C17	3441	I17		
2402	C16	3442	I17		
2404	E15	3444	J23		
2405	E15	3446	J23		
2409	F15	3448	E23		
2410	F15	3448	I23		
2413	H12	3450	H23		
2414	G15	3452	H23		
2415	H15	3454	H24		
2430	I17	3460	B25		
2432	C18	3462	M24		
2434	C16	3463	H24		
2438	B19	3464	I24		
2439	B18	3467	B25		
2440	C19	3470	D 2		
2441	C18	3471	K14		
2442	I17	3472	E23		
2446	C21	3473	L12		
2448	C21	3474	B 5		
2449	N22	3475	B 4		
2450	M24	3476	B 3		
2455	N24	3477	B 4		
2459	N23	3600	M 3		
2466	N21	3601	N 3		
2470	C22	3602	N 5		
2604	N 4	3603	N 5		
2614	N 5	3604	N 4		
2615	M 9	3605	M 2		
2616	M10	3610	M 7		
2618	K 7	3611	M 6		
2619	K 6	3612	N 8		
2620	K11	3613	N 7		
2621	N 3	3614	N 6		
2622	N 2	3615	M11		
2623	N 8	3616	M10		
2624	N13	3617	N10		
2625	G13	3618	J 8		
2627	L13	3619	J 9		
3100	E 5	3620	K11		
3103	C 5	3621	M 8		
3104	C 5	3622	K12		
3105	C 5	3624	L13		
3106	E 6	3625	M 6		
3107	E 6	3630	N12		
3108	E 6	3631	N12		
3155	A 8	3632	N12		
3156	B 9	3633	E14		
3157	B12	3634	F14		
3158	B11	3635	N10		
3170	A12	3636	M 6		
3175	A15	3637	K12		
3195	G11	3638	L12		
3196	H14	4001	N11		
3200	H 7	4005	H 8		

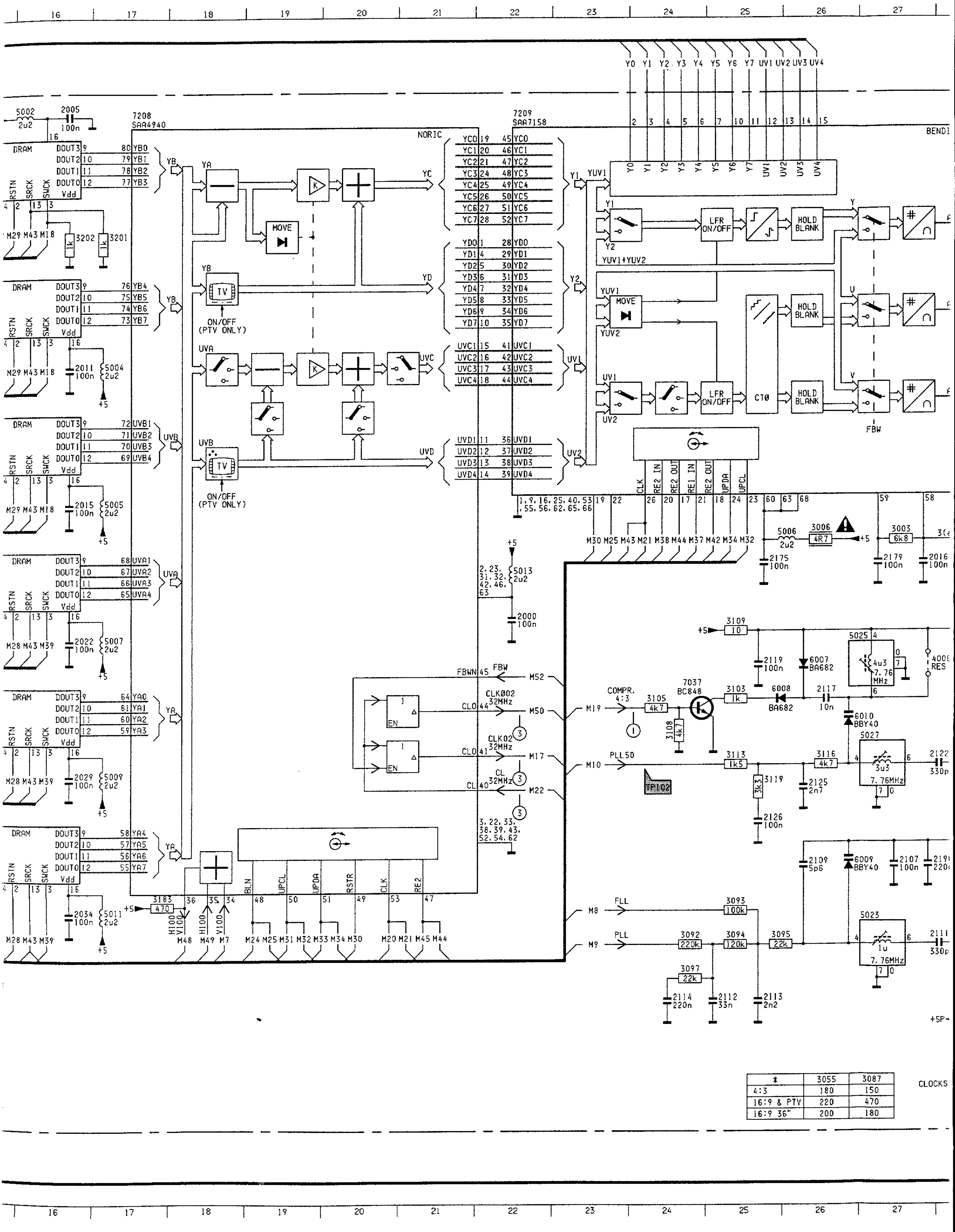
LFR box FLx.24/.26 (Digital Scan)


M
D
M53
M40
BL4680
3068 10k
3075 10k
7026 BC848B
3101 1k2
7035 BC858C
2152 100n
2105 100n
2103 220u
3089
+13
+5
5001 2u2
2187 330u
2001 100n
2002 100n
2003 100n
2004 100n
7207 SDA9205
A/D
57 CLK0 16/12MHz
DSP
8H22
3H22
5H22
9H22
2H22
4H22
6H22
7H22
10H22
1H22
Y_IN
U_IN
V_IN
COINC
CVBS
FBL
2091 1n
5030 3u9
2133 27p
2116 180p
2132 330p
3163 2k2
3106 1k5
3107 220
7036 BC848C
2170 12p
3104 330
3102 2k2
7038 BC848C
3110 680
2115 220n
Y
TP108
2123 100n
U
TP113
2127 100n
V
TP115
TEST1
TEST2
IN
REFL
REFH
A
B
C
5031 3u9
3114 91
7039 BC848C
2131 27p
2124 150p
2130 390p
3118 270
3120 270
5032 3u9
3125 75
7042 BC848C
2136 27p
2128 150p
2134 390p
3127 430
3128 270
3007 20
2023 100n
2185 47u
2151 47p
7000 BC848C
2186 47U
2018 100N
2150 47u
2014 100n
6000 LL-4148
3000 1K6
3002 2k4
5000 22u
2006 330u
2007 100n
VCCA
VCCB
VCCC
AGNA
AGNB
AGNC
VCCA
M35
L56
L61
L58
+5P
2083 100n
2084 100n
7120 PCB83C652
31.40
2086 27p
1001 12MHz
2087 27p
G
12MHz
RESET
M14
3057 4k7
M53
M6
M19
M13
L57
M41
M23
L55
L54
M33
M31
L66
M12
M11
M30
M29
M28
BL4680
V50
COMPR.4.3
BK50
SCAN PEAKING ON/OFF
FBW
SCL
SDA
UPDA
UPCL
FRAME
RSTR
RSTN2
RSTN1
DATA PROC.
3059 1k
2)
7219 UPD91237C
13.48
16MHz CLK0
M16
M39
M12
DIV.
RST
7022 BC848B
3058 4k7
FBL
M35
3060 12k
2085 100n
WE1
FSY
PLL50
BK50
BL50
WE2
RE1-IN
M26
M27
M10
L62
M36
M37
V0 COUNTER CONTATORE
VU COUNTER CONTATORE
INT LOG
GATE
MC1
HI
24.25.34.47
3096 47
2166 47p
DIV.
RESET RIMESSA A ZERO
COUNTER CONTATORE
MC2
HU
3071 0
H100
BLN
RE2-IN
PLL
BK50
L63
M24
M38
M9
L60
M13
M49
TP114
TP104
H100
CONT0
CONT1
CONT2
CONT3
FSY
KLEMM
FBW
M52
M41
M27
FSY
WATCHDOG
3079 470
3078 22k
2092 10u
6004 LL-4148
3074 2k7
6013 5V6
TP101
2088 22n
7024 BC858
3064 100k
3076 220
7025 BC858
7027 BC848
3065 22k
3066 2k4
6014 1N4148
3203 1k
V50
V100
CLK02 32MHz
CLK0 32MHz
FL
H100/V100
M6
L59
M7
M50
L64
M20
M8
M48
L65
3061 6k2
2164 10p
3062 10k
3063 470
7023 BC858C
2163 220n
3067 10k
7029 BC848B
3004 4k7
V100
5033 10u
3228 1k8
2090 47p
CS100
3083 2k2
3082 2k2
3084 47k
2096 2n2
3086 47k
2102 2n2
7221 LM833N
+13
3087

LFR box FLx.24/.26 (Digital Scan)


11
12
13
14
15
16
17
18
19
20
21
22
23
M40
205
57
CLK0 16/12MHz
C
DSP
B
A
OENC
DTC
OENB
DTB
OENA
DTA
CONT0
CONT1
CONT2
CONT3
FSY
KLEMM
FBW
M52 M41
M27
7201
TMS4C1050
7202
TMS4C1050
7203
TMS4C1050
7204
TMS4C1050
7205
TMS4C1050
7206
TMS4C1050
DRAM
DIN3
DIN2
DIN1
DIN0
DOUT3
DOUT2
DOUT1
DOUT0
Vss
RE
WE
RSTR
RSTN
SRCK
SWCK
Vdd
16MHz
32MHz
Y0 Y1 Y2 Y3
Y4 Y5 Y6 Y7
UV1 UV2 UV3 UV4
M45 M36 M30 M29 M43 M18
M42 M26 M30 M28 M43 M39
5002
2u2
2005
100n
3202
1k
3201
1k
2011
100n
5004
2u2
2015
100n
5005
2u2
2022
100n
5007
2u2
2029
100n
5009
2u2
2034
100n
5011
2u2
+5
7208
SAA4940
YB0 YB1 YB2 YB3
YB4 YB5 YB6 YB7
UVB1 UVB2 UVB3 UVB4
UVA1 UVA2 UVA3 UVA4
YA0 YA1 YA2 YA3
YA4 YA5 YA6 YA7
YA
YB
UVA
UVB
YC
YD
UVC
UVD
K
MOVE
TV
ON/OFF
(PTV ONLY)
NORIC
3183
470
H100
V100
BLN
UPCL
UPDA
RSTR
CLK
RE2
M48 M49 M7
M24 M25 M31 M32 M33 M34 M30
M20 M21 M45 M44
7209
SAA7158
YC0 YC1 YC2 YC3 YC4 YC5 YC6 YC7
YD0 YD1 YD2 YD3 YD4 YD5 YD6 YD7
UVC1 UVC2 UVC3 UVC4
UVD1 UVD2 UVD3 UVD4
Y1
YUV
Y2
UV1
UV2
1, 9, 16, 25, 40, 53
55, 56, 62, 65, 66
M30
2, 23, 31, 32, 42, 46, 63
5013
2u2
2000
100n
FBWN
FBW
M52
CLK002
32MHz
CLO
M50
M19
CLK02
32MHz
M17
M10
CL
32MHz
M22
3, 22, 33, 38, 39, 43, 52, 54, 62
EN
M8
M9
33N
+13
2094
100n
7030
BC548
3181
100
IL
L69
2097
1n
3087
3055

LFR box FLx.24/.26 (Digital Scan)

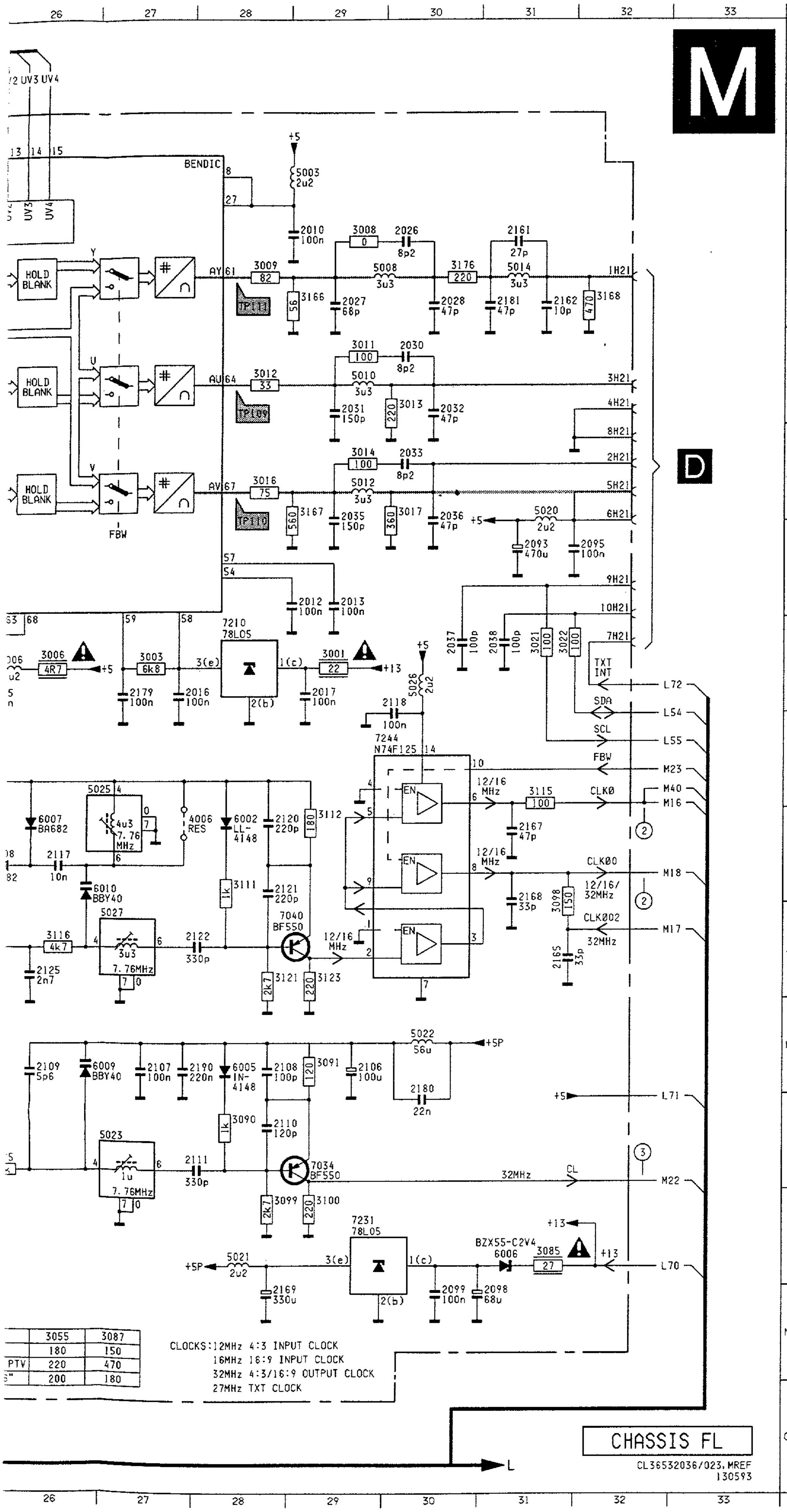

16 17 18 19 20 21 22 23 24 25 26 27
Y0 Y1 Y2 Y3 Y4 Y5 Y6 Y7 UV1 UV2 UV3 UV4
5002 2u2
2005 100n
7208 SAA4940
7209 SAA7158
NORIC
BENDI
DRAM
DOUT3 DOUT2 DOUT1 DOUT0
RSTN SRCK SWCK Vdd
YB0 YB1 YB2 YB3 YB4 YB5 YB6 YB7
UVB1 UVB2 UVB3 UVB4
UVA1 UVA2 UVA3 UVA4
YA0 YA1 YA2 YA3 YA4 YA5 YA6 YA7
YB YA UVA UVB
M29 M43 M18
M28 M43 M39
3202 1k
3201 1k
2011 100n
5004 2u2
2015 100n
5005 2u2
2022 100n
5007 2u2
2029 100n
5009 2u2
2034 100n
5011 2u2
+5
MOVE
K
TV
ON/OFF (PTV ONLY)
YC YD UVC UVD
YC0 YC1 YC2 YC3 YC4 YC5 YC6 YC7
YD0 YD1 YD2 YD3 YD4 YD5 YD6 YD7
UVC1 UVC2 UVC3 UVC4
UVD1 UVD2 UVD3 UVD4
Y1 Y2 UV1 UV2
YUV1 YUV2
YUV1+YUV2
LFR ON/OFF
HOLD BLANK
CTØ
Y U V
FBW
CLK RE2 IN RE2 OUT RE1 IN RE2 OUT UPDA UPCL
1,9,16,25,40,53,55,56,62,65,66
M30 M25 M43 M21 M38 M44 M37 M42 M34 M32
5006 2u2
3006 4R7
3003 6k8
2175 100n
2179 100n
2016 100n
+5
5013 2u2
2,23,31,32,42,46,63
2000 100n
FBWN 45 FBW M52
CLK002 32MHz
CLO 44 M50
CLK02 32MHz
CLO 41 M17
CL 32MHz
CL 40 M22
EN
3,22,33,38,39,43,52,54,62
BLN UPCL UPDA RSTR CLK RE2
3183 470
H100 V100
M48 M49 M7
M24 M25 M31 M32 M33 M34 M30
M20 M21 M45 M44
3109 10
2119 100n
6007 BA682
5025 4u3 7.76MHz
4006 RES
COMPR. 4:3
M19
3105 4k7
7037 BC848
3108 4k7
3103 1k
6008 BA682
2117 10n
6010 BBY40
5027 3u3 7.76MHz
2122 330p
M10 PLL50
3113 1k5
3119 3k3
3116 4k7
2125 2n7
2126 100n
TP102
2109 5p6
6009 BBY40
2107 100n
2191 220
M8 FLL
3093 100k
M9 PLL
3092 220k
3094 120k
3095 22k
5023 1u 7.76MHz
2111 330p
3097 22k
2114 220n
2112 33n
2113 2n2
+5P

*	3055	3087
4:3	180	150
16:9 & PTV	220	470
16:9 36"	200	180

CLOCKS

LFR box FLx.24/.26 (Digital Scan)

M


26
27
28
29
30
31
32
33
UV3
UV4
BENDIC
HOLD BLANK
Y
U
V
FBW
AY
AU
AV
3009 82
3012 33
3016 75
TP111
TP109
TP110
+5
5003 2u2
2010 100n
3008 0
2026 8p2
5008 3u3
3176 220
2161 27p
5014 3u3
1H21
3166 56
2027 68p
2028 47p
2181 47p
2162 10p
3168 470
3011 100
2030 8p2
5010 3u3
3H21
4H21
8H21
2031 150p
3013 220
2032 47p
3014 100
2033 8p2
5012 3u3
2H21
5H21
6H21
3167 560
2035 150p
3017 360
2036 47p
5020 2u2
2093 470u
2095 100n
D
2012 100n
2013 100n
9H21
10H21
7H21
7210 78L05
3006 4R7
3003 6k8
3001 22
+13
2179 100n
2016 100n
2017 100n
2037 100p
2038 100p
3021 100
3022 100
TXT INT
SDA
SCL
FBW
5026 2u2
2118 100n
7244 N74F125
EN
12/16 MHz
3115 100
CLK0
2167 47p
CLK00
12/16/ 32MHz
2168 33p
3098 150
CLK002
32MHz
2165 33p
L72
L54
L55
M23
M40
M16
M18
M17
5025 4u3 7.76 MHz
6007 BA682
4006 RES
6002 LL-4148
2120 220p
3112 180
2117 10n
6010 BBY40
3111 1k
2121 220p
7040 BF550
3116 4k7
5027 3u3 7.76MHz
2122 330p
2125 2n7
3121 2k7
3123 220
5022 56u
+5P
2109 5p6
6009 BBY40
2107 100n
2190 220n
6005 IN-4148
2108 100p
3091 120
2106 100u
2180 22n
+5
L71
3090 1k
2110 120p
5023 1u 7.76MHz
2111 330p
7034 BF550
32MHz
CL
M22
3099 2k7
3100 220
7231 78L05
+13
BZX55-C2V4 6006
3085 27
+13
L70
5021 2u2
+5P
2169 330u
2099 100n
2098 68u
L

	3055	3087
	180	150
PTV	220	470
5"	200	180

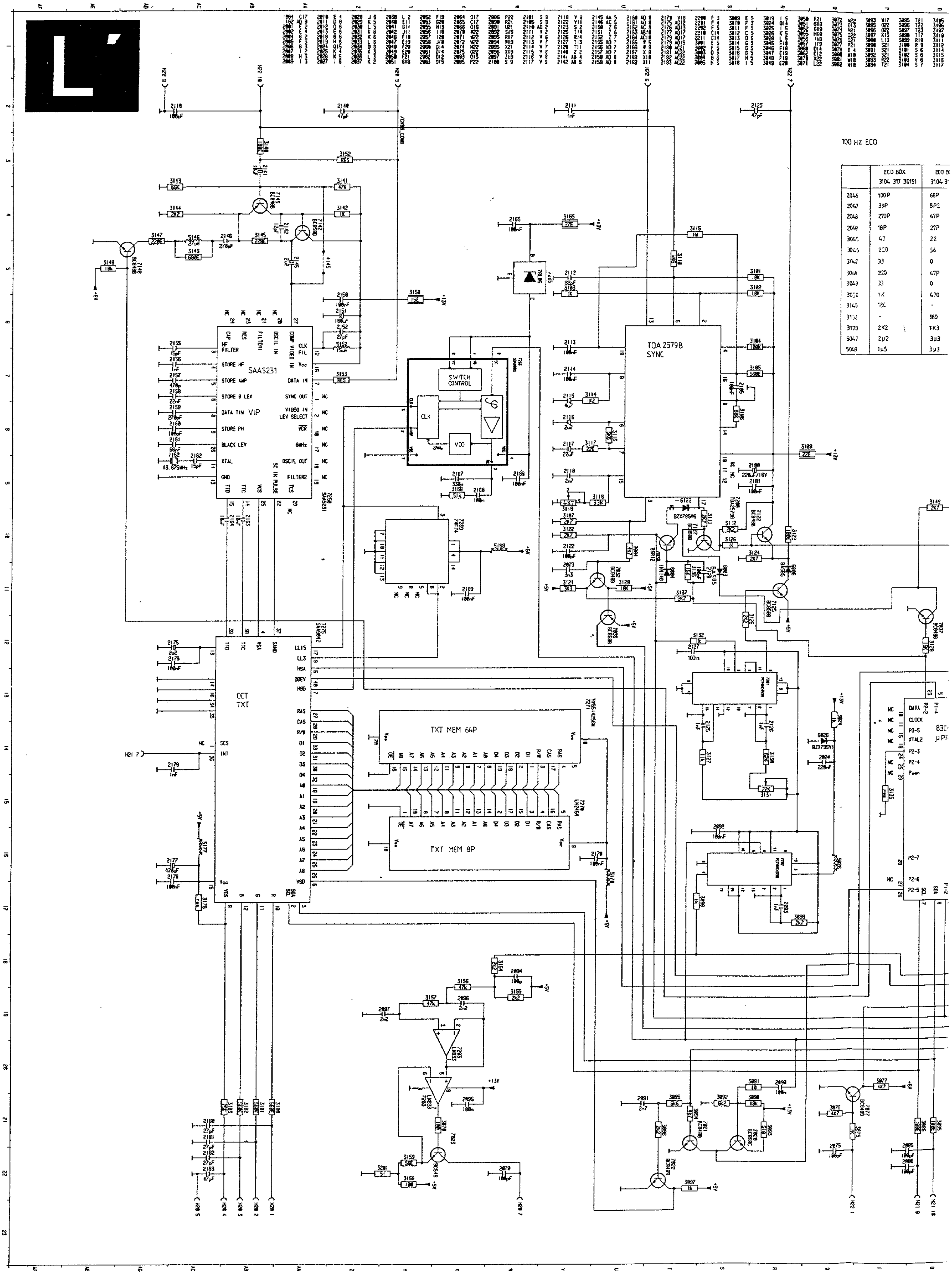
CLOCKS:12MHz 4:3 INPUT CLOCK
16MHz 16:9 INPUT CLOCK
32MHz 4:3/16:9 OUTPUT CLOCK
27MHz TXT CLOCK

CHASSIS FL

CL36532036/023.MREF
130593

1001	H 2	3021	G31	7026	B 4
2000	H22	3022	G31	7027	M 4
2001	B 9	3055	N13	7029	N 8
2002	B 9	3057	I 2	7030	M13
2003	B 9	3058	I 9	7034	L29
2004	B10	3059	L 2	7035	B 5
2005	B16	3060	I 9	7036	C 5
2006	G 9	3061	M 6	7037	I24
2007	G10	3062	M 8	7038	C 6
2010	C29	3063	M 8	7039	E 5
2011	E16	3064	N 2	7040	J29
2012	F29	3065	N 4	7042	F 5
2013	F29	3066	N 4	7120	H 3
2014	F 8	3067	M 7	7201	B14
2015	G16	3068	B 4	7202	D14
2016	G27	3071	K 9	7203	E14
2017	G29	3074	M 4	7204	G14
2018	F10	3075	C 4	7205	I14
2022	H16	3076	N 3	7206	K14
2023	E 9	3078	M 3	7207	B11
2026	C30	3079	M 2	7208	B17
2027	C29	3082	M 9	7209	B22
2028	C30	3083	M 9	7210	G28
2029	J16	3084	M 9	7219	H 6
2030	D30	3085	M31	7221	M11
2031	D29	3086	N10	7231	M29
2032	D30	3087	N12	7244	H29
2033	E30	3089	B 7		
2034	L16	3090	L28		
2035	F29	3091	K29		
2036	F30	3092	L24		
2037	G30	3093	L25		
2038	G31	3094	L25		
2083	H 4	3095	L25		
2084	H 8	3096	K 6		
2085	I10	3097	M24		
2086	H 2	3098	I31		
2087	I 2	3099	M28		
2088	N 2	3100	M29		
2090	N 9	3101	B 5		
2091	C 3	3102	C 6		
2092	M 2	3103	I25		
2093	F31	3104	C 5		
2094	M13	3105	I24		
2095	F32	3106	D 4		
2096	M10	3107	D 5		
2097	N14	3108	J24		
2098	N31	3109	H25		
2099	N30	3110	D 7		
2102	N10	3111	I28		
2103	B 7	3112	I29		
2105	B 6	3113	J25		
2106	K29	3114	E 4		
2107	K27	3115	H31		
2108	K28	3116	J26		
2109	K26	3118	E 5		
2110	L28	3119	J25		
2111	L28	3120	E 5		
2112	M25	3121	J28		
2113	M25	3123	J29		
2114	M24	3125	F 4		
2115	D 8	3127	G 5		
2116	D 3	3128	G 5		
2117	I26	3163	D 3		
2118	G30	3166	C29		
2119	I25	3167	E29		
2120	I28	3168	C32		
2121	I28	3176	C30		
2122	J28	3181	M13		
2123	D 8	3183	L17		
2124	E 3	3201	C17		
2125	J26	3202	C16		
2126	K25	3203	N 4		
2127	E 8	3228	N 8		
2128	G 3	4006	I27		
2130	E 4	5000	G 9		
2131	E 4	5001	B 8		
2132	D 4	5002	B16		
2133	D 4	5003	B29		
2134	G 4	5004	E17		
2136	F 4	5005	G17		
2150	F 7	5006	G26		
2151	E10	5007	H17		
2152	B 6	5008	C29		
2161	C31	5009	J17		
2162	C31	5010	D29		
2163	M 7	5011	L17		
2164	M 7	5012	E29		
2165	J31	5013	G22		
2166	L 6	5014	C31		
2167	I31	5020	E31		
2169	N28	5021	M28		
2170	C 5	5022	K30		
2175	G25	5023	L27		
2179	G27	5025	H26		
2180	K30	5026	G30		
2181	C31	5027	J27		
2185	E 9	5030	C 4		
2186	F 9	5031	E 4		
2187	B 8	5032	F 4		
2190	K27	5033	N 8		
3000	F 9	6000	F 8		
3001	G29	6002	I28		
3002	G 8	6004	M 4		
3003	G27	6006	M31		
3004	N 7	6007	I26		
3006	G26	6008	I25		
3007	E 9	6009	K26		
3008	C29	6010	I26		
3009	C28	6013	M 4		
3011	D29	6014	N 4		
3012	D28	7000	F 9		
3013	D30	7022	I 9		
3014	E29	7023	M 8		
3016	E28	7024	N 3		
3017	E30	7025	N 3		

100 Hz / TXT (FLx.27)


L'
SAA5231
VIP
TDA 2579B
SYNC
SWITCH CONTROL
CLK
VCO
CCT
TXT
TXT MEM 64P
TXT MEM 8P
78L05
BC548
BC558
BZX79C6V8
13.875MHz

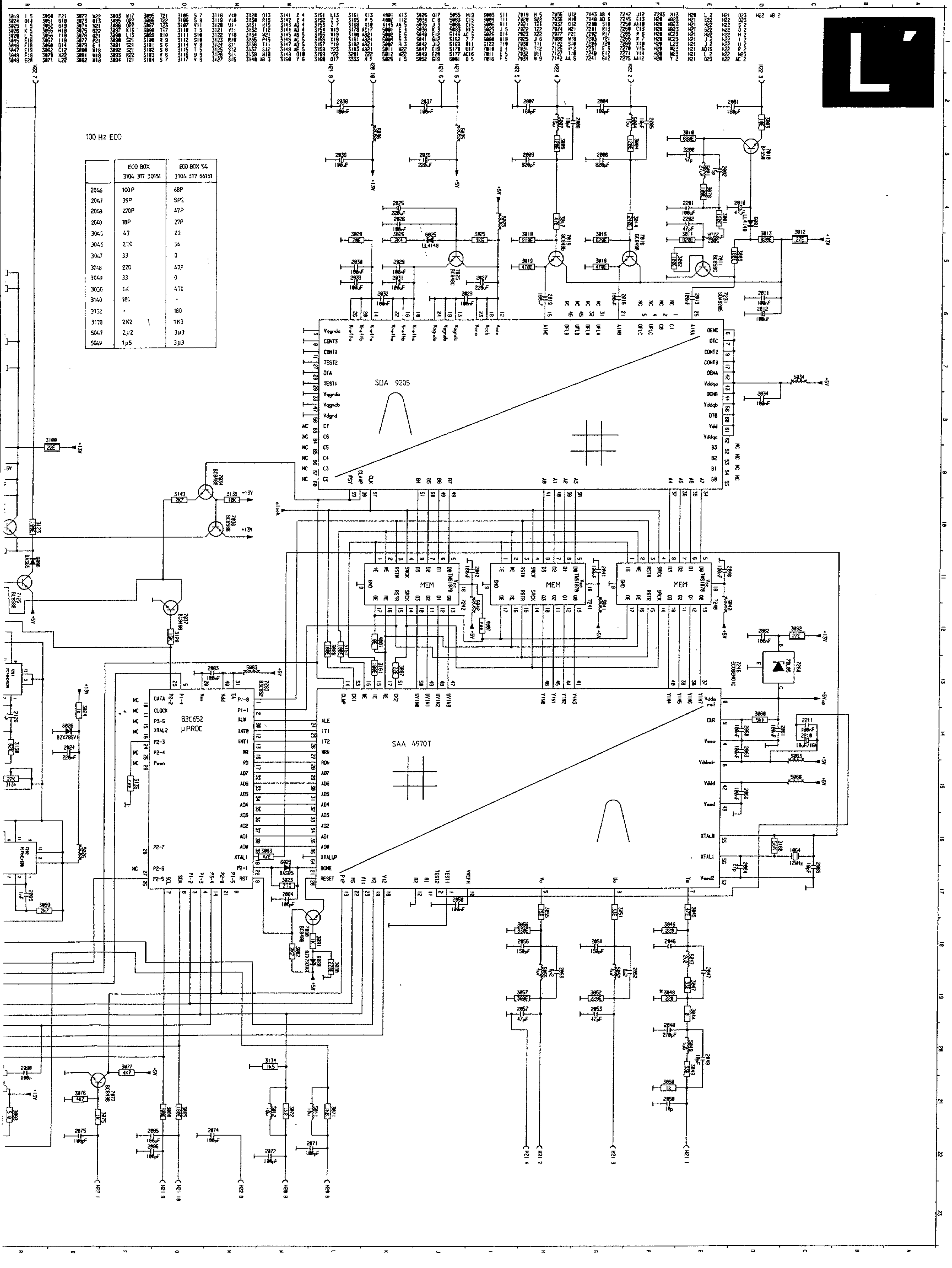
100 Hz ECO

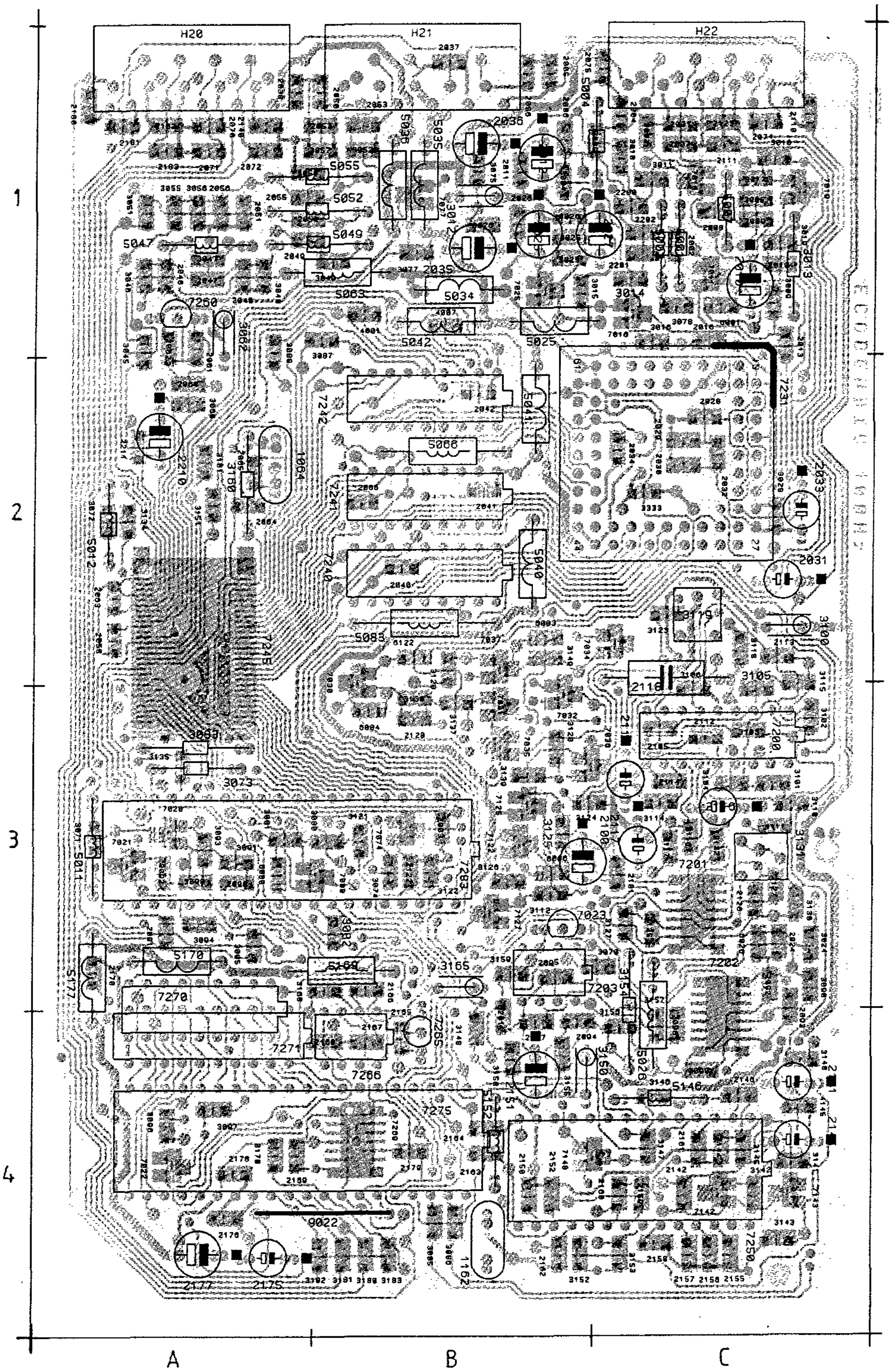
	ECO BOX 3104 317 30151	ECO B 3104 3
2046	100P	68P
2047	39P	8P2
2048	270P	47P
2049	18P	27P
3045	47	22
3046	220	56
3047	33	0
3048	220	47P
3049	33	0
3050	1K	470
3145	180	-
3132	-	180
3173	2K2	1K3
5047	2µ2	3µ3
5049	1µ5	3µ3

3019	I 5
3024	O14
3025	I 5
3026	K 5
3028	L 5
3045	E18
3046	F18
3047	E19
3048	F18
3049	E20
3050	F21
3051	G18
3052	G19
3055	H18
3056	I18
3057	I19
3060	D14
3062	C12
3070	X22
3071	L22
3072	M22
3073	O13
3074	N21
3075	O22
3076	Q21
3077	P21
3078	E 4
3080	M18
3081	M18
3082	M18
3083	M17
3085	O22
3086	O22
3087	K13
3088	L13
3090	S21
3091	S21
3092	S21
3093	R22
3094	T21
3095	T21
3096	T22
3097	T23
3098	T17
3099	R18
3100	R 9
3101	S 6
3102	S 6
3103	V 6
3104	S 7
3105	S 7
3106	S 8
3107	V11
3110	T 5
3111	S10
3112	S10
3114	V 8
3115	T 5
3116	U 9
3117	V 9
3118	V10
3119	V10
3120	U11
3121	V11
3122	Y10
3123	R10
3124	S11
3125	S12
3126	S11
3127	S15
3128	O13
3130	R15
3131	R15
3132	T12
3134	N21
3135	P15
3136	T11
3137	S12
3139	N10
3140	AB 3
3141	Z 4
3142	Z 4
3143	AD 4
3144	AD 4
3145	AB 5
3146	AC 5
3147	AD 5
3148	AE 5
3149	O10
3150	Y 6
3151	L13
3152	Z 3
3153	Z 7
3154	W19
3155	W19
3156	X19
3157	Y19
3158	Y23
3159	Y22
3160	O17
3161	K13
3165	V 5
3168	X10
3178	AC17
3180	AB21
3181	AB21
3182	AB21
3183	AB21
3201	Z22
3333	N 5
4001	K13
4007	I12
4145	AA 5
5001	E 4
5002	E 5
5004	G 3
5007	H 3
5011	N22
5012	N22
5025	I 5
5026	Q17
5034	C 8
5035	J 3
5036	K 3
5040	E12
5041	G12
5042	J12
5047	E19
5049	E20
5052	G19
5055	H19
5063	C15
5066	C15
5083	N13
5146	AC 5
5152	Z 7
5163	R11
5170	U17
5177	AC16
6001	D 5
6003	S11
6004	T11
6006	R11
6025	J 5
6026	O14
6080	M18
6122	T10
7010	D 4
7011	E 5
7016	F 5
7019	H 5
7020	S22
7021	T21
7022	T22
7023	X22
7025	J 6
7030	T11
7031	T12
7032	U11
7034	N 9
7035	U12
7036	N10
7037	O12
7074	N21
7077	P21
7080	M18
7122	S10
7125	R12
7127	T10
7142	AA 5
7143	AB 4
7148	AD 6
7200	S10
7201	R13
7202	R17
7203	Y21
7205	X20
7231	E 6
7240	E12
7241	G12
7242	J12
7245	E13
7250	AA10
7260	C13
7265	W 6
7266	W 7
7269	X10
7270	V15
7271	V14
7275	AA12
7283	N13
H20	AB23
H20	AB23
H20	AB23
H20	AC23
H20	AC23
H20	L23
H20	M23
H20	M23
H20	Y 2
H20	L 2
H21	E22
H21	H22
H21	G22
H21	K22
H21	J 2
H21	J 2
H21	AD15
H21	L 2
H21	O23
H21	O23
H22	O23
H22	S 2
H22	O 2
H22	H 2
H22	I 2
H22	U 2
H22	R 2
H22	N23
H22	AD 2
H22	AB 2

100 Hz ECO

	ECO BOX 3104 317 30151	ECO BOX '94 3104 317 66151
2046	100P	68P
2047	39P	8P2
2048	270P	47P
2049	18P	27P
3045	47	22
3046	220	56
3047	33	0
3048	220	47P
3049	33	0
3050	1K	470
3140	180	-
3152	-	180
3178	2K2	1K3
5047	2µ2	3µ3
5049	1µ5	3µ3





H20	A1
H21	B1
H22	C1
1064	A2
1162	B4
2001	C1
2002	C1
2004	C1
2005	C1
2006	B1
2007	C1
2008	C1
2009	C1
2010	C1
2011	B1
2012	B1
2013	C1
2016	C1
2019	C1
2024	C3
2025	B1
2026	B1
2027	C1
2028	C2
2029	C2
2030	C2
2031	C2
2032	C2
2033	C2
2034	C2
2035	B1
2036	B1
2037	B1
2038	A1
2040	B2
2041	B2
2042	B2
2046	A1
2047	A1
2048	A1
2049	A1
2050	B1
2051	A1
2052	A1
2053	B1
2055	A1
2056	A1
2057	B1
2058	A2
2060	A2
2061	A1
2062	A1
2063	A2
2064	A2
2065	A2
2066	B2
2070	A1
2071	A1
2072	A1
2074	C1
2075	C1
2083	B3
2085	B1
2086	B1
2090	A3
2091	A3
2092	C3
2093	C3
2094	B4
2095	B3
2096	C4
2097	B4
2100	B3
2101	C3
2105	C3
2110	C1
2111	C1
2112	C3
2113	C2
2114	C3
2115	C3
2116	C3
2117	C3
2118	C2
2122	B3
2123	C1
2125	C3
2126	C3
2127	C3
2128	B3
2140	A1
2141	C4
2142	C4
2145	C4
2146	C4
2150	B4
2151	B4
2152	B4
2155	C4
2156	C4
2157	C4
2158	C4
2159	C4
2160	C4
2161	C4
2162	B4
2163	B4
2164	B4
2165	B4
2166	B3
2167	B4
2168	B4
2169	A4
2170	A3
2175	A4
2176	A4
2177	A4
2178	A4
2179	B4
2181	A1
2182	A1
2183	A1
2200	C1
2201	C1
2202	C1
2210	A2
2211	A2
3003	C1
3004	B1
3005	C1
3009	C1
3010	C1
3011	C1
3012	B1
3013	C1
3014	C1
3015	B1
3016	C1
3017	C1
3018	C1
3019	C1
3024	C3
3025	B1
3026	B1
3028	C2
3045	A1
3046	A1
3047	A1
3048	A1
3049	B1
3050	A1
3051	A1
3052	B1
3055	A1
3056	A1
3057	B1
3060	A2
3062	A1
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3072	A2
3073	A3
3074	B3
3075	B1
3076	B1
3077	B1
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3081	A3
3082	B3
3083	A3
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3091	A3
3092	A3
3093	A3
3094	A3
3095	A3
3096	A4
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3098	C3
3099	C4
3100	C2
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3102	C3
3103	C3
3104	C3
3105	C3
3106	C3
3110	C3
3111	C3
3112	B3
3114	C3
3115	C3
3116	C3
3117	C3
3118	C2
3119	C2
3120	B3
3121	B3
3122	B3
3123	C2
3124	B3
3125	B3
3126	B3
3127	C3
3128	B2
3130	C3
3131	C3
3132	C3
3134	A2
3135	A3
3136	B3
3137	B3
3139	B3
3140	C4
3141	C4
3142	C4
3143	C4
3144	C4
3145	C4
3146	C4
3147	C4
3148	B4
3149	B2
3150	B4
3151	A2
3152	B4
3153	C4
3154	C4
3155	B4
3156	C4
3157	C4
3158	B4
3159	B3
3160	A2
3161	A2
3165	B3
3168	B3
3178	A4
3180	B4
3181	B4
3182	B4
3183	B4
3201	B4
3333	C2
4001	B1
4007	B1
4145	C4
5001	C1
5002	C1
5004	C1
5007	C1
5011	A3
5012	A2
5025	B1
5026	C4
5034	B1
5035	B1
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5040	B2
5041	B2
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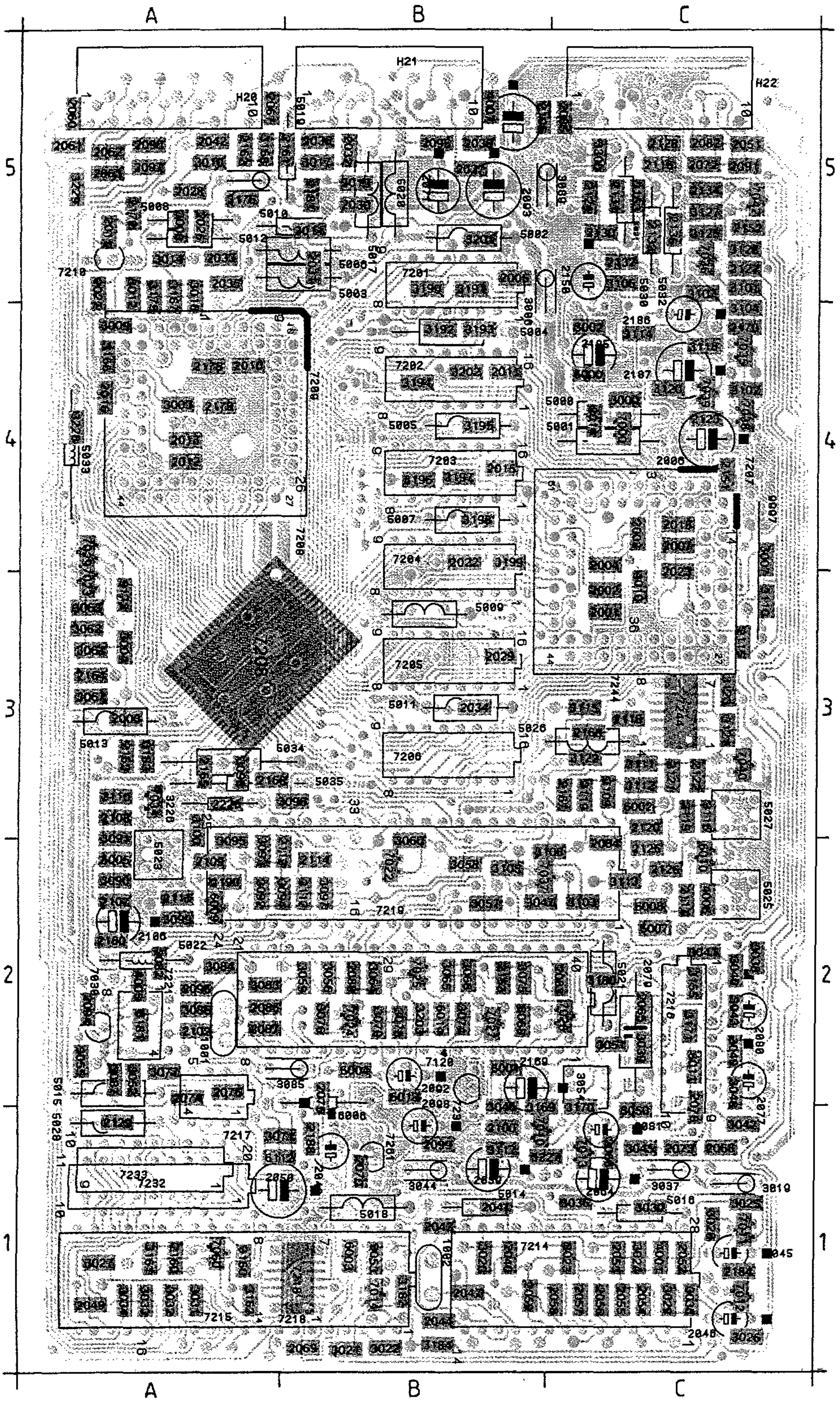
5055	B1
5063	B1
5066	B2
5083	B2
5146	C4
5152	B4
5169	B3
5170	A3
5177	A3
6001	C1
6003	B2
6004	B3
6006	B3
6025	B1
6026	C3
6080	A3
6122	B2
7010	C1
7011	C1
7016	C1
7019	C1
7020	A3
7021	A3
7022	A4
7023	B3
7025	B1
7030	B2
7031	B3
7032	B3
7034	C2
7035	B3
7036	B3
7037	B2
7074	B3
7077	B1
7080	B3
7122	B3
7125	B3
7127	B3
7142	C4
7143	C4
7148	C4
7200	C3
7201	C3
7202	C4
7203	B3
7231	C2
7240	B2
7241	B2
7242	B2
7245	A2
7250	C4
7260	A1
7265	B4
7266	B4
7269	B4
7270	A3
7271	A4
7275	A4
7283	A3
9022	B4

LFR box



H20	A5
H21	B5
H22	C5
1001	A2
1002	B1
2000	A3
2001	C3
2002	C3
2003	C4
2004	C4
2005	B5
2006	C4
2007	C4
2010	A4
2011	B4
2012	A4
2013	A4
2014	C4
2015	B4
2016	A4
2017	A5
2018	C4
2022	B4
2023	C4
2026	A5
2027	A5
2028	A5
2029	B3
2030	B5
2031	B5
2032	B5
2033	A5
2034	B3
2035	A5
2036	B5
2037	B5
2038	B5
2039	B1
2040	B1
2041	B1
2042	A5
2043	B1
2044	B1
2045	C1
2046	C1
2047	B1
2048	B1
2049	A1
2050	A1
2051	C5
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2053	C1
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2068	C1
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2071	B5
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2074	A2
2075	B2
2076	A2
2077	C2
2078	C1
2079	C2
2080	C2
2081	C1
2082	C5
2083	C2
2084	C2
2085	C5
2086	A2
2087	A2
2088	B2
2090	A5
2091	C5
2092	B2
2093	B5
2094	A2
2095	B5
2096	A2
2097	A5
2098	B1
2099	B1
2100	B1
2102	A2
2103	B5
2105	B5
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2117	C2
2118	C3
2119	C3
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2121	C3
2122	C3
2123	C4
2124	C5
2125	C2
2126	C2
2127	C5
2128	C5
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2130	C5
2131	C5
2132	C5
2133	C5
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2163	A3
2164	A3
2165	A3
2166	A3
2167	C3
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2169	B2
2170	C4
2172	A5
2175	A4
2179	A4
2180	A2
2181	B5
2184	C1
2185	C4
2186	C4
2187	C4
2188	B1
2190	A2
2226	A3
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3001	A5
3002	C4
3003	A4
3004	A3
3006	B5
3007	C4
3008	A5
3009	A4
3010	A5
3011	B5
3012	A5
3013	B5
3014	A5
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3024	C1
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3063	A3
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3077	A2
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3098	A3
3099	A2
3100	A3
3101	C5
3102	C4
3103	C2
3104	C4
3105	B2
3106	C5
3107	C5
3108	B2
3109	C3
3110	C3
3111	C3
3112	C3
3113	C2
3114	C4
3115	C3
3116	C3
3117	B1
3118	C4
3119	C3
3120	C4
3121	C3
3122	C3
3123	C3
3125	C5
3127	C5
3128	C5
3155	C2
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3166	A4
3167	A5
3168	A5
3169	B1
3170	C1
3171	C2
3172	A3
3175	A5
3176	A5
3180	C2
3181	A2
3182	B1
3183	A3
3184	B1
3190	B5
3191	B5
3192	B4
3193	B4
3194	B4
3195	B4
3196	B4
3197	B4
3198	B4
3199	B4
3201	B5
3202	B4
3203	B2
3226	A3
3227	B1
3228	A4
3229	A5
3300	C5
4001	C1
4005	A2
4006	C2
4007	B5
4010	C3
5000	C4
5001	C4
5002	B5
5003	B5
5004	B4
5005	B4
5006	B5
5007	B4
5008	A5
5009	B3
5010	B5
5011	B3
5012	A5
5013	A3
5014	B1
5015	A2
5016	C1
5017	B5
5018	B1
5019	B5
5020	B5
5021	C2
5022	A2
5023	A2
5025	C2
5026	C3
5027	C3
5028	A1
5030	C5
5031	C5
5032	C5
5033	A4
5034	A3
5035	A3
6000	C4
6001	B2
6002	C3
6003	B1
6004	B2
6005	A2
6006	B2
6007	C2
6008	C2
6009	A2
6010	C2
6011	C2
6013	B2
6014	B2
6112	A1
7000	C4
7010	B1
7011	C1
7012	C1
7013	C1
7014	B1
7022	B2
7023	A3
7024	B2
7025	B2
7026	C2
7027	B2
7029	A4
7030	A2
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7036	C5
7037	B2
7038	C4
7039	C4
7040	C3
7042	C5
7060	A1
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7201	B5
7202	B4
7203	B4
7204	B4
7205	B3
7206	B3
7207	C4
7208	A3
7209	A4
7210	A5
7214	C1
7215	A1
7216	C2
7217	A2
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7233	A1
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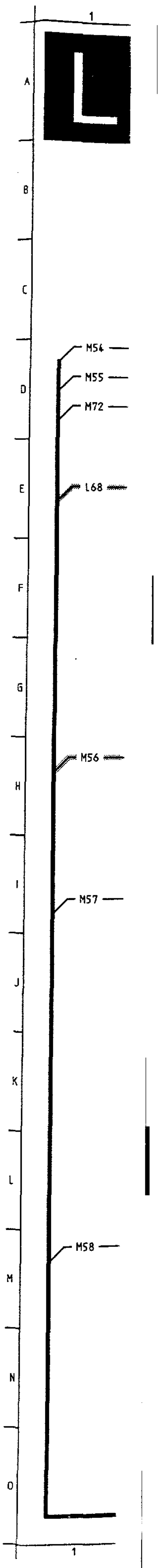
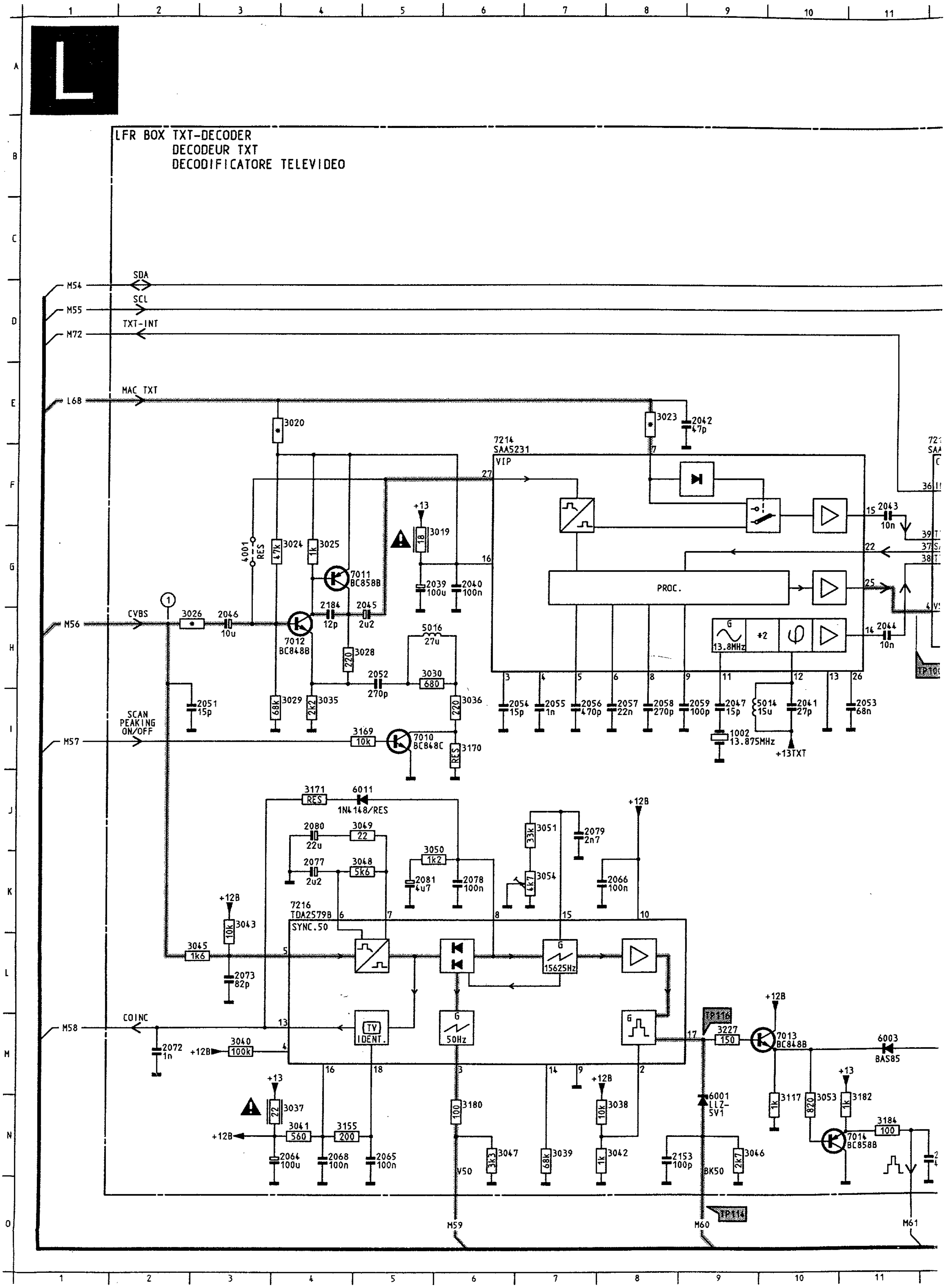
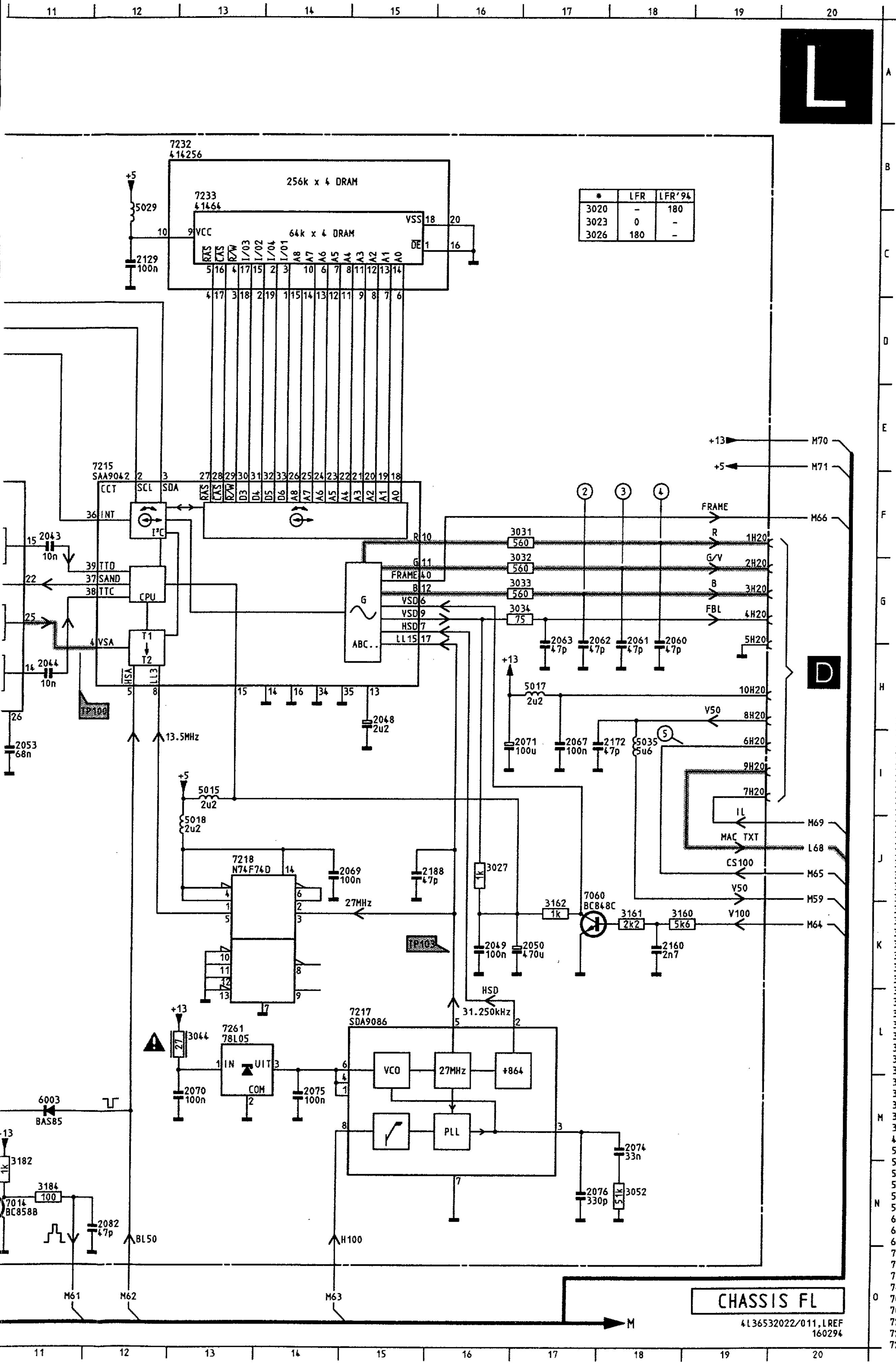
9997	C4



LFR box (Digital Scan)


L
LFR BOX TXT-DECODER
DECODEUR TXT
DECODIFICATORE TELEVIDEO
M54
SDA
M55
SCL
M72
TXT-INT
L68
MAC TXT
M56
CVBS
SCAN PEAKING ON/OFF
M57
M58
COINC
M59
M60
M61
V50
BK50
TP116
TP114
3020
3023
2042 47p
7214 SAA5231
VIP
PROC.
13.8MHz
÷2
4001 RES
3024 47k
3025 1k
7011 BC858B
7012 BC848B
3026 *
2046 10u
2184 12p
2045 2u2
3028 220
+13
3019 18
2039 100u
2040 100n
5016 27u
2052 270p
3030 680
3036 220
3029 68k
3035 2k2
2051 15p
3169 10k
7010 BC848C
3170 RES
2054 15p
2055 1n
2056 470p
2057 22n
2058 270p
2059 100p
2047 15p
5014 15u
2041 27p
2053 68n
1002 13.875MHz
+13TXT
2043 10n
2044 10n
3171 RES
6011 1N4148/RES
2080 22u
3049 22
2077 2u2
3048 5k6
3050 1k2
2081 4u7
2078 100n
3051 33k
2079 2n7
3054 4k7
+12B
2066 100n
7216 TDA2579B
SYNC.50
15625Hz
TV IDENT.
50Hz
3043 10k
3045 1k6
2073 82p
2072 1n
3040 100k
3037 22
3041 560
3155 200
2064 100u
2068 100n
2065 100n
3180 100
3047 3k3
3039 68k
3038 10k
3042 1k
2153 100p
6001 LLZ-5V1
3046 2k7
3227 150
7013 BC848B
3117 1k
3053 820
3182 1k
3184 100
7014 BC858B
6003 BAS85
①

LFR box (Digital Scan)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A B C D E F G H I J K L M N O
L
D
7232
414256
256k x 4 DRAM
7233
41464
64k x 4 DRAM
VCC
VSS
OE
RAS CAS R/W I/O3 I/O2 I/O4 I/O1 A8 A7 A6 A5 A4 A3 A2 A1 A0
+5
5029
2129
100n
7215
SAA9042
CCT
SCL
SDA
INT
I²C
TTD
SAND
TTC
CPU
VSA
T1
T2
HSA
LL3
RAS CAS R/W D3 D4 D5 D6 A8 A7 A6 A5 A4 A3 A2 A1 A0
G
ABC..
R
G
FRAME
B
VSD
VSD
HSD
LL15
2043
10n
2044
10n
2053
68n
TP100
13.5MHz
2048
2u2
3031
560
3032
560
3033
560
3034
75
2063
47p
2062
47p
2061
47p
2060
47p
② ③ ④ ⑤
FRAME
R
G/V
B
FBL
1H20
2H20
3H20
4H20
5H20
10H20
8H20
6H20
9H20
7H20
+13
5017
2u2
2071
100u
2067
100n
2172
47p
5035
5u6
V50
IL
MAC TXT
CS100
V50
V100
+13
+5
M70
M71
M66
M69
L68
M65
M59
M64
+5
5015
2u2
5018
2u2
7218
N74F74D
2069
100n
27MHz
2188
47p
3027
1k
3162
1k
7060
BC848C
3161
2k2
3160
5k6
2049
100n
2050
470u
2160
2n7
TP103
HSD
31.250kHz
+13
3044
27
7261
78L05
IN
OUT
COM
2070
100n
2075
100n
7217
SDA9086
VCO
27MHz
÷864
PLL
2074
33n
2076
330p
3052
51k
6003
BAS85
-13
3182
1k
3184
100
7014
BC858B
2082
47p
BL50
H100
M61
M62
M63
M
CHASSIS FL
4L36532022/011,LREF
160294

*	LFR	LFR'94
3020	-	180
3023	0	-
3026	180	-

1002	I 9
2039	G 5
2040	G 6
2041	I 10
2042	E 9
2043	F11
2044	H11
2045	H 5
2046	H 3
2047	I 9
2048	H15
2049	K16
2050	K17
2051	I 3
2052	H 5
2053	I 11
2054	I 6
2055	I 7
2056	I 7
2057	I 8
2058	I 8
2059	I 9
2060	H18
2061	H18
2062	H17
2063	H17
2064	N 4
2065	N 5
2066	K 8
2067	I 17
2068	N 4
2069	J14
2070	M13
2071	I 16
2072	M 2
2073	L 3
2074	M18
2075	M14
2076	N17
2077	K 4
2078	K 6
2079	J 7
2080	J 4
2081	K 5
2082	N12
2129	C12
2153	N 8
2160	K18
2172	I 18
2184	H 4
2188	J15
3019	G 5
3020	E 4
3023	E 8
3024	G 4
3025	G 4
3026	H 2
3027	J16
3028	H 4
3029	I 4
3030	H 5
3031	F17
3032	G17
3033	G17
3034	G17
3035	I 4
3036	I 6
3037	N 4
3038	N 8
3039	N 7
3040	M 3
3041	N 4
3042	N 8
3043	K 3
3044	L13
3045	L 3
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3047	N 6
3048	K 5
3049	J 5
3050	K 5
3051	J 7
3052	N18
3053	M10
3054	K 7
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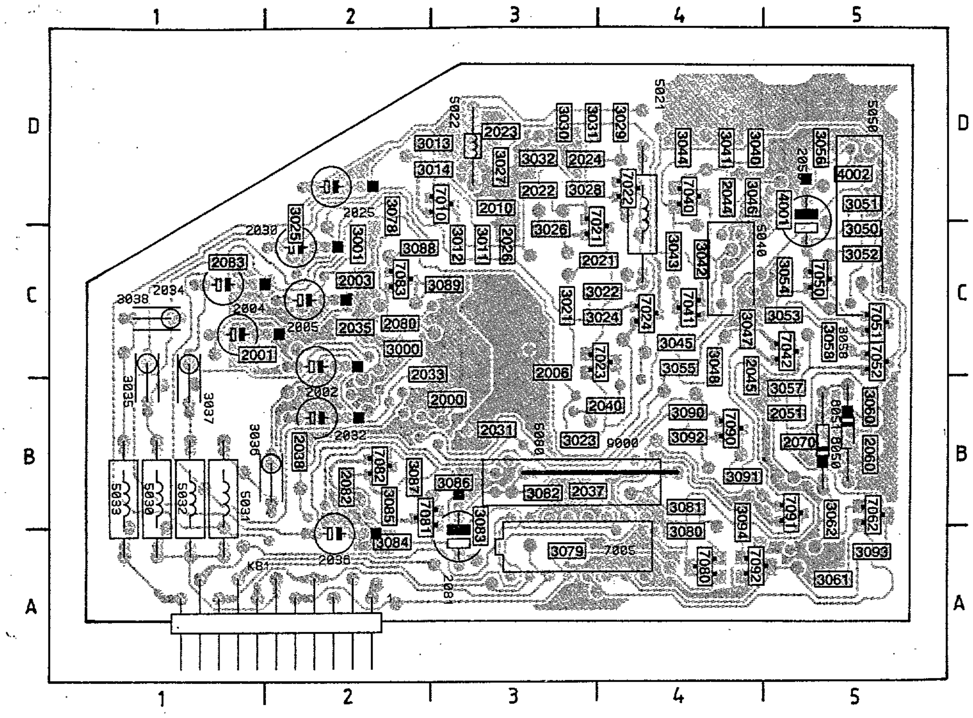
3161	K18
3162	K17
3169	I 5
3170	I 6
3171	J 4
3180	N 6
3182	M11
3184	N11
3227	M 9
4001	G 3
5014	I 9
5015	I 13
5016	H 5
5017	H17
5018	J13
5035	I 18
6001	N 9
6003	M11
6011	J 5
7010	I 5
7011	G 4
7012	H 4
7013	M10
7014	N11
7060	J17
7214	F 6
7215	F12
7216	K 4
7217	L15
7218	J13
7232	B12
7233	B13
7261	L13


1
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D
C
B
A
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3012
3011
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2010
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4002
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2044
3046
4001
3043
3042
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7050
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2025
3001
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2004
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7051
7052
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5080
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7062
2082
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7081
3083
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7005
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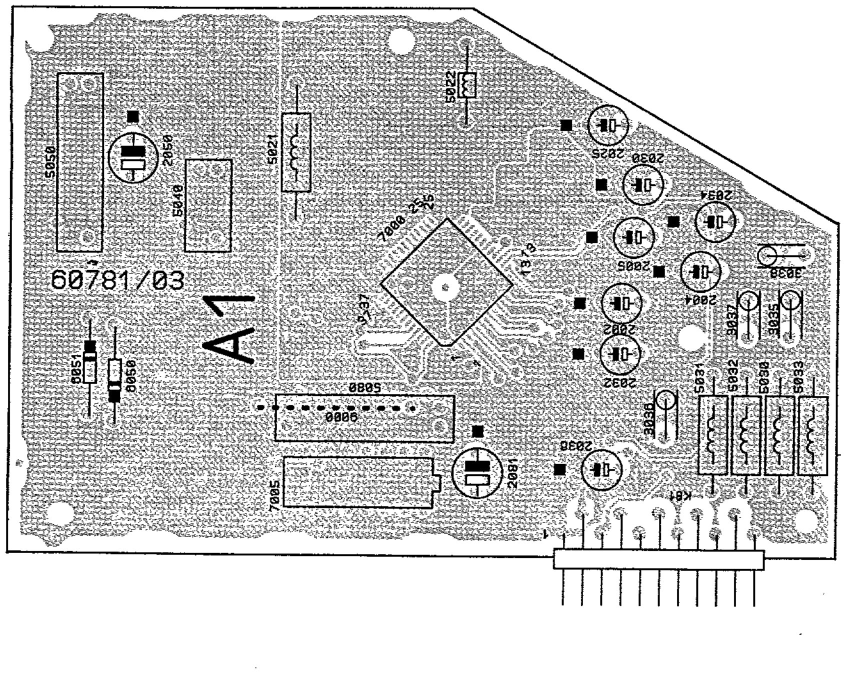
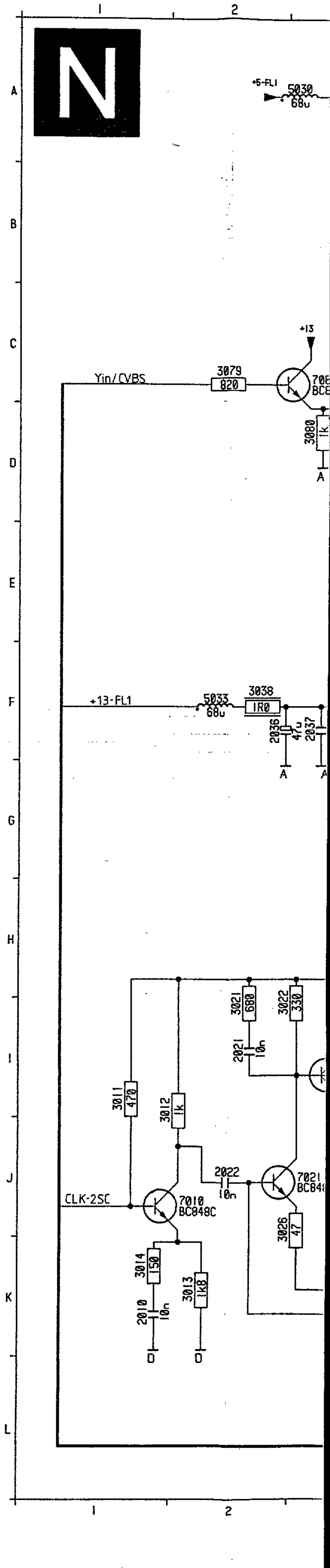
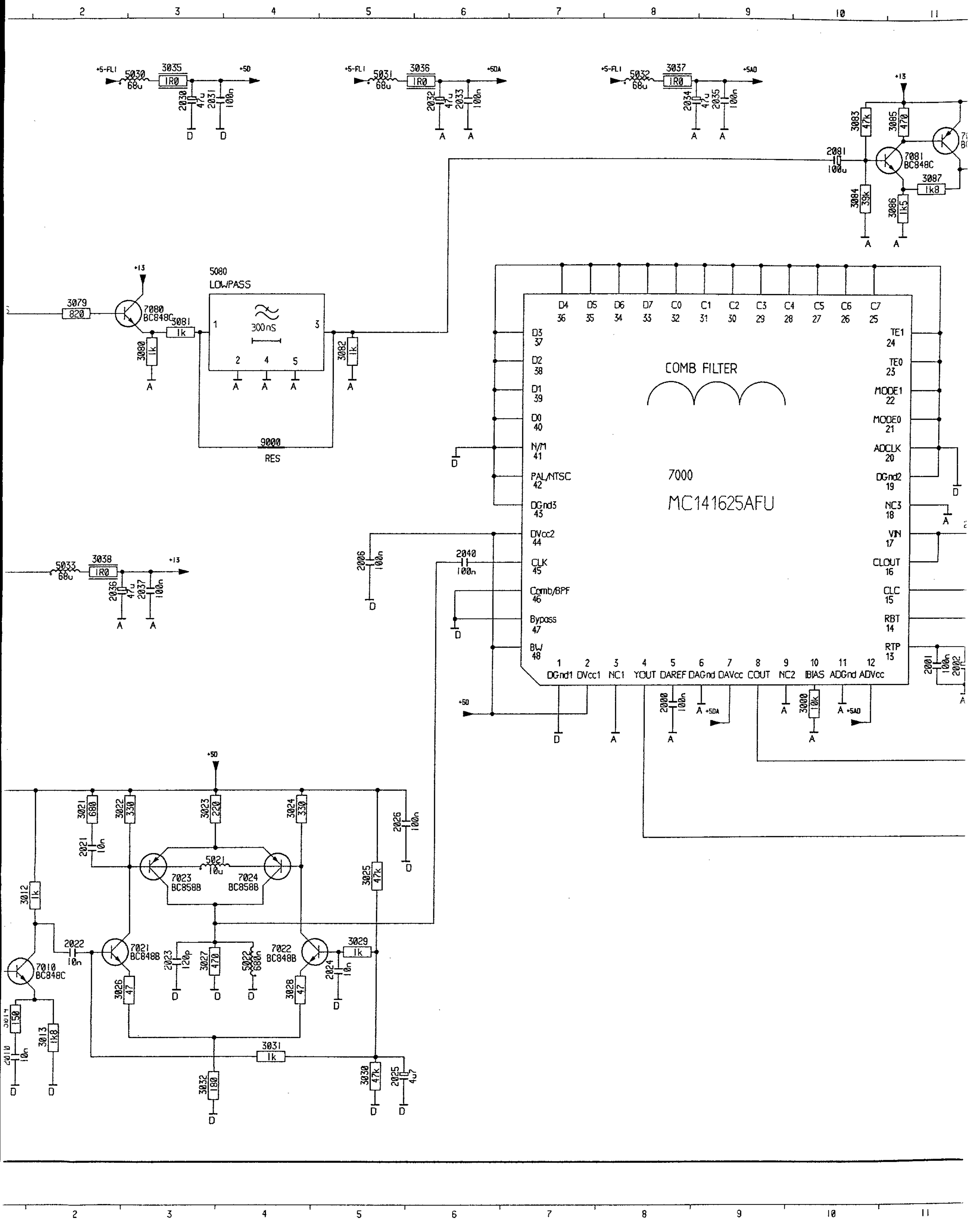
7080
7092
3093
3061
2036
2081
K81

2000 B3	2032 B2	2082 B2	3029 D4	3048 C4	3081 B4	5021 D4	7023 C4	9000 B4
2001 C1	2033 C3	2083 C1	3030 D3	3050 C5	3082 B3	5022 D3	7024 C4	
2002 C2	2034 C1	3000 C2	3031 D4	3051 D5	3083 B3	5030 B1	7040 D4	
2003 C2	2035 C2	3001 C2	3032 D3	3052 C5	3084 A2	5031 B1	7041 C4	
2004 C1	2036 A2	3011 C3	3035 B1	3053 C5	3085 B2	5032 B1	7042 C5	
2005 C2	2037 B3	3012 C3	3036 B2	3054 C5	3086 B3	5033 B1	7050 C5	
2006 C3	2038 B2	3013 D3	3037 B1	3055 C4	3087 B2	5040 C4	7051 C5	
2010 D3	2040 B4	3014 D3	3038 C1	3056 D5	3088 C2	5050 C5	7052 C5	
2021 C4	2044 D4	3021 C3	3040 D4	3057 B5	3089 C3	5080 B3	7062 B5	
2022 D3	2045 C4	3022 C4	3041 D4	3058 C5	3090 B4	6050 B5	7080 A4	
2023 D3	2050 D5	3023 B3	3042 C4	3060 B5	3091 B4	6051 B5	7081 B2	
2024 D3	2051 B5	3024 C4	3043 C4	3061 A5	3092 B4	7000 C3	7082 B2	
2025 D2	2060 B5	3025 D2	3044 D4	3062 B5	3093 A5	7005 A3	7083 C2	
2026 C3	2070 B5	3026 C3	3045 C4	3078 D2	3094 B4	7010 D3	7090 B4	
2030 C2	2080 C2	3027 D3	3046 D4	3079 A3	4001 D5	7021 C4	7091 B5	
2031 B3	2081 A3	3028 D3	3047 C4	3080 A4	4002 D5	7022 D4	7092 A4	


60781/03
A1
5050
2050
5040
5021
5022
7000 25 26
2025
2030
2034
2035
2005
2004
2002
2003
2032
3038
3037
3035
6051
6050
5080
9000
3036
5031
5032
5030
5033
7005
2081
2030
K81


N
1
2
A
B
C
D
E
F
G
H
I
J
K
L
+5-FL1
5030
68u
+13
Yin/CVBS
3079
820
3080
1k
+13-FL1
5033
68u
3038
1R0
2036
47u
2037
3021
680
3022
330
2021
10n
3011
470
3012
1k
2022
10n
7021
BC848
CLK-2SC
7010
BC848C
3026
47
3014
150
3013
1k8
2010
10n

Comb filter / Kamm-Filter / Filtre en peigne


COMB FILTER
7000
MC141625AFU
5080
LOWPASS
300nS
9000
RES
D4 36
D5 35
D6 34
D7 33
C0 32
C1 31
C2 30
C3 29
C4 28
C5 27
C6 26
C7 25
D3 37
D2 38
D1 39
D0 40
N/M 41
PAL/NTSC 42
DGnd3 43
DVcc2 44
CLK 45
Comb/BPF 46
Bypass 47
BW 48
TE1 24
TE0 23
MODE1 22
MODE0 21
ADCLK 20
DGnd2 19
NC3 18
VIN 17
CLOUT 16
CLC 15
RBT 14
RTP 13
1 DGnd1
2 DVcc1
3 NC1
4 YOUT
5 DAREF
6 DAGnd
7 DAVcc
8 COUT
9 NC2
10 IBIAS
11 ADGnd
12 ADVcc
+5-FL1
5030 68u
3035 1R0
+5D
2030 47u
2031 100n
5031 68u
3036 1R0
+5DA
2032 47u
2033 100n
5032 68u
3037 1R0
+5AD
2034 47u
2035 100n
+13
3083 47k
3085 470
2081 100u
7081 BC848C
3087 1k8
3084 39k
3086 1k5
3079 820
7080 BC848C
3081 1k
3080 1k
3082 1k
5033 68u
3038 1R0
2036 47u
2037 100n
2006 100n
2040 100n
2000 100n
3000 10k
2001 100n
2002
+5D
3021 680
3022 330
3023 220
3024 330
2026 100n
2021 10n
5021 10u
7023 BC858B
7024 BC858B
3025 47k
3012 1k
2022 10n
7021 BC848B
7022 BC848B
3029 1k
7010 BC848C
2023 120p
3027 470
5022 680n
2024 10n
3026 47
3028 47
3014 150
3013 1k8
2010 10n
3031 1k
3032 180
3030 47k
2025 4u7
A
D
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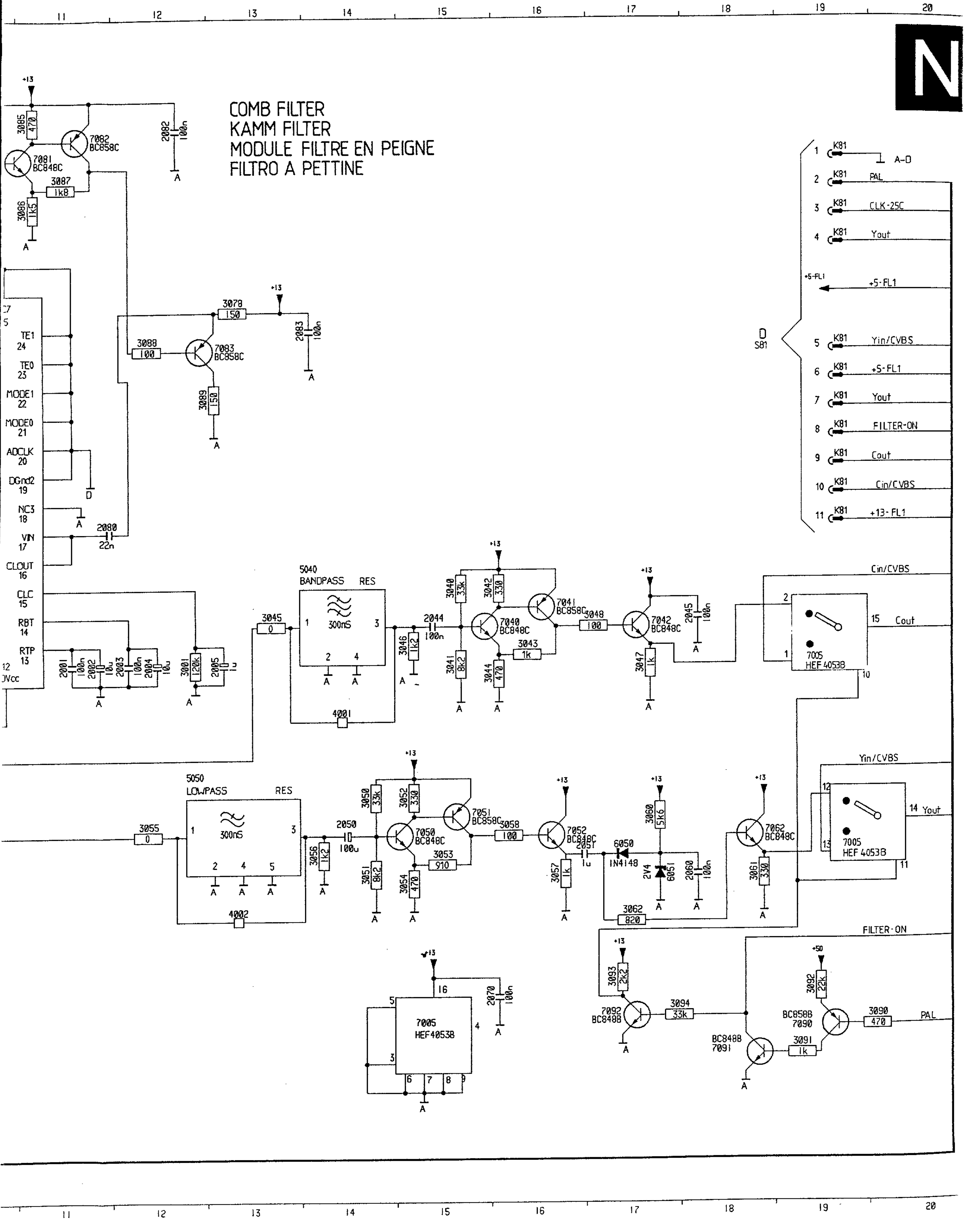
11

COMB FILTER
KAMM FILTER
MODULE FILTRE EN PEIGNE
FILTRO A PETTINE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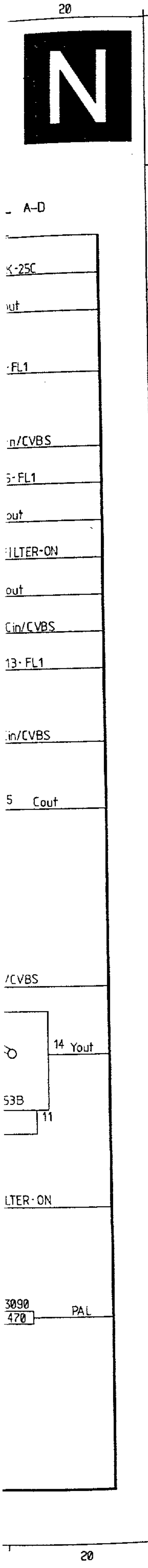
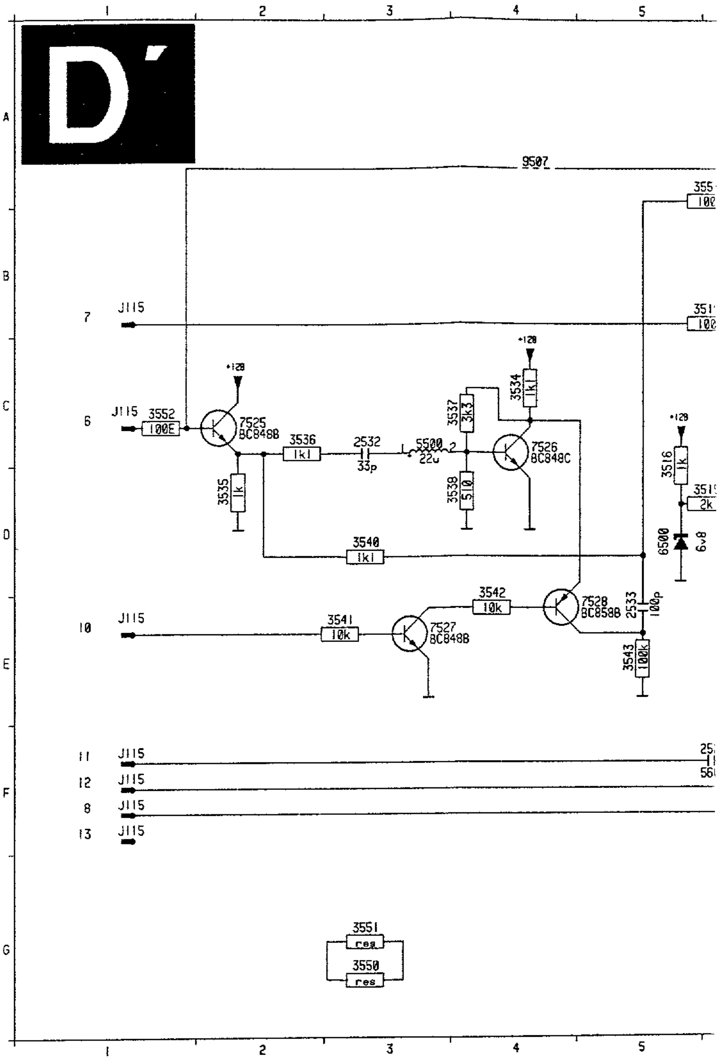
12
13
14
15
16
17
18
19
20
+13
3085 470
7082 BC858C
7081 BC848C
3087 1k8
3086 1k5
2082 100n
A
3079 150
3088 100
7083 BC858C
2083 100n
3089 150
TE1 24
TE0 23
MODE1 22
MODE0 21
ADCLK 20
DGnd2 19
NC3 18
VIN 17
CLOUT 16
CLC 15
RBT 14
RTP 13
12
DVcc
D
2080 22n
2001 100n
2002 10u
2003 100n
2004 10u
3001 120k
2005 1u
3045 0
5040 BANDPASS RES
300nS
1 2 3 4
4001
2044 100n
3046 1k2
3040 33k
3041 8k2
3042 330
7040 BC848C
7041 BC858C
3043 1k
3044 470
3048 100
7042 BC848C
2045 100n
3047 1k
Cin/CVBS
2
15 Cout
1
7005 HEF 4053B
10
D S81
1 K81 A-D
2 K81 PAL
3 K81 CLK-25C
4 K81 Yout
+5-FL1
+5-FL1
5 K81 Yin/CVBS
6 K81 +5-FL1
7 K81 Yout
8 K81 FILTER-ON
9 K81 Cout
10 K81 Cin/CVBS
11 K81 +13-FL1
5050 LOWPASS RES
3055 0
300nS
1 2 3 4 5
4002
2050 100u
3056 1k2
3050 33k
3051 8k2
3052 330
7050 BC848C
7051 BC858C
3053 910
3054 470
3058 100
7052 BC848C
2051 1u
3057 1k
6050 1N4148
3060 5k6
2V4 6051
2060 100n
3062 820
7062 BC848C
3061 330
Yin/CVBS
12
14 Yout
13
7005 HEF 4053B
11
FILTER-ON
3093 2k2
7092 BC848B
3094 33k
+50
3092 22k
BC858B 7090
3090 470
PAL
BC848B 7091
3091 1k
16
2070 100n
5
7005 HEF4053B
4
3
6 7 8 9

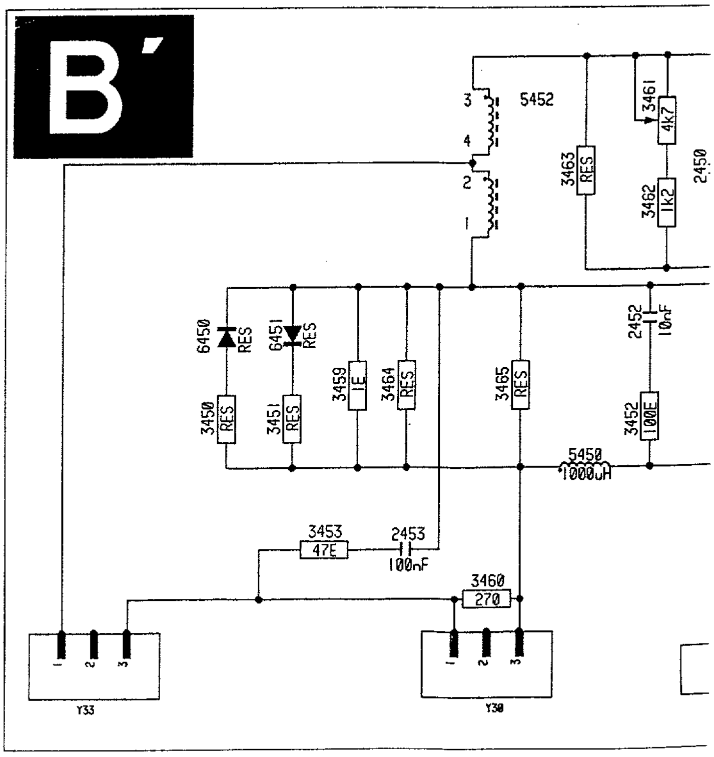

20
N
A-D
K-25C
ut
FL1
n/CVBS
5-FL1
out
ILTER-ON
out
Cin/CVBS
13-FL1
in/CVBS
5 Cout
/CVBS
14 Yout
53B
11
LTER-ON
3090
470
PAL
20
A
B
C
D
E
F
G
H
I
J
K
L

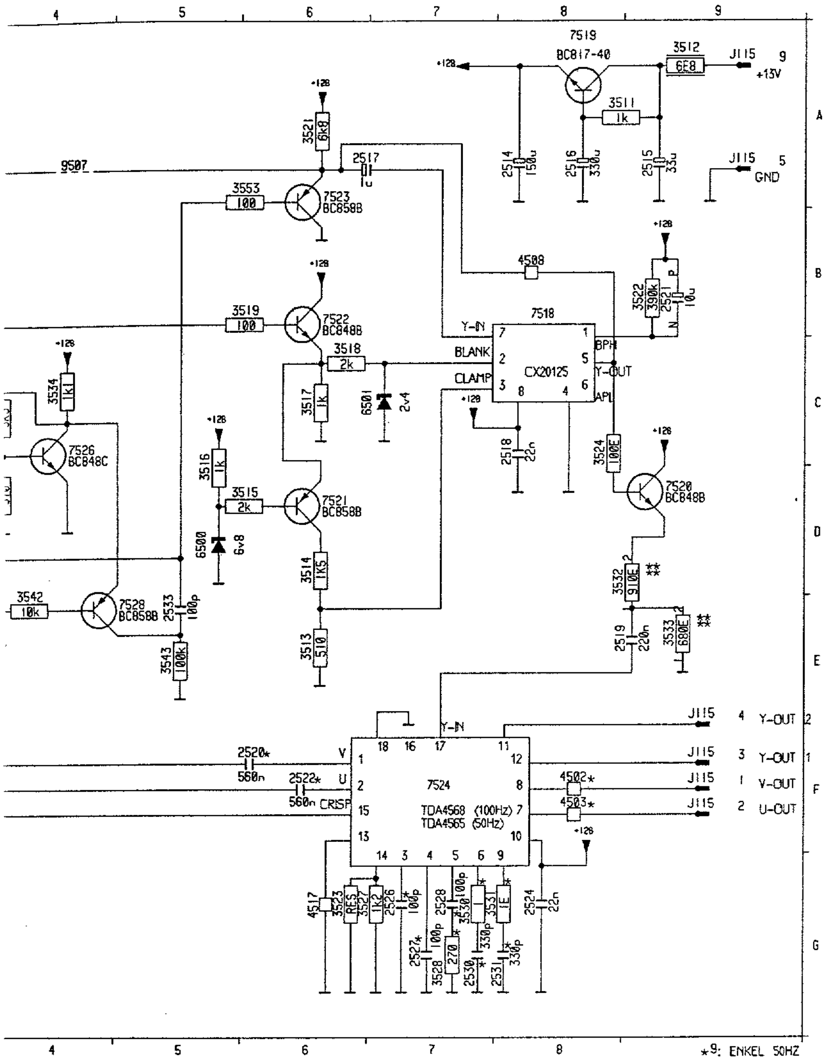
2000	G 8
2001	G11
2002	G11
2003	G12
2004	G12
2005	G13
2006	F 5
2010	K 1
2021	I 2
2022	J 2
2023	J 3
2024	J 5
2025	K 5
2026	I 5
2030	A 3
2031	A 3
2032	A 6
2033	A 6
2034	A 8
2035	A 9
2036	F 2
2037	F 3
2038	B18
2040	F 6
2044	G15
2045	G18
2050	I14
2051	I16
2060	I18
2070	K16
2080	F11
2081	B10
2082	A12
2083	D14
3000	G10
3001	G12
3011	I 1
3012	I 1
3013	K 2
3014	K 1
3021	I 2
3022	I 2
3023	I 3
3024	I 4
3025	I 5
3026	J 2
3027	J 3
3028	J 4
3029	J 5
3030	K 5
3031	K 4
3032	K 3
3035	A 3
3036	A 6
3037	A 8
3038	F 2
3040	F15
3041	G15
3042	F15
3043	G16
3044	G15
3045	G13
3046	G15
3047	G17
3048	G17
3050	H14
3051	I14
3052	H15
3053	I15
3054	I15
3055	I12
3056	I14
3057	I16
3058	I16
3060	I17
3061	I18
3062	J17
3078	C13
3079	C 2
3080	D 3
3081	C 3
3082	D 5
3083	A10
3084	B10
3085	A11
3086	B11
3087	B11
3088	D12
3089	D12
3090	K20
3091	K19
3092	J19
3093	J17
3094	K17
4001	H14
4002	J13
5021	I 3
5022	J 4
5030	A 3
5031	A 5
5032	A 8
5033	F 2
5040	F13
5050	H12
5080	C 3
6050	I17
6051	I17
7000	E 8
7005	K15
7005	G19
7005	I19
7010	J 2
7021	J 3
7022	J 4
7023	I 3
7024	I 4
7040	G16
7041	F16
7042	G17
7050	I15
7051	I15
7052	I16
7062	I18
7080	C 3
7081	B11
7082	B11
7083	D13
7090	K19
7091	K18
7092	K17
9000	E 4
K81	B19
K81	B19
K81	B19
K81	C19
K81	D19
K81	D19
K81	D19
K81	E19
K81	E19
K81	E19
K81	E19

Black stretch


D′
1
2
3
4
5
A
B
C
D
E
F
G
9507
J115
7
6
10
11
12
8
13
3552
100E
+12
7525
BC848B
3535
1k
3536
1k1
2532
33p
5500
22u
2
3537
3k3
3538
510
3534
1k1
7526
BC848C
3540
1k1
3516
1k
6500
6v8
3541
10k
7527
BC848B
3542
10k
7528
BC858B
2533
100p
3543
100k
3551
res
3550
res

North-South (only 29")


B′
5452
3
4
2
1
3463
RES
3461
4k7
3462
1k2
2450
6450
RES
6451
RES
3450
RES
3451
RES
3459
1E
3464
RES
3465
RES
2452
10nF
3452
100E
5450
1000uH
3453
47E
2453
100nF
3460
270
1
2
3
Y33
Y30

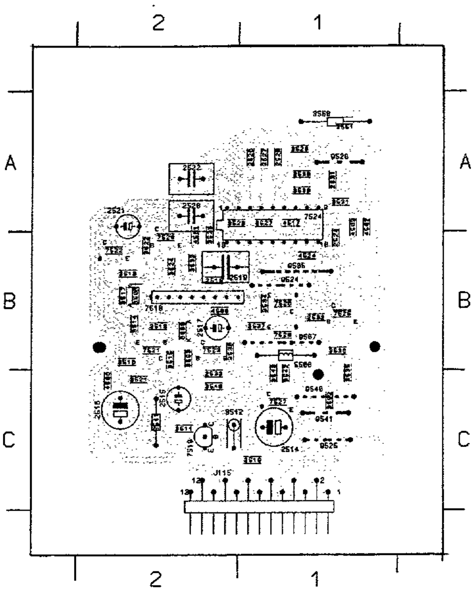

4
5
6
7
8
9
7519
BC817-40
3512
6E8
J115
9
+13V
+12B
3511
1k
2514
150u
2516
330u
2515
33u
J115
5
GND
3521
6k8
9507
2517
1u
3553
100
7523
BC858B
4508
3522
390k
2521
10u
3519
100
7522
BC848B
7518
Y-IN
BLANK
CLAMP
CX20125
BPH
Y-OUT
APL
3518
2k
3517
1k
6501
2v4
2518
22n
3524
100E
7520
BC848B
3534
1k
7526
BC848C
3516
1k
3515
2k
7521
BC858B
6500
6v8
3514
1K5
3532
910E
3542
10k
7528
BC858B
2533
100p
3543
100k
3513
510
2519
220n
3533
680E
Y-IN
J115
4
Y-OUT
2520*
560n
2522*
560n
CRISP
7524
TDA4568 (100Hz)
TDA4565 (50Hz)
J115
3
Y-OUT
4502*
J115
1
V-OUT
4503*
J115
2
U-OUT
4517
3523
RES
3527
1k2
2526
100p
2528
100p
3530
3531
1E
2524
22n
2527*
100p
3528
270
2530
330p
2531
330p
A
B
C
D
E
F
G

*9: ENKEL 50HZ

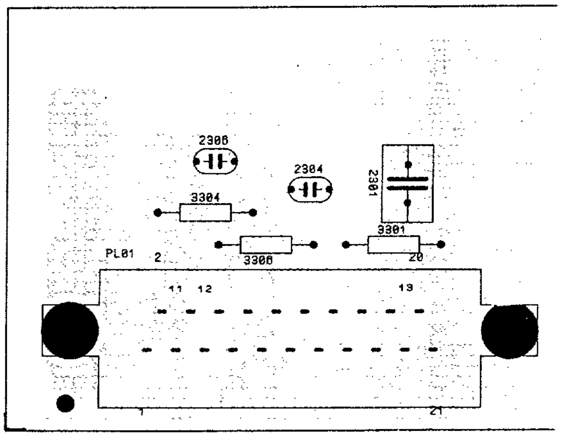
2514	A	8
2515	A	9
2516	A	8
2517	A	6
2518	C	8
2519	E	9
2520	F	6
2521	B	9
2522	F	6
2524	G	8
2526	G	7
2527	G	7
2528	G	7
2530	G	7
2531	G	8
2532	C	3
2533	E	5
3511	A	8
3512	A	9
3513	E	6
3514	D	6
3515	D	6
3516	C	5
3517	C	6
3518	C	6
3519	B	6
3521	A	6
3522	B	9
3523	G	6
3524	C	8
3527	G	7
3528	G	7
3530	G	7
3531	G	8
3532	D	8
3533	E	9
3534	C	4
3535	D	2
3536	C	2
3537	C	4
3538	D	4
3540	D	3
3541	E	3
3542	E	4
3543	E	5
3550	G	3
3551	G	3
3552	C	1
3553	A	6
4502	F	8
4503	F	8
4508	B	8
4517	G	6
5500	C	3
6500	D	5
6501	C	6
7518	B	8
7519	A	8
7520	D	9
7521	D	6
7522	B	6
7523	A	6
7524	F	7
7525	C	2
7526	C	4
7527	E	3
7528	E	5
9507	A	4
J115	F	9
J115	F	9
J115	F	9
J115	E	9
J115	A	9
J115	C	1
J115	B	1
J115	F	1
J115	A	9
J115	E	1
J115	F	1
J115	F	1
J115	F	1

Black stretch

[illegible]	2524 [illegible]	3512 [illegible]	3522 B 2	3534 B [illegible]	[illegible]	4517 A 1	7522 [illegible]	[illegible]
2515 C 2	2526 A 1	3513 B 2	3523 B 2	[illegible]	[illegible]	4524 B 1	7523 B [illegible]	[illegible]
2516 C 2	2527 A 1	3514 B 2	3524 B 2	3536 B 1	[illegible]	5500 B 1	7524 A 2	[illegible]
2517 B 2	2528 A 1	3515 B 2	3527 A 1	3537 B 1	3553 B 2	5502 B 2	7525 B 1	[illegible]
2518 B 2	2530 A 1	3516 B 2	3528 A 1	3538 B 2	4501 B 2	5501 B 2	7526 B 1	[illegible]
2519 B 2	2531 A 1	3517 B 2	3530 A 1	3540 C 2	4502 A 1	7518 B 2	7527 C 1	[illegible]
2520 A 2	2532 B 1	3518 B 2	3531 A 1	3541 C 2	4503 A 1	7519 C 2	7528 B 1	
2521 A 2	2533 C 2	3519 C 1	3532 B 2	3542 C 1	4506 C 2	7520 B 2	9507 B 1	
2522 A 2	3511 C 2	3521 C 2	3533 B 2	3543 C 1	4508 B 2	7521 B 2	9524 B 1	

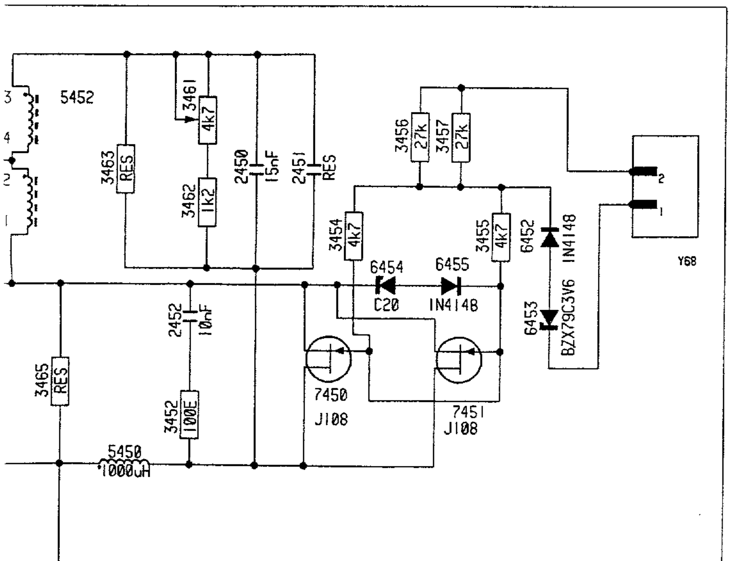

2
1
A
B
C
7518
7524
J115
2514
2515
2516
2521
3512
2
1

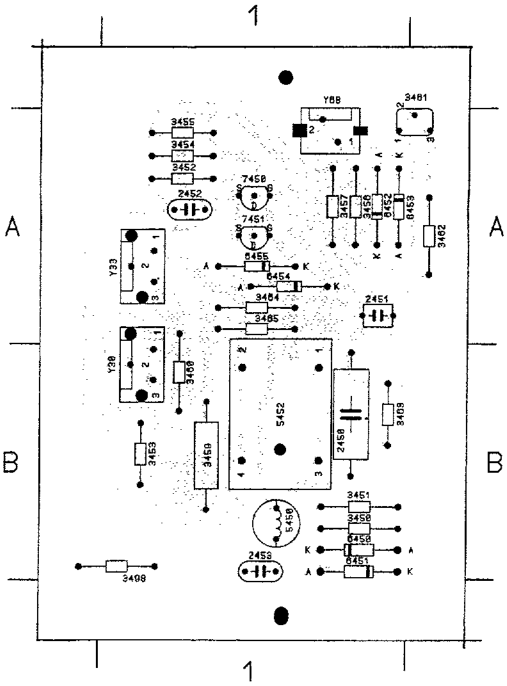
Euro AV3 Connector


2306
2304
2301
3304
3301
PL01
2
3306
20
11
12
13
1
21

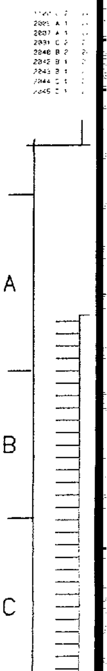
North-South (29")

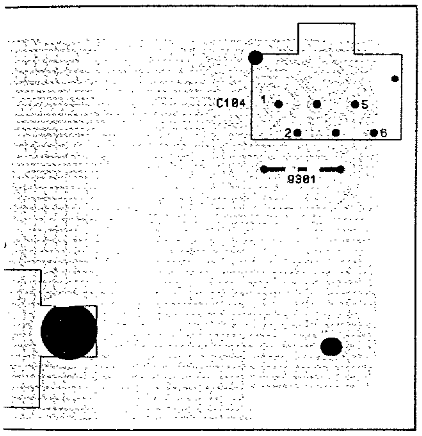
2450 B 1	3451 B 1	3455 A 1	3463 B 1	5452 B 1	6454 A 1	Y33 A 1
2451 A 1	3452 A 1	3457 A 1	3464 A 1	6450 B 1	6455 A 1	Y68 A 1
2452 A 1	3453 B 1	3459 B 1	3465 A 1	6451 B 1	7450 A 1	
2453 B 1	3454 A 1	3460 A 1	3498 B 1	6452 A 1	7451 A 1	
3452 B 1	3455 A 1	3461 A 1	5452 B 1	6453 A 1	Y30 B 1	


5452
3
4
2
1
3463
RES
3461
4k7
3462
1k2
2450
15nF
2451
RES
3456
27k
3457
27k
3454
4k7
6454
C20
6455
1N4148
3455
4k7
6452
1N4148
6453
BZX79C3V6
2
1
Y68
2452
10nF
3465
RES
3452
100E
7450
J108
7451
J108
5450
1000uH
3460
270
2
3
Y30
3498
div


1
A
B
Y68
3481
3455
3454
3452
7450
7451
2452
3457
3456
6452
6453
3462
Y33
6455
6454
3464
3465
2451
Y30
3460
5452
2450
3459
3453
3498
3451
3458
6450
6451
2453
5450
1

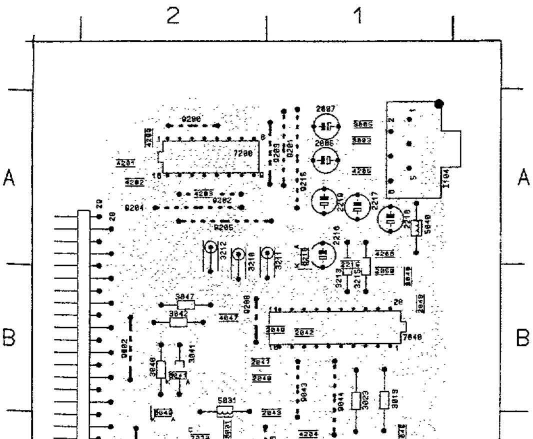
Eur

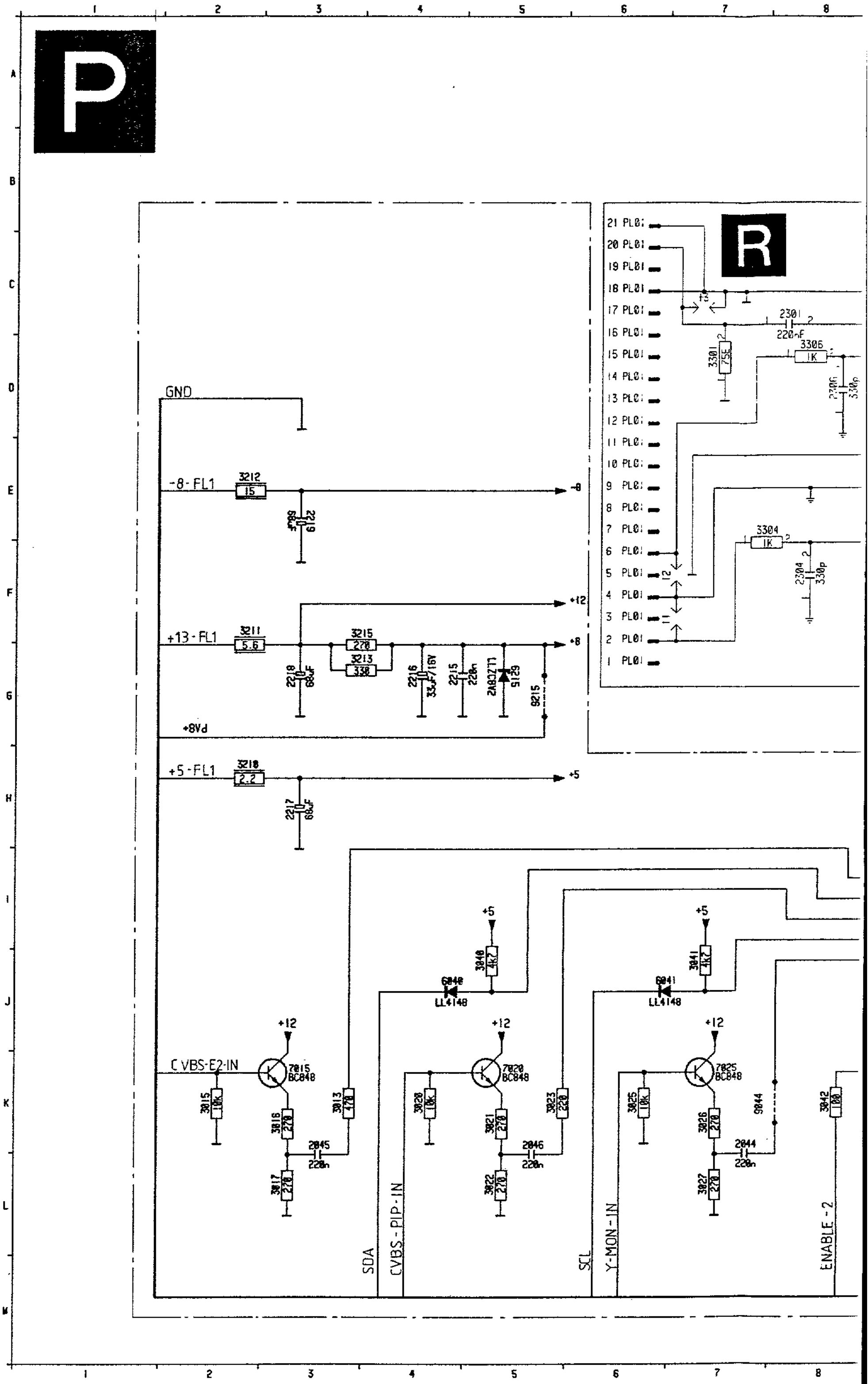



C104
1
2
5
6
9301

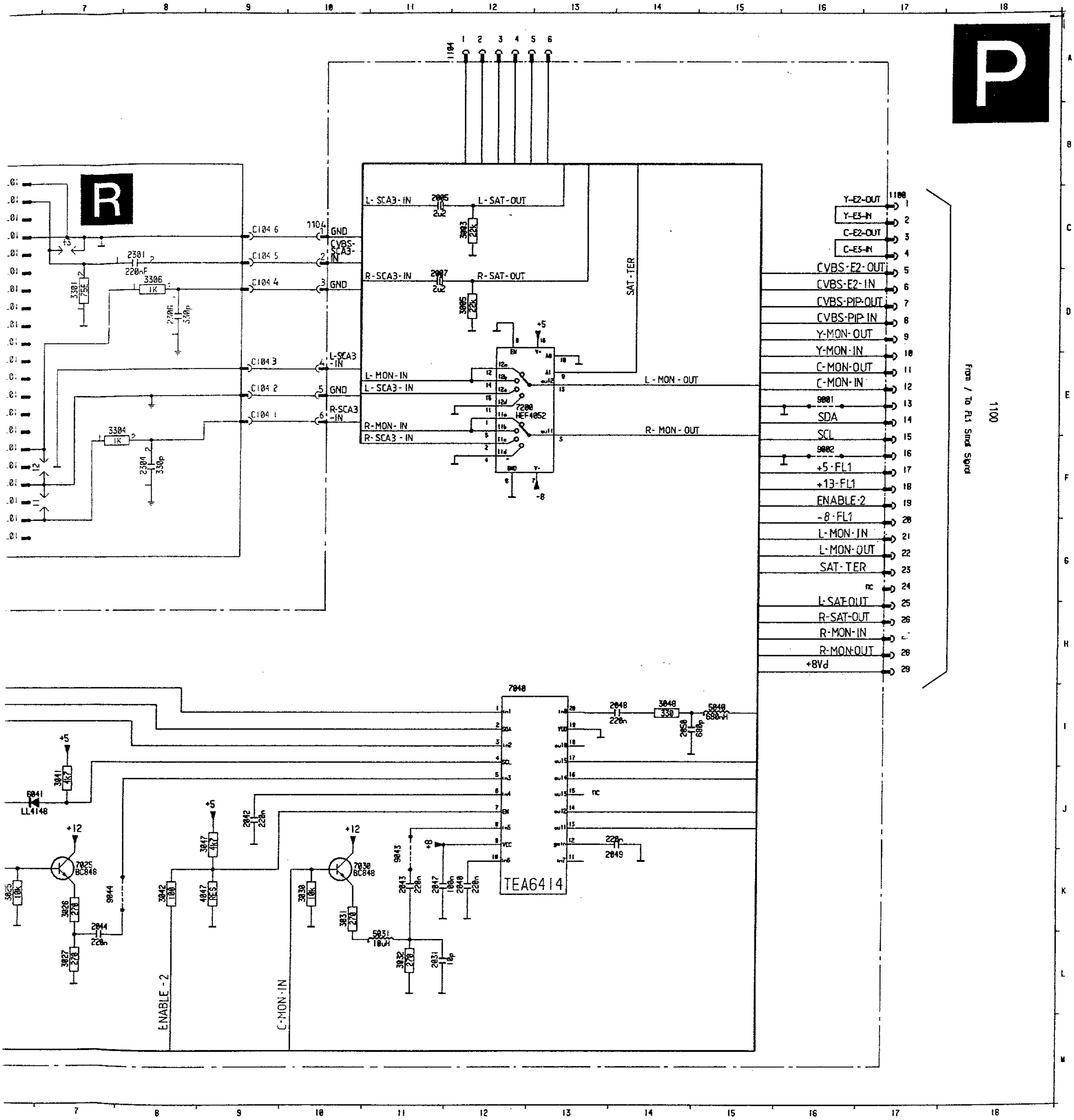
Euro AV3 Interface

1100 C 2	2046 C 1	2219 A 1	3022 C 1	3041 B 2	4047 B 2	5040 A 1	7200 A 2	9204 A 2	1104 A 1
2005 A 1	2047 B 2	3003 A 1	3023 C 1	3042 B 2	4200 A 2	6040 B 2	9001 C 2	9205 A 1	
2007 A 1	2048 B 1	3005 A 1	3025 C 2	3047 B 2	4201 A 2	6041 B 2	9002 B 2	9206 B 2	
2031 C 2	2049 B 1	3013 C 1	3026 C 2	3048 B 1	4202 A 2	6215 A 1	9043 C 1	9209 C 1	
2040 B 2	2050 B 1	3015 C 1	3027 C 2	3210 A 2	4203 A 2	7015 C 1	9044 C 1	9210 C 1	
2042 B 1	2215 A 1	3016 C 1	3030 C 2	3211 A 1	4204 C 1	7020 C 1	9200 A 2	9211 C 1	
2043 B 1	2216 B 1	3017 C 1	3031 C 2	3212 A 2	4205 A 1	7025 C 2	9201 A 1	9212 C 2	
2044 C 1	2217 A 1	3020 C 1	3032 C 2	3213 A 1	4206 A 1	7030 C 2	9202 A 2	9213 C 1	
2045 C 1	2218 A 1	3021 C 1	3040 B 2	3215 A 1	5031 B 2	7040 B 1	9203 A 1	9215 A 1	


2
1
A
B
C
7200
7040
1104
1100
9200
9201
9202
9203
9204
9205
9206
9211
9212
9213
9216
2007
2005
3003
3005
3047
3042
3041
3040
5031
2218
2216
2217
3212
3210
3211
3213
3215


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
L
M
P
R
GND
-8-FL1
3212
15
2219
68µF
-8
+13-FL1
3211
5.6
3215
270
3213
330
2218
68µF
2216
33µF/16V
2215
220n
6215
BZX79C
9215
+12
+8
+8Vd
+5-FL1
3218
2.2
2217
68µF
+5
21 PL01
20 PL01
19 PL01
18 PL01
17 PL01
16 PL01
15 PL01
14 PL01
13 PL01
12 PL01
11 PL01
10 PL01
9 PL01
8 PL01
7 PL01
6 PL01
5 PL01
4 PL01
3 PL01
2 PL01
1 PL01
2301
220nF
3301
75E
3306
1K
2306
330p
3304
1K
2304
330p
CVBS-E2-IN
7015
BC848
3015
10K
3016
270
3017
270
3013
470
2045
220n
+12
+5
3040
4K7
6040
LL4148
7020
BC848
3020
10K
3021
270
3022
270
3023
220
2046
220n
3041
4K7
6041
LL4148
7025
BC848
3025
10K
3026
270
3027
270
2044
220n
9044
3042
100
SDA
CVBS-PIP-IN
SCL
Y-MON-IN
ENABLE-2

Interface / Branchement Euro AV3


P
R
1104
1100
C104 6
C104 5
C104 4
C104 3
C104 2
C104 1
GND
CVBS-SCA3-IN
L-SCA3-IN
R-SCA3-IN
L-SCA3- IN
L-SAT-OUT
R-SCA3- IN
R-SAT-OUT
SAT-TER
2005 2u2
3003 22k
2007 2u2
3005 22k
2301 220nF
3301 75E
3306 1K
2306 330p
3304 1K
2304 330p
L-MON-IN
R-MON-IN
L - MON - OUT
R- MON - OUT
7200 HEF4052
+5
-8
Y-E2-OUT
Y-E3-IN
C-E2-OUT
C-E3-IN
CVBS-E2-OUT
CVBS-E2-IN
CVBS-PIP-OUT
CVBS-PIP-IN
Y-MON-OUT
Y-MON-IN
C-MON-OUT
C-MON-IN
9001
SDA
SCL
9002
+5-FL1
+13-FL1
ENABLE-2
-8-FL1
L-MON-IN
L-MON-OUT
SAT-TER
nc
L-SAT-OUT
R-SAT-OUT
R-MON-IN
R-MON-OUT
+8Vd
From / To FL1 Small Signal
7040
TEA6414
2048 220n
3048 330
5040 680nH
2050 680p
2049 220n
+5
3041 4K7
6041 LL4148
+12
7025 BC848
3025 10k
3026 270
2044 220n
3027 270
9044
+5
2042 220n
3047 4K7
3042 100
4047 RES
ENABLE - 2
+12
7030 BC848
3030 10k
3031 270
5031 10uH
3032 270
2031 10p
9043
+8
2043 220n
2047 100n
2040 220n
C-MON-IN
7 8 9 10 11 12 13 14 15 16 17 18
A B C D E F G H I J K L M

1100	C17
2005	C11
2007	D11
2031	L11
2040	K12
2042	J 9
2043	K11
2044	K 7
2045	K 3
2046	K 5
2047	K11
2048	I14
2049	J14
2050	I14
2215	G 4
2216	G 4
2217	H 3
2218	G 3
2219	E 3
3003	C12
3005	D12
3013	K 3
3015	K 2
3016	K 3
3017	L 3
3020	K 4
3021	K 5
3022	L 5
3023	K 5
3025	K 6
3026	K 7
3027	L 7
3030	K10
3031	K10
3032	L11
3040	J 5
3041	J 7
3042	K 8
3047	J 9
3048	I14
3210	H 2
3211	F 2
3212	E 2
3213	G 3
3215	F 3
4047	K 9
5031	L11
5040	I15
6040	J 4
6041	J 6
6215	G 5
7015	K 3
7020	K 5
7025	K 7
7030	K10
7040	I12
7200	E12
9001	E16
9002	F16
9043	K11
9044	K 7
9215	G 5
1104	A11

7. Electrical adjustments

Setting conditions

- Unless stated otherwise, the supply voltage used is: 220 - 240V ± 10%; 50 - 60Hz ± 5%
- Voltages and oscillograms are measured in elation to tuner earth. **Never** use the cooling plates as earth.
- Warming-up time ≈ 10 minutes
- For all measurements it is true that:
- probe Ri > 1MΩ; Ci < 10pF

1. Electrical settings on the large signal panel

1.1 +141V supply voltage

Supply the mains voltage; this must be isolated from the mains.
Connect a voltmeter over C2238.
Using R3371, on the SOPS DRIVE CIRCUIT (fig. 7.2) set the supply voltage to + 141V ±0.5V.

1.2 +5V supply voltage (FLx.x6/FLx.x7)

Connect a voltmeter to pin 8 of L02
Adjust the voltage to 5.4V using R3558

1.3 +13V supply voltage (FLx.x6/FLx.x7)

Connect a voltmeter to pin 6 of connector L02
Adjust the voltage to 14.2V using R3234.

1.4 Focusing

This is set with the focus potentiometer (top one on the Line output transformer/DAF Unit).

1.5 Dynamic 1) Astigmatic focus

This is set with the aid of the potentiometer on the bottom right of the DAF transformer. Repeat the adjustment of the Vg2 and focus.

1.6 Vg2 setting

Supply an aerial signal.
Set the contrast to maximum and the brightness and saturation to nominal.
Using an oscilloscope set to field frequency, measure the direct voltage level of the measurement pulse (fig. 7.1) on pin 9 of IC7705, IC7706 and IC7707 in relation to earth.
Now adjust the highest voltage level found with the aid of the Vg2 potentiometer (bottom left on the Line output transformer/DAF unit) to 150V ±2V.

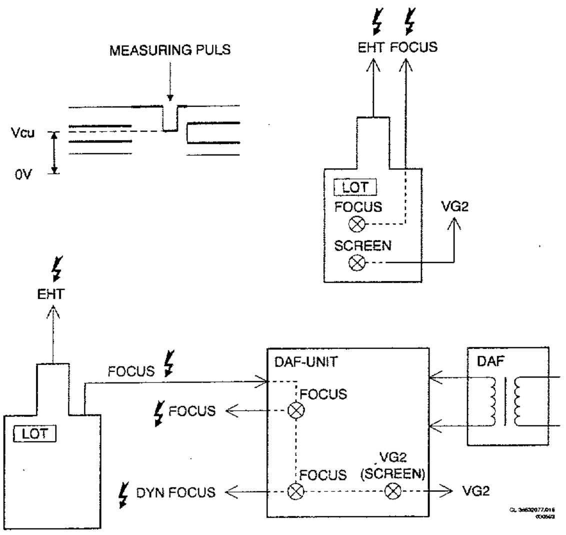


Fig. 7.1

1.7 Horizontal synchronisation

Connect point 5-IC7400 to point 9-IC7400.
Supply an aerial signal and set the receiver.
Adjust potentiometer R3406 until the picture is straight.
Break the through connection.

1.8 Horizontal centring

Feed in a test pattern that makes the horizontal linearity visible (e.g. a symmetrical cross pattern or a test circle).
Adjust the DC offset current through the horizontal deflection coil using R3513 so that the horizontal linearity is optimal (the distance between the two vertical lines should be equal on both the left and right hand sides of the picture). It is also possible to use a ruler for this purpose. The picture can then be centred using R3415.

1.9 Picture width

Set using potentiometer R3607.

1.10 Vertical centring

Set using potentiometer R3467.

1.11 Picture height

Set using potentiometer R3410.

1.12 Picture height

Movie expand on: set using potentiometer R3422.
Movie expand off: set using potentiometer R3410.

1.13 East/West correction

Set using potentiometer R3602.

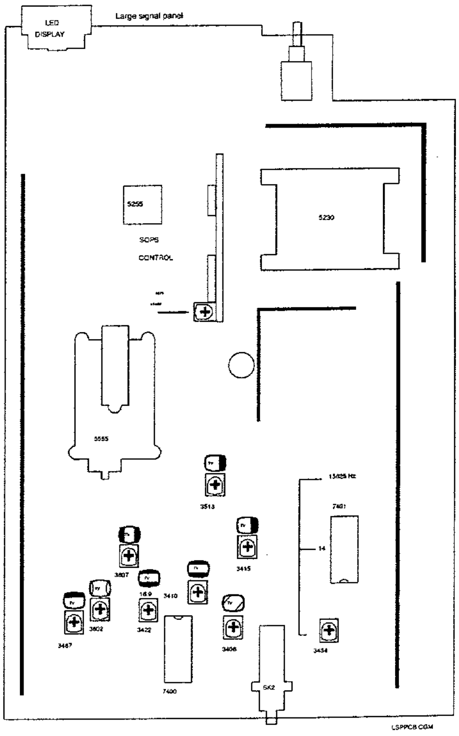


Fig. 7.2

2. E

2.1 S
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pc
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2.3 E
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os
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R

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C
w
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C
S
R

2.3.3 6.
C
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2(
C
C
S
R

2.3.4 C
C
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ea
pr

2.3.5 C
C
ba
ea
pr

2.3.6 S
C
bl
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C
m

2. Electrical settings on the small signal panel

2.1 Stereo audio channel separation

Connect a signal generator with a 2 carrier stereo signal ("stereo" mode).
Select 1kHz for the right-hand channel and switch off the sound for the left-hand channel.
Connect an oscilloscope to pin 3 of Euroconnector EXT1
Using R3602 on the small signal panel, set the amplitude of the signal to minimum amplitude.

2.2 4.43 MHz chroma suppression circuit

Supply a colour bar signal. Connect an oscilloscope to point 17 of IC7324 and set L5305 to minimum amplitude of the chrominance signal.

2.3 Electrical settings IC7365 (TDA4650)

2.3.1 Chroma bandpassfilter

Connect a signal generator (e.g. PM 5326) to pin 20 of the euroconnector (EXT1) and set its frequency to 4.286 MHz/0.2 Vpp. Switch the unit to EXT1. Connect pin 27-IC7365 to pin 13-IC7365 (+12V). Connect an oscilloscope to pin 15-IC7365.
Set L5345 to maximum amplitude.
Remove the interconnection.

2.3.2 4.50 MHz NTSC sound suppression

Connect a generator to point 20 of Euroconnector EXT1 with a frequency of 4.50 MHz and 200mV$_{rms}$.
Connect point 26-IC7365 to point 13-IC7365.
Connect an oscilloscope to point 15 of IC7365.
Set L5346 to minimum amplitude.
Remove the short circuit.

2.3.3 6.50 MHz SECAM DK sound suppression

Connect a sine-wave generator to point 20 of Euroconnector EXT1 with a frequency of 6.50 MHz and 200mV$_{rms}$.
Connect point 28-IC7365 to point 13-IC7365.
Connect an oscilloscope to point 15 of IC7365.
Set L5346 to minimum amplitude.
Remove the short circuit.

2.3.4 Chroma 8,87 MHz auxiliary oscillator

Connect a pattern generator and supply a PAL colour bar pattern. Connect pin 17-IC7365 (TDA4650) to earth. Set C2380 so that the colour on the screen has practically stopped. Remove the interconnection.

2.3.5 Chroma 7,16 MHz auxiliary oscillator

Connect a pattern generator and supply a PAL colour bar pattern. Connect pin 17-IC7365 (TDA4650) to earth. Set R2379 so that the colour on the screen has practically stopped. Remove the interconnection.

2.3.6 SECAM demodulators

Connect a pattern generator and supply a SECAM black pattern. Connect an oscilloscope to pin 3-IC7365. Set L5370 to minimum amplitude.
Connect the oscilloscope to pin 1-IC7365. Set R3370 to minimum amplitude.

SMALL SIGNAL PANEL

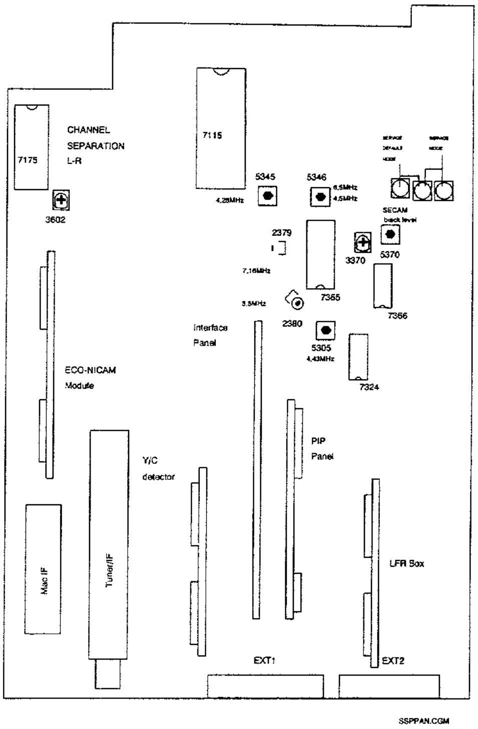

7175
CHANNEL SEPARATION L-R
3602
7115
5345
4,28MHz
5346
6,5MHz
4,5MHz
SECAM back level
2379
7,16MHz
3,5MHz
2380
7365
3370
5370
7366
Interface Panel
5305
4,43MHz
7324
ECO-NICAM Module
Y/C detector
PIP Panel
Mac IF
Tuner/IF
LFR Box
EXT1
EXT2
SSPPAN.CGM

Fig. 7.3

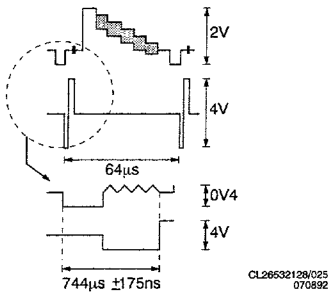

2V
4V
64μs
0V4
4V
744μs ±175ns
CL26532128/025 070892

Fig. 7.4

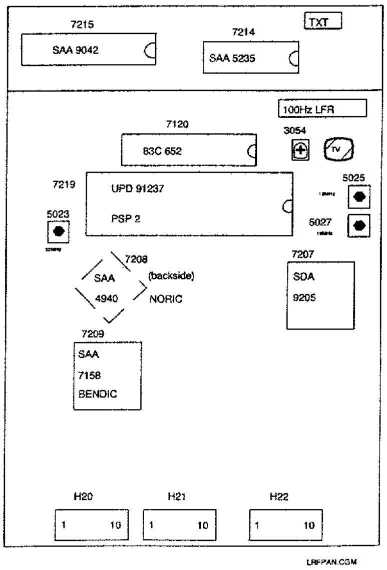

7215
SAA 9042
7214
SAA 5235
TXT
100Hz LFR
7120
83C 652
3054
7219
UPD 91237
PSP 2
5025
5023
5027
7208
SAA 4940
(backside)
NORIC
7207
SDA 9205
7209
SAA 7158
BENDIC
H20
H21
H22
1
10
LRFPAN.CGM

Fig. 7.5

Electrical adjustments

3. Electrical adjustments on the LFR box

3.1 Synchronisation

Connect point 5 of IC7216 to earth. Adjust R3054 until the picture is straight.
Remove the short circuit.

3.2 16MHz oscillator

Apply a PAL/SECAM signal. Measure the signals at point 1 of IC7219 and at point 5 of IC7216 simultaneously with an oscilloscope (fig. 7.9). Adjust coil L5027 so that the positive-going flank of the signal at point 1 of IC7219 comes 7.62 µsec after the negative-going flank of the sync pulse in the video signal (point 5 of IC7216).

3.3 32MHz oscillator

Force the STABLE OSD command to the microprocessor, by disconnecting the set from a possible antenna inputsignal. Measure the frequency at point 41 of IC7208. Using L5023 set the frequency to 32 MHz ±50 KHz.

3.4 12MHz oscillator

Switch on compress.
Measure the signals on point 1 of IC7219 and on point 5 of IC7216 simultaneously with an oscilloscope (fig. 7.9). Adjust coil L5025 so that the rising flank of the signal on point 1 of IC7219 comes 7.62 µsec after the negative flank of the sync pulse in the video signal (point 5 of IC7216).

4. Electrical settings on the ECO-NICAM decoder panel

4.1 Neutral frequency adjustment

Connect a frequency counter via a probe (Ci ≤15pF) to pin 19 of IC7001 (SAA 7280) and pin 15 (GND).
Adjust C2015 in such a manner that the clock frequency is set at 728.025 kHz. (±5Hz)

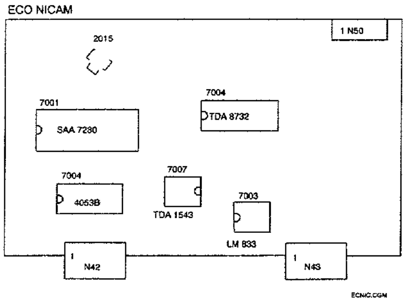


Fig. 7.6

5. Y/C detector adjustment

5.1 PAL/SECAM

Inject a chroma signal of 4.418 MHz/200mV on pin 15 of EXT2 SCART (PL05).
Connect an oscilloscope to the collector of T7266 (T7).
Using L5201 adjust the 4.418 MHz signal to maximum amplitude.

5.2 NTSC

As PAL/SECAM but with a signal of 3.582 MHz/200mV. Adjust with L5200.

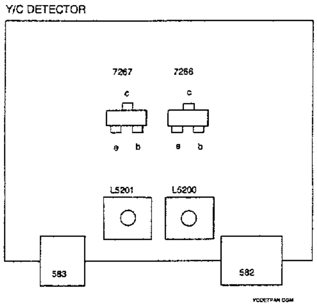


Fig. 7.7

6. Electrical settings on the PIP panel

Setting conditions

Before carrying out each setting, it should be ensured that a P.I.P. picture with colour bar is visible on the screen and the unit should have reached its operating temperature
(after ≈20 min.).

6.1 Horizontal synchronisation

Supply an aerial or generator signal.
Connect pin 28-IC7125 to pin 13-IC7125.
Connect pin 5-IC7755 to earth.
Measure the frequency on pin 17-IC7755 and set this to 15,625 Hz ±25 Hz with R3239.
Remove the short circuits.

6.2 AGC

If the picture from a strong local transmitter is distorted, adjust 3160 until the picture is not distorted.

6.3 Setting for PIP modules with TDA4554

6.3.1 Chroma bandpass filter

Connect a signal generator (e.g. PM 5326) to pin 10 of P17 and set its frequency to
4.286 MHz/0.2 Vpp.
Connect pin 27-IC7125 to 13-IC7125.
Connect an oscilloscope to pin 15-IC7125.
Set L5118 to maximum amplitude.
Remove the interconnection.

6.3.2 PAL chroma auxiliary oscillator

Connect a pattern generator and supply a PAL colour bar pattern. Connect pin 17-IC7125 (TDA4554) to earth. Set C2202 so that the colour of the PIP picture is practically still. Remove the interconnection.

6.3.3 NTSC chroma auxiliary oscillator

Connect a pattern generator and supply an NTSC M colour bar pattern. Connect pin 17-IC7125 to earth. Set C2212 so that the colour of the PIP picture is practically still. Remove the interconnection.

6.3.4 The delay line

Connect a pattern generator and supply a PAL colour bar signal. Connect the X-input of the oscilloscope to pin 1-IC7125 (TDA4554). Connect the Y-input of the oscilloscope to pin 3-IC7125 (TDA4554). Set the oscilloscope to the X-Y position.
Set L5155 and L5157 so that the vectors lie in one line (points which are furthest from the origin).
Set the pattern generator to the "DEM" mode.
Set R3157 so that the vectors lie on top of one another in the origin.

6.3.5 SECAM identification

Connect a pattern generator and supply a SECAM colour bar signal.
Connect pin 27-IC7125 to pin 13-IC7125.
Connect an oscilloscope to pin 21-IC7125.
Adjust L5190 to maximum DC level.
Remove the interconnection.

6.3.6 SECAM demodulators

Connect a pattern generator and supply a SECAM signal without contents (black). Connect pin 27-IC7125 to pin 13-IC7125. Connect an oscilloscope to pin 1-IC7125. Using L5175, set the DC level during the scan equal to the DC level during the flyback.
In the same way set L5170, but now measure at pin 3-IC7125.
Remove the interconnection.

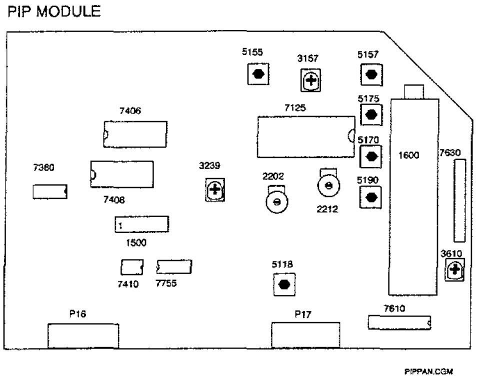
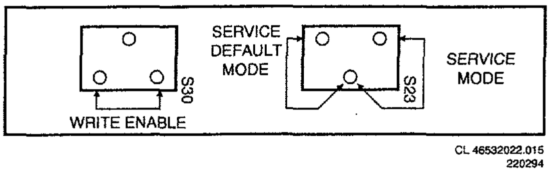


Fig. 7.8

7. Alignments in the Service Menu

The FL sets are equipped with EAROM protection. The EAROM protection will only work if pin 1 of IC7137 is high. If this point is made low by the pins of S30 on the SSP, the protection is switched off and the protected area can once more be written to. During adjustment in the service menu these pins must therefore remain connected together continuously.



7.1 Switch in the Service Menu by momentarily connecting together pins 2S323 and 1S323 on the small signal panel (diagram H). The Service Menu will then appear on the screen. The procedure is as follows:

- *Select the required alignment with the* coloured keys A to E.
- Change the values set using the "Menu +/-" key.
- Store the values set in the EAROM and leave the Service Menu by selecting STORE.

- **The error codes are only displayed when the 'Service Mode' or the 'Service Default Mode' are switched on.**

7.2 White Drive Alignment

Switch the set into 4:3 mode.
Switch out the DNR via the remote control.
Select a white picture. (A black picture (e.g. VCR1) set at maximum brightness is also suitable).
Switch the Service Menu in.
Select the required white drive alignment by adjusting the colours red and blue in relation to green (green is the reference colour).

Remarks: In the original factory settings "white" has a colour temperature of 7600K (White with a bluish tint).
The point of departure is green with a value of 44.
The factory setting for blue is then approx. 44.
The factory setting for red is then approx. 21.

7.3 Cut-off Alignment

Switch the set into 4:3 mode.
Switch out the DNR via the remote control.
Select a black picture (e.g. VCR1).
Switch the service menu in.
Set the brightness level so that the picture just (but clearly) illuminates.
Using the Cut-off adjustments align the colour temperatures in such a manner that at minimum illumination of the picture they are the same as the colour temperatures at maximum brightness.
(At minimum picture illumination it is possible that one colour may dominate. This is however normal and does not have to be (fully) compensated with the cut-off alignment).

Remarks: In the original factory settings "white" has a colour temperature of 7600K (White with a bluish tint).
The point of departure is green with a value of 28.
The factory setting for blue is then approx. 33.
The factory setting for red is then approx. 25.

7.4 Option Alignment

The microprocessor communicates with a great number of components in the set. For correct communication the microprocessor has to know what IC's and modules are present in the set. This is done using option codes. An incorrectly set option code will give a communication problem and an accompanying error code. Every function has been allocated a value. The sum of 8 values forms an option code. This number can vary from 0 to 255. The option code tables are given at the end of this paragraph.

For

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FL2
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For example, a set has:

Option code 1

Function	*Value*
Front end FQ916/ME/IF	2
PIP module	8
NTSC-M	16
NICAM module	64
2nd front end on PIP module	128 +

Option code 1 is now:	**218**

Option code 2

Function	*Value*
100 Hz Digital Scan	4
100 Hz Digital Scan	64
Comb Filter	128 +

Option code 2 is now:	**196**

Option code 3

Function	*Value*
16:9 PTV	64 +

Option code 3 is now:	**64**

Option code 4:

Function	*Value*
50Hz-PIP	2
FL2/4 model	4
DAF	8
Mozaik screen on	32
Picture rotation	128 +

Option code 4 is now:	**174**

Option code 5

Function	*Value*
Third SCART (Euro AV3)	1
SCAVEM	2 +

Option code 5 is now:	**3**

Optioncode 1

Nbr.	Function
0	**Front end = FQ816 / FQ916** A reception of PAL BG or PAL BG and SECAM BG is now possible
1	**Front end = FQ844 / FQ944** Only reception of the UHF band is now possible
2	**Front end = FQ816/ME/IF / FQ916/ME/IF** Reception of SECAM L but not of SECAM L' is now possible (reception of NTSC-M is now usually also possible).
4	**Front end =FQ916/MF/IF** Reception of both SECAM L and SECAM L' is now possible (NTSC M reception is generally possible now via the Euroconnector).
8	**PIP module present** This makes it possible to show PIP (Picture in Picture) displays.
16	**NTSC-M reception possible** This is normally always in combination with front end FQ816/ME/IF or FQ816/MF/IF or FQ916/ME/IF or FQ916/MF/IF
32	**SECAM DK module fitted** In this case transmissions using the SECAM DK system can also be received.
64	**NICAM module fitted** In this case the digital sound with NICAM transmission can be received.
128	**Second front end for PIP fitted** .If this second front end is fitted a second transmitter can be displayed in the PIP picture. The PIP function (number 8) still applies.

Optioncode 2

Nbr.	Function
1	**Not in use**
2	**Not in use**
4	**100Hz** 0 for 50Hz or 100Hz-ECO (FLx.x7) 1 for 100Hz Digital Scan (FLx.x4/FLx.x6) See number 64 further.
8-32	**Not in use**
64	**100Hz** 0 for 50Hz 1 for 100Hz-ECO (FLx.x7) 1 for 100Hz Digital Scan (FLx.x4/FLx.x6) See number 4 further.
128	**Comb-filter** Select this bit for sets with a comb-filter with IC7000 = MC141625 on the comb-filter module (number 16 of option code 4 should now be zero).

Electrical adjustments

Optioncode 3	
Nbr.	**Function**
1-32	**Not in use (SAT)**
64	**16:9 present**
128	**"Videocolor 36" Picture tube**

Optioncode 4	
Nbr.	**Function**
1	**Teletext Peaking Filter on/off for LFR box (Scandinavia)** In Scandinavia this number must be selected .
2	**50Hz-PIP in a 100Hz set** Applies to FLx.x7. Applies to Digital Scan sets (FLx.x4/FLx.x6) with the Multi-PIP possibility. (This option is 0 for the FL1.14 36" (no Multi-PIP))
4	**FL2/4 model** (see chapter 4 also)
8	**16:9 picture tube with DAF (Dynamic Astigmatic Focus)** Recognisable by the potentiometers for 'Focus' and 'VG2 (SCREEN)'; these are located on the DAF unit instead of on the high voltage transformer (LOT).
16	**Not in use**
32	**Mozaik screen on/off**
64	**Not in use**
128	**Picture rotation possible (frame rotation) (16:9)**

Optioncode 5	
Nbr.	**Function**
1	**Third SCART present**
2	**SCAVEM switchable present**
4	**Not in use**
8	**SCAVEM non switchable present**
16	**Auto TXT install enable**

8. Repair tips

1. The Service Default Mode

The FL is equipped with a service default mode. The service default mode is a fixed, definite state to which the set can be switched.

1.1 Definition state

The definition of the fixed state in the service default mode is as follows:

- all sound and picture controls are in the central position (exception volume which is turned down)
- tuned to 475.25 MHz
- system:
  * PAL/SECAM BG for Multi Europe
  * PAL I for UK
  * SECAM L for Multi French

1.2 Switch on and off

The service default mode is switched on by shorting pins 2S323 and 3S323 on the small signal panel.

The service default mode can only be switched off by switching the set to stand-by. If the set is switched off and then on again using the mains switch or the mains plug, the service default mode will remain on.

If the set switches to stand-by immediately after switching-on, the set cannot be operated and also cannot be switched to the service default mode. The child-proof lock has already been activated.
To deactivate the child-proof lock the following series of commands has to be given using the remote control (see also Section 9):
<MENU>-<BLUE>-<RED>-<MENU+>-
<MENU OFF>

1.3 Fault signals

To indicate that the set is in the service default mode, the following is displayed on the screen:

SERVICE 00 00 05 06 05

The five numbers after the word "service" stand for the last five fault signals noted by the operator(s). The number on the extreme right represents the last fault signal, that on the extreme left the last fault signal but 4. Since this enables fault reports to be looked at afterward, it means that intermittent faults can be traced.
When the set leaves the service default mode, the fault-report memory is cleared.

1.4 Operation

During the service default mode the set will accept all operating commands. When, however, the set is switched off and on, it will return to the state as defined above.

2. Error messages

The error codes are only displayed when the 'Service Mode' or the 'Service Default Mode' are switched on.

In both FL1 and FL2/4 models the I^2C error messages are indicated by a combination of flashing LED's. In FL1 7 LED's on the front of the set are used. In FL2/4 only 2 LED's have been fitted to the front of the set: 'on' and 'stand-by'; for service purposes the 7 LED's have been fitted inside the set in an SMD version. These are located on the solder side of the panel with buttons for local control. The 2 LED's on the front of the set are connected in parallel with the corresponding service LED's.
Figure 8.1 illustrates the situation for FL1 and FL2/4.
A table of error messages is provided at the end of this chapter.

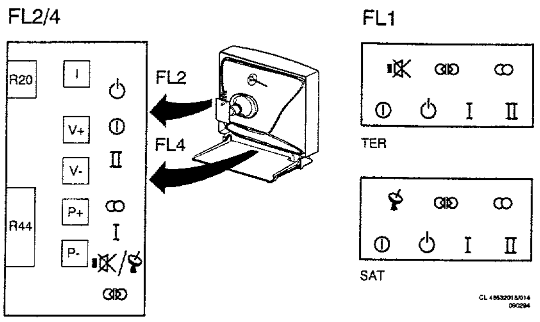


Fig. 8.1

3. Replacement of EEPROM IC7137

If, during a repair, the EEPROM has to be replaced, the microprocessor will detect that the EEPROM is empty. A fault signal (No. 21) will then be displayed.
If the service mode is now activated
(see section 7), the microprocessor will load the EEPROM with a number of standard values for the white balance and the other linear settings. These values, however, must all be checked and, if necessary, re-adjusted.
All options have also to be set, the programs installed and the personal preference set.

4. Extension prints

To simplify the measurements ON the various modules extension prints are available for the modules fitted with BTB connectors. Modules can be placed in these connectors so that they stick out above the other prints when the chassis is in the service position.
The code numbers for the extension prints are:

5-fold	4822 395 30261
6-fold	4822 395 30259
8-fold	4822 214 31402
9-fold	4822 395 30258
10-fold	4822 395 30257

5. Removing the PIP module

The PIP module can be simply removed, leaving the set functioning normally (The LED display does however indicate an error condition). Following the removal of the PIP module the signal path is broken. The signal path can be restored by placing the 5-core flat cable with connector S56 in connector foot S16 (see diagram D). The error message can be removed through the application of the option codes (see chapter 7).

6. Extension cables

Extension cables are available to lead the large signal and small signal panel signals (LSP and SSP) separately out of the set. These are made up as follows:

4822 320 20209	Set of 6 cables for LSP and SSP connections.

See chapter 4 also.

7. Central repair

For panels and modules which are difficult to repair there remains a possibility for central repair. Following receipt of a defective module a repaired and tested module is issued.
In order to guarantee the quality of the central repair service a certain amount of information regarding the defective panel is required. This information should be submitted together with the defective panel. This concerns the following information:

1. Clear description of the fault
2. Indication of intermittent or continuous fault
3. Type/version number of the set
4. AG-production code and week/year number
5. Serial number

The defective modules should be complete and free of mechanical damage.
These facilities are offered for the modules below:

LFR box [L]+[M]	4822 212 31233	FL2.2X
LFR box [L]+[M]	4822 212 31313	FL2.24/58
LFR box [L]+[M]	4822 212 31314	FL2.24/62
100Hz box [L']	4822 212 31392	FL4.27

8 Diagnosis and protection

8.1 Hardware and software protection

In case any serious fault occurs in the set, one of the protection circuits will activate. A protection circuit switches of the main power supply (SOPS) via the stand-by input (STBY) of the SOPS control panel. This input is located on pin 1 of connector pin L40 with test point number TP56, and is illustrated on diagram A.
As the microprocessor is fed by a separate stand-by power supply (SOPS), the processor and the LED's will continue to operate, even when the main power supply is switched off.

A number of protection circuits can switch off the power supply independently and immediately (hardware protection). In two protection circuits the microprocessor itself switches off the power supply (software protection).

All protection circuits come together on the stand-by input (TP56 of the main power supply. A diagnosis determines which protection circuit is active.

8.2 Protection test point TP56 [diagram A]

The following voltages may be present on the stand-by input of the SOPS control panel (TP56): [see diagram A]

1	Approx. 17V	during operation;
2	0.5 - 1V	during hardware protection; (this value is maintained by a thyristor circuit formed by TS7380/TS7381);
3	0.5V	during stand-by and software protection.

8.3 Hardware protection:

1 Power supply voltage +13 from the SOPS too high (+V) [diagram A].
This protection circuit activates if the voltage in +13V circuit of the SOPS becomes too high during operation.

2 SOPS and/or +11/-11V for the audio output amplifier defective (SOUND-PROT).
[diagram G]
The protection circuit activates when the +11V and -11V voltages are no longer in balance, or when both voltages are absent. This protection circuit also operates when the SOPS does not function or is short-circuited.
This protection circuit is fed by the start-up voltage 'Vstart' from the SOPS.

3 Beam current too high (I-BEAM) [diagram B]
When the beam current becomes too high this protection circuit switches off the power supply. Before this protection circuit can activate the picture will first illuminate brightly. This fault occurs for example on the absence of the +200V power supply voltage on the picture tube panel.

4 Deviating LOT behaviour (EHT, LOT-PROT) [diagram B].
This protection circuit becomes active when a 'unusual' voltage forms appear on the LOT outputs (5555). This may indicate defective or loose components in the line deflection circuit. (LOT, switching transistors, capacitors).

5 East/west output stage defective [diagram B].
This protection circuit activates when the current through the east/west switching transistor T7610 exceeds a specific value. In this case transistor T7542 will conduct for a brief period.
(the base-emitter voltage Ube from T7542 is then momentary greater than 0.6V).

6 Vertical deflection end stage (IC7450) defective [diagram B].
The frame output stage IC7450 has a protection output (pin 7, TP62). This output becomes momentarily high on any defect in this IC or during the absence of the power supply voltage.
During normal operation there are short pulses on this output.
The frame output stage is fed by a winding on the LOT (5555) (+28V or +32V).
During diagnosis a check should be made whether the +28/+32V power supply voltage continually drops before the protection circuit output is activated.
If this is the case then one of the other protection circuits is responsible for switching out the power supply.

By measuring the timing pulses between the protection output (pin 7) and the power supply voltage (pin 6) in relation to earth (pin 2 or 4) it can be determined whether the protection is originating from the frame output stage. The protection circuit overview at the end of this chapter provides a schematic overview of the measurements.

8.4 Software protection

8.4.1 Error message 99

Error message 99 is displayed when software protection is generated by the microprocessor. Software protection becomes active when the +13V and or +5V power supply voltage is not present on the small signal panel (SSP). Due to the absence of the power supply the connected components are unable to provide an I^2C signal to the microprocessor. The processor then sets the SOPS in stand-by. If this is the case error message 99 is then displayed.
Software protection can be switched out by activating the 'Service Default Mode' (see §1).

If the +13V or +5V are absent as a result of hardware protection switching out the power supply, error message 99 will be displayed by the LED's following a short period, as the microprocessor is no longer receiving any signal from the connected IC's. The processor now bridges the hardware protection via the STBY signal. Each hardware protection will therefore eventually result in software protection, resulting in error message 99 being displayed.

During hardware protection the microprocessor makes repeated attempts to communicate with the connected I^2C-IC's before making a decision for software protection.
During this period (up to approximately 5 minutes) the set will not react to any operational commands. Because none of the I^2C-IC's responds in this period various error messages will be displayed by the LED's. If error message 99 does not eventually appear then the protection circuits are not operational and the cause of the fault can be sought elsewhere.

When the microprocessor generates a STBY signal for implementing software protection TP56 will be made lower than 0.5V by the STBY signal, through which any eventual hardware protection on TP56 will be bridged. In order to determine whether hardware protection is active via TP56 the voltage on TP56 should be measured with the set in the 'Service Default Mode' or measured before error message 99 appears on the LED display.

8.4.2 Software protection

7 +5V on the small signal panel (SSP) [diagram B and C]
To test whether the +5V power supply voltage, from the LOT winding (5555) [diagram B], is reaching the small signal panel without short-circuiting, the front-end (1160 [diagram C]) must provide a signal to the microprocessor via IC within a specific time.
If this signal does not arrive, the microprocessor switches the main power supply into stand-by, and the LED's will indicate error message 99 once more.
To test whether the front-end is defective the service default mode will have to be selected. If the power supply voltages on the front-end are correct and a front-end error message persists (error 11), then the front-end is defective.

8 +13V on the small signal panel (SSP) [diagrams A, D and F]).
To test whether the +13V power supply voltage from the main power supply (SOPS) [diagram A] is reaching the small signal panel without short-circuiting, IC7430 (TDA4680 video processor, [diagram D]) or IC7600 (TDA8417, stereo decoder, [diagram F]) or IC7680 (TDA8425, audio processor [diagram F]) must provide a signal via I^2C to the microprocessor within a specific time. If none of these three IC's provides any signal the microprocessor switches the main power supply into stand-by. The LED's indicate error code 99.

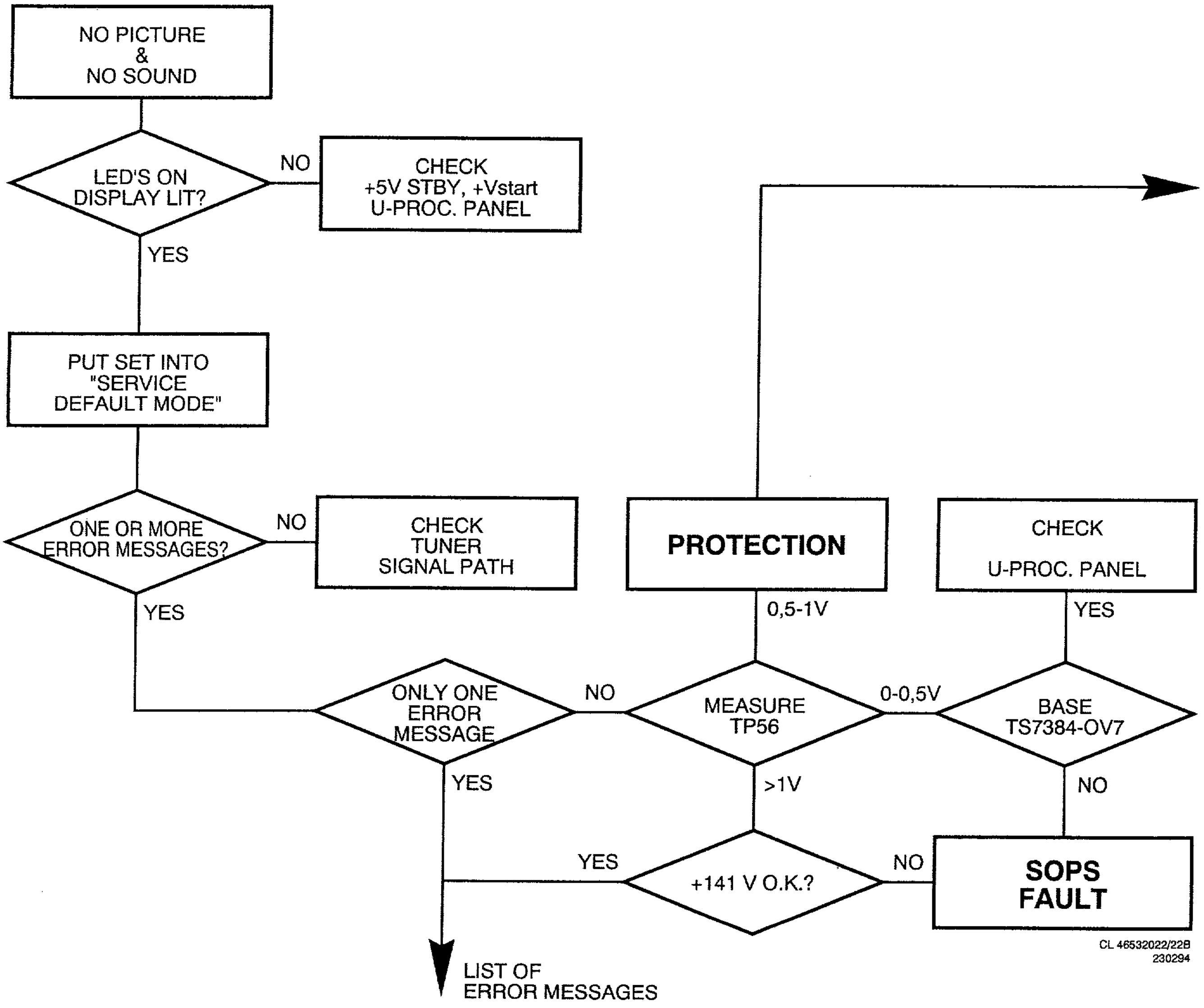
9 SAT box power supply defective (only for set with a SAT box (D2-MAC)).
When the SAT box microprocessor does not send a signal to the main processor in the set, the main processor, following error message 51 (SAT box processor), will switch the software protection in. The LED's now indicate error code 99.
To test whether the SAT box processor is defective the service default mode must be selected. If only the error message from the SAT box is now indicated (error 51), and all power supply voltages on the processor are correct, then the SAT box processor is defective.
The operation of the SAT box power supply [diagram O] can be checked as followed:
Disconnect the SAT box and chassis from one another by disconnecting the band cable between the interface panel [diagram P] and the SAT box [diagram O].
When after a short time the set can be started up from stand-by the SAT box will have an incorrect power supply and error message 99 does not appear.

8.5 Measurements in the protection circuits.

All hardware circuits are illustrated in figure 8.2.
The oscillograms indicate the voltages on the relevant test points immediately after the set is switched on.
In this case the signals illustrated are for during:

- normal operation
- protection caused by this circuit (PROT);
- protection caused by another protection circuit (N-PROT).

Faultfindingtree


NO PICTURE
&
NO SOUND
LED'S ON DISPLAY LIT?
NO
CHECK +5V STBY, +Vstart U-PROC. PANEL
YES
PUT SET INTO "SERVICE DEFAULT MODE"
ONE OR MORE ERROR MESSAGES?
NO
CHECK TUNER SIGNAL PATH
YES
ONLY ONE ERROR MESSAGE
NO
YES
PROTECTION
0,5-1V
MEASURE TP56
0-0,5V
>1V
CHECK
U-PROC. PANEL
YES
BASE TS7384-OV7
NO
YES
+141 V O.K.?
NO
SOPS FAULT
LIST OF ERROR MESSAGES
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Protection

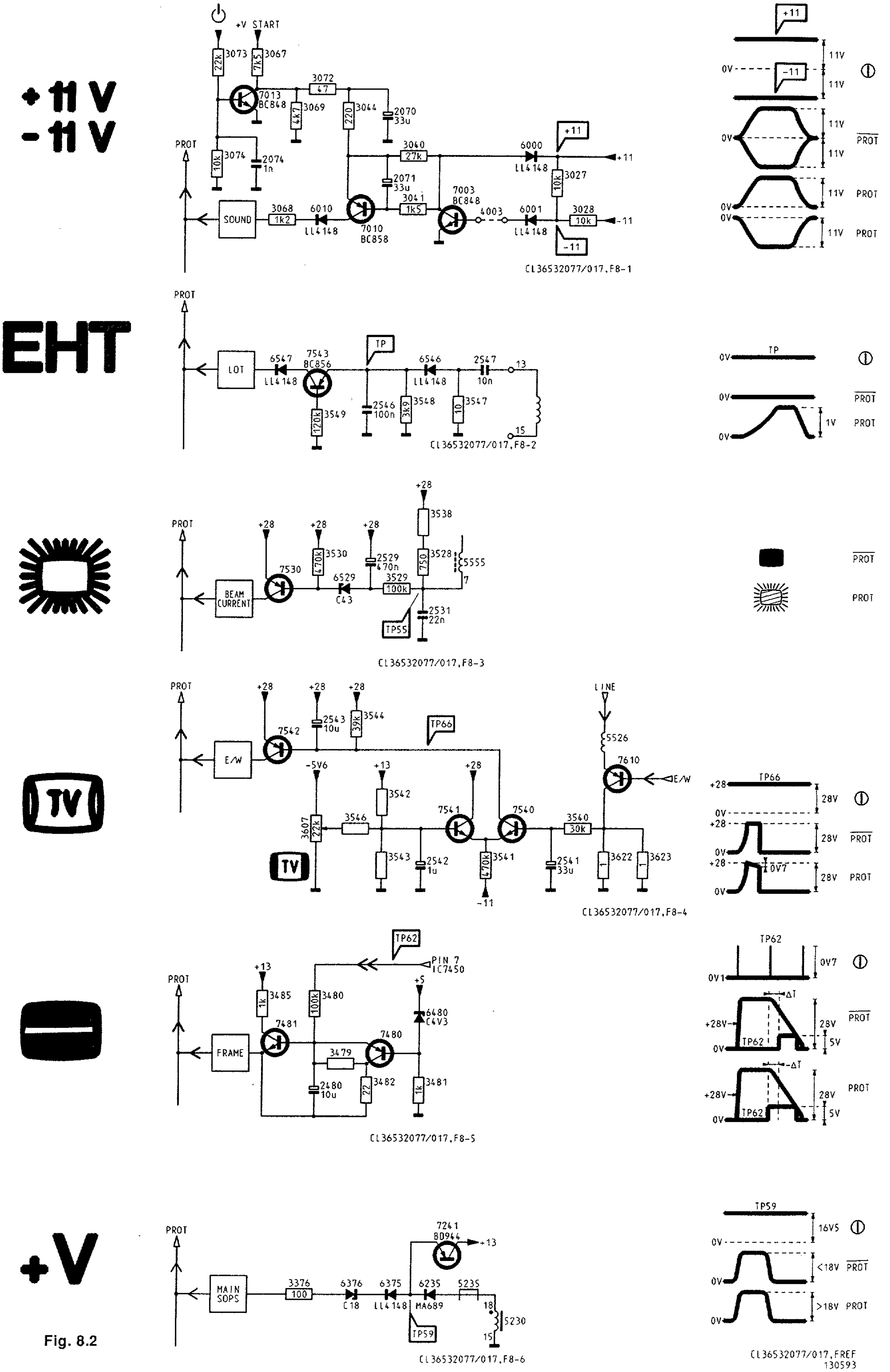
+11 V
-11 V
+V START
3073 22k
3067 7k5
3072 47
7013 BC848
3069 4k7
3044 220
2070 33u
PROT
3074 10k
2074 1n
3040 27k
6000 LL4148
+11
3027 10k
2071 33u
3041 1k5
7003 BC848
SOUND
3068 1k2
6010 LL4148
7010 BC858
4003
6001 LL4148
3028 10k
-11
CL36532077/017.F8-1
11V
0V
EHT
LOT
6547 LL4148
7543 BC856
3549 120k
TP
2546 100n
3548 3k9
6546 LL4148
2547 10n
3547 10
13
15
CL36532077/017.F8-2
1V
+28
7530
3530 470k
2529 470n
6529 C43
3529 100k
3538
3528 750
5555
7
BEAM CURRENT
TP55
2531 22n
CL36532077/017.F8-3
E/W
7542
2543 10u
3544 39K
TP66
LINE
5526
7610
-5V6
+13
3542
3607 22k
3546
7541
7540
3540 30k
3543
2542 1u
3541 470k
2541 33u
3622 1
3623 1
TV
-11
CL36532077/017.F8-4
28V
0V7
TP62
PIN 7 IC7450
+5
3485 1k
3480 100k
6480 C4V3
7481
7480
FRAME
3479
2480 10u
3482 22
3481 1k
CL36532077/017.F8-5
ΔT
-ΔT
5V
7241 BD944
MAIN SOPS
3376 100
6376 C18
6375 LL4148
6235 MA689
5235
18
5230
15
TP59
16V5
<18V
>18V
CL36532077/017.F8-6
CL36532077/017.FREF 130593

Fig. 8.2

46532022/22B
230294

List of error messages

Error number on screen	Flashing LED							Description of error
	⚲/🔇	ꝏ	∞	①	⏻	I	II	
1[1]			X		X	X		I^2C, IC7108, SSP [H] (MSM6307)
3					X	X		I^2C, IC7215, 100Hz SAA 9042 [L] I^2C, IC7111, TXT SAA 9042 [L']
4				X		X		I^2C, IC7220, 100Hz [M] [L'} J83C652
5				X			X	I^2C, IC7408, PIP [J] (SDA9088)
6				X	X	X		I^2C, IC7600, SSP [F] (TDA8417)
7							X	I^2C, IC7680, SSP [F] (TDA8425)
8						X	X	IC7440, frame rotation [Y], PCF8574 (16:9)
9			X	X		X		I^2C, IC7430, SSP [D] (TDA4680)
10				X	X		X	I^2C, IC7395, SSP [D] (TDA8443)
11				X	X			I^2C, front-end, SSP [C] (FQ 9XX)
12						X		I^2C, IC7137, SSP [H] (X24C04)
13			X					I^2C, bus on chassis blocked
14			X	X				I^2C, IC7258, SSP [C] (HEF4094)
15			X	X	X			I^2C, IC7219, SSP [C] (TEA6414)
16			X			X		I^2C, IC7040, SAT Interface [P] (TEA6414)
17			X		X			IR-receiver on SSP [H] blocked (1100)
18				X		X	X	7115, SSP, µ proc. [H]
19			X	X	X	X		UART Bus blocked, 7115, SSP, µ proc. [H]
20				X	X	X	X	7115, SSP, µ proc. [H]
21				X				EAROM X24C08 empty, IC7137, SSP [H] (§ 8.3)
23	X				X			I^2C, IC7080, convergence panel [V] (TDA8444) (PTV)
28		X						I^2C, PIP tuner [J]
29		X			X			I^2C, IC7638, PIP-modulo [J] (SAA1300)
30			X		X		X	I^2C, IC7175, SSP [C] (PCF8574)
31			X		X	X	X	I^2C, IC7001, NICAM-panel [K] (SAA7280)
33		X		X				I^2C, PLL (1500) PIP modulo [J]
34[1]	X		X				X	LNC supply on SAT box [Q,R] not correct
35[1]	X		X		X		X	IM-bus on SAT box [Q,S] blocked
36[1]	X		X	X			X	I^2C, bus on SAT box blocked
37[1]	X		X	X	X		X	I^2C, IC7450, D2-MAC [S] (X24C02)
38[1]	X		X			X	X	I^2C, SAT Tuner [Q] (SF914; SF916)
39[1]	X		X		X	X	X	HEF STROBE 1, IC7925, FSS [T] (HEF4094)
40[1]	X		X	X		X	X	D2-MAC [S]
41[1]	X		X	X	X	X	X	HEF STROBE 2, IC7475, D2-MAC [S] (HEF4094)
42[1]	X				X		X	IC7250, TUNER/CONTROL [Q]
43[1]	X			X			X	UART bus blocked IC7250, TUNER/CONTROL [Q]
44[1]	X			X	X		X	SAT Tuner [Q] (SF914/916)
45[1]	X					X	X	IC7250, TUNER/CONTROL [Q]
46[1]	X				X	X	X	IC7250, TUNER/CONTROL [Q]
47[1]	X			X		X	X	IC7262, TUNER/CONTROL [Q]
48[1]	X			X	X	X	X	D2-MAC [S]
49[1]	X			X		X		EAROM X24C02 empty, 7450, D2-MAC [S] (§17)
51[1]					X	X	X	IC7250, TUNER/CONTROL [Q]
52[1]			X				X	D2B Bus EXT, SSP [H] blocked.
53			X			X	X	IC7330, MAC TXT [S], TPU2735
55			X	X		X	X	IC7140, Panorama [B], PCF8574 (16:9)
99	X		X		X			Protection

[1] This error is only possible on sets with built in SAT box.

- **The error codes are only displayed when the 'Service Mode' or the 'Service Default Mode' are switched on.** In case an error indication on the set is not included in this table, then check the optional codes (see § 7).