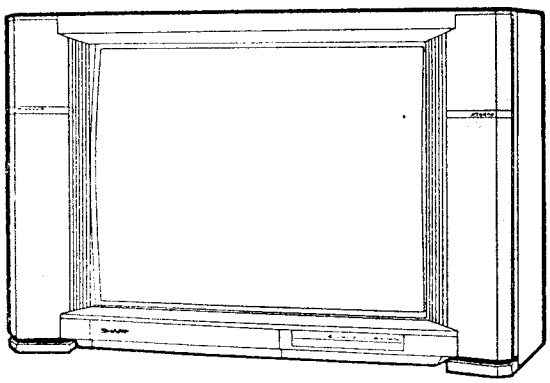
DV-25073S
DV-28073S

SHARP SERVICE MA[illegible]UAL
SERVICE-AN[illegible]NG

SEAGDV25073S/

[illegible]CHASSIS



PAL/SECAM SYSTE[illegible] TELEVISION
PAL/SECAM SYSTE[illegible] FERNSEHGERÄT

MODELS D[illegible]073S
MODELLE D[illegible]8073S

In the interests of user-s[illegible] safety regulations in some countrie[illegible] be restored to its original condition an[illegible] identical to those specified should be used.

Im Interesse der Benutze[illegible] einigen Länder durch Sicherheitvorschri[illegible] sollte dieses Gerät wieder auf seinen urs[illegible] Zustand eingestellt und nur die vorgeschriebe[illegible] wendet werden.

CONTENTS — IN[illegible]

SHARP CORPORATION

SERVICE ADJUSTMENT

PIF/AFT/SIF/AGC/+B ADJUSTMENT

1. VCO T204 for Picture

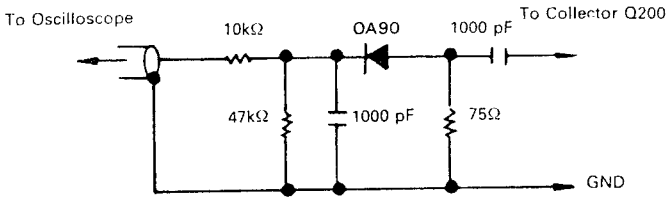
1. Apply 3V DC to pin⑥of IC200.
2. Measure and record voltage at pin㉕of IC200.
3. Apply carrier frequency of 38.9 MHz to pins⑧and⑨of IC200.
4. Adjust T204 to obtain same voltage value as step 2.

2. S detector T206 5.5 MHz for Sound

1. Apply carrier frequency of 5.5 MHz to pin⑬of IC200.
2. Connect DC voltmeter to pin⑲of IC200.
3. Adjust T206 to obtain 4.5 V at pin⑲of IC200.

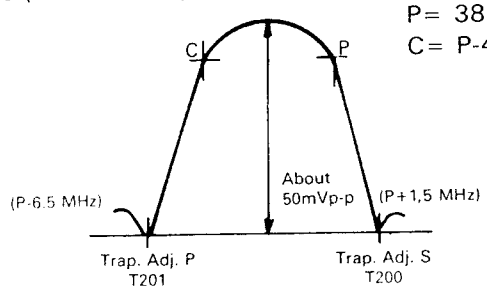
3. Trap T201, T200

1. Connect sweep generator output to TUNER Test Point.
2. Connect response cable with detector to collector line of Q200 (see diagram).



3. Adjust T200 (S-Trap) and T201 (P-Trap) so that traps are (P + 1.5 MHz) and (P-6.5 MHz).

P= 38,9 MHz
C= P-4,43 MHz



4. S2 Adjustment T208 5.74 MHz

1. Connect carrier frequency of 5.74 MHz to pin②of IC201.
2. Connect Voltmeter to pin⑧of IC201.
3. Adjust T208 to obtain 3V DC.

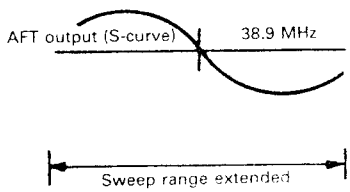
5. S-Level Adjustment R-231

1. Apply 3V DC to pin⑥of IC200.
2. Connect Stereo signal to base of Q201 (CH1, L+R) (CH2, 2R).
3. Connect oscilloscope to pin㉒of IC201 (SIF Unit).
4. Adjust R231 to obtain 0V(rms).

6. AFT Adjust T205

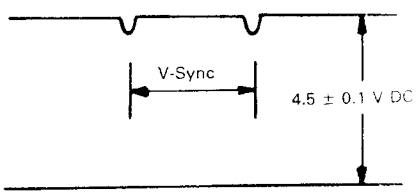
Coarse Adjustment

1. Connect sweep generator output to TUNER Test Point (T.P.).
2. Apply 3V DC to pin⑥of IC200.
3. Connect response lead (containing 10k ohm resistor in series) to pin⑯of IC200.
4. Adjust T205 to align Picture marker (38.9 MHz) of S-curve with base line.



Fine Adjustment

1. Short pins④and⑤of VC to ground.
2. Receive CH12 (Real CH mode).
3. Connect DC voltmeter to pin⑦of FA.
4. Adjust T205 to obtain 4.5 V DC ± 0.1 V.



7. RF AGC R219

1. Receive colour bar signal (signal strength: 53 dB).
2. Connect DC voltmeter to Test Point 201 (RF AGC).
3. Set AGC-VR (R219) to maximum position (memory).
4. Adjust R219 to obtain a voltage of 0.1V below maximum voltage (step 3).

8. +B 150 V Adjustment R716

1. Receive monoscope pattern signal.
2. Set contrast control to maximum (100%) position and brightness control to centre position (50%).
3. Connect DC voltmeter to cathode of D601.
4. Adjust R716 to obtain a voltage of 150 V ± 0.5 V.

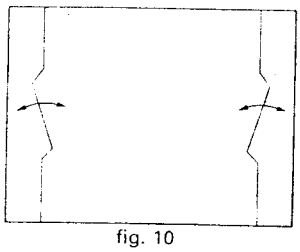


fig. 10

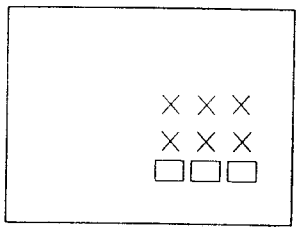


fig. 11

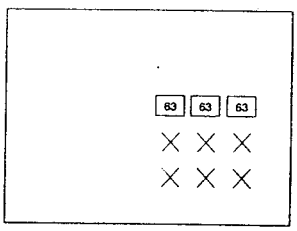


fig. 12

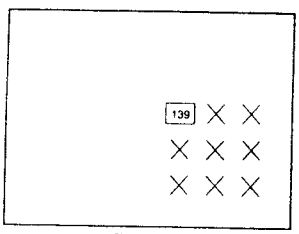


fig. 13

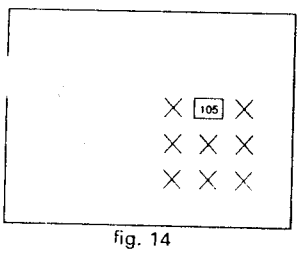


fig. 14

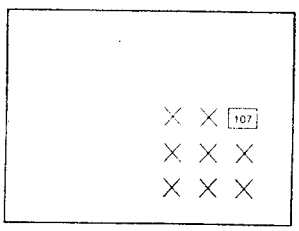


fig. 15

11. Trapezoid 2

a) Receive Philips pattern signal.
b) When volume-up button is pressed, side pincushion changes.
c) When volume-down button is pressed, side pincushion changes.
d) Adjust the Trapezoid 2 to obtain condition as in fig. 10.

12. Chroma-Luma Delay

a) Receive Philips pattern signal.
b) When volume-up button is pressed, luma phase delays.
c) When volume-down button is pressed, chroma phase delays.
d) Adjust the Chroma-Luma delay.

13. VCO Adjustment

a) Receive Philips pattern signal.
b) When volume-up button is pressed, VCO changes to high frequency.
c) When volume-down button is pressed, VCO changes to low frequency.
d) Adjust VCO to 4.43 MHz.

14. G2 Adjustment

a) Receive monoscope pattern signal.
b) First step, change mode to cutoff red.
c) Adjust the value on the screen to 63 by the volume up/down button. (fig. 12).
d) Second step, change mode to cutoff green.
e) Same method as step (c).
f) Third step, change mode to cutoff blue.
g) Same method as step (c).
h) Change mode to G2 Adjust.
i) Adjust the screen VR (G2) to obtain value of 20-40, three values for RGB appear on the screen (fig. 11).

15. Cutoff red

a) Receive monoscope pattern signal.
b) Wait for stable picture.

16. Cutoff green

a) Receive monoscope pattern signal.
b) Wait for stable picture.

17. Cutoff blue

a) Receive monoscope pattern signal.
b) Wait for stable picture.

18. Drive Red

a) Receive monoscope pattern signal.
b) Adjust value on the picture to 139 (fig. 13).
c) Wait for stable picture.

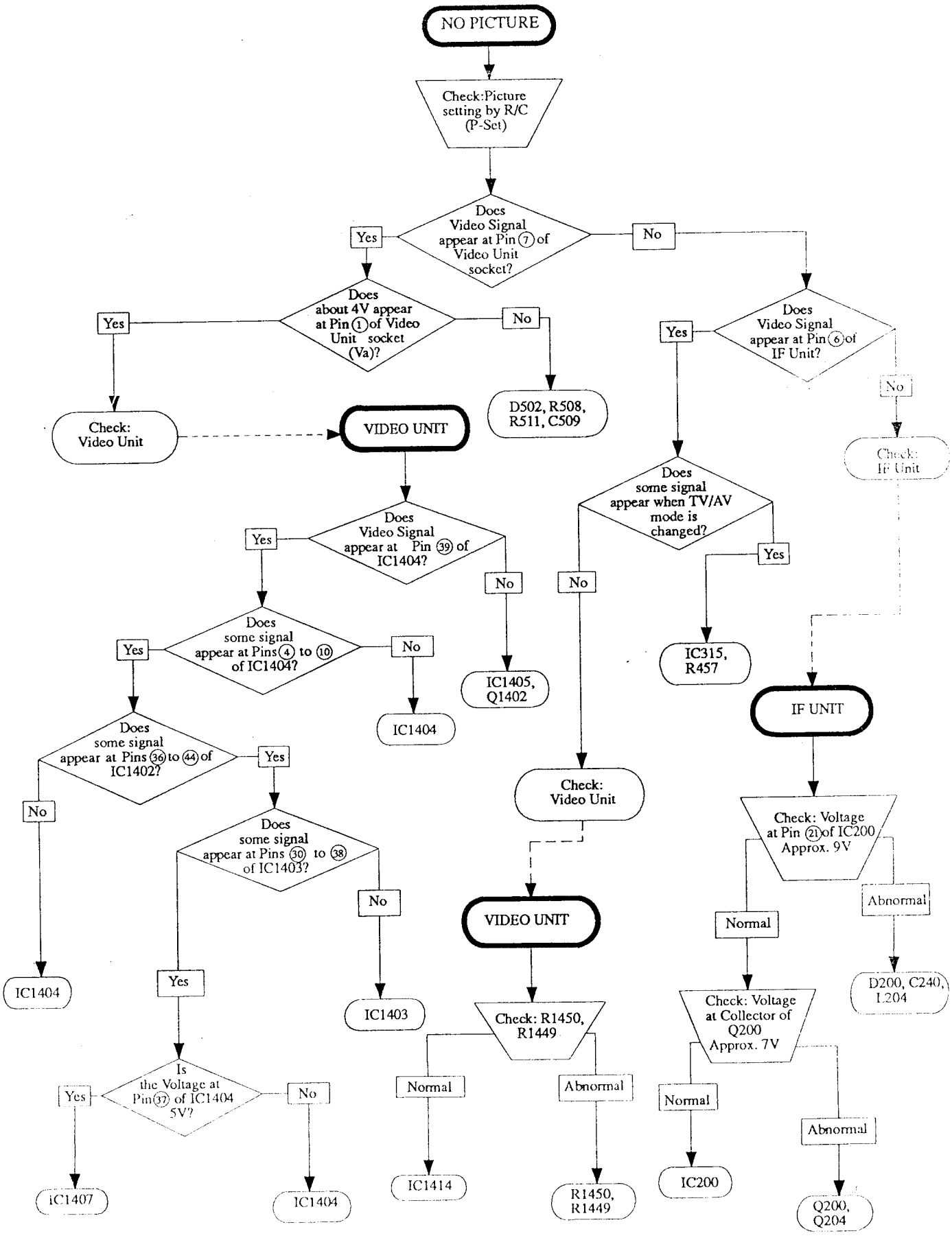
19. Drive Green

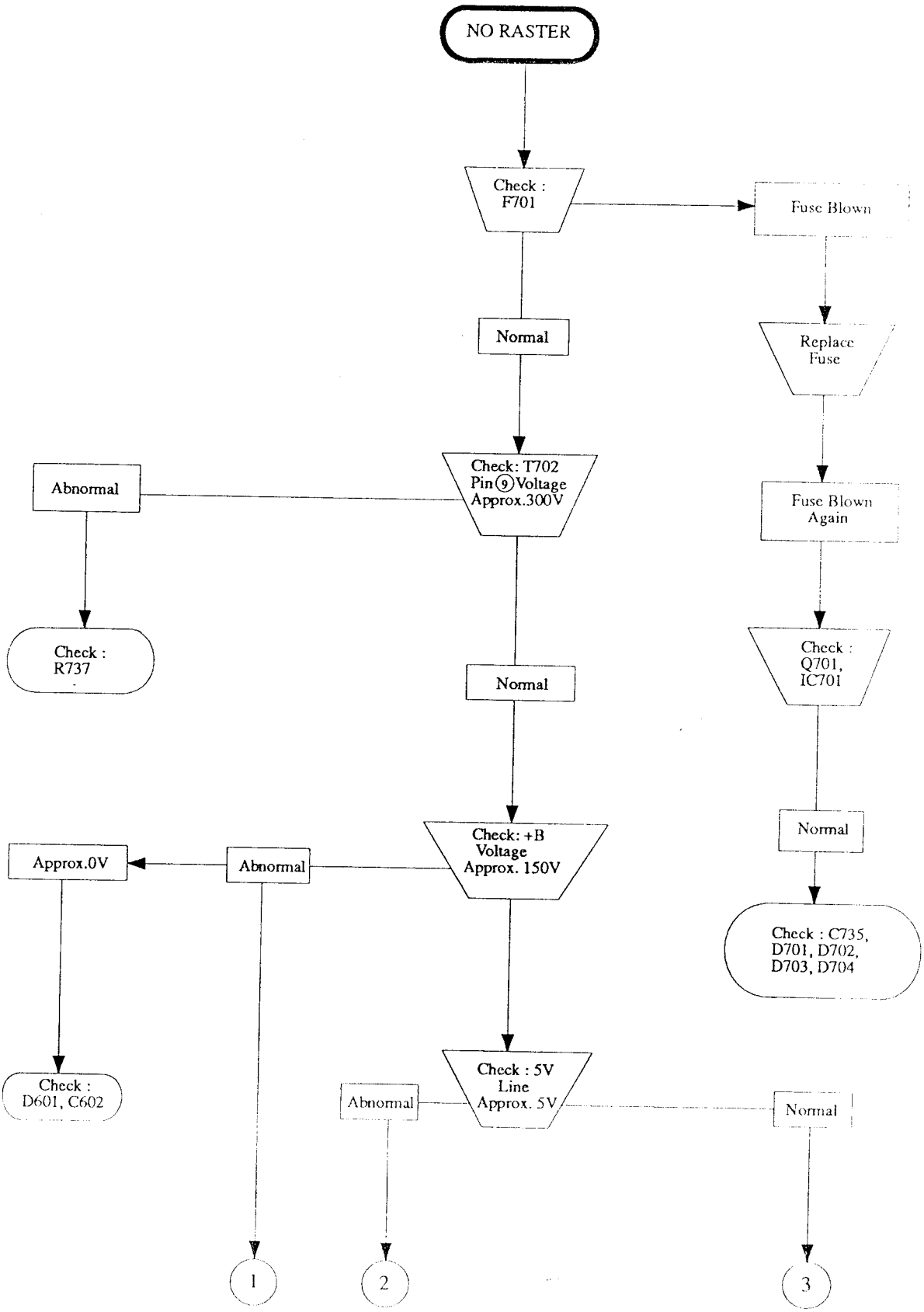
a) Receive monoscope pattern signal.
b) Adjust value on the picture to 105 (fig. 14).
c) Wait for stable picture.

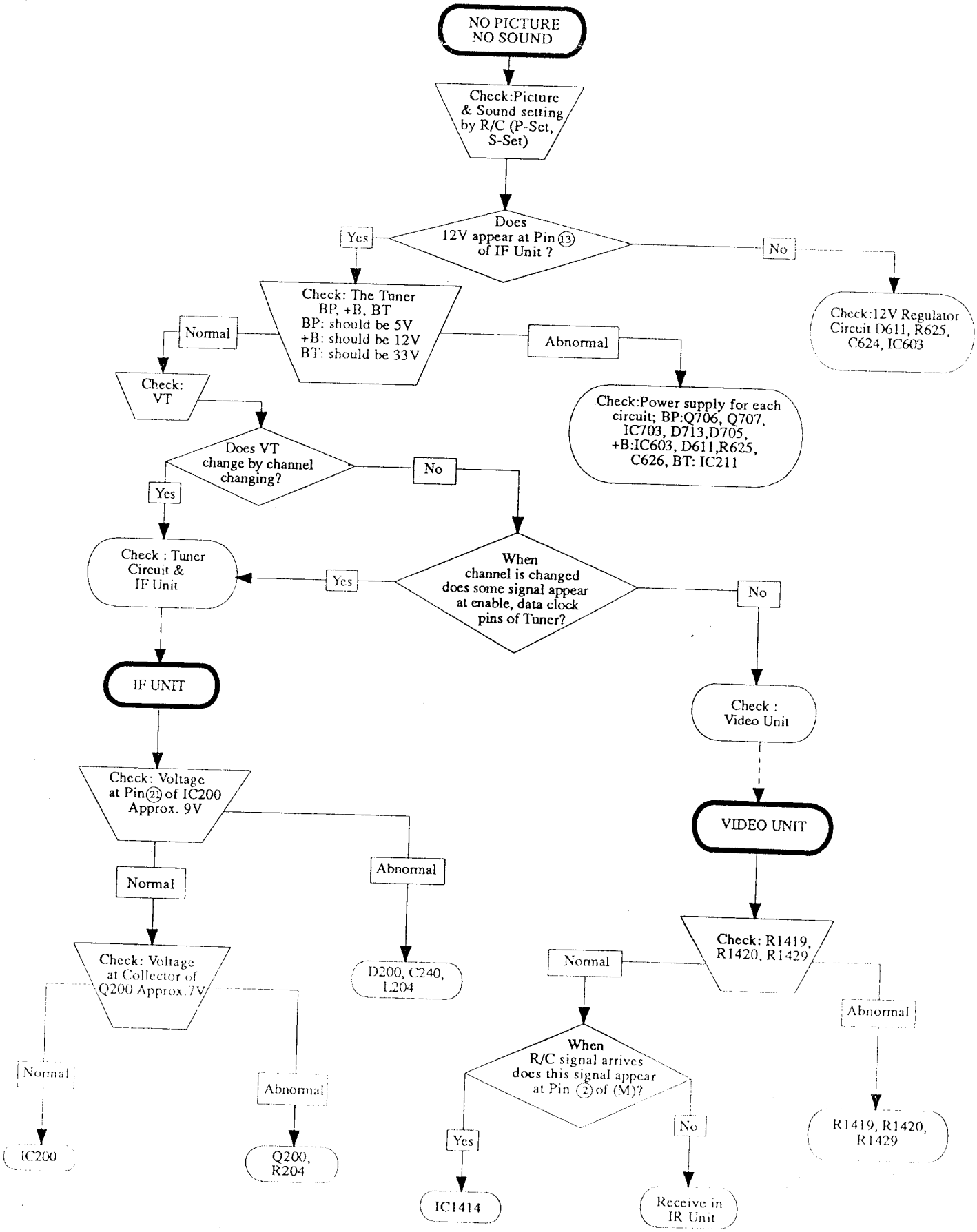
20. Drive Blue

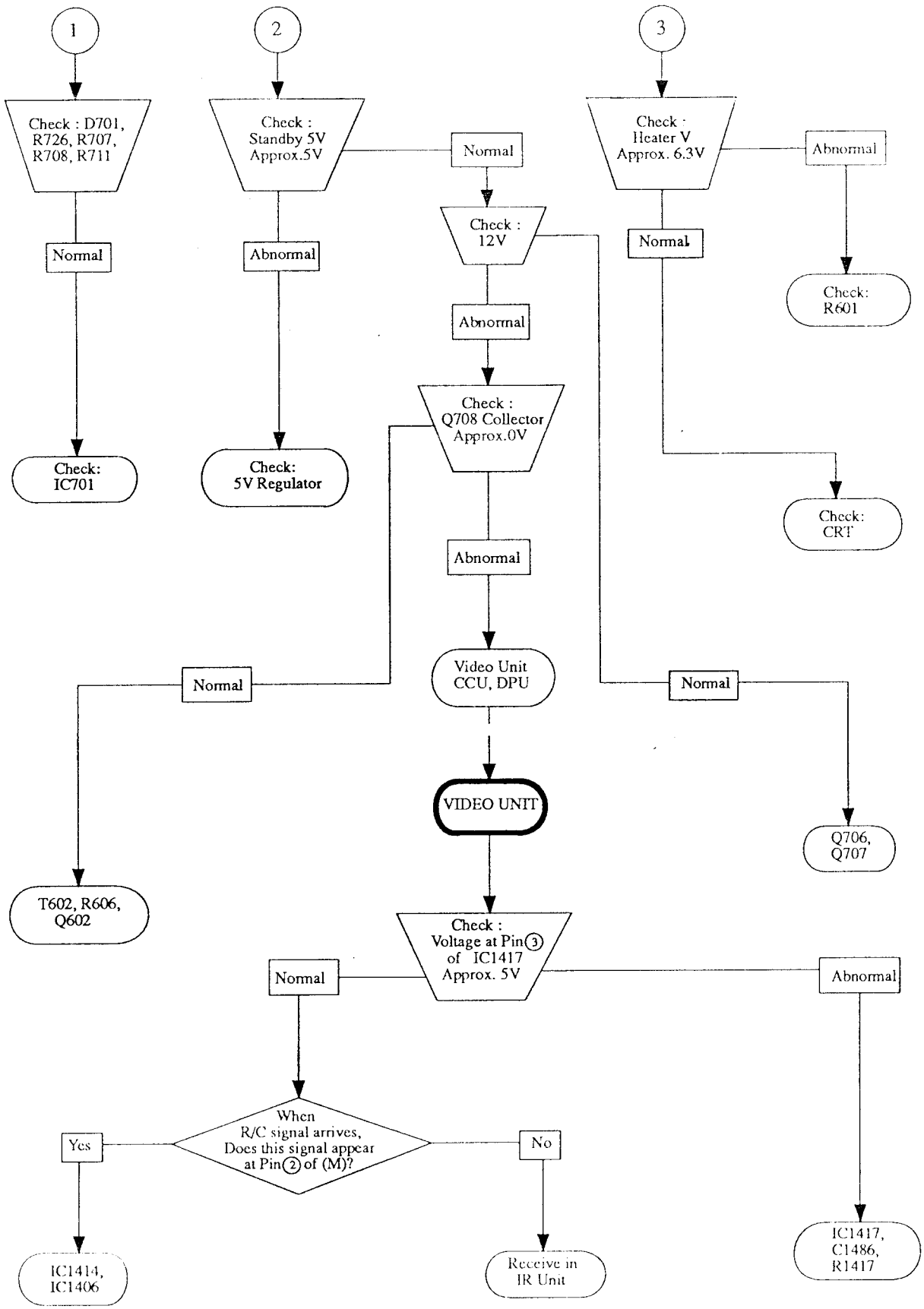
a) Receive monoscope pattern signal.
b) Adjust value on the picture to 107 (fig. 15)
c) Wait for stable picture.

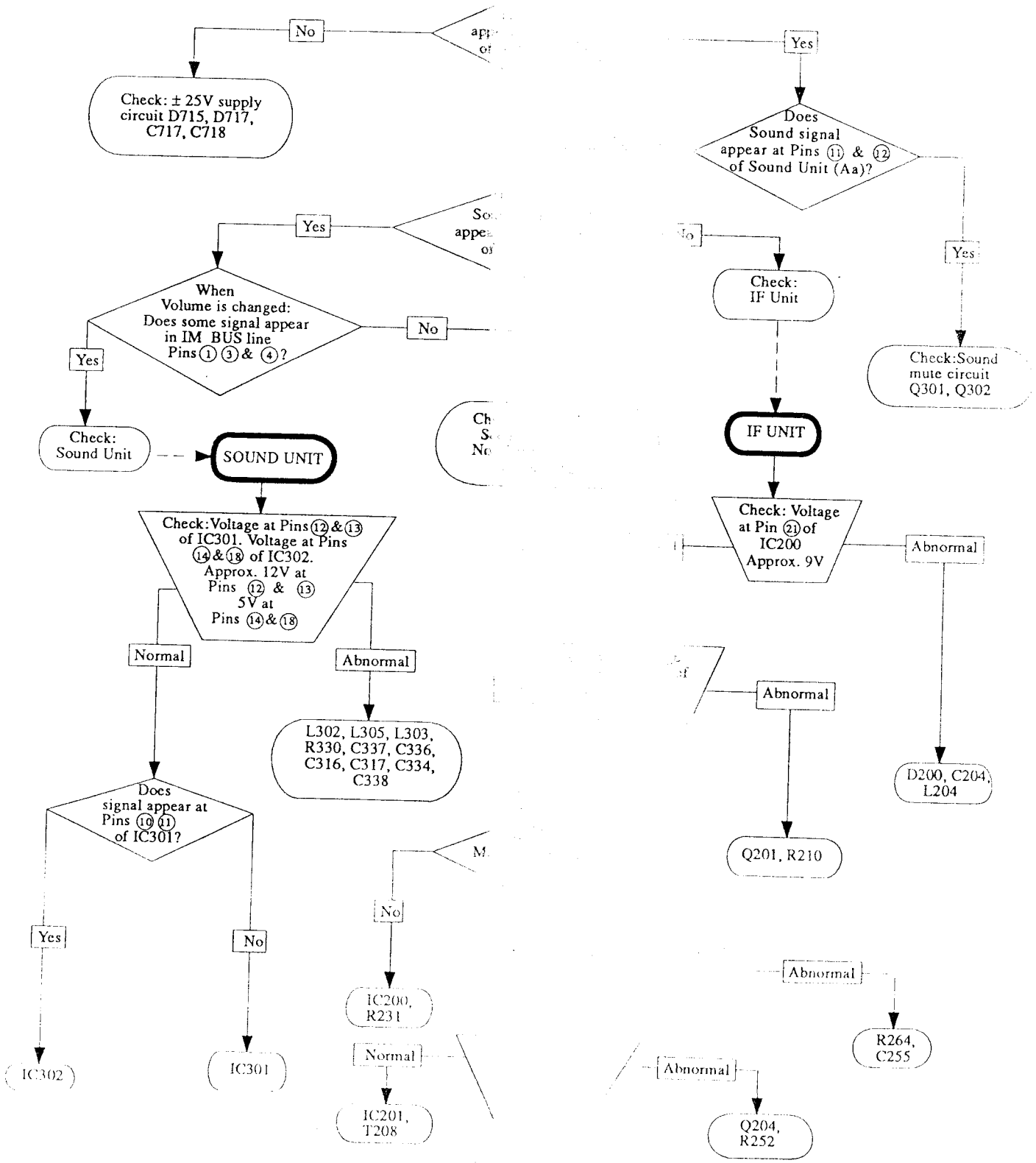
TROUBLESHOOTING TABLES

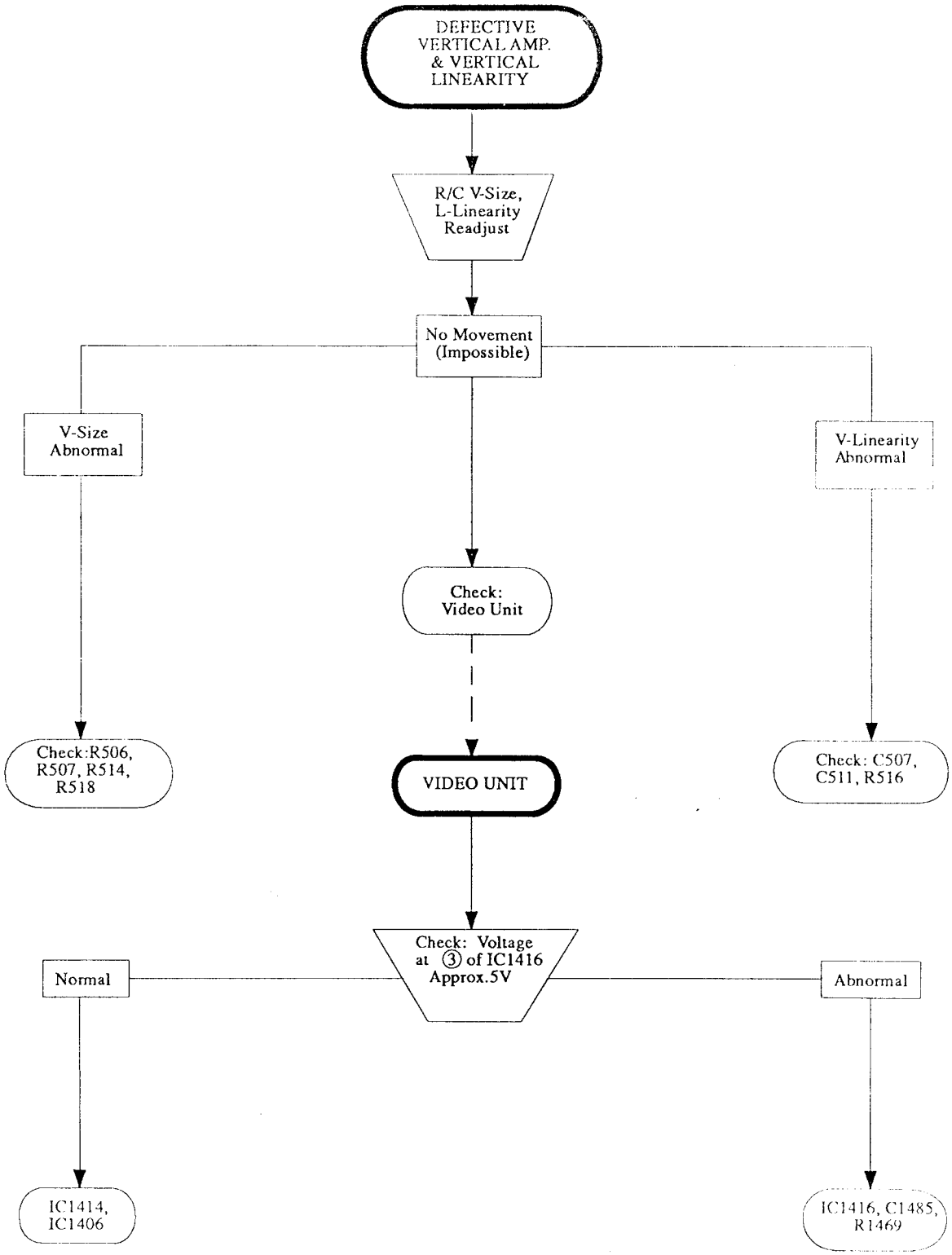


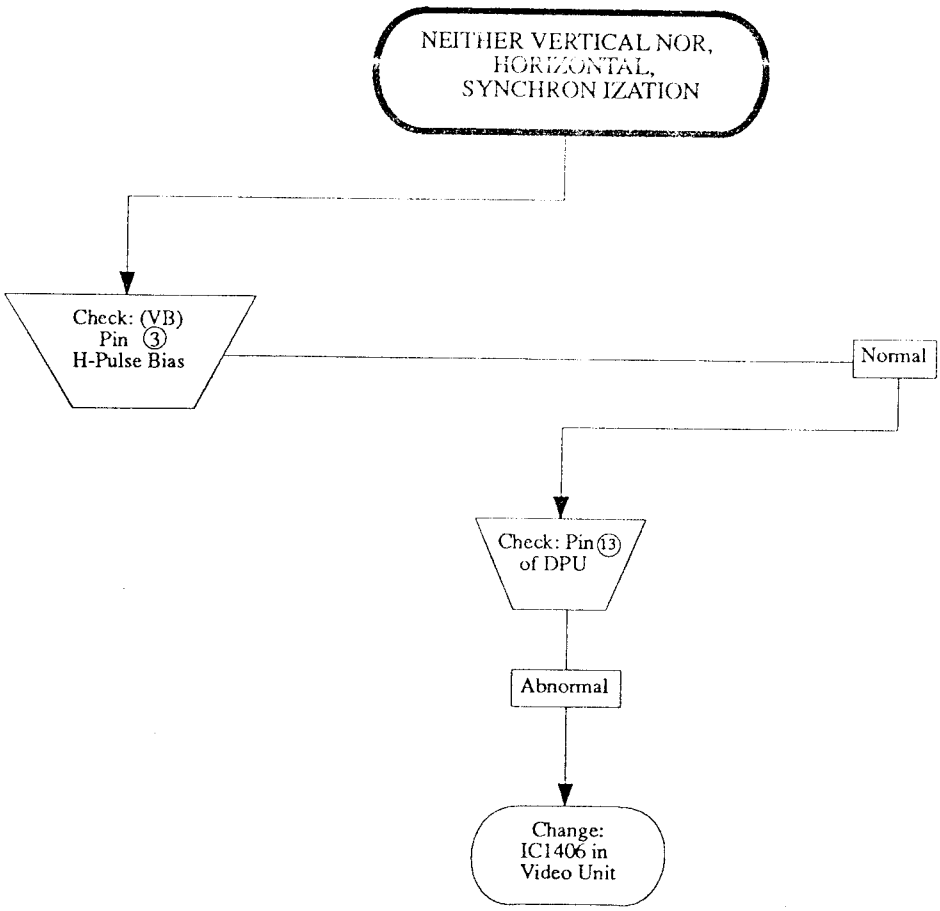

NO RASTER
Check : F701
Fuse Blown
Normal
Replace Fuse
Check: T702 Pin (9) Voltage Approx.300V
Abnormal
Fuse Blown Again
Check : R737
Normal
Check : Q701, IC701
Check: +B Voltage Approx. 150V
Normal
Approx.0V
Abnormal
Check : C735, D701, D702, D703, D704
Check : D601, C602
Check : 5V Line Approx. 5V
Abnormal
Normal
1
2
3

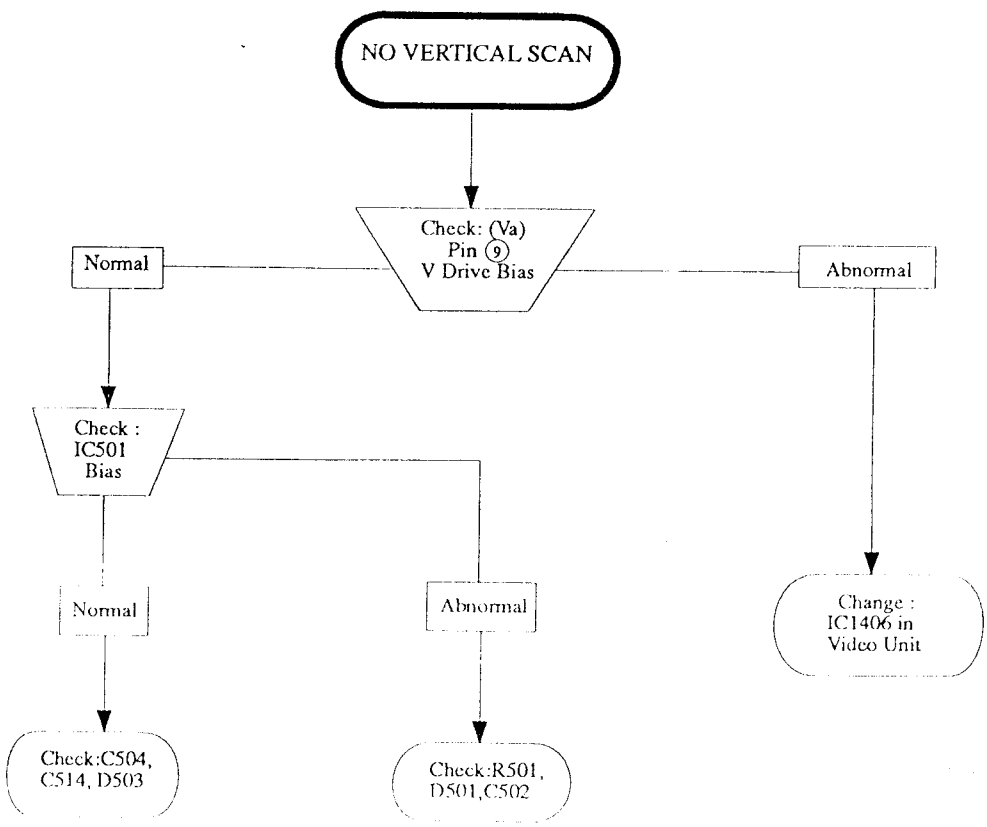

NO PICTURE NO SOUND
Check:Picture & Sound setting by R/C (P-Set, S-Set)
Does 12V appear at Pin (13) of IF Unit ?
Yes
No
Check:12V Regulator Circuit D611, R625, C624, IC603
Check: The Tuner BP, +B, BT BP: should be 5V +B: should be 12V BT: should be 33V
Normal
Abnormal
Check: VT
Check:Power supply for each circuit; BP:Q706, Q707, IC703, D713,D705, +B:IC603, D611,R625, C626, BT: IC211
Does VT change by channel changing?
Yes
No
Check : Tuner Circuit & IF Unit
When channel is changed does some signal appear at enable, data clock pins of Tuner?
Yes
No
IF UNIT
Check : Video Unit
Check: Voltage at Pin (21) of IC200 Approx. 9V
VIDEO UNIT
Normal
Abnormal
D200, C240, L204
Check: Voltage at Collector of Q200 Approx.7V
Check: R1419, R1420, R1429
Normal
Abnormal
Normal
Abnormal
IC200
Q200, R204
When R/C signal arrives does this signal appear at Pin (2) of (M)?
R1419, R1420, R1429
Yes
No
IC1414
Receive in IR Unit

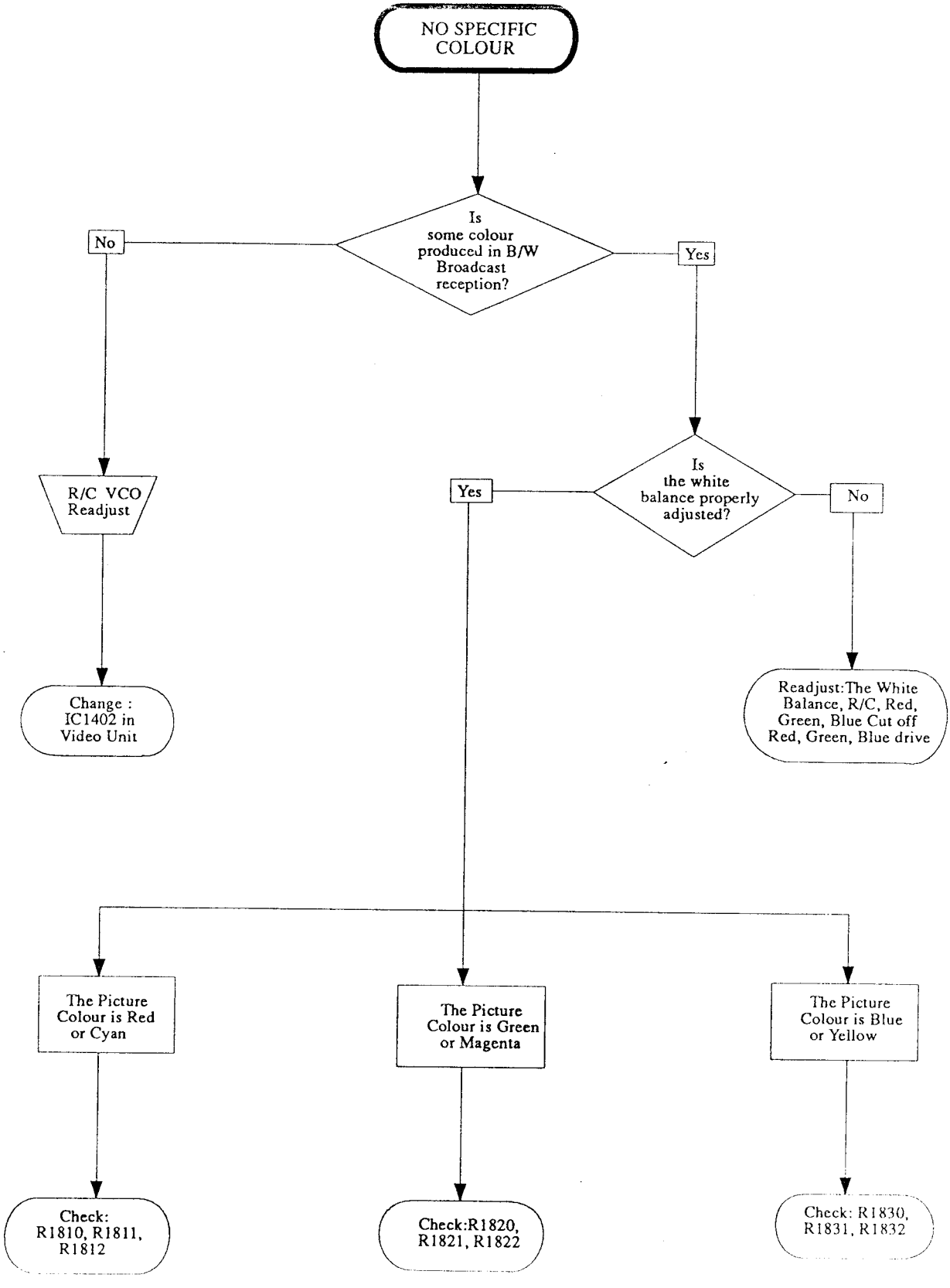

1
2
3
Check : D701, R726, R707, R708, R711
Check : Standby 5V Approx.5V
Normal
Check : Heater V Approx. 6.3V
Abnormal
Normal
Abnormal
Check : 12V
Normal
Check: R601
Abnormal
Check: IC701
Check: 5V Regulator
Check : Q708 Collector Approx.0V
Check: CRT
Abnormal
Normal
Video Unit CCU, DPU
Normal
VIDEO UNIT
Q706, Q707
T602, R606, Q602
Check : Voltage at Pin 3 of IC1417 Approx. 5V
Normal
Abnormal
When R/C signal arrives, Does this signal appear at Pin 2 of (M)?
Yes
No
IC1414, IC1406
Receive in IR Unit
IC1417, C1486, R1417

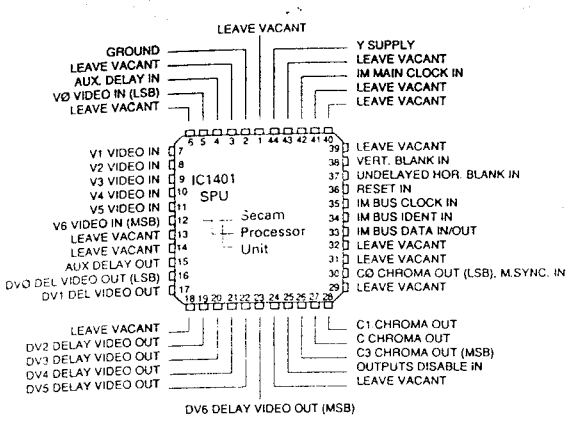

No
Check: ± 25V supply circuit D715, D717, C717, C718
Yes
When Volume is changed: Does some signal appear in IM BUS line Pins ① ③ & ④?
No
Yes
Check: Sound Unit
SOUND UNIT
Check: Voltage at Pins ⑫ & ⑬ of IC301. Voltage at Pins ⑭ & ⑱ of IC302. Approx. 12V at Pins ⑫ & ⑬ 5V at Pins ⑭ & ⑱
Normal
Abnormal
L302, L305, L303, R330, C337, C336, C316, C317, C334, C338
Does signal appear at Pins ⑩ ⑪ of IC301?
Yes
No
IC302
IC301
No
IC200, R231
Normal
IC201, T208
Yes
Does Sound signal appear at Pins ⑪ & ⑫ of Sound Unit (Aa)?
Yes
Check: IF Unit
Check: Sound mute circuit Q301, Q302
IF UNIT
Check: Voltage at Pin ㉑ of IC200 Approx. 9V
Abnormal
D200, C204, L204
Abnormal
Q201, R210
Abnormal
R264, C255
Abnormal
Q204, R252

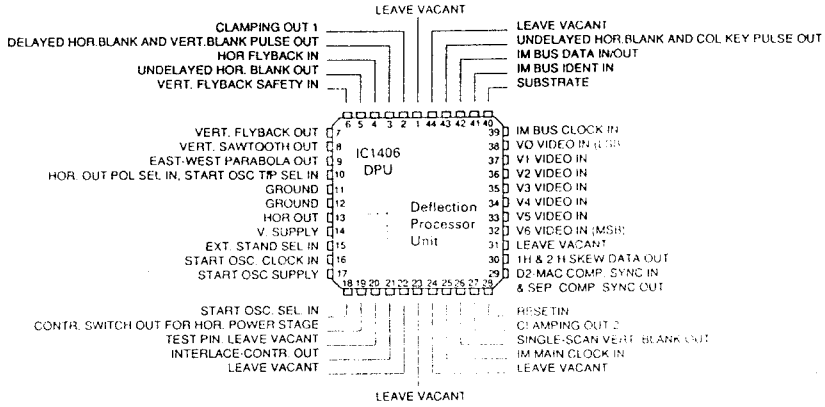

DEFECTIVE VERTICAL AMP. & VERTICAL LINEARITY
R/C V-Size, L-Linearity Readjust
No Movement (Impossible)
V-Size Abnormal
V-Linearity Abnormal
Check: Video Unit
Check:R506, R507, R514, R518
VIDEO UNIT
Check: C507, C511, R516
Check: Voltage at ③ of IC1416 Approx.5V
Normal
Abnormal
IC1414, IC1406
IC1416, C1485, R1469

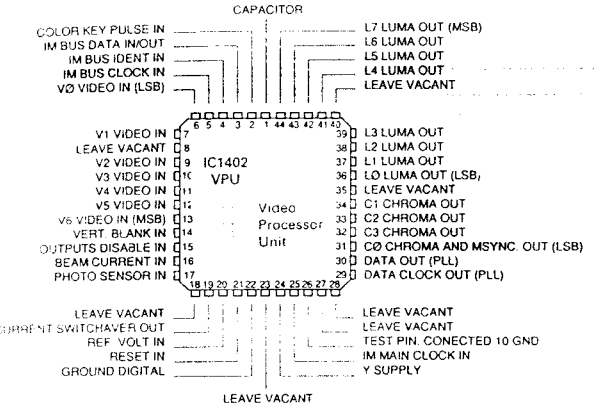

NEITHER VERTICAL NOR, HORIZONTAL, SYNCHRON IZATION
Check: (VB) Pin ③ H-Pulse Bias
Normal
Check: Pin ⑬ of DPU
Abnormal
Change: IC1406 in Video Unit

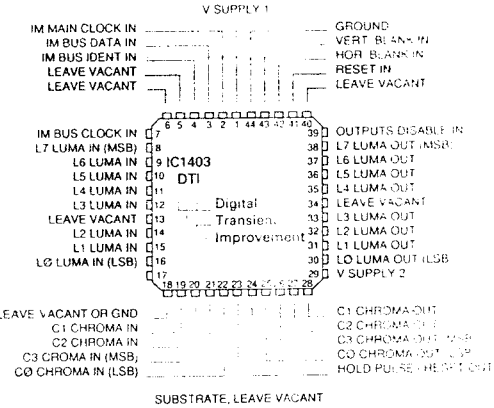

NO VERTICAL SCAN
Check: (Va) Pin ⑨ V Drive Bias
Normal
Abnormal
Check : IC501 Bias
Normal
Abnormal
Change : IC1406 in Video Unit
Check:C504, C514, D503
Check:R501, D501,C502

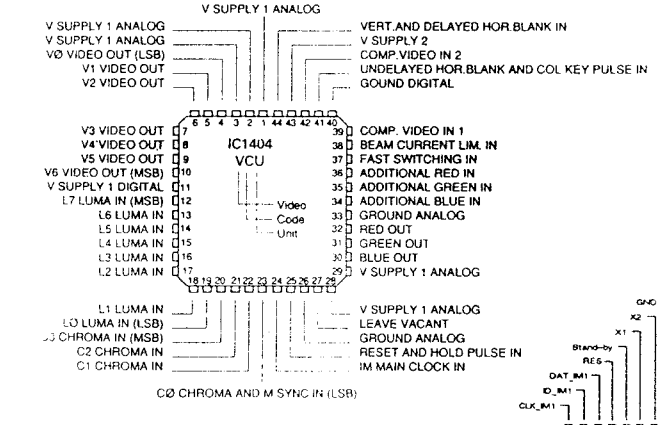

NO SPECIFIC COLOUR
Is some colour produced in B/W Broadcast reception?
No
Yes
R/C VCO Readjust
Change : IC1402 in Video Unit
Is the white balance properly adjusted?
Yes
No
Readjust:The White Balance, R/C, Red, Green, Blue Cut off Red, Green, Blue drive
The Picture Colour is Red or Cyan
Check: R1810, R1811, R1812
The Picture Colour is Green or Magenta
Check:R1820, R1821, R1822
The Picture Colour is Blue or Yellow
Check: R1830, R1831, R1832

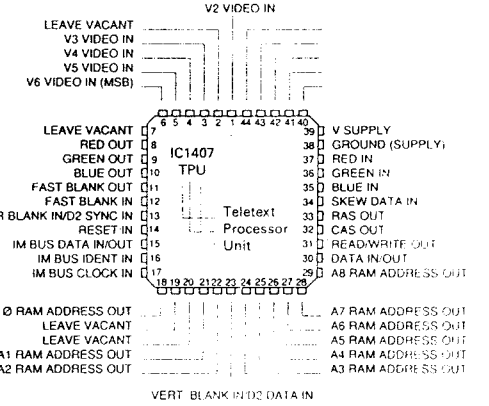

LEAVE VACANT
GROUND
LEAVE VACANT
AUX. DELAY IN
VØ VIDEO IN (LSB)
LEAVE VACANT
Y SUPPLY
LEAVE VACANT
IM MAIN CLOCK IN
LEAVE VACANT
LEAVE VACANT
V1 VIDEO IN
V2 VIDEO IN
V3 VIDEO IN
V4 VIDEO IN
V5 VIDEO IN
V6 VIDEO IN (MSB)
LEAVE VACANT
LEAVE VACANT
AUX DELAY OUT
DVØ DEL VIDEO OUT (LSB)
DV1 DEL VIDEO OUT
IC1401
SPU
Secam
Processor
Unit
LEAVE VACANT
IM BUS CLOCK IN
VERT. BLANK IN
UNDELAYED HOR. BLANK IN
RESET IN
IM BUS CLOCK IN
IM BUS IDENT IN
IM BUS DATA IN/OUT
LEAVE VACANT
LEAVE VACANT
CØ CHROMA OUT (LSB), M.SYNC. IN
LEAVE VACANT
LEAVE VACANT
DV2 DELAY VIDEO OUT
DV3 DELAY VIDEO OUT
DV4 DELAY VIDEO OUT
DV5 DELAY VIDEO OUT
DV6 DELAY VIDEO OUT (MSB)
C1 CHROMA OUT
C CHROMA OUT
C3 CHROMA OUT (MSB)
OUTPUTS DISABLE IN
LEAVE VACANT

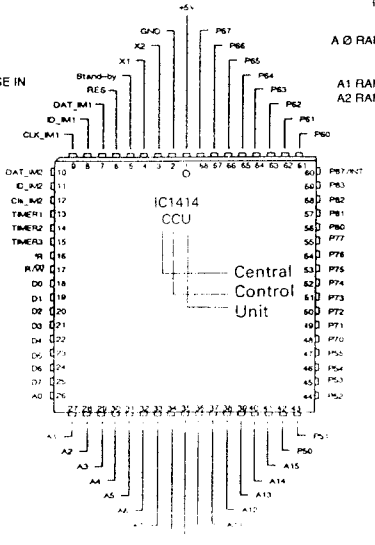

LEAVE VACANT
CLAMPING OUT 1
DELAYED HOR.BLANK AND VERT.BLANK PULSE OUT
HOR FLYBACK IN
UNDELAYED HOR. BLANK OUT
VERT. FLYBACK SAFETY IN
LEAVE VACANT
UNDELAYED HOR.BLANK AND COL KEY PULSE OUT
IM BUS DATA IN/OUT
IM BUS IDENT IN
SUBSTRATE
VERT. FLYBACK OUT
VERT. SAWTOOTH OUT
EAST-WEST PARABOLA OUT
HOR. OUT POL SEL IN, START OSC TRP SEL IN
GROUND
GROUND
HOR OUT
V. SUPPLY
EXT. STAND SEL IN
START OSC. CLOCK IN
START OSC SUPPLY
IC1406
DPU
Deflection
Processor
Unit
IM BUS CLOCK IN
VØ VIDEO IN (LSB)
V1 VIDEO IN
V2 VIDEO IN
V3 VIDEO IN
V4 VIDEO IN
V5 VIDEO IN
V6 VIDEO IN (MSB)
LEAVE VACANT
1H & 2 H SKEW DATA OUT
D2-MAC COMP. SYNC IN
& SEP. COMP. SYNC OUT
START OSC. SEL. IN
CONTR. SWITCH OUT FOR HOR. POWER STAGE
TEST PIN. LEAVE VACANT
INTERLACE-CONTR. OUT
LEAVE VACANT
RESET IN
C1 AMPING OUT 2
SINGLE-SCAN VERT. BLANK OUT
IM MAIN CLOCK IN
LEAVE VACANT
LEAVE VACANT


CAPACITOR
COLOR KEY PULSE IN
IM BUS DATA IN/OUT
IM BUS IDENT IN
IM BUS CLOCK IN
VØ VIDEO IN (LSB)
L7 LUMA OUT (MSB)
L6 LUMA OUT
L5 LUMA OUT
L4 LUMA OUT
LEAVE VACANT
V1 VIDEO IN
LEAVE VACANT
V2 VIDEO IN
V3 VIDEO IN
V4 VIDEO IN
V5 VIDEO IN
V6 VIDEO IN (MSB)
VERT. BLANK IN
OUTPUTS DISABLE IN
BEAM CURRENT IN
PHOTO SENSOR IN
IC1402
VPU
Video
Processor
Unit
L3 LUMA OUT
L2 LUMA OUT
L1 LUMA OUT
LØ LUMA OUT (LSB)
LEAVE VACANT
C1 CHROMA OUT
C2 CHROMA OUT
C3 CHROMA OUT
CØ CHROMA AND MSYNC. OUT (LSB)
DATA OUT (PLL)
DATA CLOCK OUT (PLL)
LEAVE VACANT
M CURRENT SWITCHAVER OUT
REF. VOLT IN
RESET IN
GROUND DIGITAL
LEAVE VACANT
LEAVE VACANT
TEST PIN. CONECTED 10 GND
IM MAIN CLOCK IN
Y SUPPLY
LEAVE VACANT

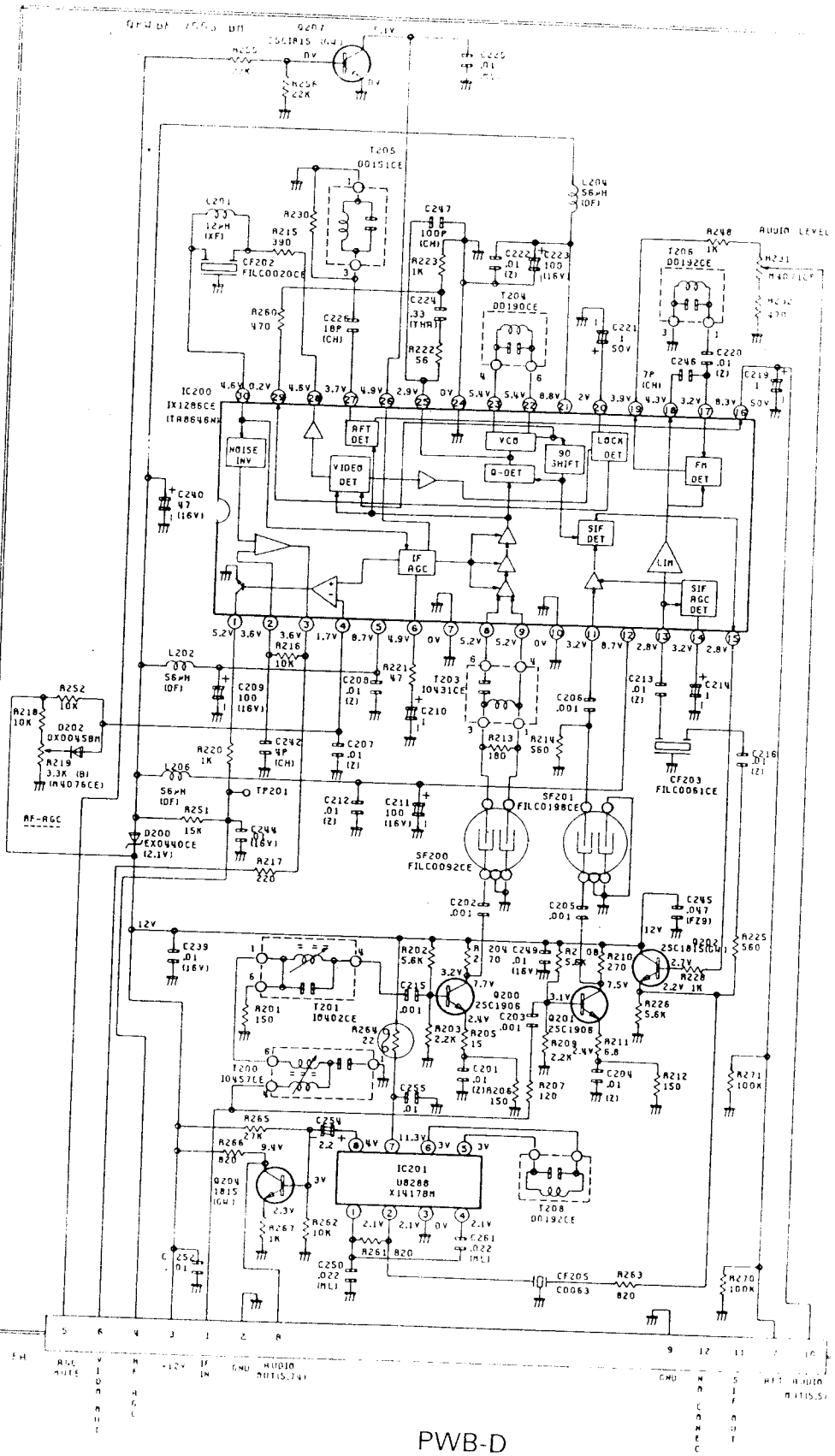

V SUPPLY 1
IM MAIN CLOCK IN
IM BUS DATA IN
IM BUS IDENT IN
LEAVE VACANT
LEAVE VACANT
GROUND
VERT. BLANK IN
HOR. BLANK IN
RESET IN
LEAVE VACANT
IM BUS CLOCK IN
L7 LUMA IN (MSB)
L6 LUMA IN
L5 LUMA IN
L4 LUMA IN
L3 LUMA IN
LEAVE VACANT
L2 LUMA IN
L1 LUMA IN
LØ LUMA IN (LSB)
IC1403
DTI
Digital
Transien.
Improvement
OUTPUTS DISABLE IN
L7 LUMA OUT (MSB)
L6 LUMA OUT
L5 LUMA OUT
L4 LUMA OUT
LEAVE VACANT
L3 LUMA OUT
L2 LUMA OUT
L1 LUMA OUT
LØ LUMA OUT (LSB)
V SUPPLY 2
LEAVE VACANT OR GND
C1 CHROMA IN
C2 CHROMA IN
C3 CROMA IN (MSB)
CØ CHROMA IN (LSB)
C1 CHROMA OUT
C2 CHROMA OUT
C3 CHROMA OUT (MSB)
CØ CHROMA OUT (LSB)
HOLD PULSE (RESET OUT
SUBSTRATE, LEAVE VACANT


V SUPPLY 1 ANALOG
V SUPPLY 1 ANALOG
V SUPPLY 1 ANALOG
VØ VIDEO OUT (LSB)
V1 VIDEO OUT
V2 VIDEO OUT
VERT.AND DELAYED HOR.BLANK IN
V SUPPLY 2
COMP.VIDEO IN 2
UNDELAYED HOR.BLANK AND COL KEY PULSE IN
GOUND DIGITAL
V3 VIDEO OUT
V4 VIDEO OUT
V5 VIDEO OUT
V6 VIDEO OUT (MSB)
V SUPPLY 1 DIGITAL
L7 LUMA IN (MSB)
L6 LUMA IN
L5 LUMA IN
L4 LUMA IN
L3 LUMA IN
L2 LUMA IN
IC1404
VCU
Video
Code
Unit
COMP. VIDEO IN 1
BEAM CURRENT LIM. IN
FAST SWITCHING IN
ADDITIONAL RED IN
ADDITIONAL GREEN IN
ADDITIONAL BLUE IN
GROUND ANALOG
RED OUT
GREEN OUT
BLUE OUT
V SUPPLY 1 ANALOG
L1 LUMA IN
LØ LUMA IN (LSB)
C3 CHROMA IN (MSB)
C2 CHROMA IN
C1 CHROMA IN
V SUPPLY 1 ANALOG
LEAVE VACANT
GROUND ANALOG
RESET AND HOLD PULSE IN
IM MAIN CLOCK IN
CØ CHROMA AND M.SYNC IN (LSB)


V2 VIDEO IN
LEAVE VACANT
V3 VIDEO IN
V4 VIDEO IN
V5 VIDEO IN
V6 VIDEO IN (MSB)
LEAVE VACANT
RED OUT
GREEN OUT
BLUE OUT
FAST BLANK OUT
FAST BLANK IN
HOR BLANK IN/D2 SYNC IN
RESET IN
IM BUS DATA IN/OUT
IM BUS IDENT IN
IM BUS CLOCK IN
IC1407
TPU
Teletext
Processor
Unit
V SUPPLY
GROUND (SUPPLY)
RED IN
GREEN IN
BLUE IN
SKEW DATA IN
RAS OUT
CAS OUT
READ/WRITE OUT
DATA IN/OUT
A8 RAM ADDRESS OUT
A Ø RAM ADDRESS OUT
LEAVE VACANT
LEAVE VACANT
A1 RAM ADDRESS OUT
A2 RAM ADDRESS OUT
A7 RAM ADDRESS OUT
A6 RAM ADDRESS OUT
A5 RAM ADDRESS OUT
A4 RAM ADDRESS OUT
A3 RAM ADDRESS OUT
VERT. BLANK IN/D2 DATA IN

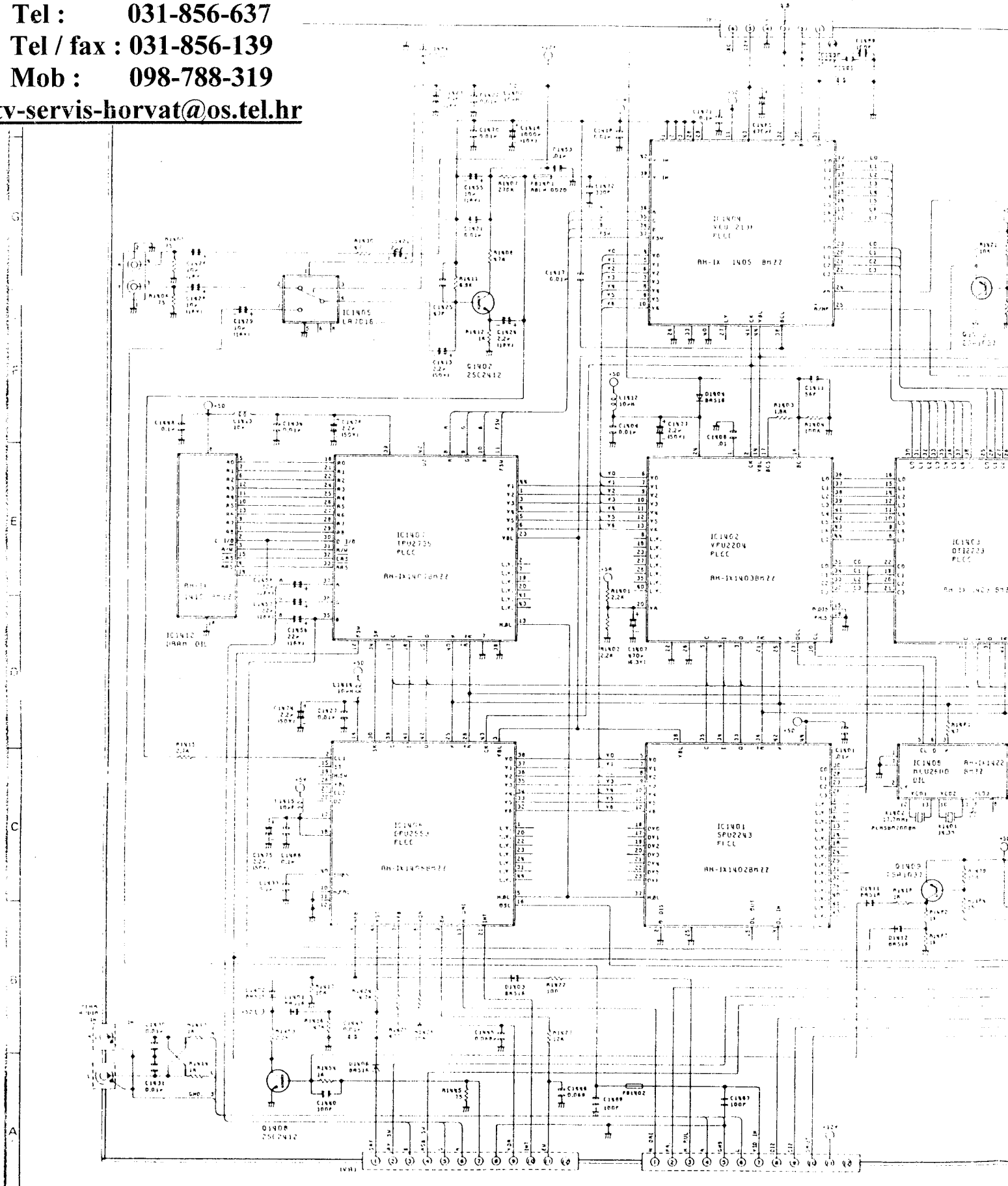

IC1414
CCU
Central
Control
Unit

IF UNIT ZF-EINHEIT

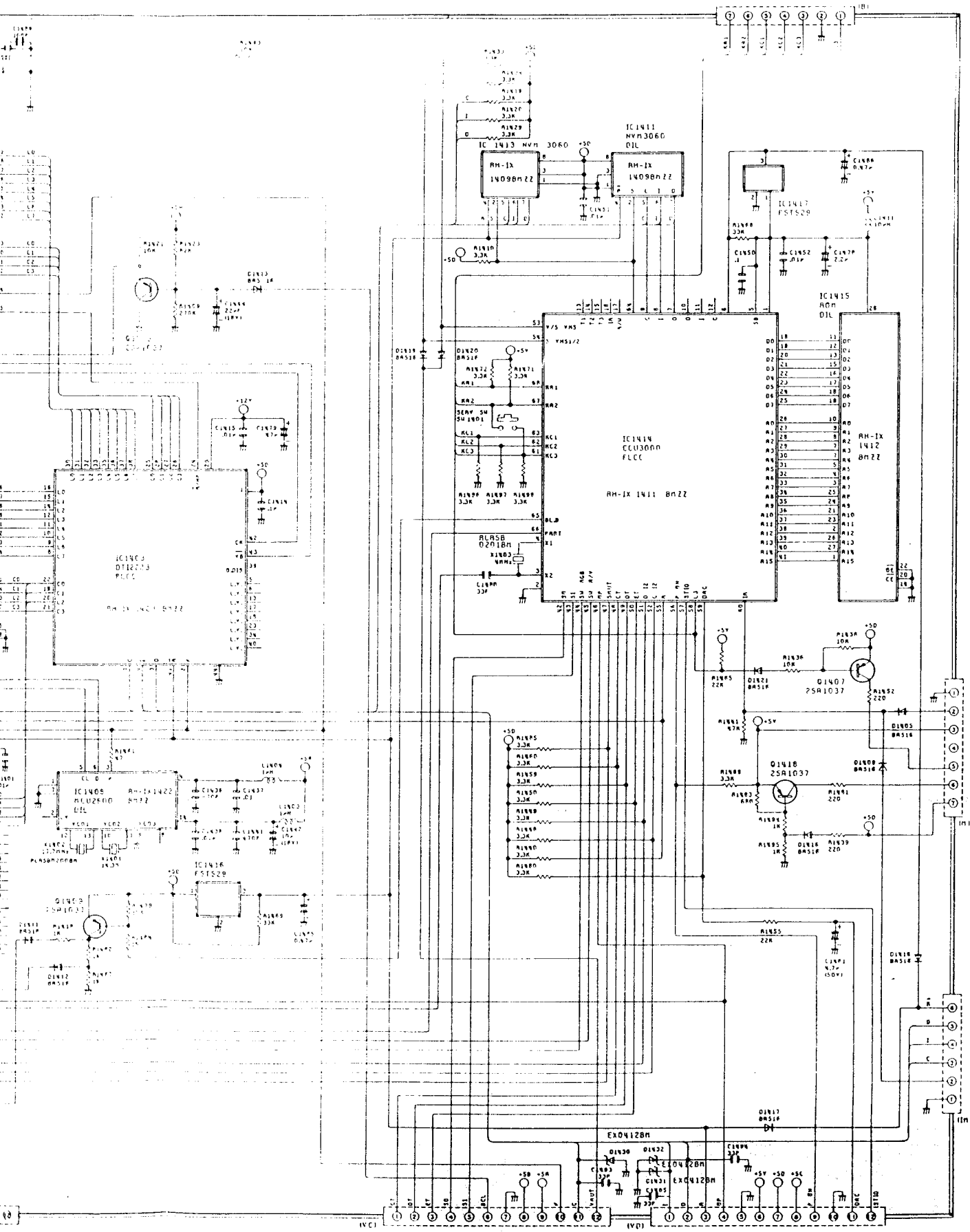


PWB-D

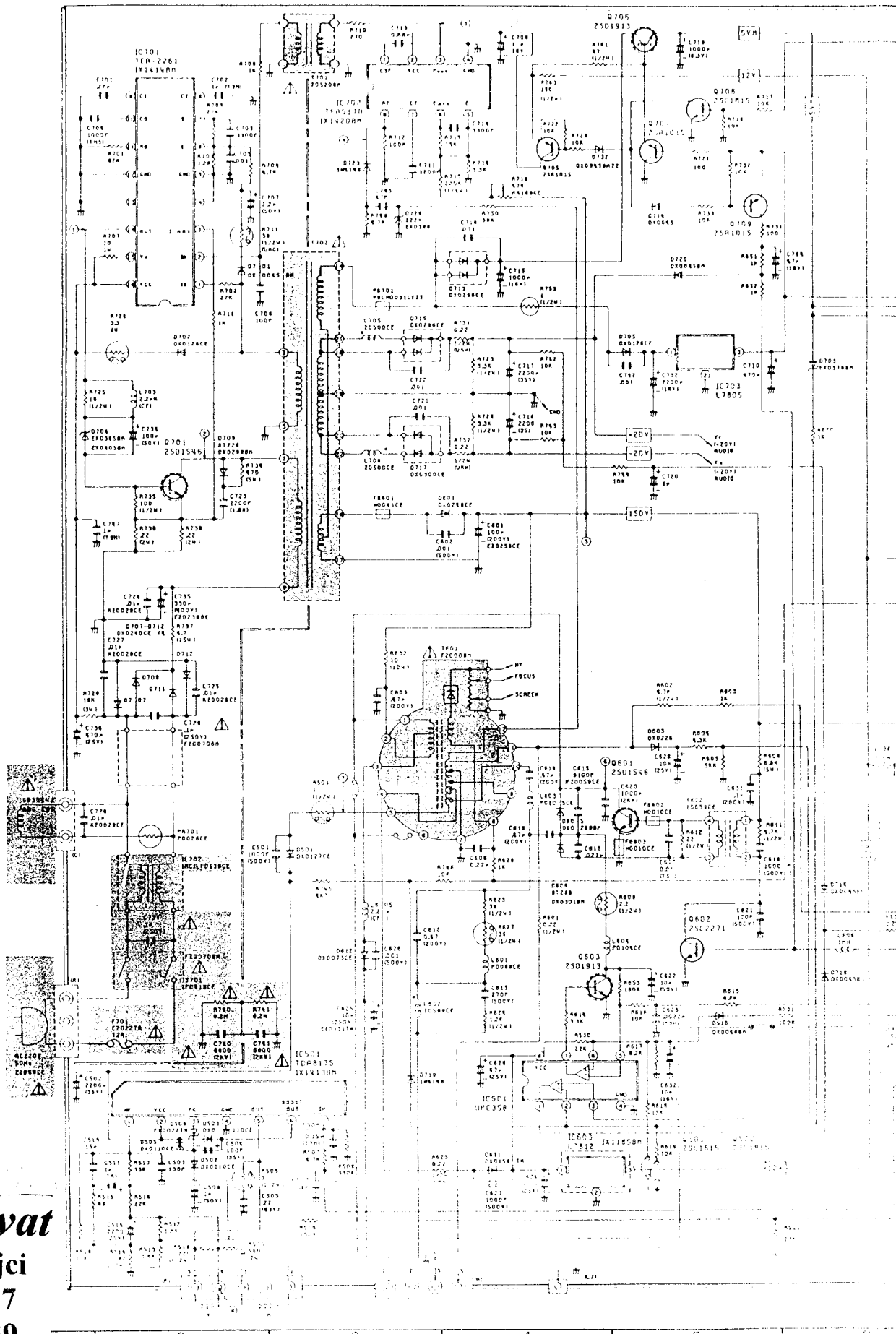
SCHEMATIC DIAGRAM VIDEO UNIT



SCHEMATISCHER SCHALTPLAN VIDEO-EINHEIT



SCHEMATIC DIAGRAM MOTHER UNIT



SCHEMATISCHER SCHALTPLAN HAUPTPLATINE