4-1. INTRODUCTION (Figure 4-1)

This section outlines the circuitry that is housed in the Camera Head. The camera electronics include a Video Board and Scanning Board which are hinge-mounted on both sides of the Camera Head. Also, Low and High Voltage Power Supply Boards are located in the camera top cover which is also hinge-mounted. The three FET Amplifiers are mounted on the RGB Assembly under a protective cover. The Dynamic Focus Board is a plug-in module located behind the Local Control Module inside the Camera Head. (The Local Control Module must be removed to gain access to the Dynamic Focus Board.)

NOTE

When using the remote control unit, the Local Control Module must be disconnected and plug (F) must be connected to receptacle (F2).

Each PW assembly is represented by a photograph or PW layout, block diagram and schematic. The drawings are arranged in the following sequence:

Code	Title
H	Video Board
P	Scanning Board
LR	Red Preamplifier
LG	Green Preamplifier
LB	Blue Preamplifier
U	Dynamic Focus Board
J	Low Voltage Power Supply
K	High Voltage Power Supply
X	Control Module
...	Remote Control Unit
...	Video Switching and Audio Unit
...	Viewfinder Assembly

Code letters in diagram titles correspond to respective connector designations on Figure 4-2; Camera Head Interconnection Diagram. The Photographs (or PW layouts) indicate all variable controls. Block Diagrams and schematics are to be used in conjunction with Figure 4-2 to determine signal destinations. See Figure 4-3 for Camera Simplified Block Diagram.

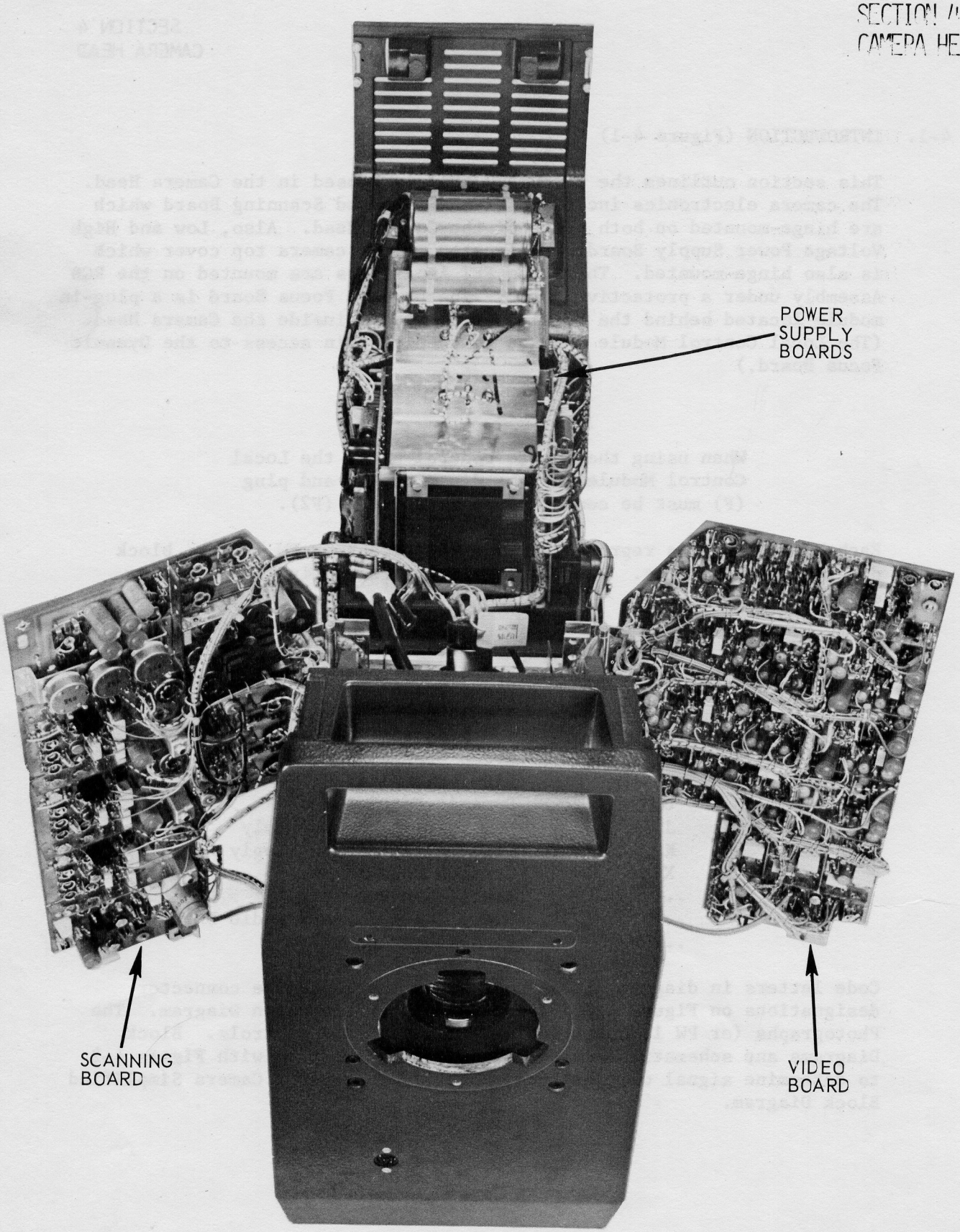
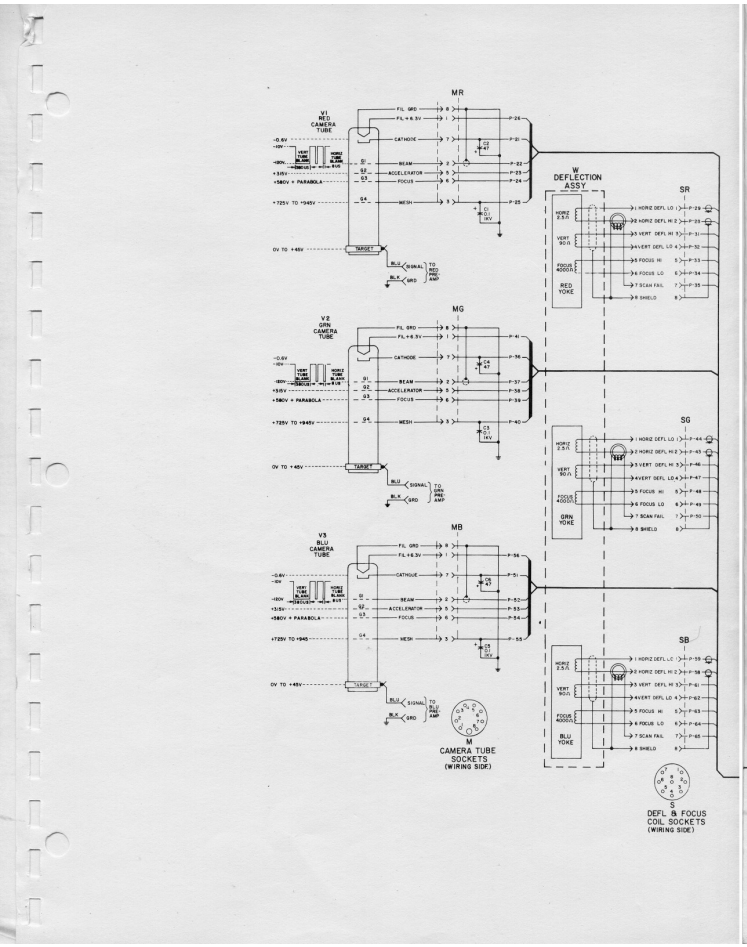
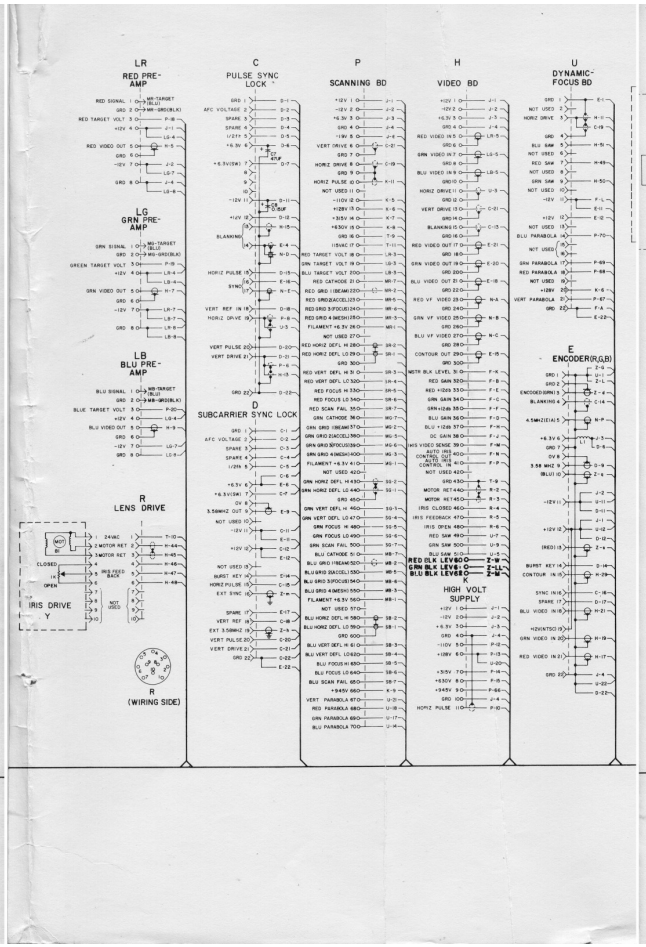
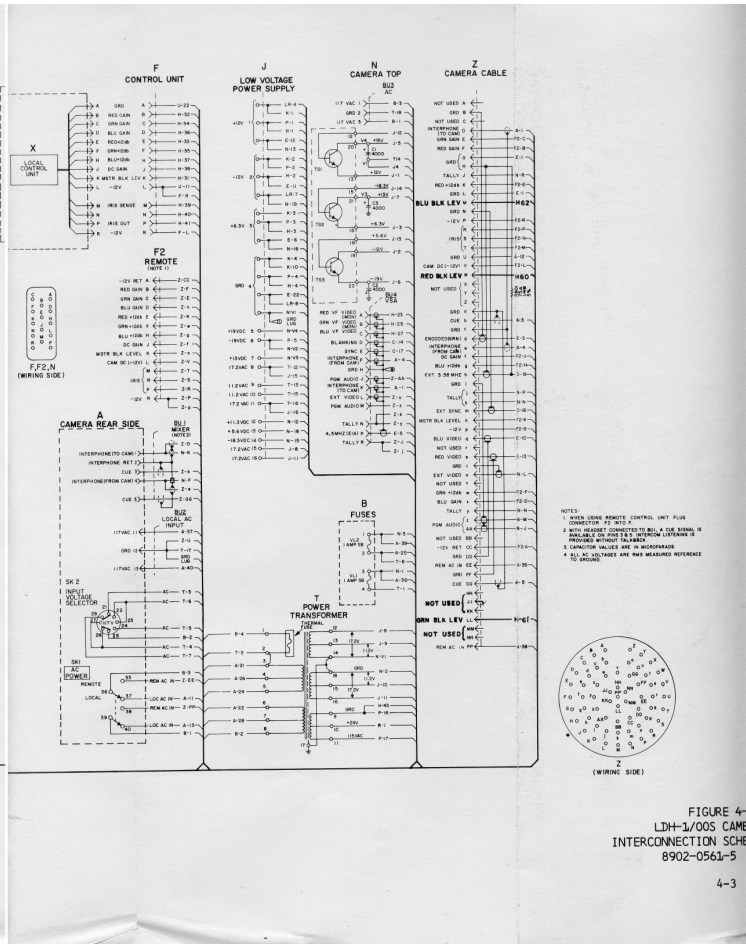


FIGURE 4-1. LDH-1/00S CAMERA HEAD (TOP AND SIDE PANELS OPEN)







NOTES:
1. WHEN USING REMOTE CONTROL UNIT PLUG CONNECTOR P2 INTO P.
2. WITH HEADSET CONNECTED TO BU1, A CUE SIGNAL IS AVAILABLE ON PINS 7 & 8. INTERCOM LISTENING IS PROVIDED WITHOUT TALKBACK.
3. CAPACITOR VALUES ARE IN MICROFARADS.
4. ALL AC VOLTAGES ARE RMS MEASURED REFERENCE TO GROUND.

FIGURE 4-
LDH-1/OOS CAME
INTERCONNECTION SCHE
8902-0561-5

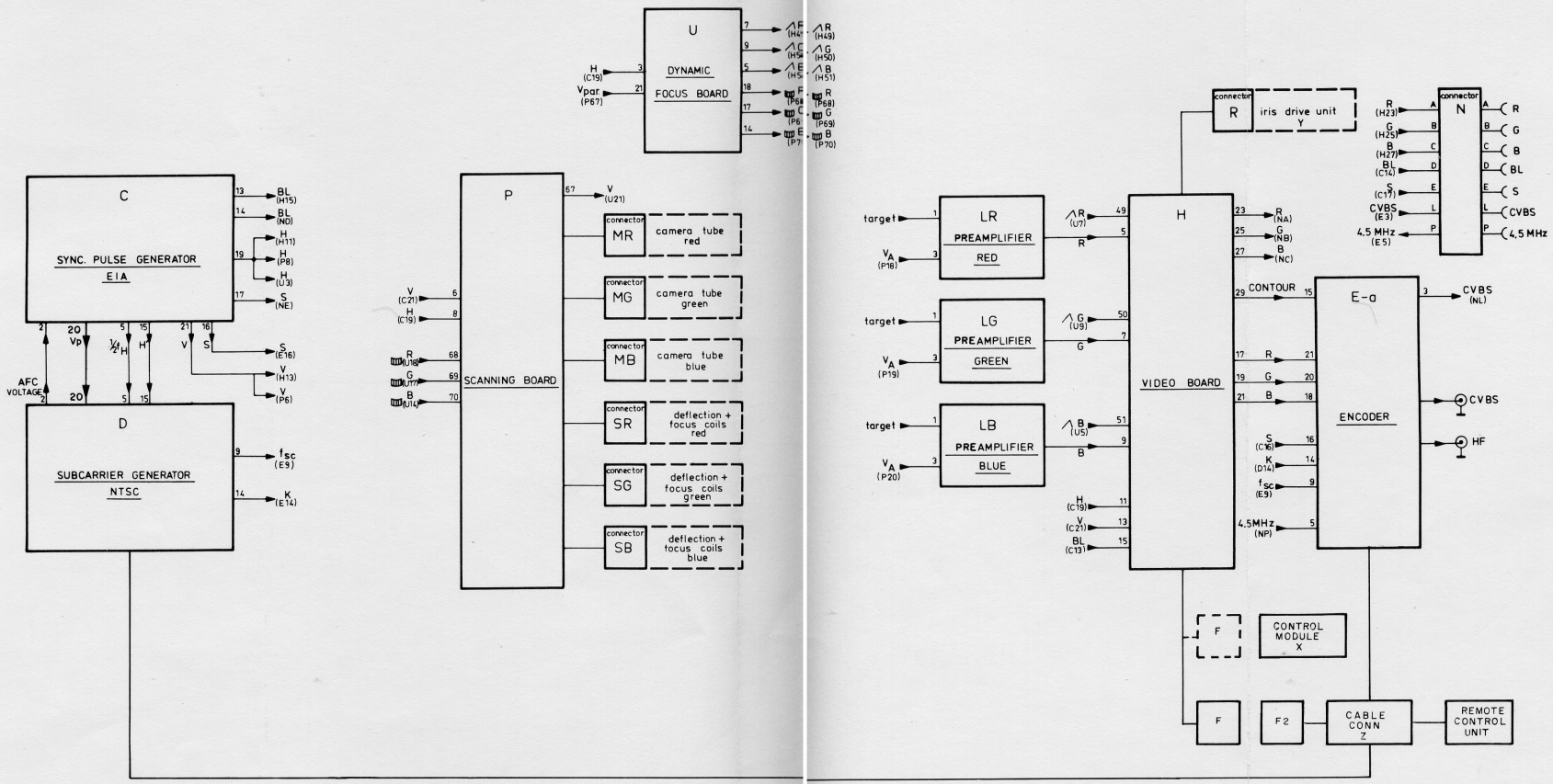
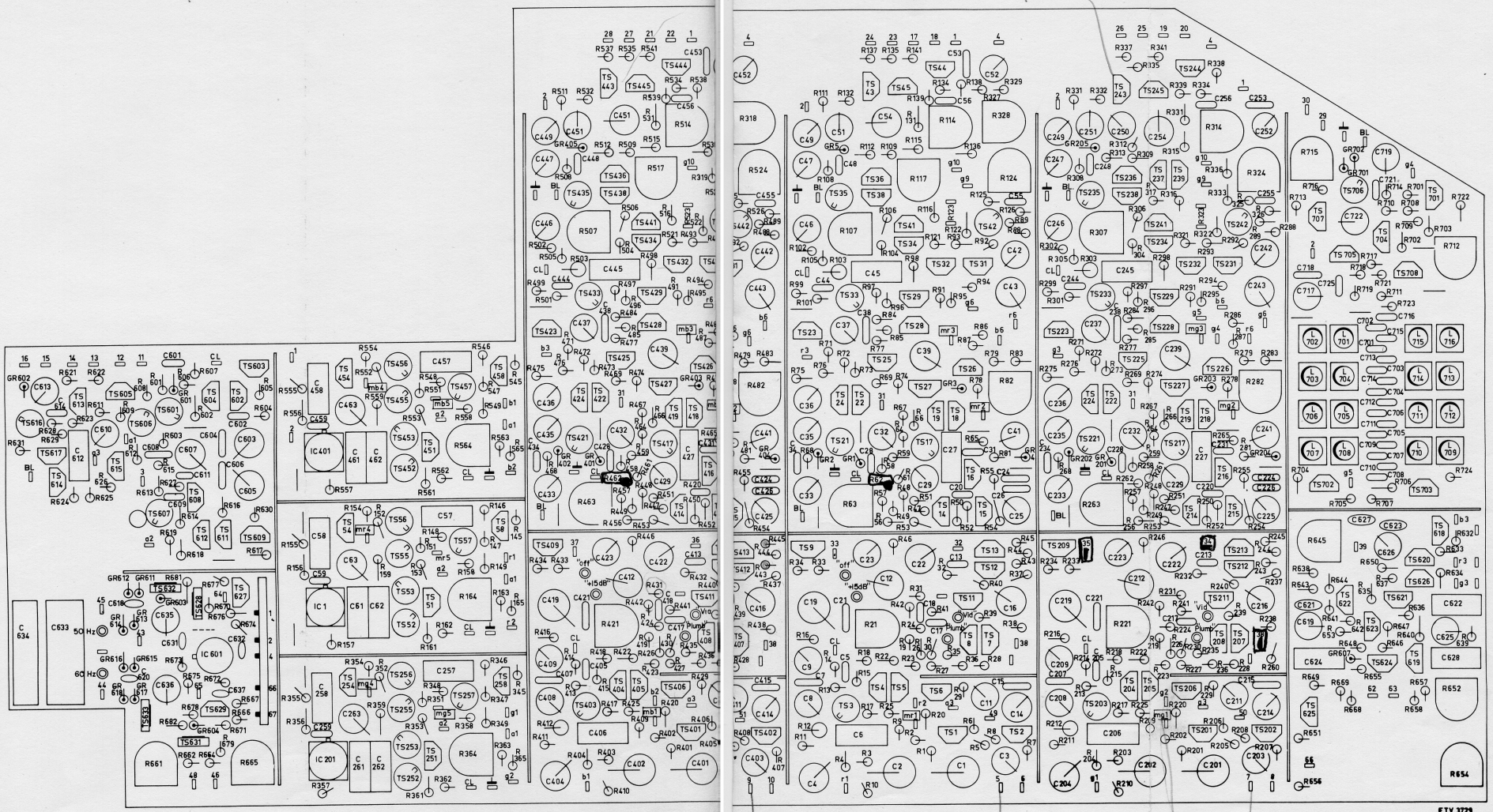


FIGURE 4-3
LDH-1/OOS CAMERA SIMPLIFIED
BLOCK DIAGRAM



VIDEO BOARD P.W.B. (H) side of com

ponents (for serial numbers >1500)

FIGURE 4-4A
VIDEO BOARD(H)
PW ASSEMBLY

ETV 3729

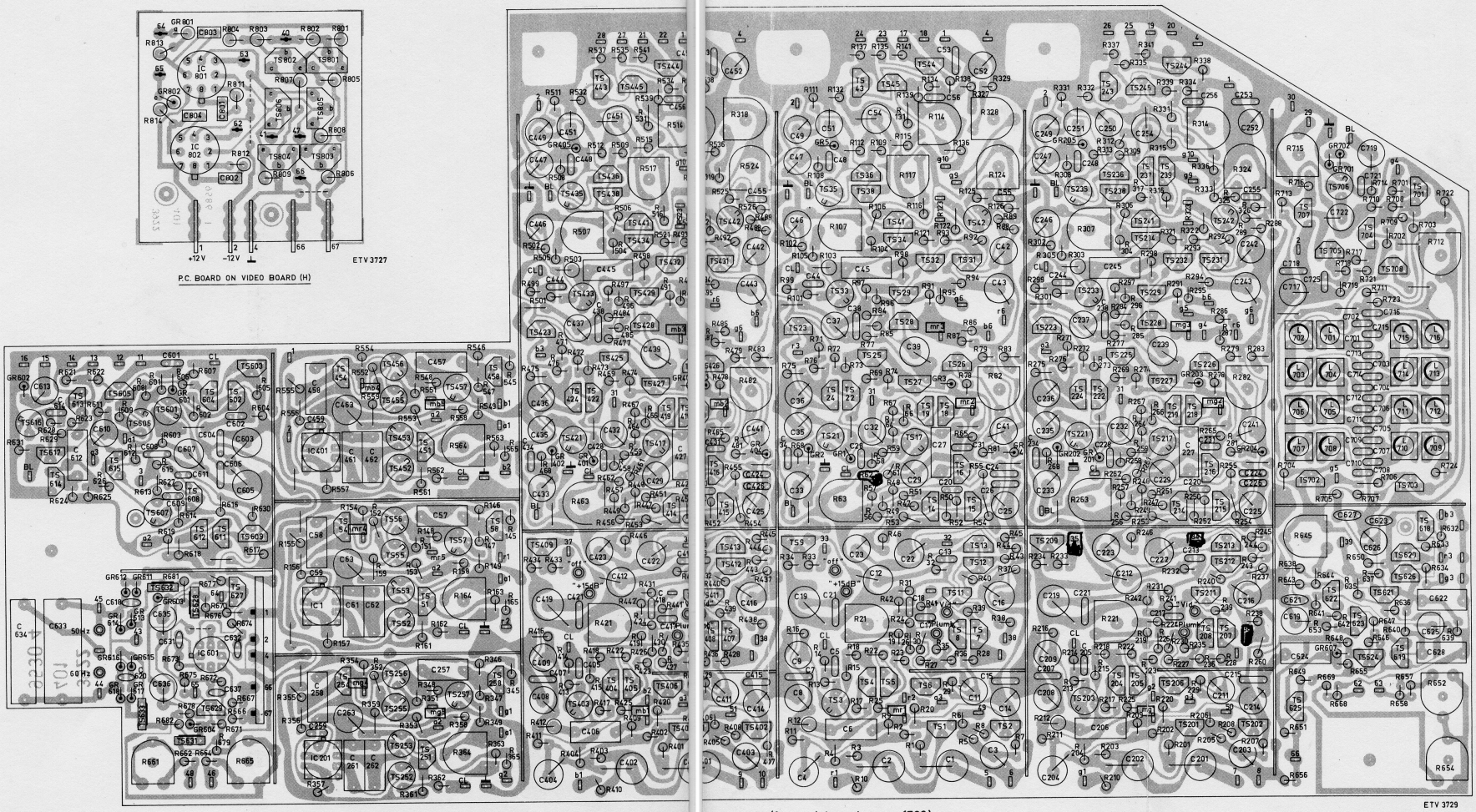
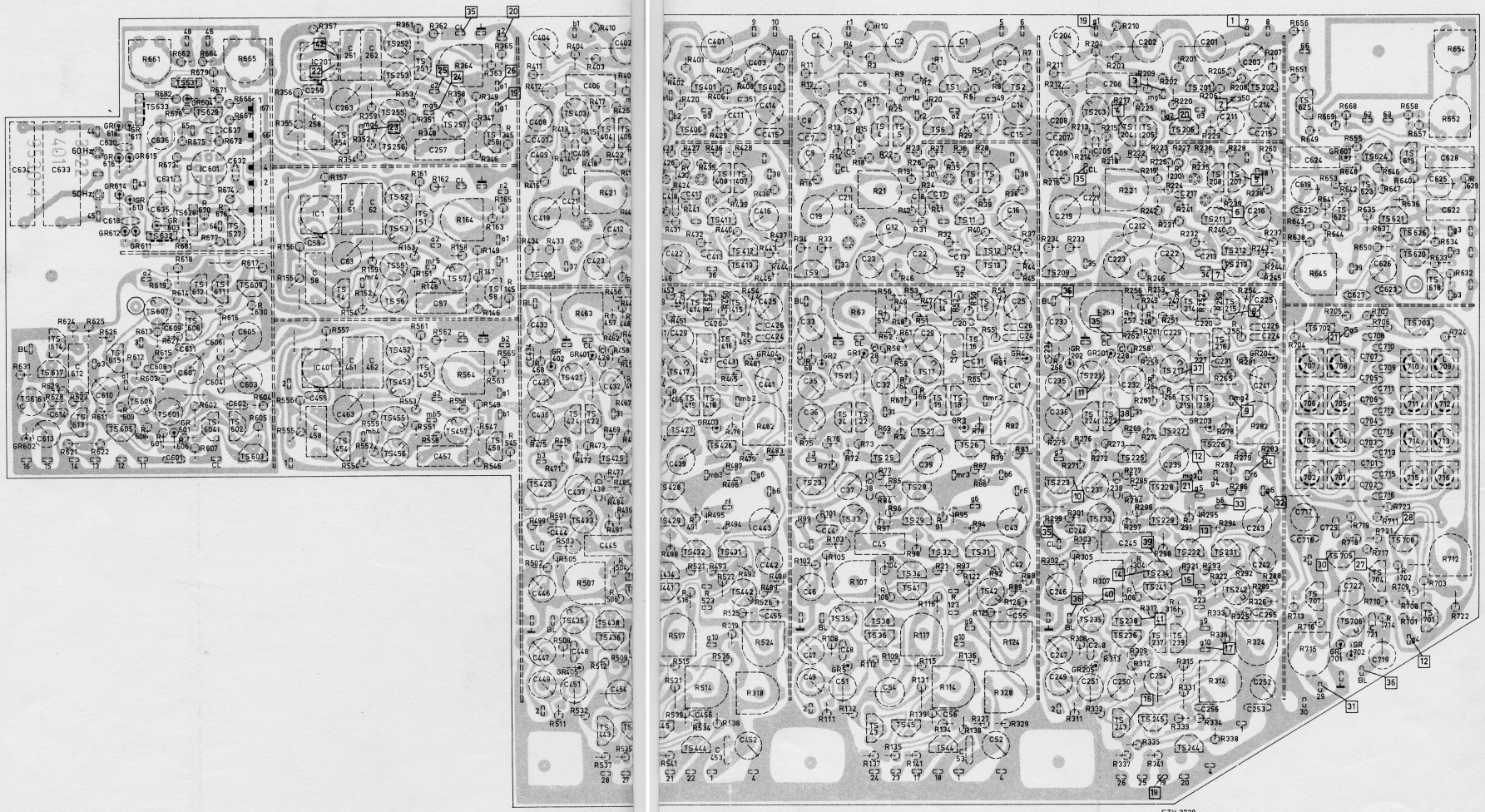


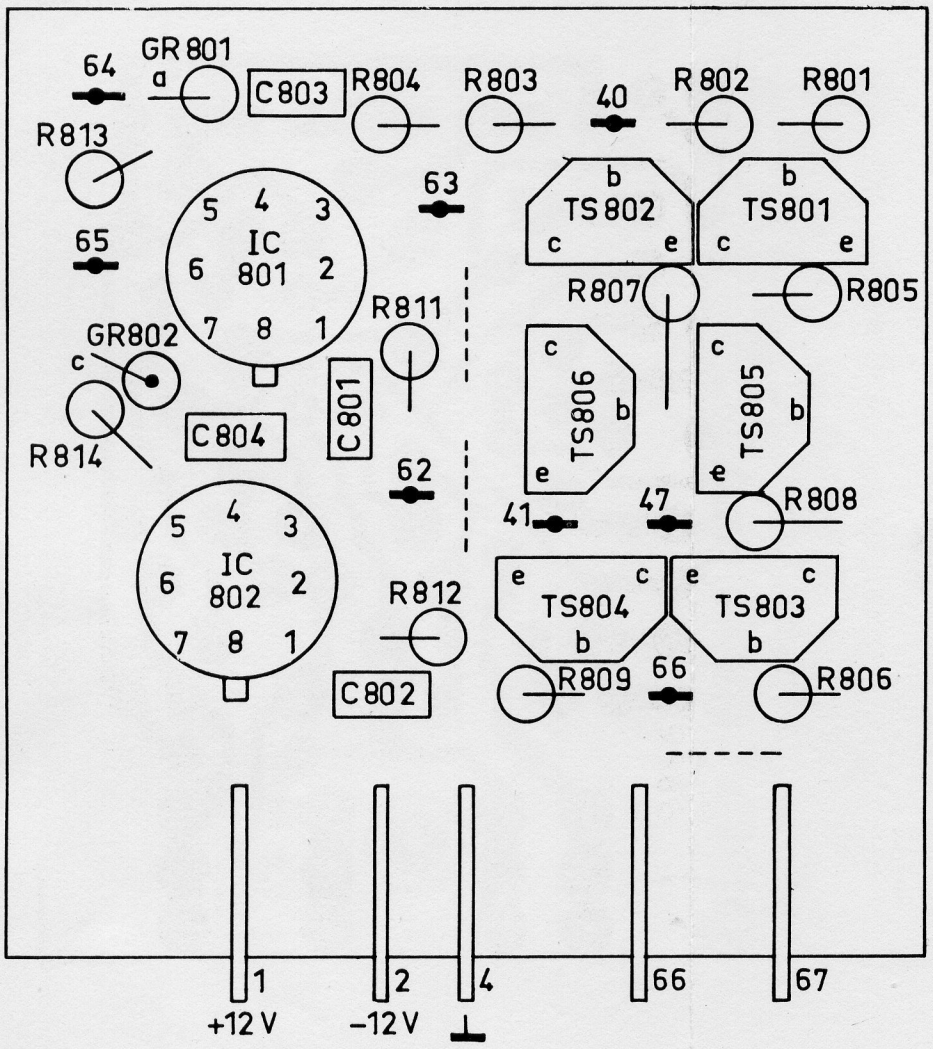
FIGURE 4-4B
VIDEO BOARD (H)
COMPONENT SIDE



VIDEO BOARD P.W.B. (H) side of tracks (for serial numbers >1500)

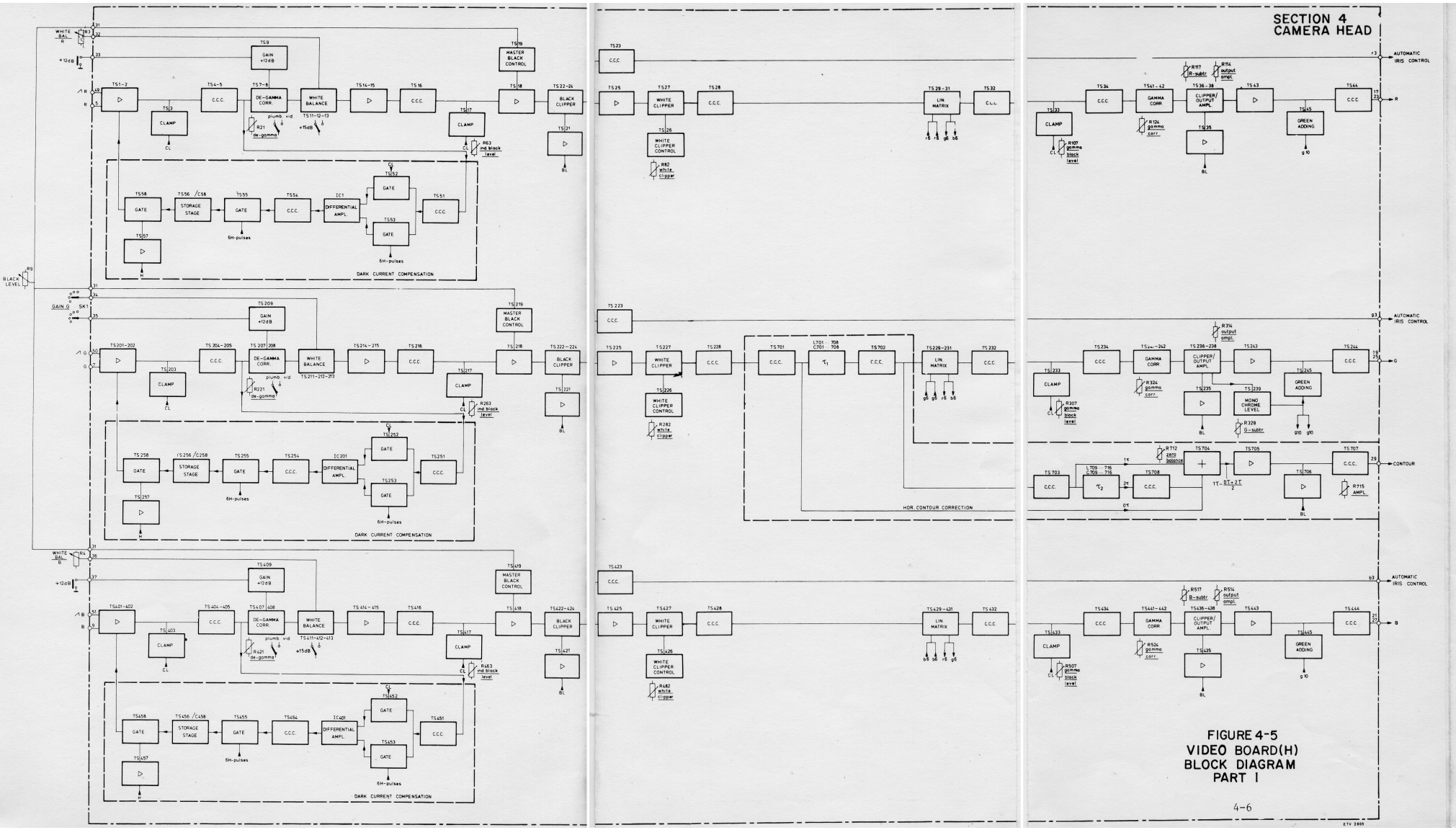
ETV 3730

FIGURE 4-4C
VIDEO BOARD (H)
CLAD SIDE



)EO BOARD(H)

FIGURE 4-4D
IRIS CONTROL BOARD


SECTION 4
CAMERA HEAD
WHITE BAL. R
WHITE BAL. B
BLACK LEVEL
GAIN G
+12dB
GAIN +12dB
MASTER BLACK CONTROL
CLAMP
DE-GAMMA CORR.
WHITE BALANCE
BLACK CLIPPER
plumb. vid.
+15dB
de-gamma
ind. black level
GATE
STORAGE STAGE
DIFFERENTIAL AMPL.
6H-pulses
DARK CURRENT COMPENSATION
WHITE CLIPPER
WHITE CLIPPER CONTROL
white clipper
LIN. MATRIX
HOR. CONTOUR CORRECTION
AUTOMATIC IRIS CONTROL
CLIPPER/ OUTPUT AMPL.
GAMMA CORR.
gamma corr.
GREEN ADDING
MONO CHROME LEVEL
G-subtr.
R-subtr.
B-subtr.
output ampl.
black level
zero balance
AMPL.
CONTOUR
FIGURE 4-5
VIDEO BOARD(H)
BLOCK DIAGRAM
PART I

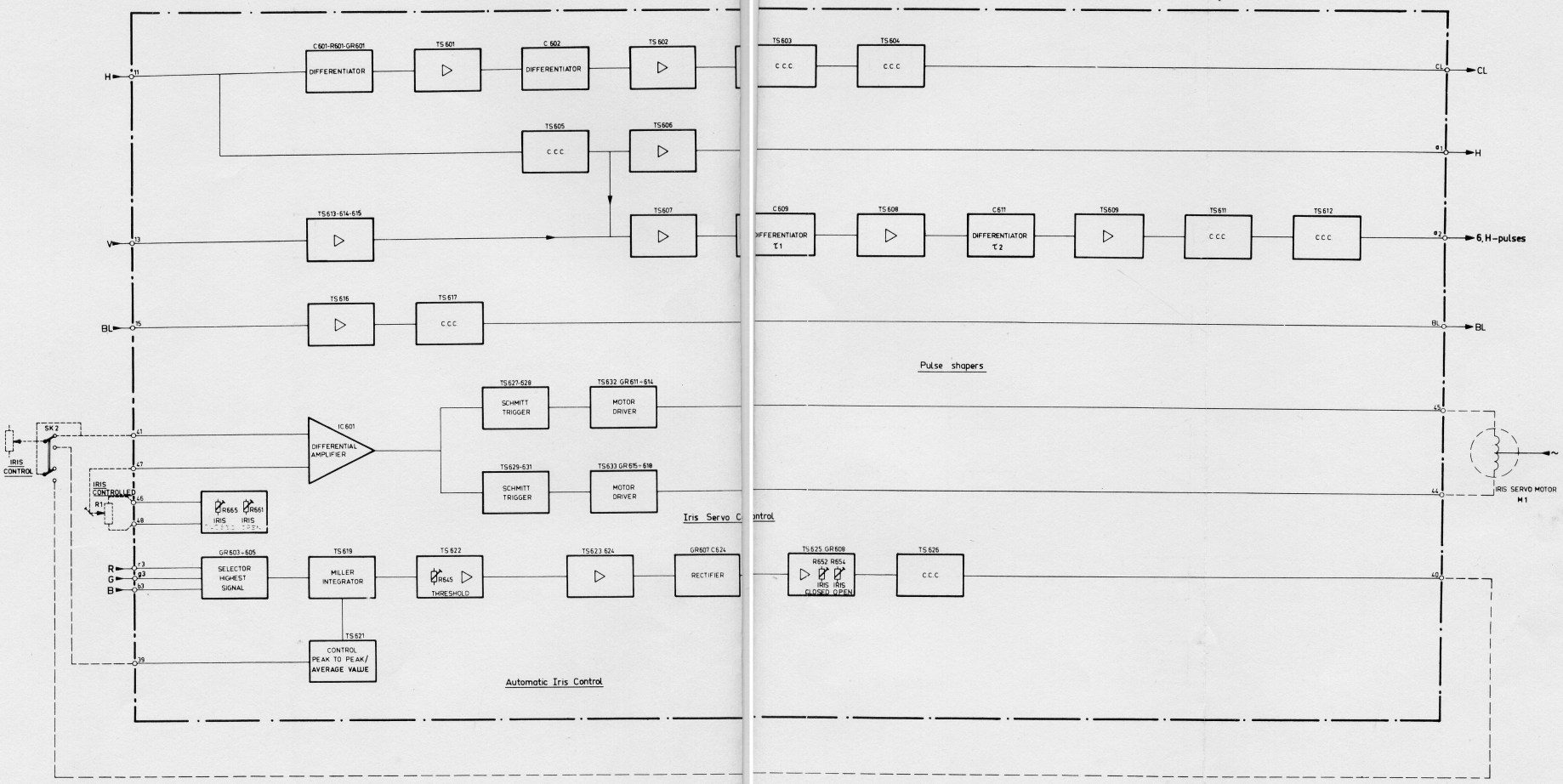
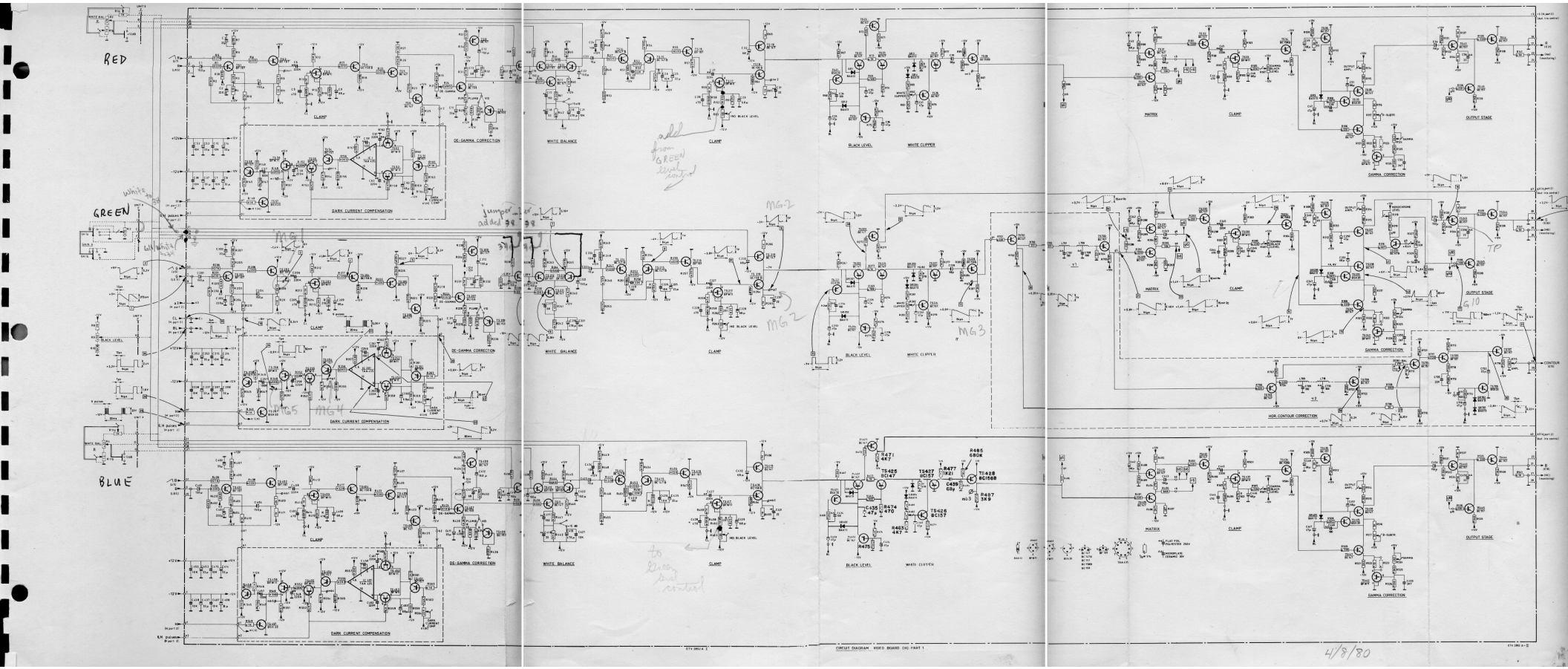


FIGURE 4-6
VIDEO BOARD(H)
BLOCK DIAGRAM
PART 2


RED
GREEN
BLUE
CLAMP
DE-GAMMA CORRECTION
DARK CURRENT COMPENSATION
WHITE BALANCE
BLACK LEVEL
WHITE CLIPPER
MATRIX
GAMMA CORRECTION
OUTPUT STAGE
HOR CONTOUR CORRECTION
CONTOUR
CIRCUIT DIAGRAM VIDEO BOARD (16) PART 1
4/8/80

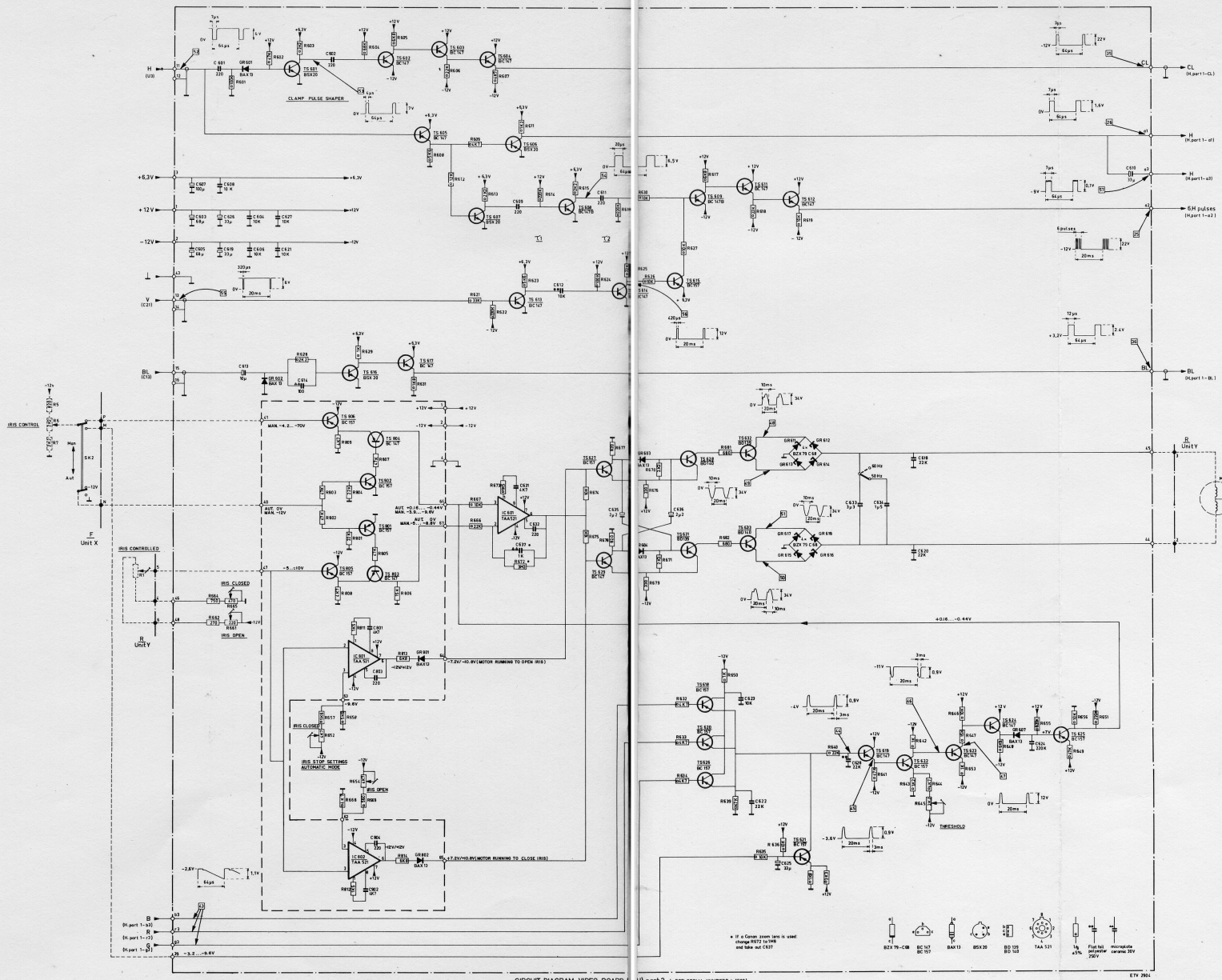
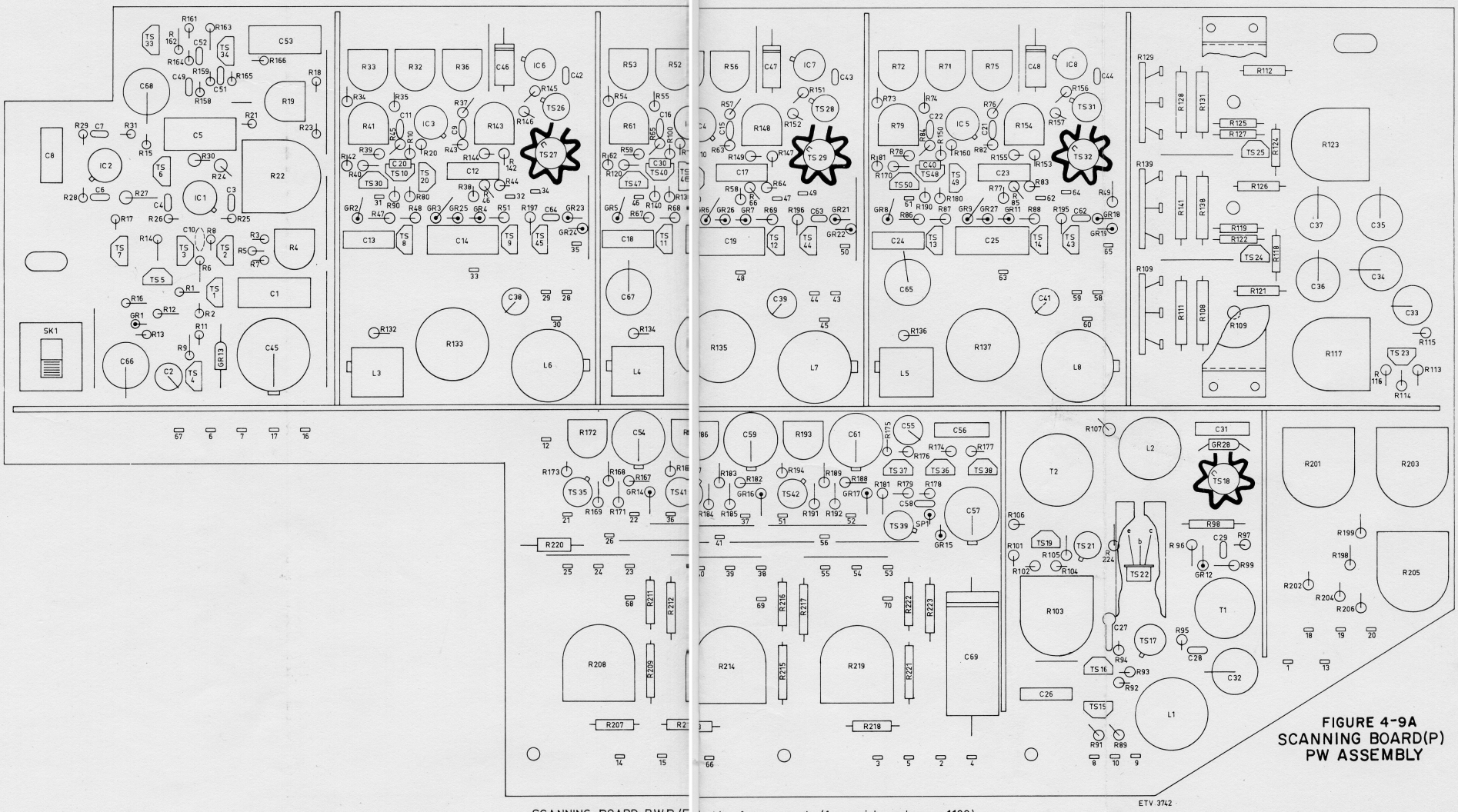


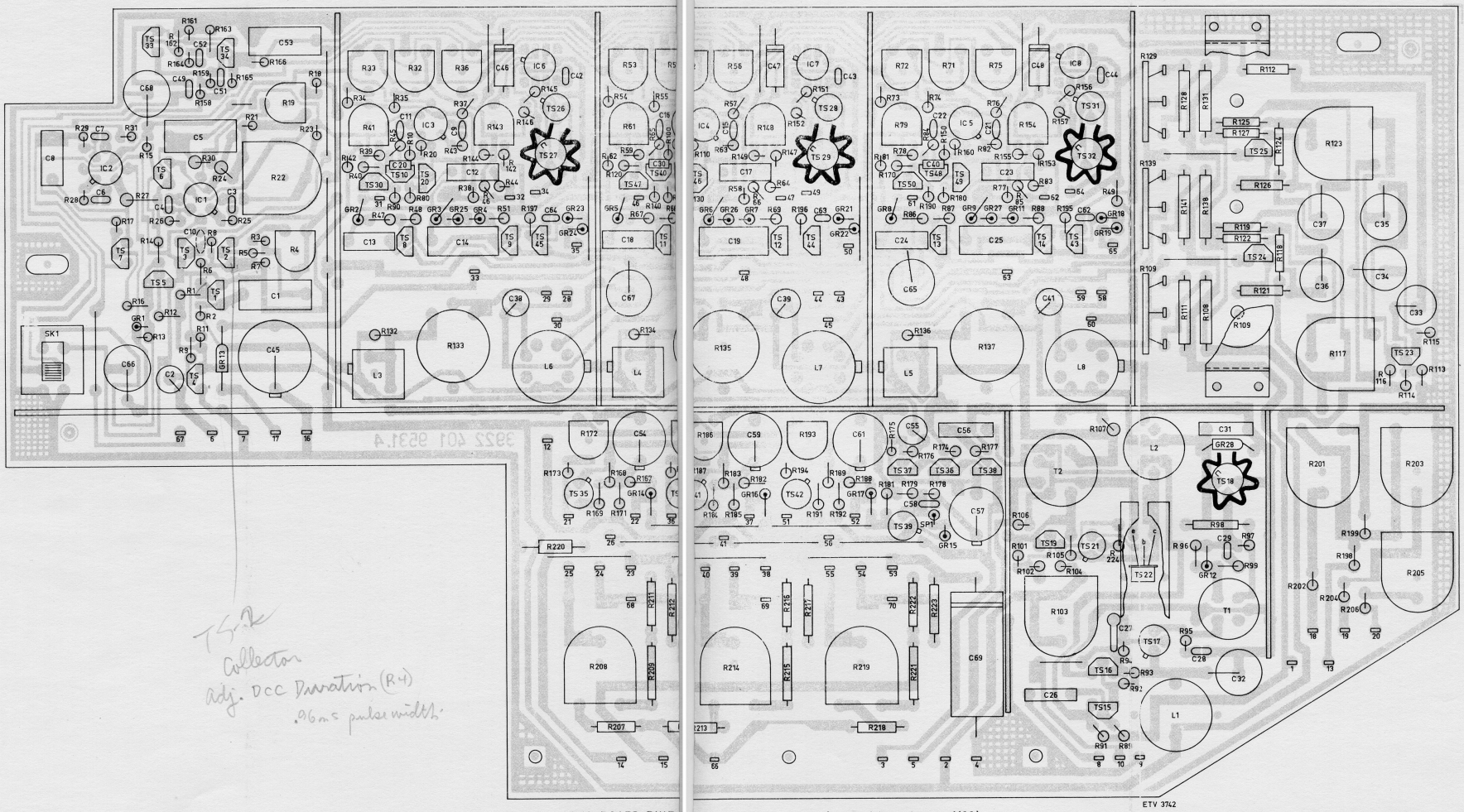
FIGURE 4-8
VIDEO BOARD(H)
SCHEMATIC DIAGRAM
PART 2
8902-1042-5, REV-



SCANNING BOARD P.W.B (F) side of components (for serial numbers >1100)

ETV 3742

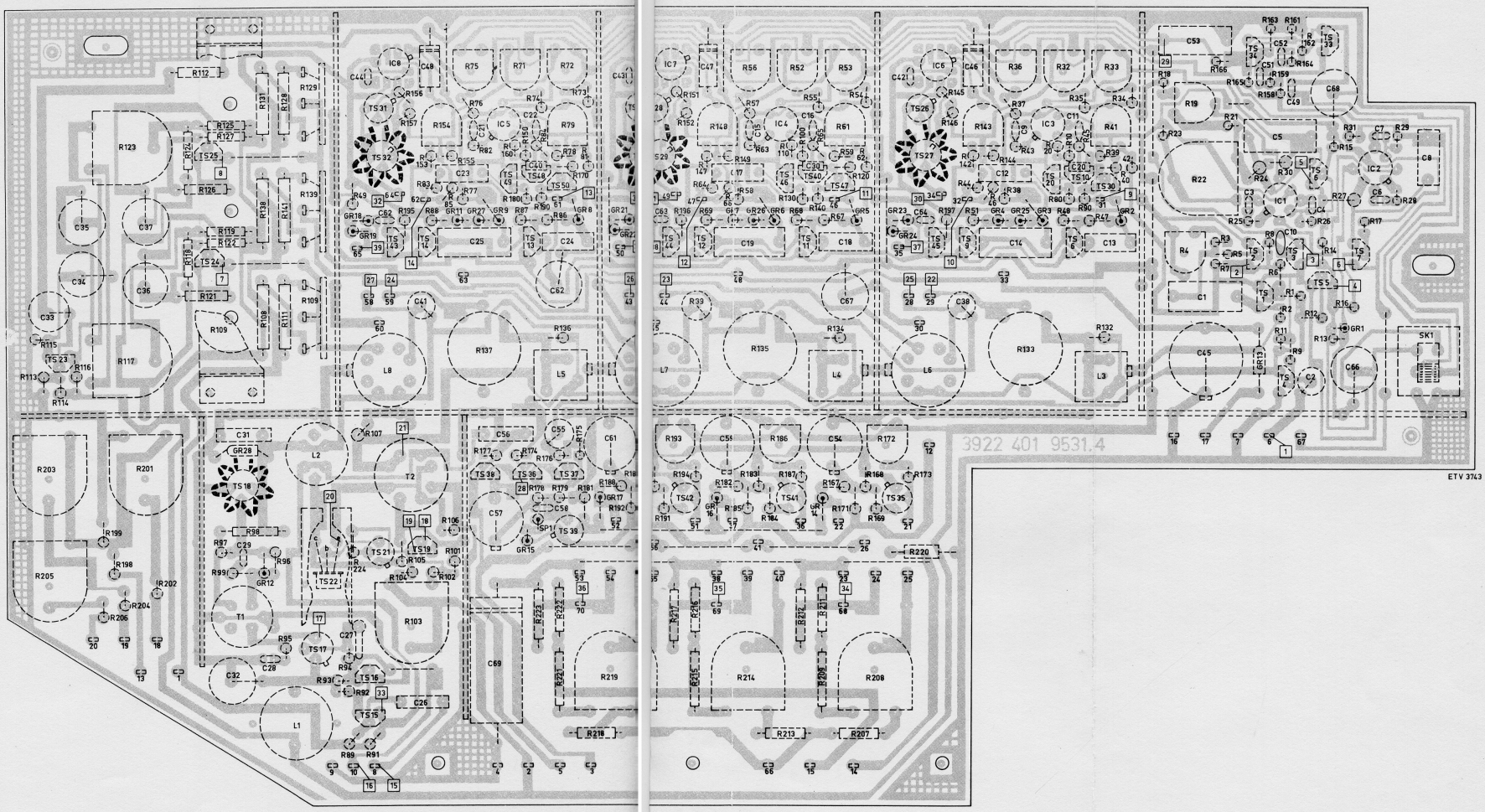
FIGURE 4-9A
SCANNING BOARD(P)
PW ASSEMBLY



SCANNING BOARD P.W.B (P) side of components (for serial numbers >1100)

ETV 3742

FIGURE 4-9B
SCANNING BOARD (P)
COMPONENT SIDE



SCANNING BOARD P.W.B.(P) side of tr cks (for serial numbers >1100)

FIGURE 4– 9C
SCANNING BOARD
CLAD SIDE

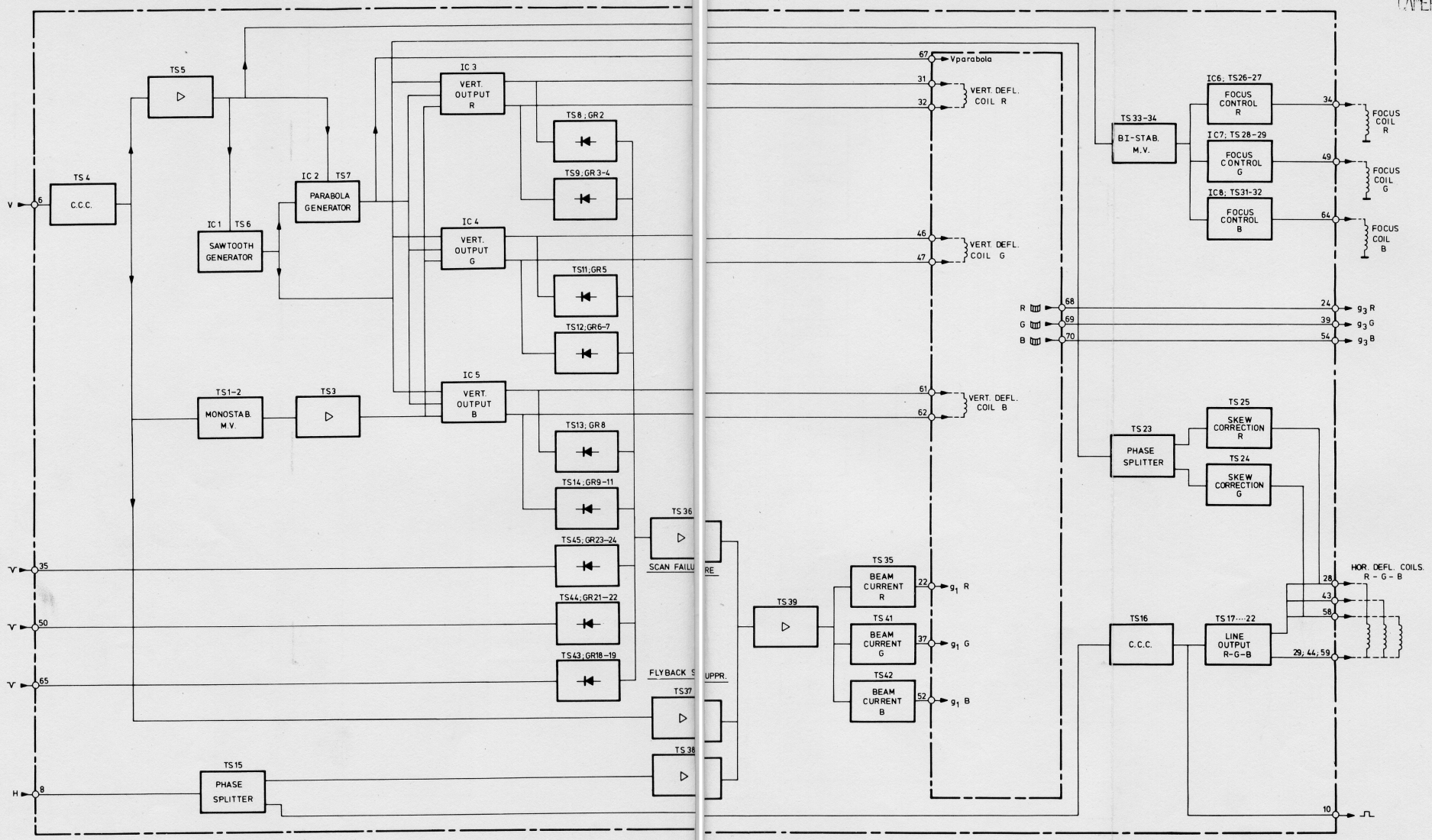
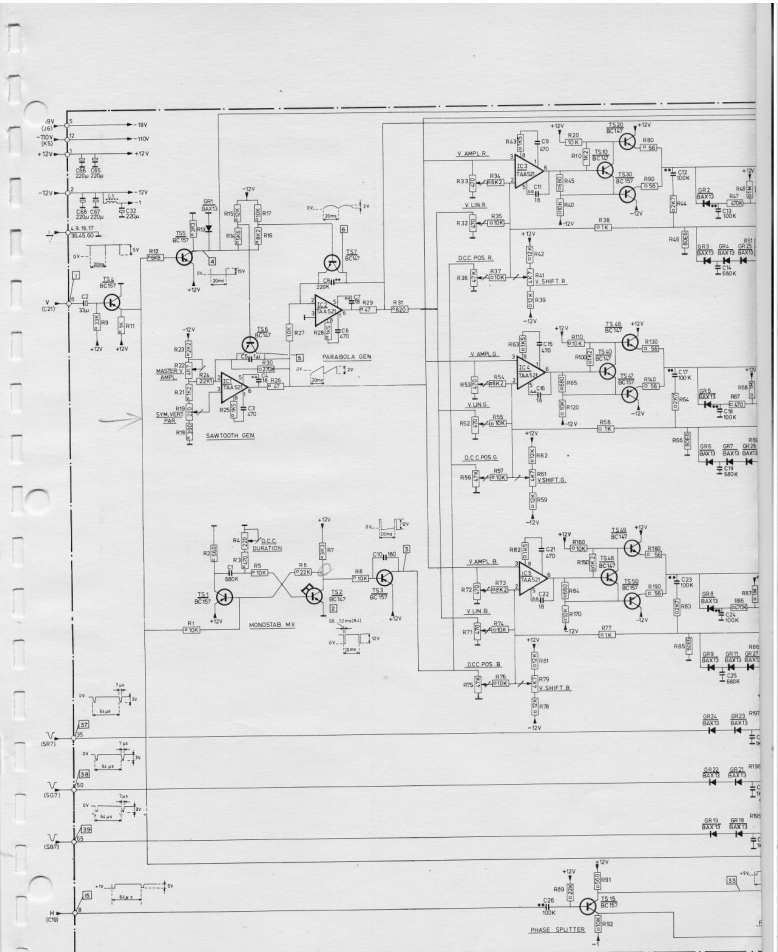
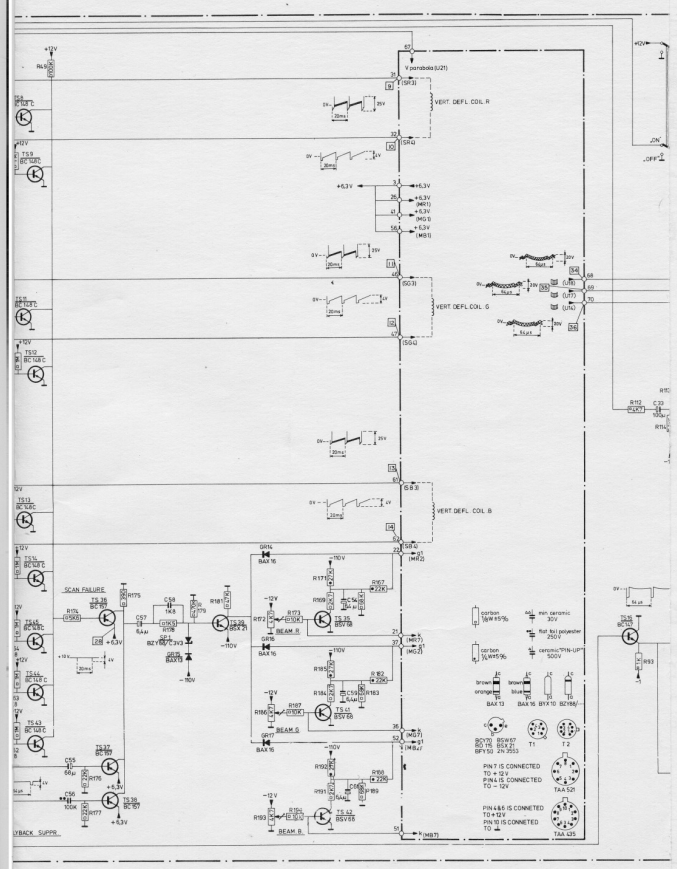


FIGURE 4-10
SCANNING BOARD (P)
BLOCK DIAGRAM





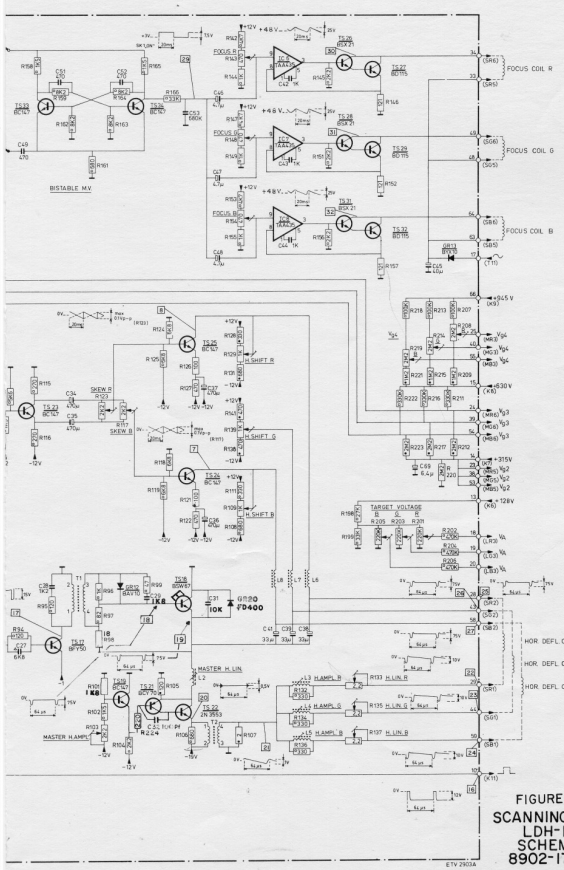


FIGURE 4-11
SCANNING BOARD(P)
LDH-1/00S
SCHEMATIC
8902-1782-5,REV

UIT DIAGRAM SCANNING BOARD(P)
(for serial numbers > 1100)

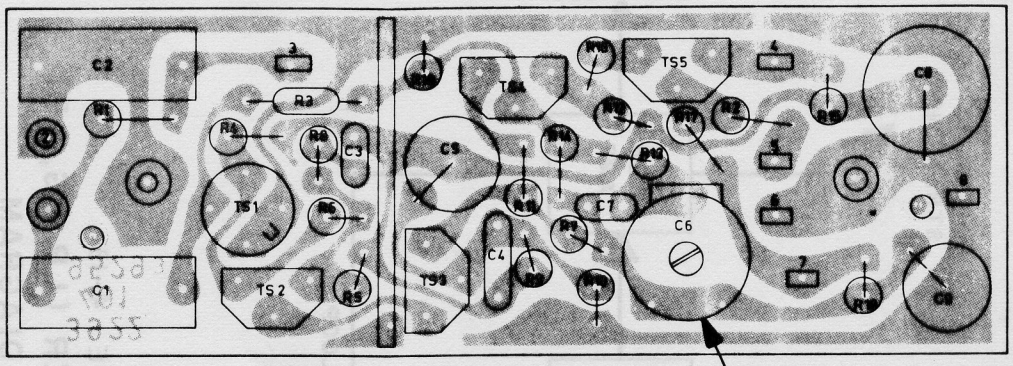


FIGURE 4-12
PREAMPLIFIER (LR, LG, LB)
PW ASSEMBLY

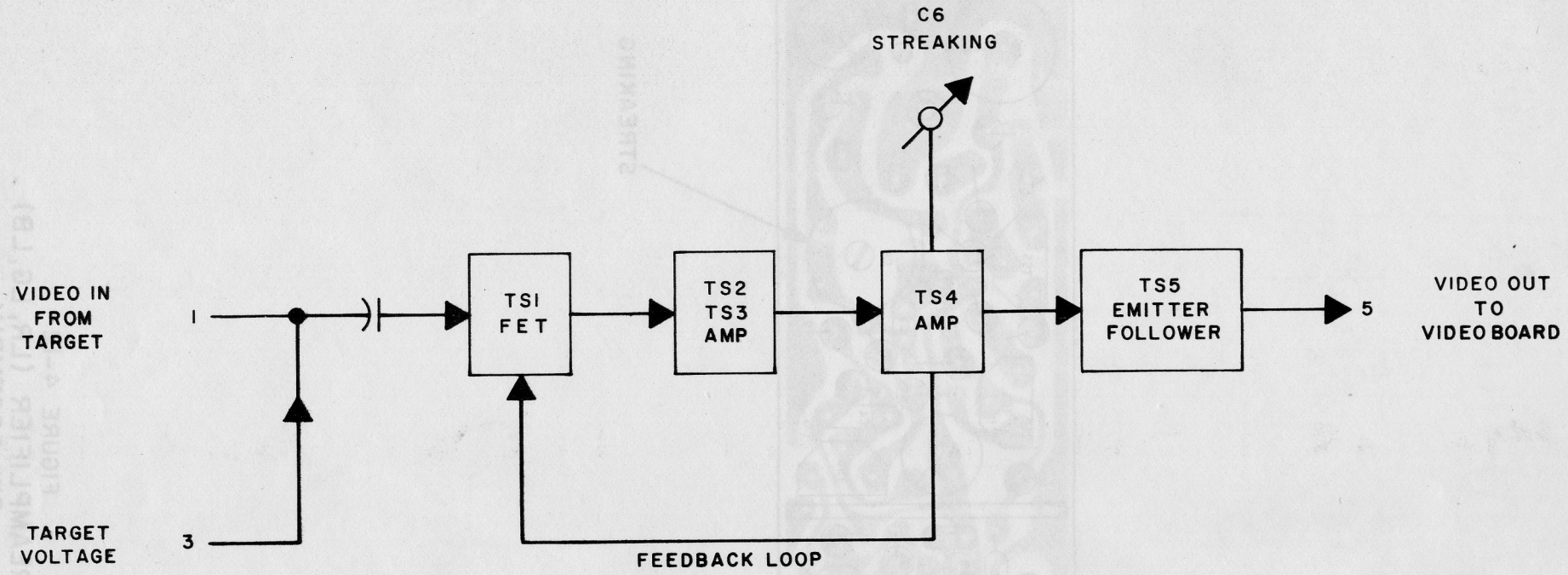
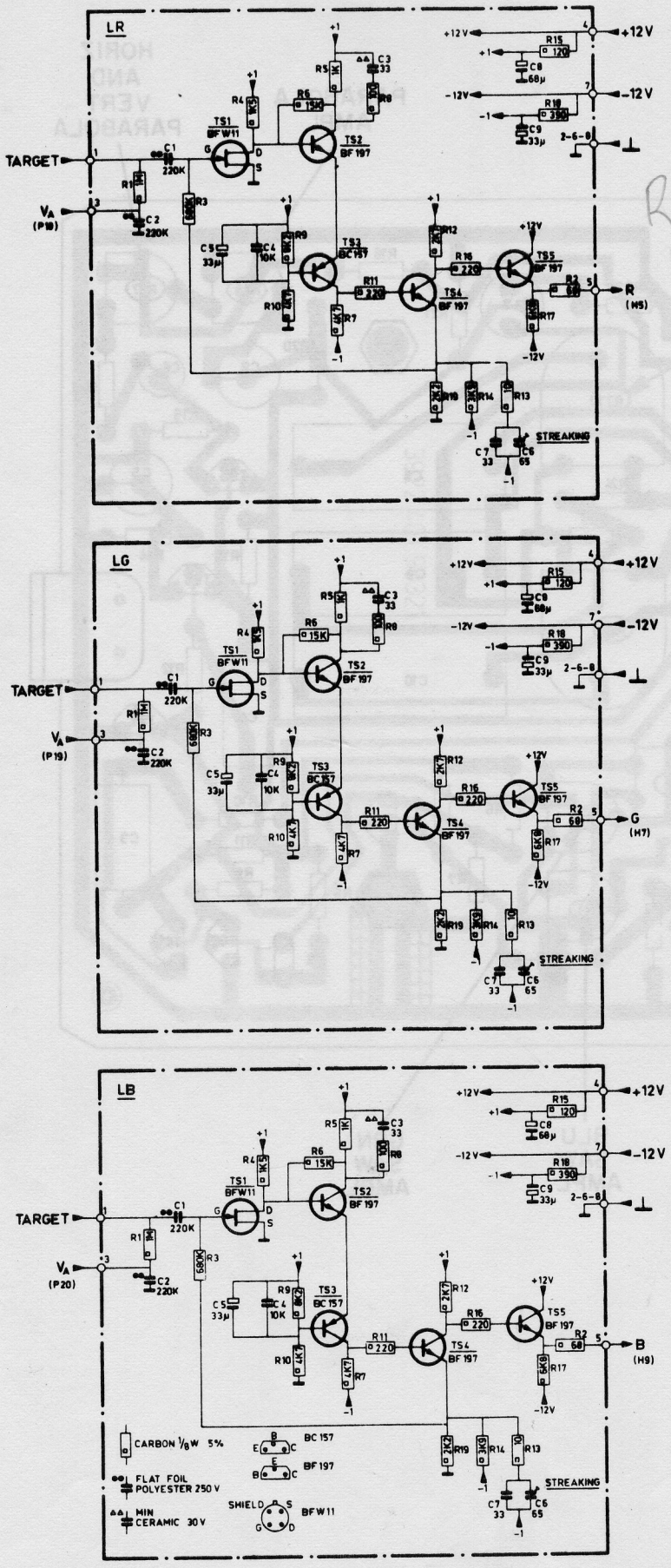


FIGURE 4-13
PREAMPLIFIER (LR, LG, LB)
BLOCK DIAGRAM



RED

GREEN

BLUE

FIGURE 4-14
PREAMPLIFIER (LR, LG, LB)
SCHEMATIC DIAGRAMS

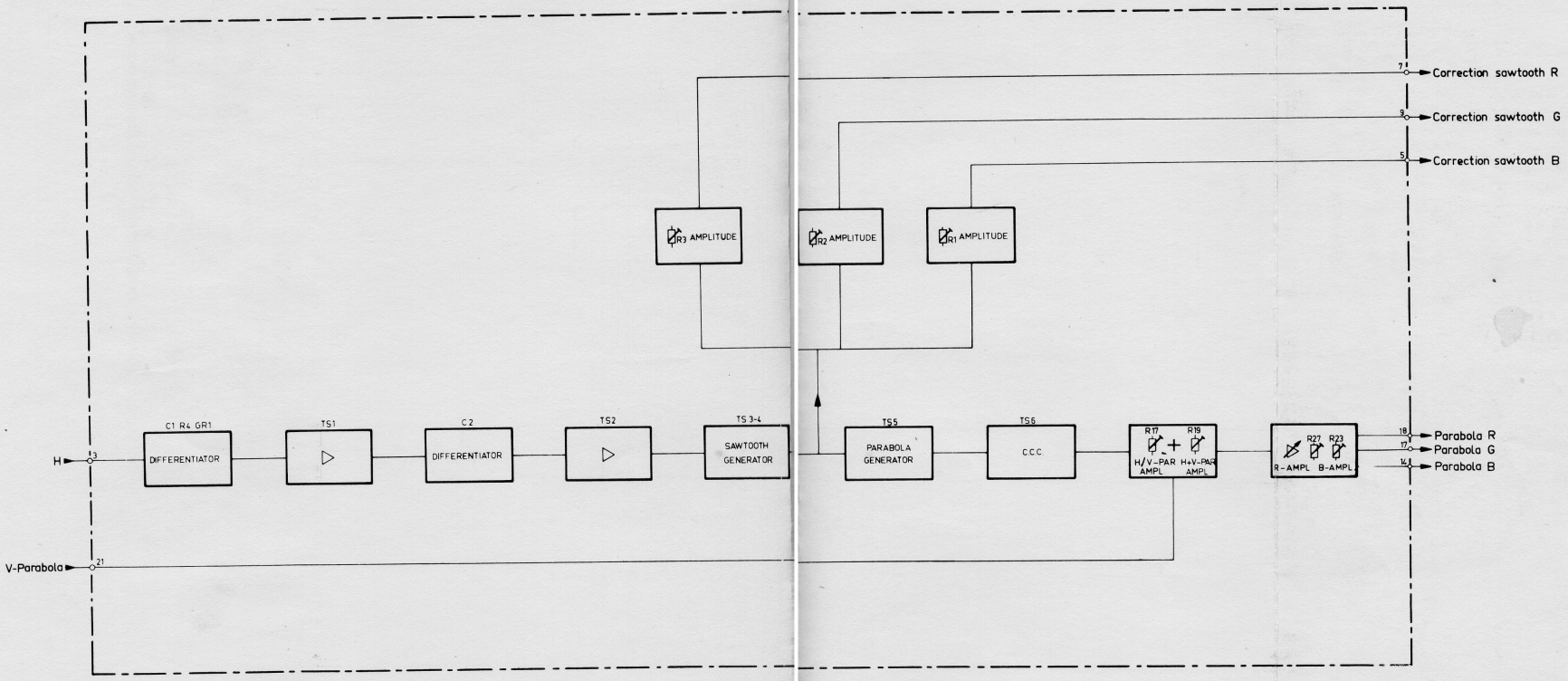


FIGURE 4-16
DYNAMIC FOCUS BOARD (U)
BLOCK DIAGRAM

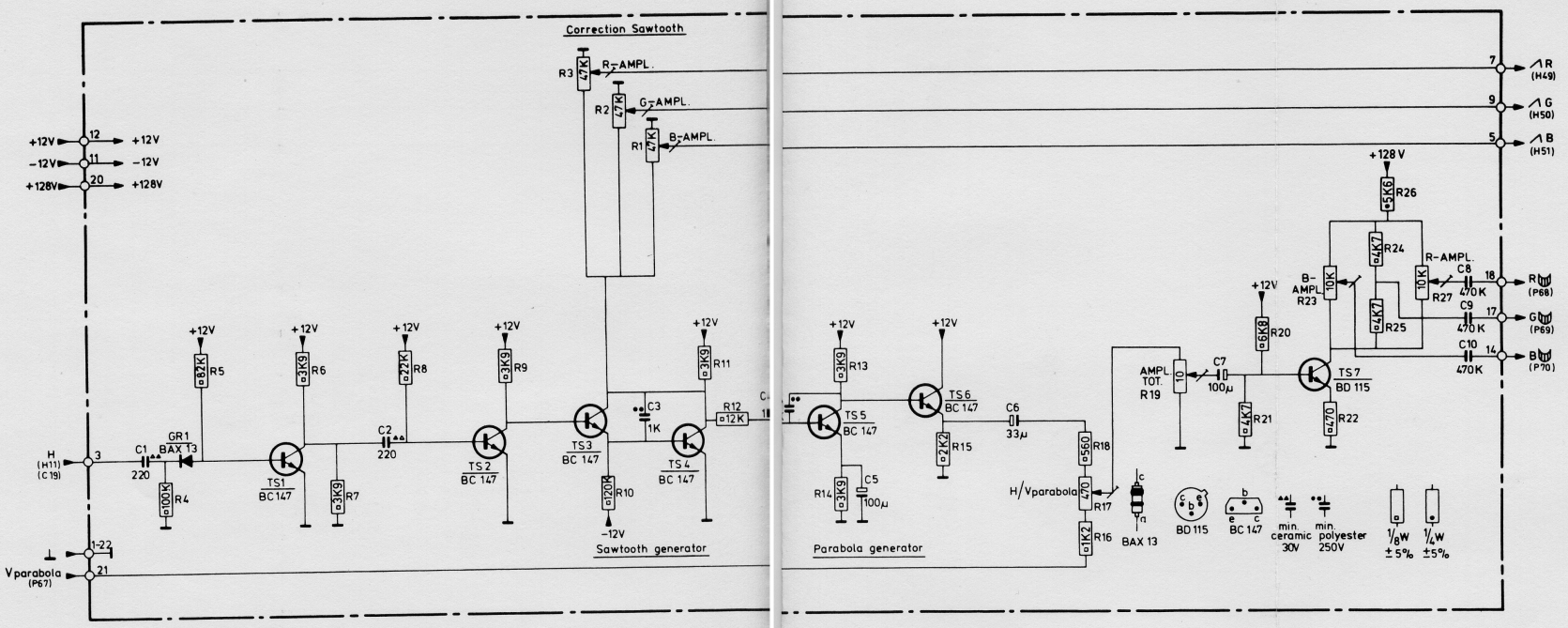


FIGURE 4-17
DYNAMIC FOCUS BOARD (U)
SCHEMATIC DIAGRAM

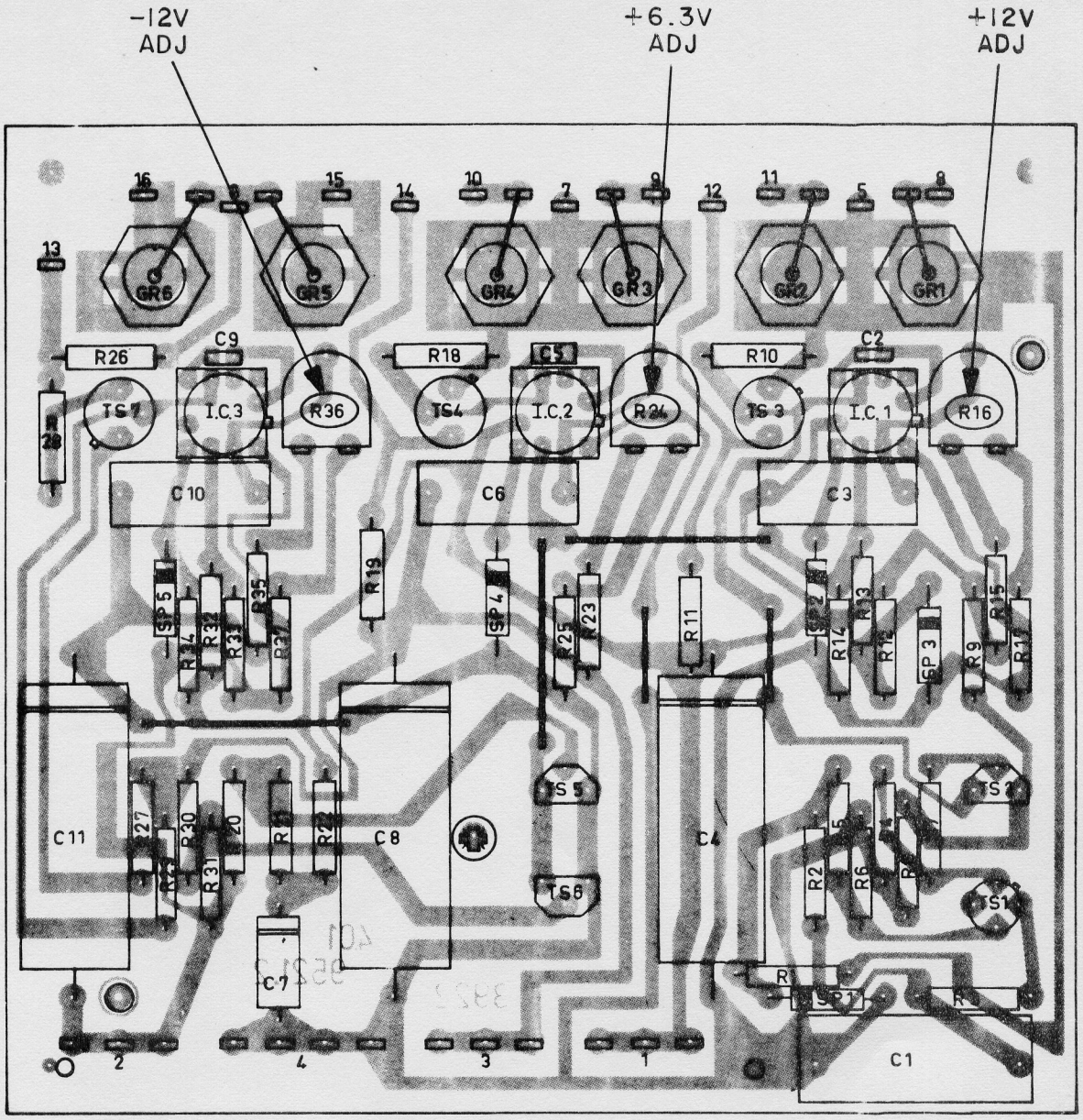


FIGURE 4-18
LOW VOLTAGE POWER SUPPLY (J)
PW ASSEMBLY

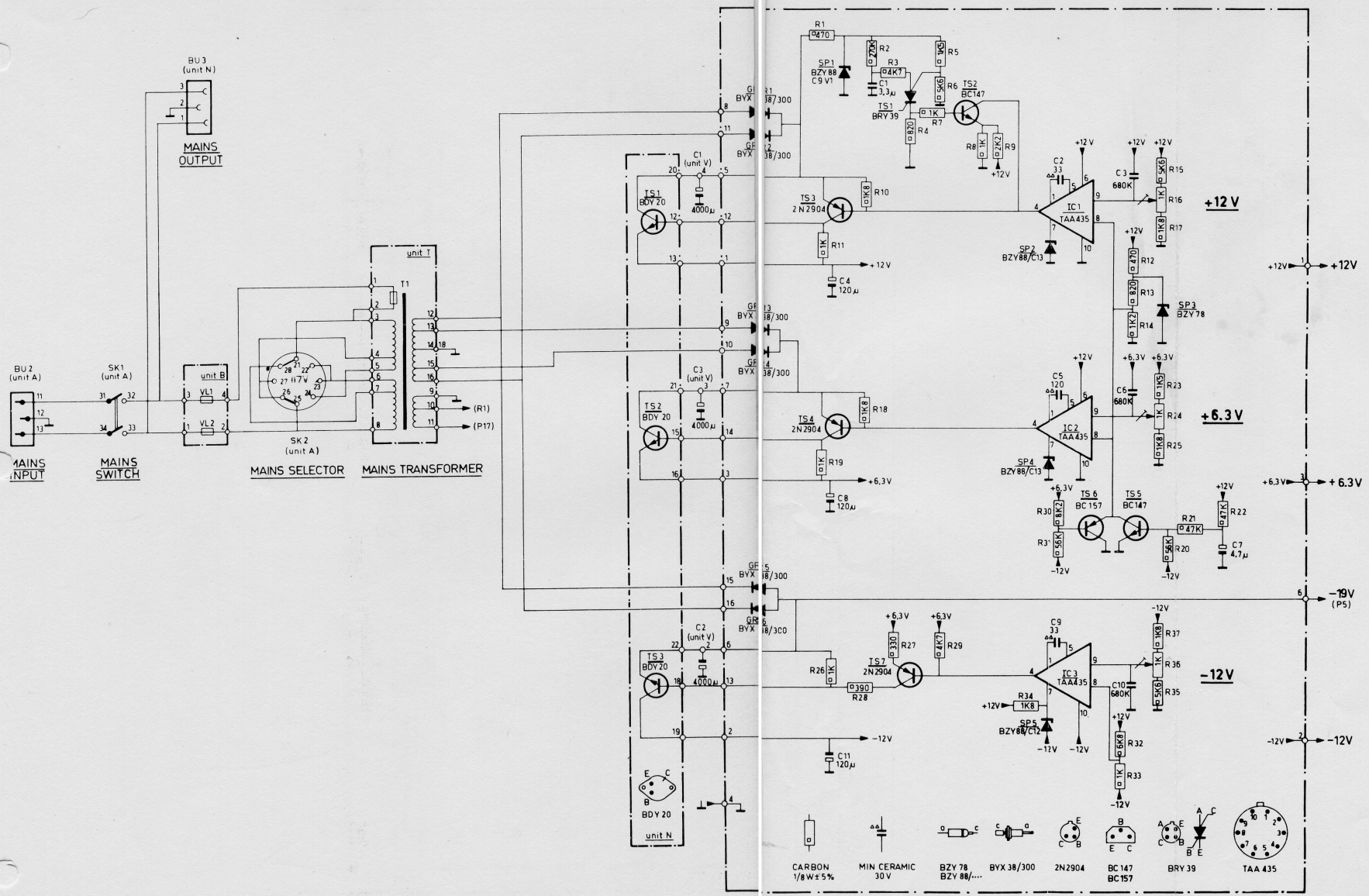
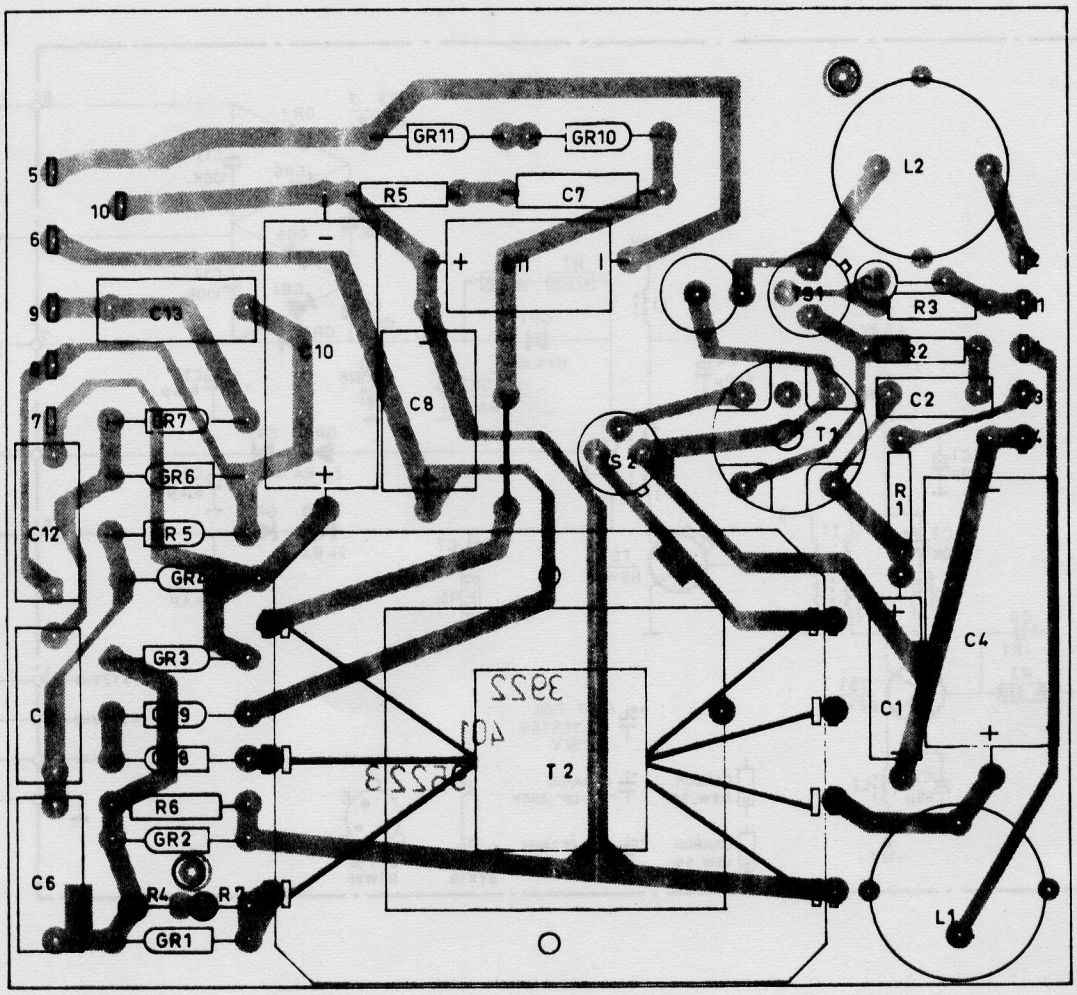


FIGURE 4-19
LOW VOLTAGE POWER SUPPLY (J)
SCHEMATIC DIAGRAM



A-455-LDH-1

FIGURE 4-20
HIGH VOLTAGE POWER SUPPLY (K)
PW ASSEMBLY

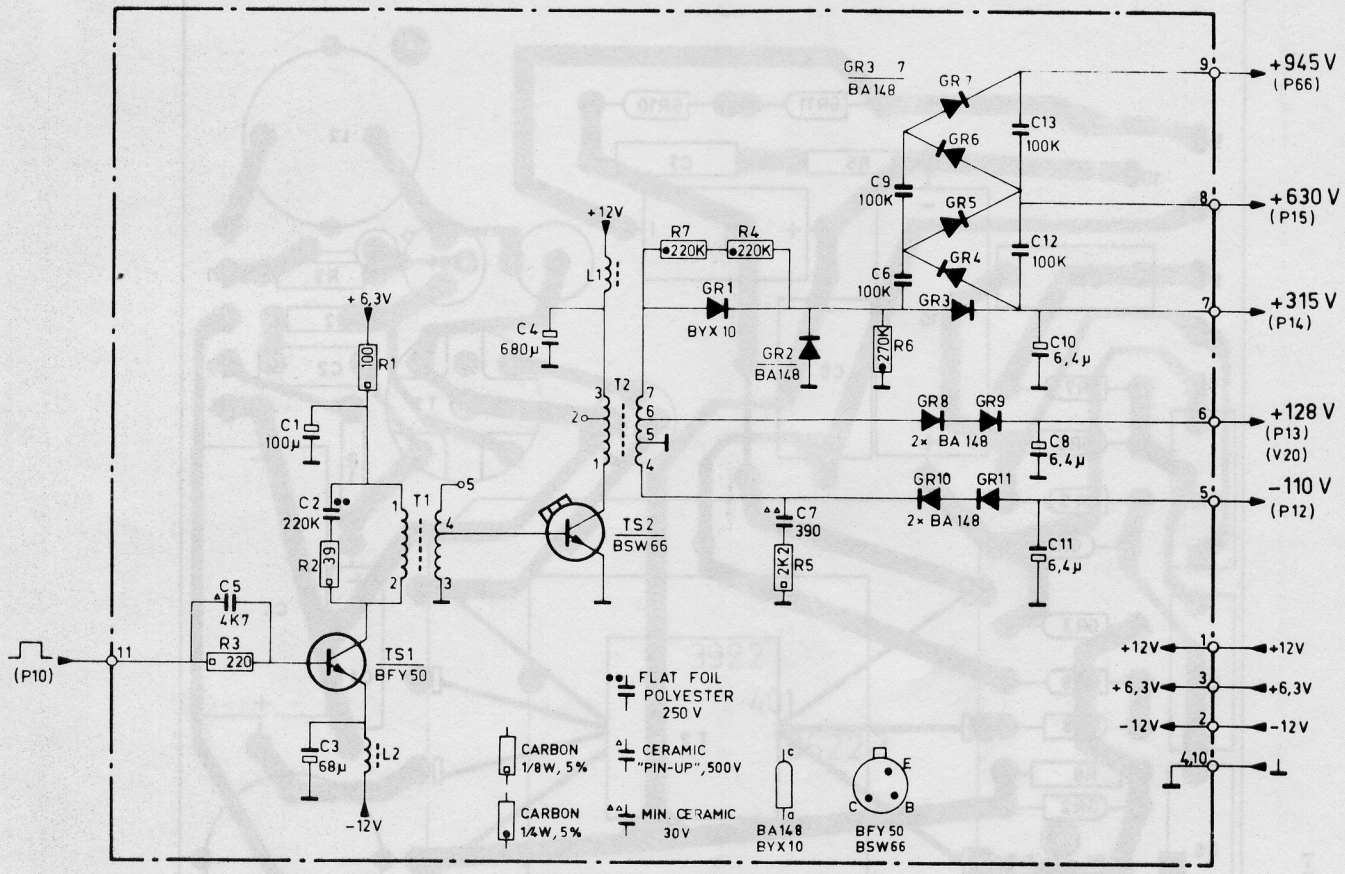


FIGURE 4-21
HIGH VOLTAGE POWER SUPPLY(K)
SCHEMATIC DIAGRAM

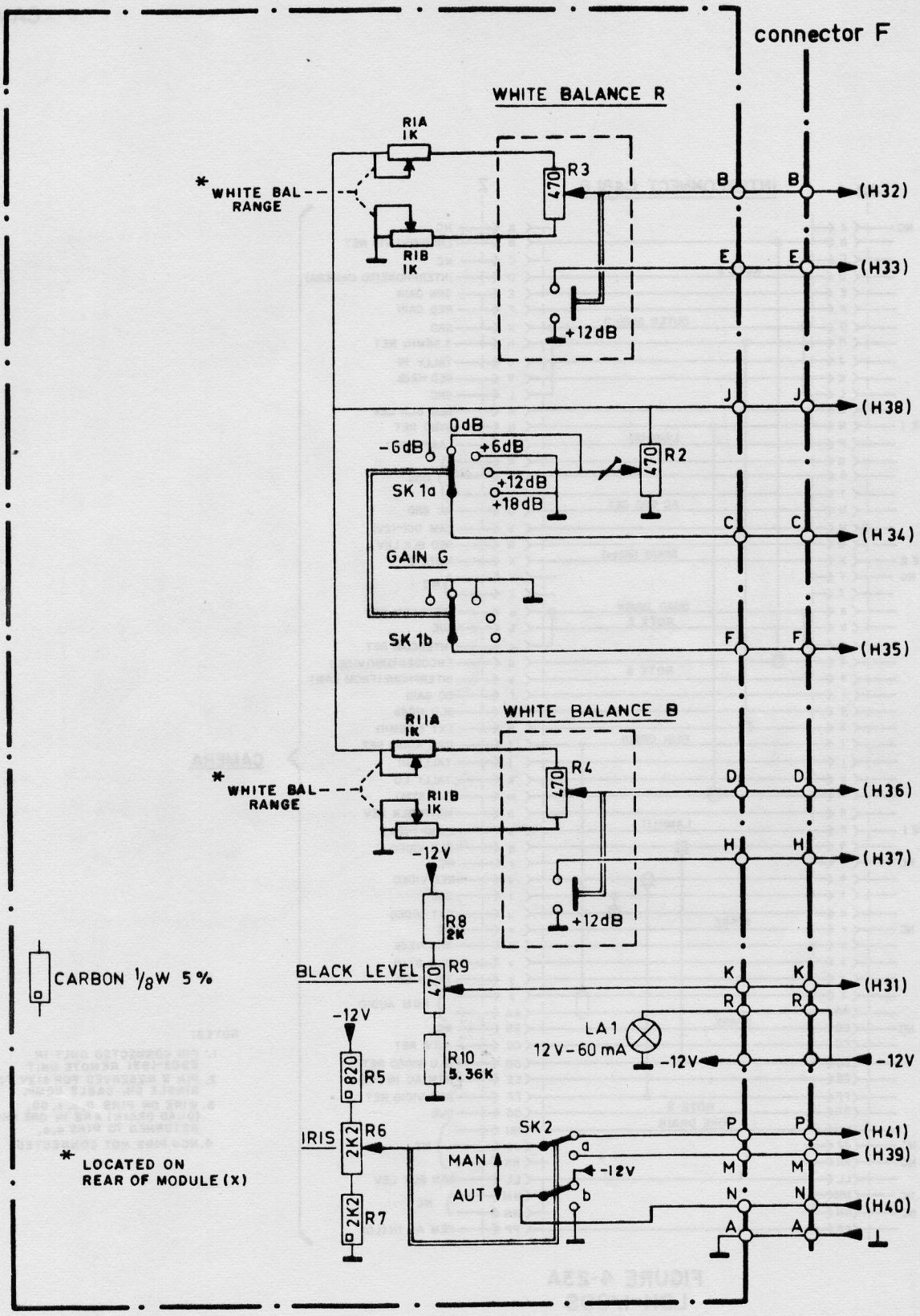
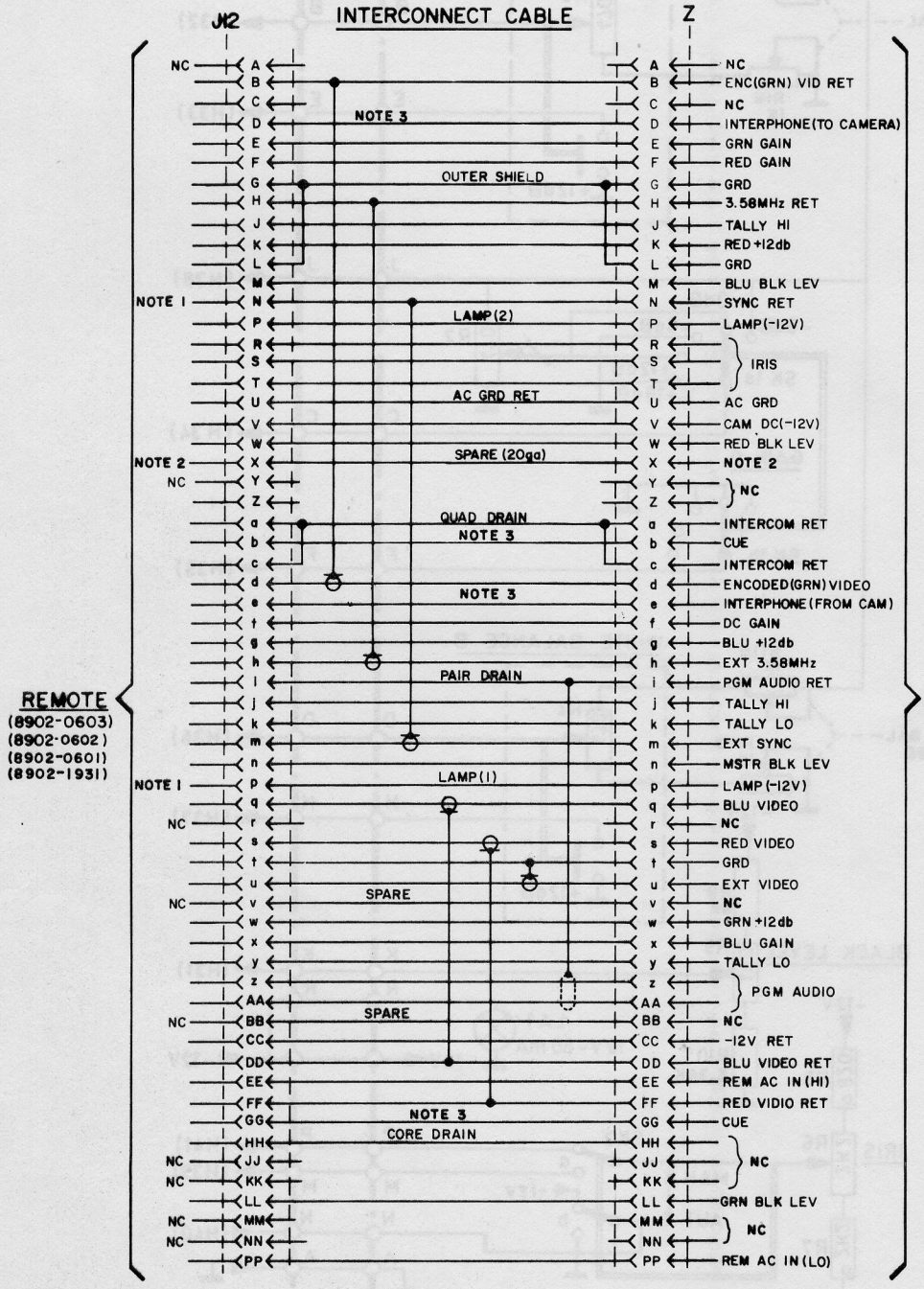


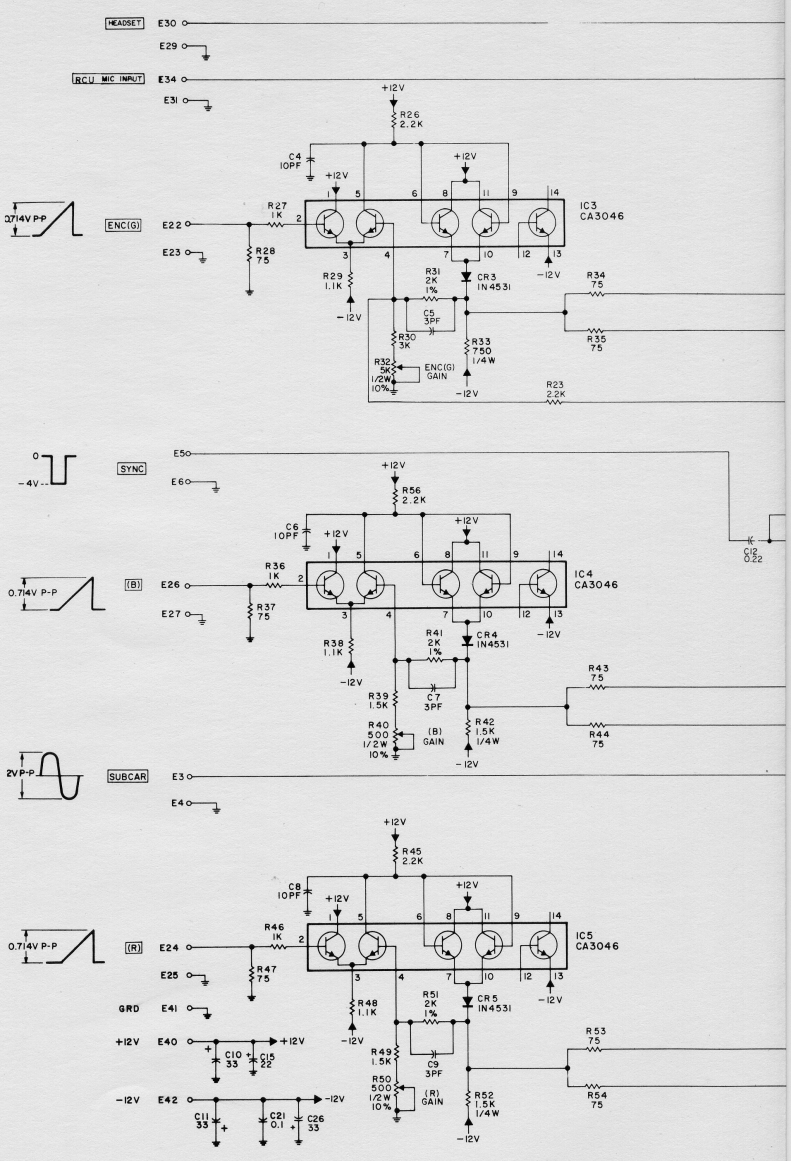
FIGURE 4-22
CONTROL MODULE (X)
SCHEMATIC DIAGRAM
8902-1061-5 REV A

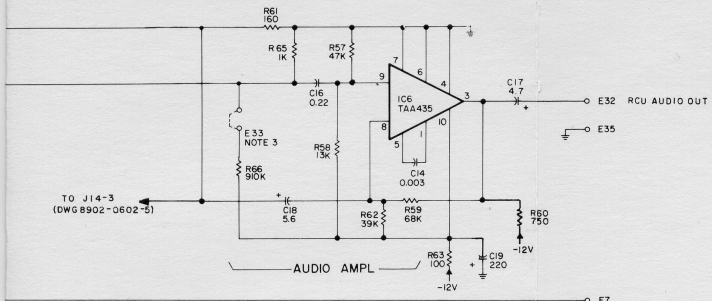


NOTES:

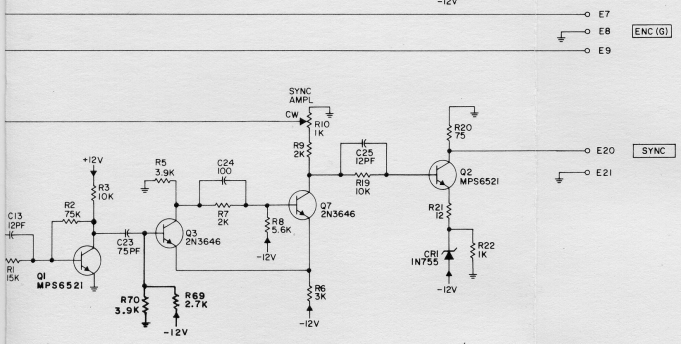
1. PIN CONNECTED ONLY IN 8902-1931 REMOTE UNIT
2. PIN X RESERVED FOR +12V FOR SINGLE CH. CABLE COMP.
3. WIRE ON PINS D, b, e, GG, (QUAD DRAIN) ARE IN ONE SHIELD RETURNED TO PINS a, c,
4. NC = PINS NOT CONNECTED.

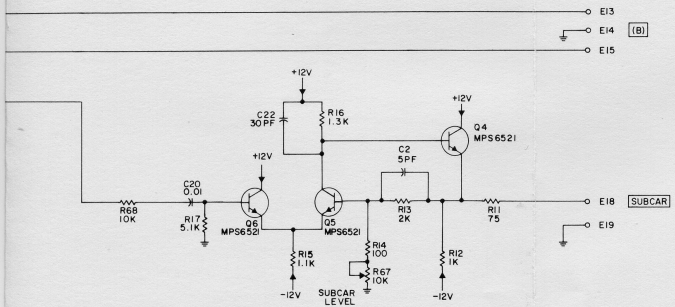
FIGURE 4-23A
LDH-1/00S
INTERCONNECT CABLE DIAGRAM





NOTES:
1. UNLESS OTHERWISE SPECIFIED:
   ALL RESISTOR VALUES ARE IN OHMS, 1/8W, 5%.
   ALL CAPACITOR VALUES ARE IN MICROFARADS.
2. FOR INTERCONNECTIONS SEE OVERALL SCHEMATIC P/N 8902-0602-5
3. CONNECT JUMPER WHEN USING CARBON MICROPHONE.





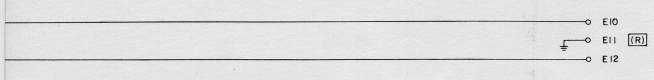
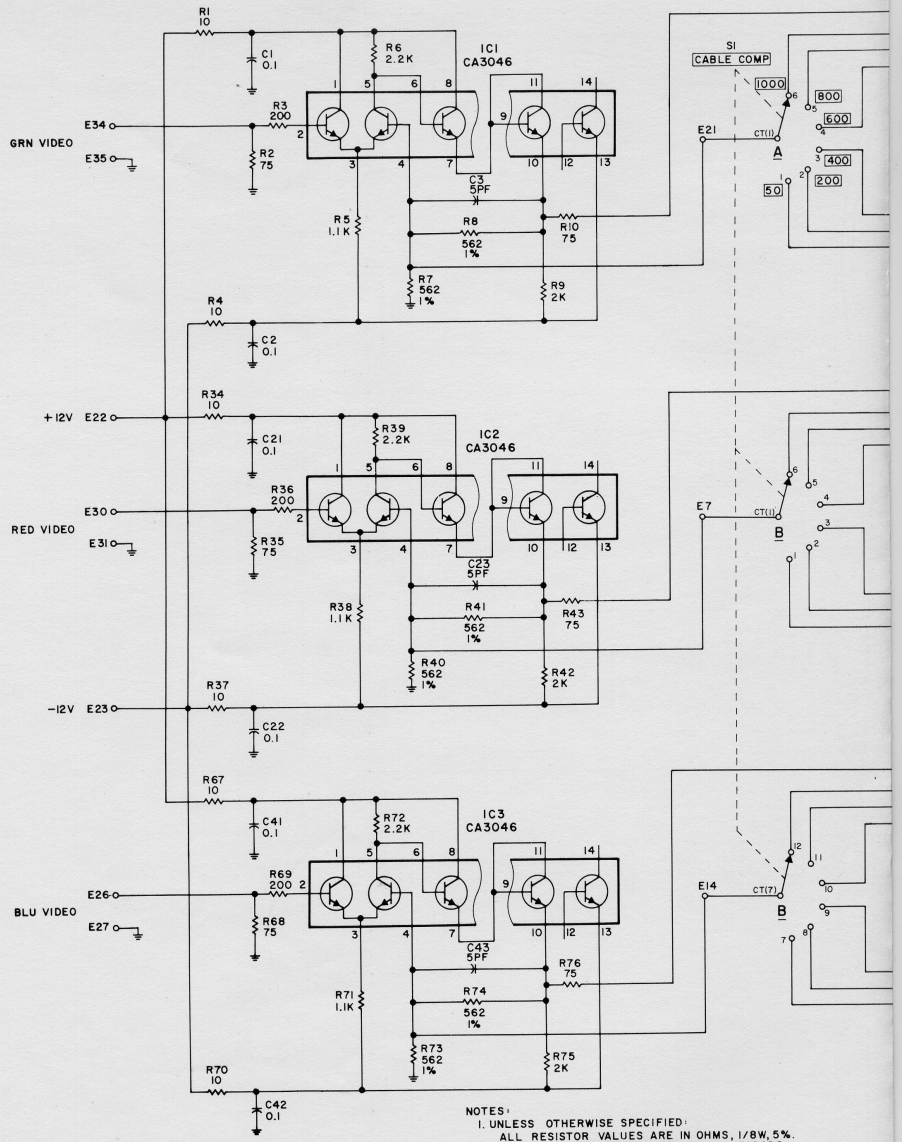


FIGURE 4-25
REMOTE CONTROL, LDH-1
AUDIO/VIDEO (BOARD B)
8902-0912-5 REV **D**



NOTES:
1. UNLESS OTHERWISE SPECIFIED:
ALL RESISTOR VALUES ARE IN OHMS, 1/8W, 5%.
ALL CAPACITOR VALUES ARE IN MICROFARADS.
2. FOR INTERCONNECTIONS SEE OVERALL SCHEMATIC P/N 8902060I-5

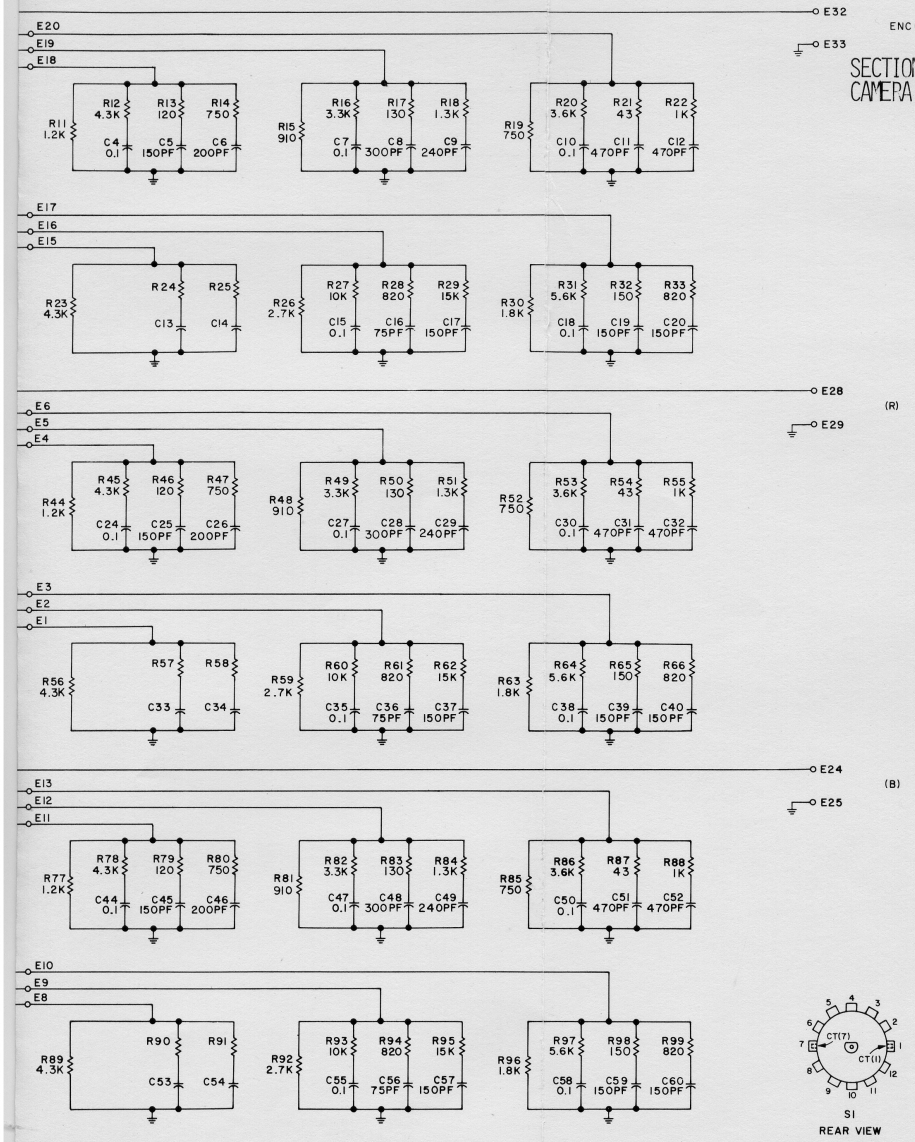


FIGURE 4-26
REMOTE CONTROL, LDH-1
CABLE COMPENSATION (BOARD C)
8902-0921-5,REV

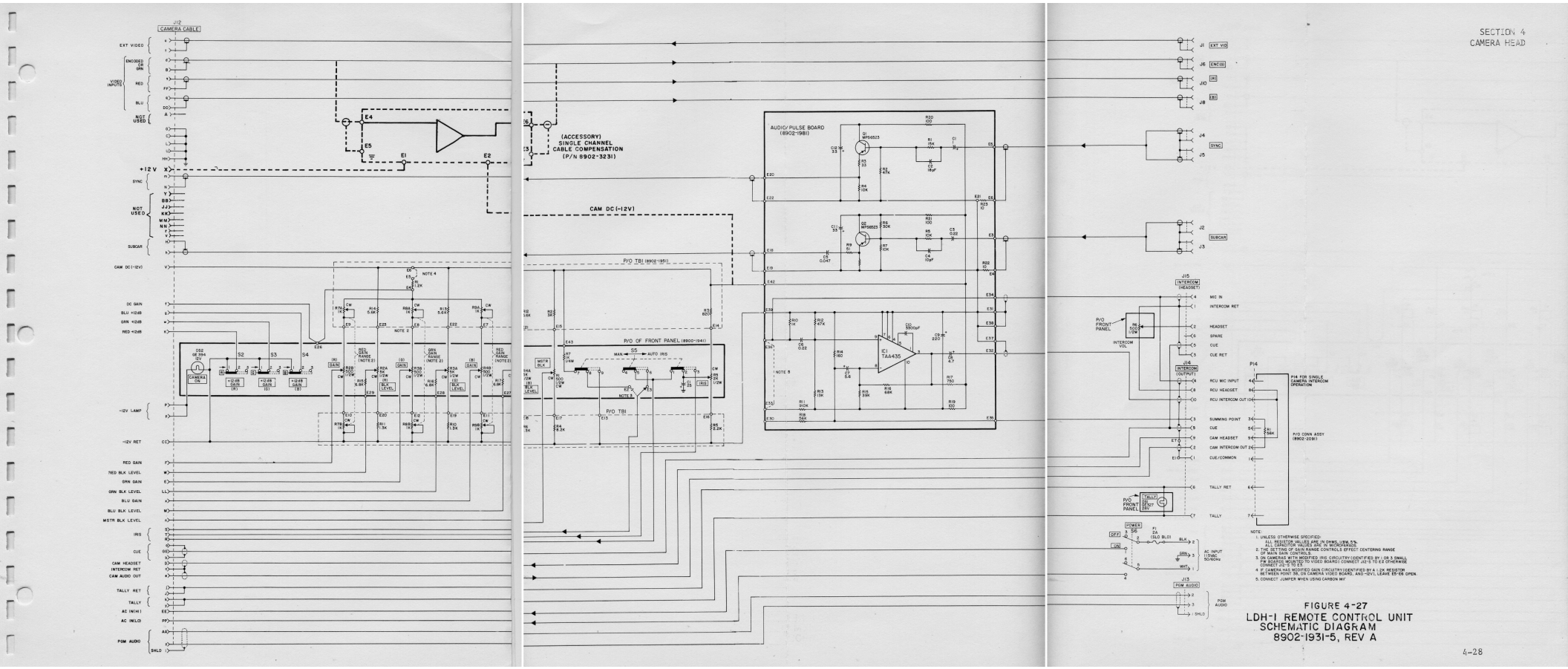


FIGURE 4-27
LDH-1 REMOTE CONTROL UNIT
SCHEMATIC DIAGRAM
8902-1931-5, REV A

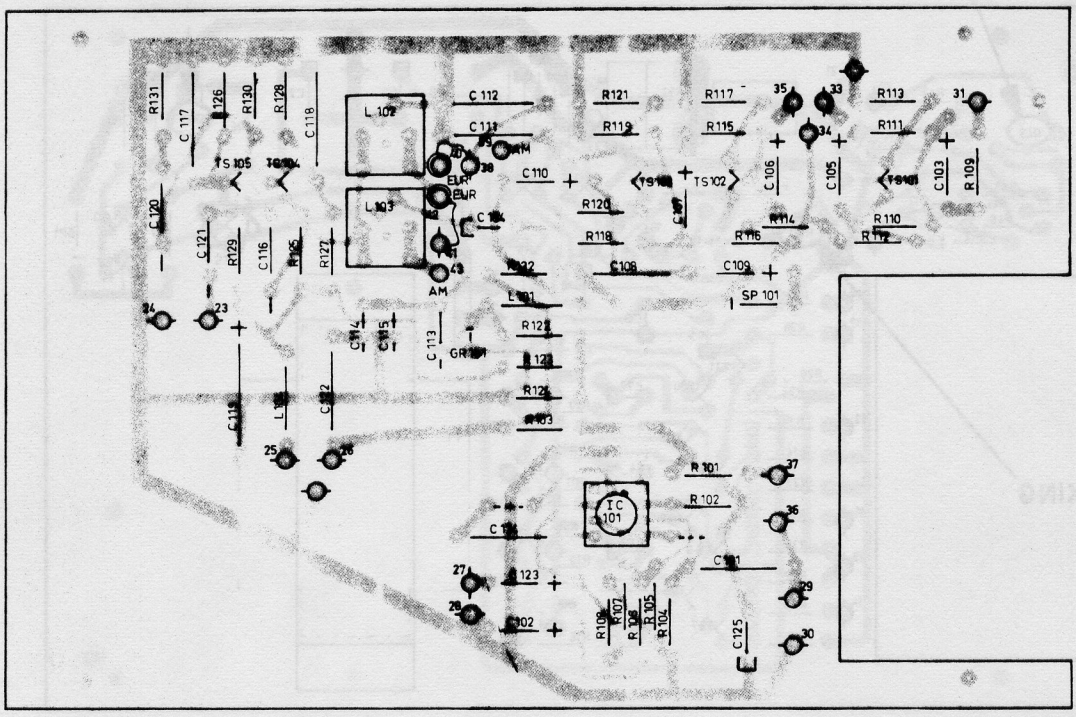


FIGURE 4-28
VSA UNIT AUDIO
PW ASSEMBLY

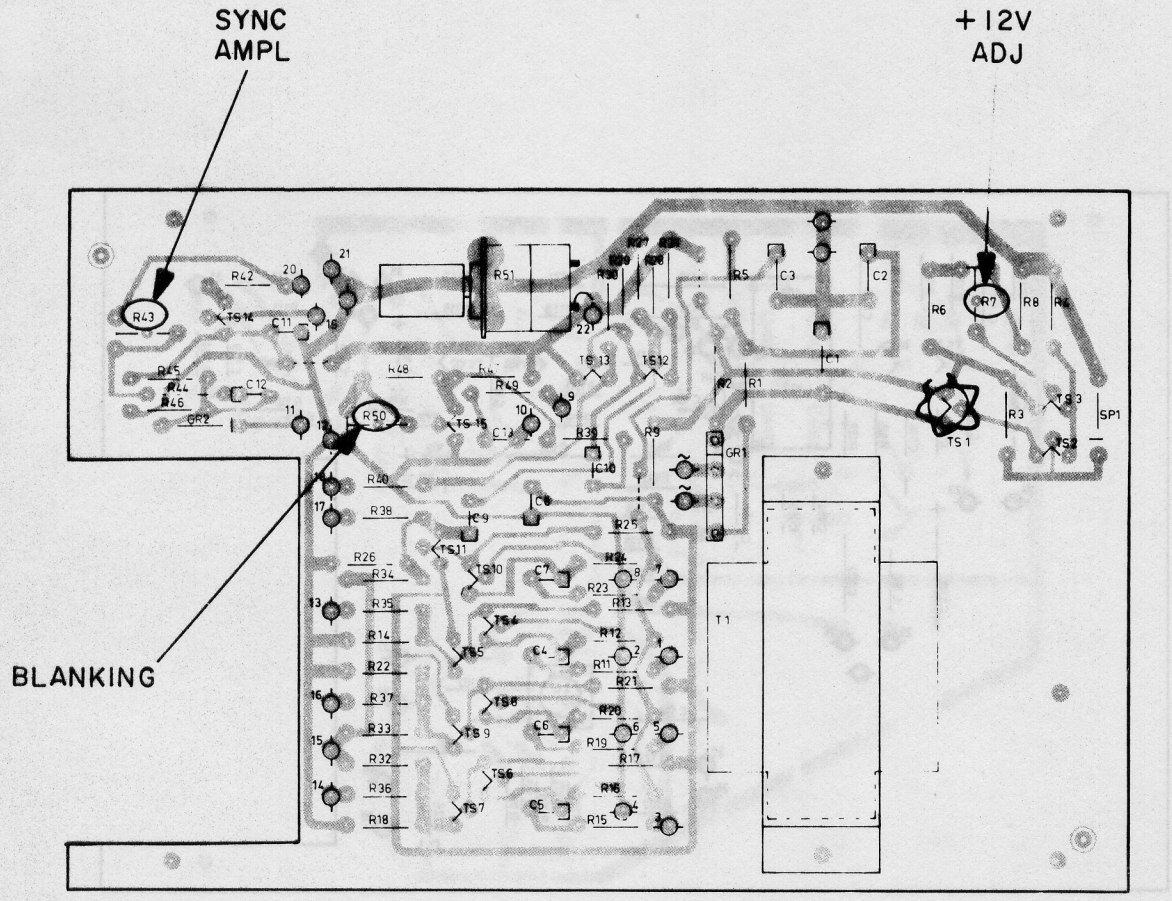


FIGURE 4-29
VSA UNIT VIDEO
PW ASSEMBLY

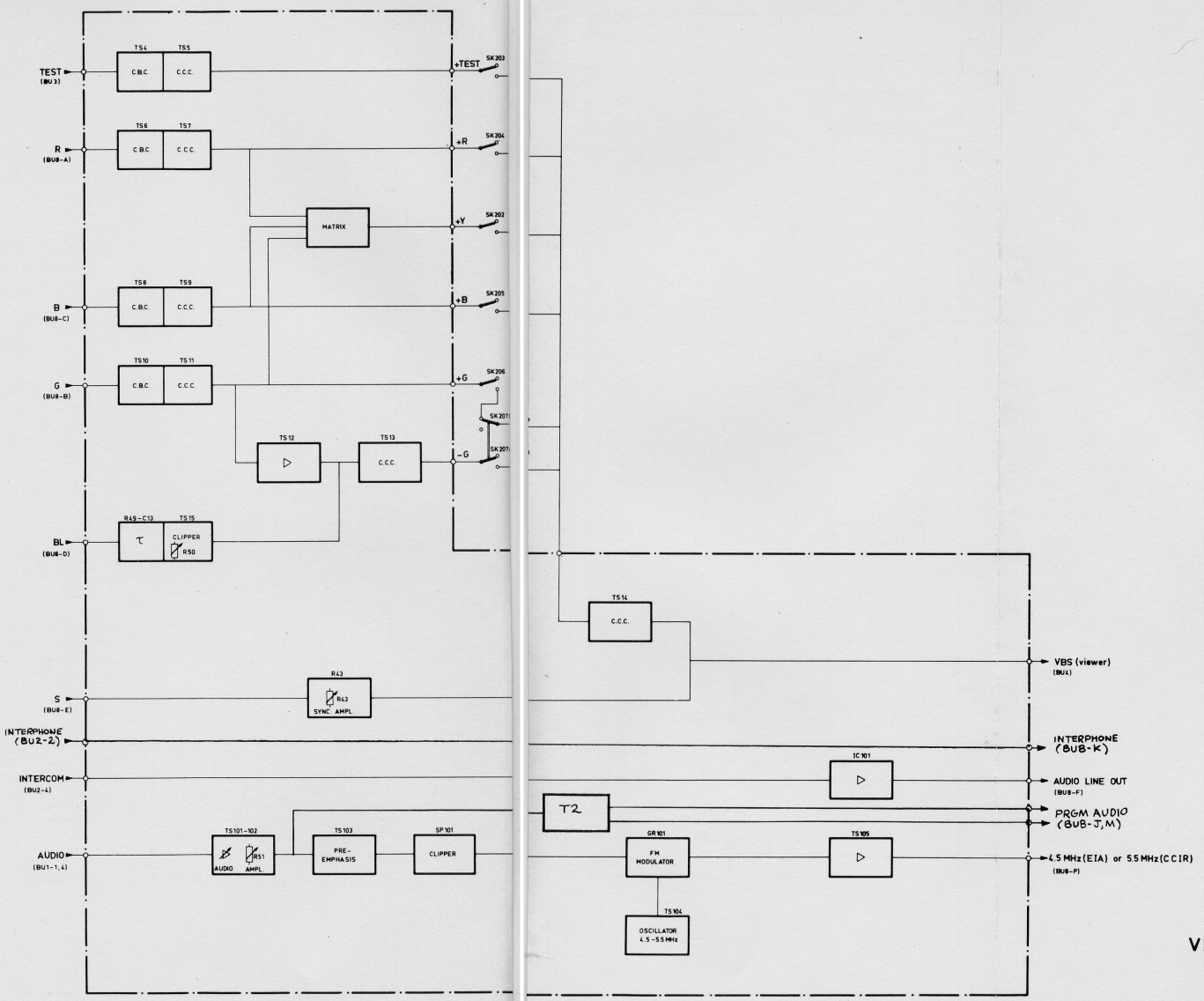


FIGURE 4-30
VIDEO SWITCHING AND AUDIO UNIT BLOCK DIAGRAM

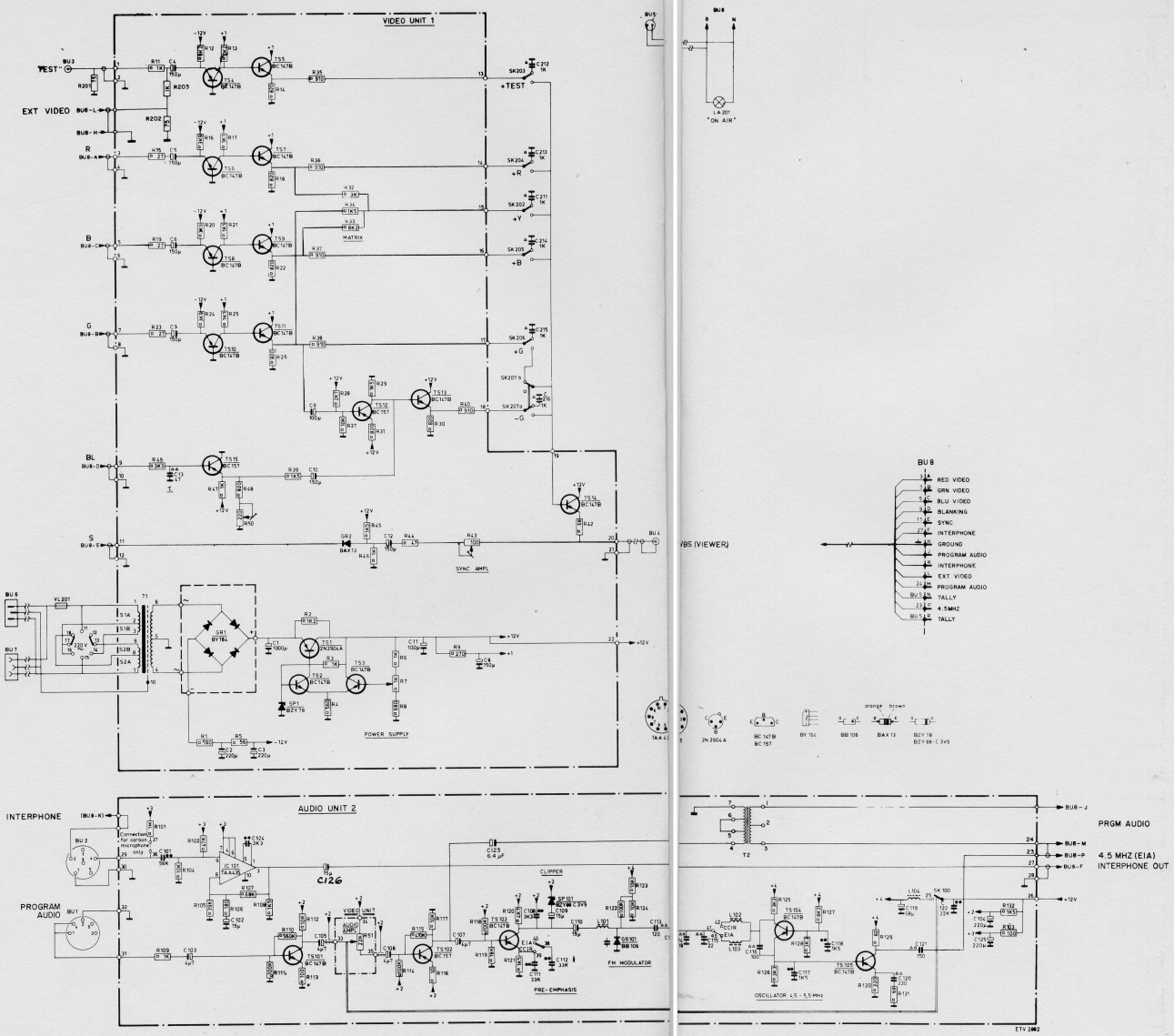


FIGURE 4-31
VIDEO SWITCHING AND AUDIO UNIT
SCHEMATIC DIAGRAM
8902-0581-5, REV

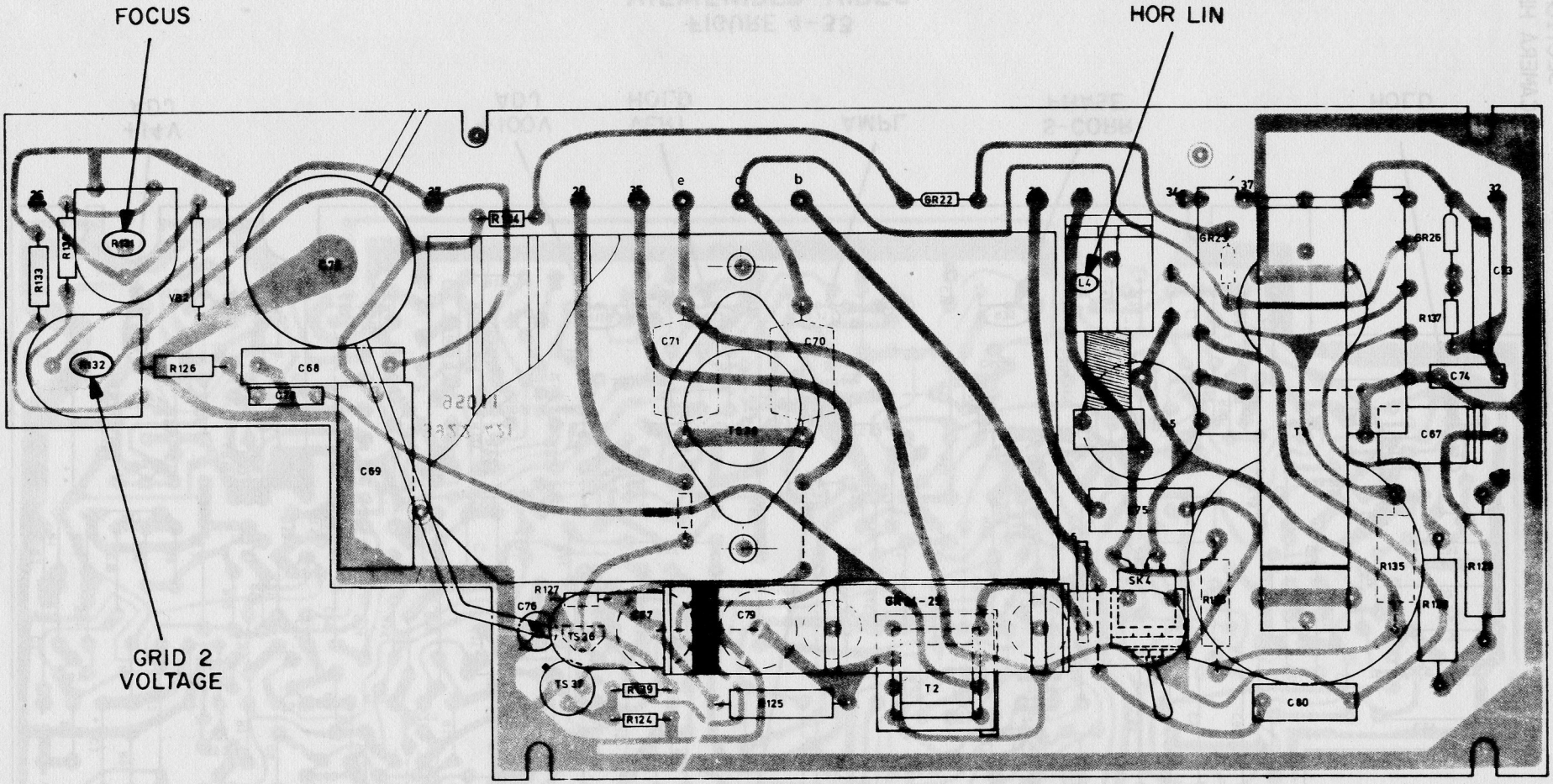


FIGURE 4-32
VIEWFINDER HIGH VOLTAGE
PW ASSEMBLY

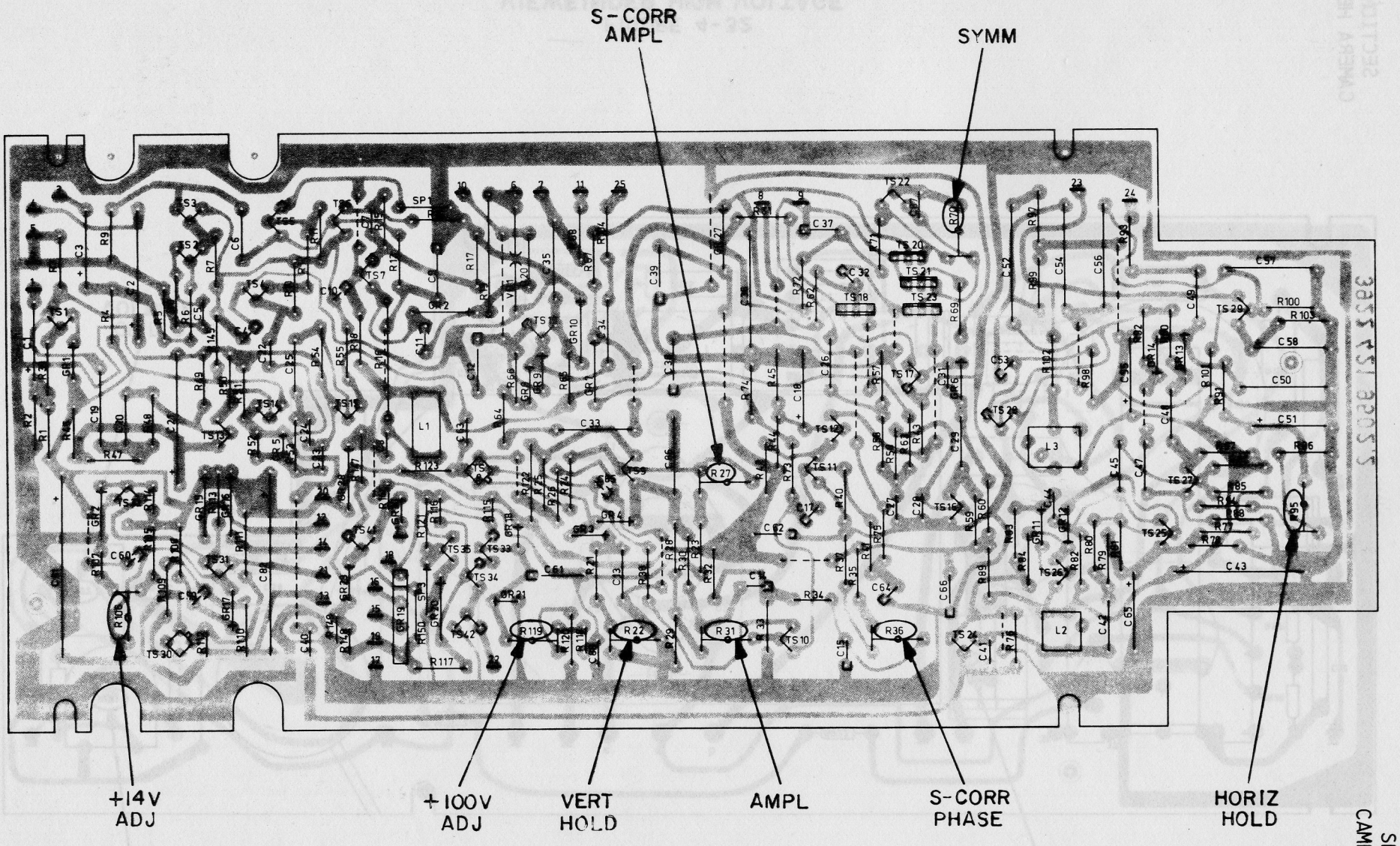
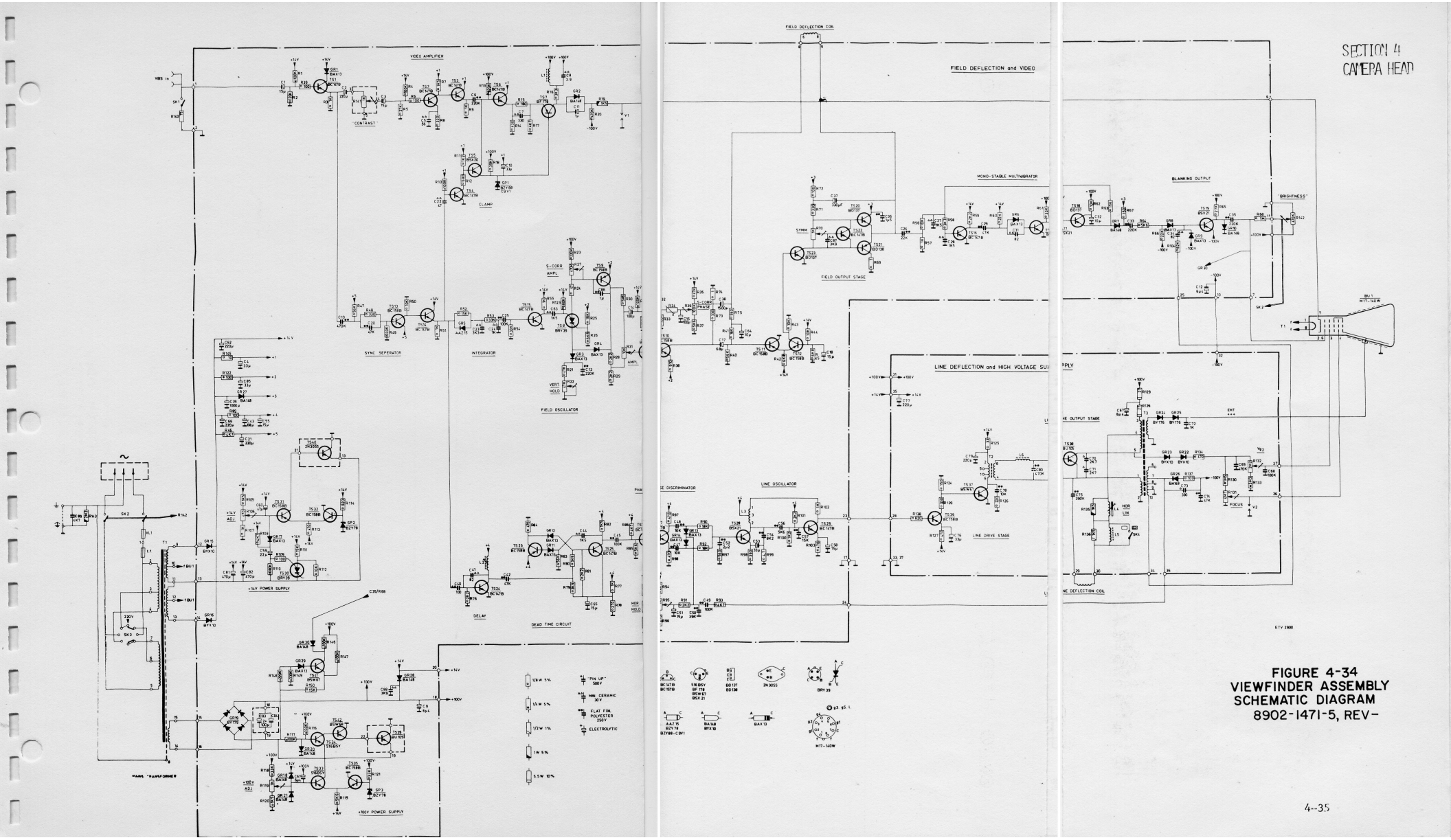


FIGURE 4-33
VIEWFINDER VIDEO AND DEFLECTION PW ASSEMBLY



SECTION 4
CAMERA HEAD

FIGURE 4-34
VIEWFINDER ASSEMBLY
SCHEMATIC DIAGRAM
8902-1471-5, REV-