5-1. INTRODUCTION

This section of the Instruction Manual introduces the Plug-in Module Accessories that are available for application in the LDH-1/OOS Camera Head.

Each module is represented by a photograph or printed-circuit board layout, block diagram and schematic. Where applicable, a single block diagram is used for similar modules. The drawings are arranged in the following module order:

CODE	MODULE
E	RGB Output
E	Encoder (NTSC)
E	Encoder (FCC/NTSC)
C	Pulse Module
C	Pulse Generator Sync Lock
C	External Pulse
D	Subcarrier Module
D	Subcarrier Sync Lock
D	External Subcarrier

The 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.

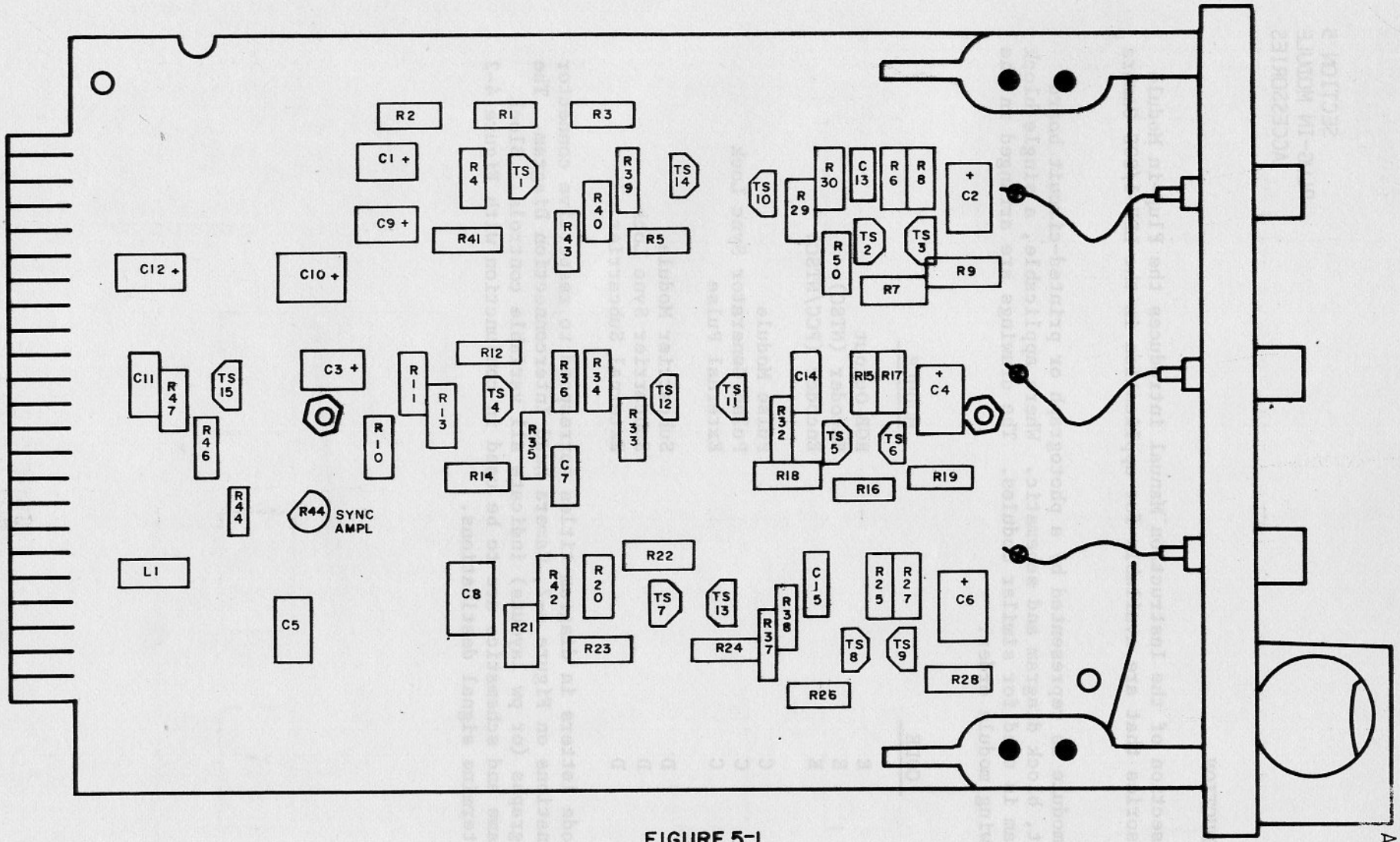


FIGURE 5-1
RGB OUTPUT (E)
PARTS LOCATION

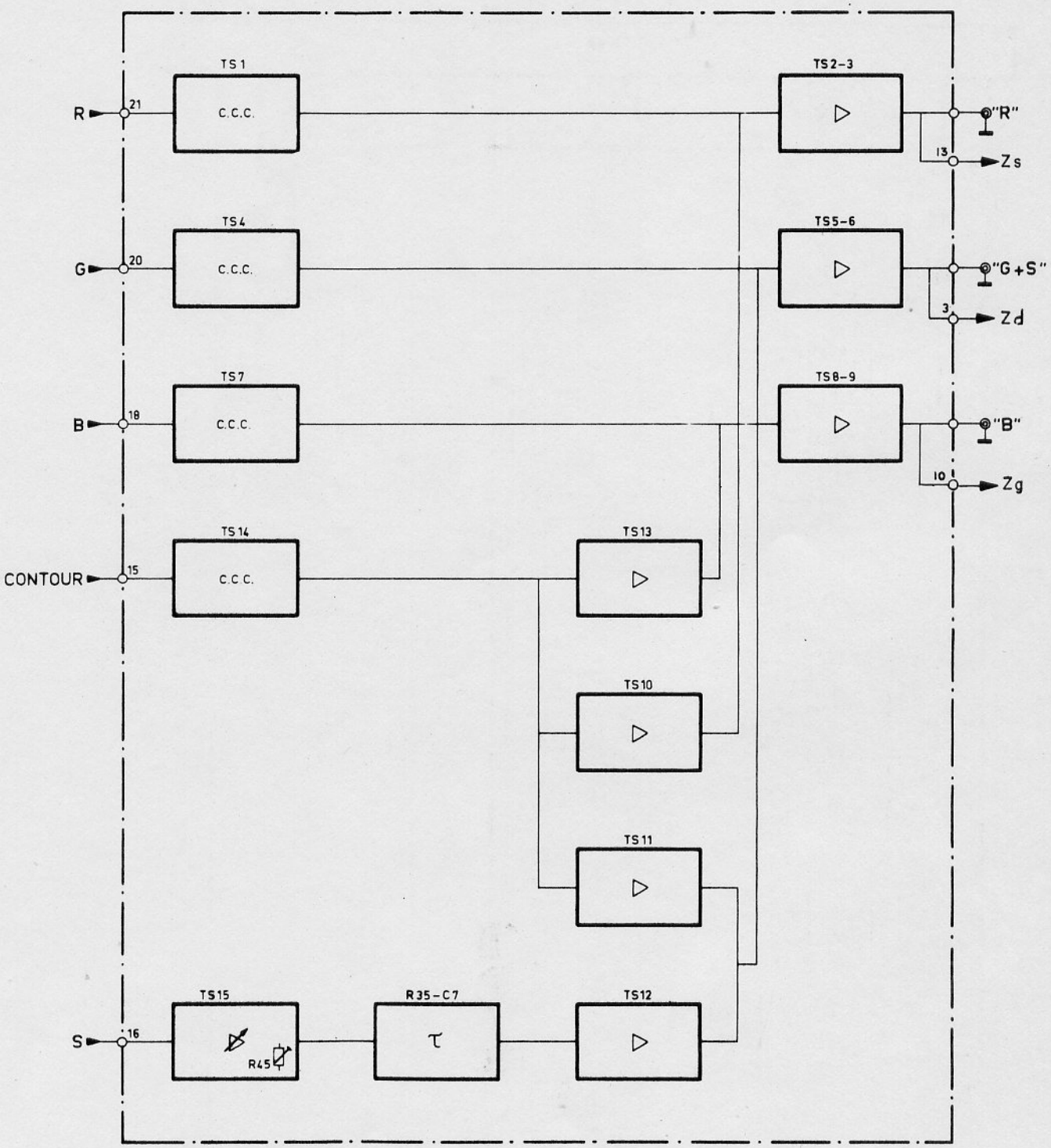
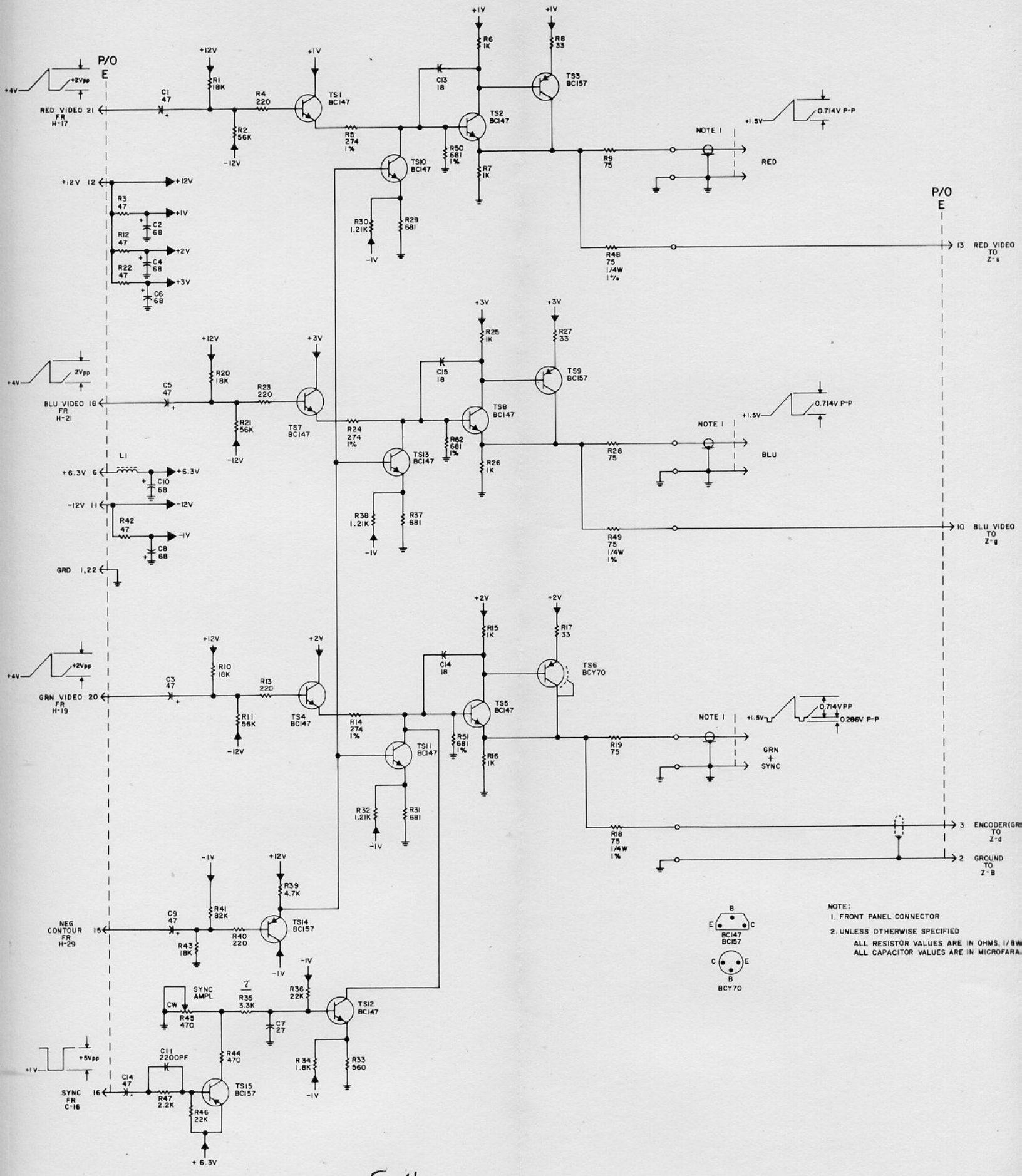


FIGURE 5-2
RGB OUTPUT MODULE (E)
BLOCK DIAGRAM


P/O E
RED VIDEO 21 FR H-17
+4V
+2Vpp
C1 47
+12V
R1 18K
R2 56K
-12V
R4 220
+1V
TS1 BC147
R5 274 1%
R6 1K
R8 33
C13 18
TS3 BC157
TS2 BC147
R50 681 1%
R7 1K
TS10 BC147
R30 1.21K
R29 681
-1V
R9 75
NOTE 1
+1.5V
0.714V P-P
RED
+12V 12
R3 47
C2 68
+1V
RI2 47
C4 68
+2V
R22 47
C6 68
+3V
R48 75 1/4W 1%
13 RED VIDEO TO Z-a
P/O E
BLU VIDEO 18 FR H-21
2Vpp
C5 47
R20 18K
R21 56K
R23 220
+3V
TS7 BC147
R24 274 1%
R25 1K
R27 33
C15 18
TS9 BC157
TS8 BC147
R52 681 1%
R26 1K
TS13 BC147
R38 1.21K
R37 681
R28 75
NOTE 1
+1.5V
0.714V P-P
BLU
L1
+6.3V 6
C10 68
-12V 11
R42 47
C8 68
-1V
GRD 1,22
R49 75 1/4W 1%
10 BLU VIDEO TO Z-g
GRN VIDEO 20 FR H-19
+2Vpp
C3 47
R10 18K
R11 56K
R13 220
+2V
TS4 BC147
R14 274 1%
R15 1K
R17 33
C14 18
TS6 BCY70
TS5 BC147
R51 681 1%
R16 1K
TS11 BC147
R32 1.21K
R31 681
R19 75
NOTE 1
+1.5V
0.714VPP
0.286V P-P
GRN + SYNC
R18 75 1/4W 1%
3 ENCODER(GRN) TO Z-d
2 GROUND TO Z-B
NEG CONTOUR 15 FR H-29
C9 47
R41 82K
R43 18K
R39 4.7K
R40 220
TS14 BC157
SYNC AMPL
CW
R45 470
R35 3.3K
R36 22K
TS12 BC147
C7 27
R34 1.8K
R33 560
SYNC FR C-16
+1V
+5Vpp
C11 220OPF
C14 47
R47 2.2K
R44 470
TS15 BC157
R46 22K
+6.3V
B
E
C
BC147 BC157
C
E
B
BCY70
NOTE:
1. FRONT PANEL CONNECTOR
2. UNLESS OTHERWISE SPECIFIED
ALL RESISTOR VALUES ARE IN OHMS, 1/8W
ALL CAPACITOR VALUES ARE IN MICROFARA

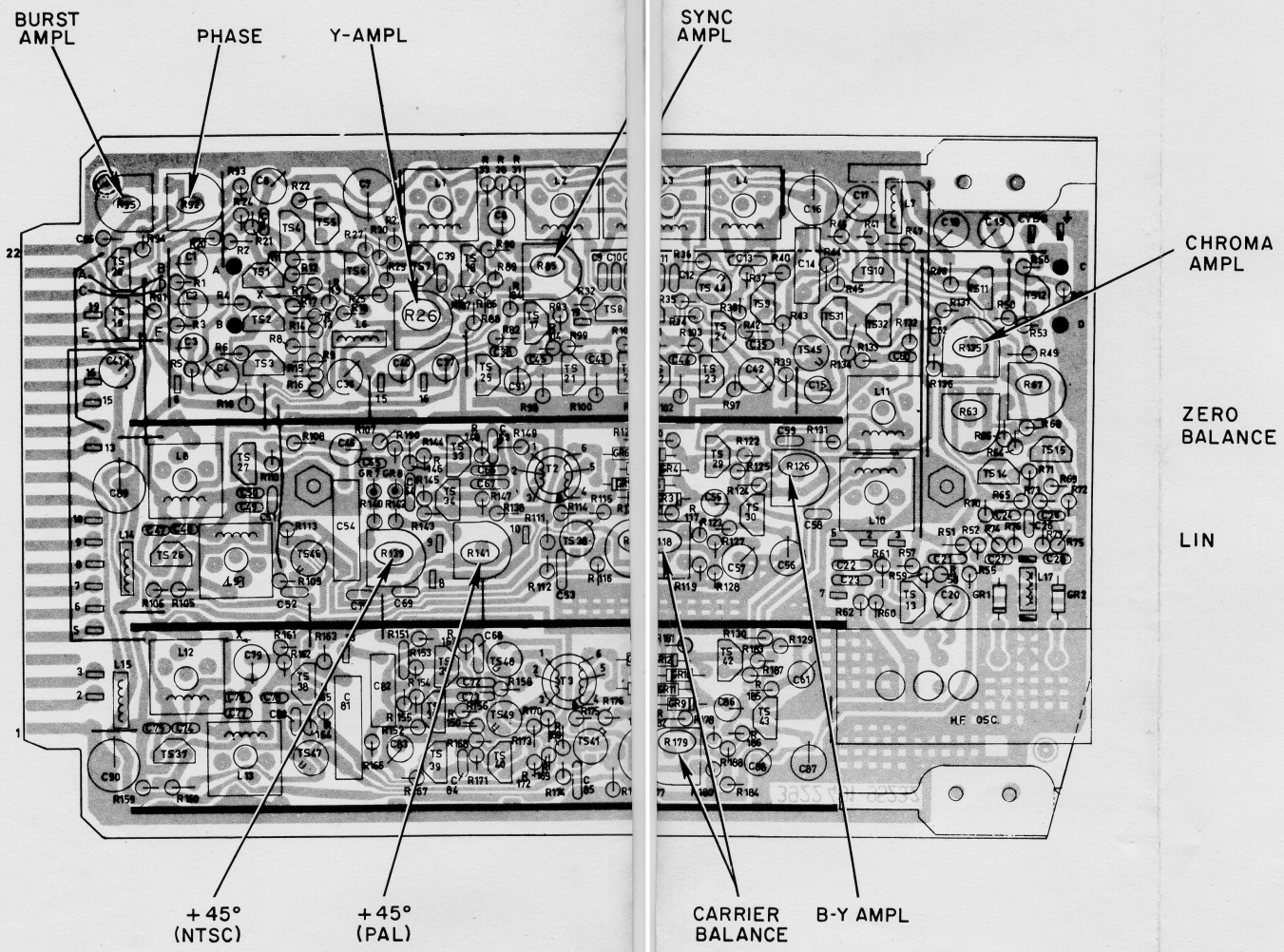


FIGURE 5-4
ENCODER (NTSC) (E) PW ASSEMBLY

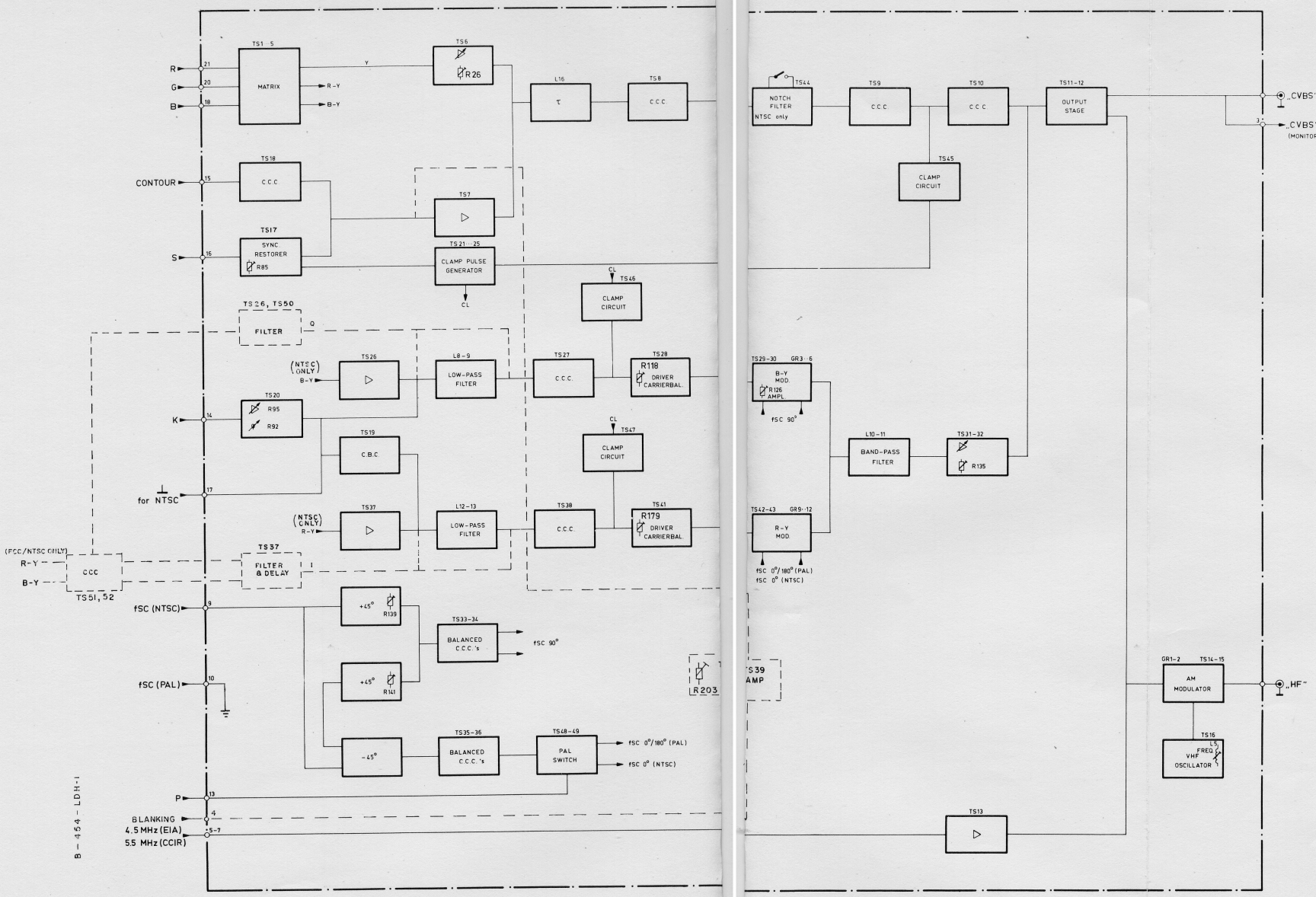
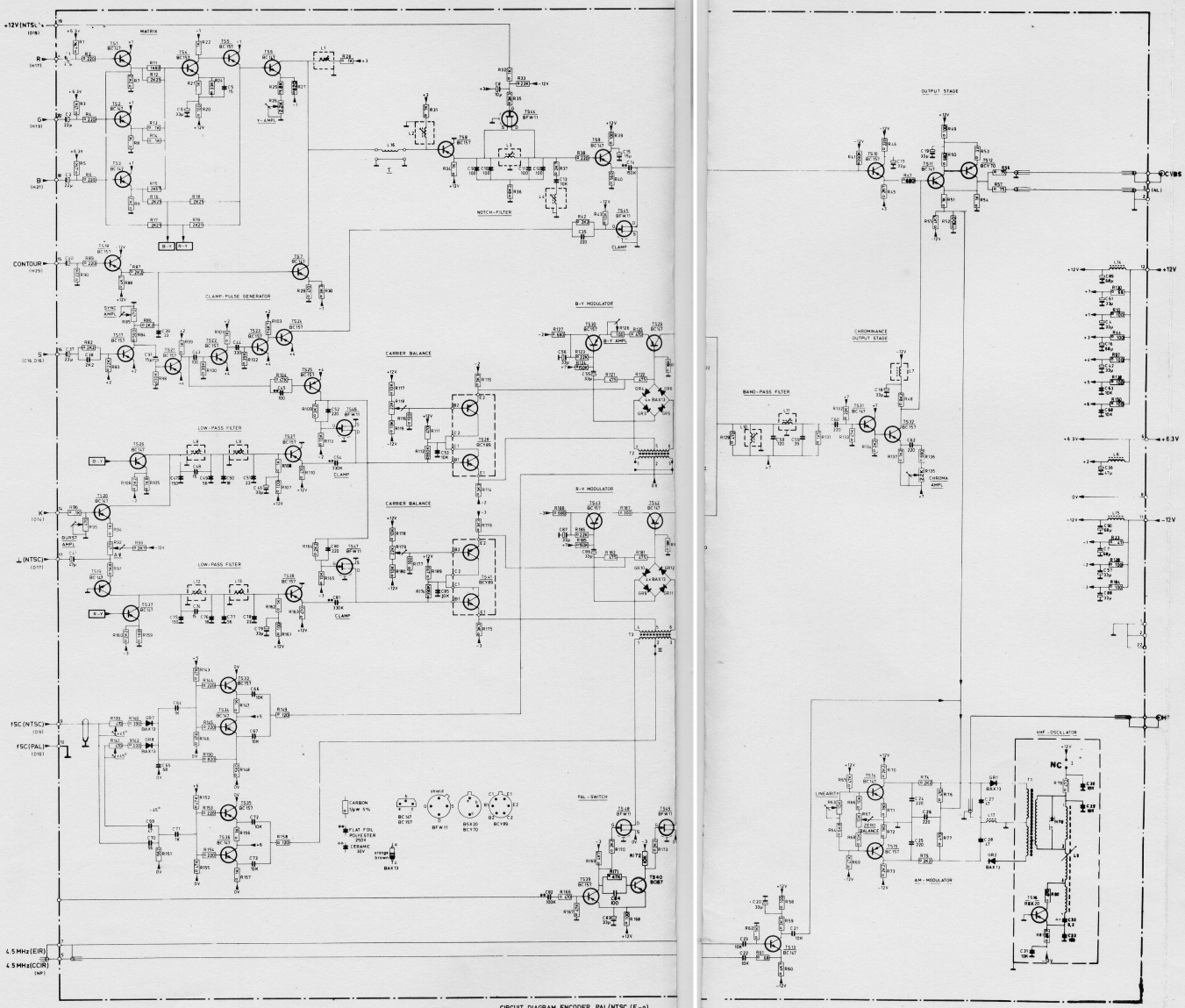
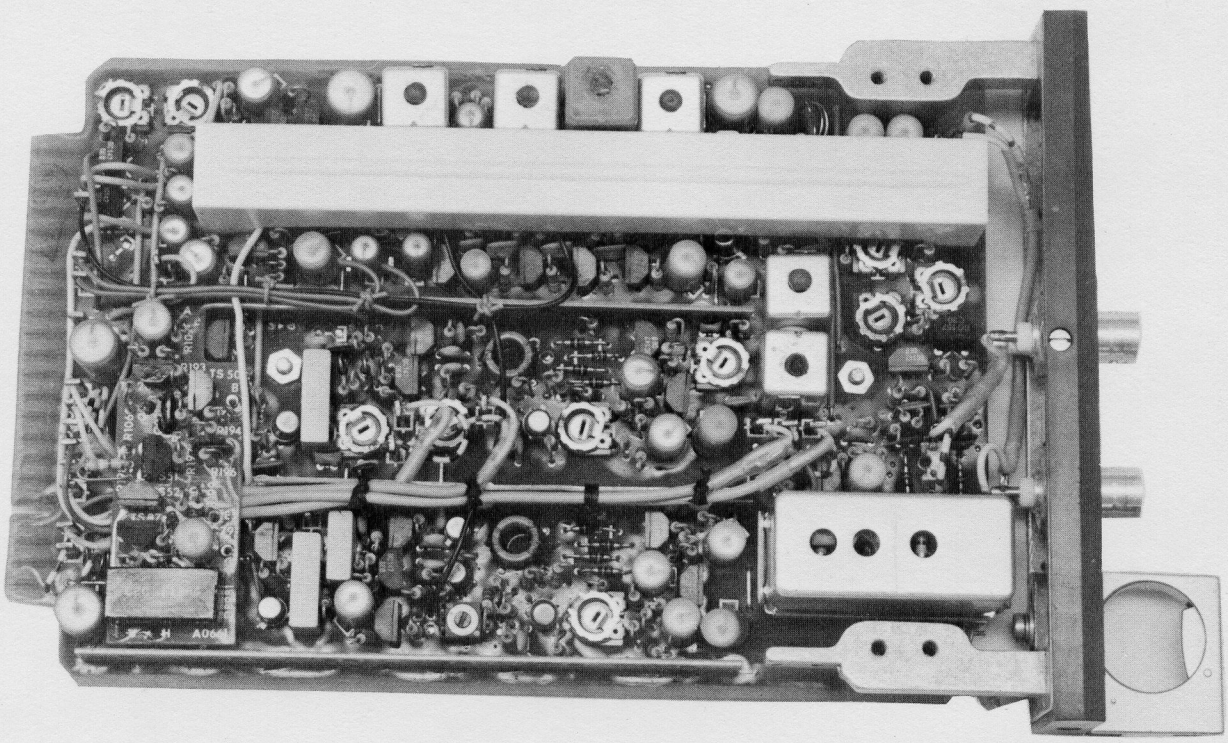


FIGURE 5-5
ENCODER MODULE (E)
(NTSC AND FCC/NTSC)
BLOCK DIAGRAM



CIRCUIT DIAGRAM ENCODER PAL/NTSC (E-6)

FIGURE 5-6
ENCODER MODULE (NTSC) (E)
SCHEMATIC DIAGRAM
8902-1421-5 **REV B**



NOTE: SEE FIGURE 5-4 FOR LOCATION OF ALL VARIABLE CONTROLS

FIGURE 5-7. ENCODER (FCC/NTSC) MODULE (E) PW ASSEMBLY

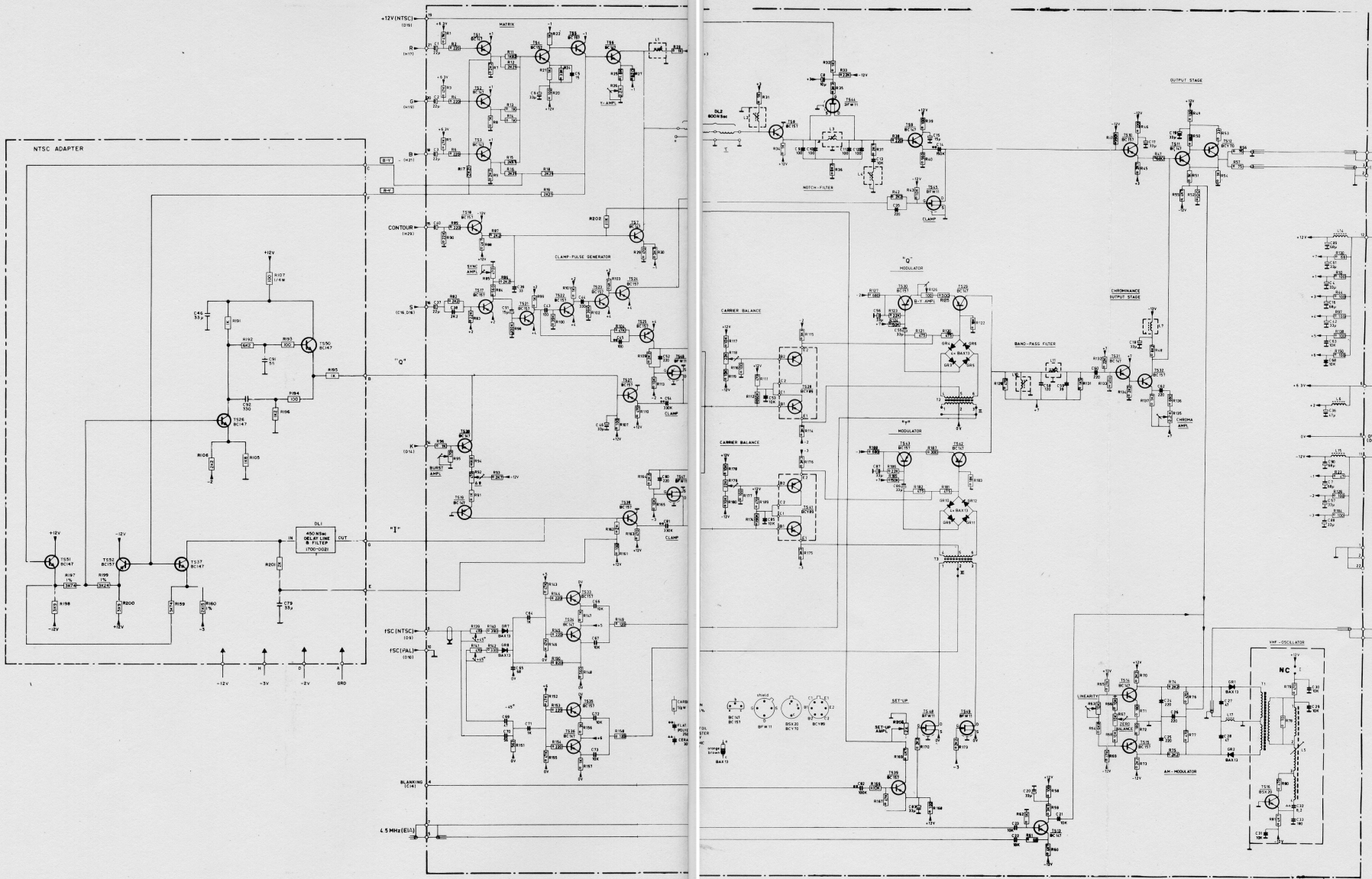


FIGURE 5-8
ENCODER (FCC/NTSC) MODULE (E)
SCHEMATIC DIAGRAM
8902-0521-5 REV D

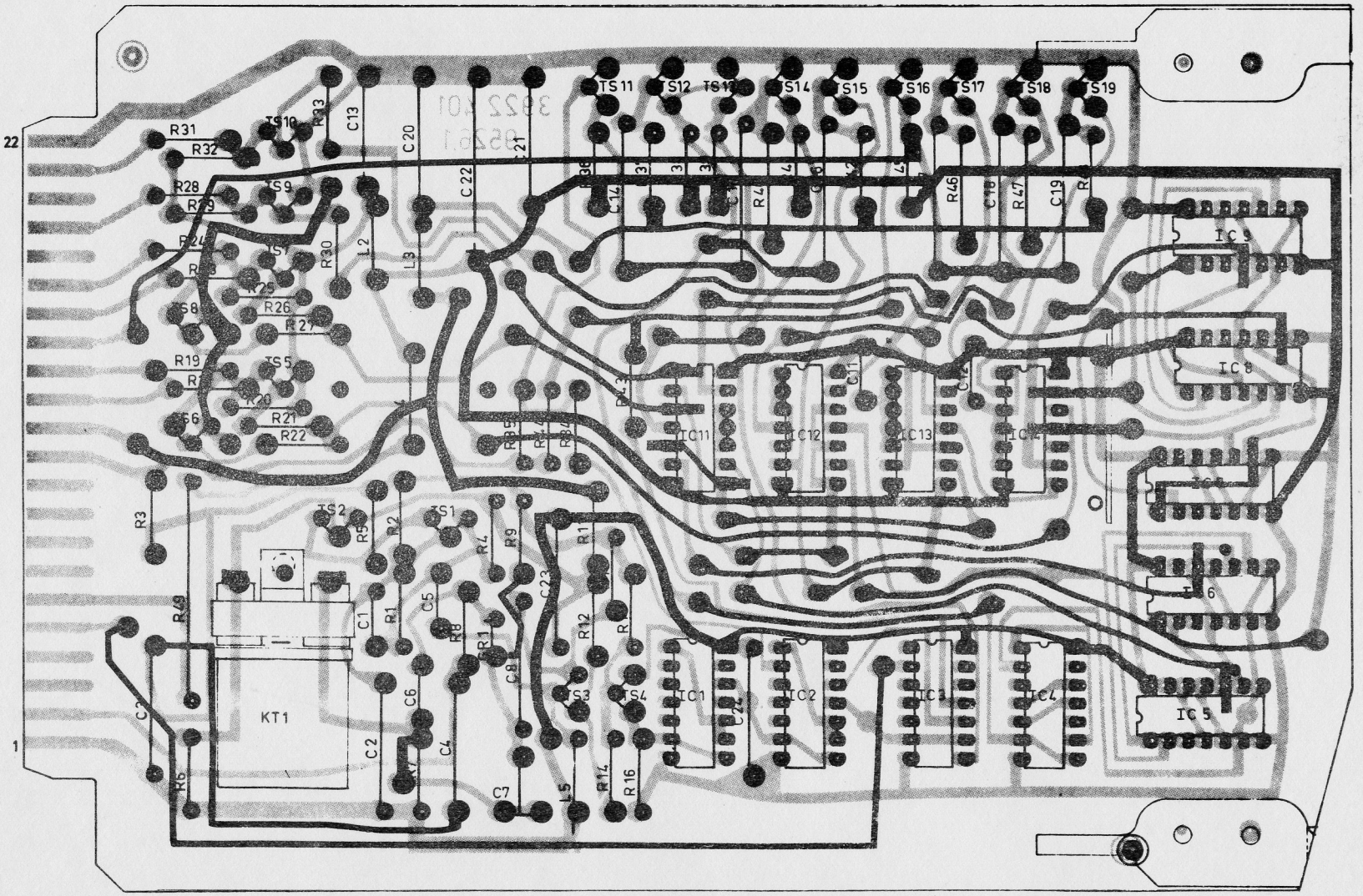
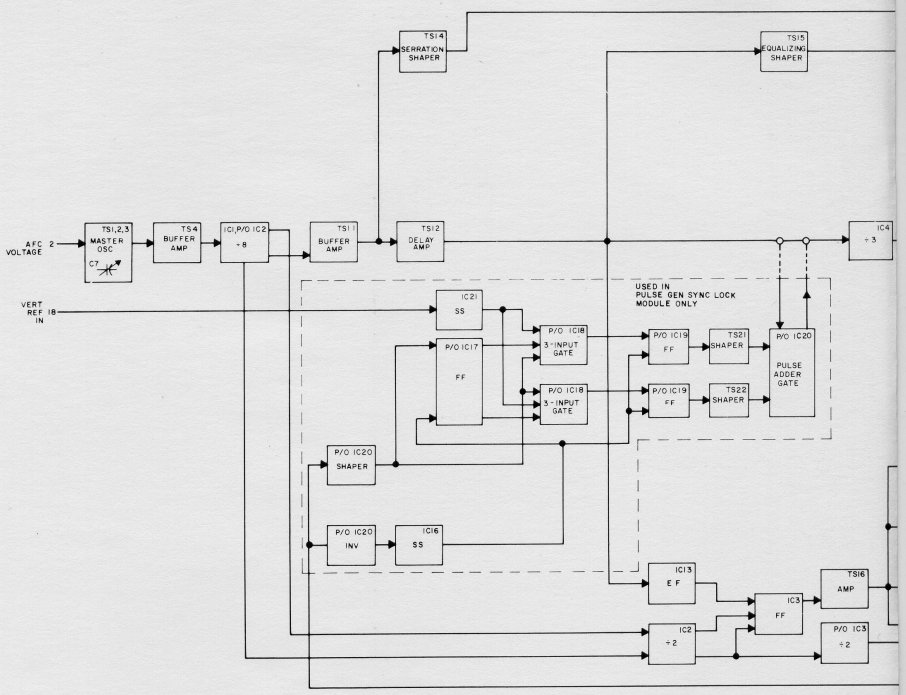


FIGURE 5-9
PULSE MODULE (C)
PW ASSEMBLY
LDH-4305/50A



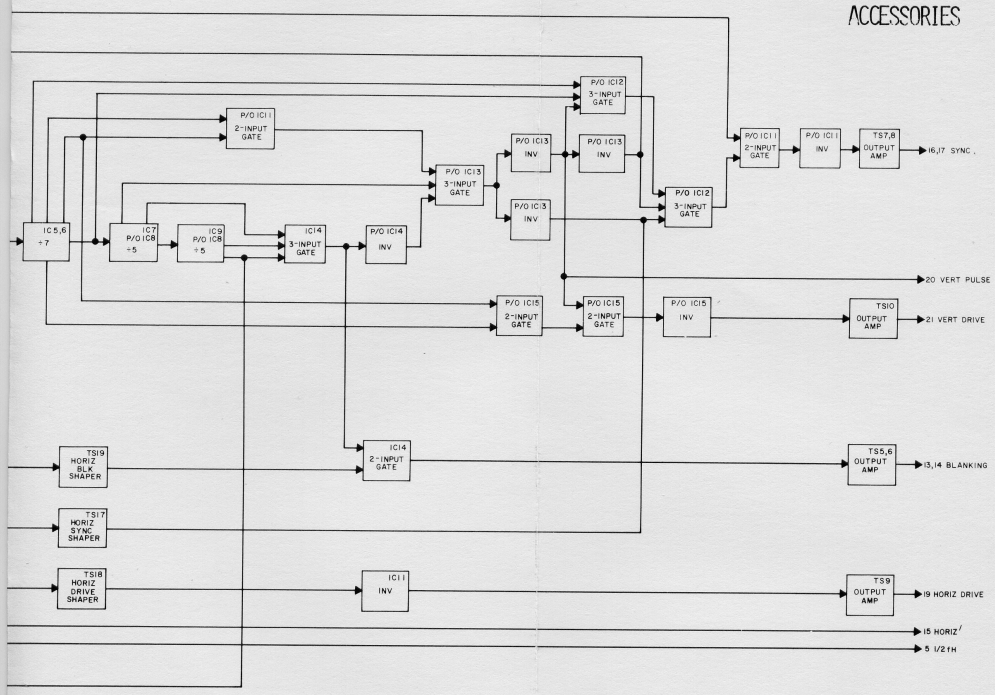
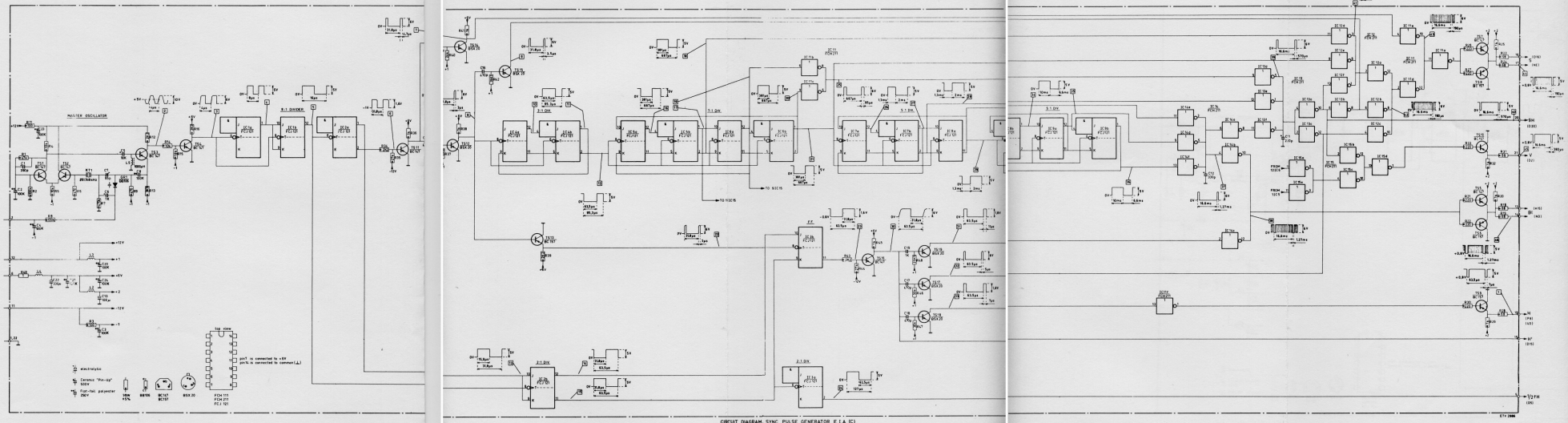


FIGURE 5-10
PULSE(PULSE GEN SYNC LOCK)
MODULE(C)
BLOCK DIAGRAM

SECTION 5
PLUG-IN MODULE
ACCESSORIES



CIRCUIT DIAGRAM, SYNC. PULSE GENERATOR E (A.C)

FIGURE 5-11
PULSE MODULE(C)
SCHEMATIC DIAGRAM
LDH-4305/50A, REV

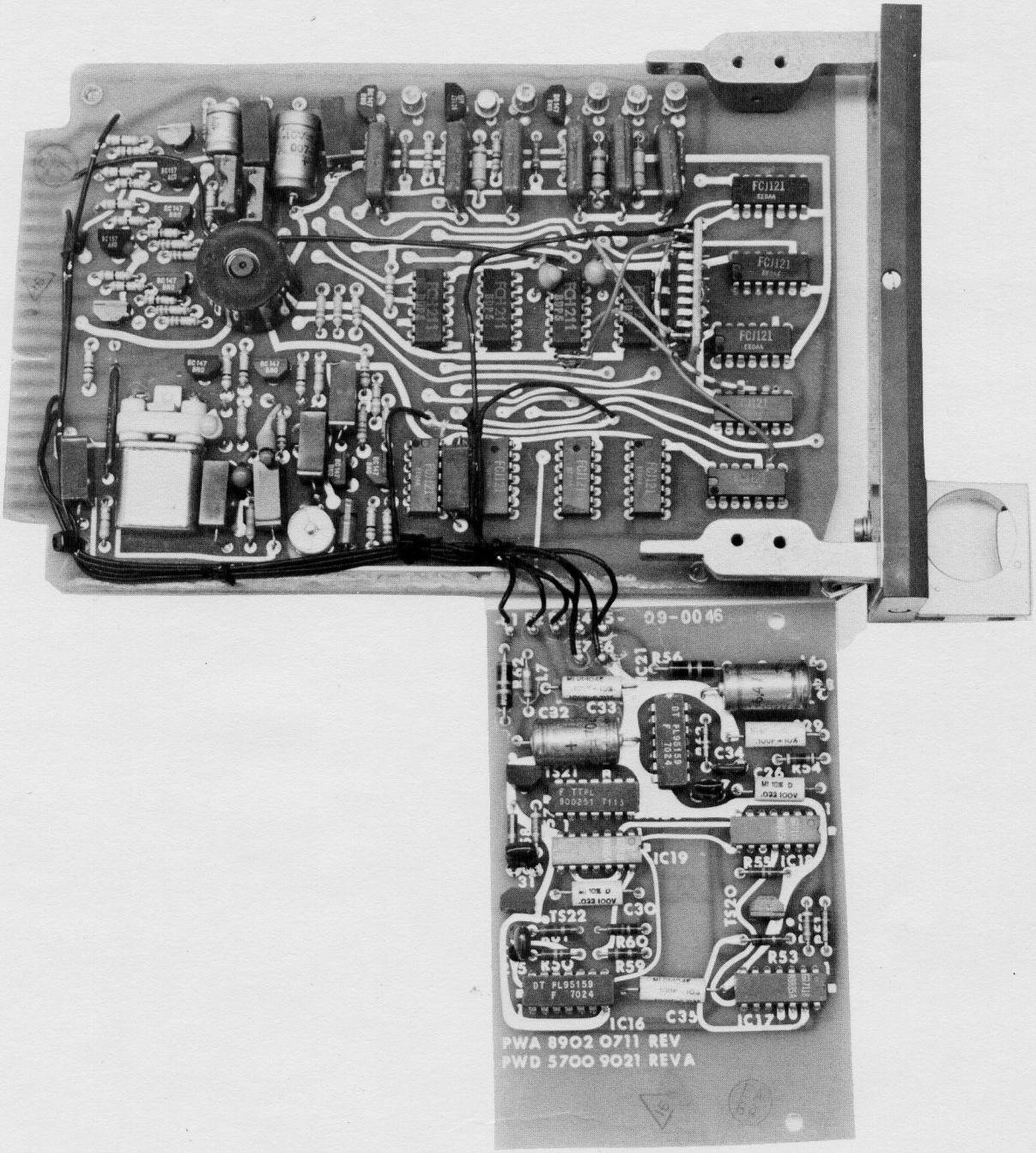


FIGURE 5-12. PULSE GEN SYNC LOCK MODULE (C) PW ASSEMBLY

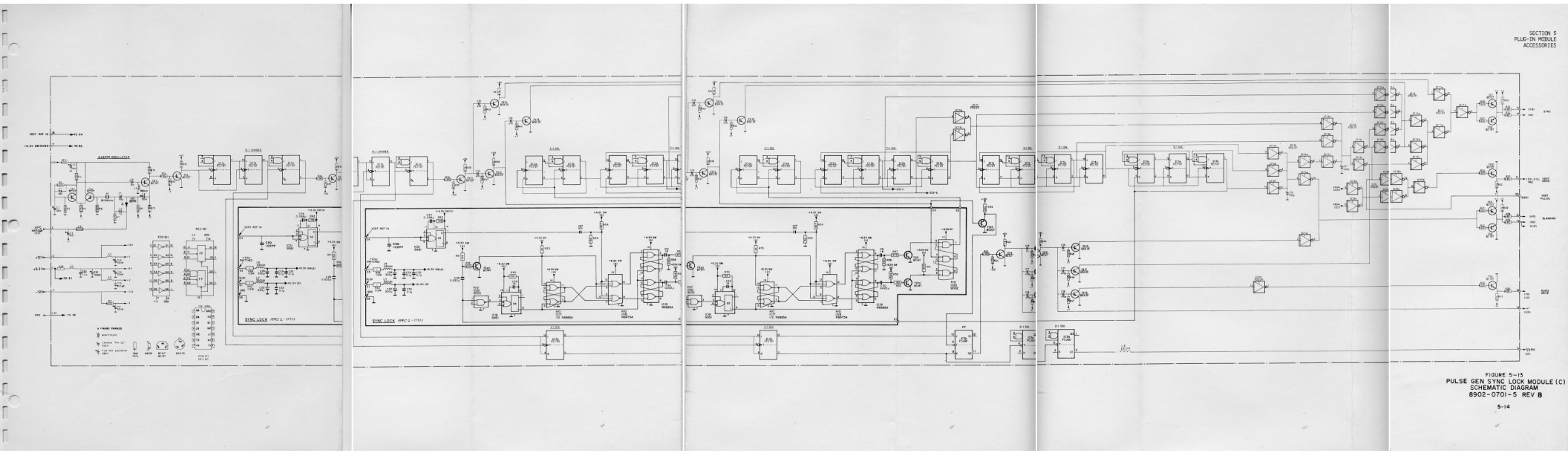


FIGURE 5-13
PULSE GEN SYNC LOCK MODULE (C)
SCHEMATIC DIAGRAM
8902-0701-5 REV B

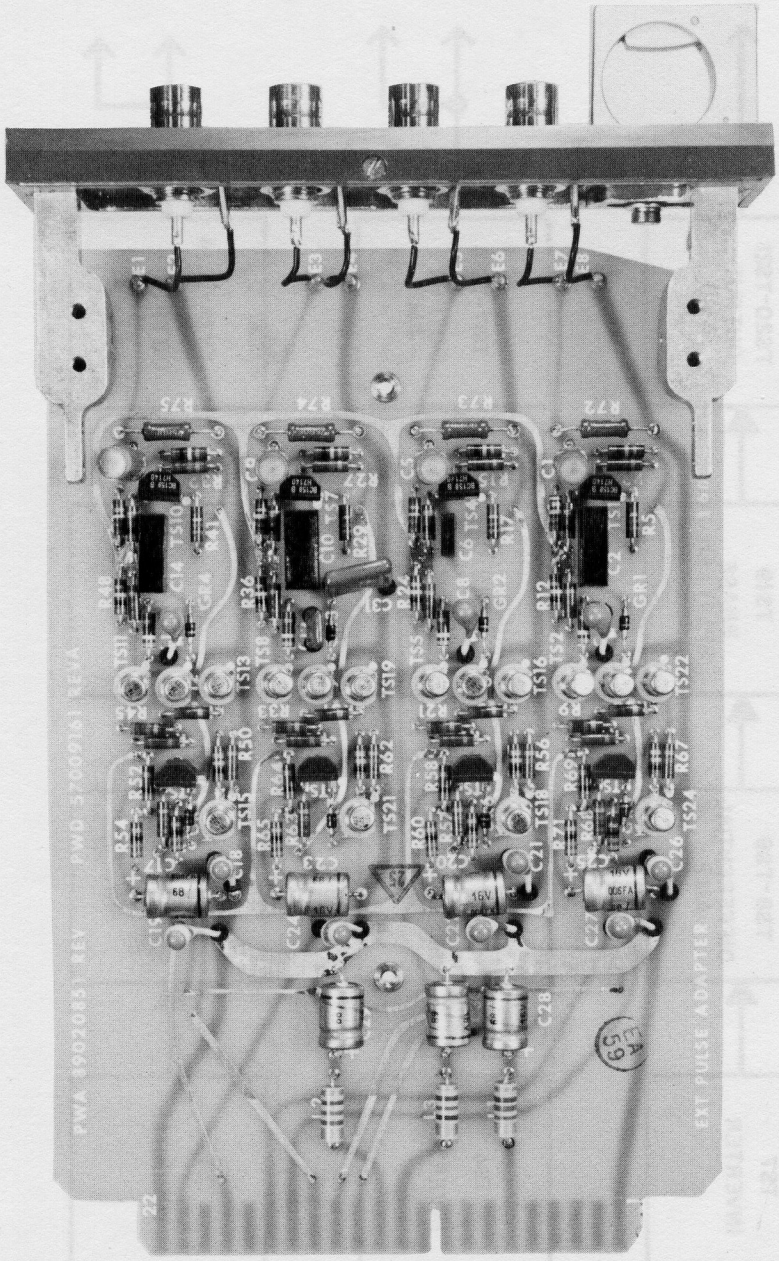


FIGURE 5-14. EXTERNAL PULSE MODULE (C) PW ASSEMBLY

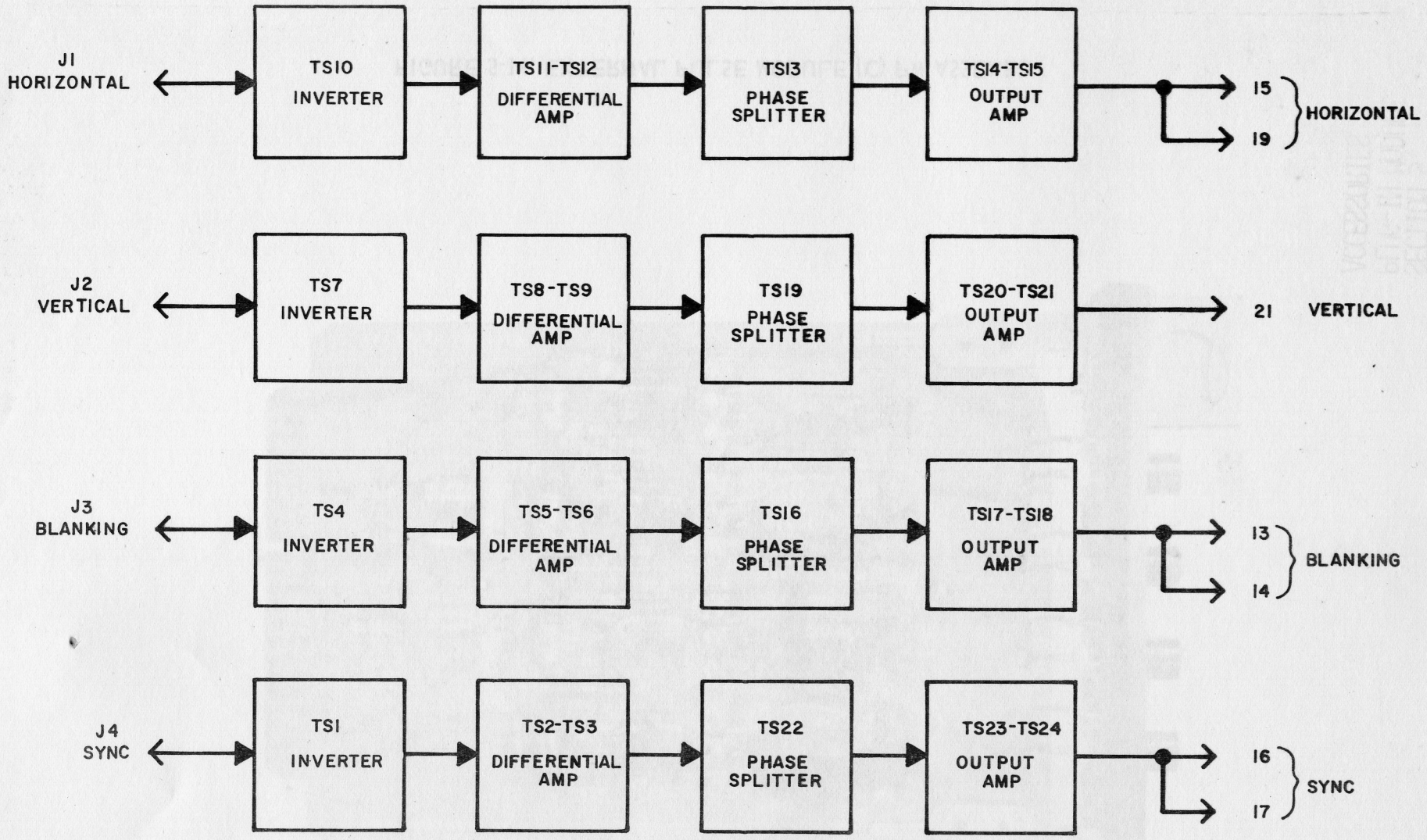
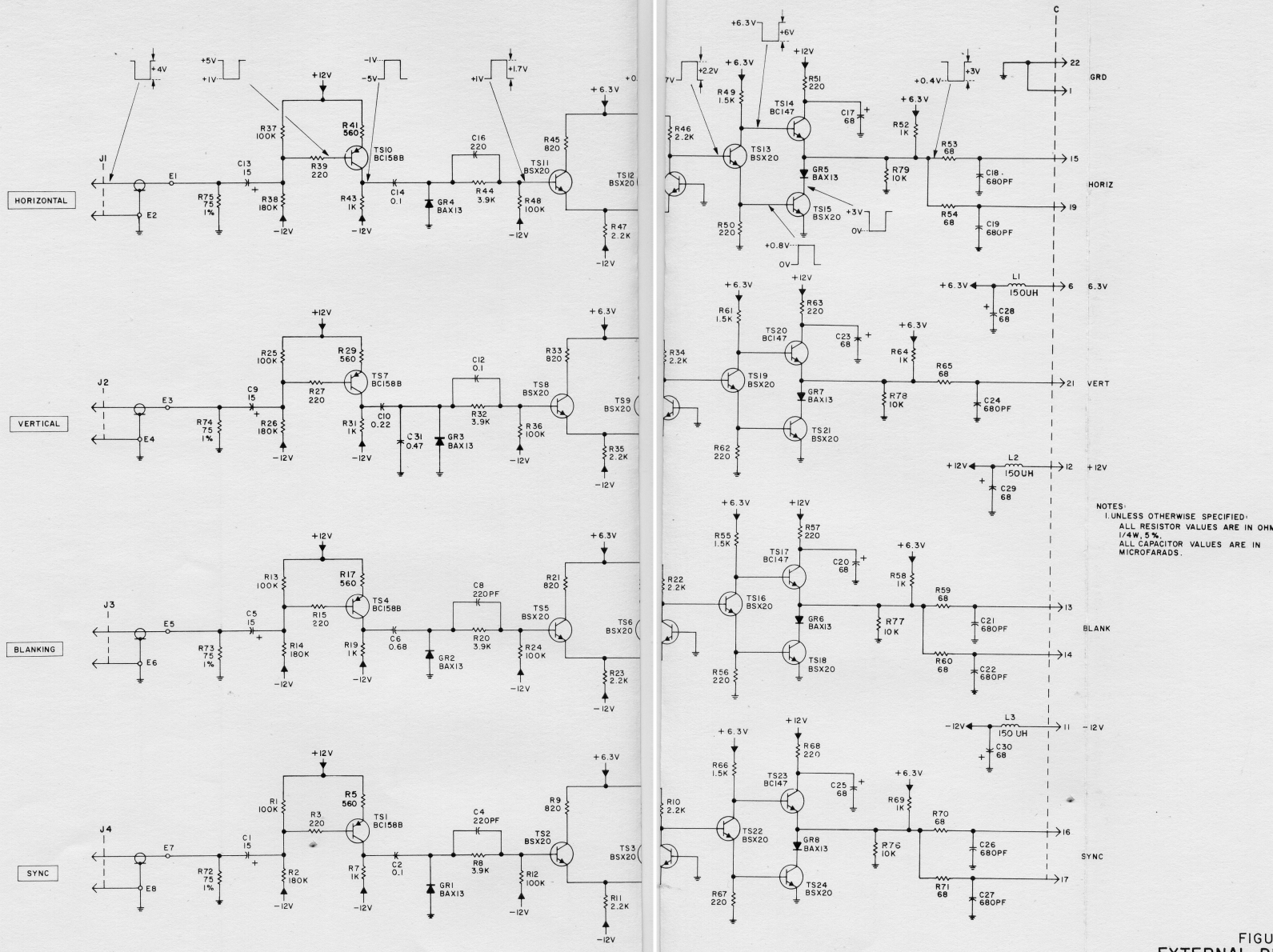


FIGURE 5-15
EXTERNAL PULSE MODULE(C)
BLOCK DIAGRAM



NOTES:
1. UNLESS OTHERWISE SPECIFIED:
   ALL RESISTOR VALUES ARE IN OHMS, 1/4W, 5%.
   ALL CAPACITOR VALUES ARE IN MICROFARADS.

FIGURE 5-16
EXTERNAL PULSE MODULE (C)
SCHEMATIC DIAGRAM
8902-0841-5 REV-

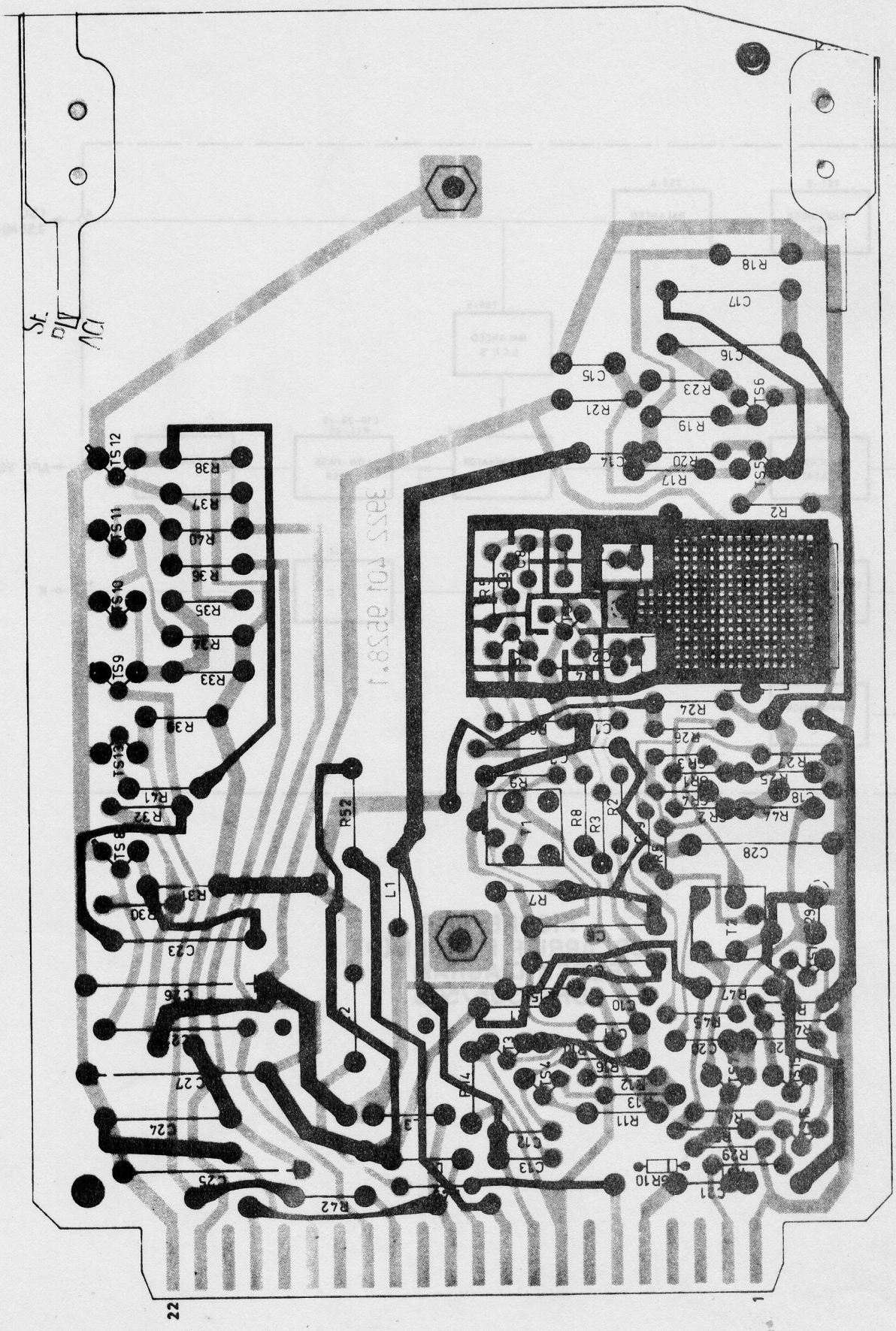


FIGURE 5-17
SUBCARRIER (D)
PW ASSEMBLY
LDH-4305/50B

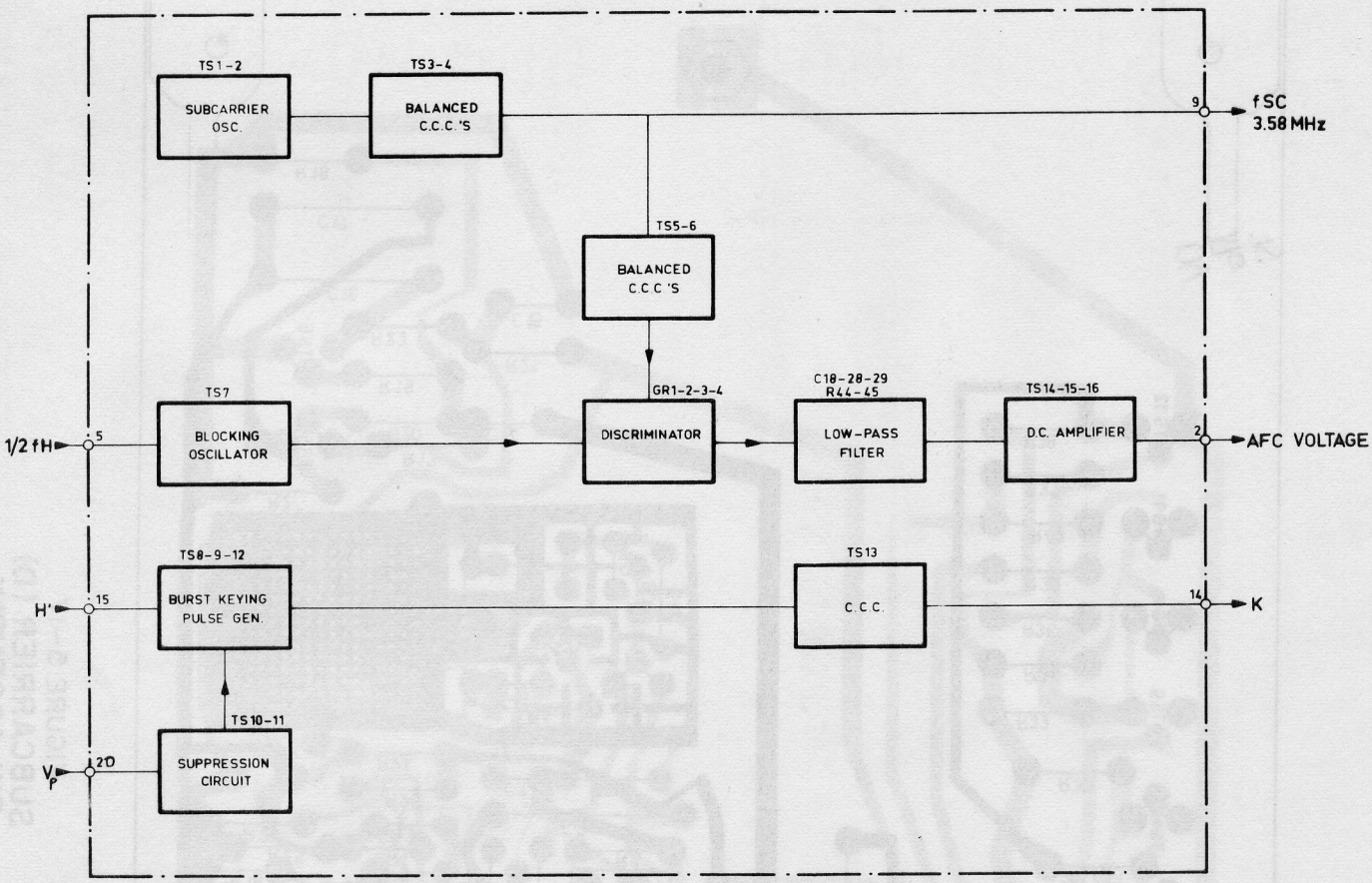
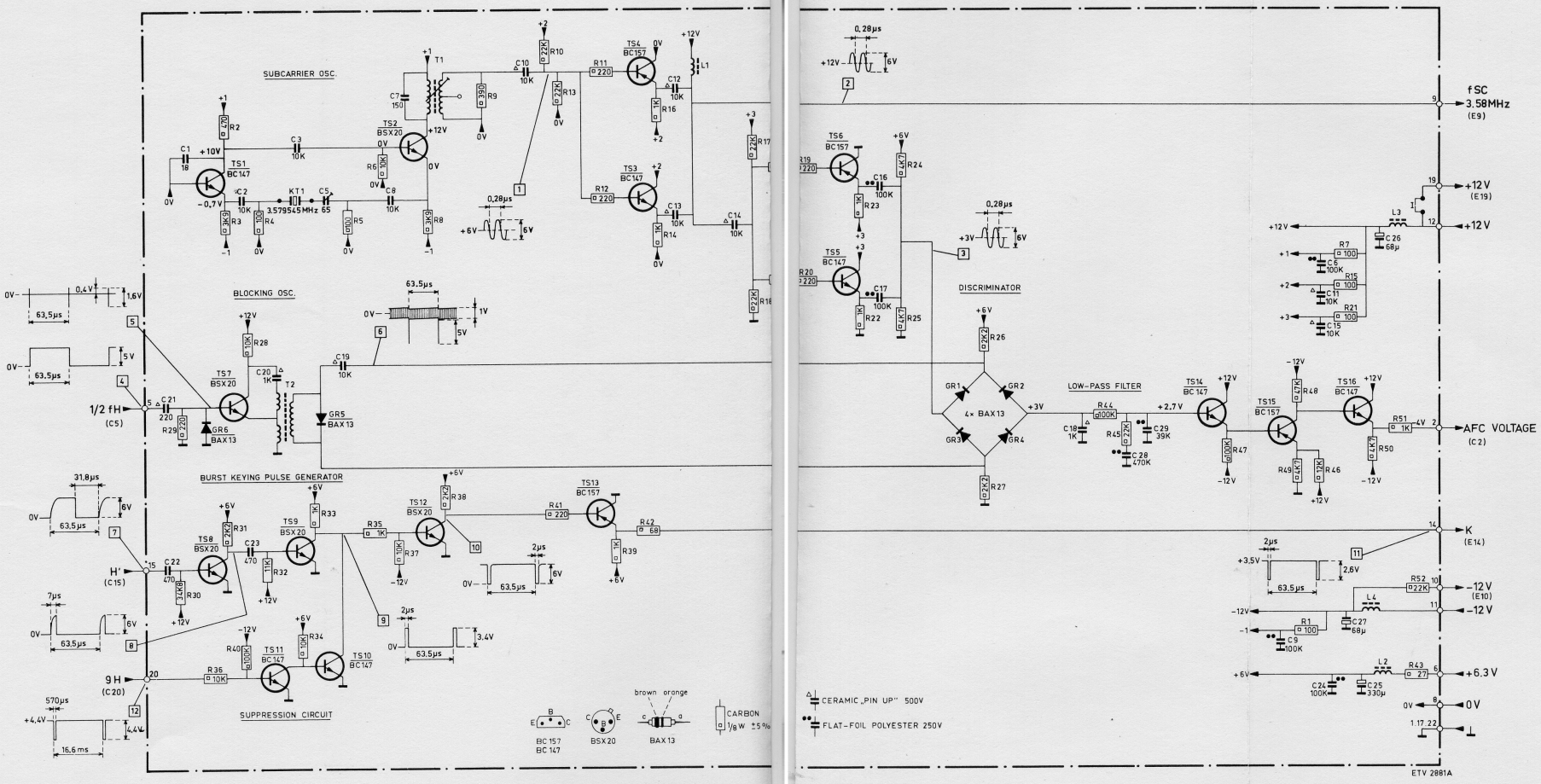


FIGURE 5-18
SUBCARRIER MODULE (D)
BLOCK DIAGRAM
LDH-4305/50B



CIRCUIT DIAGRAM SUBCARRIER GEN ERATOR MODULE N.T.S.C. (D)

FIGURE 5-19
SUBCARRIER MODULE(D)
SCHEMATIC DIAGRAM
LDH-4305/50B

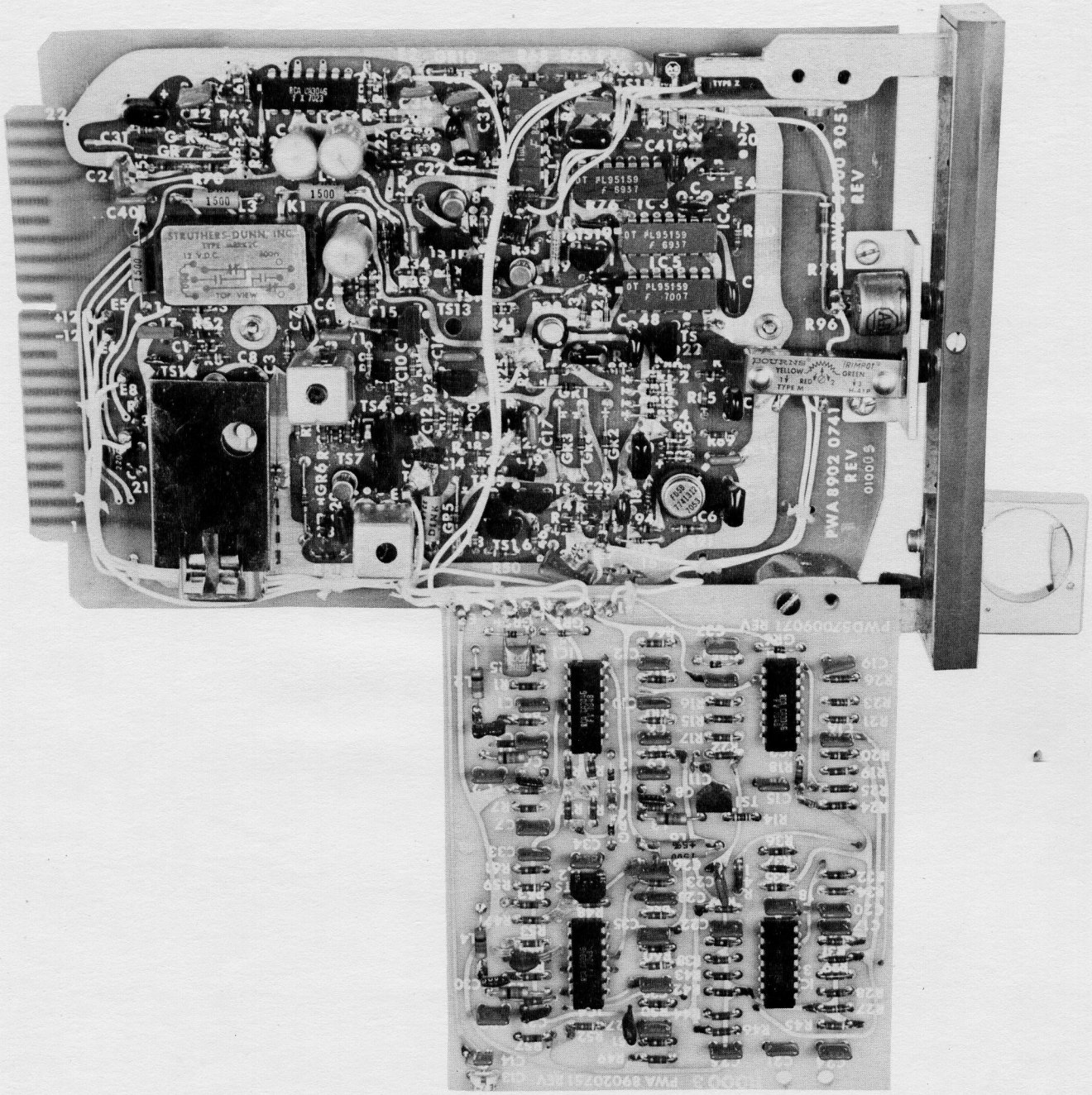


FIGURE 5-20. SUBCARRIER SYNC LOCK (D) PW ASSEMBLY

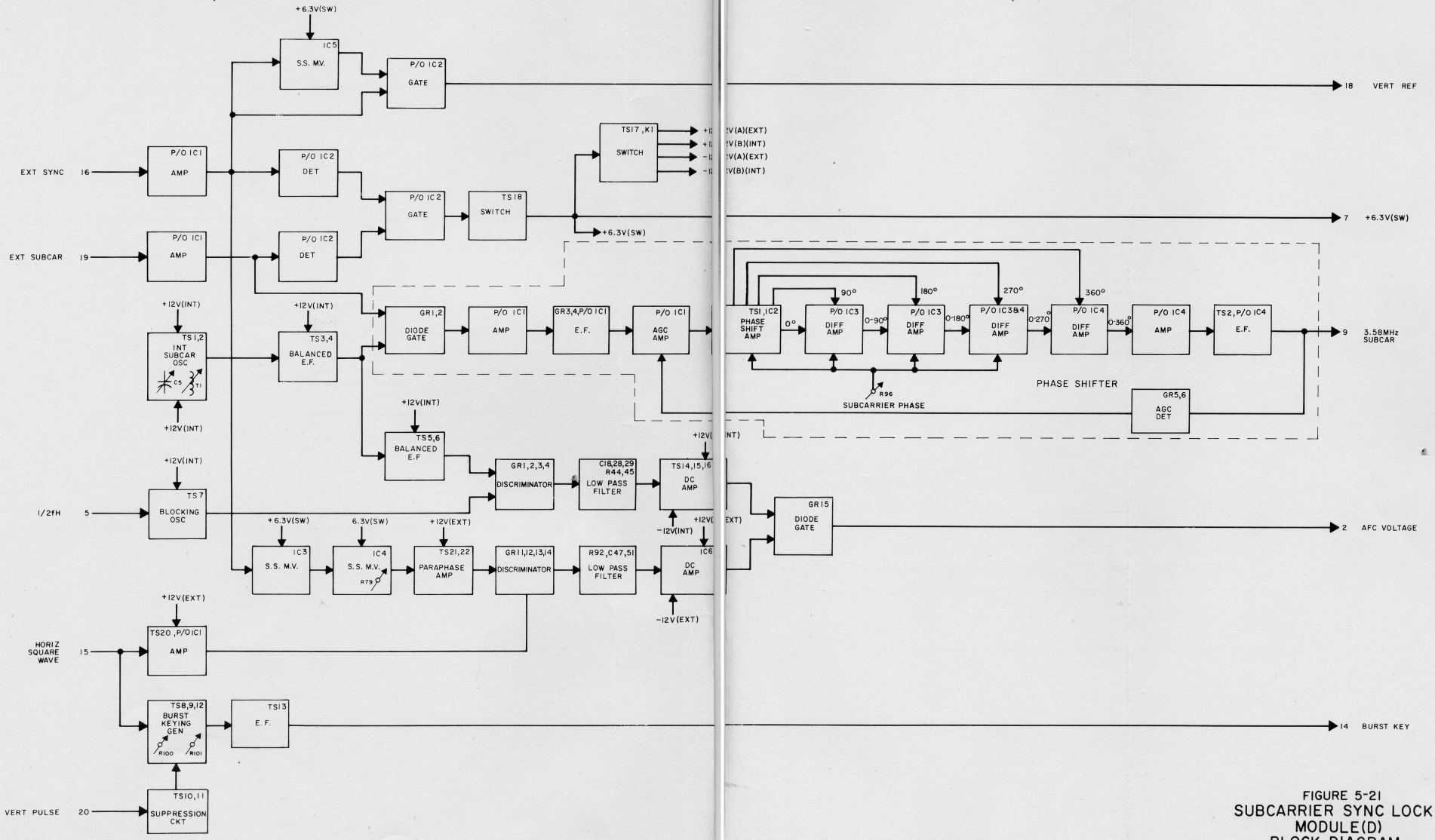
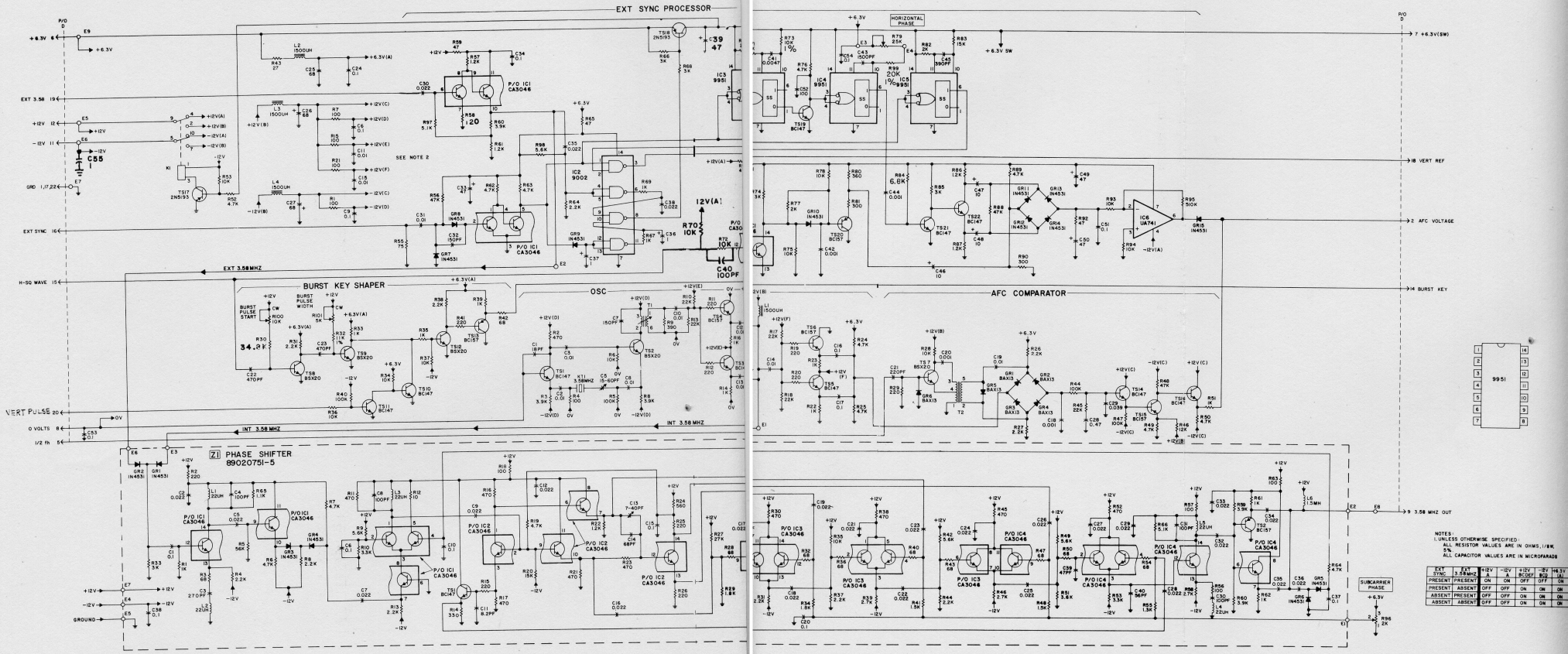


FIGURE 5-21
SUBCARRIER SYNC LOCK
MODULE(D)
BLOCK DIAGRAM



EXT SYNC	EXT 3.58MHZ	+12V A	-12V A	+12V B,C,D,F	-12V B,C,D	+6.3V A
PRESENT	PRESENT	ON	ON	OFF	OFF	ON
PRESENT	ABSENT	OFF	OFF	ON	ON	ON
ABSENT	PRESENT	OFF	OFF	ON	ON	ON
ABSENT	ABSENT	OFF	OFF	ON	ON	ON

FIGURE 5-22
SUBCARRIER SYNC LOCK MODULE
8902-0731-5 REV F

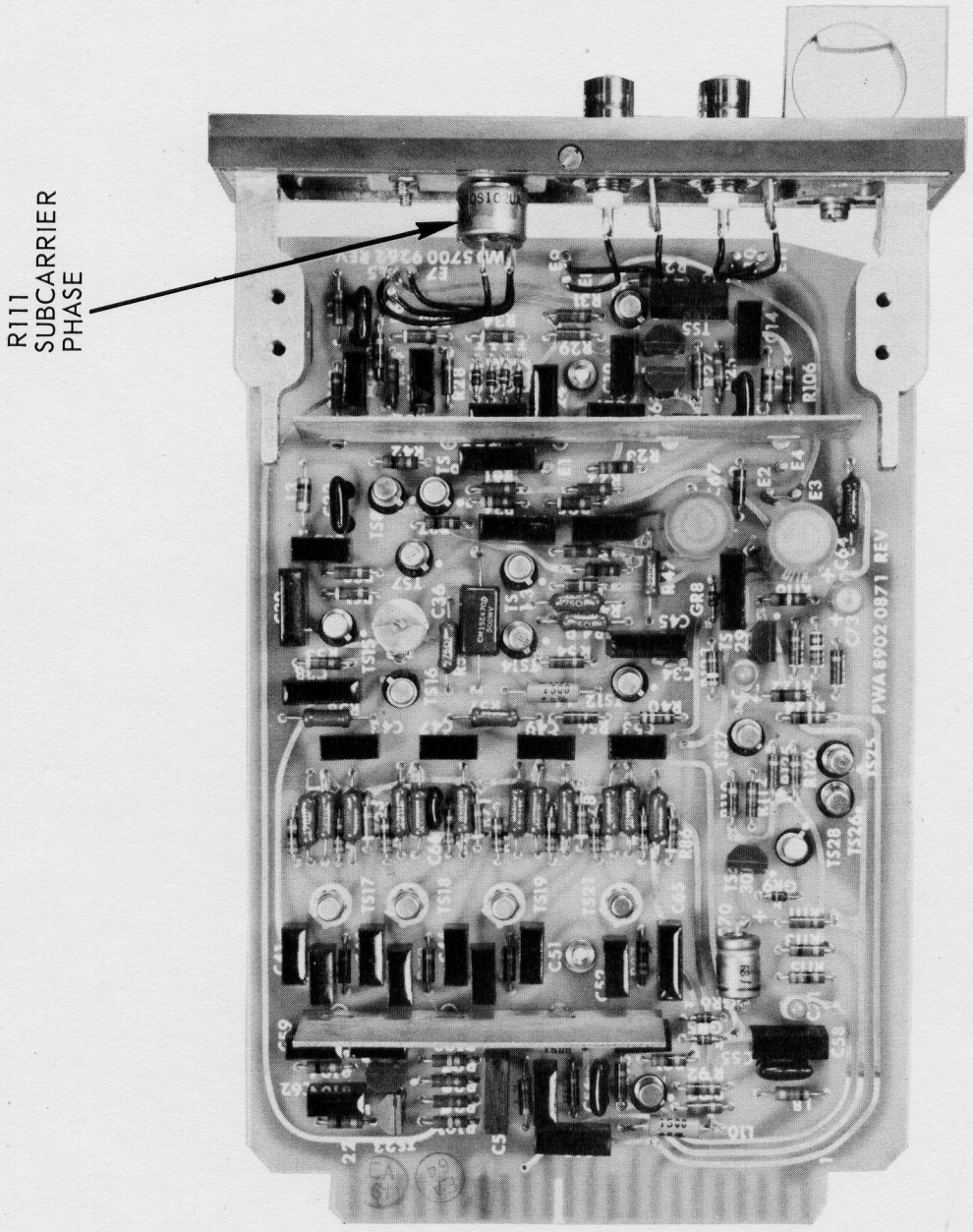


FIGURE 5-23. EXTERNAL SUBCARRIER MODULE (D) PW ASSEMBLY

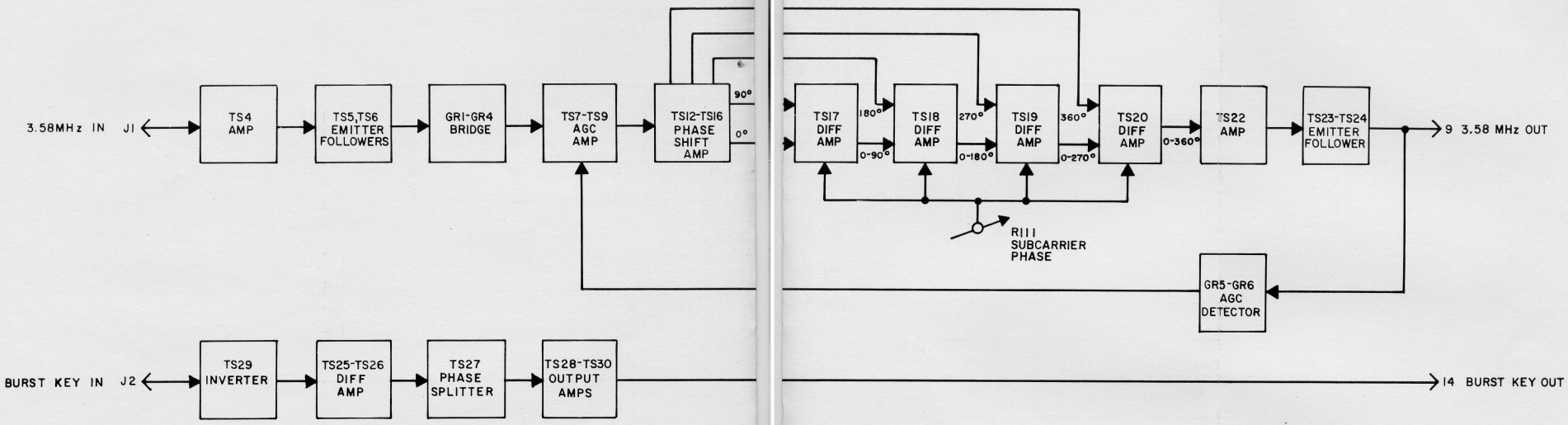
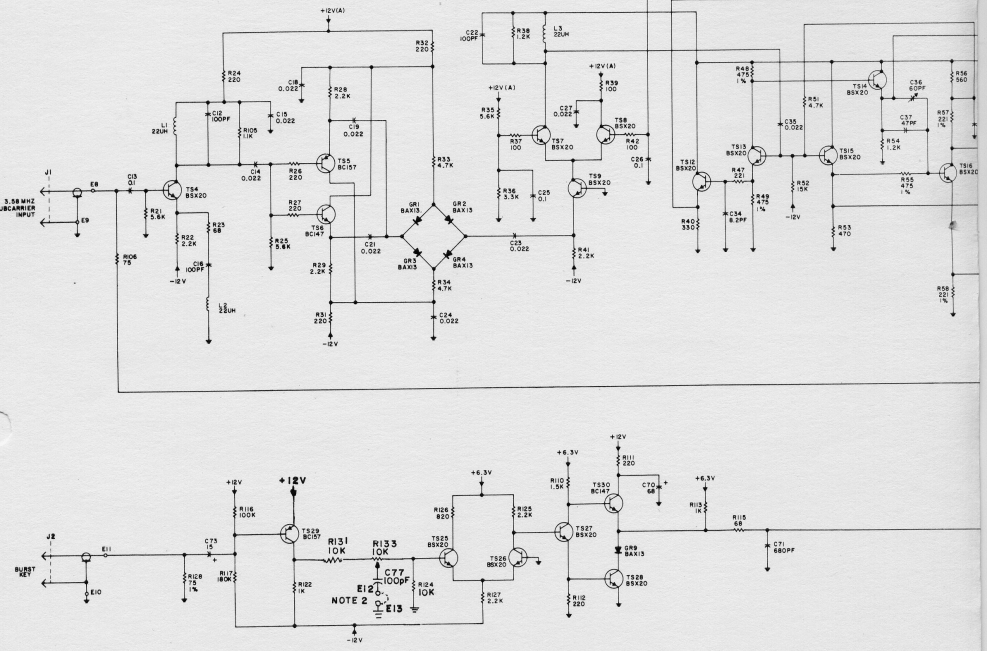


FIGURE 5-24
EXTERNAL SUBCARRIER MODULE (D)
BLOCK DIAGRAM



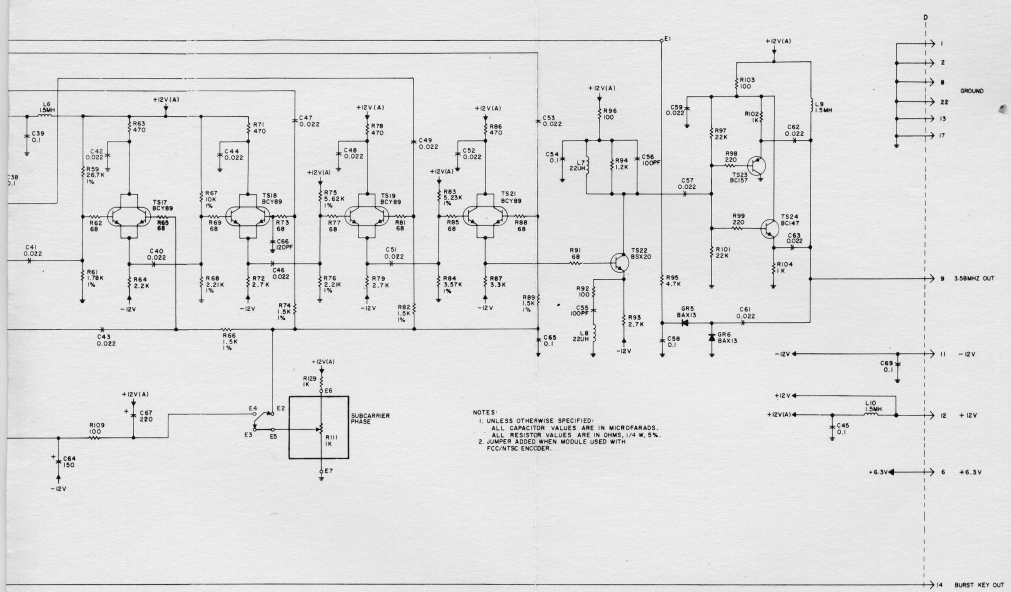


FIGURE 5-25
EXTERNAL SUBCARRIER MODULE (D)
SCHEMATIC DIAGRAM
8902-0861-5 REV C