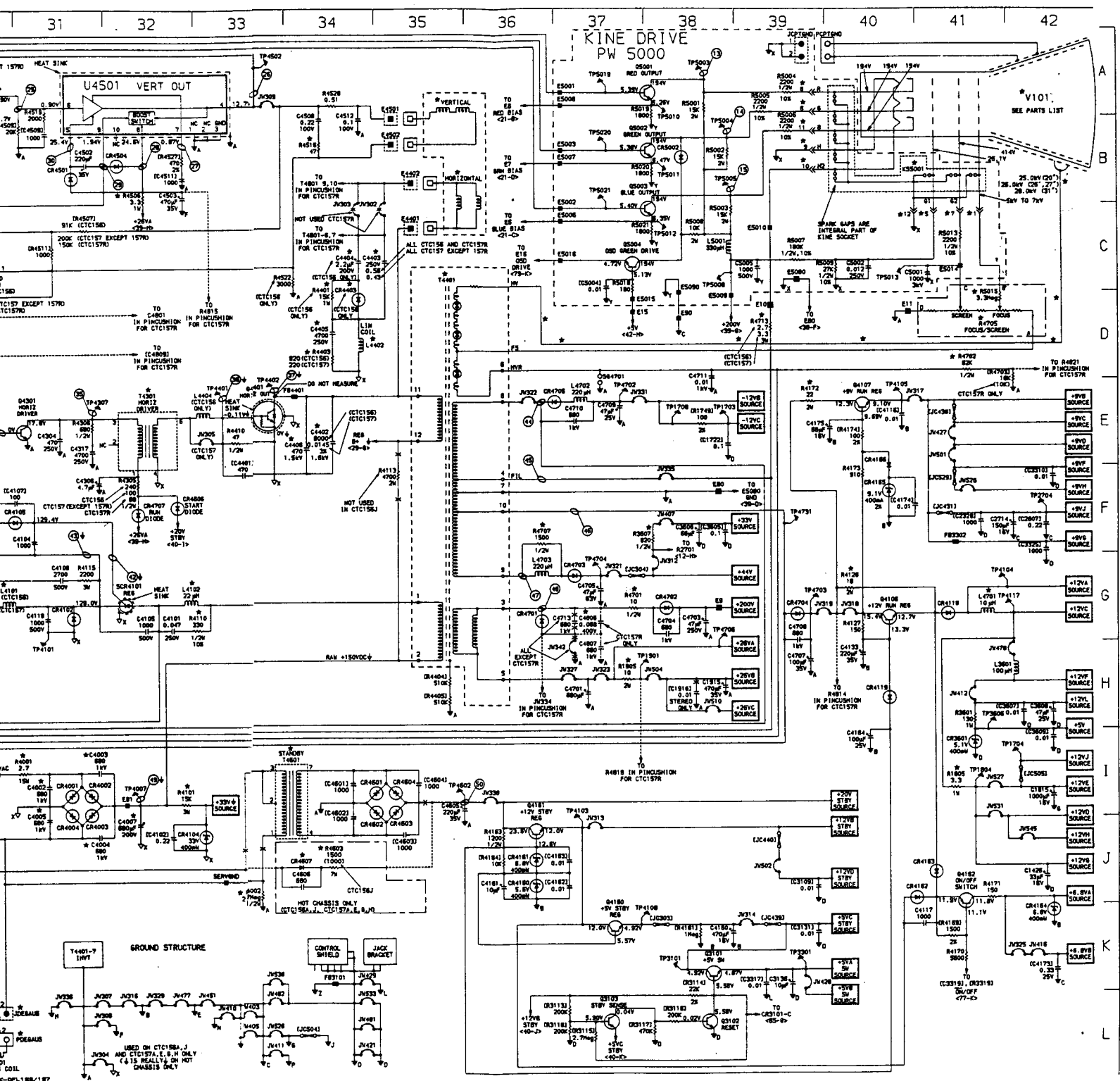




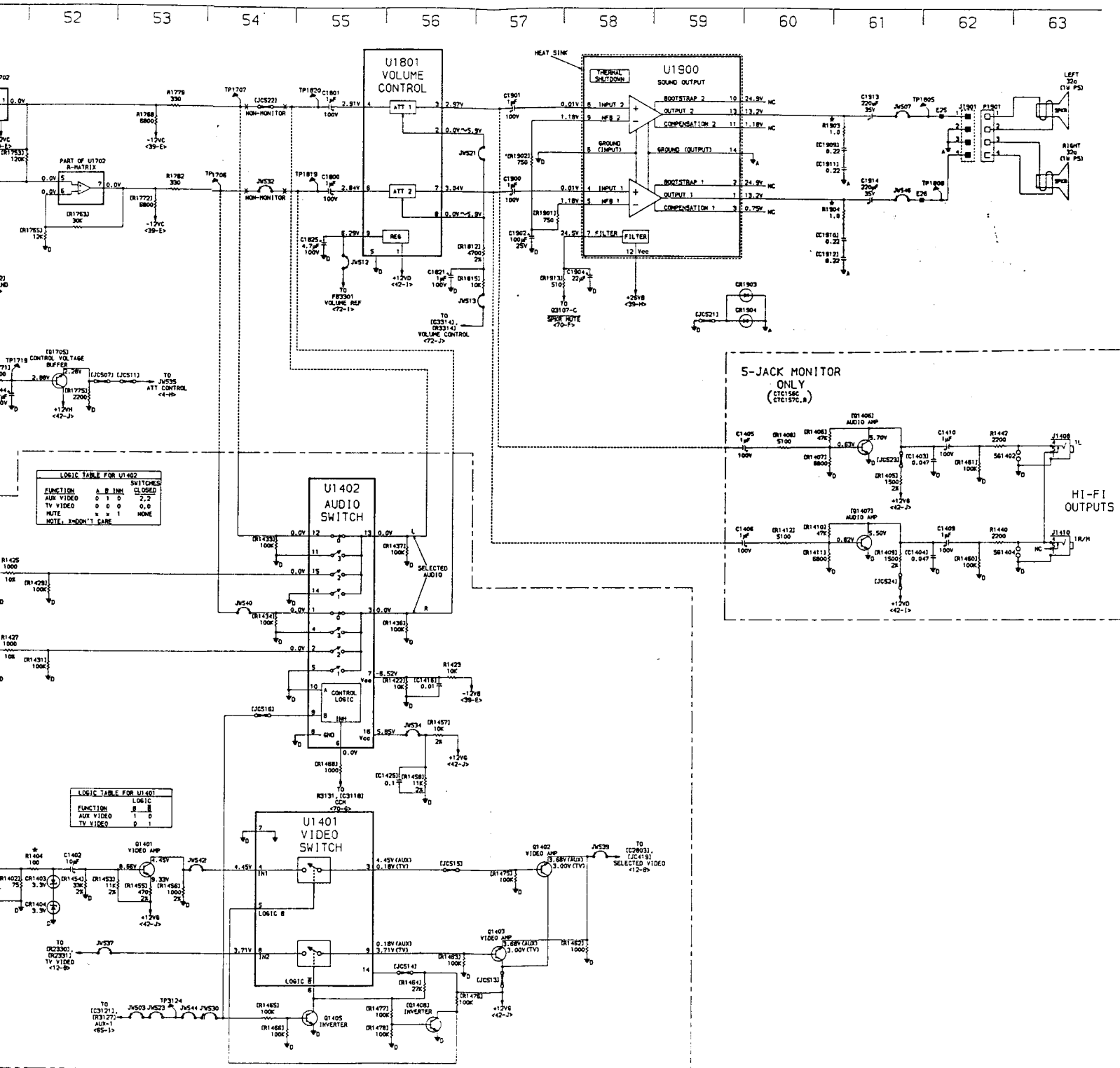
DEFLECTION/POWER SUPPLY/KINE DRIVER SCHEMATIC



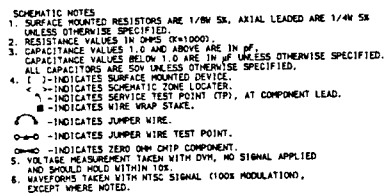
43 44 45 46 47 48 49 50 51 52 53 54



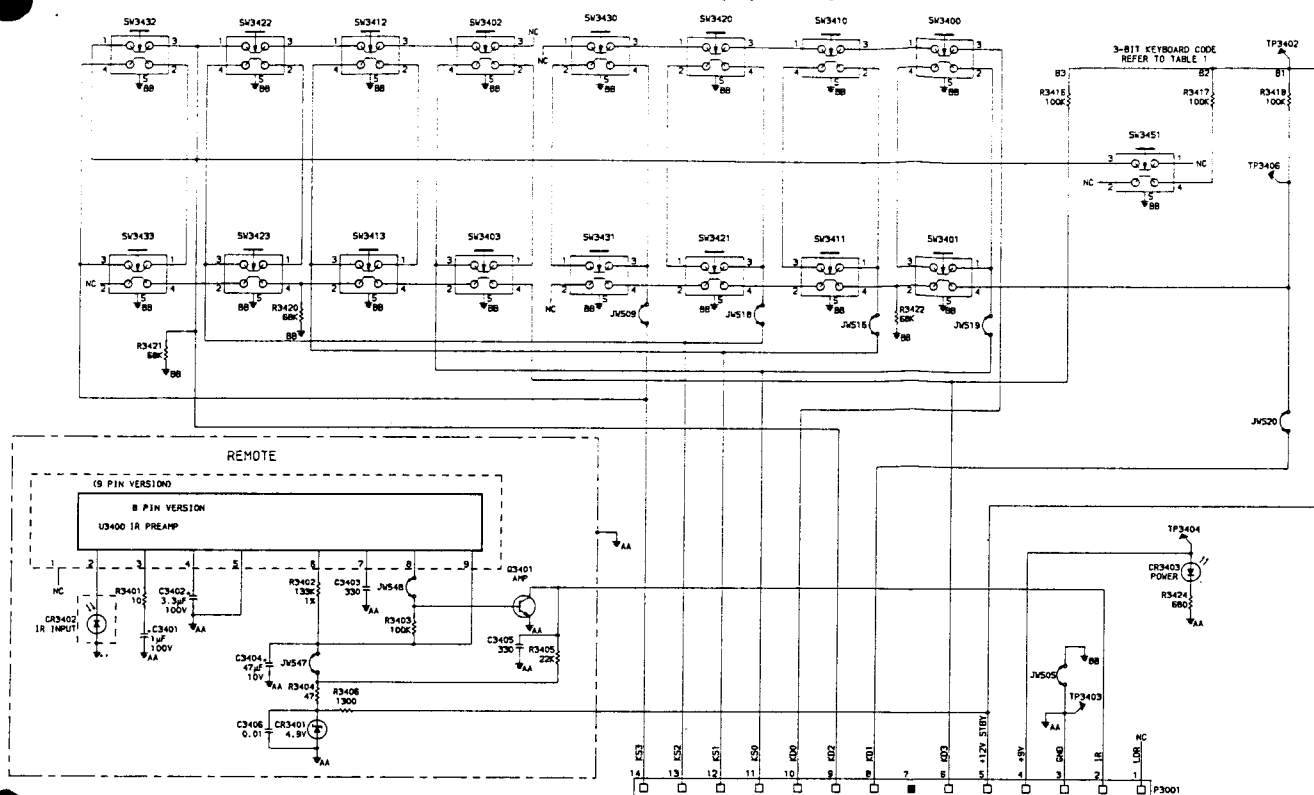
STEREO AUDIO/AUDIO-VIDEO INPUT SCHEMATIC



CONTROL (MASTER)



FRONT PANEL ASSEMBLY (FPA) SCHEMATIC



ALL INTEGRATED CIRCUITS AND MANY OTHER SEMICONDUCTORS ARE ELECTROSTATICALLY SENSITIVE AND REQUIRE SPECIAL HANDLING TECHNIQUES DESCRIBED UNDER "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" IN THE SAFETY AND SERVICE PRECAUTIONS PUBLICATION.

PRODUCT SAFETY NOTE COMPONENTS WITH A (u) HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY. BEFORE REPLACING ANY OF THESE COMPONENTS READ CAREFULLY THE PRODUCT SAFETY NOTICE IN THE SERVICE DATA. DO NOT DEGRADE THE SAFETY OF THE SET THROUGH IMPROPER SERVICING.

KEYBOARD CODE

KEY	CODE
CONF 150, RN	0 0 0
CONF 151, RN	0 0 1
CONF 152, RN	0 1 0
CONF 153, RN	0 1 1
CONF 154, RN	0 1 0
CONF 155, RN	0 1 1
CONF 156, RN	1 0 0
CONF 157, RN	1 0 1
CONF 158, RN	1 1 0
CONF 159, RN	1 1 1

NOTE: THE KEYBOARD CODE IS IMPLEMENTED IN THE FOLLOWING MANNER:
B2=0, R3415 IS OMITTED, B2=1, R3415 IS INSTALLED
B2=0, SV3451 IS OPEN, B2=1, SV3451 IS CLOSED
B1=0, R3418 IS OMITTED, B1=1, R3418 IS INSTALLED

TABLE 1
SWITCH FUNCTIONALITY ASSIGNMENT

KEY	CODE	FUNCTION
CONF 150, RN	0 0 0	CH DN
CONF 151, RN	0 0 1	CH DN
CONF 152, RN	0 1 0	CH DN
CONF 153, RN	0 1 1	CH DN
CONF 154, RN	0 1 0	CH DN
CONF 155, RN	0 1 1	CH DN
CONF 156, RN	1 0 0	CH DN
CONF 157, RN	1 0 1	CH DN
CONF 158, RN	1 1 0	CH DN
CONF 159, RN	1 1 1	CH DN

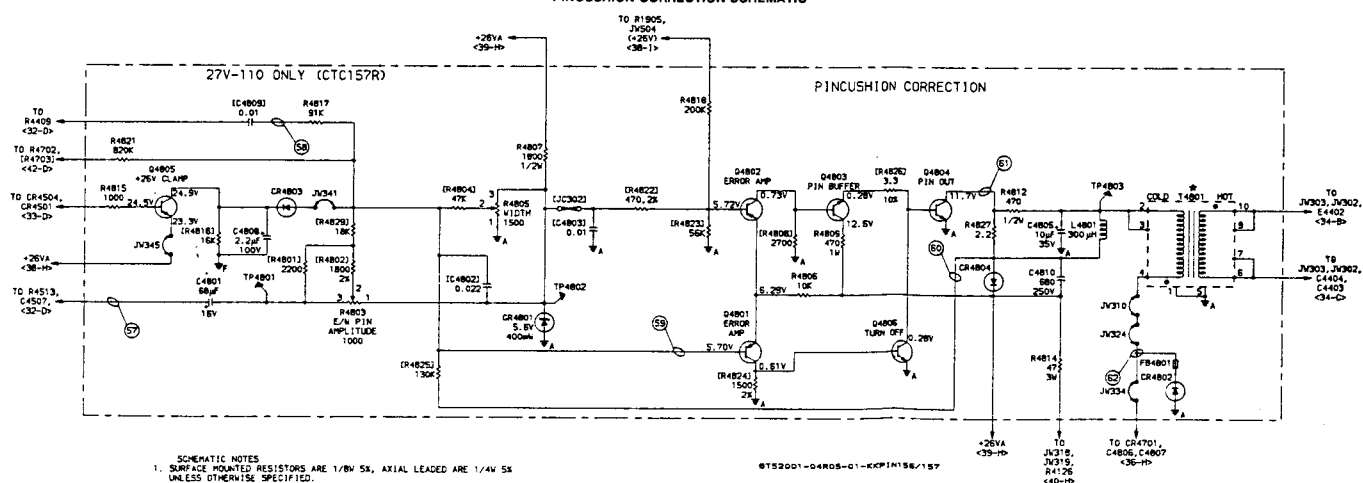
() FUNCTIONAL FOR STEREO INSTRUMENTS ONLY
FOR MONO INSTRUMENTS, THE FUNCTION BECOMES DISPLAY.

SCHEMATIC NOTES

1. SURFACE MOUNTED RESISTORS ARE 1/8W 5%, AXIAL LEADED ARE 1/4W 5% UNLESS OTHERWISE SPECIFIED.
2. RESISTANCE VALUES IN OHMS (X1000).
3. CAPACITANCE VALUES 1.0 AND ABOVE ARE IN μ F UNLESS OTHERWISE SPECIFIED. ALL CAPACITORS ARE SOV UNLESS OTHERWISE SPECIFIED.
4. () INDICATES SURFACE MOUNTED DEVICE.
5. () INDICATES SCHEMATIC ZONE LOCATOR.
6. () INDICATES SERVICE TEST POINT (TP), AT COMPONENT LEAD.
7. () INDICATES WIRE WRAP STAKE.
8. () INDICATES JUMPER WIRE.
9. () INDICATES JUMPER WIRE TEST POINT.
10. () INDICATES ZERO OHM CHIP COMPONENT.

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PINCUSHION CORRECTION SCHEMATIC



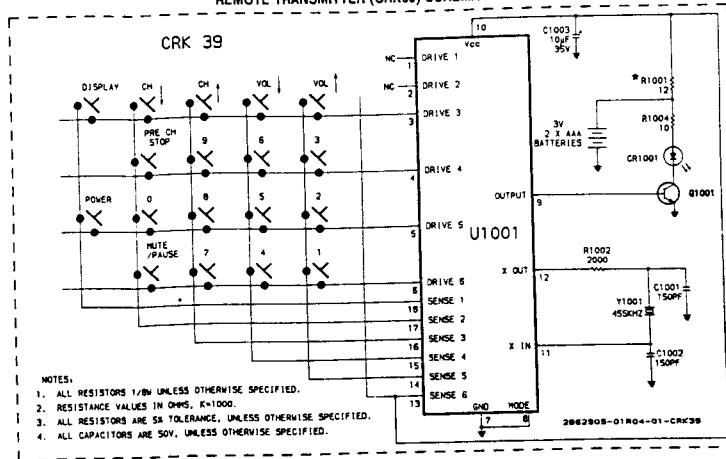
1. SCHEMATIC NOTES
1. SURFACE MOUNTED RESISTORS ARE 1/8W 5%, AXIAL LEADED ARE 1/4W 5% UNLESS OTHERWISE SPECIFIED.
2. RESISTANCE VALUES IN OHMS (X1000).
3. CAPACITANCE VALUES 1.0 AND ABOVE ARE IN μ F UNLESS OTHERWISE SPECIFIED. ALL CAPACITORS ARE SOV UNLESS OTHERWISE SPECIFIED.
4. () INDICATES SURFACE MOUNTED DEVICE.
5. () INDICATES SCHEMATIC ZONE LOCATOR.
6. () INDICATES SERVICE TEST POINT (TP), AT COMPONENT LEAD.
7. () INDICATES WIRE WRAP STAKE.
8. () INDICATES JUMPER WIRE.
9. () INDICATES JUMPER WIRE TEST POINT.
10. () INDICATES ZERO OHM CHIP COMPONENT.
11. () SEE TABLE.

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CT156/157

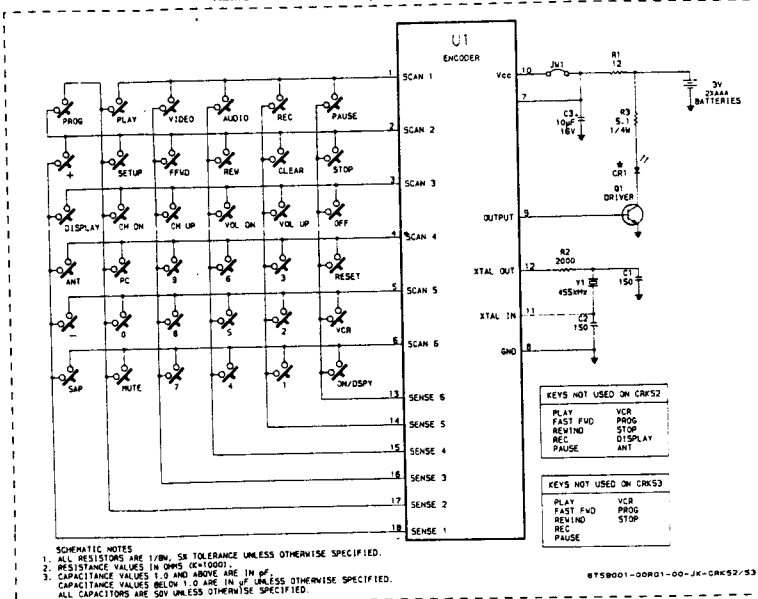
1-J3

REMOTE TRANSMITTER (CRK39) SCHEMATIC



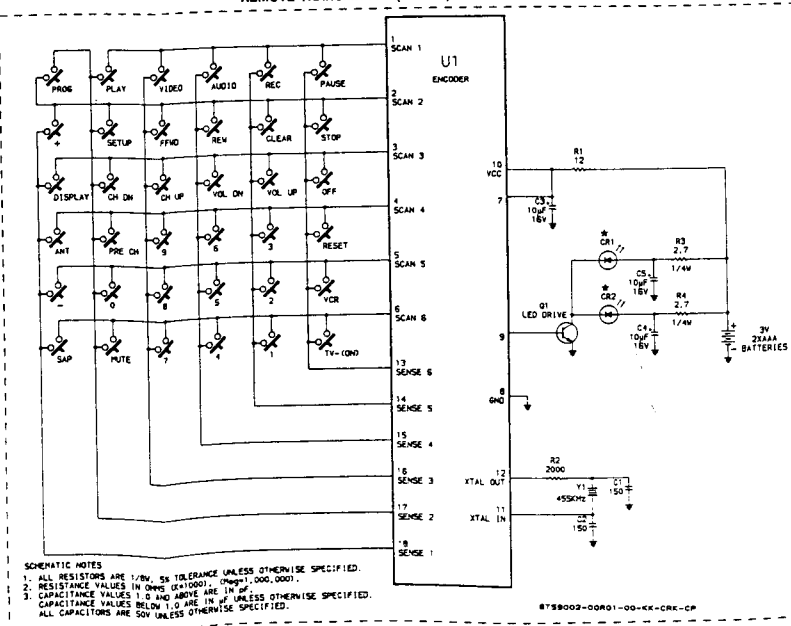
- NOTES:
1. ALL RESISTORS 1/8W UNLESS OTHERWISE SPECIFIED.
 2. RESISTANCE VALUES IN OHMS, K=1000.
 3. ALL RESISTORS ARE 5% TOLERANCE, UNLESS OTHERWISE SPECIFIED.
 4. ALL CAPACITORS ARE 50V, UNLESS OTHERWISE SPECIFIED.

REMOTE TRANSMITTER (CRK50/52/53) SCHEMATIC



- SCHEMATIC NOTES:
1. ALL RESISTORS ARE 1/8W, 5% TOLERANCE UNLESS OTHERWISE SPECIFIED.
 2. RESISTANCE VALUES IN OHMS (K=1000).
 3. CAPACITANCE VALUES 1.0 AND ABOVE ARE IN μ F.
 4. CAPACITANCE VALUES BELOW 1.0 ARE IN pF UNLESS OTHERWISE SPECIFIED.
 5. ALL CAPACITORS ARE 50V UNLESS OTHERWISE SPECIFIED.

REMOTE TRANSMITTER (CRKCP) SCHEMATIC

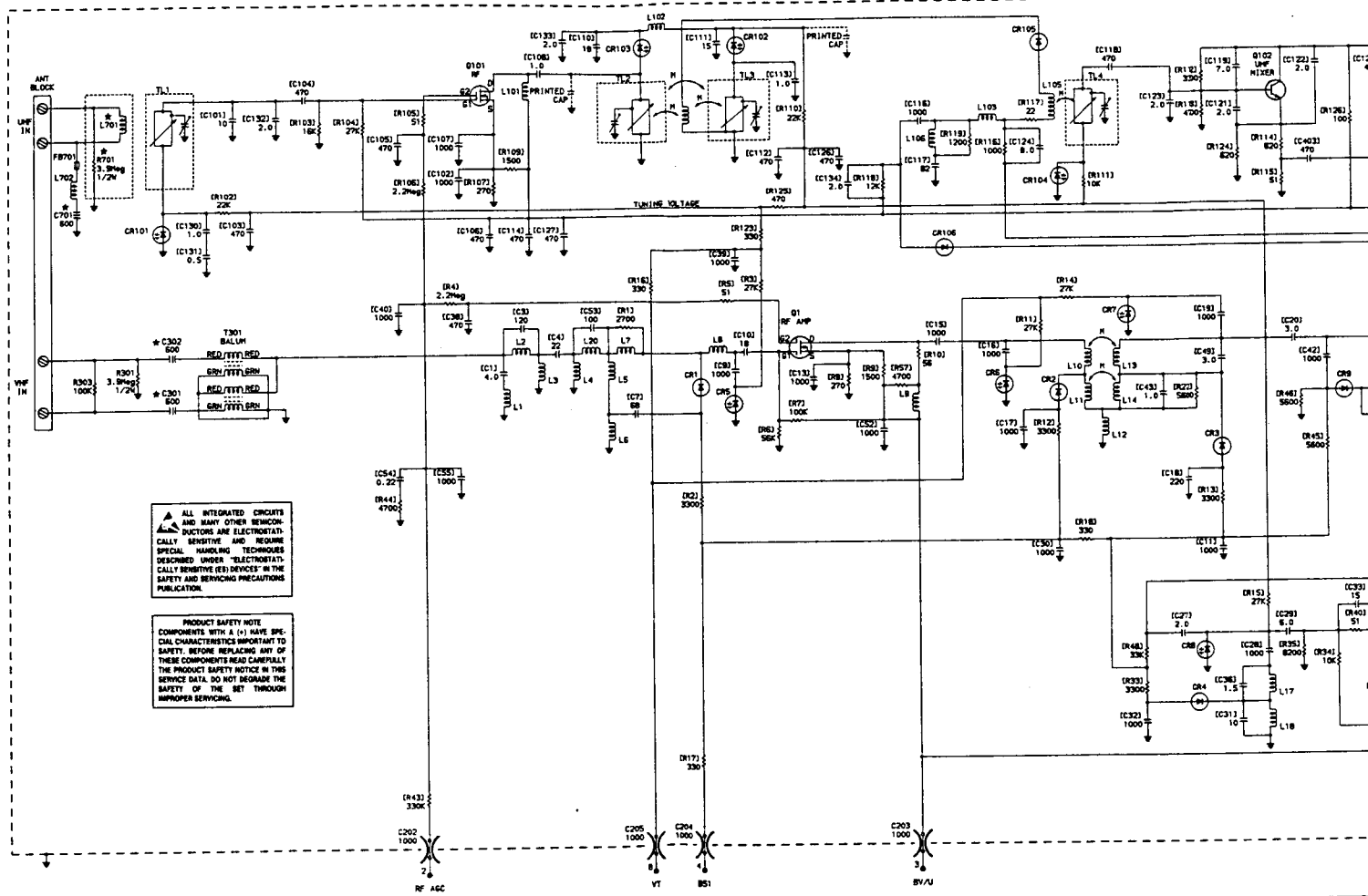


- SCHEMATIC NOTES:
1. ALL RESISTORS ARE 1/8W, 5% TOLERANCE UNLESS OTHERWISE SPECIFIED.
 2. RESISTANCE VALUES IN OHMS (K=1000).
 3. CAPACITANCE VALUES 1.0 AND ABOVE ARE IN μ F.
 4. CAPACITANCE VALUES BELOW 1.0 ARE IN pF UNLESS OTHERWISE SPECIFIED.
 5. ALL CAPACITORS ARE 50V UNLESS OTHERWISE SPECIFIED.

1-J7

1-J8

TUNER (TAHQ) SCHEMATIC



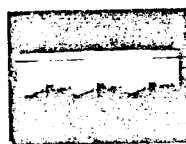
ALL INTEGRATED CIRCUITS AND MANY OTHER SEMICONDUCTORS ARE ELECTROSTATICALLY SENSITIVE AND REQUIRE SPECIAL HANDLING TECHNIQUES DESCRIBED UNDER "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" IN THE SAFETY AND SERVICE PRECAUTIONS PUBLICATION.

PRODUCT SAFETY NOTE: COMPONENTS WITH A (V) HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY. BEFORE REPLACING ANY OF THESE COMPONENTS READ CAREFULLY THE PRODUCT SAFETY NOTICE IN THIS SERVICE DATA. DO NOT REGARD THE SAFETY OF THE SET THROUGH IMPROPER SERVICING.

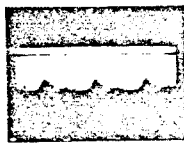
SEE TUNER CONTROL SCHEMATIC 80-C

SEE TUNER CONTROL SCHEMATIC
80-C

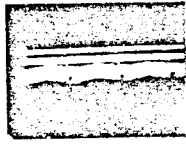
1-C1



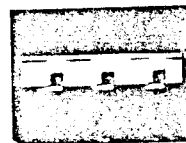
1 2.5Vp-p 5msec/div Off Air



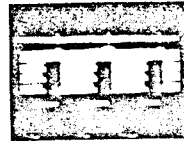
2 2.5Vp-p 5msec/div Off Air



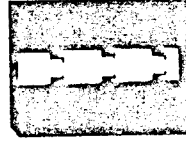
3 2.5Vp-p 5msec/div Off Air



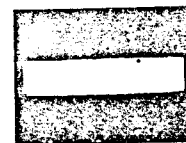
4 2.0Vp-p 5msec/div



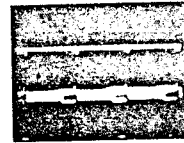
5 450mVp-p 5msec/div



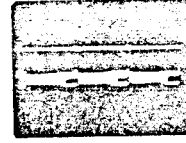
6 200mVp-p 5msec/div



7 175mVp-p 5msec/div



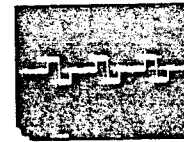
8 7Vp-p 5msec/div



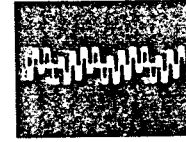
9 5Vp-p 5msec/div



10 3Vp-p 20msec/div



11 1Vp-p 20msec/div



12 1.25Vp-p 20msec/div

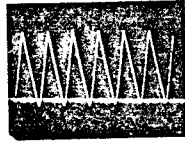
1-C1

1-C5

WAVEFORMS (Continued)



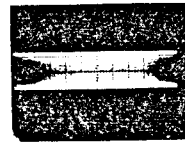
13 4Vp-p Ripple



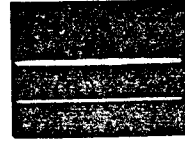
14 500mVp-p 5msec/div



15 5.5Vp-p 20msec/div



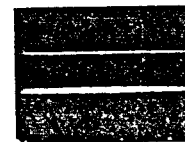
16 4.5Vp-p 20msec/div



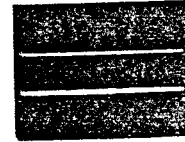
17 5Vp-p 5msec/div



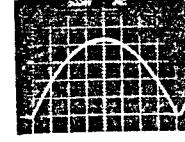
18 4.5Vp-p 5msec/div



19 5Vp-p 5msec/div



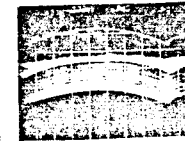
20 5Vp-p 5msec/div



21 2.15V p-p 5 mS per Div



22 100V p-p 20 μS per Div



23 450mV p-p 5 mS per Div

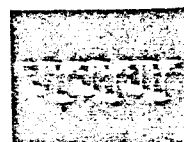


24 13V p-p 5 mS per Div

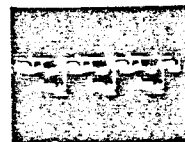
1-C5

1-C2

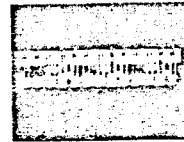
WAVEFORMS (Continued)



25 125Vp-p 20msec/div



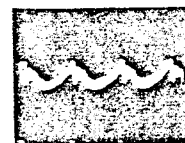
26 120Vp-p 20msec/div



27 120Vp-p 20msec/div



28 20Vp-p 5msec/div



29 75mVp-p 20msec/div



30 2.0Vp-p 20msec/div



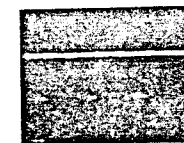
31 2Vp-p 20msec/div



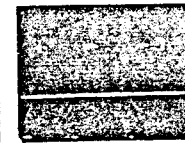
32 610mVp-p 20msec/div



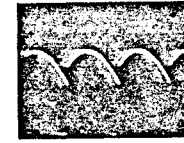
33 430mVp-p 20msec/div



34 15Vp-p 5msec/div



35 33Vp-p 5msec/div



36 2.2Vp-p 5msec/div

1-C2

1-C6

WAVEFORMS (Continued)



37 350mV p-p 20 μS per Div

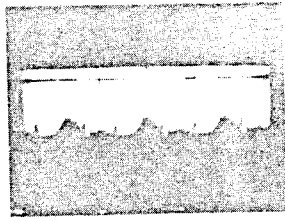


38 120V p-p 5mS per Div

1-C6



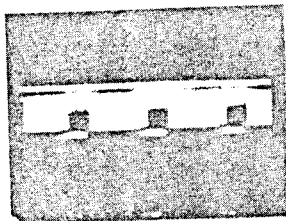
① 2.5Vp-p 5msec/div. Off Air



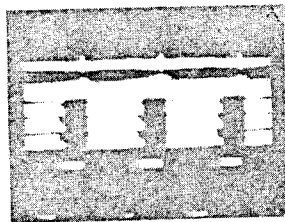
② 2.5Vp-p 5msec/div. Off Air



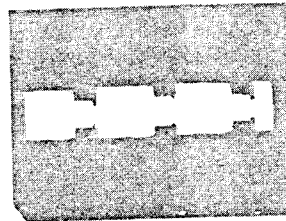
③ 2.5Vp-p 5msec/div. Off Air



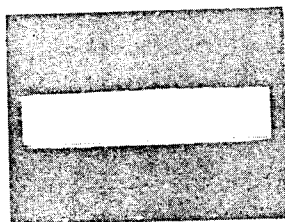
④ 2.0Vp-p 5msec/div.



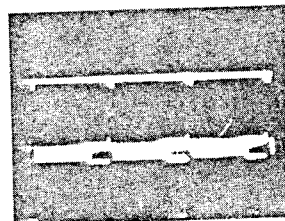
⑤ 450mVp-p 5msec/div.



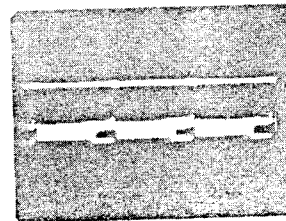
⑥ 200mVp-p 5msec/div.



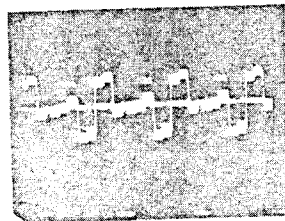
⑦ 175mVp-p 5msec/div.



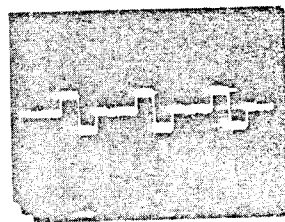
⑧ 7Vp-p 5msec/div.



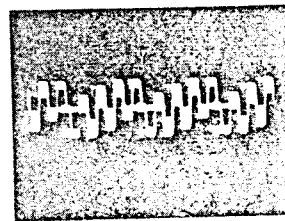
⑨ 5Vp-p 5msec/div.



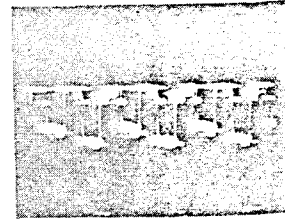
⑩ 3Vp-p 20μsec/div.



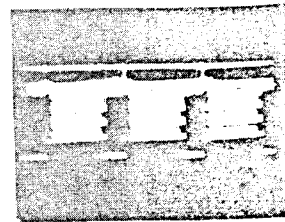
⑪ 1Vp-p 20μsec/div.



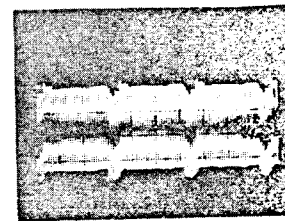
⑫ 1.25Vp-p 20μsec/div.



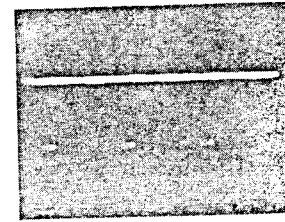
⑬ 125Vp-p 20μsec/div.



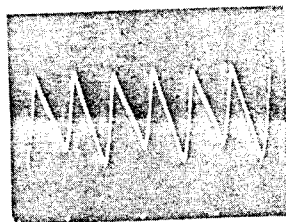
⑬ 20Vp-p 5msec/div.



⑭ 2Vp-p 20μsec/div.



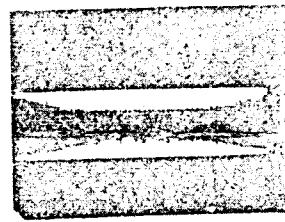
⑮ 15Vp-p 5msec/div.



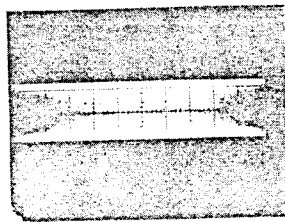
④⑨ 4Vp-p Ripple



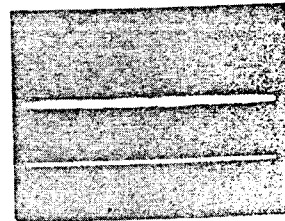
⑤⑩ 500mVp-p 5msec/div.



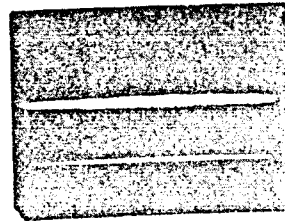
⑤⑪ 5.5Vp-p 20μsec/div.



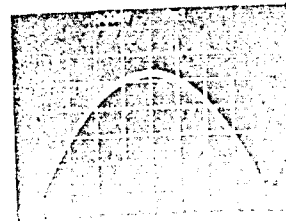
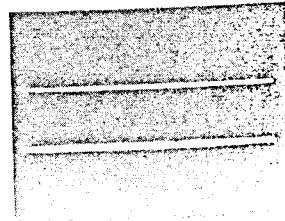
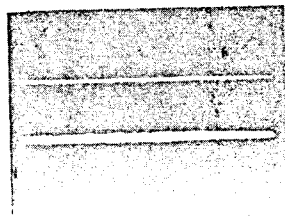
⑤⑫ 4.5Vp-p 20μsec/div.



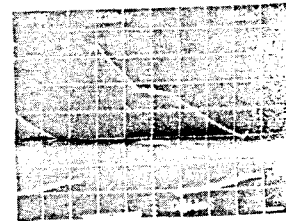
⑤⑬ 5Vp-p 5msec/div.



⑤⑭ 4.5Vp-p 5msec/div.

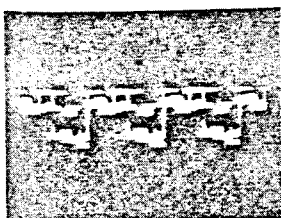


⑤⑮ 2.5Vp-p 5msec/div.

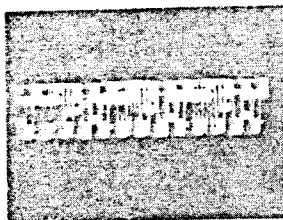


⑥① 350mV p-p 20 μS per Div.

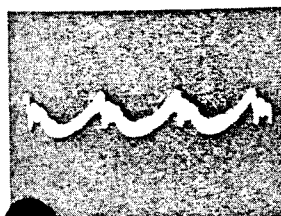
1-C2



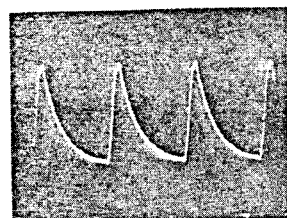
14 120Vp-p 20 μ sec/div.



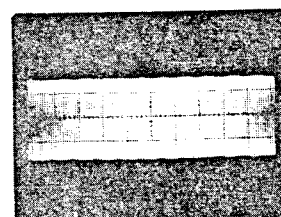
15 120Vp-p 20 μ sec/div.



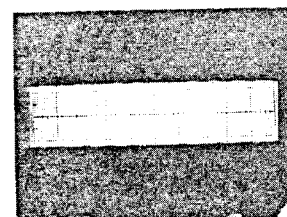
17 15mVp-p 20 μ sec/div.



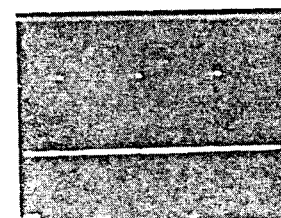
18 2.0Vp-p 20 μ sec/div.



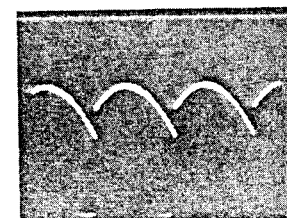
20 610mVp-p 20 μ sec/div.



21 430mVp-p 20 μ sec/div.



23 33Vp-p 5msec/div.



24 2.2Vp-p 5msec/div.

1-C2

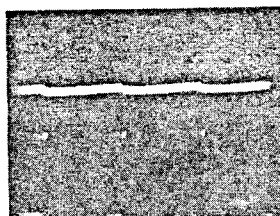
1-C6



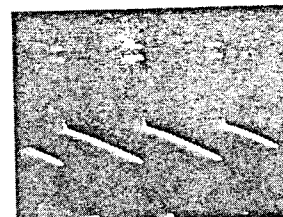
62 120V p-p 5mS per Div.

WAVEFORMS (Continued)

1-C3



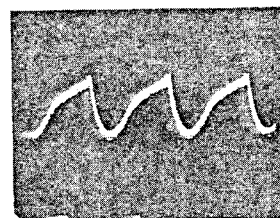
25 1.2Vp-p 5msec/div.



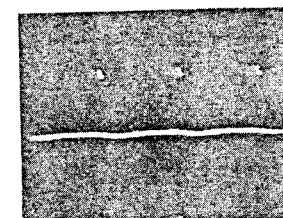
26 50Vp-p 5msec/div.



27 2Vp-p 5msec/div.



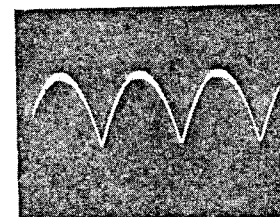
28 1.25Vp-p 5msec/div.



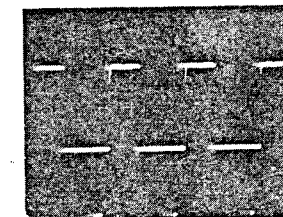
29 30Vp-p 5msec/div.



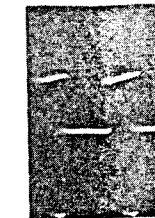
30 30Vp-p 5msec/div.



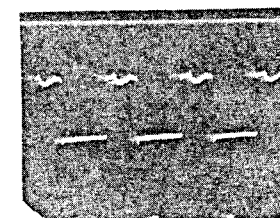
31 3Vp-p 5msec/div.



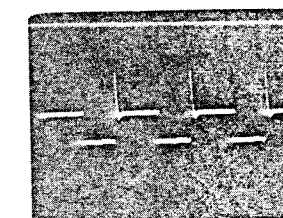
32 7Vp-p 20 μ sec/div.



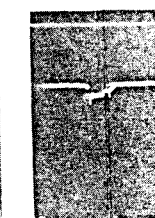
33 5Vp-p 20 μ sec/div.



34 1.5Vp-p 20 μ sec/div.



35 60Vp-p 20 μ sec/div.



36 12.5Vp-p 20 μ sec/div.

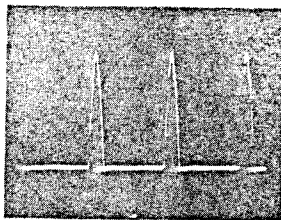
1-C3

1-C7

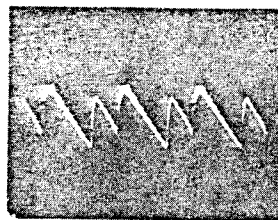
WAVEFORMS (Continued)



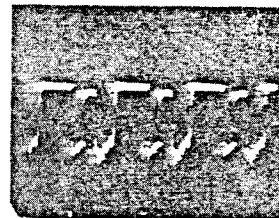
27) 2Vp-p 5msec/div.



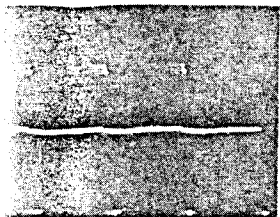
37) 1000Vp-p 20μsec/div. ↓



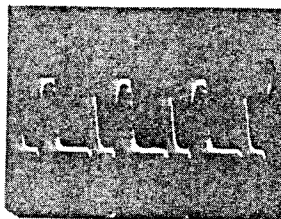
38) 25Vp-p 20μsec/div. ↓



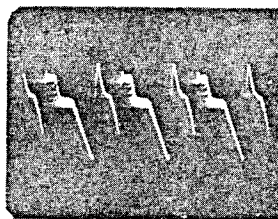
39) 2.0Vp-p 20μsec/div. ↓



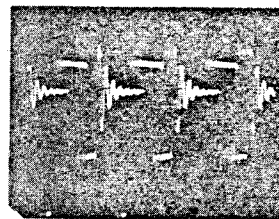
30) 5Vp-p 5msec/div.



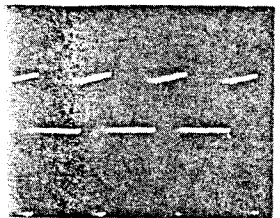
40) 18Vp-p 20μsec/div. ↓



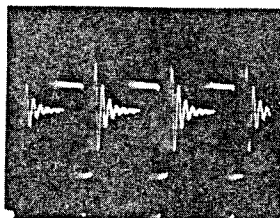
41) 20Vp-p 20μsec/div. ↓



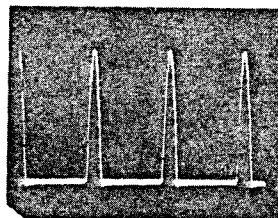
42) 250Vp-p 20μsec/div. ↓



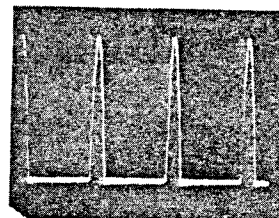
33) 5Vp-p 20μsec/div.



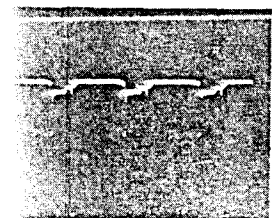
43) 250Vp-p 20μsec/div. ↓



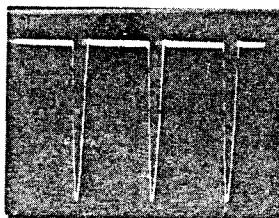
44) 110Vp-p 20μsec/div.



45) 30Vp-p 20μsec/div.



47) 12.5Vp-p 20μsec/div. ↓



46) 140Vp-p 20μsec/div.

