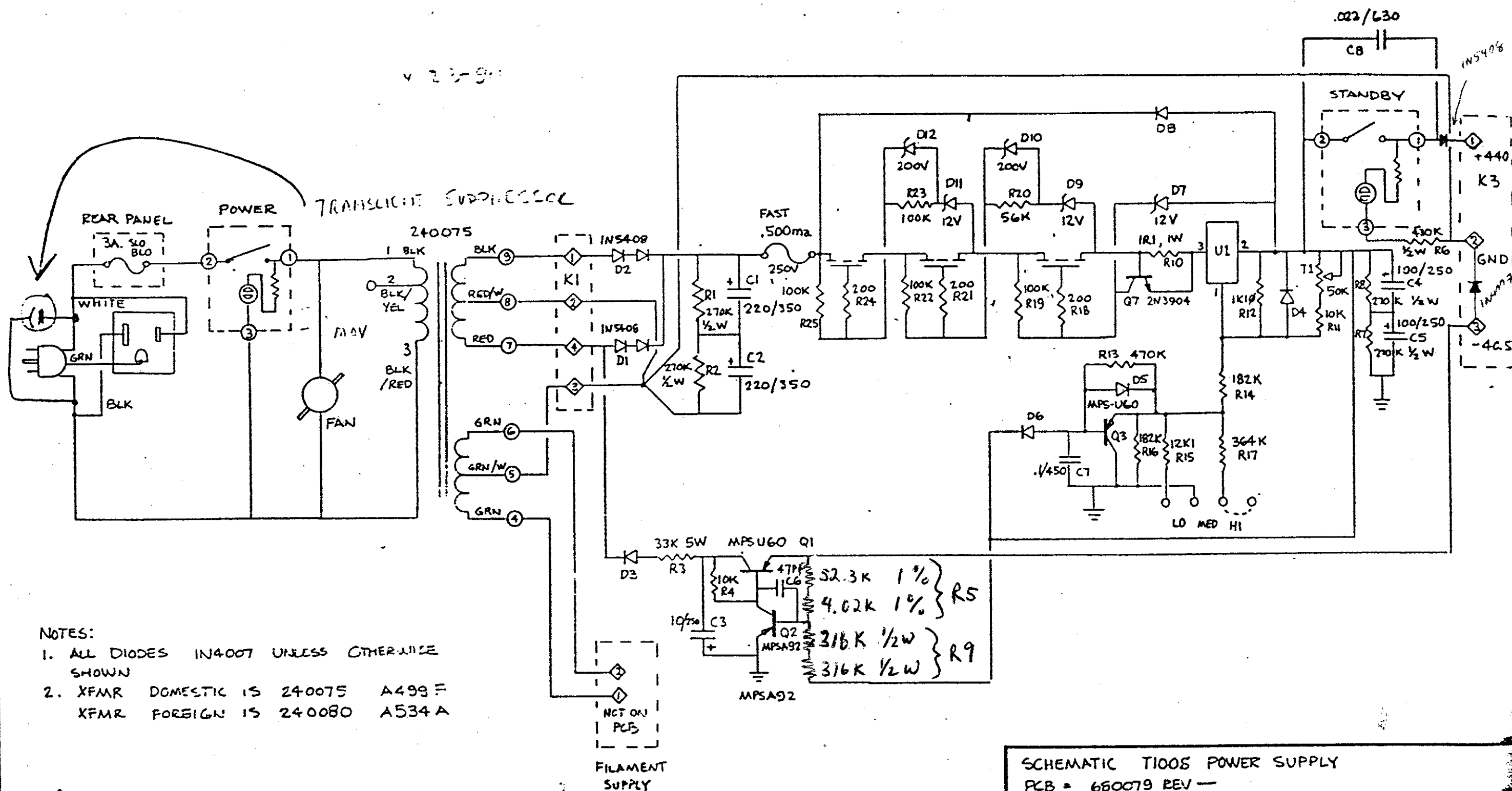


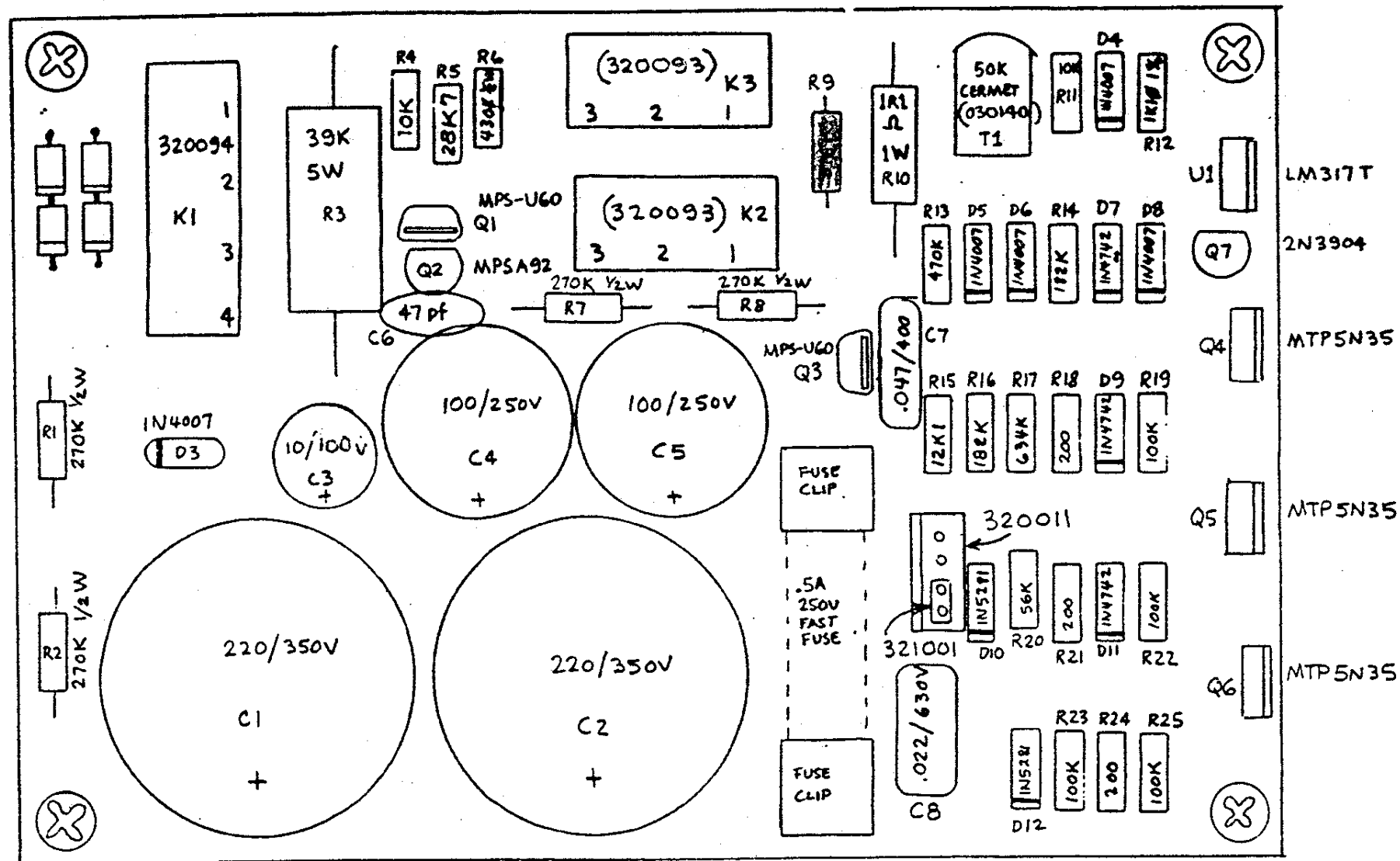


SCHEMATIC T100S POWER SUPPLY
PCB = 660079 REV -

SCALE: -	APPROVED BY:	DRAWN BY DJT
DATE: 8-25-89		REVISED 11-11-89
ADA, INC.		

DRAWING NUMBER
B 570

581032
4 ea - 1N5408

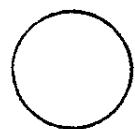


581032

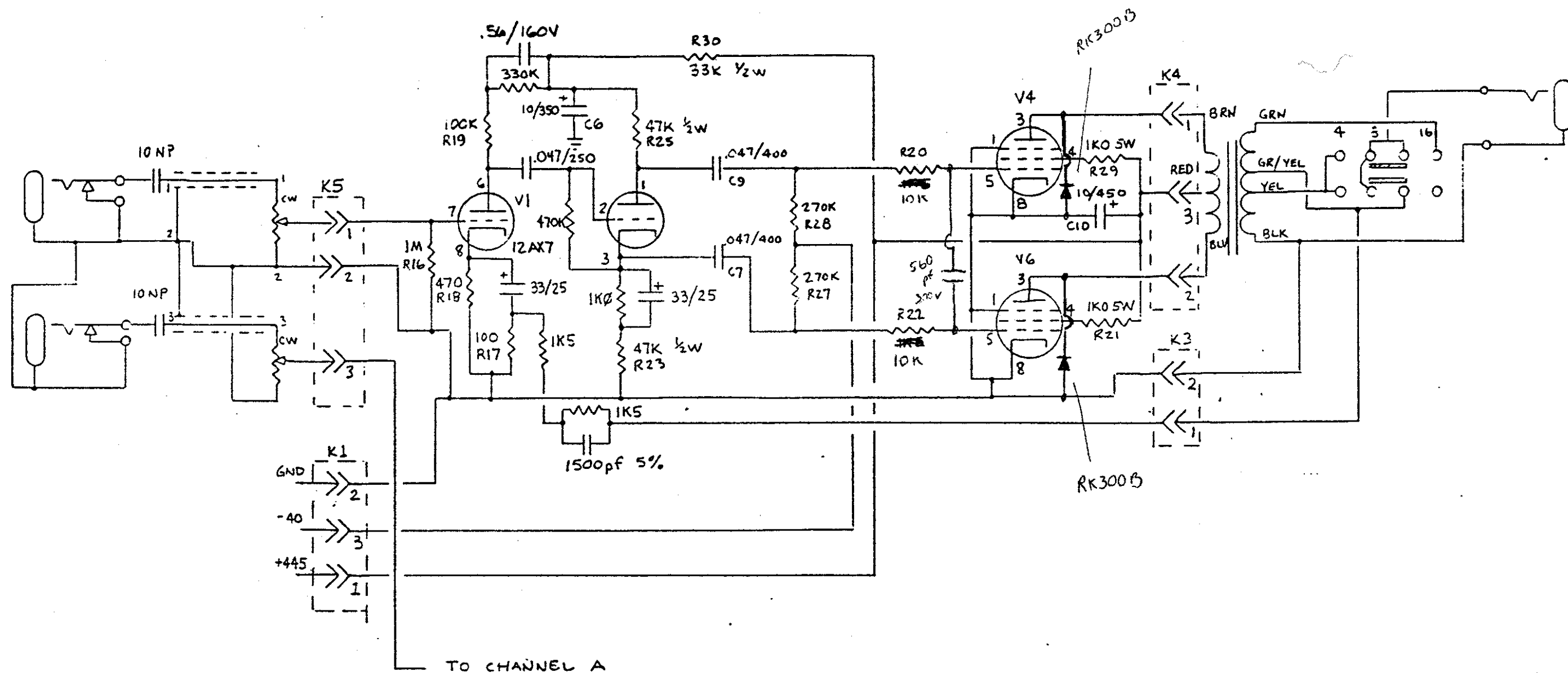
T1005 PWR SUPPLY PCB
8-24-89 / 10-17-89
SUBASSEM 780008 REV. B
PCB 680079 (B552)
REV 11-10-89 DJT
REV 4-11-90 DJT

10 uS/100V CAP. P/N 0820434 1

316K 1% 1/2 W (014649) 1



C5B7A



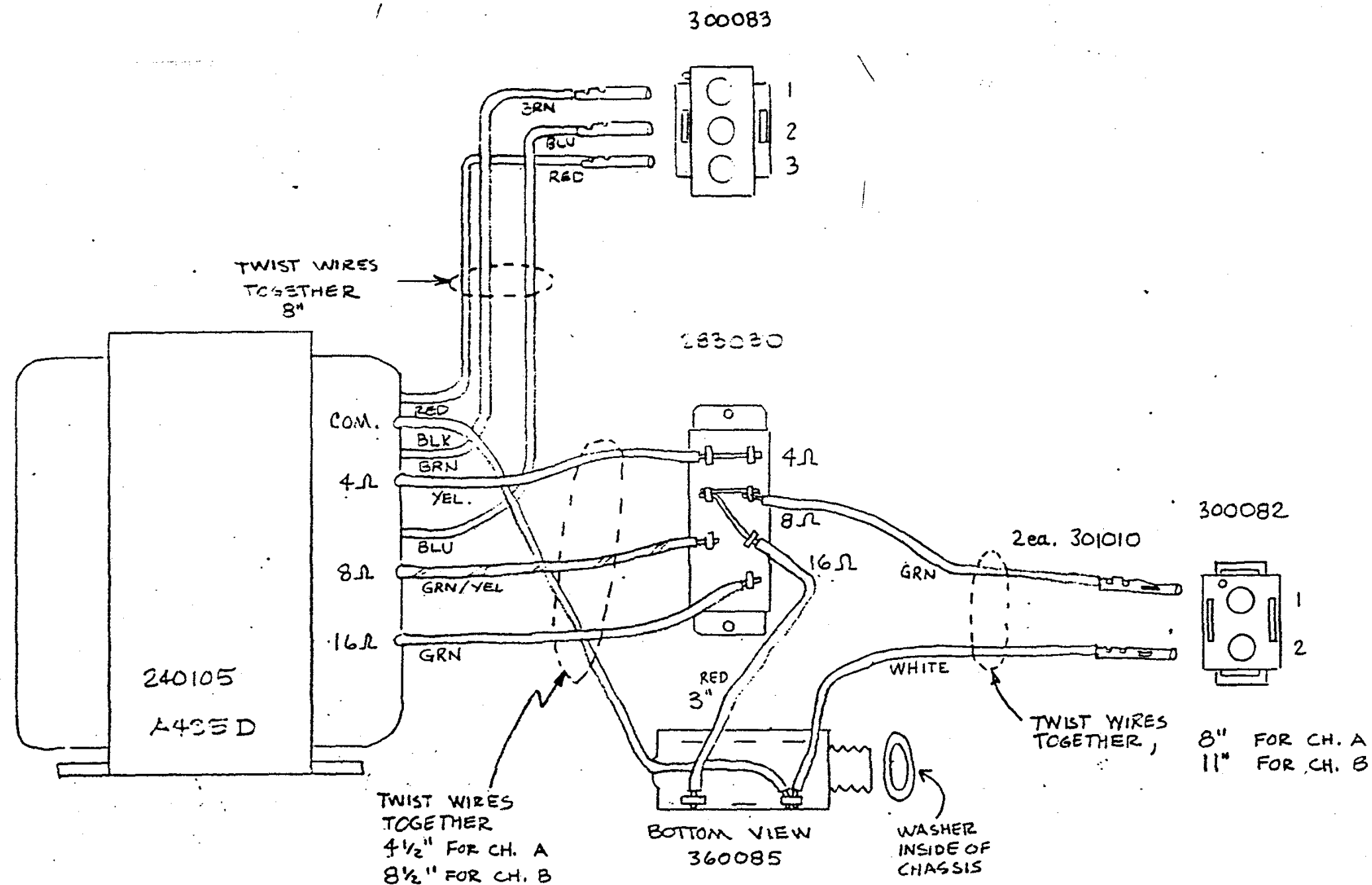
NOTES:

1. PCB DWG N° C600 REV. C.
2. NEW DESIGN: 12AX7
3. ONE CHANNEL ONLY SHOWN.
4. PERFORMANCE: 470V PLATE 6CA7 SYLVANIA = 77 W RMS 8Ω
440V PLATE " PHILLIPS = 60 W RMS 8Ω

T100S TUBE SCHEMATIC MOTHER BOARD

SCALE: —	APPROVED BY:	DRAWN BY DJT
DATE: 9-6-89		REVISED 4-11-89
ADA, INC.		

DRAWING NUMBER
B573



1. USE AMP TOOL NO. 603545-1 FOR CRIMPING ADA 301010 CONNECTORS.
2. USE U-1016 WIRE (18/16)
RED = 400252
GRN = 400255
WHT = 400259
3. NOTE WIRE LENGTH DIFFERENCES FOR CHA & CHB.

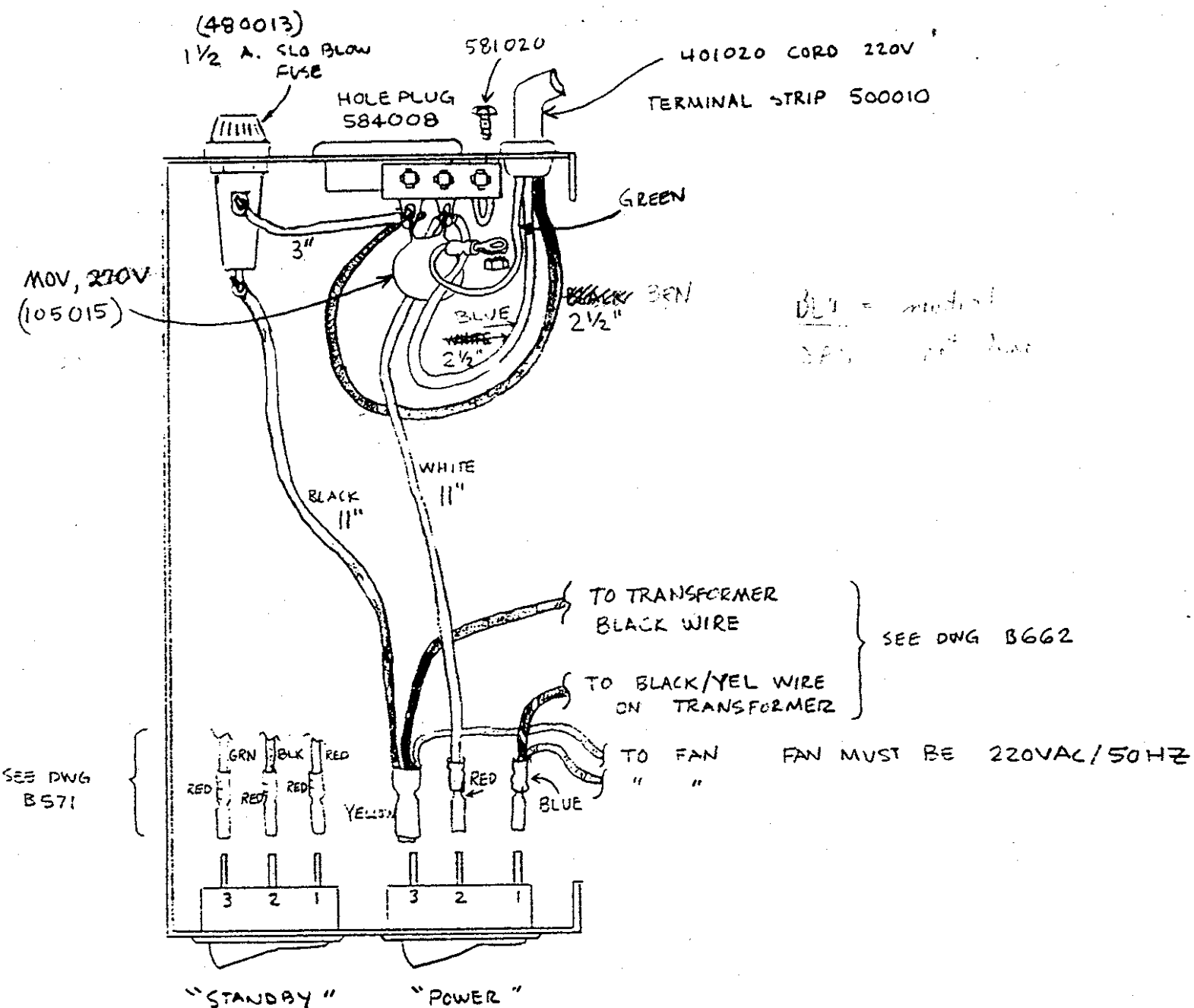
SUBASSEMBLY 780153, T100
HARNESS

SCALE: NONE

APPROVED BY:

DATE: 8-24-89

ADA



NOTES:

1. TERMINAL STRIP MUST HAVE ALL LEADS "HOOKED" IN LUG BEFORE SOLDERING.
2. NOTE FUSE IS 1-1/2 AMP SLO BLOW
3. NOTE MOV IS 270V. (105015)

T100S FOREIGN WIRING - A.C.

SCALE:

APPROVED BY:

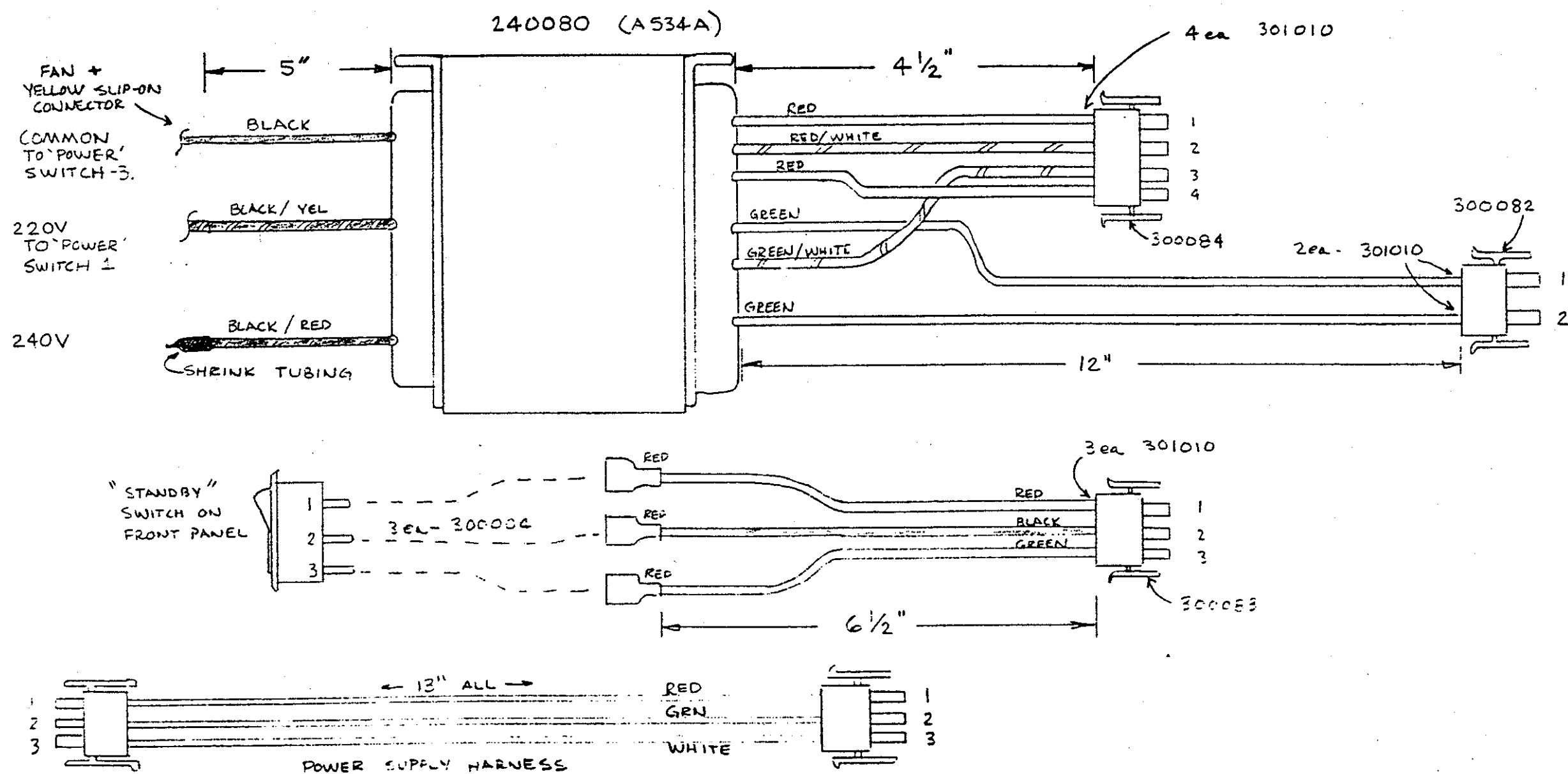
DRAWN BY DJT

DATE: 9-4-89

REVISED 4-11-90

ADA:

DRAWING NUMBER REV
B663 A



TRANSFORMER HARNESS: T100S , FOREIGN 220V SHOWN		
SCALE: —	APPROVED BY:	DRAWN BY DJT
DATE: 9-3-85		REVISED 1-26-91
ADA		
		DRAWING NUMBER REV B 662

Dear Foreign Distributor -

The following is an ECO for the T100S power supply for better reliability. T100S Power Supply Mod
Parts kits are available from ADA.

MODIFICATION 1 PARTS KIT

QUANTITY	DESCRIPTION	ADA P/N
(3)	IRF731 NCH MOSFET 350V 5.5A	180345 180345
(2)	1N4007 DIODE 1KV 1A	100023
(3)	1N4148 DIODE - SIGNAL 75V	100010
(1)	RESISTOR 3.32K 1/4W 1% M.F.	013351
(2)	RESISTOR 316K 1/4W 1% M.F.	013549
(3)	RESISTOR 220K 1/4W 5% C.F.	010670
(1)	RESISTOR 1MEG 1/2W 5% C.F. (10% OK)	N/A
(1)	RESISTOR 4.7K 2W Film (2%-5%)	N/A
(2)	{ 10 uF / 350VAT Electrolytic - MAY SUB- 10u/450V	{ 082045 082046
(3)	.0047/1KV or .005/1KV Disc	N/A
(1")	HEATSHRINK TUBING 1/8" DIA	405010
(3)	SHOULDER WASHER #4 - SPECIAL	N/A?
(3)	Rectangular force spreader washer	N/A
(3)	4-40 X 3/16" PH. PAN HD MACH SCREW	581005
(6)	#4 by .220 FLAT WASHER .231"	582402
(3)	#4-40 KEPS NUT	583004
(3)	4-40 X 1/2" Phillips Pan Head	581012
(3) (As Req'd)	<u>MICA</u> WASHER FOR TO-220	

12-22-92

T100S POWER SUPPLY MODIFICATION

REMOVE FROM POWER SUPPLY PC BOARD THE FOLLOWING COMPONENTS: SEE FIGURE 1

01	D-9	1N4742
02	R-19	100K
03	D-10	1N5281
04	R-20	56K
05	D-11	1N4742
06	R-22	100K
07	D-12	1N5281
08	R-23	100K
09	R-25	100K
010	Q-4	MTP5N35
011	Q-5	MTP5N35
012	Q-6	MTP5N35
013	Q-7	2N3904
014	R-10	1.1K 1W
015	C-4	100u/250V
016	C-5	100u/250V

180345

12-22-92

- T100S PSU MODIFICATION CONTINUED - SEE FIGURE 2

017 CUT TWO TRACES ON SOLDER SIDE OF PCB ISOLATING BASE OF Q-7 (2N3904) SEE FIGURE 2

018 VERIFY THAT DIODES AND ASSOCIATED PCB MODIFICATIONS HAVE BEEN PERFORMED AROUND K-3 (POWER SUPPLY OUTPUT CONNECTOR) AND PERFORM CHANGES IF REQUIRED

SEE FIGURE 3 / 3A (INSET) -

019 PREPARE TRANSISTOR + DIODE COMBINATION AS SHOWN IN INSET DRWG FIG 3A

020 INSTALL PREPARED TRANSISTOR/DIODE AT Q-7 LOCATION

- SEE FIGURE 2 -

021 INSTALL 3K32 $\frac{1}{4}W$ 1% AS SHOWN ACROSS CUT MADE IN STEP 17 ON SOLDER SIDE OF PCB.

022 INSTALL 1N4007 AS SHOWN ON SOLDER SIDE OF PCB

023 SOLDER TWO 316K $\frac{1}{4}W$ IN SERIES AND ENCASE IN HEATSHRINK. SOLDER THEM FROM Q-7 BASE TO GROUND SIDE OF C-7 AS SHOWN

T100S POWER SUPPLY MODIFICATION 12-22-92

024 REFER AGAIN TO FIGURE 3

024 REPLACE C-4, C-5 WITH 10 μ F/350V OR 10 μ F/450V

025 R-10 BECOMES 4.7 Ω 2W

026 INSTALL TWO JUMPERS AS SHOWN IN FIG 3

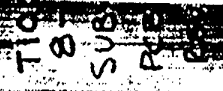
027 INSTALL THREE 1N4148 DIODES BETWEEN GATE SOURCE OF Q-4, Q-5, Q-6 AT LOCATIONS INDICATED IN FIG 3

028 INSTALL 1M Ω $\frac{1}{2}W$ FROM D-8 CATHODE TO HOLE INDICATED IN FIG 3

029 INSTALL (3) .0047 μ F/1KV AND (3) 220K $\frac{1}{4}W$ IN LOCATIONS INDICATED IN FIG 3

030 INSTALL IRF 731 MOSFETS AT Q-4, Q-5, Q-6 AND MOUNT TO HEATSINK WITH NEW HARDWARE.

THIS COMPLETES MODIFICATION



FOR MODIFICATION TO IMPROVE

RELIABILITY ILLUSTRATION STEPS 1 Through 16

102V 11V



T-100S MODIFICATION TO IMPROVE RELIABILITY
12-22-92

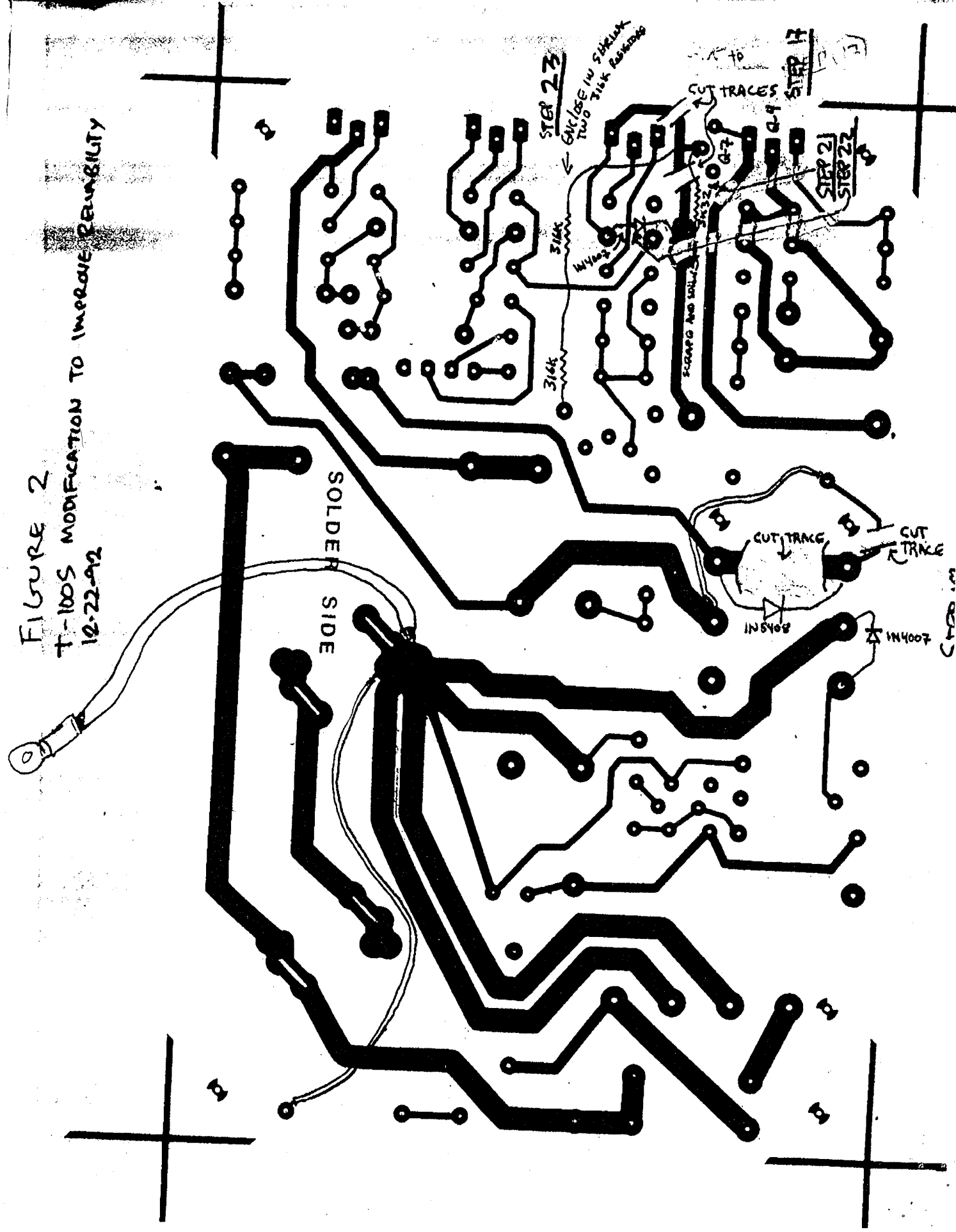
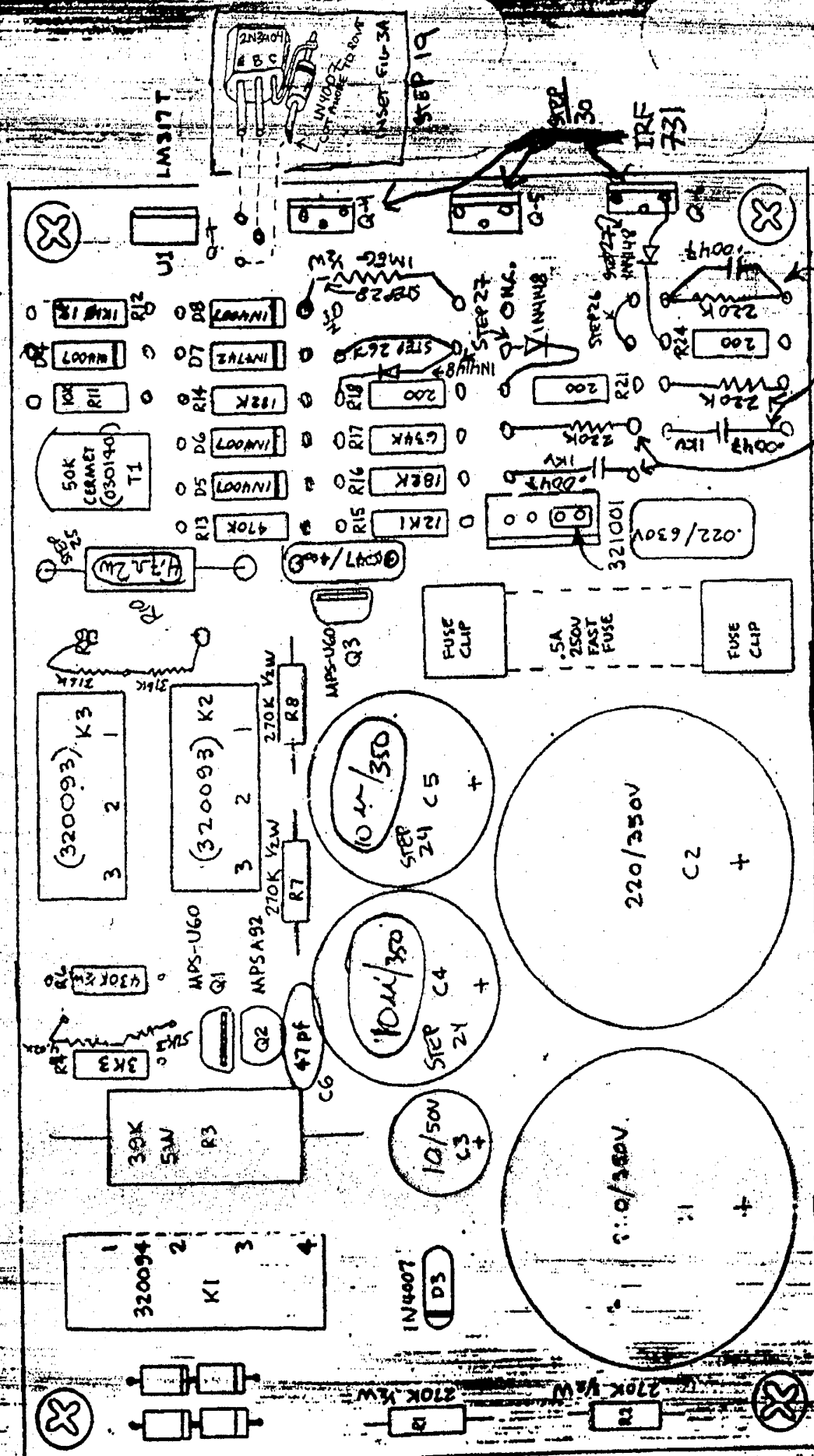


FIGURE 3

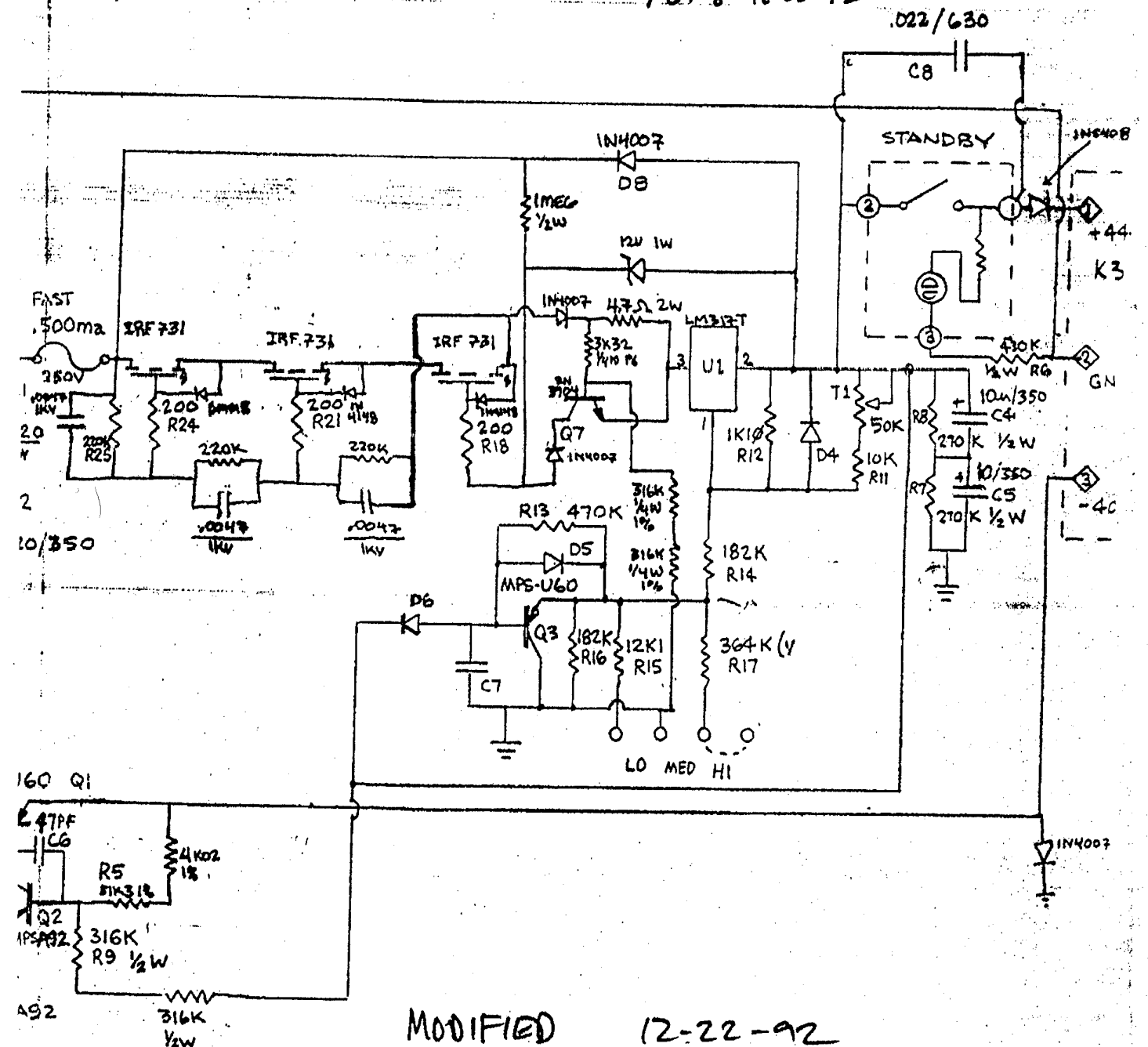


NEW PARTS AND JUMPERS
LOCATIONS FOR MODIFICATION
12-22-92 (IMPROVES RELIABILITY)

T-100S

STEP 29

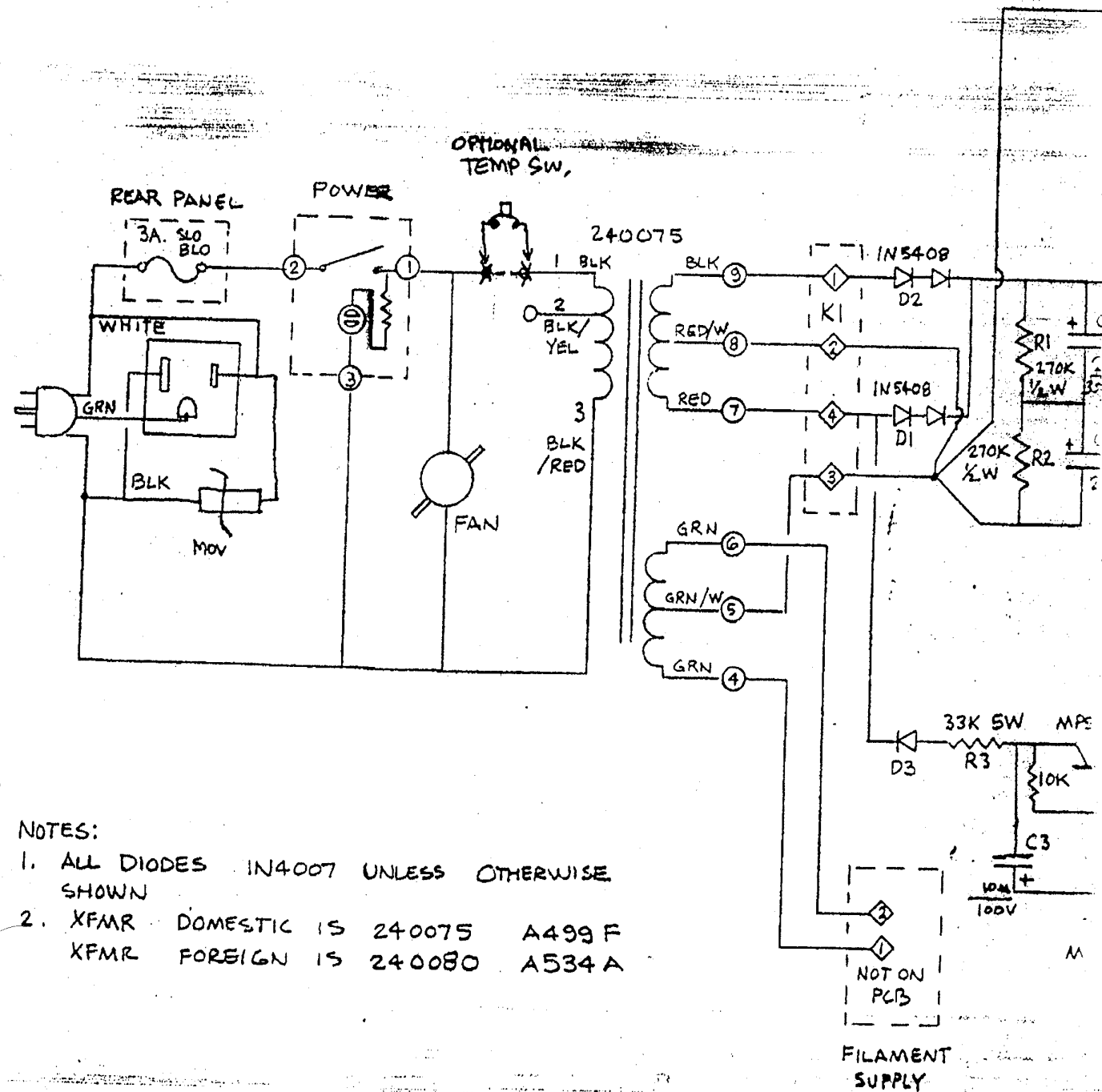
70FS 12-22-92



MODIFIED 12-22-92

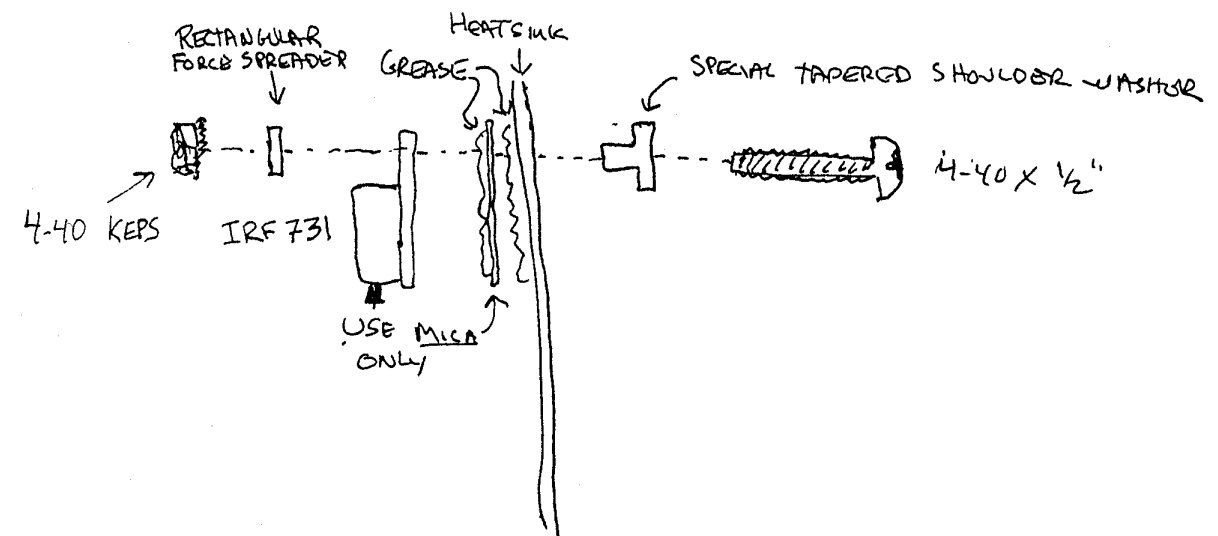
SCHEMATIC T100S POWER SUPPLY
PCB = 680079 REV -

SCALE: —	APPROVED BY:	DRAWN BY: DJT
DATE: 8-25-89		REVISED 11-11-89
ADA, INC.		
		DRAWING NUMBER B 570

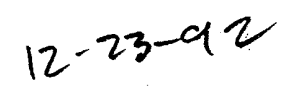


- NOTES:
1. ALL DIODES 1N4007 UNLESS OTHERWISE SHOWN
 2. XFMR DOMESTIC IS 240075 A499 F
XFMR FOREIGN IS 240080 A534 A

T100S POWER SUPPLY MOD MOUNTING OF IRF 731



Randy



SCALE: —	APPROVED BY:	DRAWN BY DJT
DATE: 8-25-89		REVISED 11-17-89.

DRAWING NUMBER	REV
B 570	C

990-10-18

ENGINEERING CHANGE REQUEST ECD # 8808
TITLE T100s negative regulator fix

ART OR ASSY 780008 PRODUCT T100s (800161 & 800162)
DESCRIBE PROBLEM (ATTACH ADDITIONAL DOCUMENTATION IF NECESSARY)

R9 (316K 1/2W resistor) is not power rated properly.

NAME OF REQUESTOR *John Langner* DATE 4/12/91
APPROVED BY *DTT* DATE 4/15/91

ENGINEERING CHANGE ORDER

CO# 8808 TITLE T100s negative regulator fix

ART OR ASSY AFFECTED 780008

CHANGE(S):

add (1) 316K 1/2W in series with R9

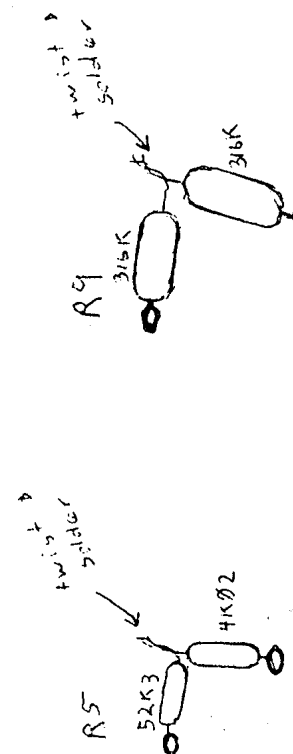
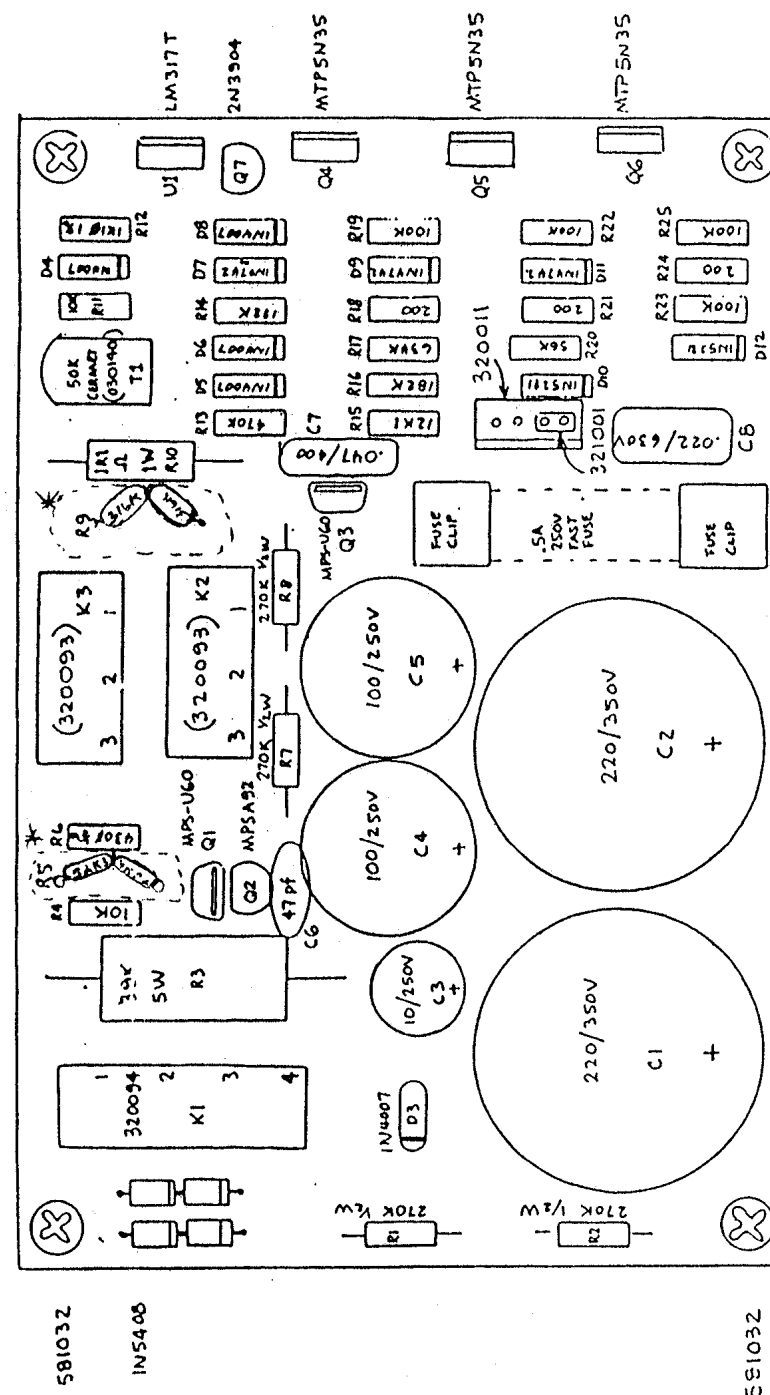
change R5 from 28K7 to a 52K3 1% in series
with a 4K02 1%

WORK: (ATTACH A SEPERATE SHEET IF NECESSARY)

EFFECTIVITY: NEW PRODUCTION ☒ WORK IN PROGRESS ☐
FINISHED GOODS ☐ FIELD RETURNS ☒
DOCUMENTATION CHANGE ONLY ☐
BEGINNING SERIAL NUMBER

* - changes

T100S PWR SUPPLY PCB
8-24-89 / 10-17-89
SUBASSEM 780008 REV B
PCB 680079 (6552)
REV 11-16-89 DT
REV 4-11-90 DT



1990-10-18

ENGINEERING CHANGE REQUEST ECO # 8798 A
TITLE T1003 BIG FIX

PART OR ASSY 680079 Rev 0 PRODUCT T1003 POWER SUPPLY
DESCRIBE PROBLEM (ATTACH ADDITIONAL DOCUMENTATION IF NECESSARY)

Power supply unprotected from fly back effect
of output Xfmr.

NAME OF REQUESTOR M.D. DATE 12/10/90
☒ APPROVED ☐ DENIED BY DJT DATE 12/12/90

ENGINEERING CHANGE ORDER

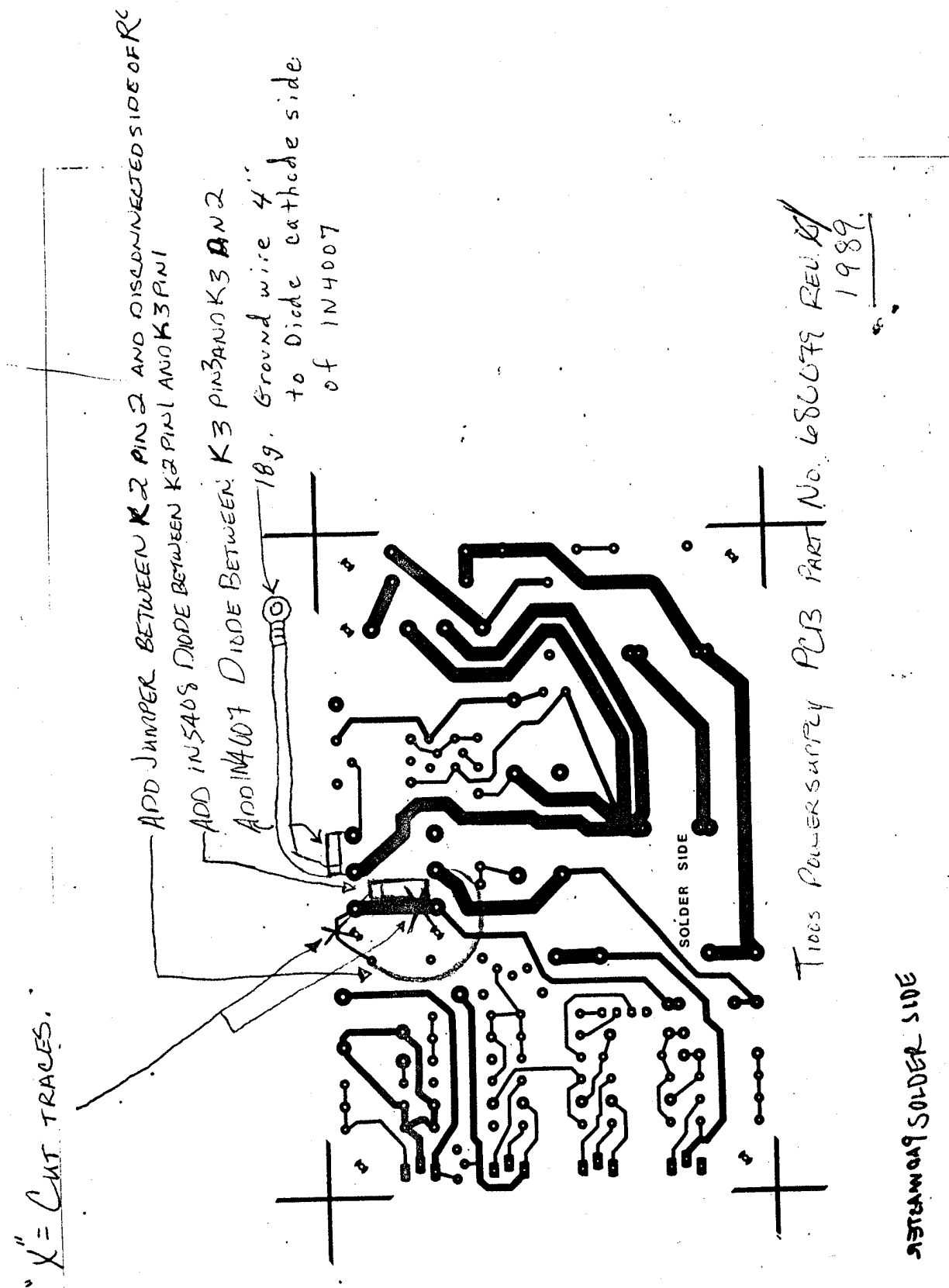
ECO# 8798 A TITLE T1003 BIG FIX

PART OR ASSY AFFECTED T1003 Pwr Supply

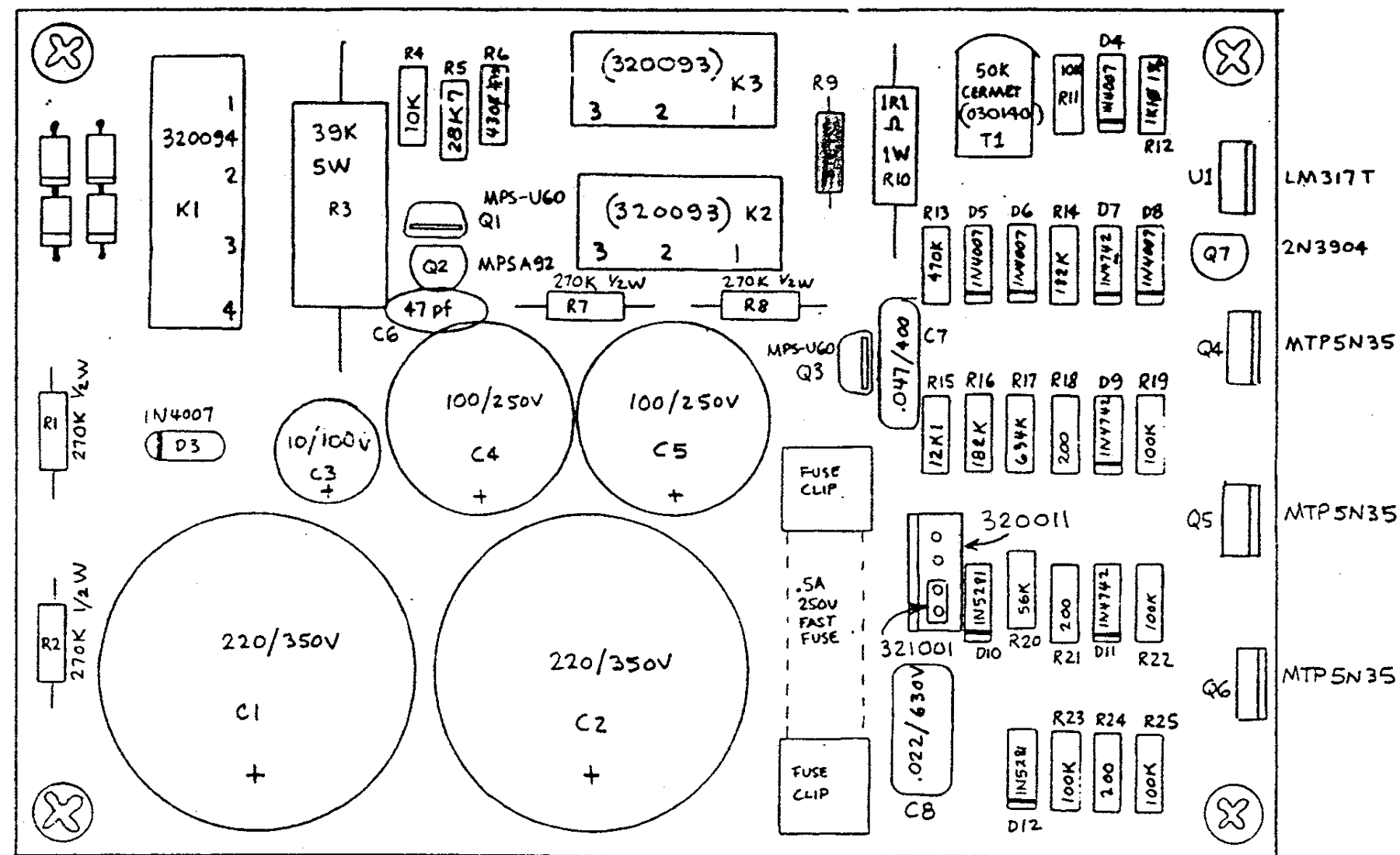
- CH' GE(S):
- 1) CUT TRACES: K2 PIN 1 AND K3 PIN 1, K3 PIN 1 AND R9.
 - 2) ADD IN5408 DIODE BETWEEN K2 PIN 1 (ANODE), AND K3 PIN 1 (CATHODE).
 - 3) ADD IN4007 DIODE BETWEEN K3 PIN 3 (ANODE), AND K3 PIN 2 (CATHODE).
 - 4) ADD JUMPER WIRE BETWEEN K2 PIN 2 AND DISCONNECTED SIDE OF R9.
 - 5) CHANGE C3 TO 10uF/100V.
 - 6) CHANGE NO. 6 SCREWS, FOR TRANSISTOR MOUNTING, TO NYLON SCREWS.
 - 7) CHANGE R9 TO 316K Ω 1/2 WATT R.
 - 8) ADD 4" AWG 18 WIRE. CONNECT RING TONGUE CONNECTER NO. 6 TO ONE END. OTHER END TO K3 PIN 2. AFTER POWER SUPPLY IS INSTALLED, CONNECT NO. 6 LUG TO AC. THIRD PRONG (CHASSIS BOLT).

REWORK: (ATTACH A SEPERATE SHEET IF NESSERARY)

EFFECTIVITY: NEW PRODUCTION ☒ WORK IN PROGRESS ☒
FINISHED GOODS ☐ FIELD RETURNS ☒
DOCUMENTATION CHANGE ONLY ☐
BEGINNING SERIAL NUMBER T10001



4 ea - IN5408



T1005 PWR SUPPLY PCB
8-24-89 / 10-17-89
SUBASSEM 780008 REV B
PCB 680079 (B552)
REV 11-10-89 DJT
REV 4-11-90 DJT

10 uF/100V CAP. P/N 0820434

316K 1% 1/2 W (014649) 1

C5B7A

1990-10-18

ENGINEERING CHANGE REQUEST ECO # 8798 B
TITLE T100S BIG FIX

PART OR ASSY 680078 Rev B PRODUCT T100S TUBE BOARD
DESCRIBE PROBLEM (ATTACH ADDITIONAL DOCUMENTATION IF NECESSARY)

Power supply unprotected from fly back effect
of output X-fmr. Amplifier has excessive
high frequency response.

NAME OF REQUESTOR M.D. DATE 12/10/90
C/A APPROVED ☒ DENIED BY DJT DATE 12/12/90

ENGINEERING CHANGE ORDER

ECO# 8798 B TITLE T100S BIG FIX

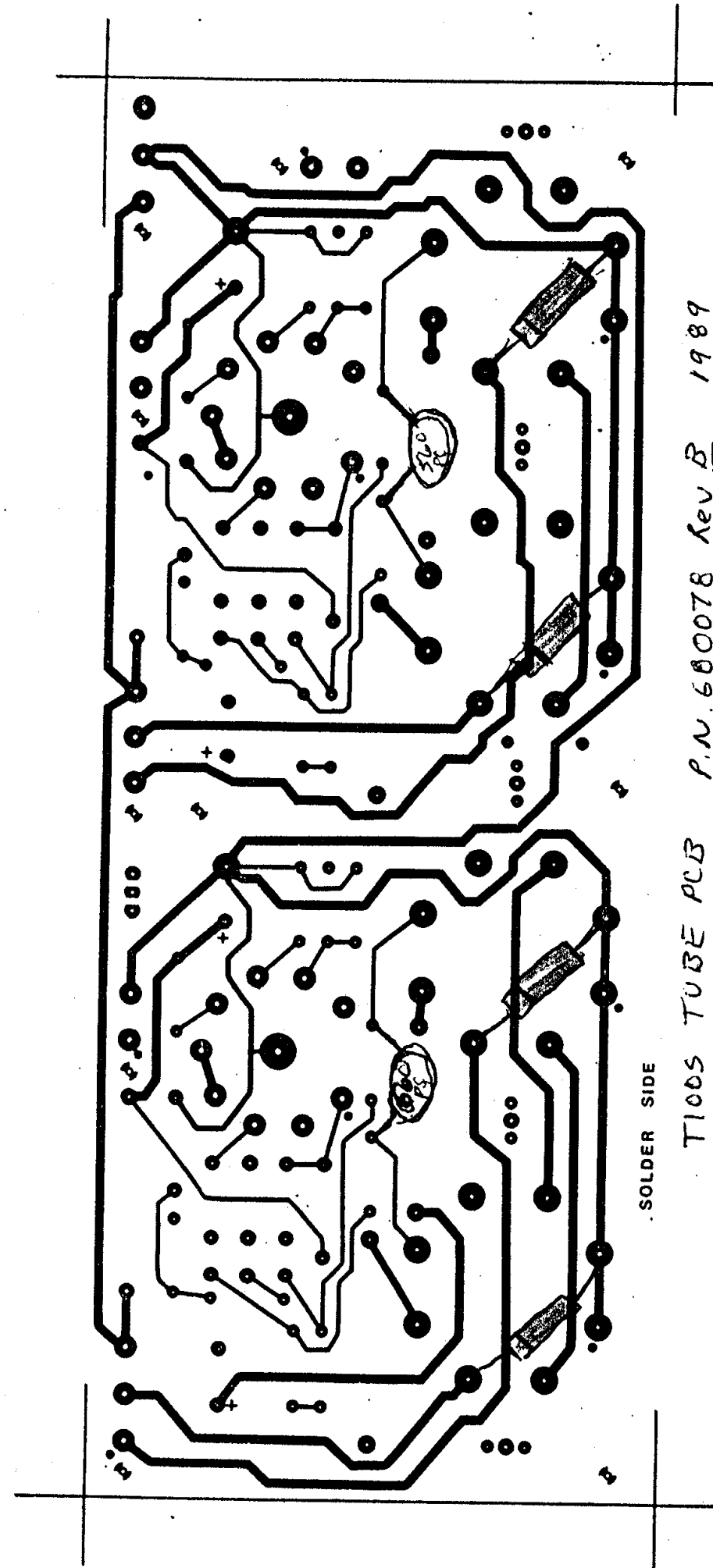
PART OR ASSY AFFECTED 680078 Rev B

CH GEISL: 1) INSTALL EK500 DIODES, OR EQUIVALENT, FROM PLATES OF OUTPUT TUBE
TO GROUND. CATHODE TO PLATE, PIN 3, ANODE TO GROUND, PIN 8. 4 PER BOARD.
V1, V3, V4, V6.
2) CHANGE VALUE OF OUTPUT TUBE INPUT GRID RESISTORS TO 10K Ω .
4, (FOUR), PER BOARD. R5, R6, R20, R22.
3) ADD 560 P.F. CAPS. BETWEEN GRIDS OF TWO OUTPUT TUBES. CAP.
CONNECTS TO RESISTORS GOING TO GRIDS. V1 PIN 5 AND V3 PIN 5, V4 PIN 5 AND V6 PIN 5.
TWO PER BOARD.

REWORK: (ATTACH A SEPERATE SHEET IF NECESSARY)

* SEE ATTACHED SHEET FOR JUMPERED OUT PUT JACK:

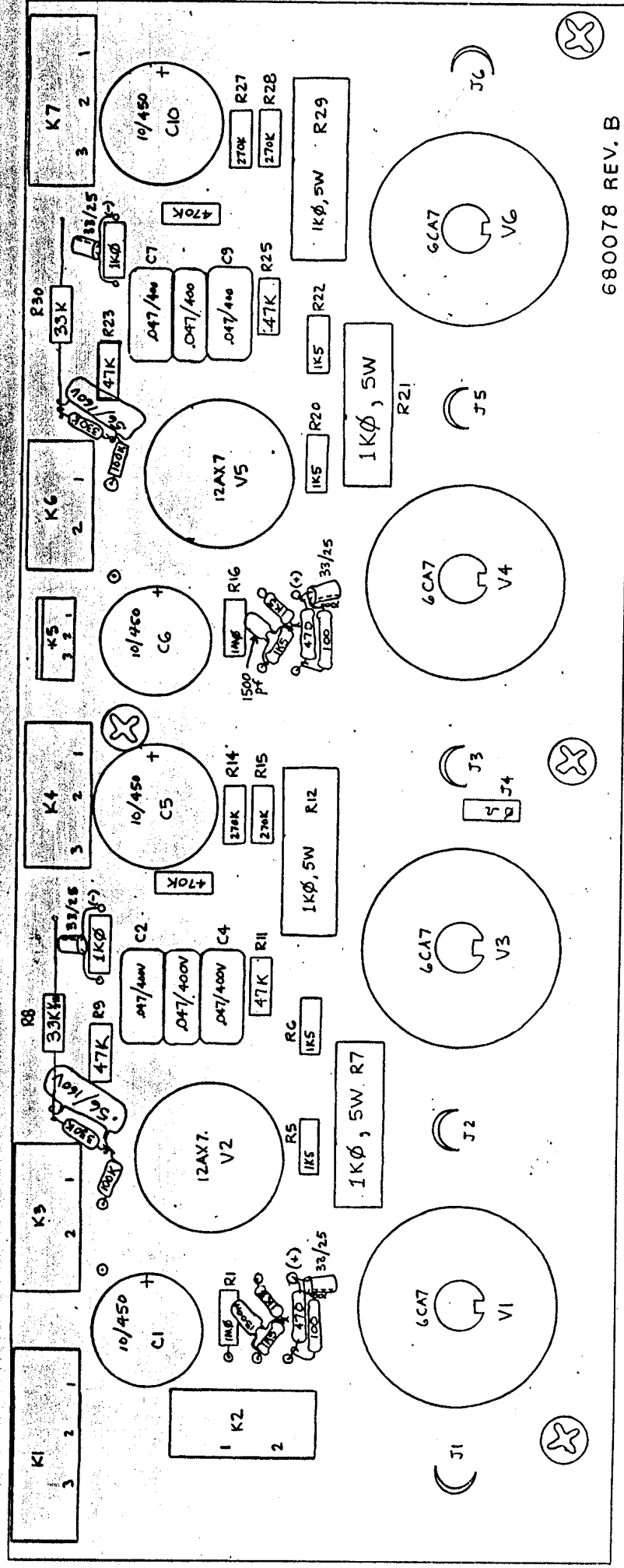
EFFECTIVITY: NEW PRODUCTION ☒ WORK IN PROGRESS ☒
FINISHED GOODS ☒ FIELD RETURNS ☒
DOCUMENTATION CHANGE ONLY ☐
BE NNING SERIAL NUMBER T 10001



T100S TUBE PCB P.N. 680078 Rev B 1989

Add (2) 560 P.F. Caps
P.N. 088080

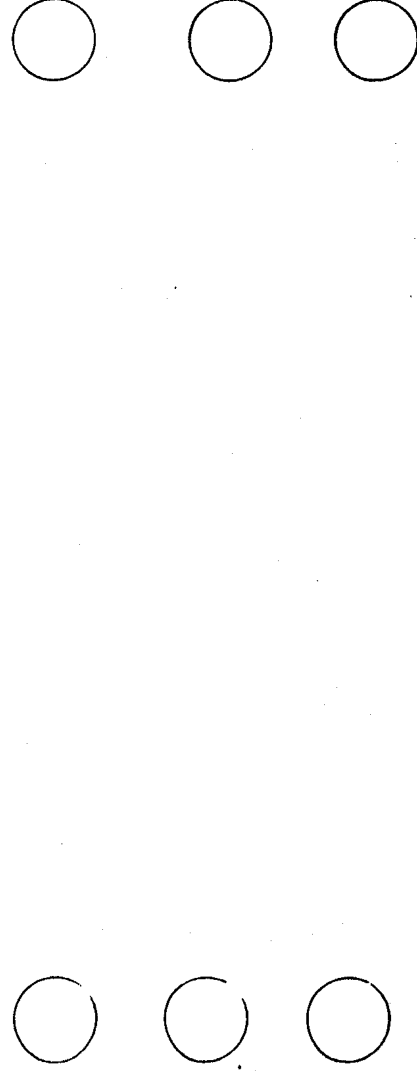
Add (4) Diodes P.N. 100025
RK300B



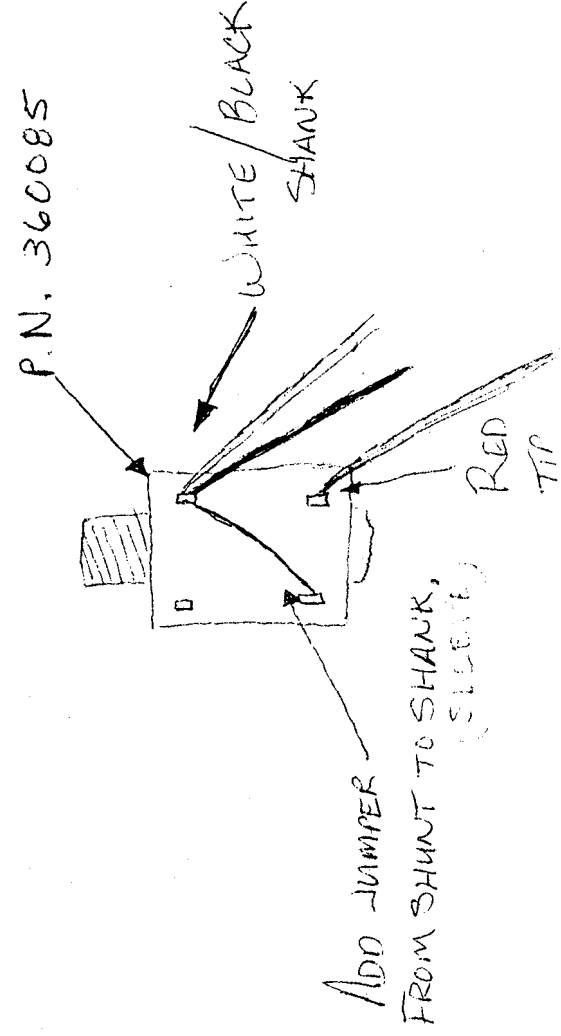
680078 REV. B

T100S TUBE PCB 10-17-89
SN #2 TO SN 500

MODIFICATION FOR REV
5th MODIFICATION 4-11-90 PCB
DWG NO C600 REV C



12/10/90



* Jumped output jacks.