

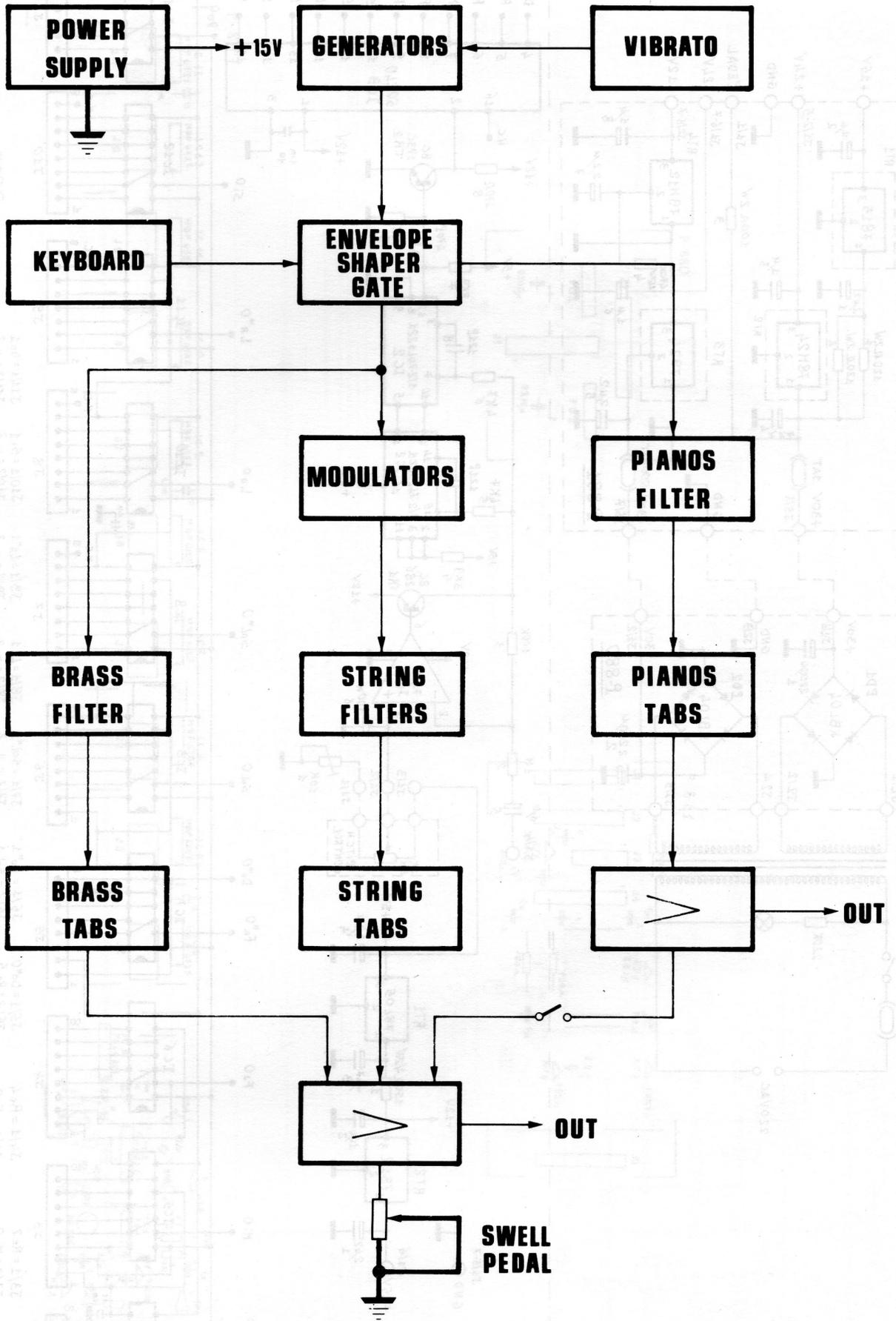
**SCHEMATIC
DIAGRAM**

CRUMAR[®]

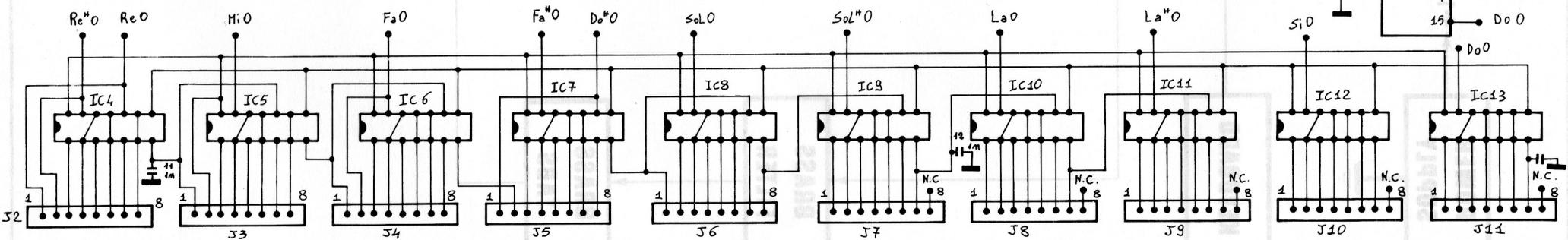
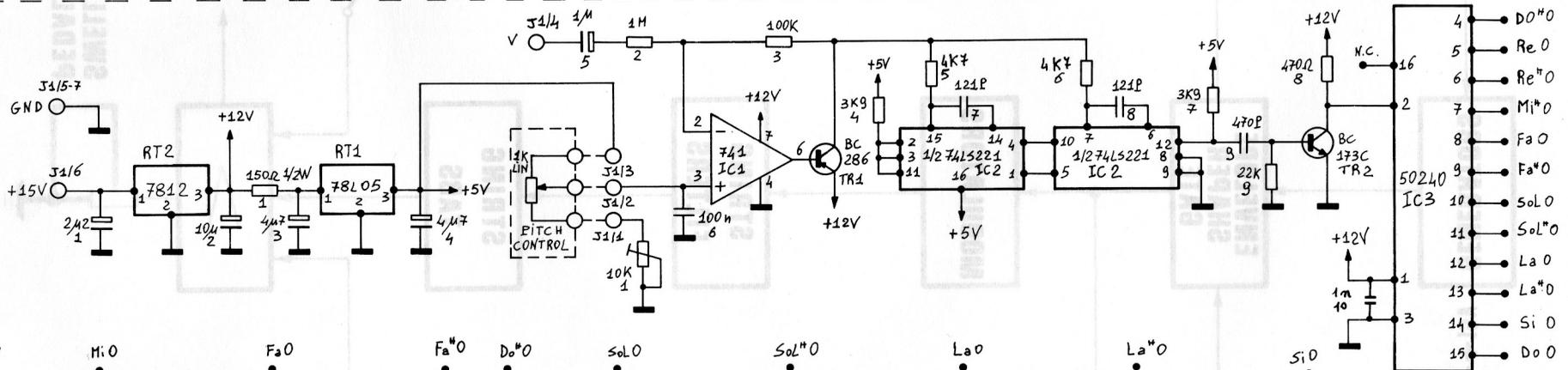
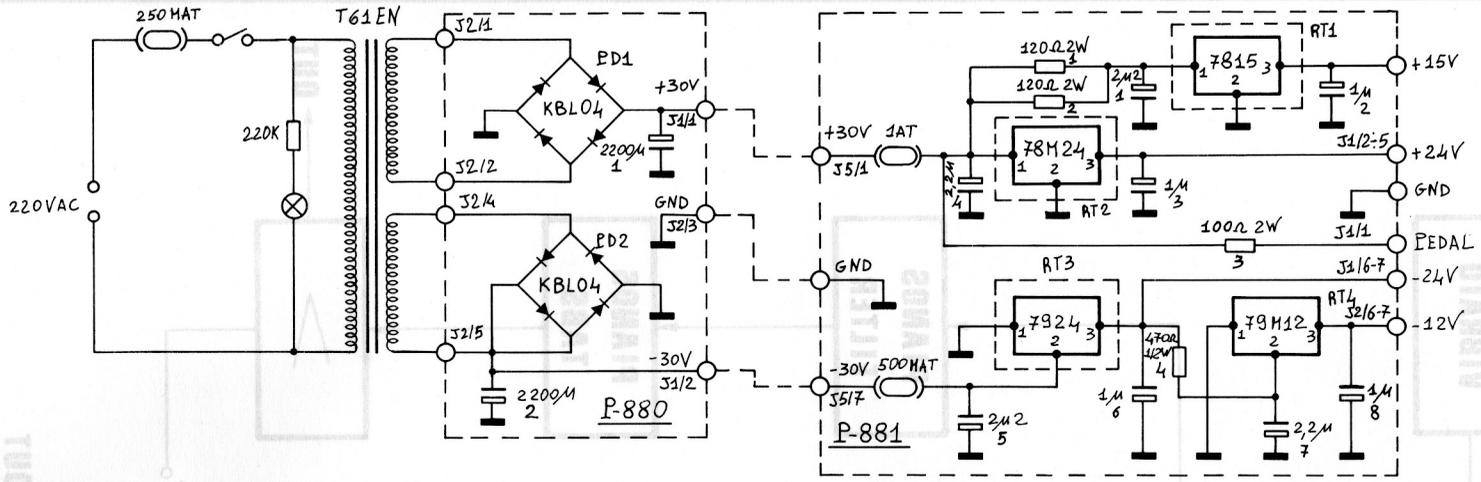
Musical Instruments

*mod.
multiman s*

2



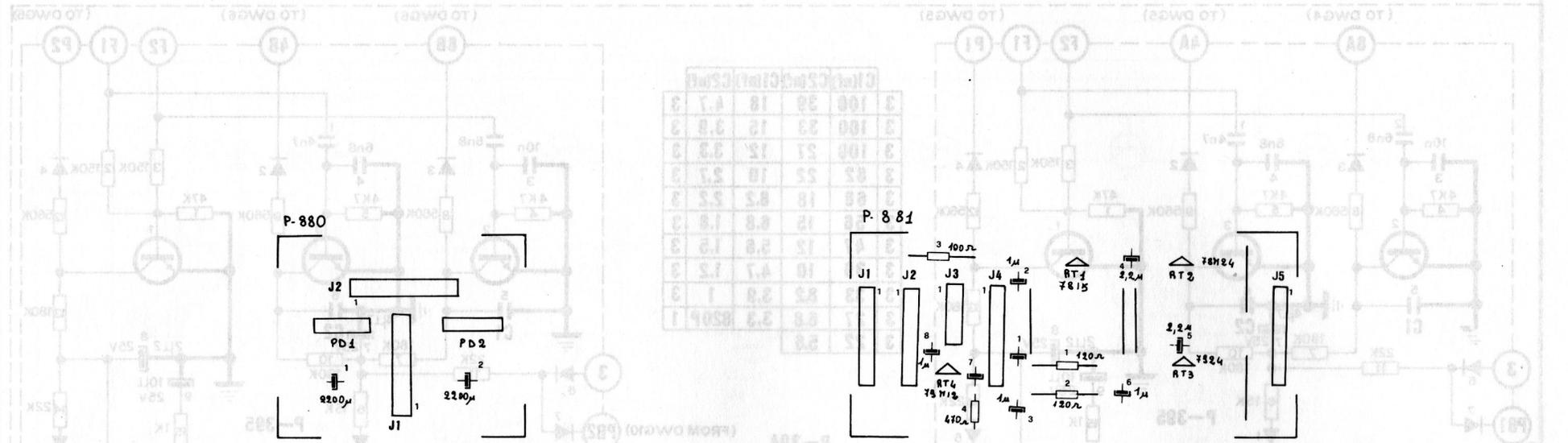
MODEL MULTIMAN-S		REVISION		
DATE	DRAWN BY <i>G. J. Seiter</i>	DESIGNED BY <i>R. Brain</i>	DATE	



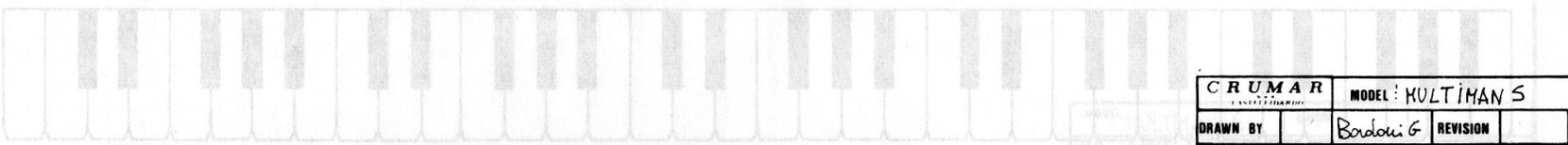
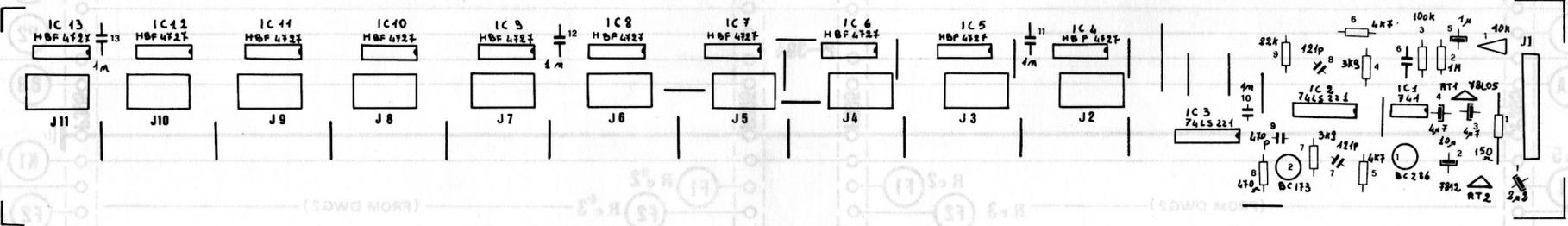
- J2/1 = Re0 J3/1 = Re2 J4/1 = Re4 J5/1 = Do*0 J6/1 = Do*1 J7/1 = Sol*1 J8/1 = La1 J9/1 = L2*1 J10/1 = Si1 J11/1 = Do1
- J2/2 = Re*0 J3/2 = Mi0 J4/2 = Fa0 J5/2 = Re5 J6/2 = Sol1 J7/2 = " 2 J8/2 = " 2 J9/2 = " 2 J10/2 = " 2 J11/2 = " 2
- J2/3 = " 1 J3/3 = " 1 J4/3 = " 1 J5/3 = Fa*4 J6/3 = " 2 J7/3 = " 3 J8/3 = " 3 J9/3 = " 3 J10/3 = " 3 J11/3 = " 3
- J2/4 = " 2 J3/4 = " 2 J4/4 = " 2 J5/4 = " 2 J6/4 = " 3 J7/4 = " 4 J8/4 = " 4 J9/4 = " 4 J10/4 = " 4 J11/4 = " 4
- J2/5 = " 3 J3/5 = " 3 J4/5 = " 3 J5/5 = " 3 J6/5 = " 4 J7/5 = " 5 J8/5 = " 5 J9/5 = " 5 J10/5 = " 5 J11/5 = " 5
- J2/6 = " 4 J3/6 = " 4 J4/6 = " 4 J5/6 = " 4 J6/6 = " 5 J7/6 = " 6 J8/6 = " 6 J9/6 = " 6 J10/6 = " 6 J11/6 = " 6
- J2/7 = " 5 J3/7 = " 5 J4/7 = " 5 J5/7 = " 5 J6/7 = " 6 J7/7 = Do*3 J8/7 = Do*4 J9/7 = Do*5 J10/7 = N.C. J11/7 = N.C.
- J2/8 = Re1 J3/8 = Re3 J4/8 = " 6 J5/8 = " 6 J6/8 = Do*2 J7/8 = N.C. J8/8 = N.C. J9/8 = N.C. J10/8 = N.C. J11/8 = N.C.

P-877

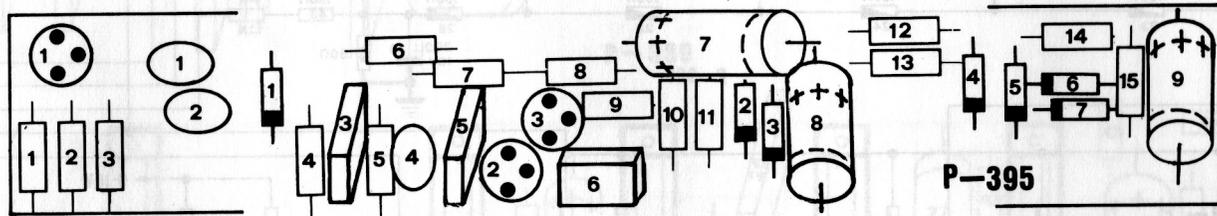
CRUMAR		MODEL: MULTIMAN-S	
DRAWN BY	Bordani G.	REVISION	
DESIGNED BY	Bordani G.	DATE	23/3/81



P-877

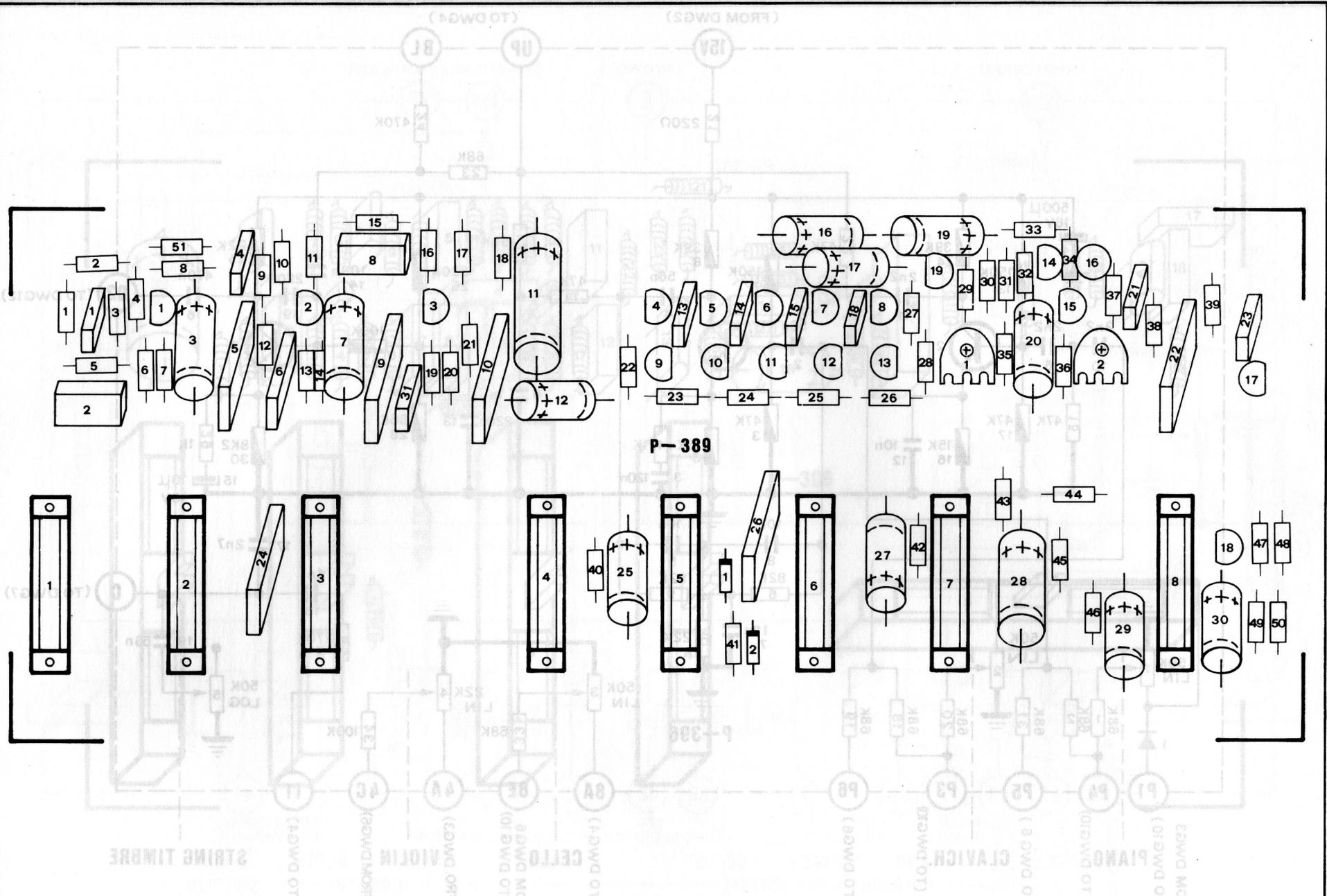


CRUMAR		MODEL: MULTIMAN 5	
DRAWN BY	Bardani G	REVISION	
DESIGNED BY	Bianchi	DATE	23/3/81



MODEL	MULTIMAN-S		REVISION		
DATE	DRAWN BY	DESIGNED BY	DATE		
	<i>P. Roberts</i>	<i>R. Bran</i>			

DWG 3A

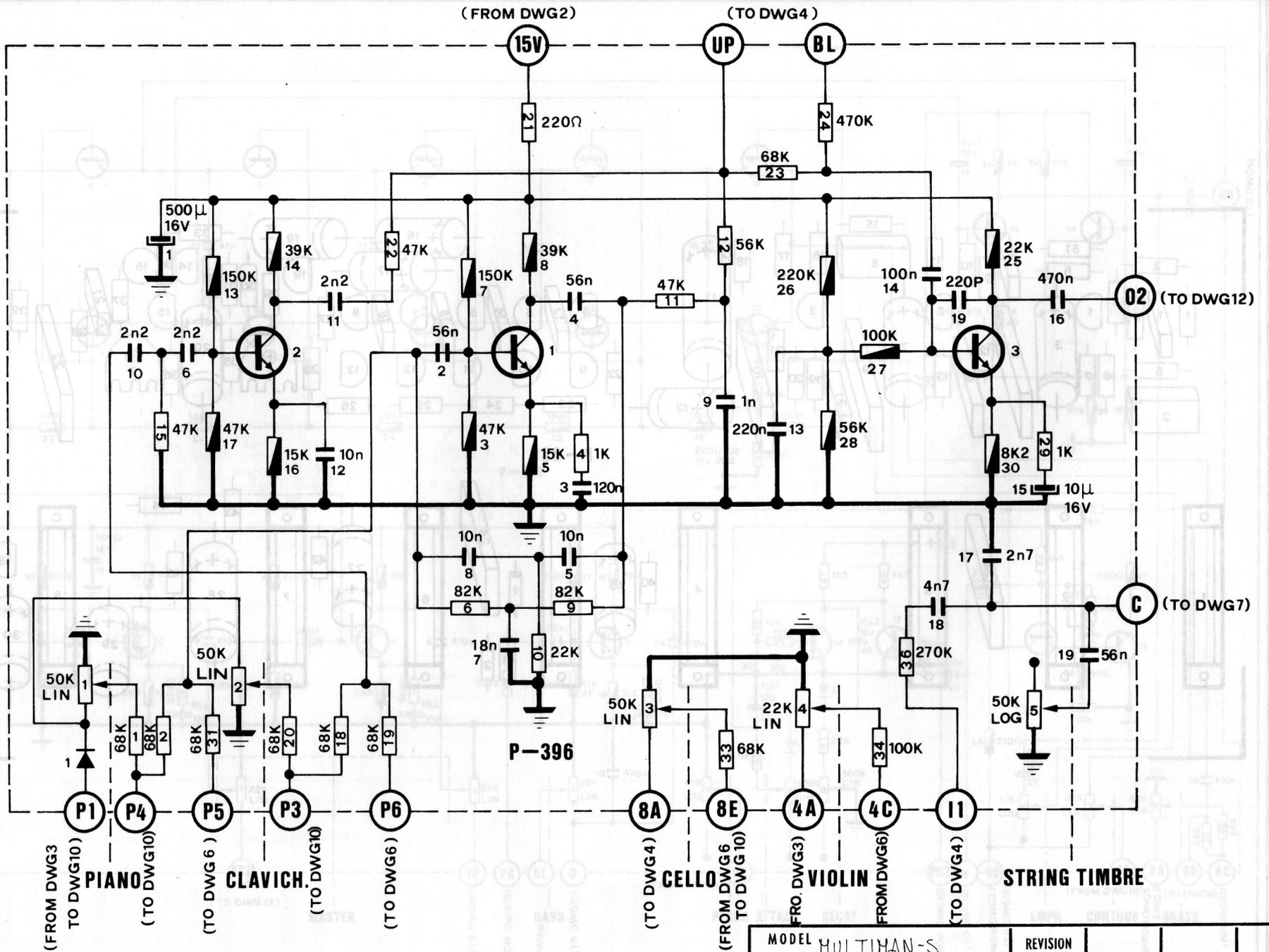


P-389

MODEL	MULTIMAN-2
DATE	
DRAWN BY	R. Bran
DESIGNED BY	R. Bran
REVISION	

MODEL MULTIMAN-2			REVISION		
DATE	DRAWN BY	DESIGNED BY	DATE		
	R. Bran	R. Bran			

DWG 4A



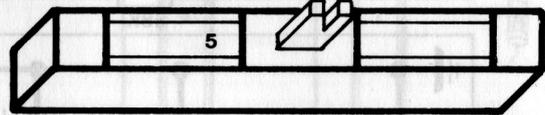
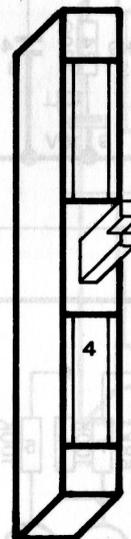
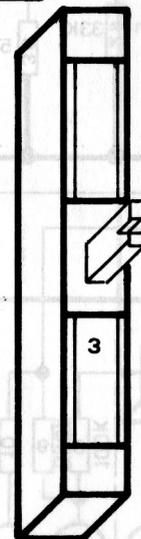
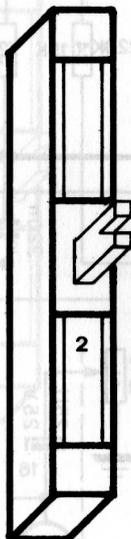
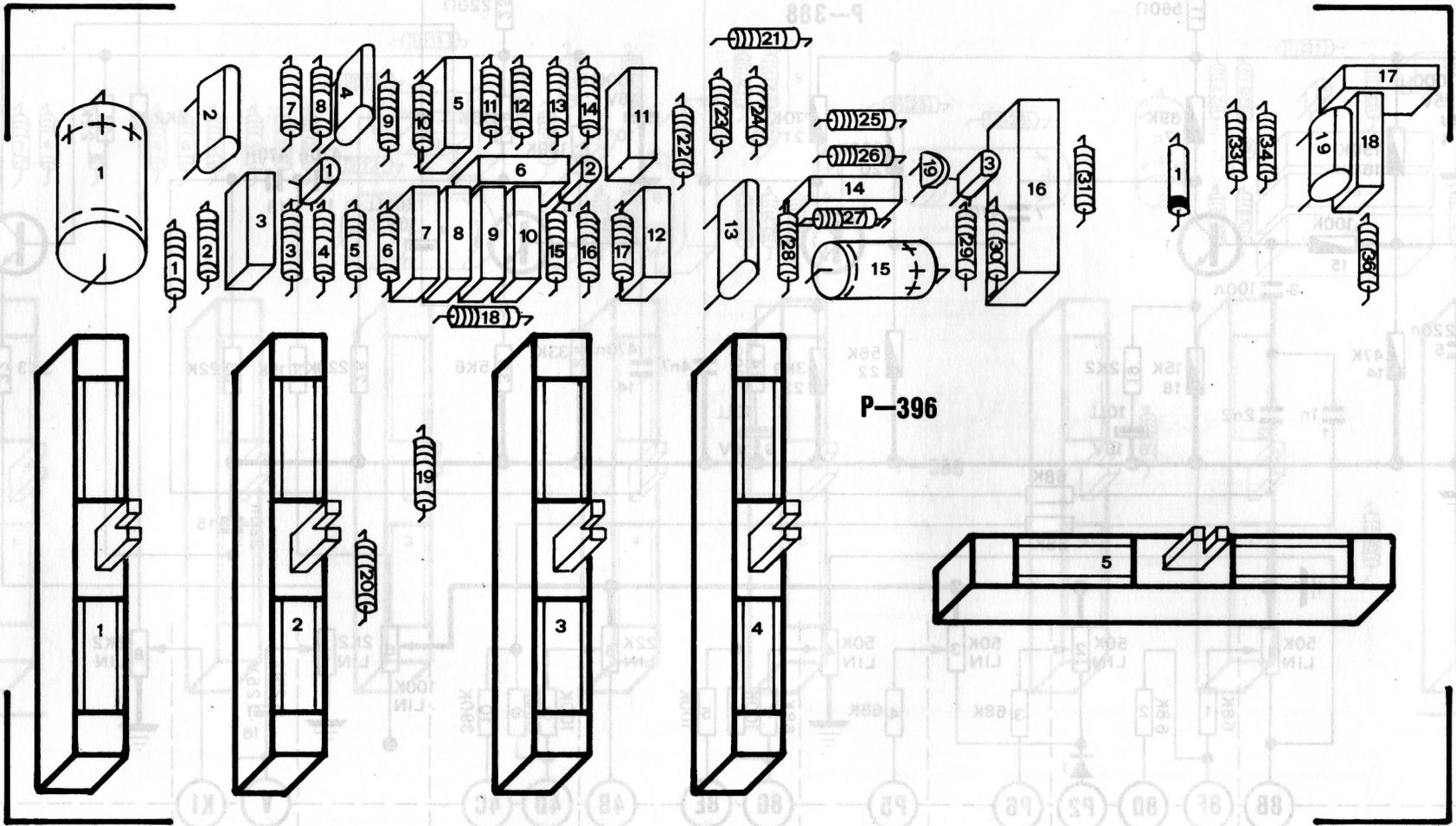
MODEL MULTIMAN-S		REVISION		
DATE	DRAWN BY <i>G. Bassetti</i>	DESIGNED BY <i>R. Bran</i>	DATE	

DWG5

MODEL MULTIMAN-S		REVISION		
DATE	DRAWN BY <i>R. Brown</i>	DESIGNED BY <i>R. Brown</i>	DATE	

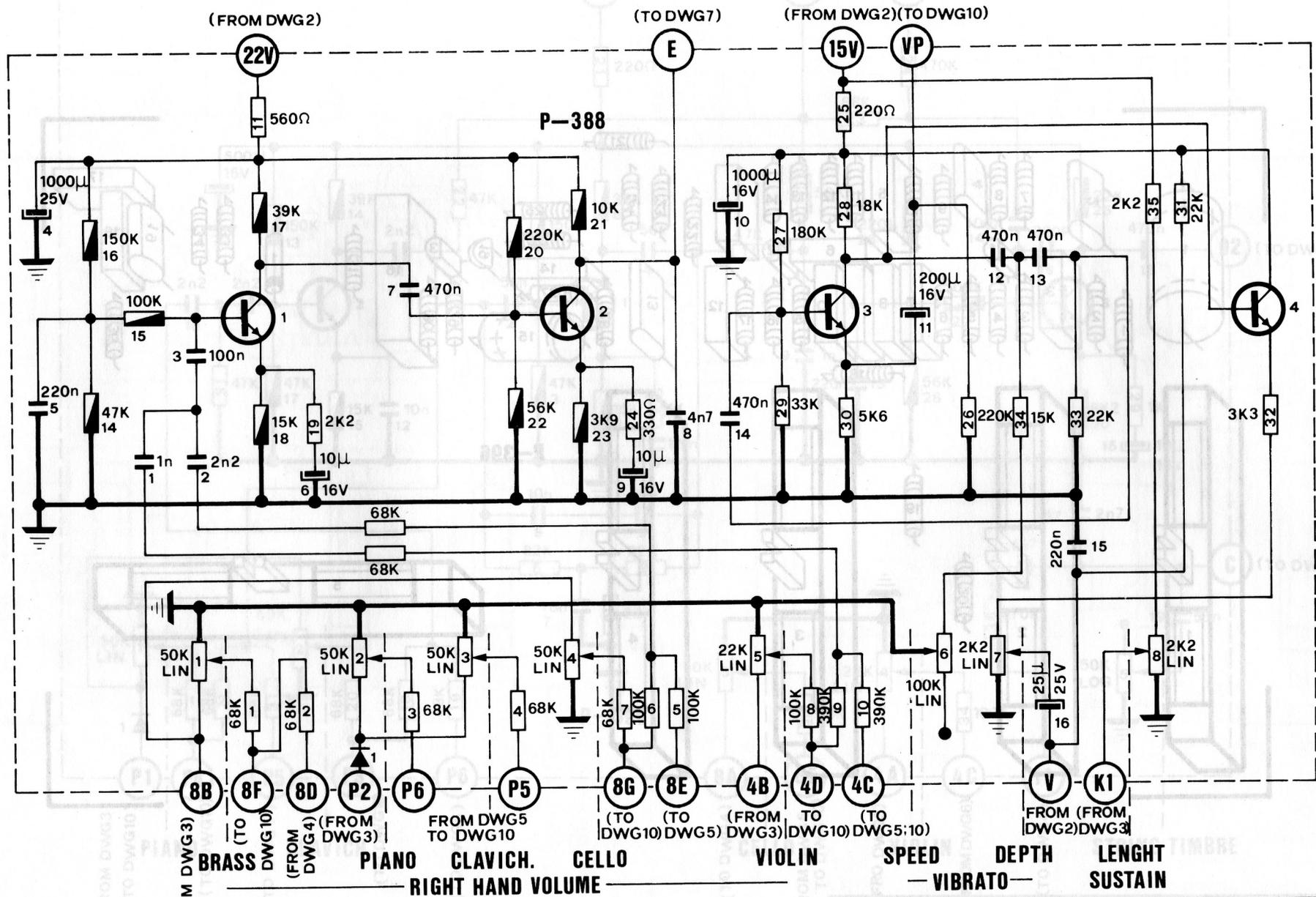
DWG 5A

P-396



RIGHT HAND VOLUME PIANO CLAVICH. CELLO VIOLIN SPEED DEPTH LENGTH VIBRATO SUSTAIN

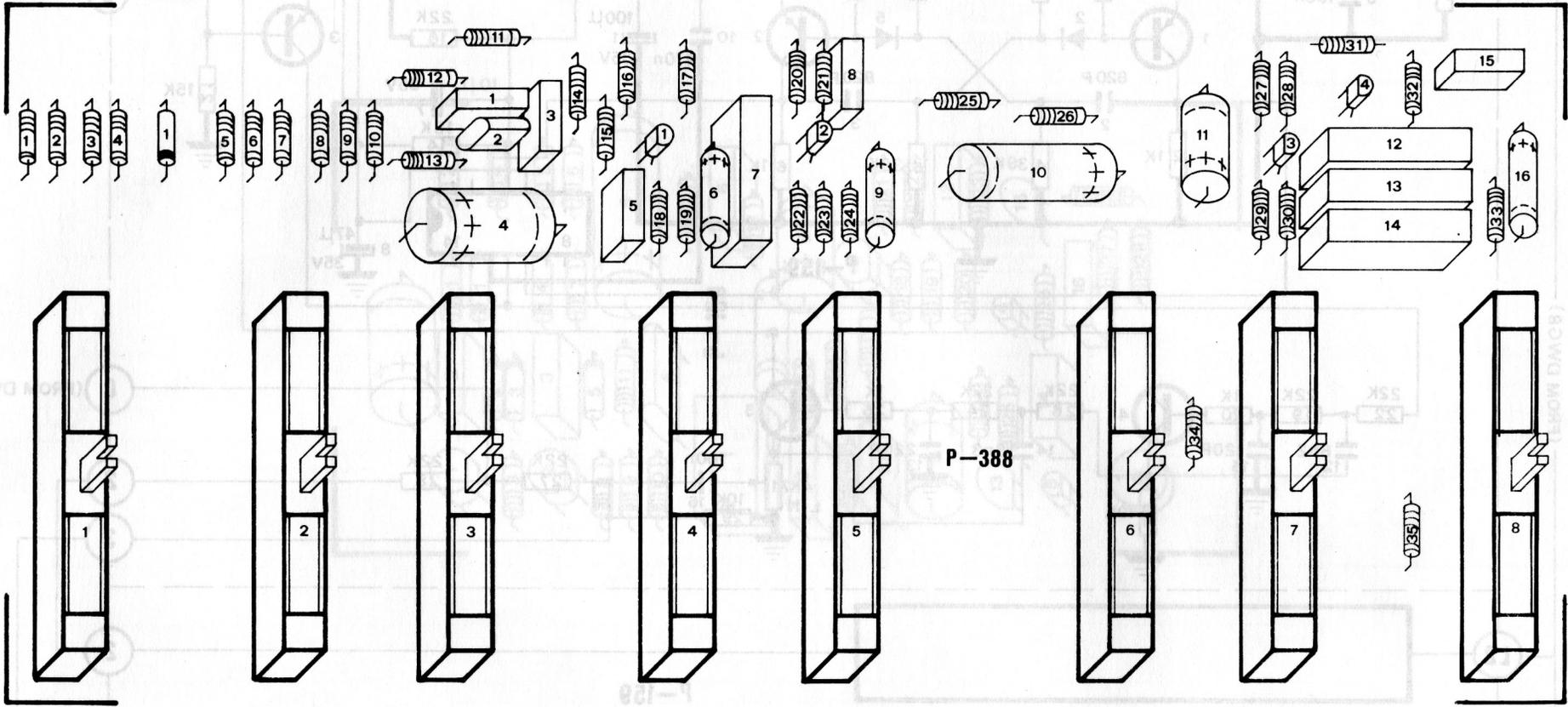
MODEL	MULTIMAN-S
DESIGNED BY	<i>R. Brown</i>
DRAWN BY	<i>R. Brown</i>
DATE	
REVISION	



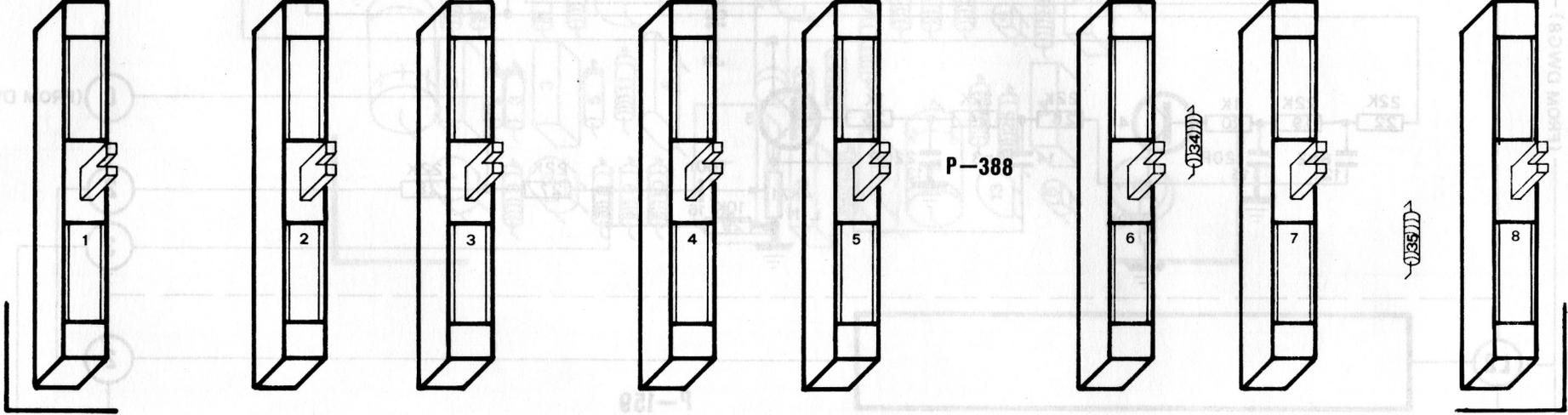
BRASS (FROM DWG3) PIANO CLAVICH. CELLO VIOLIN SPEED DEPTH LENGTH
 (TO DWG10) (FROM DWG4) (FROM DWG3) (FROM DWG5 TO DWG10) (TO DWG10) (TO DWG5) (FROM DWG3) (TO DWG10) (TO DWG5:10)
RIGHT HAND VOLUME — VIBRATO — SUSTAIN

MODEL		MULTIMAN-S		REVISION	
DATE	DRAWN BY	DESIGNED BY	DATE		
	G. J. [Signature]	R. Bran			

DWG6



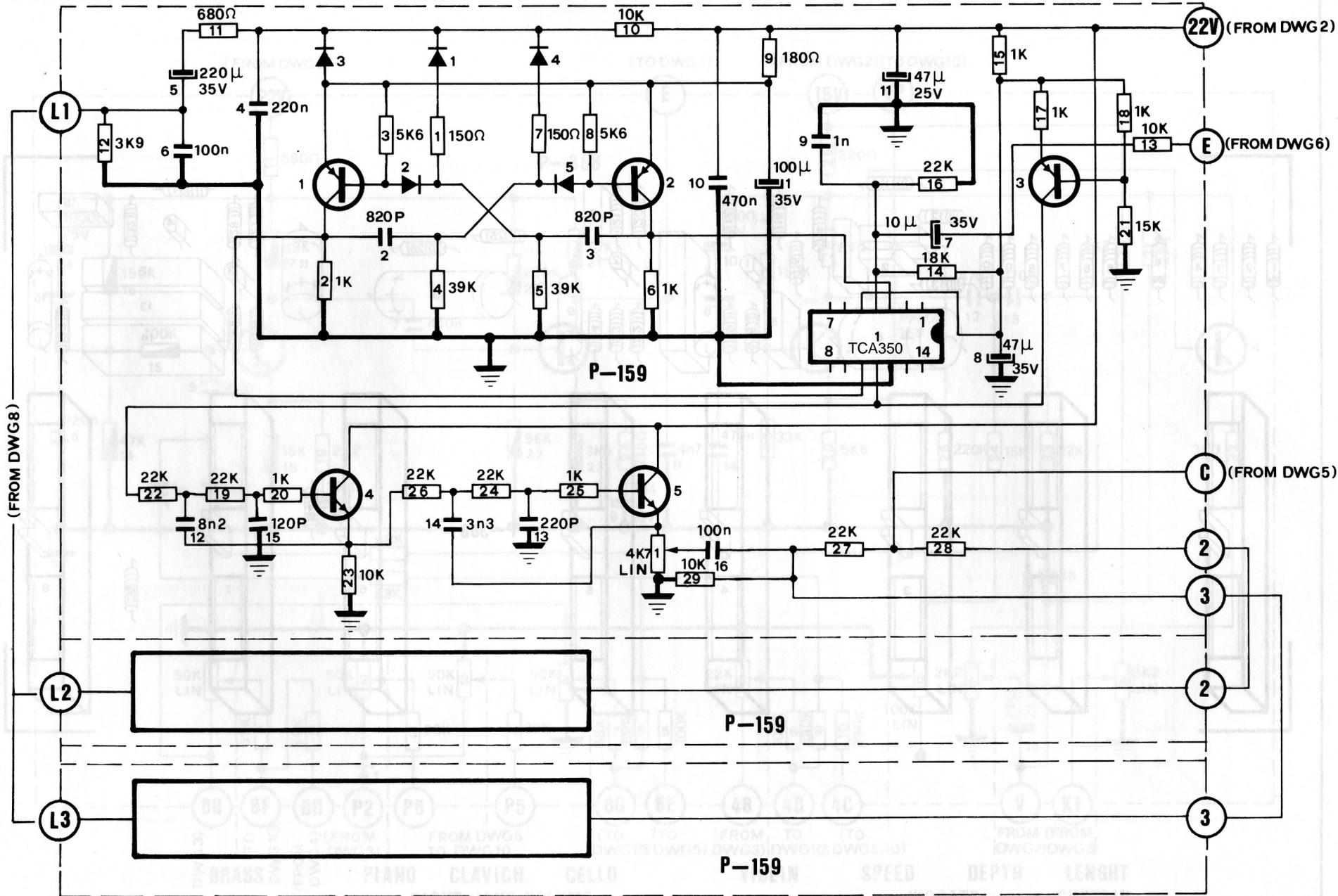
P-388



REVISION	2-ADDITION	MODEL	MULTIMAN-S
DATE	DESIGNED BY	DATE	DESIGNED BY

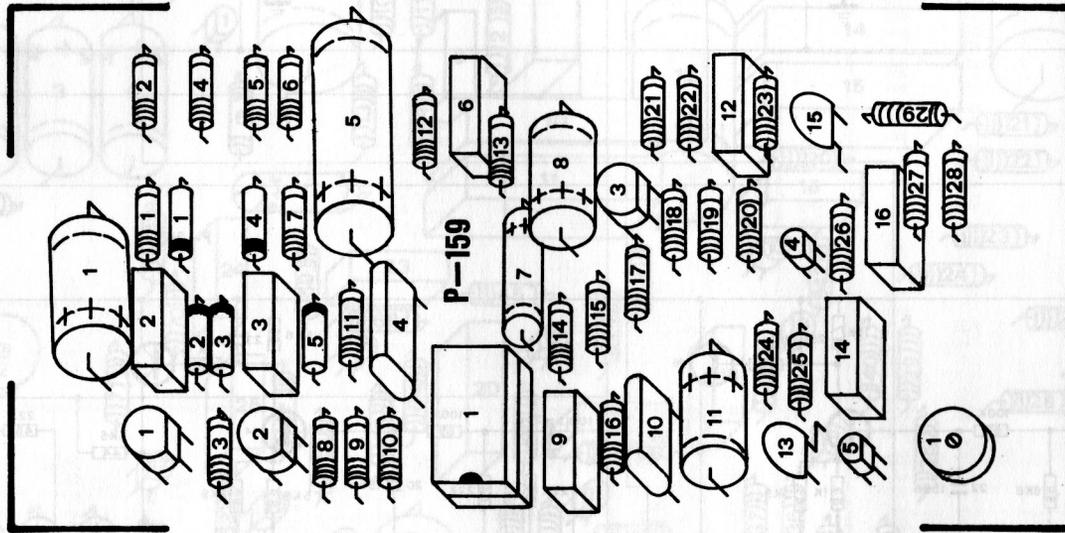
MODEL	MULTIMAN-S	REVISION			
DATE	DRAWN BY	DESIGNED BY	DATE		
	<i>R. B. ...</i>	<i>R. B. ...</i>			

DWG 6A



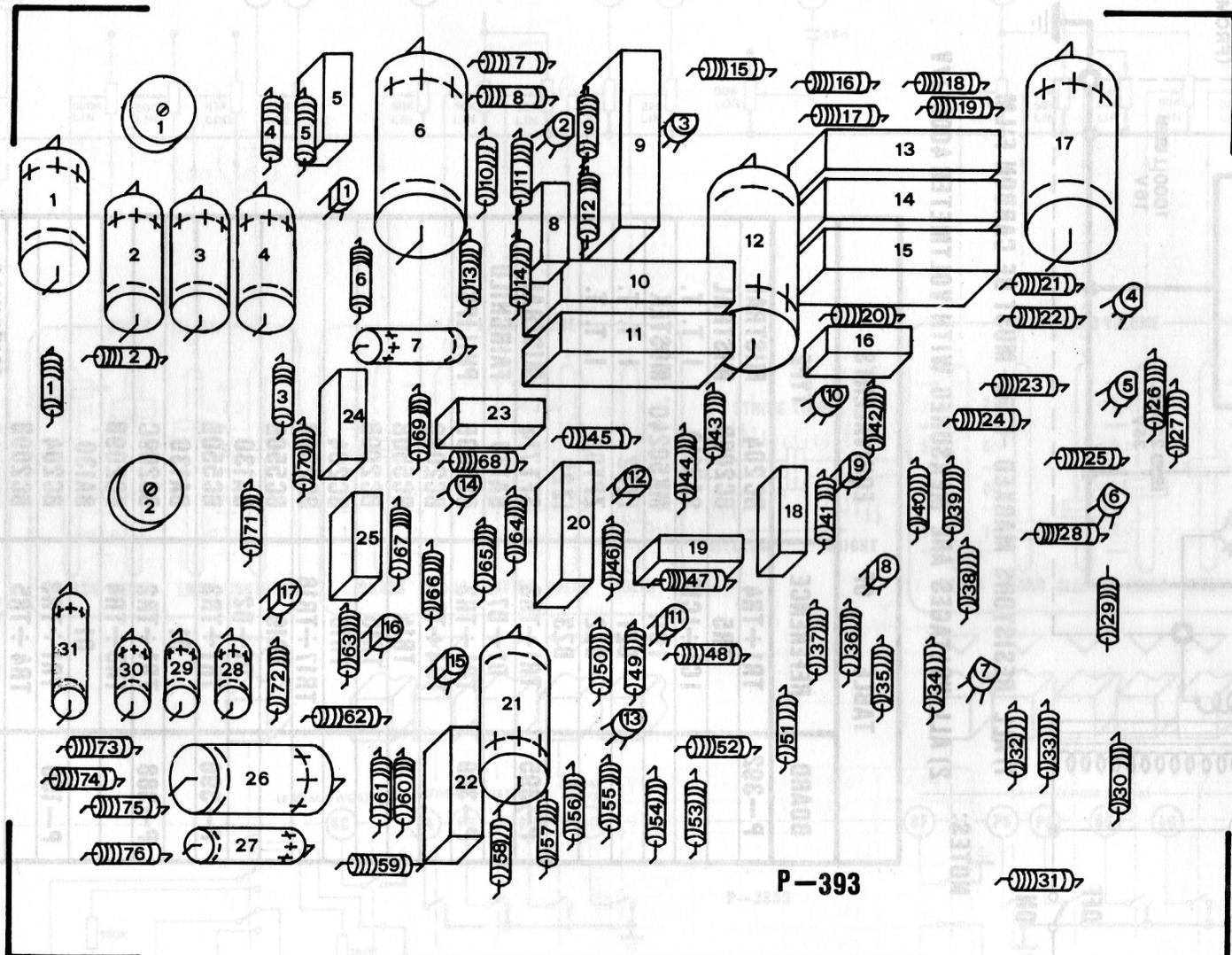
MODEL		MULTIHAN-S		REVISION			
DATE	DRAWN BY	DESIGNED BY	DATE				
	G. C. Oglet	R. Bran					

DWG7



MODEL MULTIMAN-S
 DATE 11-28-58
 DRAWN BY R. Bran
 DESIGNED BY R. Bran

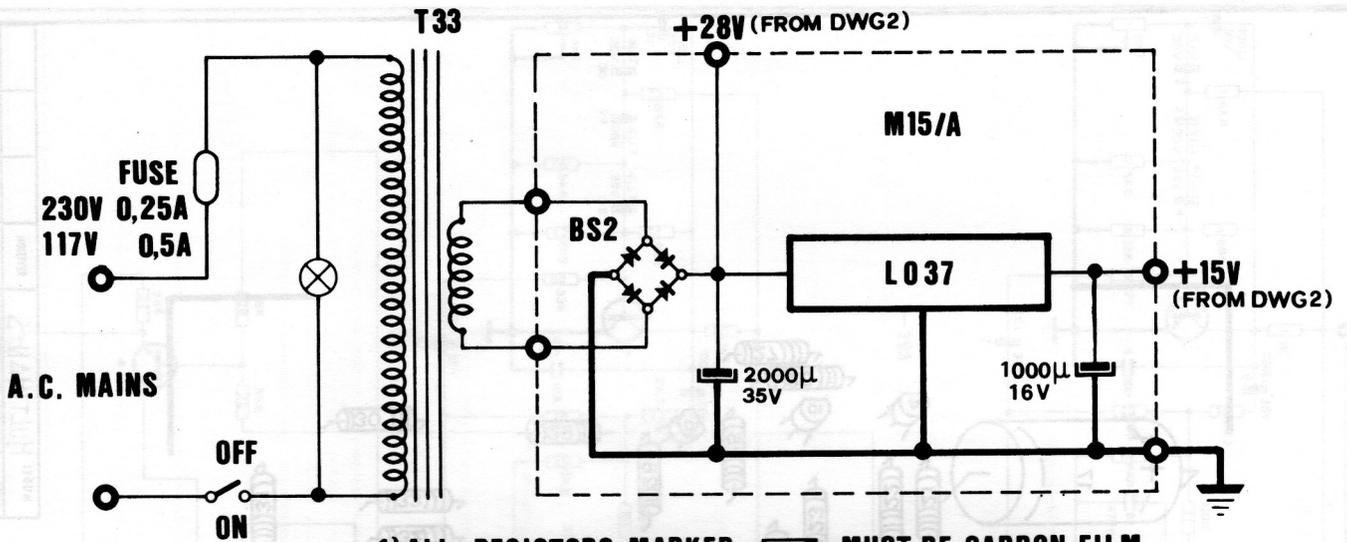
MODEL MULTIMAN-S		REVISION		
DATE	DRAWN BY	DESIGNED BY	DATE	
	R. Bran	R. Bran		



P-393

MODEL MULTIMAN-S			REVISION		
DATE	DRAWN BY	DESIGNED BY	DATE		
	<i>R. Bran</i>				

DWG 8A

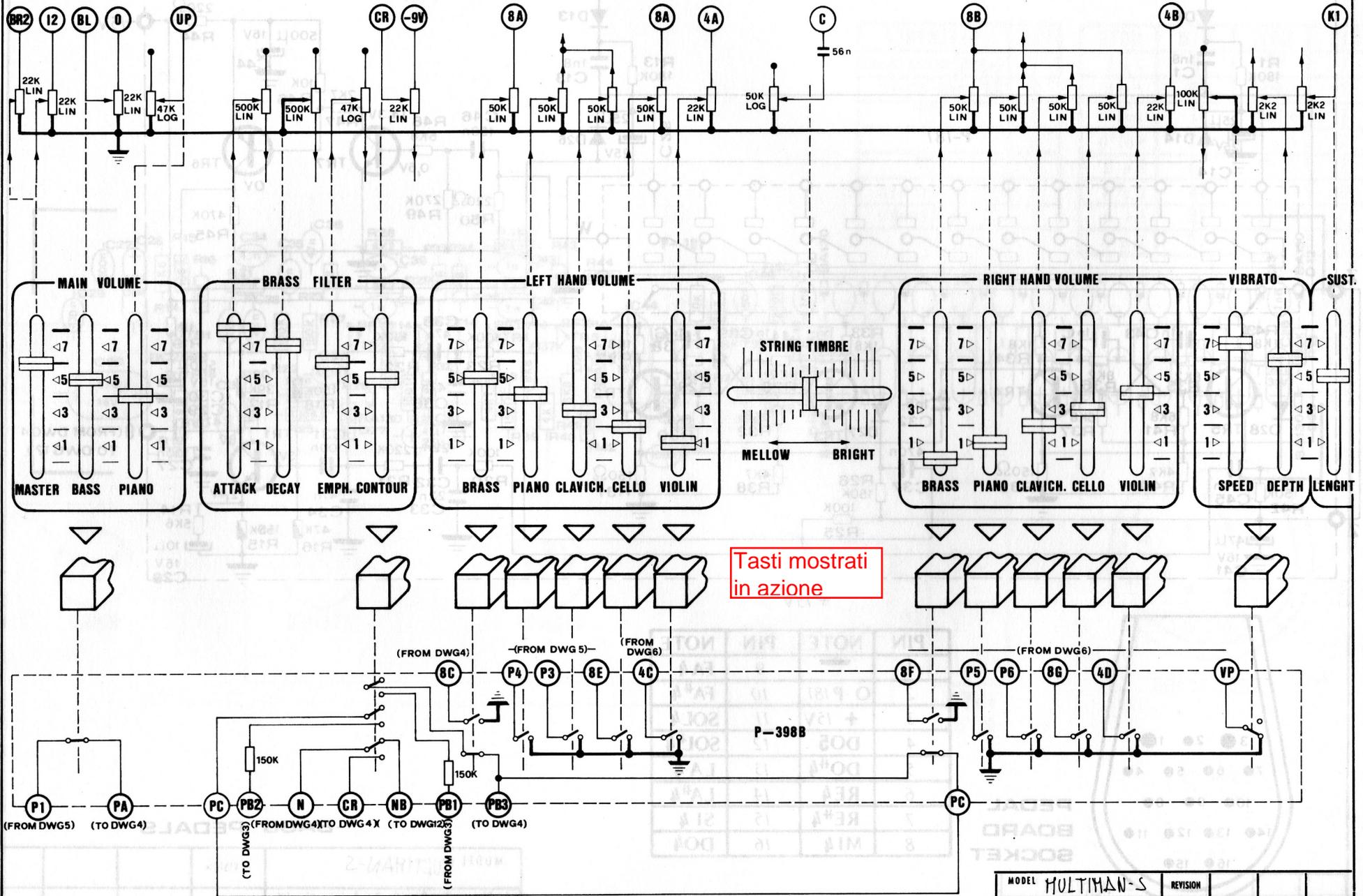


- NOTES:
- 1) ALL RESISTORS MARKED MUST BE CARBON FILM
 - 2) ALL VOLTAGES ARE MEASURED WITH VOLTMETER 4000Ω/V

TABLE OF EQUIVALENTS			
BOARD	REFERENCE	TYPE	
P-392	TR1÷TR4	BC 204	MISTRAL
	TR5	BC209B	MISTRAL
	IC1÷IC10	SAJ110	I. T. T.
	IC11	MK50240	MOSTEK
	DZ1	I222	I. T. T.
	DZ2	ZPY9,1	I. T. T.
	DZ3	I222	
P-395	TR1÷TR3	SFT714	MISTRAL
	D1÷D7	BA130	FAIRCHILD
P-389	TR1÷TR3	BC550B	PHILIPS
	TR4÷TR13	BC209C	
	TR14	BC550B	
	TR15	BC209B	
	TR16	BC204	
	TR17÷TR18	BC209B	
	TR19	BC550B	
	D1÷D2	BA130	
P-396	TR1÷TR3	BC550B	
	D1	BA130	
P-388	TR1÷TR2	BC209C	
	TR3÷TR4	BC209B	
	D1	BA130	
P-159	TR1÷TR3	BC204	
	TR4÷TR5	BC209B	
	D1÷D5	FDH900	FAIRCHILD
P-393	TR1	BC209C	
	TR2÷TR16	BC209B	
	TR17	BC209C	

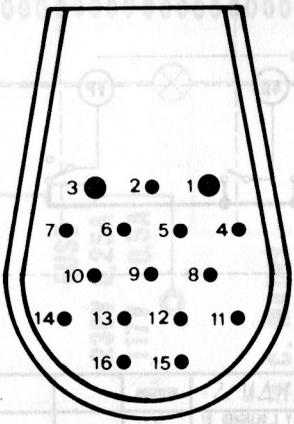
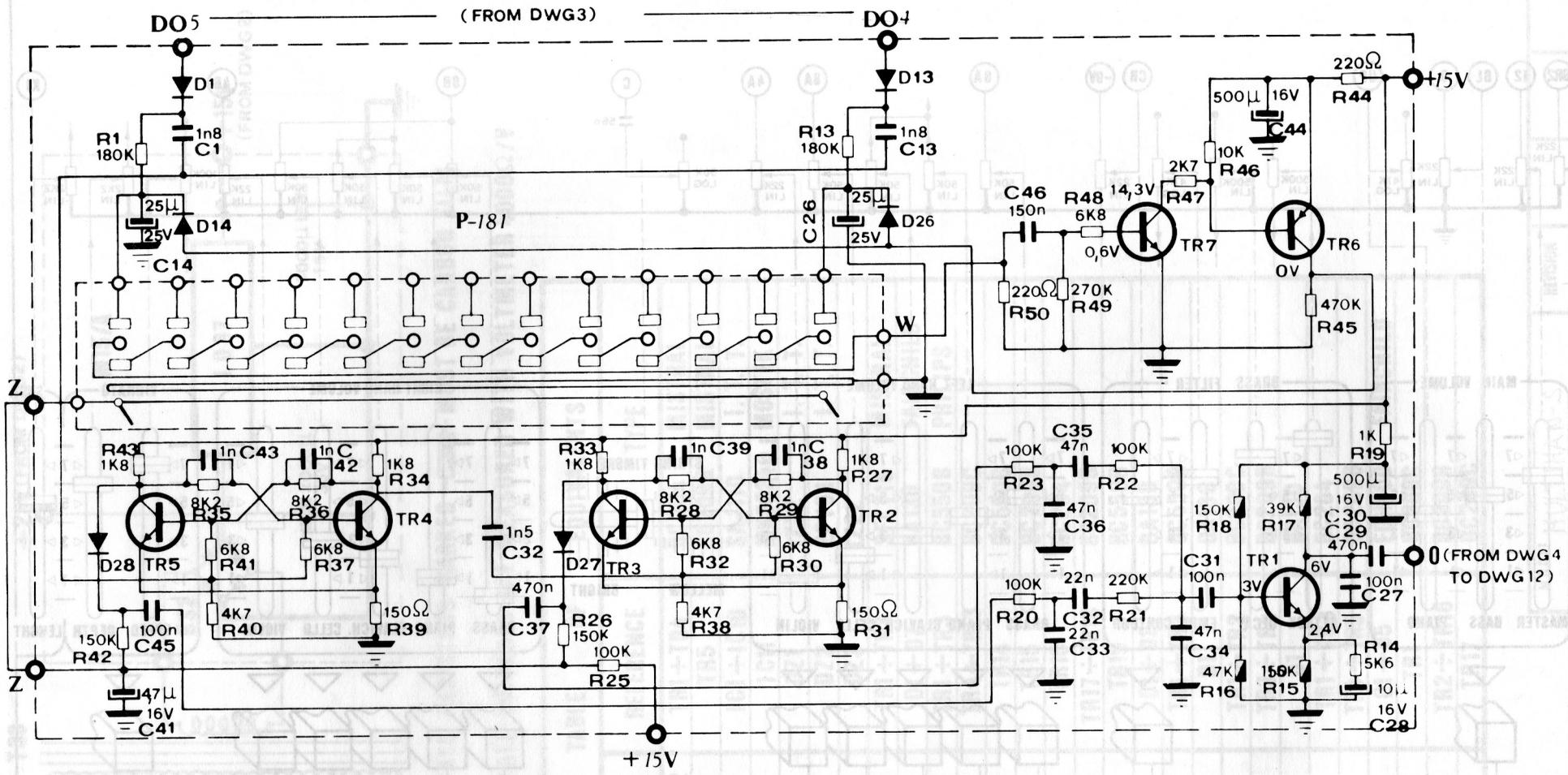
MODEL MULTIHAN-S		REVISION		
DATE	DRAWN BY: <i>E. K. Seti</i>	DESIGNED BY: <i>Khoran</i>	DATE	

Massima azione a pot. al massimo e Contour a -9 V



Tasti mostrati in azione

MODEL	MULTIMAN-5	REVISION	
DATE	DRAWN BY G. Schmitt	DESIGNED BY R. Bran	DATE



PEDAL BOARD SOCKET

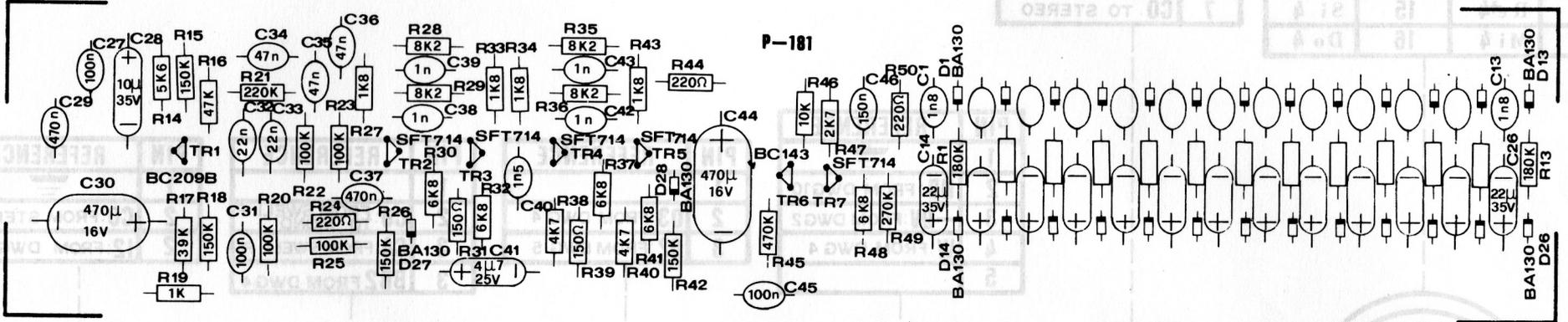
PIN	NOTE	PIN	NOTE
1	⊖	9	FA 4
2	O · P181	10	FA#4
3	+ 15V	11	SOL4
4	DO5	12	SOL#4
5	DO#4	13	LA 4
6	RE4	14	LA#4
7	RE#4	15	SI 4
8	MI4	16	DO4

BASS PEDALS

MODEL <i>MULTIHAN-S</i>		REVISION		
DATE	DRAWN BY <i>Rosetti G.</i>	DESIGNED BY <i>R. Brani</i>	DATE	

PIN	NOTE
1	+50V FROM DWG3
2	K2 FROM DWG3
3	
4	
5	
6	CA TO STEREO
7	CD TO STEREO

PIN	NOTE
9	F4A
10	F4A
11	501A
12	501A
13	L4A
14	L4A
15	S1A
16	D4A



MODEL	REVISION	DATE
MULTIMAN-5	2	11/22/68

MODEL	REVISION	DATE
MULTIMAN-5	2	11/22/68

DWG 11A

PIN	NOTE	PIN	NOTE
1	—	9	Fa 4
2	0-P181	10	Fa#4
3	+15V	11	Sol 4
4	Do 5	12	Sol#4
5	Do#4	13	La 4
6	Re 4	14	La#4
7	Re#4	15	Si 4
8	Mi 4	16	Do 4

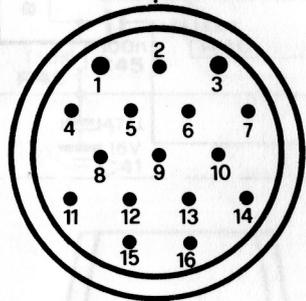
PIN	REFERENCE
1	+20V: FROM DWG2
2	K2: FROM DWG3
3	—
4	—
5	—
6	CA: TO STEREO
7	CO: TO STEREO

PIN	REFERENCE
1	—
2	NB: FROM DWG10
3	-9V: FROM DWG2
4	W: FROM DWG 4
5	—

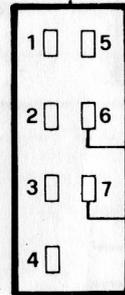
PIN	REFERENCE
1	—
2	03: FROM DWG 4
3	02: FROM DWG 5

PIN	REFERENCE
1	—
2	CO: FROM SWELL P. TO MONO
3	CA: FROM SWELL P.
3	BR2: FROM DWG 4

PIN	REFERENCE
1	—
2	CO: FROM STEREO
2	I2: FROM DWG 4



PEDAL BOARD



SWELL PEDAL

CA

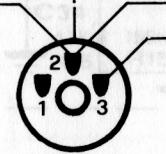
CO



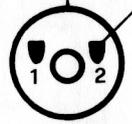
PEDAL FILTER



PIANOS



STEREO



MONO

MODEL MULTIMAN-S		REVISION		
DATE	DRAWN BY C. No. Pett.	DESIGNED BY R. Bran	DATE	

CRUMAR S.p.A.
60022 CASTELFIDARDO - ITALY
c/p 98
Tel. (071) 79033 / 34