

MODELS

Service Manual

Amplifier & Generator

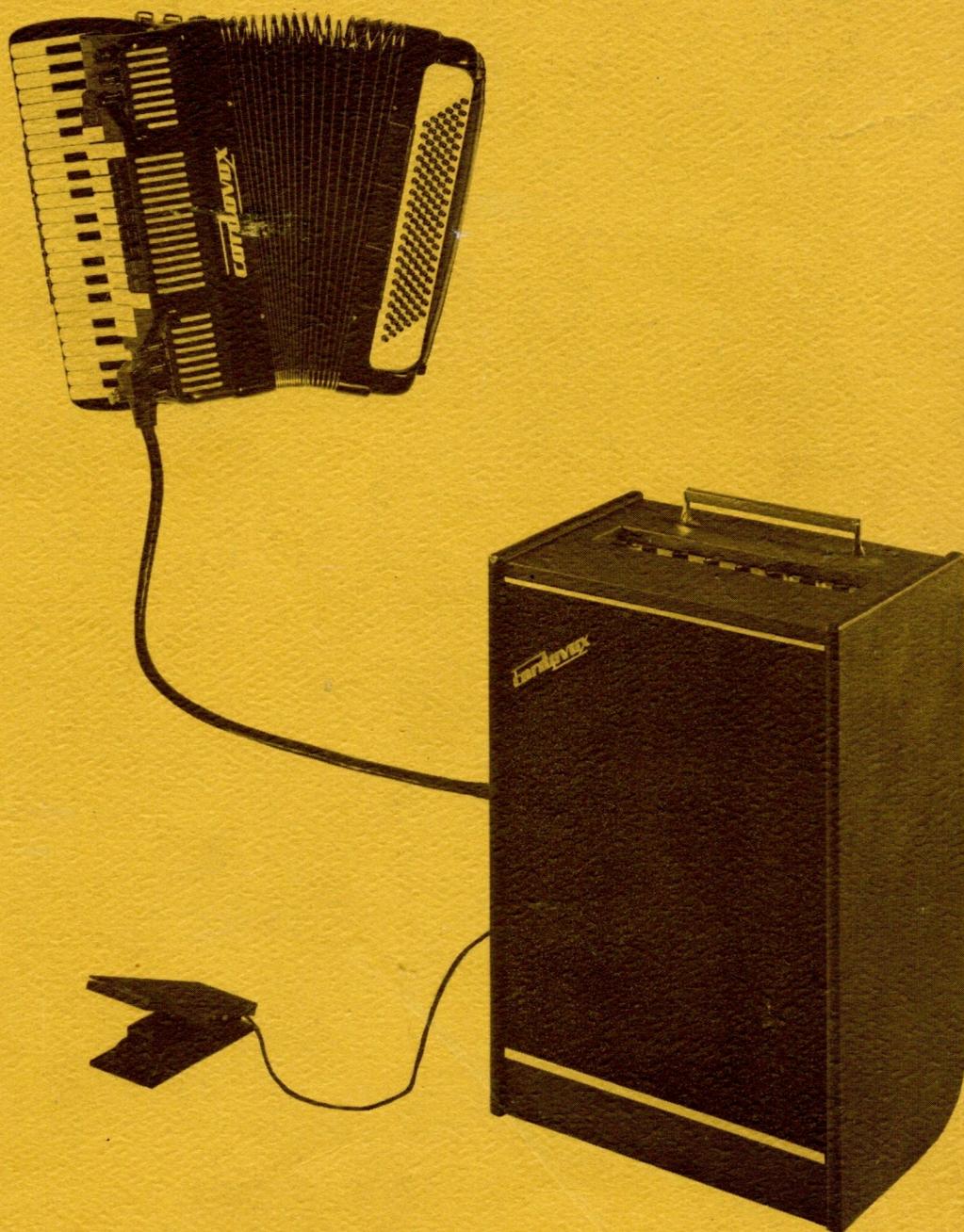
CAG-1

CAG-1 (After No. 13454)

Accordion

Super IV CG-4

Super V CG-5



CORDOVOX

993-017041

TABLE OF CONTENTS

SERVICE INFORMATION	Page
Specifications	2
Adjustments	3
Accessory Speakers	4
Block Diagram	5
Matrix Drawing	6

SCHMATICS CAG-1

Drawing No. 1 Vibrato Power Supply, Diode Keying & Tone Generators	7
Drawing No. 2 Repeat Rank Control, Percussion Presets & Percussion Switching	8
Drawing No. 3 Bass & Chord Keying, Bass & Chord Voicing & Reed/String Voicing	9
Drawing No. 4 Filters, Wow Wow, Brilliance & Expression Pedal	10
Drawing No. 5 Preamps, Reverb & Amplifier	11

SCHMATICS CAG-1 (AFTER SERIAL NUMBER 13454)

Drawing No. 1 Vibrato Power Supply, Diode Keying & Tone Generators	12
Drawing No. 2 Repeat Rank Control, Percussion Presets & Percussion Switching	13
Drawing No. 3 Bass & Chord Keying, Bass & Chord Voicing, Reed/String Voicing	14
Drawing No. 4 Filters, Wow Wow, Brilliance & Expression Pedal	15
Drawing No. 5 Preamps, Reverb & Amplifiers	16

PICTORIALS

SERVICE ACCESS AND CIRCUIT LOCATION

Rear View (With Back Removed)	17
-------------------------------------	----

PRINTED CIRCUIT BOARD, CHASSIS AND ASSEMBLIES

Mother Board (Matrix)	18
Amplifier/Power Supply Assembly	19
Preamp and Reverb Board	20
Voicing Board	20
Flute Filter No. 1 and No. 2 Boards	20
Repeat Percussion Board	21
Sustain Keyer Board	21
Buffer No. 1 and No. 2 Boards	21
Matrix Driver Board	21
Reed/String Keyer Board, 8' and 16'	22
Flute Keyer Board	22
Chord and Bass No. 1 and No. 2 Board	22
Accordion Microphone Board	22
Tone Generator Board	22

CHARTS

Diode & Transistor Keying	23
Diode Keying	23
Bass & Chord Keying	23
Chord Button	23
Accordion Chord & Bass Pushbuttons	23
Transistor Location	24
Plug & Socket	24

PARTS

Parts Information	25
Parts List	26

SPECIFICATIONS

Organ Voices and Controls

Treble Voice Tabs

Clarinet 16
Trombone 16
Trumpet 8
String 8
Kinura 8
Flute 16
Flute 8
Flute 5 1/2
Flute 4
Flute 2 2/3
Flute 2
Flute 1 1/2
Flute 1

Special Control Tabs

Reverb
Preset I
Preset II
Percussion Repeat
Percussion On/Off
Percussion 16
Percussion 8
Percussion 5 1/2
Percussion 4
Percussion 2 2/3
Percussion 2
Percussion 1 1/2
Percussion 1

Chord Voice Tabs

Chord
Chord Sustain

Bass Voice Tabs

String Bass
Bass Sustain
Control Tabs
Vibrato Off/On
Vibrato Light/Heavy
Vibrato Slow/Fast
Sustain medium
Sustain long
Wow Wow
Attack Normal/Slow

Controls

Percussion Length
Repeat Speed
Organ Volume-Bass and Chord
Accordion Volume-Bass and Treble
Accordion Tone
Wow Wow Volume

Amplifier

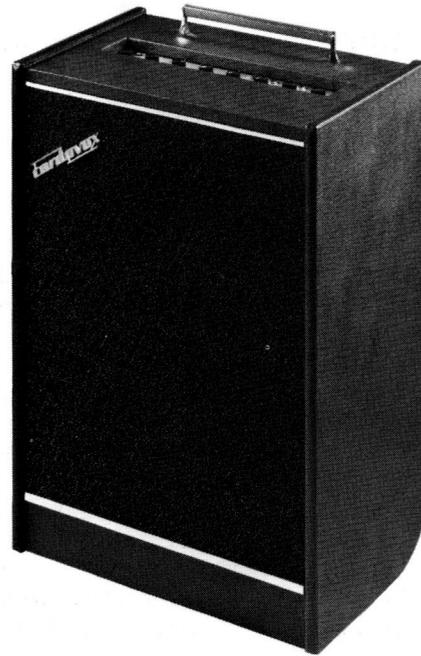
Master Volume
Auxiliary Volume Control
Microphone Volume Control
Bass Tone Control
Treble Tone Control
Reverb Control
Vibrato Speed Control
Off/On Polarity Switch
Pilot Light
Auxiliary Input Jack
Microphone Input Jack
Hi/Low Impedance Switch Selector
for Microphone Input Jack

Speaker Jack for Rotating
Sound Cabinet

Specifications

Amplifier
Depth: 15 1/4"
Width: 21 3/4"
Height: 29 3/4"
Weight: 80 lbs. estimated
Amplifier Output Power: 85 Watts
Speakers: One 15" low range; one
9" x 14" and two 3" tweeters
Circuit Breaker Pushbutton
Color: Black
Expression Pedal Controls:
Organ Volume
Wow-Wow
Glide

NEW CORDOVOX AMP/GENERATOR (CAG-1)



Super V and Super IV

SUPER IV (CG-4)

Super IV features include:

120 bass buttons; 41 treble keys; three sets of treble reeds with 6 treble registers including a master register; 4 sets of bass reeds and three bass registers. Jet Black.

SUPER IV-M (CG-4M) MUSETTE TUNING

This accordion has the same number of reed blocks as the Super V (3 treble and 4 bass) however, in the treble section the Piccolo (high) reed block is replaced with a second Clarinet (middle) reed block. This reed block is tuned slightly higher so that the Musette effect is achieved when both Clarinet (middle) reed blocks are played together. The Musette effect is most desirable when playing Continental-Style songs, Polkas, and many other varieties of music.



SUPER V (CG-5)

Super V features include:

120 bass buttons; 41 treble keys; "double tone chamber." Three sets of hand-made treble reeds with 6 treble registers including a master register; 4 sets of hand-made bass reeds and three bass registers. Jet Black.

SUPER V-M (CG-5M) MUSETTE TUNING

This accordion has the same number of reed blocks as the Super V (3 treble and 4 bass) however, in the treble section the Piccolo (high) reed block is replaced with a second Clarinet (middle) reed block, which is positioned out of the chamber. The Musette is most desirable when playing Continental-style songs, Polkas, and many other varieties of music.

ADJUSTMENTS

PERCUSSION

VR5 COURSE ADJUSTMENT

Normally, this adjustment needn't be changed from the original factory adjustment. Should Percussion Adjustment VR6 (listed below) fail to restore normal operation, then set this adjustment to a point where adjustment of VR6 produces correct operation.

VR6 FINE ADJUSTMENT

1. Place all tabs and switches in off position.
2. Depress the Percussion "on" and 4' pushbuttons only.
3. While rapidly depressing any one key, adjust VR6 to the point where Percussion just begins to work. Add Medium Sustain and adjust if necessary. Then add Long Sustain and again adjust if necessary.
4. Set the Percussion Length Control to Short, hold any two notes and repeatedly depress a third note. Percussion should operate normal. If not, adjust slightly.
5. As a final test, repeatedly strike three notes simultaneously, checking to make sure that the Percussion does not trigger when keys are released. Also, perform this test with Sustain on Long.
6. After Percussion is adjusted, secure the adjustment potentiometers with a small drop of glue or paint. Exercise caution so as not to get the glue or paint into the internal mechanism.

VIBRATO

VR1 VIBRATO SPEED ADJUSTMENT

This adjustment determines the range of the Vibrato Speed Control VR19. To adjust VR1, depress the Vibrato "on" tab only and set the speed to 5-6 Hertz.

TUNING

The 12 Tone Generator Master Oscillator circuits determine the pitch of the entire unit. Adjusting any one of the Master Oscillator tuning adjustments will tune all of the notes of that tone generator. Tuning any group of 12 notes automatically tunes all notes.

Tuning may be accomplished by using a small Phillips type screwdriver and one of the following methods:

1. Set of 12 Tuning Forks: Zero beat the note to be tuned to the sound of the corresponding tuning fork. This is a highly accurate tuning method.
2. Strobe Tuner: This is done by visual observation of a strobe pattern. Simply follow directions supplied with the Strobe Tuner. This is a highly accurate tuning method.
3. Another instrument: Zero beat the note of the organ to be tuned to the sound of a corresponding note on the accordion or an "in tune" instrument (piano, organ, etc.). Accuracy is dependent upon the tuning of the other instrument. This method is especially desirable when playing with other instruments.
4. One Tuning Fork: One tuning fork is used to set the "temperment" (one note). The other eleven notes are set by ear using the number of beats between "4ths" and "5ths". This requires a trained ear. Accuracy is dependant upon the tuner.

ACCESSORY SPEAKERS

CL20

The Cordovox Model CL20 Leslie speaker cabinet is specifically designed for the Cordovox. To connect, simply insert the CL20 connecting plug into the external speaker jack located on the Cordovox control panel.

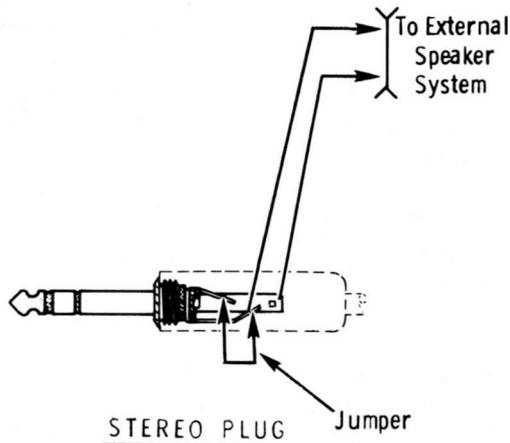
LESLIE TONE CABINETS

Instructions for connecting Leslie tone cabinets with or without an amplifier such as models 45, 47, 145 or 147 are available upon request. Write Cordovox Service Department, c/o the address listed in the parts ordering section of this manual.

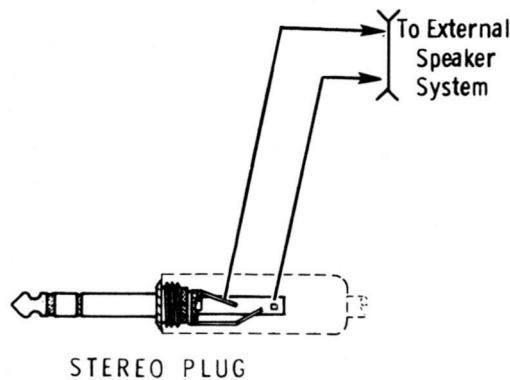
EXTRA SPEAKERS

The external speaker jack can be used to connect most any type of speaker system capable of handling the high power of the Cordovox. The plug used to connect an external speaker system must be a stereo plug such as the Switchcraft #260P2, or its equivalent. Two methods of wiring this plug are shown below. Method one will allow the external speakers to sound with the Cordovox speakers. Method two will allow only the external speakers to sound.

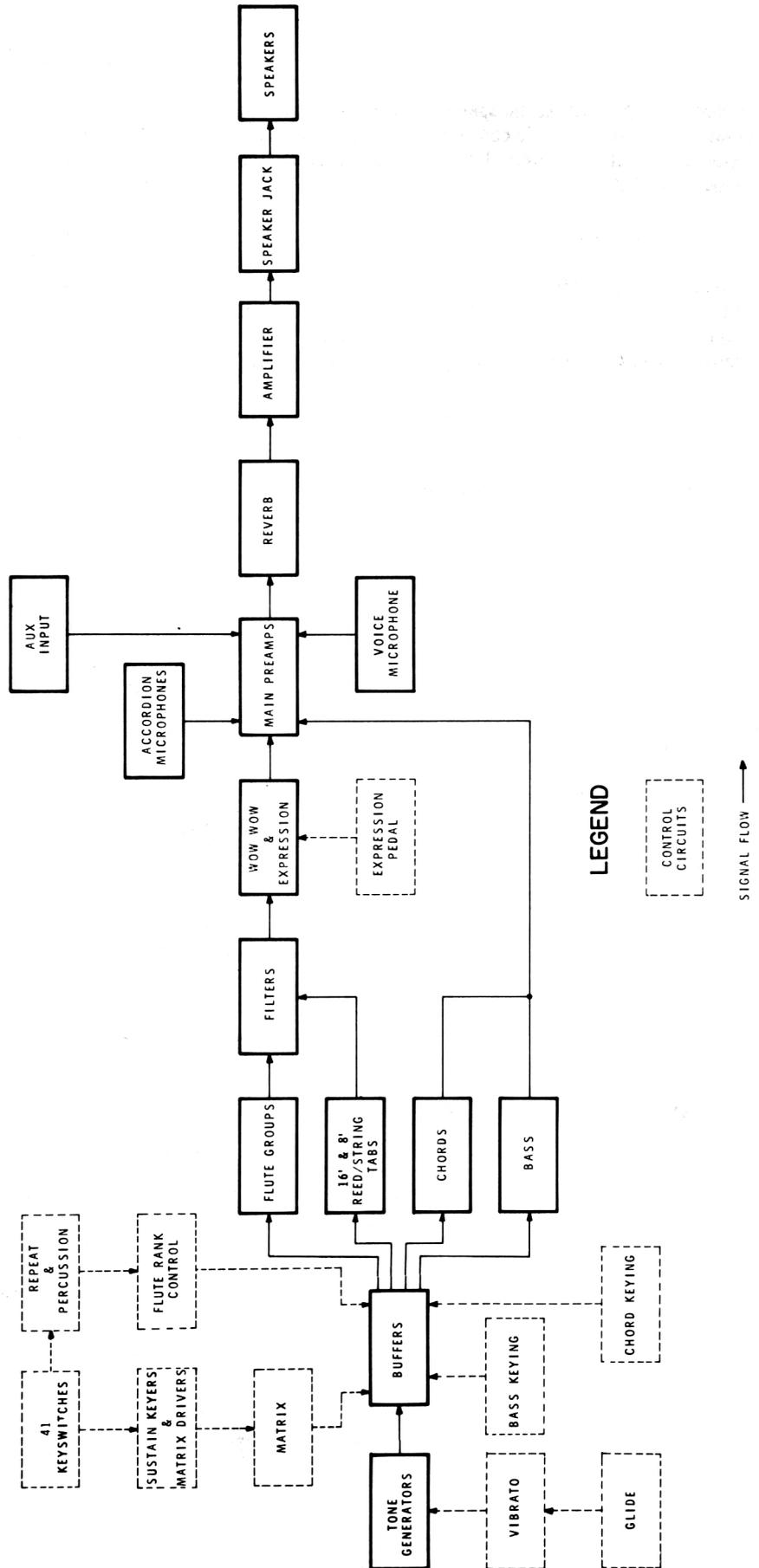
1. EXTERNAL AND INTERNAL SPEAKER SYSTEMS



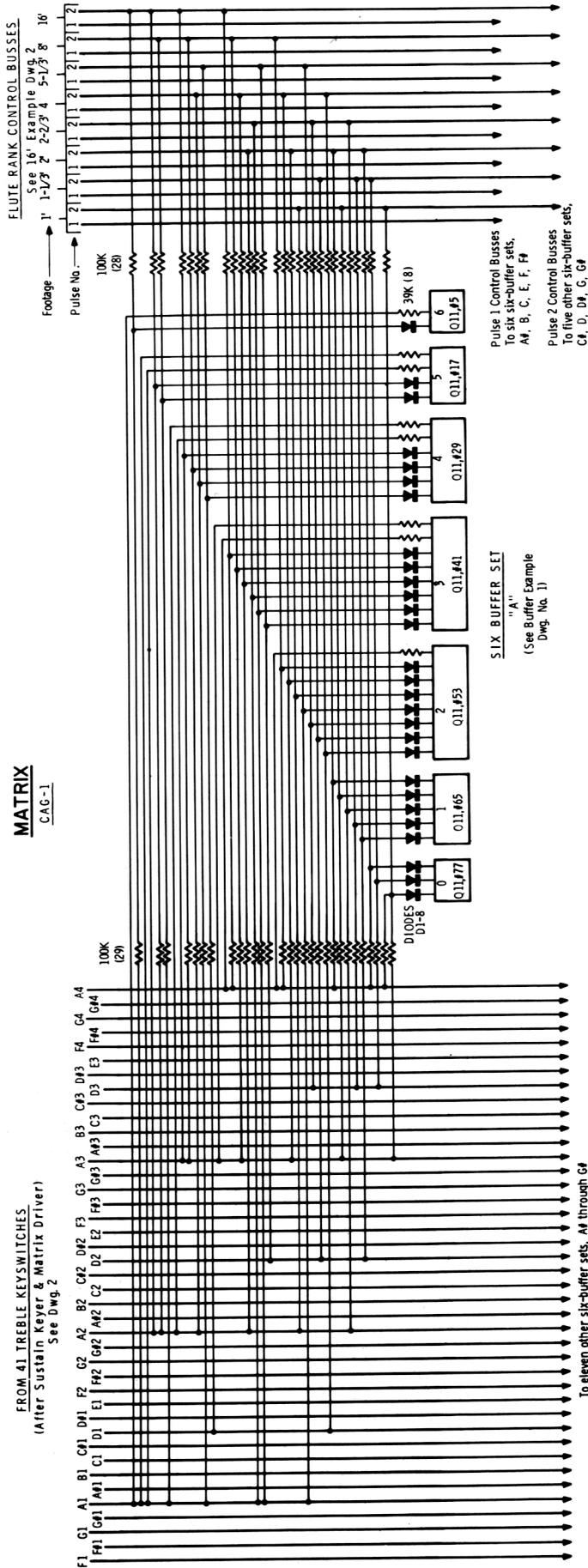
2. EXTERNAL SPEAKER SYSTEM ONLY



BLOCK DIAGRAM

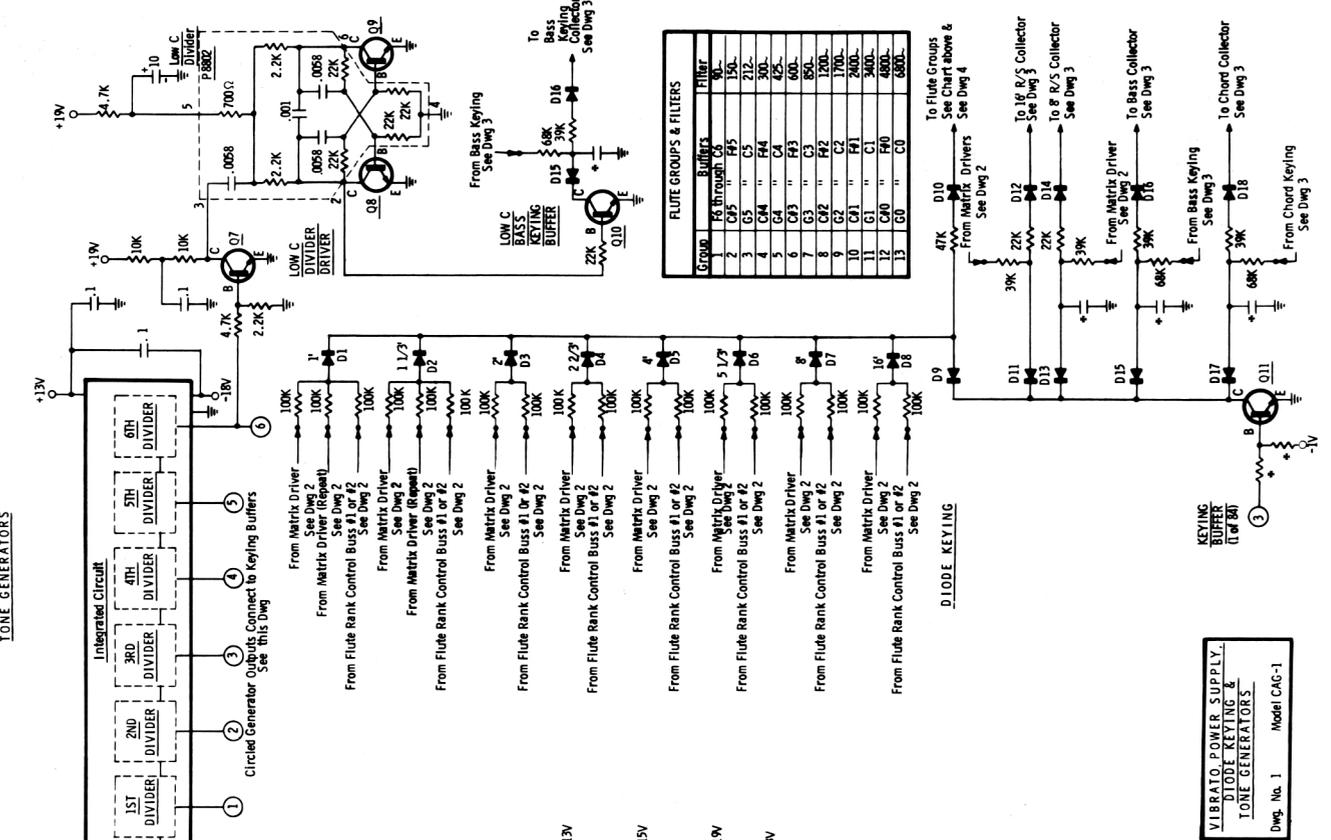


MATRIX



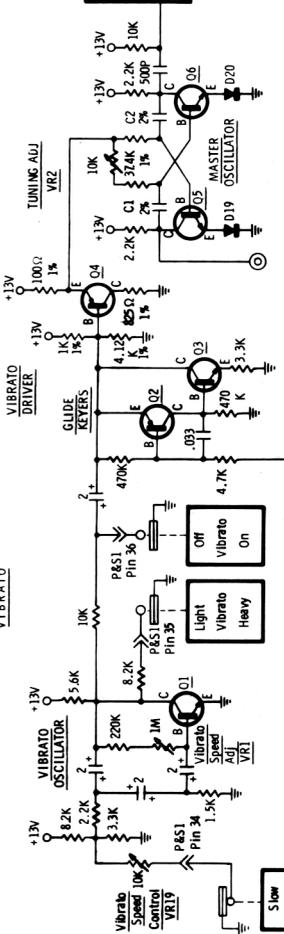
CAG-1

TO NE GENERATORS



GROUP	Diodes	Filters
1	C1	150
2	C2	150
3	C3	212
4	C4	300
5	C4	425
6	C3	600
7	C3	850
8	C2	1200
9	C2	1700
10	C1	2400
11	C1	3400
12	C0	4800
13	C0	6800

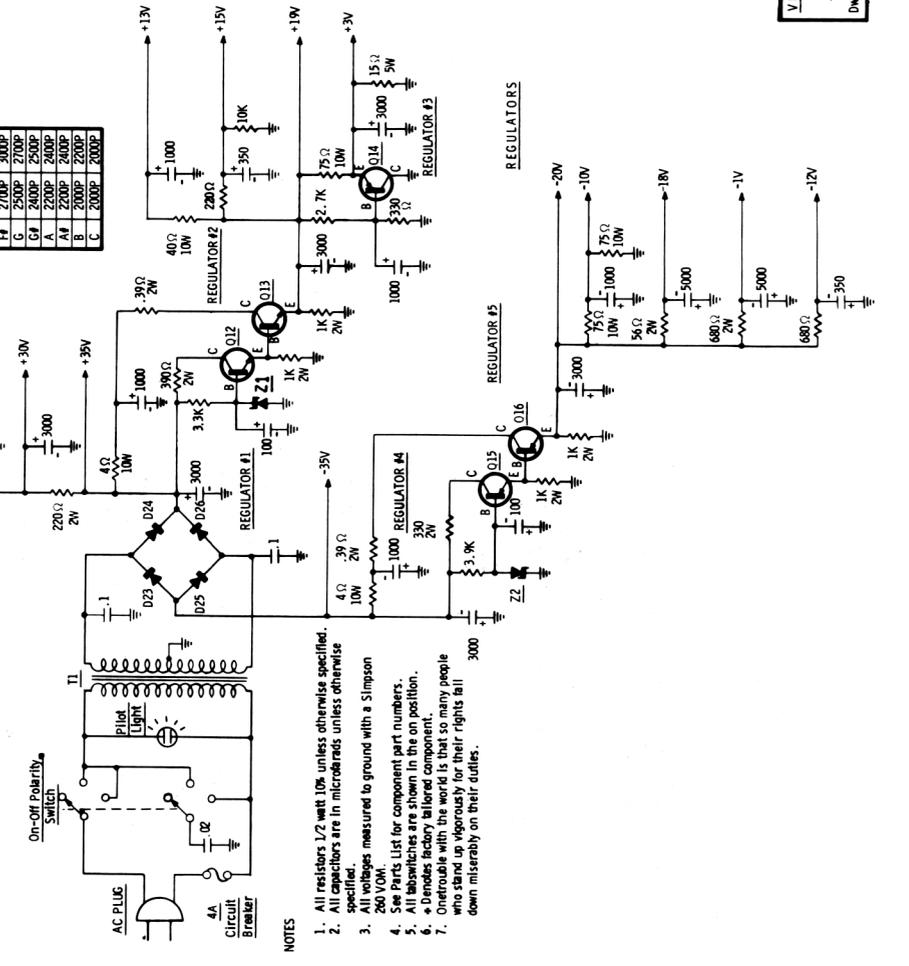
VIBRATO



GROUP	Diodes	Filters
1	C1	150
2	C2	150
3	C3	212
4	C4	300
5	C4	425
6	C3	600
7	C3	850
8	C2	1200
9	C2	1700
10	C1	2400
11	C1	3400
12	C0	4800
13	C0	6800

GROUP	Diodes	Filters
1	C1	150
2	C2	150
3	C3	212
4	C4	300
5	C4	425
6	C3	600
7	C3	850
8	C2	1200
9	C2	1700
10	C1	2400
11	C1	3400
12	C0	4800
13	C0	6800

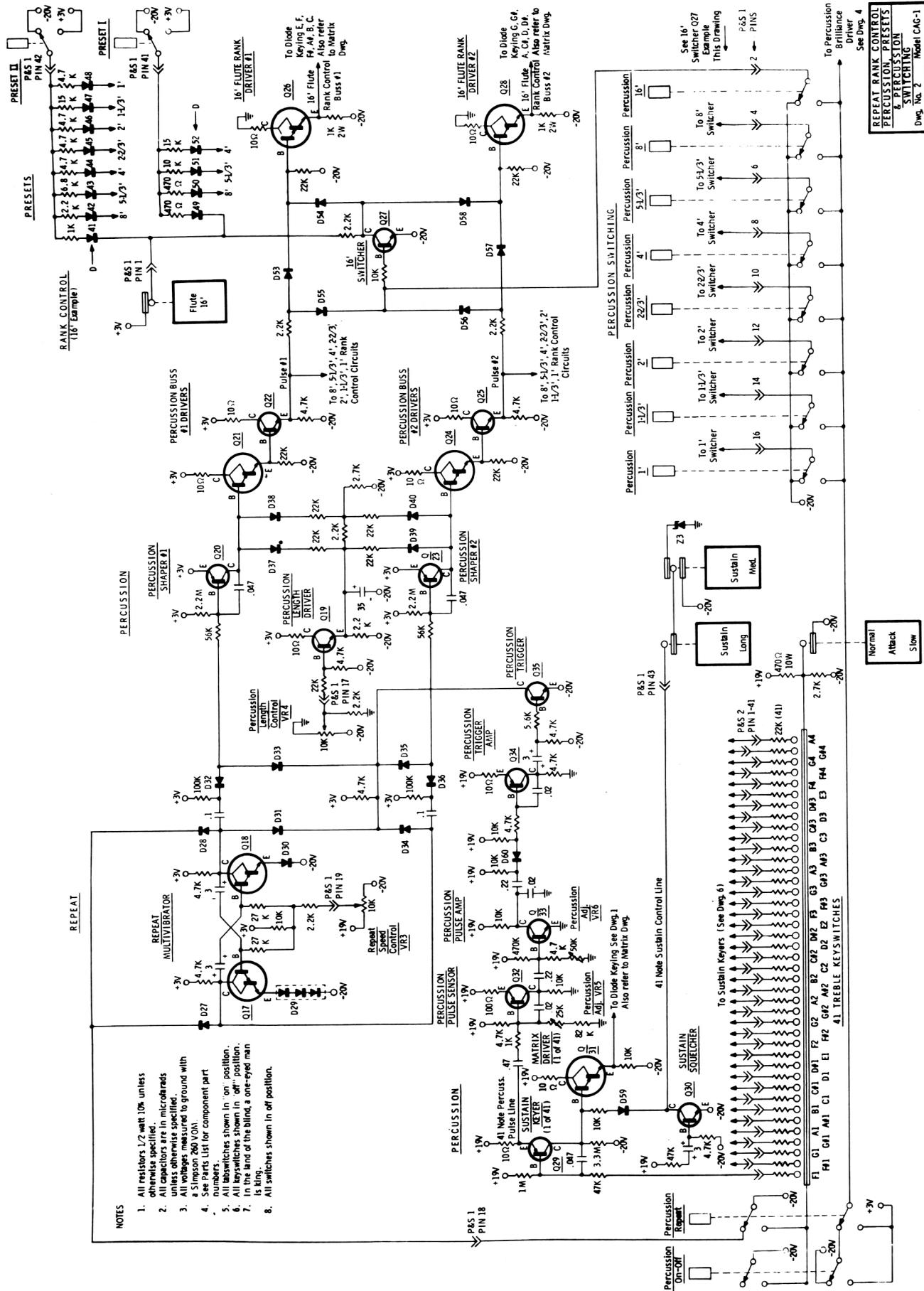
POWER SUPPLY



- NOTES
1. All resistors 1/2 watt 10% unless otherwise specified.
 2. All capacitors are in microfarads unless otherwise specified.
 3. 260 VOM.
 4. See Parts List for component part numbers.
 5. All substitutes are shown in the on position.
 6. Diodes factory filtered component.
 7. One reads in the world is that so many people who start up vigorously for their rights fall down miserably on their duties.

VIBRATO POWER SUPPLY,
D.I.O. KEYING &
TO NE GENERATORS
Dwg. No. 1 Model CAG-1

CAG-1



- NOTES**
1. All resistors 1/2 watt 10% unless otherwise specified.
 2. All capacitors are electrolytic unless otherwise specified.
 3. All values are specified in a Simpson 260 VOM.
 4. See Parts List for component part numbers.
 5. All labswitches shown in "on" position.
 6. All keyswitches shown in "off" position.
 7. In the hand of the blind, a one-eyed man is king.
 8. All switches shown in off position.

REPEAT RANK CONTROL
PERCUSSION PRESETS
& SWITCHING
Dwg. No. 2
Model CAG-1

See Dwg. 4

See 16' Sustain Q27
Matrix Driver
This Drawing
P.65.1
PINS

To Percussion
Brilliance
Driver

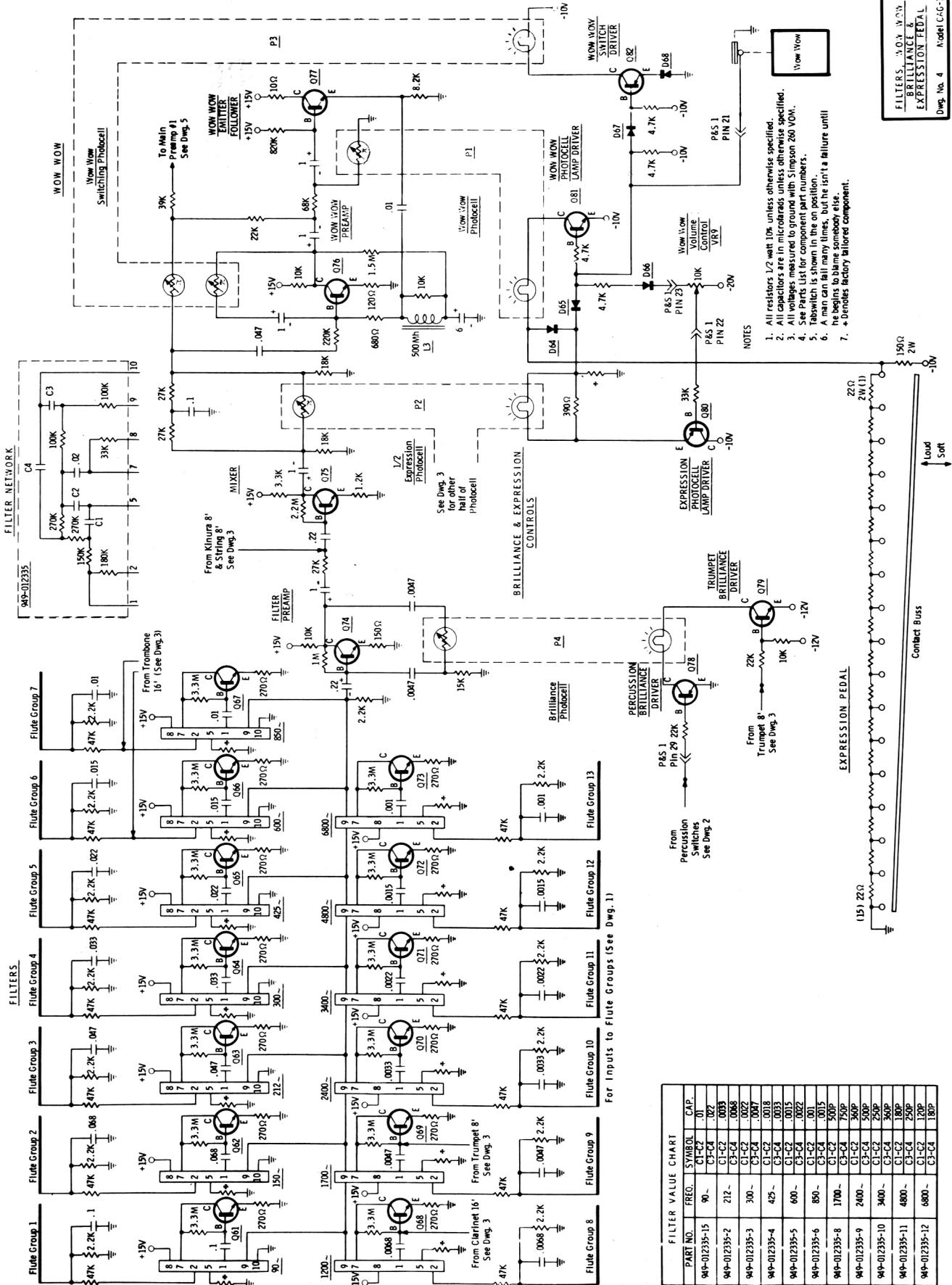
Normal
Attack
Slow

PAS 1
PIN 18

Percussion
Repeat

Percussion
On-Off

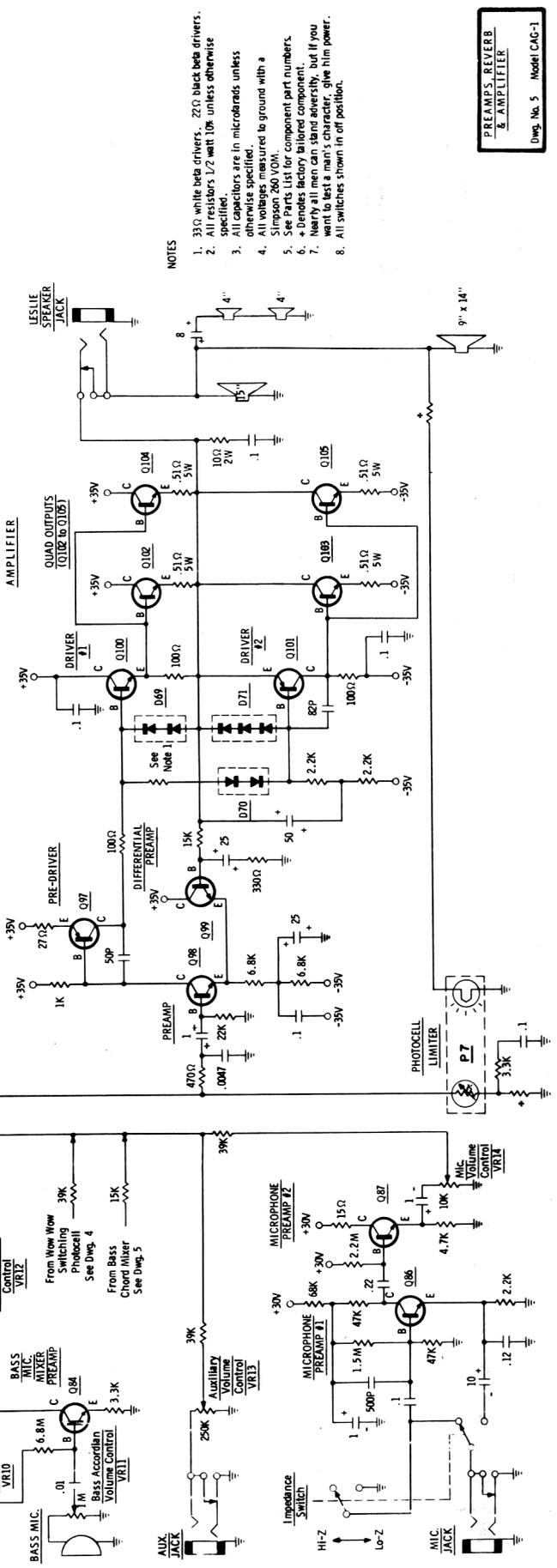
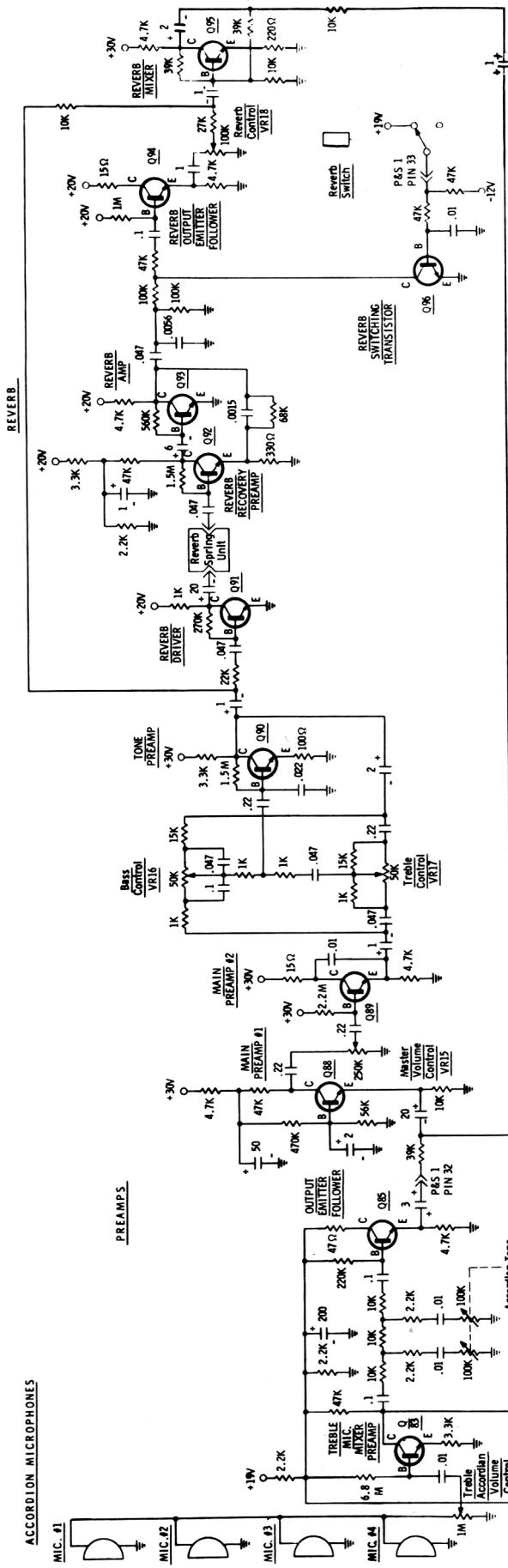
CAG-1



- NOTES**
1. All resistors 1/2 watt 10k unless otherwise specified.
 2. All capacitors are in microfarads unless otherwise specified.
 3. All voltages measured to ground with Simpson 260 VOM.
 4. See Parts List for component part numbers.
 5. Tabswitch is shown in the on position.
 6. A man can fail many times, but he isn't a failure until he begins to blame somebody else.
 7. * Denotes factory allotted component.

FILTERS - WOW WOW
BRILLIANCE &
EXPRESSION PEDAL
Dwg. No. 4 Model CAG-1

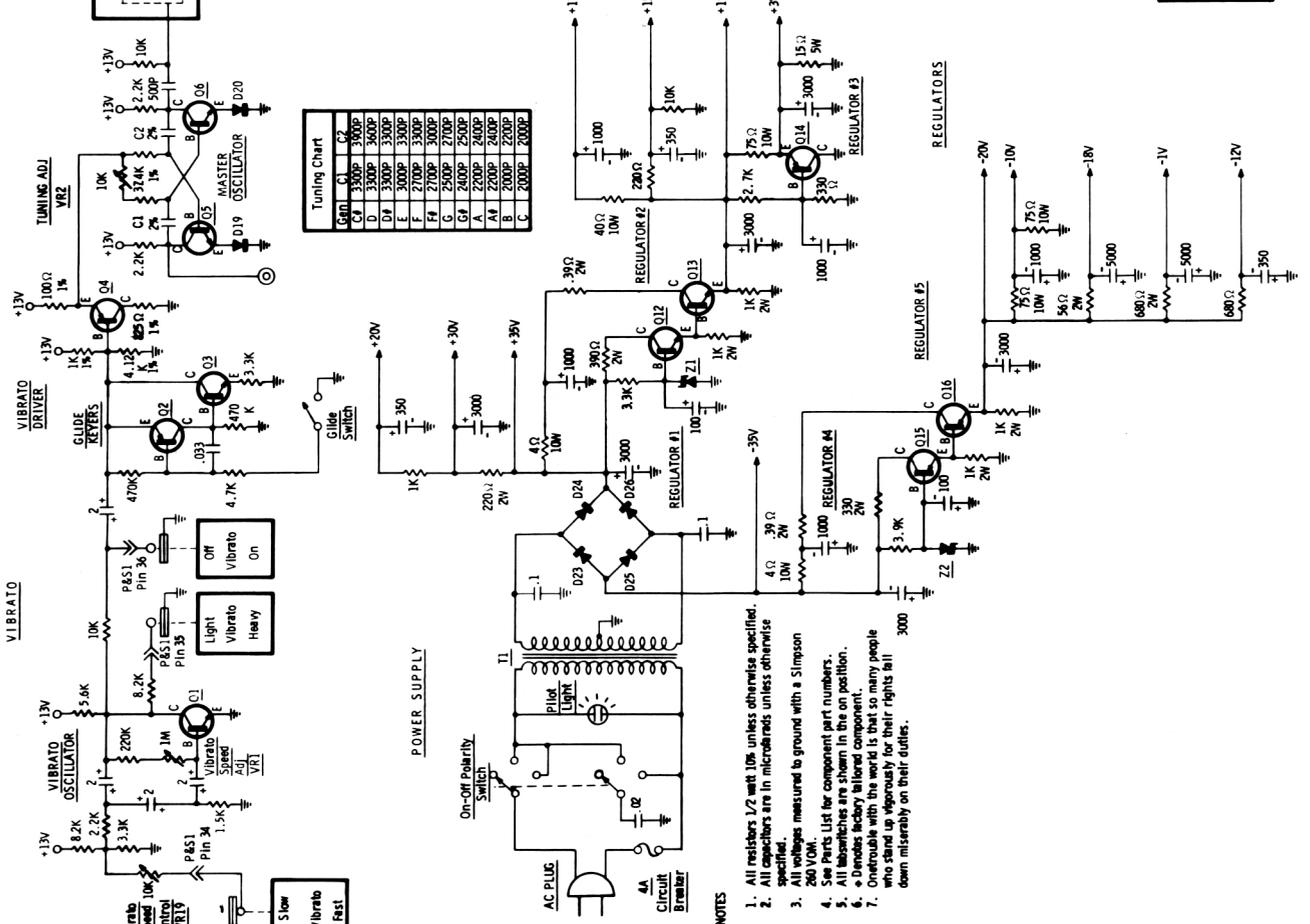
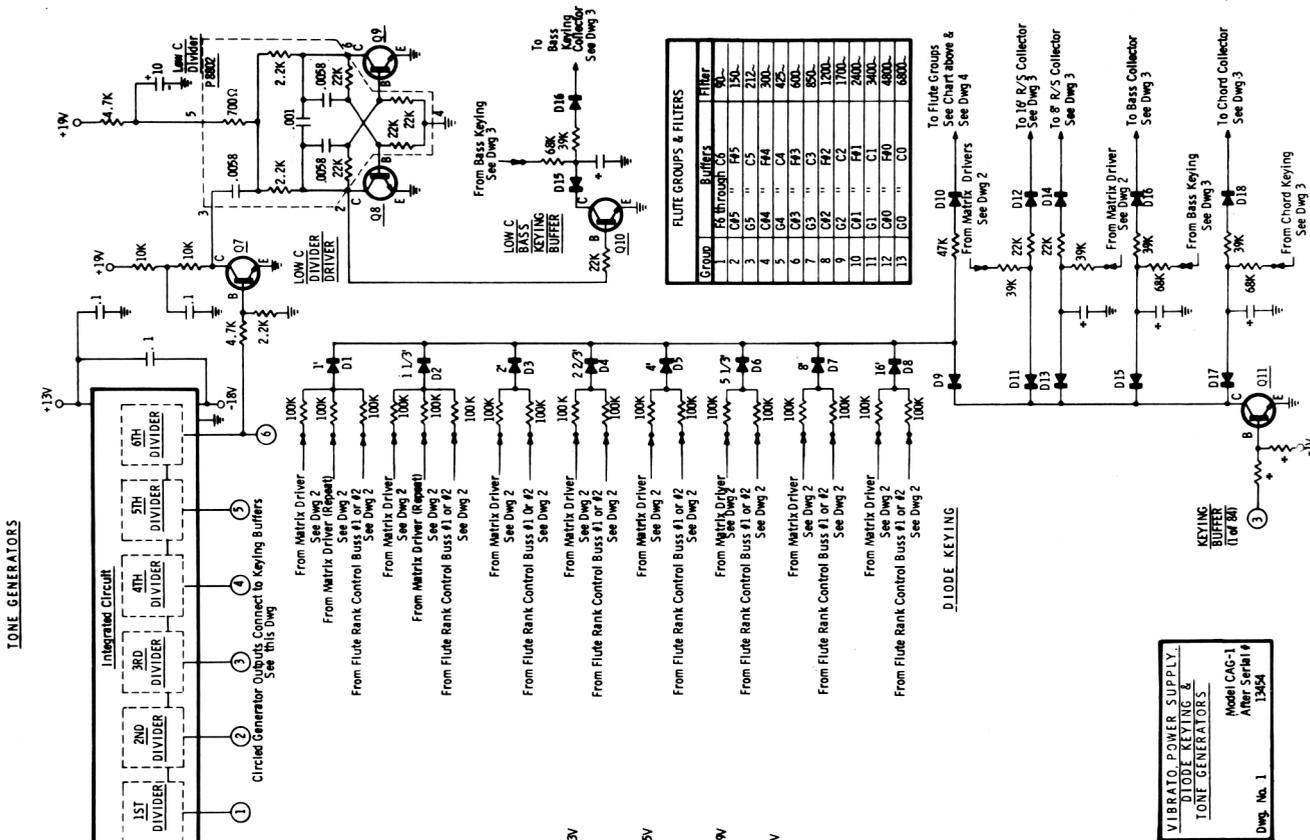
FILTER VALUE CHART		
PART NO.	FREQ.	SYMBOL CAP.
949-012335-15	90-	C1-C2 .01
949-012335-2	212-	C3-C4 .02
949-012335-3	300-	C1-C2 .0033
949-012335-4	429-	C3-C4 .0068
949-012335-5	600-	C1-C2 .0022
949-012335-6	850-	C3-C4 .0033
949-012335-7	1170-	C1-C2 .0015
949-012335-8	1700-	C3-C4 .0022
949-012335-9	2400-	C1-C2 .0015
949-012335-10	3000-	C3-C4 .0022
949-012335-11	4800-	C1-C2 .0015
949-012335-12	6800-	C3-C4 .0022



- NOTES
1. 33Ω white beta drivers. 2ZΩ black beta drivers.
 2. All resistors 1/2 watt 10k unless otherwise specified.
 3. All capacitors are in microfarads unless otherwise specified.
 4. All voltages measured to ground with a Simpson 260 VOM.
 5. See Parts List for component part numbers.
 6. +Denotes factory in-laboratory numbers.
 7. +Denotes factory assembly test numbers. If you want to test a man's character, give him power.
 8. All switches shown in off position.

PREAMPS, REVERB & AMPLIFIER
 Dwg. No. 5 Model CAG-1

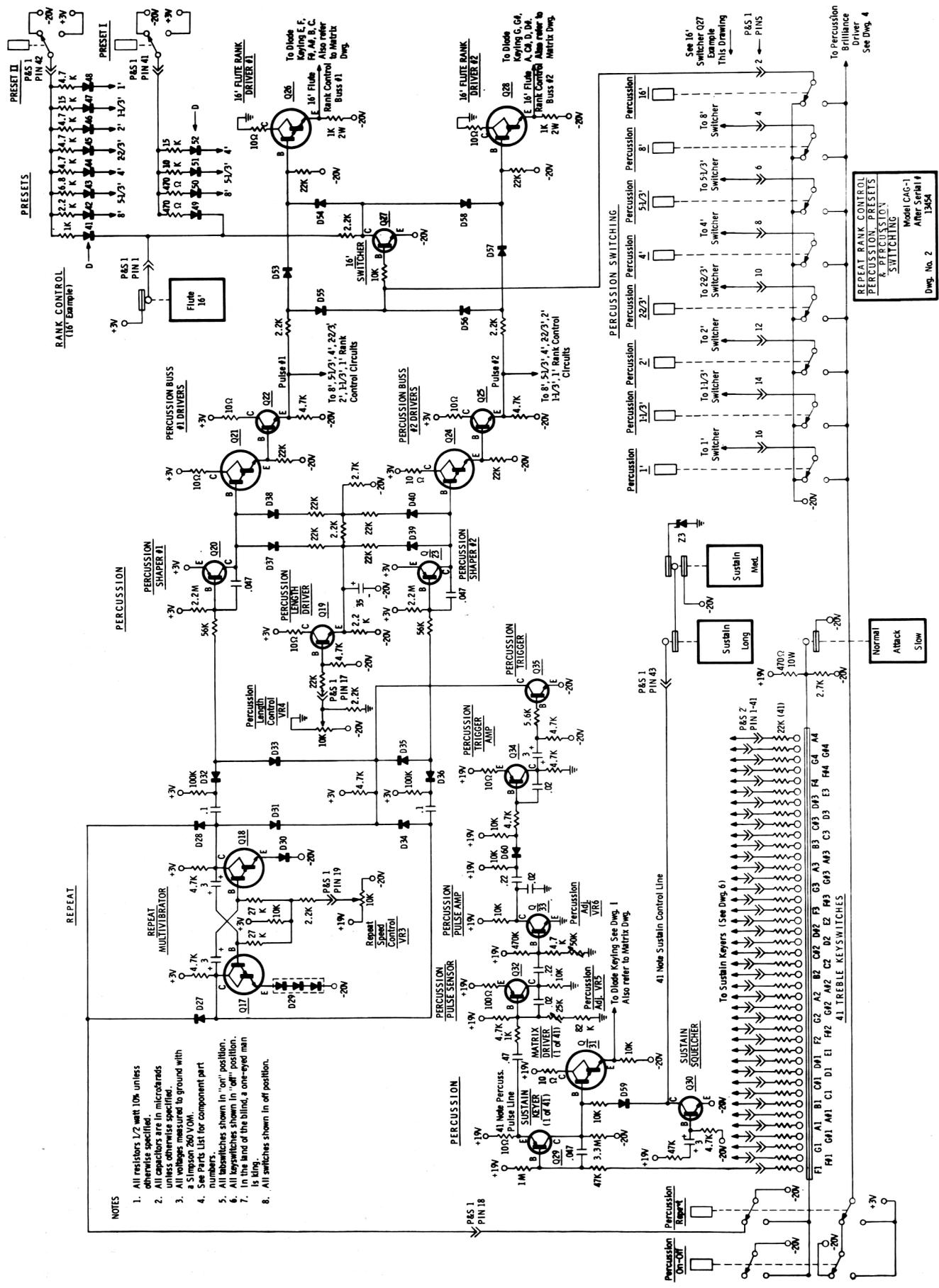
TONE GENERATORS



Cap	C1	C2
GA	330P	500P
FA	330P	300P
D	330P	330P
E	330P	330P
F	270P	300P
GA	250P	270P
A	220P	250P
B	200P	200P
C	200P	200P

- NOTES**
- All resistors 1/2 watt 10% unless otherwise specified.
 - All capacitors are in microfarads unless otherwise specified.
 - All voltages measured to ground with a Simpson 260 VOM.
 - See Parts List for component part numbers.
 - All labels are shown in the on position.
 - Denotes factory "ballasted" component.
 - One trouble with the world is that so many people who stand up vigorously for their rights fall down miserably on their duties.

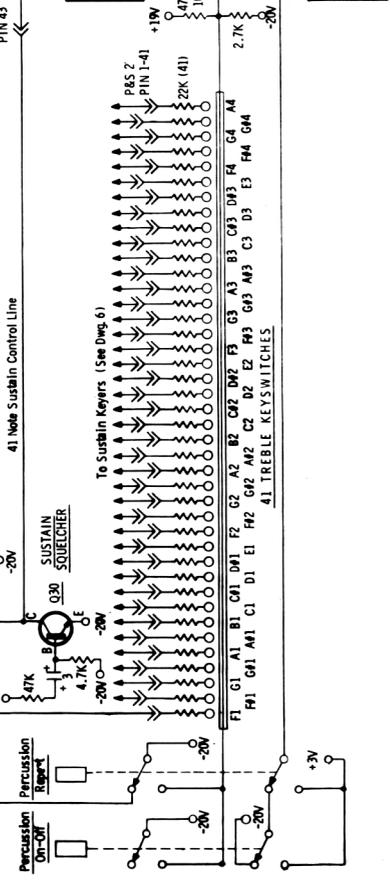
**VIBRATO POWER SUPPLY,
 DIODE KEYING &
 TONE GENERATORS**
 Model CAG-1
 After Serial #
 13454
 Dwg. No. 1

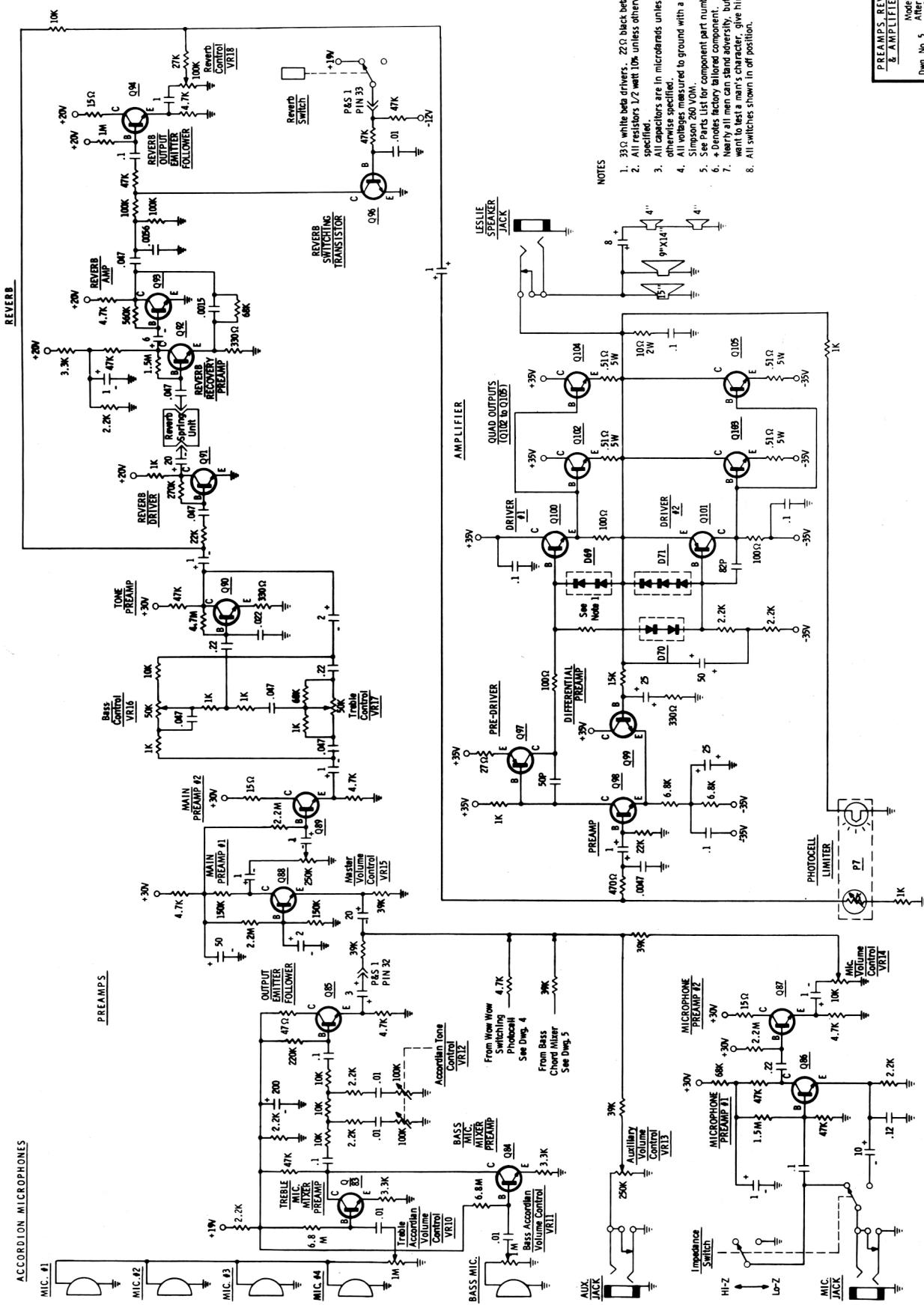


- NOTES**
1. All resistors 1/2 watt 10% unless otherwise specified.
 2. All capacitors are in microfarads unless otherwise specified.
 3. All voltages measured to ground with a Simpson 260 VOM.
 4. See Parts List for component part numbers.
 5. All tabswitches shown in "on" position.
 6. All keyswitches shown in "off" position.
 7. In the band of the blind, a one-eyed man is king.
 8. All switches shown in off position.

REPEAT BANK CONTROL PERCUSSION PRESETS & SWITCHING
 Model CAG-1
 Alter Serial 11
 Dwg. No. 2
 13454

Sustain Med.
 Sustain Long
 Normal
 Attack
 Slow



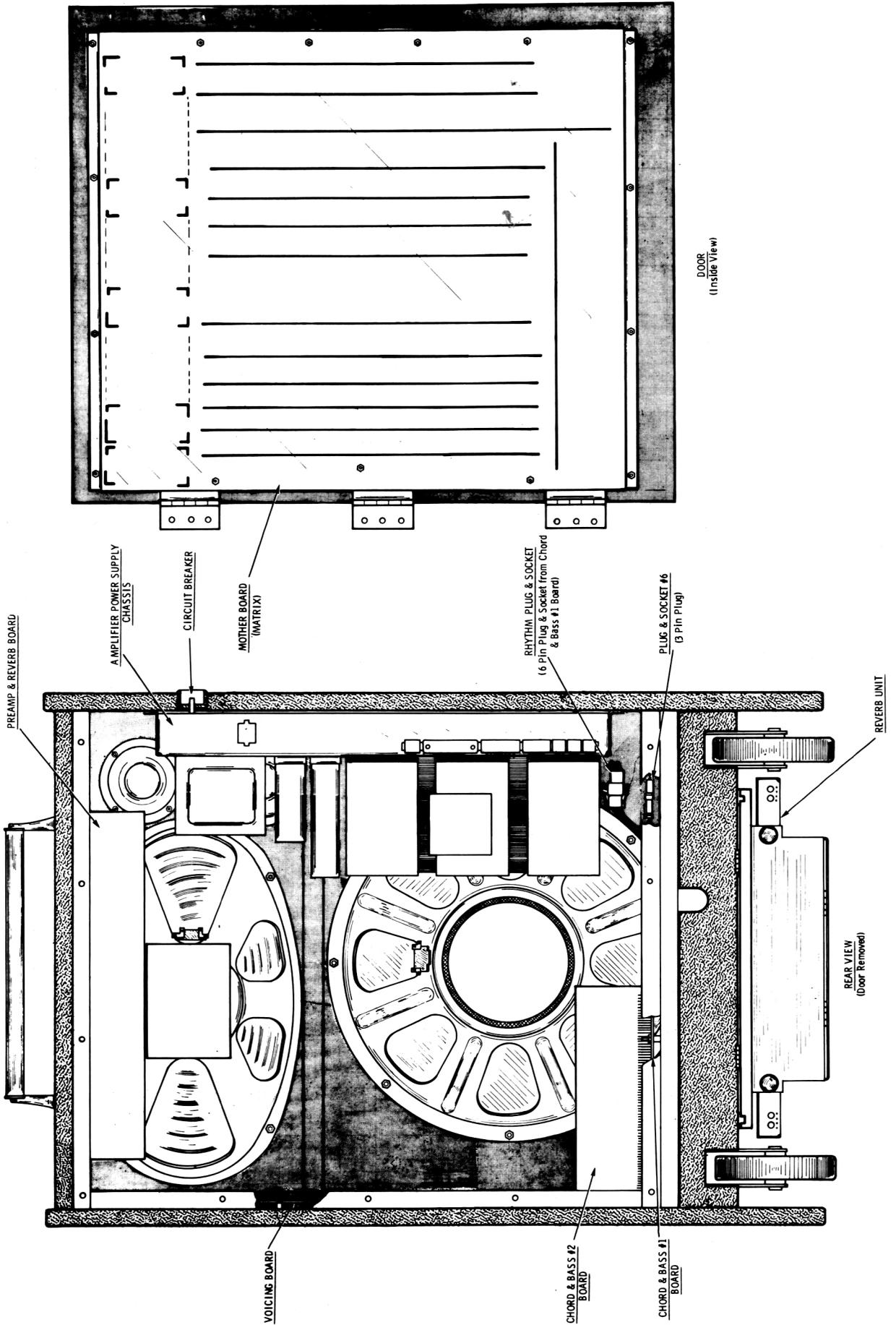


NOTES

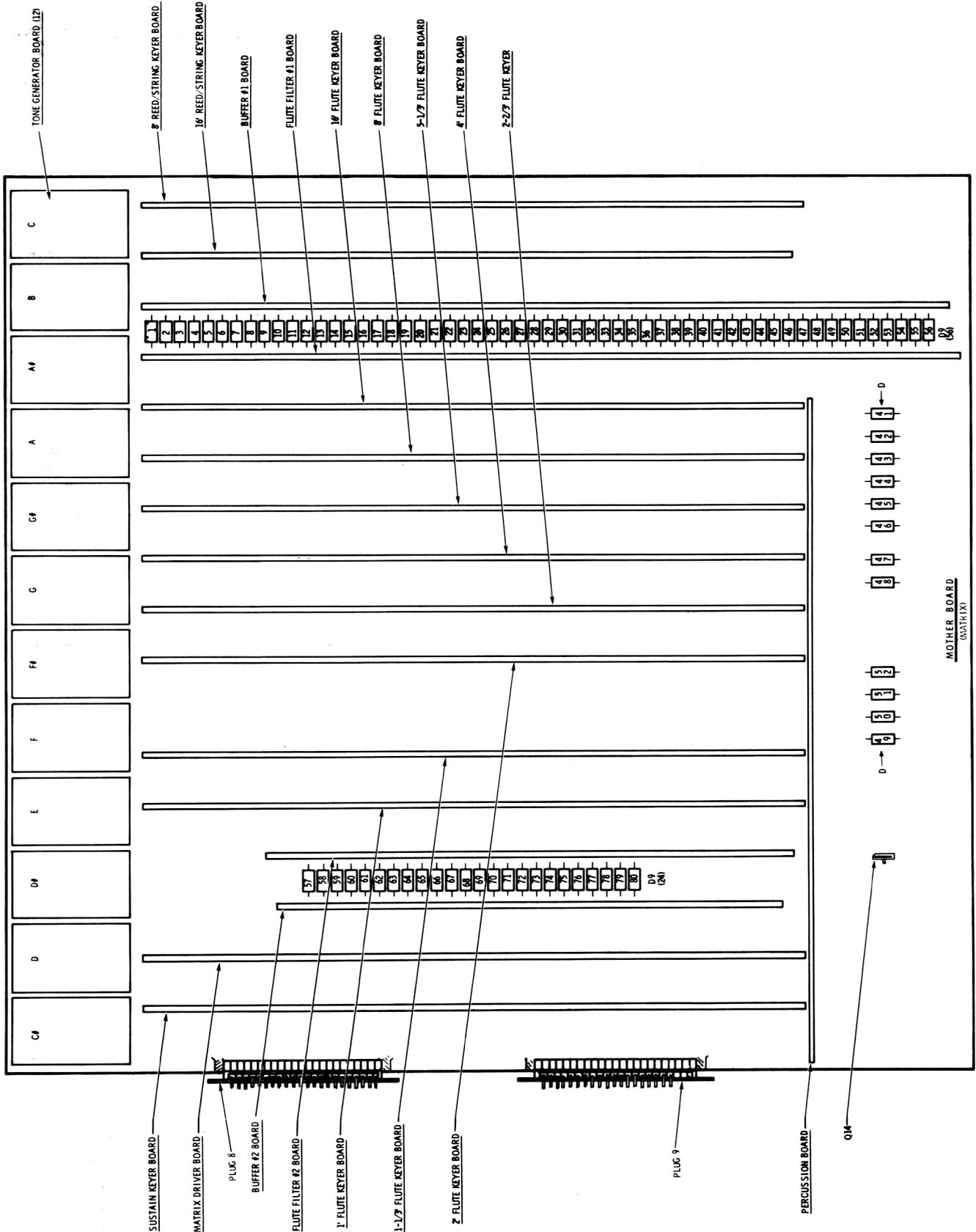
1. 33Ω white beta drivers. 22Ω black beta drivers.
2. All resistors 1/2 watt 10% unless otherwise specified.
3. All capacitors are in microfarads unless otherwise specified.
4. All voltages measured to ground with a Simpson 260 VOM.
5. See Part List for component part numbers.
6. * Denotes factory tailored component.
7. Nearly all men can stand adversity, but if you want to test a man's character, give him power.
8. All switches shown in "off" position.

**PREAMPS REVERB
B AMPLIFIER**
Model CAG-1
Alter. Serial #
13454
Dwg. No. 5

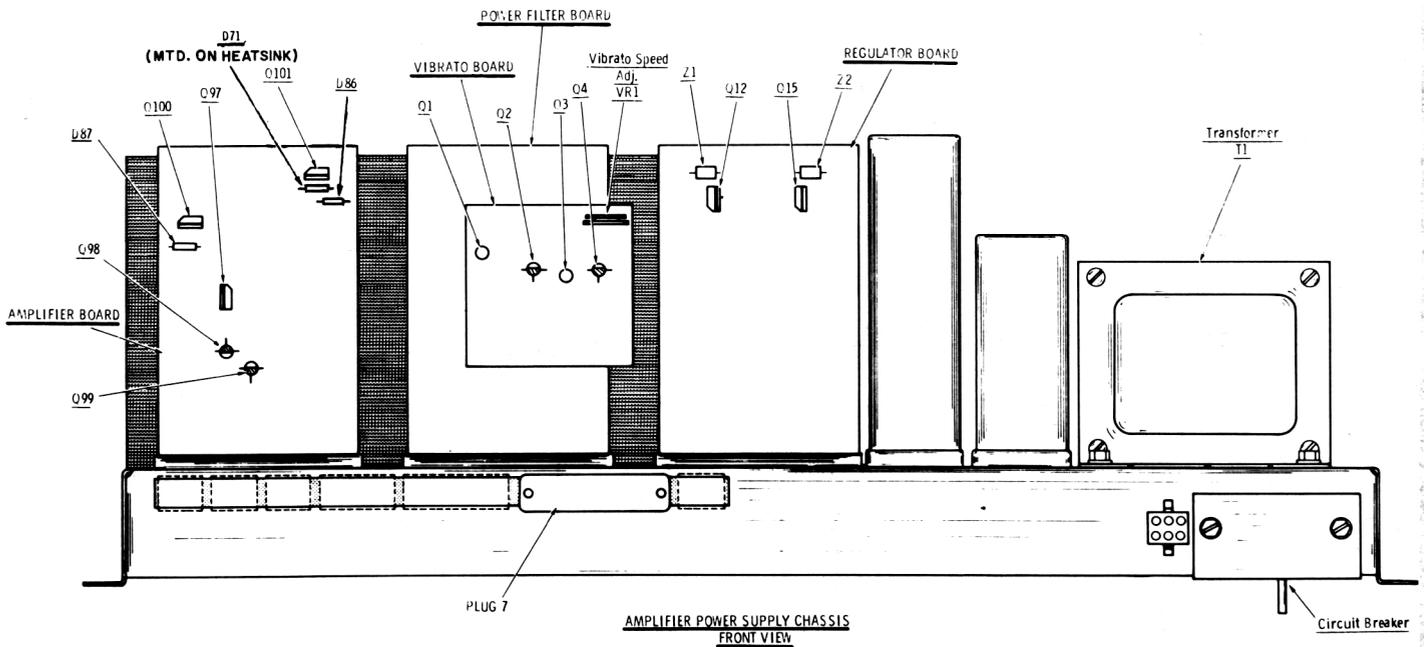
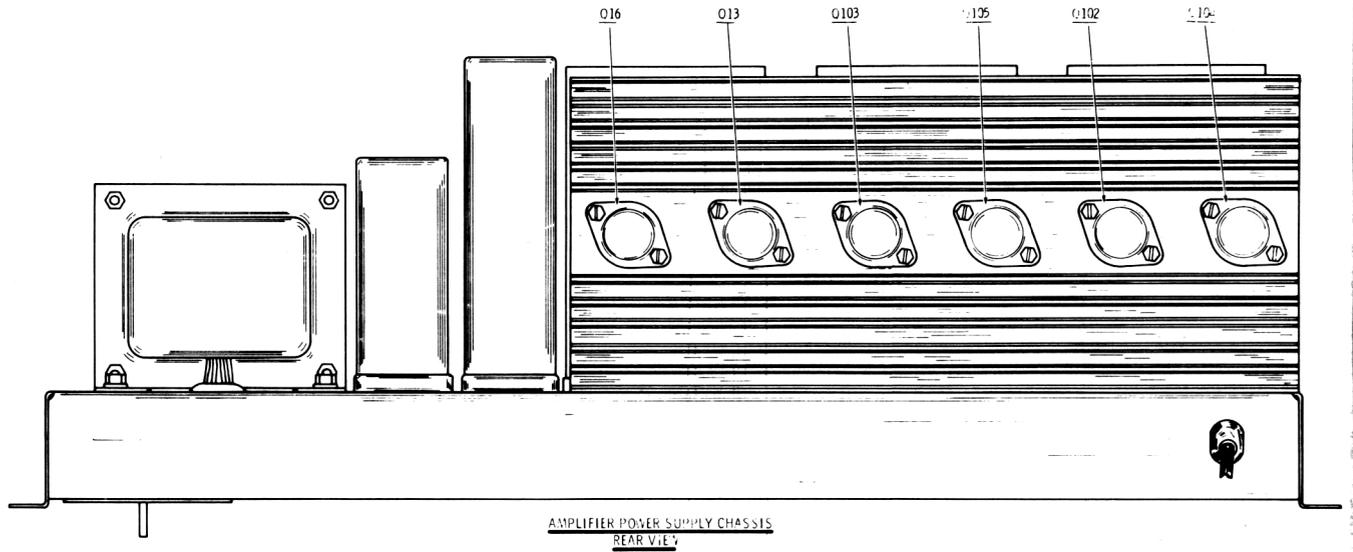
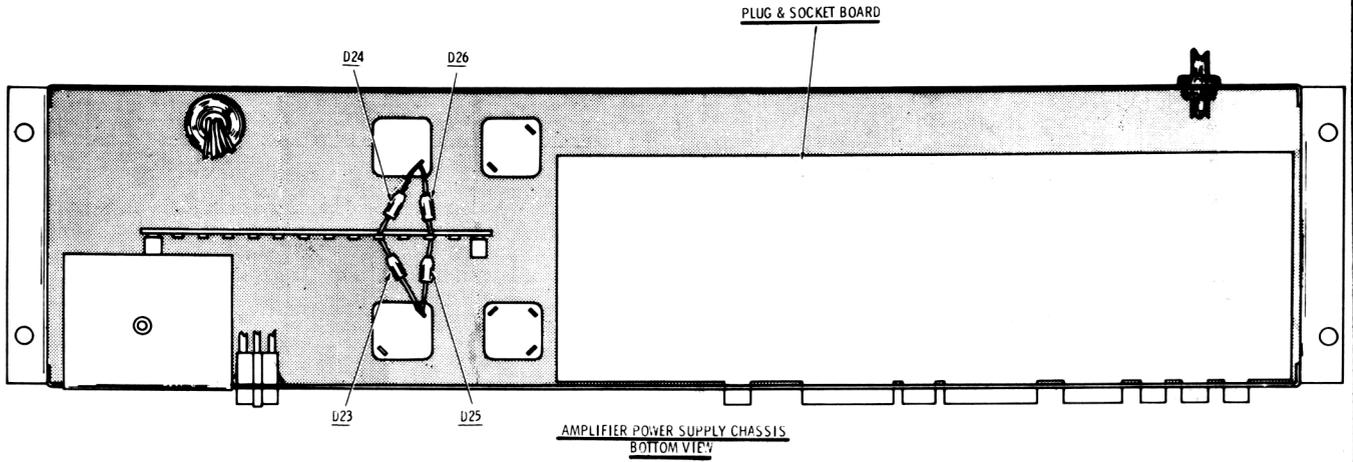
PICTORALS



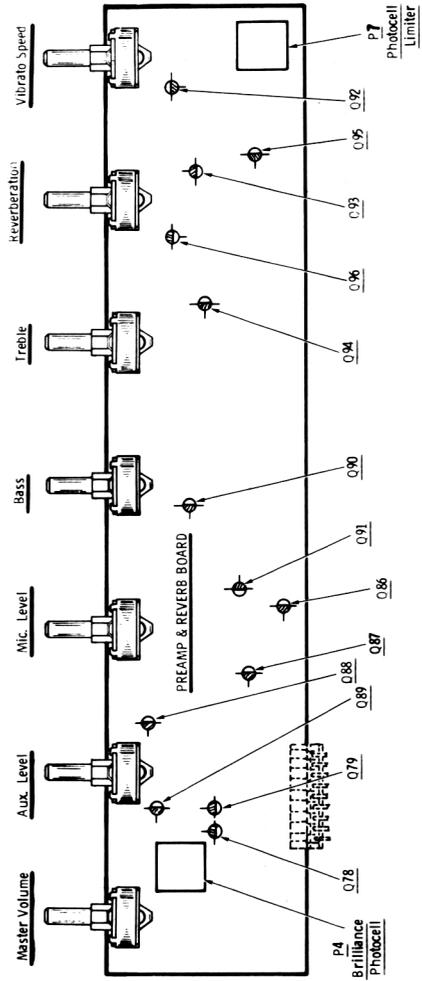
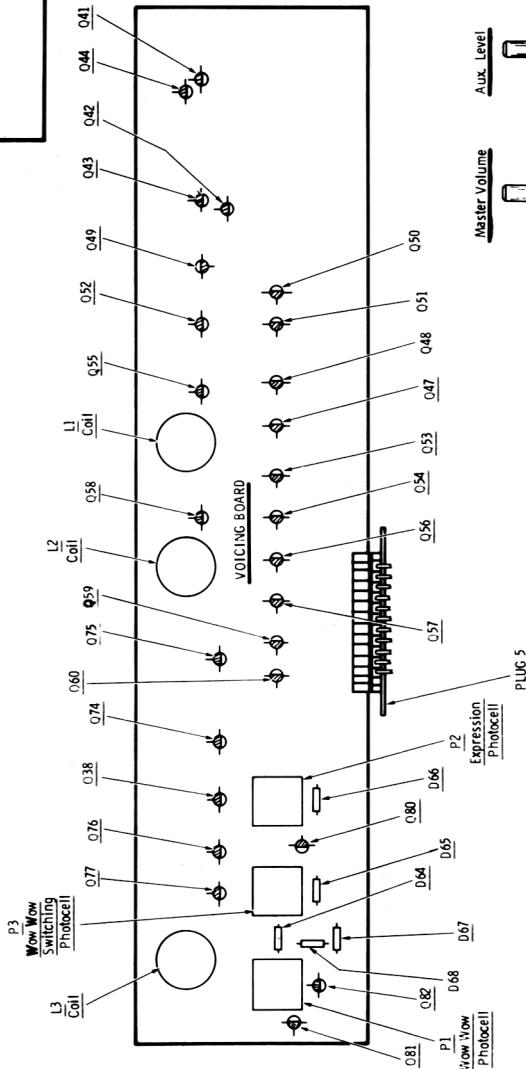
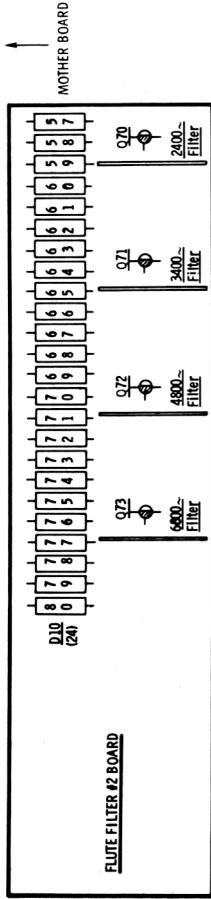
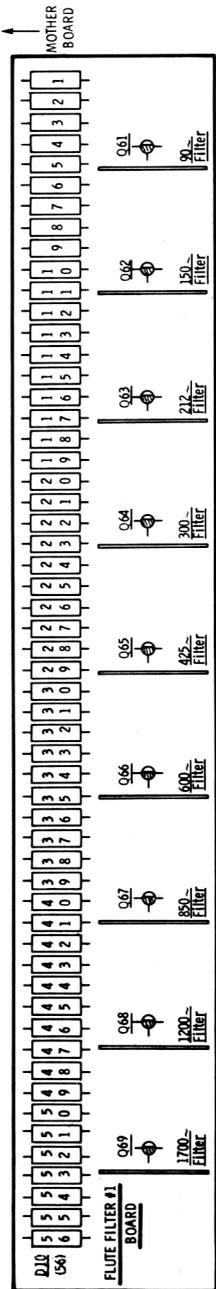
PICTORALS



PICTORALS

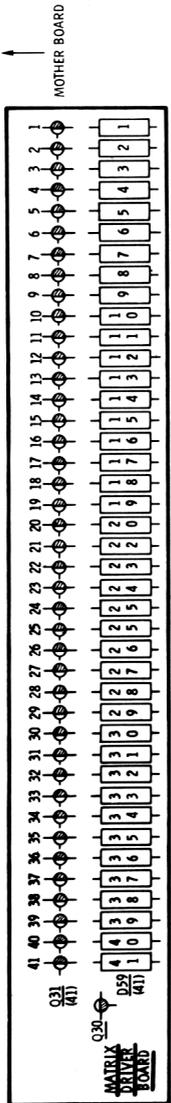
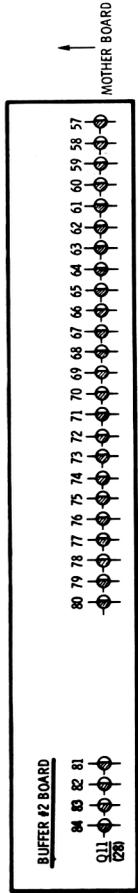
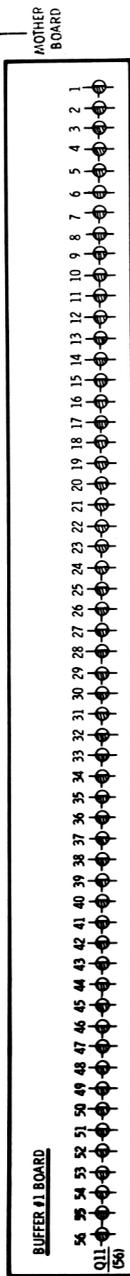
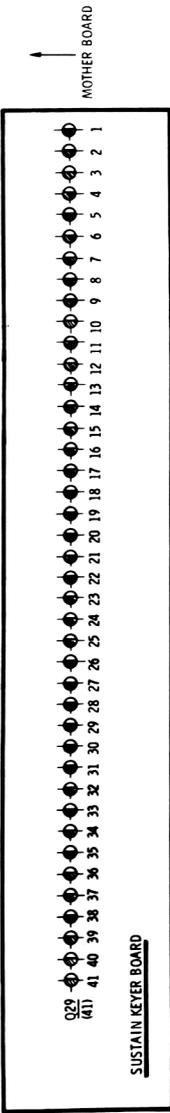
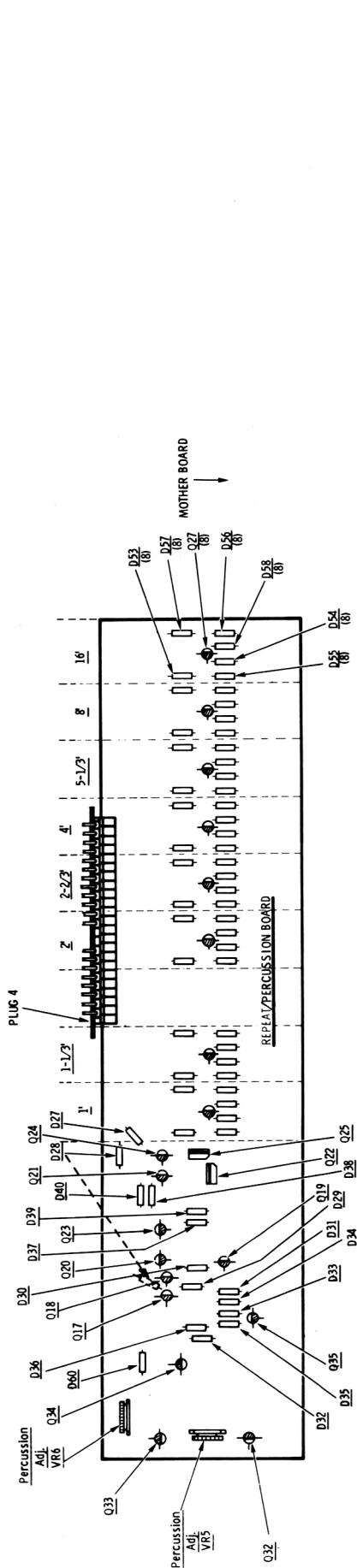


PICTORALS

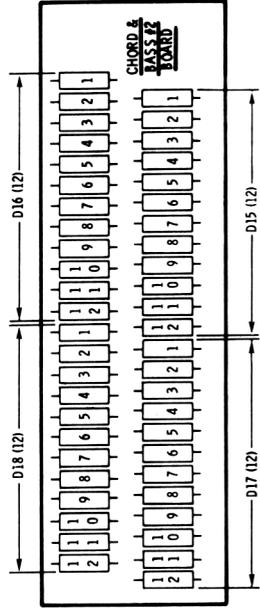
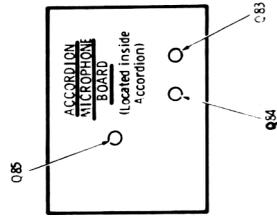
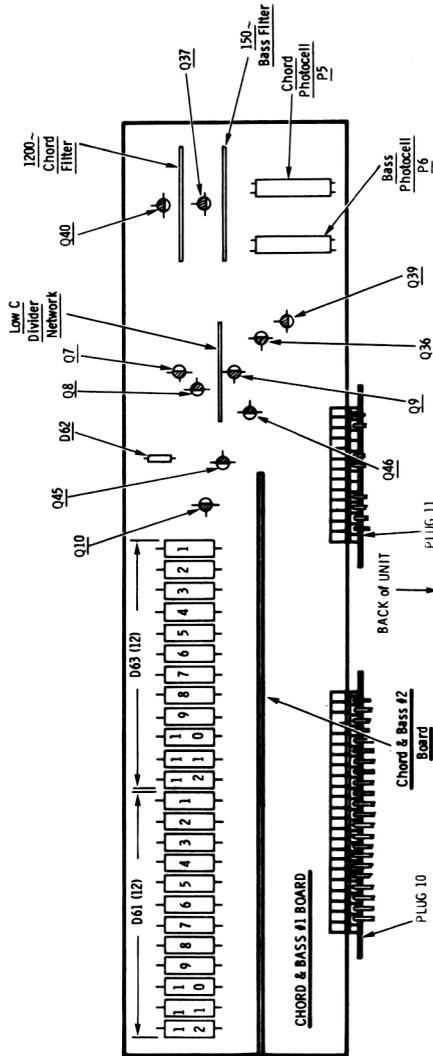
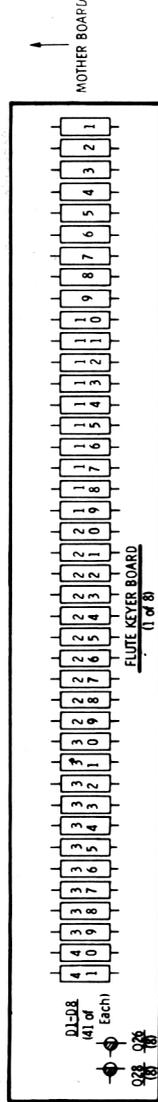
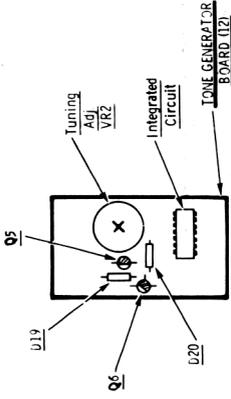
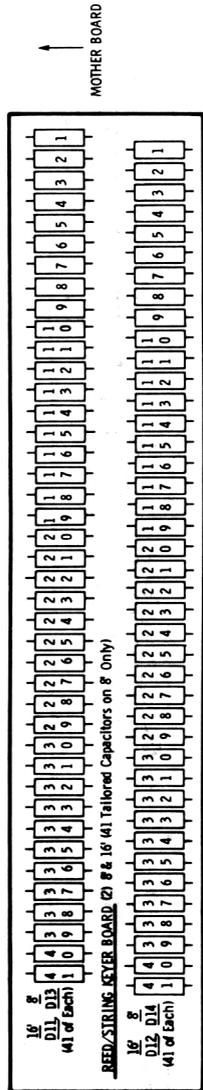


NOTE: Transistors 038, 074, 075, 078, 079, 095 & Photocell P4 are deleted after serial number 13454.

PICTORALS



PICTORALS



CHARTS

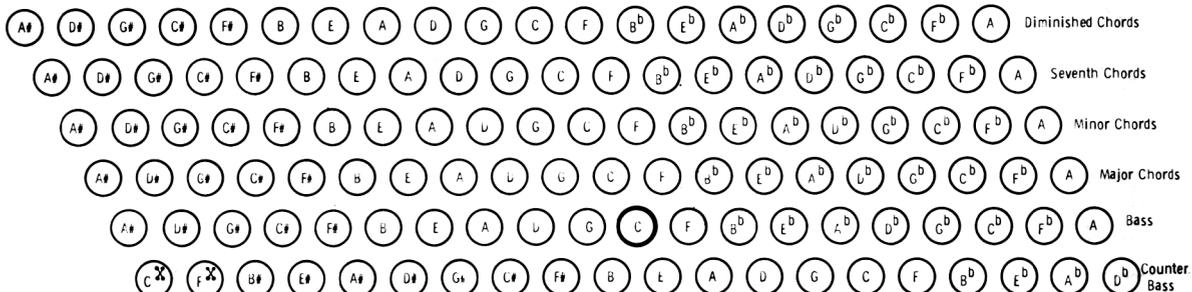
DIODE & TRANSISTOR KEYING CHART												
GEN	OSC./DIV	BUFFER			KEYSWITCH & FOOTAGE							
		Q11	D10	D9	16'	8'	5-1/2'	4'	2-2/3'	2'	1-1/2'	1'
F	6	1	1	1	F1	-	-	-	-	-	-	-
F#	6	2	2	2	F#1	-	-	-	-	-	-	-
G	6	3	3	3	G1	-	-	-	-	-	-	-
G#	6	4	4	4	G#1	-	-	-	-	-	-	-
A	6	5	5	5	A	-	-	-	-	-	-	-
A#	6	6	6	6	A#1	-	-	-	-	-	-	-
B	6	7	7	7	B1	-	-	-	-	-	-	-
C	6	8	8	8	C1	-	-	-	-	-	-	-
C#	5	9	9	9	C#1	-	-	-	-	-	-	-
D	5	10	10	10	D1	-	-	-	-	-	-	-
D#	5	11	11	11	D#1	-	-	-	-	-	-	-
E	5	12	12	12	E1	-	-	-	-	-	-	-
F	5	13	13	13	F2	F1	-	-	-	-	-	-
F#	5	14	14	14	F#2	F#1	-	-	-	-	-	-
G	5	15	15	15	G2	G1	-	-	-	-	-	-
G#	5	16	16	16	G#2	G#1	-	-	-	-	-	-
A	5	17	17	17	A2	A1	-	-	-	-	-	-
A#	5	18	18	18	A#2	A#1	-	-	-	-	-	-
B	5	19	19	19	B2	B1	-	-	-	-	-	-
C	5	20	20	20	C2	C1	F1	-	-	-	-	-
C#	4	21	21	21	C#2	C#1	F#1	-	-	-	-	-
D	4	22	22	22	D2	D1	G1	-	-	-	-	-
D#	4	23	23	23	D#2	D#1	G#1	-	-	-	-	-
E	4	24	24	24	E2	E1	A1	-	-	-	-	-
F	4	25	25	25	F3	F2	A#1	F1	-	-	-	-
F#	4	26	26	26	F#3	F#2	B1	F#1	-	-	-	-
G	4	27	27	27	G3	G2	C1	G1	-	-	-	-
G#	4	28	28	28	G#3	G#2	C#1	G#1	-	-	-	-
A	4	29	29	29	A3	A2	D1	A1	-	-	-	-
A#	4	30	30	30	A#3	A#2	D#1	A#1	-	-	-	-
B	4	31	31	31	B3	B2	E1	B1	-	-	-	-
C	4	32	32	32	C3	C2	F2	C1	F1	-	-	-
C#	3	33	33	33	C#3	C#2	F#2	C#1	F#1	-	-	-
D	3	34	34	34	D3	D2	G2	D1	G1	-	-	-
D#	3	35	35	35	D#3	D#2	G#2	D#1	G#1	-	-	-
E	3	36	36	36	E3	E2	A2	E1	A1	-	-	-
F	3	37	37	37	F4	F3	A#2	F2	A#1	F1	-	-
F#	3	38	38	38	F#4	F#3	B2	F#2	B1	F#1	-	-
G	3	39	39	39	G4	G3	C2	G2	C1	G1	-	-
G#	3	40	40	40	G#4	G#3	C#2	G#2	C#1	G#1	-	-
A	3	41	41	41	A4	A3	D2	A2	D1	A1	-	-
A#	3	42	42	42	-	A#3	D#2	A#2	D#1	A#1	-	-
B	3	43	43	43	-	B3	E2	B2	E1	B1	-	-
C	3	44	44	44	-	C3	F2	C2	F2	C1	F1	-
C#	2	45	45	45	-	C#3	F#2	C#2	F#2	C#1	F#1	-
D	2	46	46	46	-	D3	G2	D2	G2	D1	G1	-
D#	2	47	47	47	-	D#3	G#2	D#2	G#2	D#1	G#1	-
E	2	48	48	48	-	E3	A2	E2	A2	E1	A1	-
F	2	49	49	49	-	F4	A#3	F3	A#2	F2	A#1	F1
F#	2	50	50	50	-	F#4	B3	F#3	B2	F#2	B1	F#1
G	2	51	51	51	-	G4	C3	G3	C2	G2	C1	G1
G#	2	52	52	52	-	G#4	C#3	G#3	C#2	G#2	C#1	G#1
A	2	53	53	53	-	A4	D3	A3	D2	A2	D1	A1
A#	2	54	54	54	-	-	D#3	A#3	D#2	A#2	D#1	A#1
B	2	55	55	55	-	-	E3	B3	E2	B2	E1	B1
C	2	56	56	56	-	-	F4	C3	F3	C2	F2	C1
C#	1	57	57	57	-	-	F#4	C#3	F#3	C#2	F#2	C#1
D	1	58	58	58	-	-	G4	D3	G3	D2	G2	D1
D#	1	59	59	59	-	-	G#4	D#3	G#3	D#2	G#2	D#1
E	1	60	60	60	-	-	A4	E3	A3	E2	A2	E1
F	1	61	61	61	-	-	-	F4	A#3	F3	A#2	F2
F#	1	62	62	62	-	-	-	F#4	B3	F#3	B2	F#2
G	1	63	63	63	-	-	-	G4	C3	G3	C2	G2
G#	1	64	64	64	-	-	-	G#4	C#3	G#3	C#2	G#2
A	1	65	65	65	-	-	-	A4	D3	A3	D2	A2
A#	1	66	66	66	-	-	-	-	D#3	A#3	D#2	A#2
B	1	67	67	67	-	-	-	-	E3	B3	E2	B2
C	1	68	68	68	-	-	-	-	F4	C3	F3	C2
C#	0	69	69	69	-	-	-	-	F#4	C#3	F#3	C#2
D	0	70	70	70	-	-	-	-	G4	D3	G3	D2
D#	0	71	71	71	-	-	-	-	G#4	D#3	G#3	D#2
E	0	72	72	72	-	-	-	-	A4	E3	A3	E2
F	0	73	73	73	-	-	-	-	-	F4	A#3	F3
F#	0	74	74	74	-	-	-	-	-	F#4	B3	F#3
G	0	75	75	75	-	-	-	-	-	G4	C3	G3
G#	0	76	76	76	-	-	-	-	-	G#4	C#3	G#3
A	0	77	77	77	-	-	-	-	-	A4	D3	A3
A#	0	78	78	78	-	-	-	-	-	-	D#3	A#3
B	0	79	79	79	-	-	-	-	-	-	E3	B3
C	0	80	80	80	-	-	-	-	-	-	F4	C3

DIODE KEYING CHART			
KEY	Flute 1'-16'		R/S 8' & 16'
	Diode D1-08		D11, 12 & 13, 14
F1	1	1	1
F#1	2	2	2
G1	3	3	3
G#1	4	4	4
A1	5	5	5
A#1	6	6	6
B1	7	7	7
C1	8	8	8
C#1	9	9	9
D1	10	10	10
D#1	11	11	11
E1	12	12	12
F2	13	13	13
F#2	14	14	14
G2	15	15	15
G#2	16	16	16
A2	17	17	17
A#2	18	18	18
B2	19	19	19
C2	20	20	20
C#2	21	21	21
D2	22	22	22
D#2	23	23	23
E2	24	24	24
F3	25	25	25
F#3	26	26	26
G3	27	27	27
G#3	28	28	28
A3	29	29	29
A#3	30	30	30
B3	31	31	31
C3	32	32	32
C#3	33	33	33
D3	34	34	34
D#3	35	35	35
E3	36	36	36
F4	37	37	37
F#4	38	38	38
G4	39	39	39
G#4	40	40	40
A4	41	41	41

BASS & CHORD KEYING CHART									
GEN.	Divider	BUFFER	BASS			CHORD			
			KEYING	SUST.	KEYING	SUST.	KEYING	SUST.	
		Q11	D15	D16	D63	D17	D18	D61	D61
B	6	7	12	12	12	12	12	12	12
A#	6	6	11	11	11	11	11	11	11
A	6	5	10	10	10	10	10	10	10
G#	6	4	9	9	9	9	9	9	9
G	6	3	8	8	8	8	8	8	8
F#	6	2	7	7	7	7	7	7	7
F	6	1	6	6	6	6	6	6	6
E	6	84	5	5	5	5	5	5	5
D#	6	83	4	4	4	4	4	4	4
D	6	82	3	3	3	3	3	3	3
C#	6	81	2	2	2	2	2	2	2
C	7	Q10	1	1	1	1	1	1	1

CHORD BUTTON CHART				
CHORD	MAJOR	MINOR	SEVENTH	DIMINISHED
A	A, C# E	A, C E	A, C# G	A, C F#
Fb	Fb, Ab, Cb	Fb, C, Eb	Fb, Ab, D	Fb, G, Db
Cb	Cb, Eb, Gb	Cb, D, Gb	Cb, Eb, A	Cb, D, Ab
Gb	Gb, Bb, Db	Gb, A, Db	Gb, Bb, Fb	Gb, A, Eb
Db	Db, F, Ab	Db, Fb, Ab	Db, F, B	Db, Fb, Bb
Ab	Ab, C, Eb	Ab, B, Eb	Ab, C, Gb	Ab, B, F
Eb	Eb, G, Bb	Eb, Gb, Bb	Eb, G, Db	Eb, Gb, D
Bb	Bb, D, F	Bb, Db, F	Bb, D, Ab	Bb, Db, G
F	F, A, C	F, C, G	F, A# C	F, G# D
C	C, E, G	C, Eb, G	C, E, A#	C, Eb, A
G	G, B, D	G, Bb, D	G, B, F	G, Bb, E
D	D, F# A	D, F, A	D, F# C	D, F, B
A	A, C# E	A, C, E	A, C# G	A, C, Gb
E	E, G# B	E, G, B	E, G# D	E, G, D#
B	B, D# F#	B, D, F#	B, D# A	B, D, G#
F#	F#, A#, C#	F#, A, C#	F#, A# E	F#, A, D#
C#	C#, F, G#	C#, E, G#	C#, F, B	C#, E, A#
G#	G#, C, D#	G#, B, D#	G#, C, F#	G#, B, F
D#	D#, F#, A#	D#, F#, A#	D#, G, C#	D#, F#, C
A#	A#, D, F	A#, C#, F	A#, D, G#	A#, C#, G

ACCORDIAN CHORD & BASS PUSHBUTTONS



CHARTS

TRANSISTOR LOCATION CHART		
0	CIRCUIT	BOARD
1	Vibrato Oscillator	Vibrato
2	Glide Keyer	Vibrato
3	Glide Keyer	Vibrato
4	Vibrato Driver	Vibrato
5	Master Oscillator (1 of 12)	Tone Generator
6	Master Oscillator (1 of 12)	Tone Generator
7	Low C Divider Driver	Chord & Bass #1
8	Low C Divider	Chord & Bass #1
9	Low C Divider	Chord & Bass #1
10	Low C Bass Keying Buffer	Chord & Bass #1
11	Keying Buffer (1 of 84)	Buffer #1 & #2
12	Regulator #1	Regulator
13	Regulator #2	Heatsink
14	Regulator #3	Mother
15	Regulator #4	Regulator
16	Regulator #5	Heatsink
17	Repeat Multivibrator	Repeat/ Percussion
18	Repeat Multivibrator	Repeat/ Percussion
19	Percussion Length Driver	Repeat/ Percussion
20	Percussion Shaper #1	Repeat/ Percussion
21	Percussion Buss #1 Driver	Repeat/ Percussion
22	Percussion Buss #1 Driver	Repeat/ Percussion
23	Percussion Shaper #2	Repeat/ Percussion
24	Percussion Buss #2 Driver	Repeat/ Percussion
25	Percussion Buss #2 Driver	Repeat/ Percussion
26	16' Flute Rank Driver #1	16' Flute Keyer *
27	16' Switcher	Repeat/ Percussion *
28	16' Flute Rank Driver #2	16' Flute Keyer *
29	Sustain Keyer (1 of 41)	Sustain Keyer
30	Sustain Squelcher	Matrix Driver
31	Matrix Driver (1 of 41)	Matrix Driver
32	Percussion Pulse Sensor	Repeat/ Percussion
33	Percussion Pulse Amp	Repeat/ Percussion
34	Percussion Trigger Amp	Repeat/ Percussion
35	Percussion Trigger	Repeat/ Percussion
36	Bass Collector Preamp	Chord & Bass #1
37	Bass Filter 150-	Chord & Bass #1
38	Bass & Chord Mixer	Voicing
39	Chord Collector Preamp	Chord & Bass #1
40	Chord Filter 1200-	Chord & Bass #1
41	16' Reed/String Collector Preamp	Voicing
42	16' Reed/String Collector Preamp	Voicing
43	8' Reed/String Collector Preamp	Voicing
44	8' Reed/String Collector Preamp	Voicing
45	Chord Detector	Chord & Bass #1
46	Rhythm Keyer	Chord & Bass #1
47	Clarinet Switcher	Voicing
48	Clarinet Switcher	Voicing
49	Trombone Shaper Amp	Voicing
50	Trombone Switcher	Voicing
51	Trombone Switcher	Voicing
52	Trombone Preamp	Voicing
53	Trumpet Switcher	Voicing
54	Trumpet Switcher	Voicing
55	Trumpet Preamp	Voicing
56	Kinura Switcher	Voicing
57	Kinura Switcher	Voicing
58	Kinura Preamp	Voicing
59	String Switcher	Voicing
60	String Switcher	Voicing
61	90- Filter	Flute Filter #1
62	150- Filter	Flute Filter #1
63	212- Filter	Flute Filter #1
64	300- Filter	Flute Filter #1
65	425- Filter	Flute Filter #1
66	600- Filter	Flute Filter #1
67	850- Filter	Flute Filter #1
68	1200- Filter	Flute Filter #1
69	1700- Filter	Flute Filter #1
70	2400- Filter	Flute Filter #2
71	3400- Filter	Flute Filter #2
72	4800- Filter	Flute Filter #2
73	6800- Filter	Flute Filter #2
74	Filter Preamp	Voicing
75	Mixer	Voicing
76	Wow Wow Preamp	Voicing
77	Wow Wow Emitter Follower	Voicing
78	Percussion Brilliance Driver	Preamp & Reverb
79	Trumpet Brilliance Driver	Preamp & Reverb
80	Exp. Photocell Lamp Driver	Voicing
81	Wow Wow Photocell Lamp Driver	Voicing
82	Wow Wow Switch Driver	Voicing
83	Treble Microphone Mixer Preamp	Accordian Microphone
84	Bass Microphone Mixer Preamp	Accordian Microphone
85	Output Emitter Follower	Accordian Microphone
86	Microphone Preamp #1	Preamp & Reverb
87	Microphone Preamp #2	Preamp & Reverb
88	Main Preamp #1	Preamp & Reverb
89	Main Preamp #2	Preamp & Reverb
90	Tone Preamp	Preamp & Reverb
91	Reverb Driver	Preamp & Reverb
92	Reverb Recovery Preamp	Preamp & Reverb
93	Reverb Amp	Preamp & Reverb
94	Reverb Output Emitter Follower	Preamp & Reverb
95	Reverb Mixer	Preamp & Reverb
96	Reverb Switching	Preamp & Reverb
97	Pre-Driver	Amplifier
98	Preamp	Amplifier
99	Differential Preamp	Amplifier
100	Driver #1	Amplifier
101	Driver #2	Amplifier
102	Output	Heatsink
103	Output	Heatsink
104	Output	Heatsink
105	Output	Heatsink

PLUG & SOCKET CHART					
Accordian		Circuits		Function	Color
Plug	Pin	Plug	Pin		
1	1	4	1	Flute 16'	Brown
1	2	4	2	Percussion Sw. 16'	Red
1	3	4	3	Flute 8'	Orange
1	4	4	4	Percussion Sw. 8'	Yellow
1	5	4	5	Flute 5 1/3'	Green
1	6	4	6	Percussion Sw. 5 1/3'	Blue
1	7	4	7	Flute 4'	Purple
1	8	4	8	Percussion Sw. 4'	Gray
1	9	4	9	Flute 2 2/3'	White
1	10	4	10	Percussion Sw. 2 2/3'	Black
1	11	4	11	Flute 2'	Brown
1	12	4	12	Percussion Sw. 2'	Red
1	13	4	13	Flute 1 1/3'	Orange
1	14	4	14	Percussion Sw. 1 1/3'	Yellow
1	15	4	17	Flute 1'	Green
1	16	4	18	Percussion Sw. 1'	Blue
1	17	4	19	Percussion Length Control	Purple
1	18	4	20	Repeat On/Off	Gray
1	19	4	21	Repeat Speed Control	White
1	20	4	22	+3 volts	Black
1	21	5	2	Wow Wow On/Off	Brown
1	22	5	4	Wow Wow Control (Wiper)	Red
1	23	5	5	Wow Wow Control	Orange
1	24	5	6	String 8'	Yellow
1	25	5	7	Kinura 8'	Green
1	26	5	9	Trumpet 8'	Blue
1	27	5	10	Clarinet 16'	Purple
1	28	5	11	Trombone 16'	Gray
1	29	5	12	Brilliance	White
1	30	-	-	Spare	Black
1	31	7	1	Mic. Ground	Brown
1	32	7	2	Accordian Output	Red
1	33	7	3	Reverb On/Off	Orange
1	34	7	4	Vibrato Fast/Slow	Yellow
1	35	7	5	Vibrato Light/Heavy	Green
1	36	7	6	Vibrato On/Off	Blue
1	37	7	7	Tabswitch Ground	Purple
1	38	7	8	-20 Volts	Gray
1	39	7	9	+19 Volts	White
1	40	-	-	Spare	Black
1	41	6	1	Preset I	Brown
1	42	6	2	Preset II	Red
1	43	6	3	Sustain Control Line	Orange
1	44	-	-	Spare	Yellow
1	45	11	3	Bass Sustain	Green
1	46	11	4	Chord Rhythm Keying	Blue
1	47	11	7	Chord Rhythm Keying	Purple
1	48	11	8	Chord Sustain Control Line	Gray
1	49	11	11	Bass Volume Control	White
1	50	11	12	Chord Volume Control	Black
2	1	8	1	Treble Keying F1	Brown
2	2	8	2	Treble Keying F#1	Red
2	3	8	3	Treble Keying G1	Orange
2	4	8	4	Treble Keying G#1	Yellow
2	5	8	5	Treble Keying A1	Green
2	6	8	6	Treble Keying A#1	Blue
2	7	8	7	Treble Keying B1	Purple
2	8	8	8	Treble Keying C1	Gray
2	9	8	9	Treble Keying C#1	White
2	10	8	10	Treble Keying D1	Black
2	11	8	11	Treble Keying D#1	Brown
2	12	8	12	Treble Keying E1	Red
2	13	8	13	Treble Keying F2	Orange
2	14	8	14	Treble Keying F#2	Yellow
2	15	8	15	Treble Keying G2	Green
2	16	8	16	Treble Keying G#2	Blue
2	17	8	17	Treble Keying A2	Purple
2	18	8	18	Treble Keying A#2	Gray
2	19	8	19	Treble Keying B2	White
2	20	8	20	Treble Keying C2	Black
2	21	8	21	Treble Keying C#2	Brown
2	22	8	22	Treble Keying D2	Red
2	23	9	1	Treble Keying D#2	Orange
2	24	9	2	Treble Keying E2	Yellow
2	25	9	3	Treble Keying F3	Green
2	26	9	4	Treble Keying F#3	Blue
2	27	9	5	Treble Keying G3	Purple
2	28	9	6	Treble Keying G#3	Gray
2	29	9	7	Treble Keying A3	White
2	30	9	8	Treble Keying A#3	Black
2	31	9	9	Treble Keying B3	Brown

PLUG & SOCKET CHART					
Accordian		Circuits		Function	Color
Plug	Pin	Plug	Pin		
2	32	9	10	Treble Keying C3	Red
2	33	9	11	Treble Keying C#3	Orange
2	34	9	12	Treble Keying D3	Yellow
2	35	9	13	Treble Keying D#3	Green
2	36	9	14	Treble Keying E3	Blue
2	37	9	15	Treble Keying F4	Purple
2	38	9	16	Treble Keying F#4	Gray
2	39	9	17	Treble Keying G4	White
2	40	9	18	Treble Keying G#4	Black
2	41	9	19	Treble Keying A4	Tan
2	42	-	-	Spare	Green
2	43	-	-	Spare	Blue
2	44	-	-	Spare	Purple
2	45	-	-	Spare	Gray
2	46	-	-	Spare	White
2	47	-	-	Spare	Black
3	1	10	1	Chord E	Brown
3	2	10	2	Chord F#	Red
3	3	10	3	Chord D	Orange
3	4	10	4	Chord C#	Yellow
3	5	10	5	Chord C	Green
3	6	10	6	Chord B	Blue
3	7	10	7	Chord A#	Purple
3	8	10	8	Chord A	Gray
3	9	10	9	Chord G#	White
3	10	10	10	Chord G	Black
3	11	10	11	Chord F#	Brown
3	12	10	12	Chord F	Red
3	13	10	13	Bass B	Orange
3	14	10	14	Bass A#	Yellow
3	15	10	15	Bass A	Green
3	16	10	16	Bass G#	Blue
3	17	10	17	Bass G	Purple
3	18	10	18	Bass F#	Gray
3	19	10	19	Bass F	White
3	20	10	20	Bass E	Black
3	21	10	21	Bass D#	Brown
3	22	10	22	Bass D	Red
3	23	11	1	Bass C#	Orange
3	24	11	2	Bass C	Yellow
3	25	-	-	Spare	Green

RHYTHM PLUG & SOCKET CHART			
Pin	Voltage	Description	
1	Gnd.	Ground	
2	+19V	B+	
3	Pulse	Rhythm keying point C	
4	Pulse	Rhythm keying point B	
5	Pulse	Rhythm keying point A	
6	-	Not Used	

* Schematic shows one of eight Rank Control circuits.

PARTS INFORMATION

STANDARD PARTS

Replacements for all standard electronic parts and hardware may be purchased directly from local suppliers generally in less time than would be required to obtain them from the factory.

SPECIAL PARTS

In addition to the standard replacement parts, special electronic and mechanical parts are also used. These parts are manufactured by and to the specifications of the factory. Order these parts directly from the factory since they would be difficult or impossible to obtain from other sources.

PARTS ORDERING INFORMATION

When ordering parts be sure to include the following information:

1. Model and Serial Number.
2. Part Number
3. A description of the part
4. Specify how you want the part shipped.

Most special electronic parts and mechanical parts will have a part number stamped on them. In the event that the part number is missing, or you are unable to read the part number, a complete description of the part and where it is used will allow the factory to fill your parts order. When parts are ordered in the proper manner the factory is able to fill your orders promptly. Delays that might result are then avoided.

IMPORTANT

Phone or Address ACCORDION parts orders to:

C. M. I. SERVICE DEPT.
7373 N. Cicero Ave.
Chicago, Illinois 60646
PHONE: 312-675-5500

Phone or Address AMPLIFIER/GENERATOR parts orders to:

LOWREY ELECTRONICS SERVICE DEPT.
4400 W. 45th. St.
Chicago, Illinois 60632
PHONE: 312-376-8600

PARTS LIST

TABLE OF CONTENTS

	Page
AMPLIFIER/POWER SUPPLY CHASSIS ASSEMBLY.....	27
CABINET ASSEMBLY.....	28
CHORD & BASS #1 & #2 BOARDS.....	28
CONTROL PANEL ASSEMBLY.....	28
MOTHER BOARD (MATRIX).....	29
SWELL PEDAL ASSEMBLY.....	30
VOICING BOARD.....	30
ACCORDION PARTS LIST.....	31
REED & KEY ORDERING INSTRUCTIONS.....	32

THE PARTS LIST CONTAINS THE FOLLOWING INFORMATION:

1. Name of Part.
2. Value, Tolerance and Code (When Important).
3. Brief description.
4. Where the part is found (assembly, printed circuit board and etc.).
5. Schematic Reference Number.
6. PART NUMBER--USE IT.

This Parts List includes all standard stock replacement parts. No attempt has been made to include every nut, bolt and screw. If the necessity for a non-listed part arises, please write describing the parts location and function as well as model and serial number.

PARTS LIST

PART	DESCRIPTION	SCHEMATIC REFERENCE	PART NUMBER
AMPLIFIER/POWER SUPPLY CHASSIS ASSEMBLY			
Assembly	Amplifier Power Supply .....	.....	997-015882
Assembly	Plug & Socket Board .....	.....	996-015891
Assembly	Regulator Board .....	.....	996-015894
Assembly	Power Filter Board .....	.....	996-015895
Assembly	Vibrato Board .....	.....	996-015896
Assembly	Amplifier Board .....	.....	996-015897
Capacitor	Electrolytic 3000 UF 50V Can Neg. ....	.....	945-015576
Capacitor	Electrolytic 1000-3000 UF 40V-30V Can Neg. ....	.....	945-015577
Capacitor	Electrolytic 1000-3000 UF 40V-30V Can Pos. ....	.....	945-015578
Capacitor	Electrolytic 3000 UF 50V Can Pos. ....	.....	945-015579
Capacitor	Electrolytic 100 UF 25V .....	.....	945-008895-45
Capacitor	Electrolytic 1000 UF 15V .....	.....	945-008895-61
Capacitor	Electrolytic 2 UF 20V .....	.....	945-008895-32
Capacitor	Electrolytic 1 UF 35V NP .....	.....	945-008895-15
Capacitor	Electrolytic 50 UF 50V .....	.....	945-008895-59
Capacitor	Electrolytic 25 UF 25V NP .....	.....	945-008895-60
Circuit Breaker	4 Amp. ....	.....	939-015626
Cord	Power. ....	.....	989-008717-5
Diode	Rectifier	D23-26	919-010459
Diode	Zener 20V.	Z1	919-015618-1
Diode	Zener 22V.	Z2	919-015618-2
Diode	Dual.	D69-70	919-010454
Diode	Triple.	D71	919-010454-1
Insulator	Power Transistor .....	.....	908-002346
Potentiometer	1M Vibrato Speed Adj.	VR1	925-004349-4
Resistor	WW 1000Ω 2W .....	.....	924-010471-102
Resistor	WW 330Ω 2W .....	.....	924-010471-331
Resistor	WW 390Ω 2W .....	.....	924-010471-391
Resistor	WW .39Ω 2W .....	.....	924-015325-7
Resistor	WW 75Ω 10W .....	.....	924-008896-25
Resistor	WW 40Ω 10W .....	.....	924-008896-26
Resistor	Glass Film 100Ω .....	.....	924-013178-2
Resistor	Glass Film 1000Ω .....	.....	924-013178-3
Resistor	Glass Film 4120Ω .....	.....	924-013178-4
Resistor	Glass Film 825Ω .....	.....	924-013178-5
Resistor	WW 10Ω 2W .....	.....	924-010471-100
Resistor	WW 4Ω 10W .....	.....	924-008896-24
Resistor	WW .51Ω 5W .....	.....	924-008896
Socket	Transistor. ....	.....	906-013174
Transistor	Regulator #5 PNP	Q16	992-008890
Transistor	Regulator #2 Amplifier	Q13, 102-105	992-003139
Transistor	Regulator #1 Driver PNP	Q12	991-015000
Transistor	Regulator #4 Driver	Q15	991-015001
Transistor	Vibrato Oscillator	Q1	991-008394
Transistor	Glide Keyer, Vibrato Driver PNP	Q2, 4	991-012328
Transistor	Glide Keyer	Q3	991-008393
Transistor	Pre-Driver, Driver #2 PNP	Q97, 101	991-015062
Transistor	Preamp	Q98, 99	991-013544
Transistor	Driver #1	Q100	991-015063

PARTS LIST

PART	DESCRIPTION	SCHEMATIC REFERENCE	PART NUMBER
CABINET ASSEMBLY			
Assembly	Reverb Spring Unit .....	.....	984-012419
Assembly	Umbilical Cable (Accordion to Cabinet).....	.....	997-016035
Capacitor	Electrolytic 8 UF 35V NP .....	.....	945-008895-14
Speaker	9" x 14" Oval.....	.....	985-015597
Speaker	15" .....	.....	985-015598
Speaker	4" .....	.....	985-015599
CONTROL PANEL ASSEMBLY			
Assembly	Preamp Mixer Board.....	.....	996-015887
Capacitor	Electrolytic 3000 UF 30V.....	.....	945-015613
Capacitor	Electrolytic 6 UF 20V.....	.....	945-008895-7
Capacitor	Electrolytic 10 UF 20V.....	.....	945-008895-9
Capacitor	Electrolytic 1 UF 35V.....	.....	945-008895-15
Capacitor	Electrolytic 20 UF 25V.....	.....	945-008895-30
Capacitor	Electrolytic 2 UF 20V.....	.....	945-008895-32
Capacitor	Tantalum 1 UF 35V .....	.....	946-013560-1
Capacitor	Electrolytic 350 UF 15V.....	.....	945-008895-42
Capacitor	Electrolytic 50 UF 50V.....	.....	945-008895-59
Jack	Phono.....	.....	910-013556-4
Knob	Control.....	.....	915-015604
Light	Pilot.....	.....	939-010862-6
Panel	Control.....	.....	966-015342
Photocell	Limiter-Brilliance.....	P4, 7.....	948-015584-2
Potentiometer	250K Auxiliary & Master Volume Control.....	VR13, 15.....	925-015622-1
Potentiometer	100K Reverb Control.....	VR18.....	925-015622-2
Potentiometer	50K Bass & Treble Control.....	VR16, 17.....	925-015622-3
Potentiometer	10K Microphone Volume, Vibrato Speed.....	VR14, 19.....	925-015622-4
Resistor	WW 220Ω 2W .....	.....	924-010471-221
Switch	Hi - Lo Z (Impedance).....	.....	960-015387-1
Switch	On-Off Polarity .....	.....	960-015637
Transistor	Preamp, Driver, Mixer	Q86-95	991-013544
Transistor	Reverb Switching	Q79, 96	991-008393
Transistor	Brilliance Driver	Q78.....	991-010098
CHORD & BASS #1 & #2 BOARDS			
Assembly	Chord & Bass #1 Board .....	.....	996-015884
Assembly	Chord & Bass #2 Board .....	.....	996-015700
Capacitor	Electrolytic 2 UF 25V NP .....	.....	945-015619
Capacitor	Electrolytic 10 UF 20V.....	.....	945-008895-9
Capacitor	Electrolytic 350 UF 15V.....	.....	945-008895-42
Diode	.....	D61-63.....	919-004799
Diode	.....	D15-18.....	919-010873
Network	Divider.....	.....	949-008802
Network	150 Cycle Bass Filter .....	.....	949-012335-1
Network	1200 Cycle Chord Filter.....	.....	949-012335-7
Photocell	Chord & Bass.....	P5-6	948-001859
Transistor	Driver, Dividers, Keyer.....	Q7-10, 46	991-008393
Transistor	Preamps & Filters.....	Q36, 37, 39, 40	991-013544
Transistor	Chord Detector.....	Q45	991-010098

PARTS LIST

PART	DESCRIPTION	SCHEMATIC REFERENCE	PART NUMBER
MOTHER BOARD (MATRIX)			
Assembly	Buffer #1 Board.....	.....	996-015707
Assembly	Buffer #2 Board.....	.....	996-015703
Assembly	Flute Filter #1 Board.....	.....	996-015706
Assembly	Flute Filter #2 Board.....	.....	996-015704
Assembly	Flute Keyer Board (7).....	.....	996-015705
Assembly	Generator Board C#.....	.....	996-015711-C#
Assembly	Generator Board D.....	.....	996-015712-D
Assembly	Generator Board D#.....	.....	996-015713-D#
Assembly	Generator Board E.....	.....	996-015714-E
Assembly	Generator Board F.....	.....	996-015715-F
Assembly	Generator Board F#.....	.....	996-015716-F#
Assembly	Generator Board G.....	.....	996-015717-G
Assembly	Generator Board G#.....	.....	996-015718-G#
Assembly	Generator Board A-A#.....	.....	996-015719-A, A#
Assembly	Generator Board B.....	.....	996-015720-B
Assembly	Generator Board C.....	.....	996-015721-C
Assembly	Matrix Driver Board.....	.....	996-015702
Assembly	Mother Board (Matrix).....	.....	996-015885
Assembly	Percussion Control Board.....	.....	996-015710
Assembly	Reed/String Keyer Board 8'.....	.....	996-015709
Assembly	Reed/String Keyer Board 16'.....	.....	996-015708
Assembly	Sustain Keyer Board.....	.....	996-015701
Capacitor	Electrolytic 3 UF 50V NP.....	.....	945-008895-6
Capacitor	Electrolytic 3 UF 50V NP (Plug In).....	.....	945-015616
Capacitor	Electrolytic 35 UF 30V.....	.....	945-015617
Capacitor	Electrolytic 500 UF 25V.....	.....	945-008895-19
Capacitor	Electrolytic 1000 UF 3V.....	.....	945-008895-62
Capacitor	Electrolytic 3000 UF 6V.....	.....	945-008895-63
Capacitor	Electrolytic 5000 UF 3V.....	.....	945-008895-64
Capacitor	Polystyrene 3900 P 2% 33V.....	.....	946-013181-392
Capacitor	Polystyrene 3600 P 2% 33V.....	.....	946-013181-362
Capacitor	Polystyrene 3300 P 2% 33V.....	.....	946-013181-332
Capacitor	Polystyrene 3000 P 2% 33V.....	.....	946-013181-302
Capacitor	Polystyrene 2700 P 2% 33V.....	.....	946-013181-272
Capacitor	Polystyrene 2500 P 2% 33V.....	.....	946-013181-252
Capacitor	Polystyrene 2400 P 2% 33V.....	.....	946-013181-242
Capacitor	Polystyrene 2200 P 2% 33V.....	.....	946-013181-222
Capacitor	Polystyrene 2000 P 2% 33V.....	.....	946-013181-202
Capacitor	Tantalum 1 UF 35V.....	.....	946-013560-1
Diode	.....	D1-8, 11-14, 27-53, 58-60	919-004799
Diode	Triple.....	D29.....	919-010454-1
Diode	.....	D9, 10, 19.....	919-010873
I. C.	Divider.....	.....	991-013182-1
Network	90 Cycle Filter.....	.....	949-012335-15
Network	150 Cycle Filter.....	.....	949-012335-1
Network	212 Cycle Filter.....	.....	949-012335-2
Network	300 Cycle Filter.....	.....	949-012335-3
Network	425 Cycle Filter.....	.....	949-012335-4
Network	600 Cycle Filter.....	.....	949-012335-5
Network	850 Cycle Filter.....	.....	949-012335-6
Network	1200 Cycle Filter.....	.....	949-012335-7
Network	1700 Cycle Filter.....	.....	949-012335-8
Network	2400 Cycle Filter.....	.....	949-012335-9

PARTS LIST

PART	DESCRIPTION	SCHEMATIC REFERENCE	PART NUMBER
Network	3400 Cycle Filter .....	.....	949-012335-10
Network	4800 Cycle Filter .....	.....	949-012335-11
Network	6400 Cycle Filter .....	.....	949-012335-12
Potentiometer	10K Tuning Adj	VR2.....	925-008894
Potentiometer	25K Percussion Adj	VR5.....	925-004349-6
Potentiometer	50K Percussion Adj	VR6.....	925-004349-7
Resistor	Fixed Carbon 2.2K .....	.....	923-012844-222
Resistor	Glass Film 38.3K .....	.....	924-013178-1
Resistor	WW 15Ω 5W .....	.....	924-008896-1
Resistor	WW 56Ω 2W .....	.....	924-010471-560
Resistor	WW 75Ω 10W .....	.....	924-008896-25
Resistor	WW 680Ω 2W .....	.....	924-010471-681
Transistor	Keying Buffer, Master Oscillator	Q5, 6, 11	991-008393
Transistor	Filters	Q61-70, 73	991-013544
Transistor	Regulator #3 PNP	Q14	991-015000
Transistor	Drivers	Q22, 25	991-015001
Transistor	Driver, Switchers	Q19, 27	991-015587
Transistor	Sustain Keyer, Shapers, Sensors, Trigger Amp	Q20, 23, 29, 32, 34	991-015614
Transistor	Sustain Squelcher, Pulse Amp, Trigger	Q30, 33, 35	991-015615
Transistor	Matrix Driver, Flute Rank Drivers, Multivibrator	Q17, 18, 21, 24, 26, 28, 31	991-015663
SWELL PEDAL ASSEMBLY			
Assembly	Contact Board & Bracket .....	.....	997-015886
Assembly	Swell Pedal .....	.....	997-015725
Board	Actuator (Comb) .....	.....	961-009956
Cable	Swell Pedal .....	.....	994-016532
Circlip	Pivot Shaft .....	.....	976-013151
Feet	Rubber .....	.....	916-013105-1
Mat	Swell Pedal .....	.....	959-008052
Shaft	Pivot .....	.....	974-012359
Spring	Compression .....	.....	975-011747
Spring	Contact .....	.....	917-009989-2
Switch	Glide .....	.....	960-008102
Washer	Friction .....	.....	904-012674
VOICING BOARD			
Assembly	Voicing Board .....	.....	996-015883
Capacitor	Electrolytic 1 UF 35V NP .....	.....	945-008895-15
Capacitor	Electrolytic 6 UF 20V .....	.....	945-008895-7
Capacitor	Electrolytic 10 UF 20V .....	.....	945-008895-9
Capacitor	Electrolytic 1000 UF 3V .....	.....	945-008895-62
Capacitor	Tantalum 1 UF 35V .....	.....	946-013560-1
Coil	1 H	L1	952-010092-3
Coil	100 MH	L2	952-010092-5
Coil	500 MH	L3	952-010092-2
Diode	Keying	D64-68	919-004799
Photocell	Wow Wow	P1	948-015584-2
Photocell	Wow Wow & Expression	P2, 3	948-015584-3
Resistor	WW 150Ω 2W .....	.....	924-010471-151
Transistor	Switchers, Wow Wow Lamp Driver	Q47, 48, 50, 51, 53, 54, 56, 57, 59, 60, 81	991-008393
Transistor	Mixers, Preamps, Emitter Follower	Q38, 41-44, 49, 52, 55, 58, 74-77	991-002298
Transistor	Lamp & Switch Driver	Q80, 82	991-010098

ACCORDION PARTS LIST

PART	DESCRIPTION	SCHEMATIC REFERENCE	PART NUMBER
Actuator	Tabswitch.....	.....	964-017032
Assembly	Accordion Microphone Board (PA254).....	.....	996-017027
Assembly	Chord & Bass Cover (Include Feet).....	.....	935-017012
Bellows	.....	.....	935-017020
Button	Plastic, Pushbuttons, Presets, etc.....	.....	915-017007
Cable	Bellows.....	.....	957-017009
C-Clip	Umbilical Cord Hold-Down Thumb Screw.....	.....	976-015922
Contact	Chord & Bass Pushbuttons.....	.....	917-017030
Contact	Tabswitch.....	.....	917-017033
Cover	Chord & Bass.....	.....	964-017011
Diode	Zener 7.5V.....	Z3.....	919-001445-1
Feet	Chord & Bass Cover.....	.....	916-017010
Grill	CG4.....	.....	935-017013
Grill	CG5.....	.....	935-017014
Holder	Shoulder Strap.....	.....	967-017031
Knob	Organ & Accordion Bass Volume.....	.....	915-017005
Knob	Organ Chord, Accordion Treble.....	.....	915-017006
Knob	Percussion Length, Repeat Speed, etc.....	.....	915-017004
Microphone	Bass & Treble.....	.....	985-017021
Nut	Umbilical Cord Thumbscrew.....	.....	977-017026
Pad	Back.....	.....	914-017019
Pad	CG4 Key Valves.....	.....	935-017028
Pad	CG5 Key Valves.....	.....	935-017029
Pins	Umbilical Cable Socket.....	.....	910-017023
Potentiometer	1M Accordion Bass, Treble Volume.....	VR10, 11.....	925-017001
Potentiometer	10K Organ Bass, Chord Volume.....	VR7, 8.....	925-017002
Potentiometer	10K Percussion, Repeat & Wow Wow.....	VR3, 4, 9.....	925-017000
Potentiometer	100K Accordion Tone Control.....	VR12.....	925-017003
Resistor	WW 470Ω 10W.....	.....	924-017024
Strap	Bass.....	.....	935-017016
Strap	Bellows.....	.....	935-017015
Strap	Shoulder.....	.....	935-017017
Switch	Pushbutton, Presets, etc.....	.....	960-017008
Tab	Attack Normal/Slow.....	.....	915-017034-24
Tab	Bass Sustain.....	.....	915-017034-16
Tab	Chord.....	.....	915-017034-17
Tab	Chord Sustain.....	.....	915-017034-18
Tab	Clarinet 16'.....	.....	915-017034-3
Tab	Flute 1'.....	.....	915-017034-15
Tab	Flute 1 1/3'.....	.....	915-017034-14
Tab	Flute 2'.....	.....	915-017034-13
Tab	Flute 2 2/3'.....	.....	915-017034-12
Tab	Flute 4'.....	.....	915-017034-11
Tab	Flute 5 1/3'.....	.....	915-017034-10
Tab	Flute 8'.....	.....	915-017034-9
Tab	Flute 16'.....	.....	915-017034-8
Tab	Kinura 8'.....	.....	915-017034-7
Tab	String 8'.....	.....	915-017034-6
Tab	String Bass.....	.....	915-017034-1
Tab	Sustain Long.....	.....	915-017034-23
Tab	Sustain Med.....	.....	915-017034-22
Tab	Trombone 16'.....	.....	915-017034-4
Tab	Trumpet 8'.....	.....	915-017034-5
Tab	Vibrato Light/Heavy.....	.....	915-017034-20
Tab	Vibrato Off/On.....	.....	915-017034-21
Tab	Vibrato Slow/Fast.....	.....	915-017034-19
Tab	Wow Wow.....	.....	915-017034-2
Thumbscrew	Grill.....	.....	903-017025
Thumbscrew	Umbilical Cord.....	.....	903-015919
Transistor	Accordion Microphone Board.....	Q83-85.....	991-013544
Washer	Umbilical Cord Thumbscrew.....	.....	904-002815-1

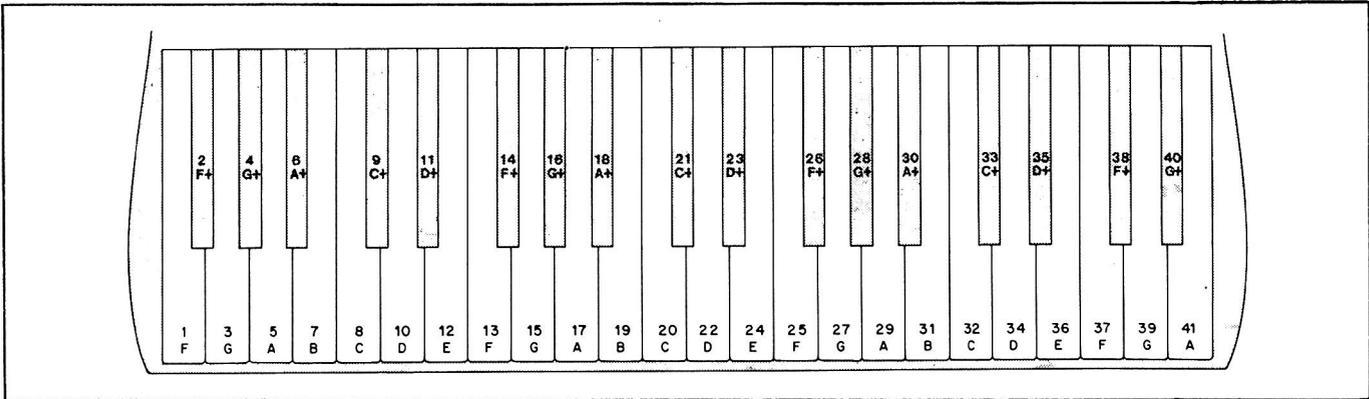
REED & KEY ORDERING INSTRUCTIONS

TREBLE REEDS

1. If possible, include defective reed with your order.
2. Give model (CG4, CG5) and serial number of accordion (CG5 has hand made reeds & two sets of reeds in the chamber section).
3. Order treble reeds per key letter & number on drawing below.
4. Specify the voice that reed is used for, i. e. Bassoon, Clarinet, Piccolo.

KEYS

1. If possible, include defective reed with your order.
2. Give model (CG4, CG5) and serial number of accordion (CG5 keys have two reed valve actuators).
3. Order key as per key letter & number on drawing below.



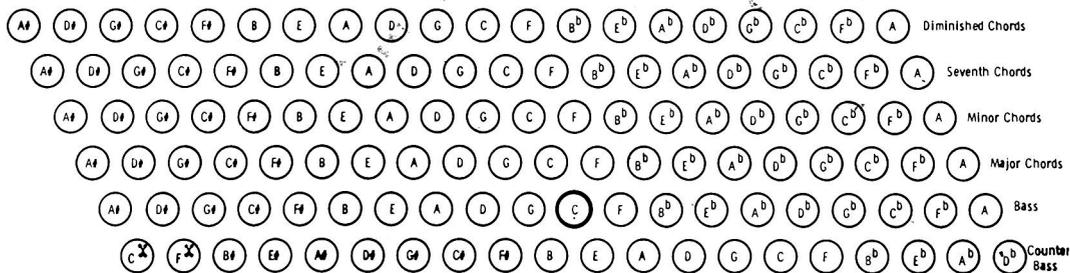
CHORD REEDS

1. If possible, include defective reed with your order.
2. Give model (CG4, CG5) and serial number. (CG5 has hand made reeds).
3. Specify chord button & note. Refer to drawing & chord button chart below.
4. Specify-1st harmony, lowest set of chord reeds.
or -2nd harmony, set of reeds farthest from bass reeds.

BASS REEDS

1. If possible, include defective reed with your order.
2. Give model (CG4, CG5) and serial number. (CG5 has hand made reeds).
3. Specify name of bass button. Refer to drawing below.
4. Specify-Basso, lowest pitched & largest reeds in accordion.
or - Bassetti, one octave higher and smaller.

ACCORDIAN CHORD & BASS PUSHBUTTONS



CHORD BUTTON CHART

CHORD	MAJOR	MINOR	SEVENTH	DIMINISHED
A	A, C#, E	A, C, E	A, C#, G	A, C, F#
F#	F#, A#, C#	F#, C, E	F#, A#, D	F#, G, D#
C#	C#, E, G#	C#, G, B	C#, E#, A	C#, D, Ab
G#	G#, B, D#	G#, A, D#	G#, B#, F#	G#, A, Eb
D#	D#, F#, A#	D#, F, A	D#, F, B	D#, F#, Bb
Ab	Ab, C, Eb	Ab, B, Eb	Ab, C, Gb	Ab, B, F
Eb	Eb, G, Bb	Eb, D, Bb	Eb, G, D#	Eb, Gb, C
Bb	Bb, D, F	Bb, D#, F	Bb, D, Ab	Bb, D#, G
F	F, A, C	F, G#, C	F, A, D#	F, G#, D
C	C, E, G	C, Eb, G	C, E, A#	C, Eb, A
G	G, B, D	G, Bb, D	G, B, F	G, Bb, E
D	D, F#, A	D, F, A	D, F#, C	D, F, B
A	A, C#, E	A, C, E	A, C#, G	A, C, Gb
E	E, G#, B	E, G, B	E, G#, D	E, G, D#
B	B, D#, F#	B, D, F#	B, D#, A	B, D, G#
F#	F#, A#, C#	F#, A, C#	F#, A#, E	F#, A, D#
C#	C#, E, G#	C#, E, G#	C#, F, B	C#, E, A#
G#	G#, B, D#	G#, B, D#	G#, C, F#	G#, B, F
D#	D#, F#, A#	D#, F, A#	D#, G, C#	D#, F#, C
A#	A#, C#, E	A#, C, E	A#, D, G#	A#, C#, G

CHICAGO MUSICAL INSTRUMENT CO., 7373 N. CICERO, LINCOLNWOOD, ILL. 60646

PRINTED IN U. S. A.