

MusicParts.Com

Technical Document Distribution

Brand:	Univox
Model	SR-95 Mini-Pops
Product:	Rhythm Unit
Description:	Service Manual

Musicparts Document Number: 46613 TechTips: No Pages: 22 Dated: 1973

Hello,

Welcome to MusicParts.Com, Inc. your online resource for technical documents and service information. This PDF package may contain information, schematics, parts lists, images, engineering changes, previous versions, circuit descriptions, and many other unique features about the product you have chosen. This document was assembled from a variety of sources and is the result of our many years in the music repair business.

NOTE: Large original over-sized drawings will need to be taped together. We feel this is better than reducing them and losing the fine details.

VIEWING: This document is utilizing PAGE-ON-DEMAND downloading. This will let you navigate to any page without waiting for the entire file to download. Just click ON the thumbnails.

PRINTING: Very Important!

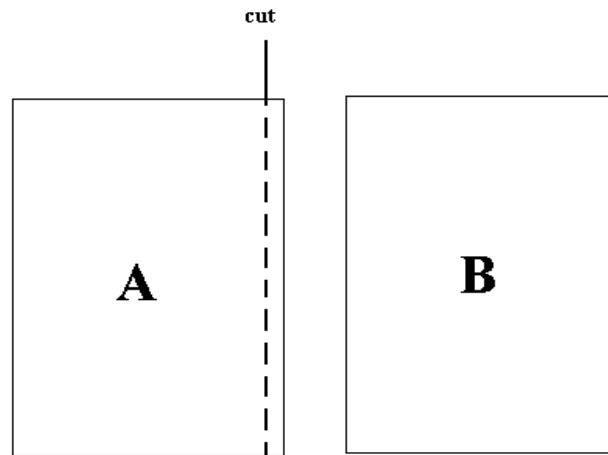
When the print dialog appears, please make sure "**REDUCE TO PAPER SIZE**" OR "**SHRINK OVERSIZED PAGES**" is checked, otherwise you may cut off the edge of the page. This will compensate for your printer's margins and produce a great looking printout. Also please stay online while printing this document to make sure you get all the pages.

Visit us on the web at: <http://www.musicparts.com/>
Email us at: customerservice@musicparts.com

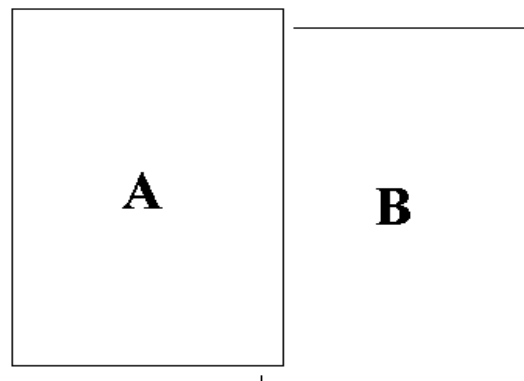
MusicParts.Com

Two Sheet Pasteup Guide

11x17" paper size



It's ok to slightly cut into the black print, as documents contain an intentional extended overlapping printed area.



Only one trim cut is needed, then overlay as shown and tape.

ELECTRONIC AUTOMATIC RHYTHM INSTRUMENT

<SR-95>

SERVICE MANUAL

MusicParts.Com

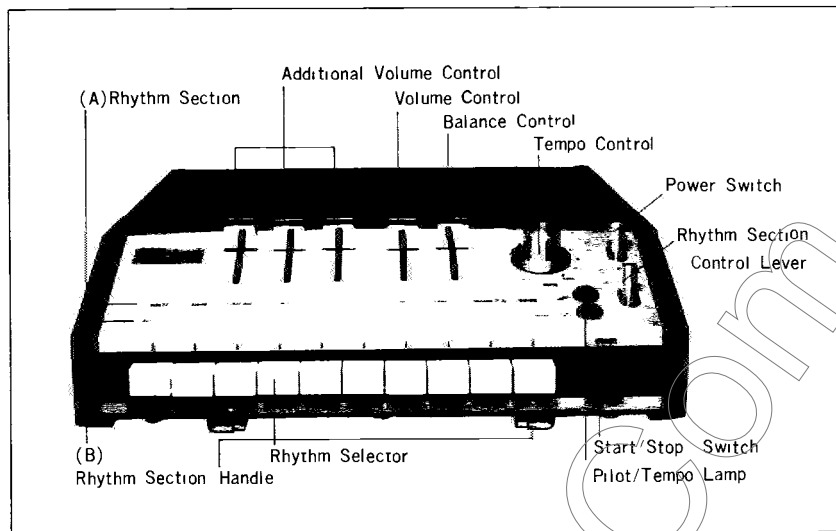
UNICORD INCORPORATED

75 FROST STREET
WESTBURY, NEW YORK 11590

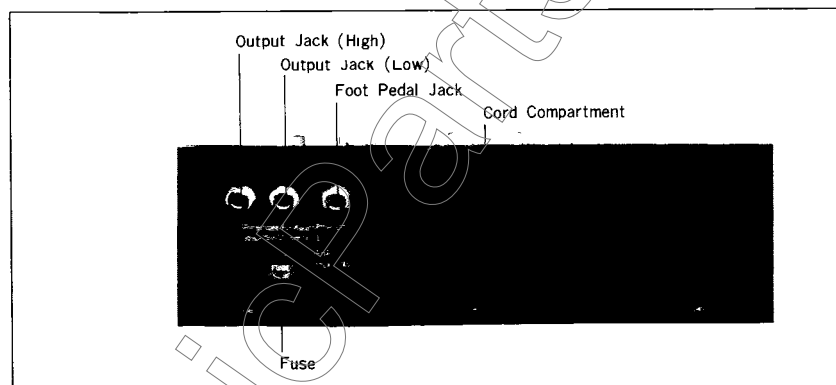
CONTENTS

1 . Instruction	1~2
2 Available Rhythms	3
3 Block Diagram	4
4 . Pulse Generator Wave Form.....	5
5 . Pulse Generator Rhythm Pattern.....	6~7
6 . Tone Generator Output Level.....	8
7 . Adjustment.....	9
8 Mechanical Parts Diagram.....	10
9 . Parts List	11~12, 13
10. Circuit Board	
Tone Generator.....	14
Pulse Generator.....	15
11. Over-all Wiring Diagram.....	16
17. Over-all Circuit Diagram.....	17

FRONT PANEL VIEW



REAR PANEL VIEW



■ CONNECTION

1. Take the power cord, connection cord and foot pedal out of the cord compartment
2. When connecting the rhythmmer to an electronic organ, plug the connector cord into the High Level output jack on the rear panel. To use any other amplifier, plug it into the Low Level output jack.

Then plug the power cord into an AC outlet

- * High Level output 8V p-p (Impedance 0~30k Ω)
- * Low Level output 0.8V p-p (Impedance 4.5k Ω)

■ OPERATION

1. Power Switch

Flick the lever down to ON to turn on the power

2. Rhythm Section Control Lever

When this switch is pushed up the (A) rhythm section is in operation; push it down for the (B) section

3. Rhythm Selector

Use this selector and the rhythm section control lever to select the desired rhythm

4. Start/Stop Switch

Use this switch when you want the rhythm to start or to stop. The same switch provides both functions.

5. Tempo Control

Turn to the right for a faster tempo, to the left for slower.

6 Lamps

With the unit set in rhythm stop mode, these lamps serve a pilot function (showing the power is ON) and at the same time indicate which rhythm section is set; with the rhythm on, the lamp serves a tempo function, flashing the first beat of every measure according to the rhythm selected.

7. Additional Volume Controls

Special tonal effects and sounds can be blended in by setting the various tone controls for Quijada, Guiro and Tambourine.

8. Master Volume Control

Move this control up to increase the over-all rhythm volume.

9. Tone Balance Control

Move this control up to accentuate the cymbal and maracas tones

■ FOOT PEDAL OPERATION

Insert the foot pedal plug into the jack on the rear panel. The foot pedal will then operate as the start/stop switch, letting you control these functions with your foot.

■ PRECAUTIONS

- * Be certain the power switch is turned off whenever plugging in or unplugging the connector cord.
- * Try to place the unit in a location well removed from fluorescent lights, electric devices with thermostats, motors, etc., for such equipment can cause noise and rhythm fluctuations in the rhythm performance.
- * Be sure to protect the unit from excessive heat, humidity, dust and vibrations

■ SPECIFICATIONS

RHYTHM:

Waltz	Jazz Waltz
Samba	Meringue
Mambo	Cha-cha
Rumba	Beguine
Tango	Habanera
Bossanova	Slow Rock
Rock 1	Rock 2
Rock 3	Rock 4
March 2/4	March 6/8
Swing	Latin Swing

PERCUSSIVE SOUND:

Bass Drum
Conga
Large Bongo
Small Bongo
Claves
Cow Bell
Snare Drum 1.2
Cymbal 1 2
Hi-Hat
Quijada (additional)
Guiro (")
Tambourine (")

OUTPUT VOLTAGE:

8V p-p(High), 0.8V p-p(Low)

POWER CONSUMPTION:

4W, AC 117V, 50/60Hz.

TRANSISTORS:

47 Transistors and 178 Diodes

DIMENSIONS:

Width: 10.3 in Length: 12.4 in.
Height: 3.8 in.







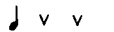



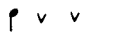




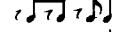
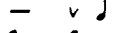



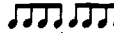
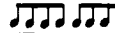
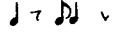
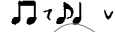
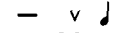
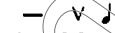






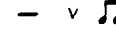



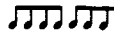



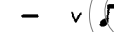





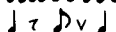

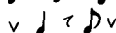


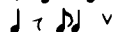








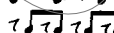
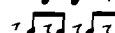



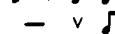



















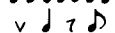
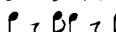
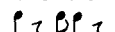

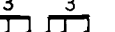



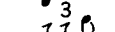


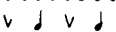

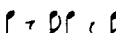

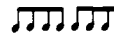



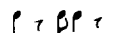

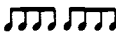

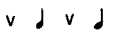

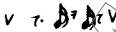

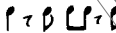

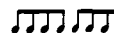



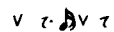







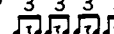





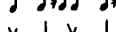



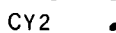

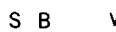

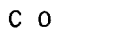



WEIGHT:

8.25 lbs

ACCESSORIES:




Connecting Cord with plugs
Foot Pedal
Vinyl Cover

AVAILABLE RHYTHMS

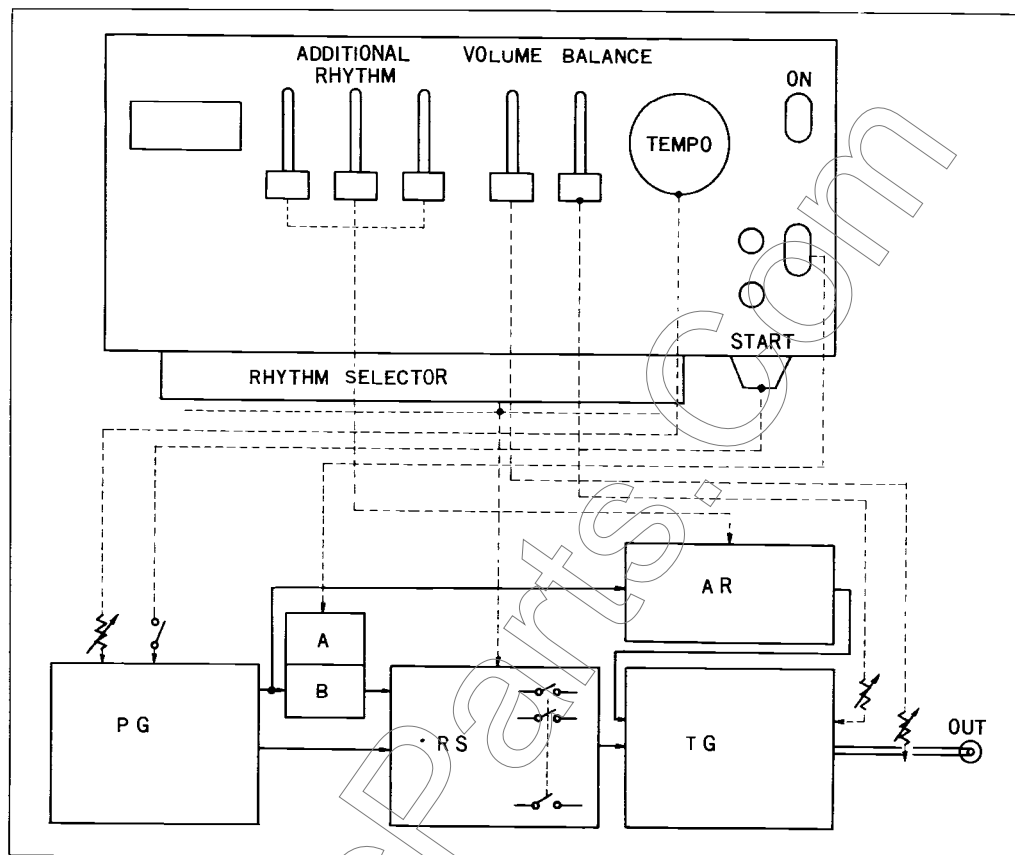
<p>WALTZ</p> <p>CY1   PATTERN NO 2</p> <p>SD1   26</p> <p>B D   2</p>	<p>JAZZ WALTZ</p> <p>CY1   PATTERN NO 2</p> <p>SD1   26</p> <p>B D   2</p>
<p>SAMBA</p> <p>H H   25</p> <p>C B   11</p> <p>C O   5</p> <p>B D   30</p>	<p>MERINGUE</p> <p>H H   25</p> <p>C B   11</p> <p>C O   5</p> <p>B D   30</p>
<p>MAMBO</p> <p>H H   25</p> <p>C B   15</p> <p>C O   20</p> <p>B D   22</p>	<p>CHA-CHA</p> <p>H H   25</p> <p>C B   15</p> <p>C O   20</p> <p>B D   22</p>
<p>BUMBA</p> <p>H H   24</p> <p>C L   13</p> <p>S B   12</p> <p>L B   4</p> <p>C O   20</p> <p>B D   17</p>	<p>BEGUINE</p> <p>H H   24</p> <p>C L   13</p> <p>S B   12</p> <p>L B   4</p> <p>C O   20</p> <p>B D   17</p>
<p>TANGO</p> <p>CY1   29</p> <p>SD2   1</p> <p>H H   18</p> <p>B D   18</p>	<p>HABANERA</p> <p>CY1   29</p> <p>H H   18</p> <p>B D   18</p>
<p>BOSSANOVA</p> <p>H H   23</p> <p>C B   14</p> <p>B O   19</p>	<p>SLOW ROCK</p> <p>H H   23</p> <p>C B   14</p> <p>B D   19</p>
<p>ROCK 1</p> <p>H H   25</p> <p>SD1   10</p> <p>B D   19</p>	<p>ROCK 2</p> <p>H H   25</p> <p>SD1   10</p> <p>B D   19</p>
<p>ROCK 3</p> <p>H H   25</p> <p>SD1   10</p> <p>SD2   21</p> <p>B D   16</p>	<p>ROCK 4</p> <p>H H   25</p> <p>SD1   10</p> <p>SD2   21</p> <p>B D   16</p>
<p>MARCH 2/4</p> <p>SD2   6</p> <p>B D   9</p>	<p>MARCH 6/8</p> <p>CY2   27</p> <p>B D   9</p>
<p>SWING</p> <p>CY2   7</p> <p>SD2   6</p> <p>B D   8</p>	<p>LATIN SWING</p> <p>CY2   7</p> <p>S B   3</p> <p>C O   28</p> <p>B D   8</p>

NOTE : BD: BASS DRUM CO: CONGA LB: LARGE BONGO SB: SMALL BONGO CL: CLAVES

CB: COW BELL HH: HI-HAT SD: SNARE DRUM CY: CYMBAL

TAMBOURINE  GUIRO  QUIJADA - v 

BLOCK DIAGRAM

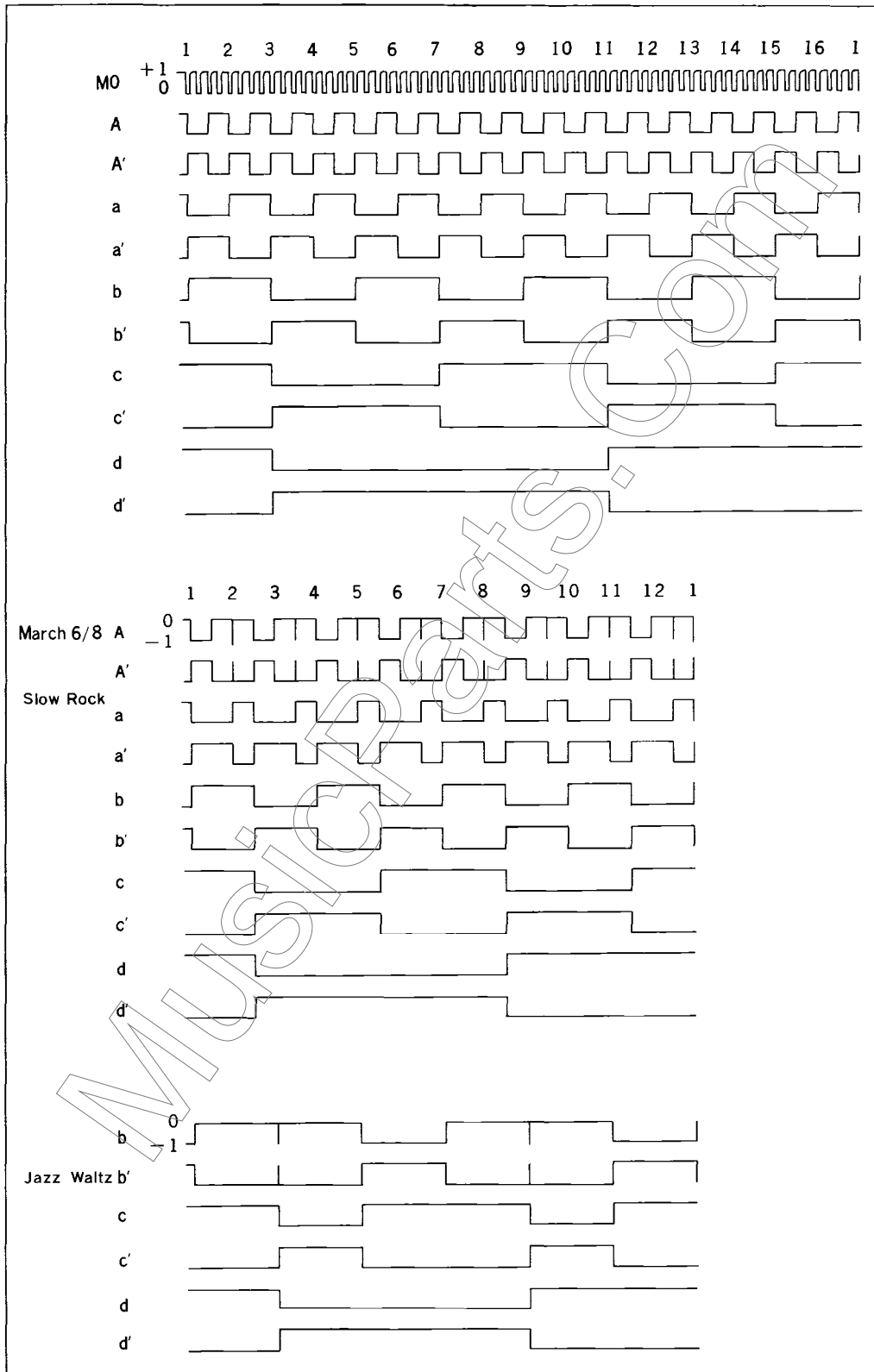


NOTE: T G= Tone Generator
P.G= Pulse Generator
R.S= Rhythm Selector
A.R= Additional Rhythm
A.B= Above Below
-----> Mechanical Control
-----> Electrical Control
====> Signal

The 30 sorts of pulse pattern are produced in AND-and OR-circuits of the Pulse Generator as shown in block diagram. The groups, which only approximate Rhythm Patterns are particularly collected and the groups added direct to Rhythm Selector switch are connected with Rhythm Selector, where desired rhythms are selected. Those groups are added to Tone Generator as pulse input.

Tone Generator consists of 14 sounds, whose sound source is One Sound per One pulse and a Guro sound, which acts on only positive potential. That is 15 sounds in all. Tone Generator is also amplified to the voltage so that electronic organs and guitar amplifiers can send sounds with proper volume out, and is connected with output jacks.

PULSE GENERATOR WAVE FORM



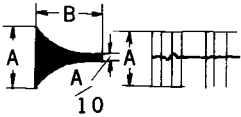
PULSE GENERATOR RHYTHM PATTERN

Term. NO.	Circuit	Pulse Output	Rhythm
1	P		Tango Habanera
2	8		Waltz Jazz Wtz.
3	ko		Bos.SI Rock Rock 1.2
4	4 E ke		Rumba Begaine
5	6		Samba Meringue
6	BHL		Mar. Sw. Lat.Sw.
7	2711		Swing Lat-Sw.
8	17L		Swing Lat-Sw.
9	4 ke ko		March
10	6ka ko		Rock 1, 2, 3, 4
11	9 DFH I JMN iwa ku		Samba Meringue
12	L N sa		Rumba Begaine
13	13 14 15 16 17		Rumba Begaine
14	ABCD O ke ko		Bossanova Slow Rock
15	2 ka ki		Mambo Cha-cha

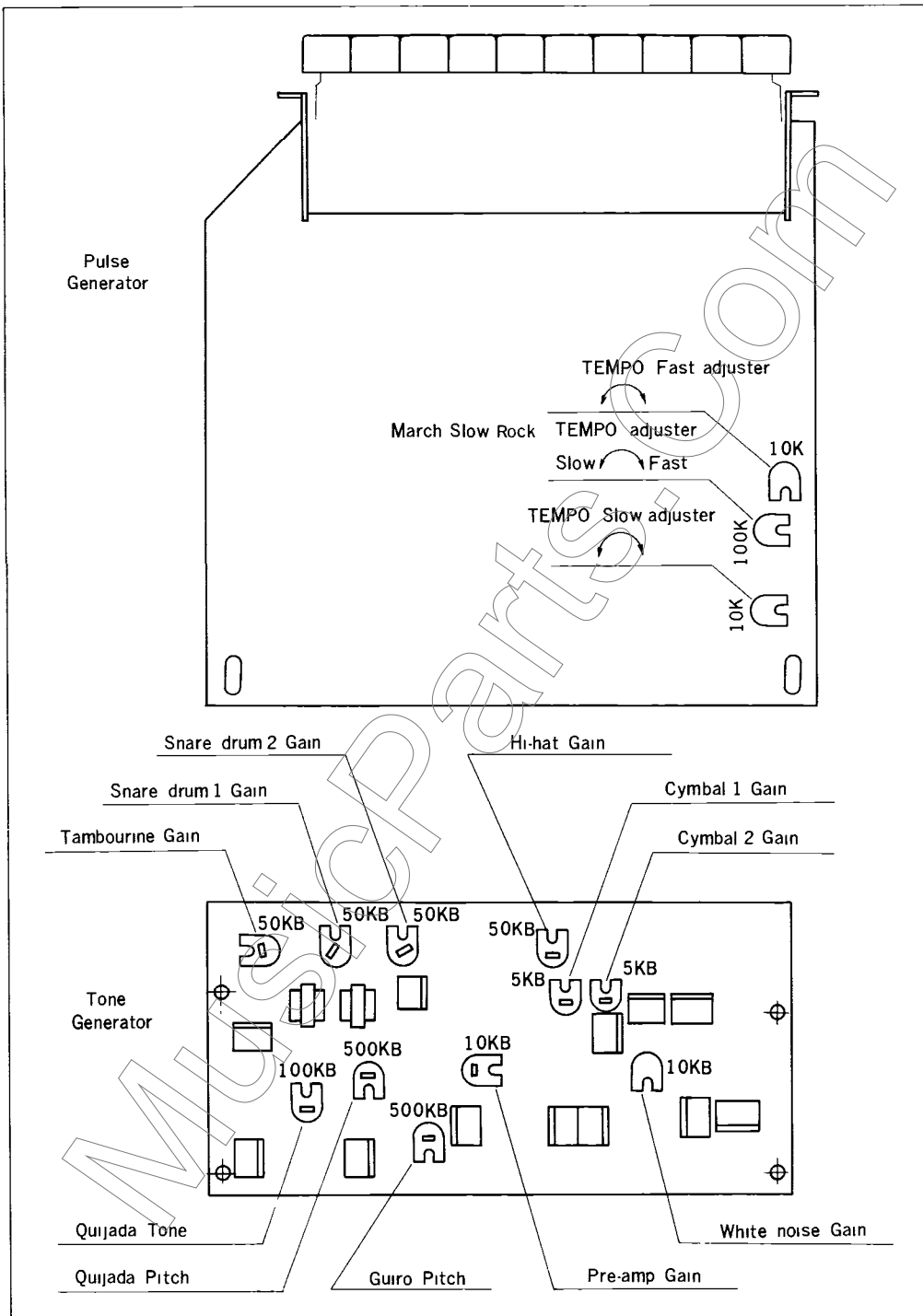
Term No.	Circuit	Pulse Output	Rhythm
16	4 10 E N ke		Rock 3 4
17	4 6		Rumba Begune
18	17 L 1		Tango Habanera
19	4 10 12		Bossanova Slow Rock
20	6 10		Mam. Cha Rum Beg
21	7 G a		Rock 3,4
22	17 12		Mambo Cha-cha
23	1 sa si		Bossanova Slow Rock
24	1 K		Rumba Begune
25	1		Sam Mer. Rock 1~4 Mam Cha
26	5 6 0		Waltz Jazz Wtz
27	sa su		March
28	e ke		Swing Lat-Sw
29	P ku		Tango Habanera
30	4 i		Samba Meringue

● A switch X B switch

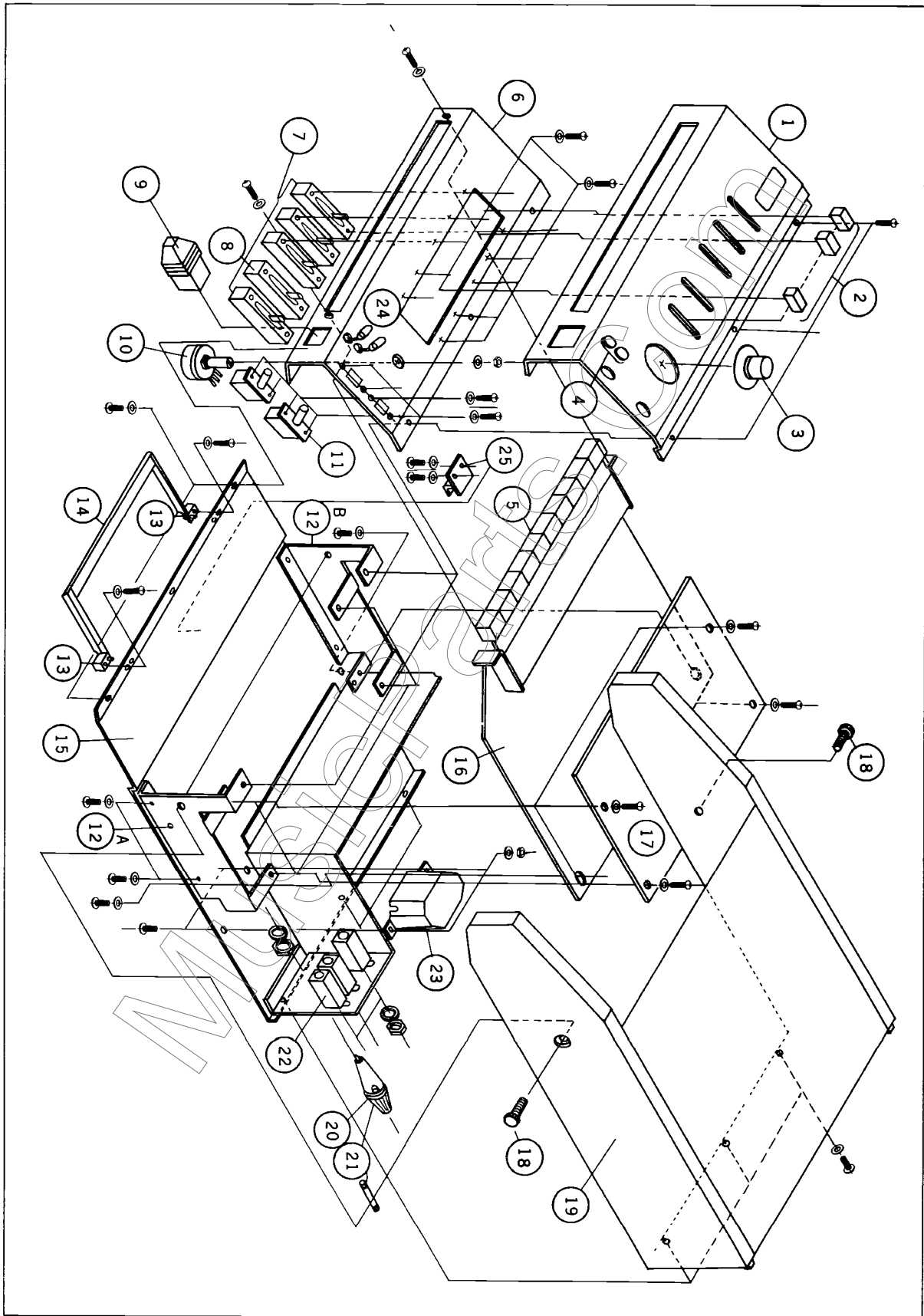
OUTPUT LEVEL

Sound name	Output		Frequency or Resonance Frequency	
Bass Drum	A 1.6 V	B 80 msec	65 ^{HZ}	
Conga	1.6	270	194	
Large Bongo	1.26	70	400	
Small Bongo	1.5	40	600	
Claves	5.3	14	2200	
Cow Bell	3.35	55	4600	Harmonic Tone
			860	Fundamental Tone
Hi - Hat	1.2	30	8150	Resonance Frequency
Snare Drum	1 2.5	170	5500	"
"	2 2.0	140	5000	"
Cymbal	1 2.0	400	5600	"
"	2 1.2	160	5600	"
Gurro	4	-	4100	Signal 65HZ
Qurjada	5	300	2730	" 25HZ
Tambourine	3	90	4600	

ADJUSTMENTS



MECHANICAL PARTS DIAGRAM

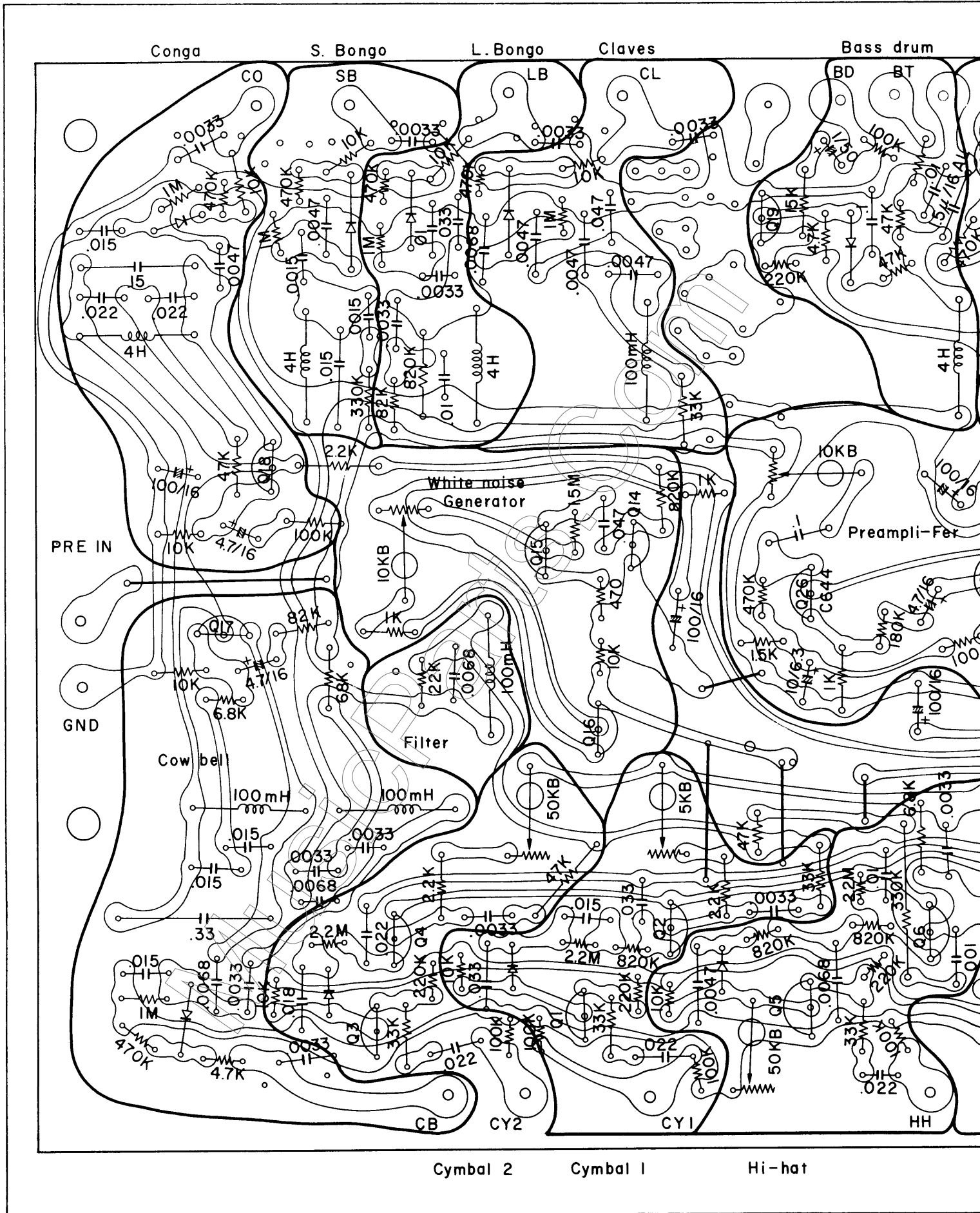


PARTS LIST

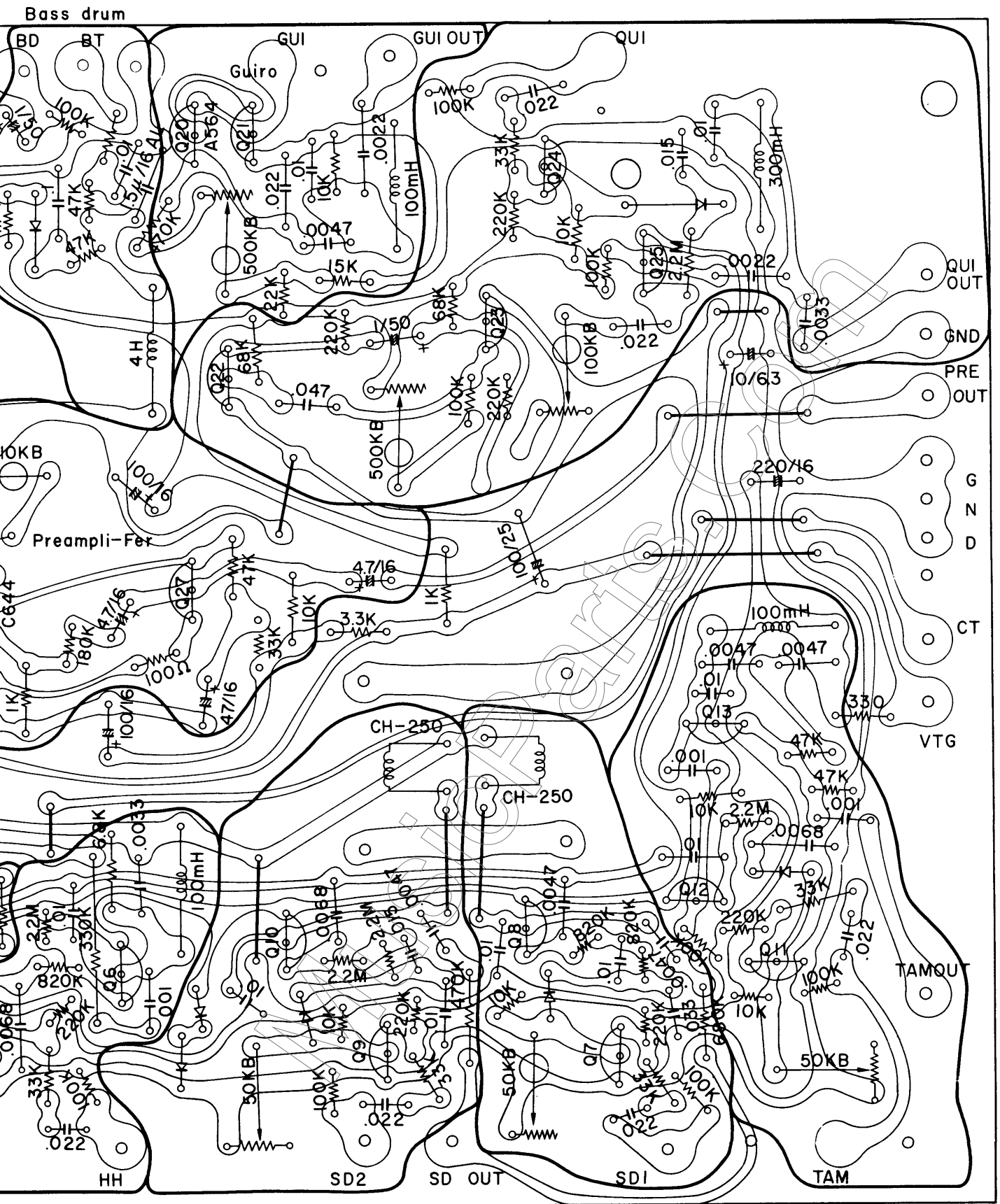
Key NO.	Parts NO	Description	Key NO.	Parts NO.	Description
1	320-01001	Front Panel	26	412-02001	Strain Relief Bushing
2	331-01001	Mold Knob	27	510-06002	Name Plate
3	330-05001	Metal Knob	28	510-06001	Mark UNI-VOX
4	370-02001 370-02002	Red Green Lamp Holder	29	510-06003	Caution
5	210-01001	10 Key Sw Slide Push Switches	30	380-04001	Rubber Foot NO1
6	240-01004	Front Chassis	31	380-04002	Volume Mask NO2
7	251-02503	Carbon Variable Resistor Slide Type B50K	32	380-04003	Switch Mask NO4
8	251-01503	Carbon Variable Resistor Slide Type A50K	33	380-04004	Sub-chassis Spacer NO5
9	230-01001	Key Switches H-5	34	340-02004	Plastic Cover
10	250-01503	B50K Carbon Variable Resistor	35	410-01001	Power Supply Cords SPT2
11	221-01001	#45 Toggle Switches			Pulse Generator Parts NO1
12	240-01002A 01003B	Circuit Board Rack			
13	350-01002	Handle Holder			
14	350-01001	Handle			
15	240-01001	Frame			
16	180-08001	PG Print Circuit Board		110-05001	2SC-828(R)
17	180-08002	TG Print Circuit Board			Diodes
18		Cabinet Screw		170-01003	WG-713
19	340-02001 3	Plastic Cover			Silicon Rectifiers
20	230-01001	Fuse Holder #859		170-02001	S05-02
21	230-02001	Fuse MF61M			
22	240-01001	Headphone Jack			Fixed Carbonfilm Resistors Type V 1/4 W 10%
23	190-02001	Power Trans-former		120-01101	100 Ω
24	370-01001	Subminiature Lamp		" 01102	1K
25	340-02005	Handlecatch		" 01222	2 2K
				" 01332	3 3K
				" 01472	4 7K
	Mechanical Parts				

Key NO	Parts NO	Description	Key NO.	Parts NO.	Description
	120-01103	10K Ω		141-25473	B 25V.470 μ F
	-01153	15K			
	-01223	22K			
	-01333	33K			
	-01473	47K			
	-01683	68K			
	-01184	180K		110-05003	2SA 564 (O)
	-01224	220K		-05002	2SC 828 (R)
	-01824	820K		-05001	2SC 644 (R)
	Polyester Film Capacitors			Diodes	
	130-01332	50V 0033 μ F		170-01003	WG. 713
	-01103	.01		Fixed Carbonfilm Resistors	
	-01153	.015		Type $\frac{1}{4}$ W \pm 10%	
	-01333	.033		120-01101	100 Ω
	-01473	.047		-01331	330 Ω
	-01683	.068		-01471	470 Ω
	Semifixed Resistors			-01102	1K
	160-01103	8 ϕ B 10K		-01152	1.5K
	-01104	" B 100K		-01222	2.2K
	Resistors Type $\frac{1}{2}$ W			-01472	4.7K
	120-21101	$\frac{1}{2}$ W 100 Ω		-01682	6.8K
	-21221	$\frac{1}{2}$ W 220 Ω		-01103	10K
	A. L. Electrolytic Capacitors			-01153	15K
	140-50101	A 50V.1 UF		-01223	22K
	-25471	" 25V.4.7 "		-01333	33K
	-16103	" 16V.100 "		-01473	47K
	-25223	" 25V.220 "		-01683	68K

Key NO.	Parts NO	Description	Key NO.	Parts NO	Description
	120-01104	100K		140-50101	A 50V 1 μ F
	-01184	180K		-25471	" 25V 4.7 "
	-01224	220K		-06102	" 6.3V 10 "
	-01334	330K		-16332	" 16V 33 "
	-01474	470K		-16103	" 16V 100 "
	-01684	680K		-16472	" 16V 47 "
	-01824	820K		-25103	" 25V 100 "
	-01105 -01155	1M 1.5M		-16223	" 16V 220 "
	-01225	2.2M		Semifixed Resistors	
	Polyester Film Capacitors			160-01502	8 ϕ B 5K
	130-01102	50V 001 μ F		-01103	" 10K
	-01152	0015		-01503	" 50K
	-01222	0022		-01104	" 100K
	-01332	0033		-01504	" 500K
	-01472	0047		Coil	
	-01682	0068		153-01101	100mH
	-01103	.01		-01301	300m"
	-01153	.015		-01403	4000 "
	-01183	.018		151-01251	CH-250 "
	-01223	.022			
	-01333	.033			
	-01473	.047			
	-01683	.068			
	-01104	.1			
	-01154	.15			
	-01334	.33			
	A.L.Electrolytic Capacitors				



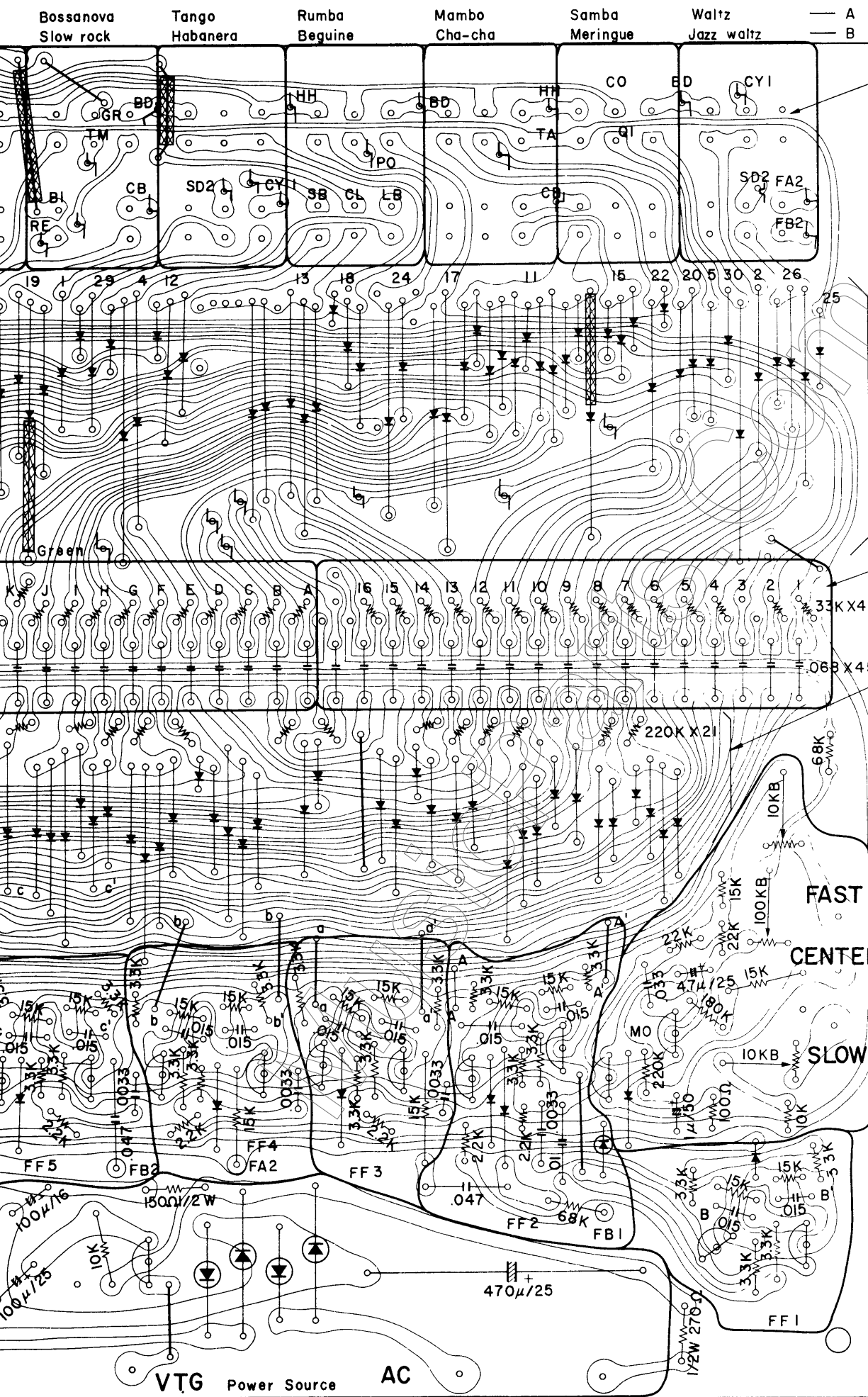
NOTE : D1 : SG-9150 Q1~13, 15~19, 21~25, 27 : 2SC828 Q14, 26 : 2SC644



Snare drum 2

Snare drum 1

Tambourine



- A
- B
- Rhythm Selector
- jumper
- OR Circuits
- Differential Circuits
- AND Circuits
- Master Oscillator
- 2SC-828R
- S-05-2
- WG-713

Bossanova
Slow rock

Tango
Habanera

Rumba
Beguine

Mambo
Cha-cha

Samba
Meringue

Waltz
Jazz waltz

Rhythm
Selector

jumper

OR
Circuits

Differential
Circuits

AND
Circuits

Master
Oscillator

- 2SC-828R
- S-05-2
- WG-713

VTG Power Source AC

FAST

CENTER

SLOW

19 1 29 4 12 13 18 24 17 11 15 22 20 5 30 2 26 25

33K X 45

068 X 45

220K X 21

68K

10KB

100KB

15K

22K

22K

15K

10KB

10K

10K

15K

33K

15K

33K

15K

33K

100µ/16

10K

100µ/25

150µ/2W

470µ/25

14/750

100Ω

1/2W 270Ω

1/2W

0.047

0.0033

0.015

0.015

0.015

0.015

0.015

0.047

0.0033

0.015

0.015

0.015

0.015

0.015

0.047

0.0033

0.015

0.015

0.015

0.015

0.015

0.047

0.0033

0.015

0.015

0.015

0.015

0.015

0.047

0.0033

0.015

0.015

0.015

0.015

0.015

0.047

0.0033

0.015

0.015

0.015

0.015

0.015

0.047

0.0033

0.015

0.015

0.015

0.015

0.015

0.047

0.0033

0.015

0.015

0.015

0.015

0.015

0.047

0.0033

0.015

0.015

0.015

0.015

0.015

0.047

0.0033

0.015

0.015

0.015

0.015

0.015

0.047

0.0033

0.015

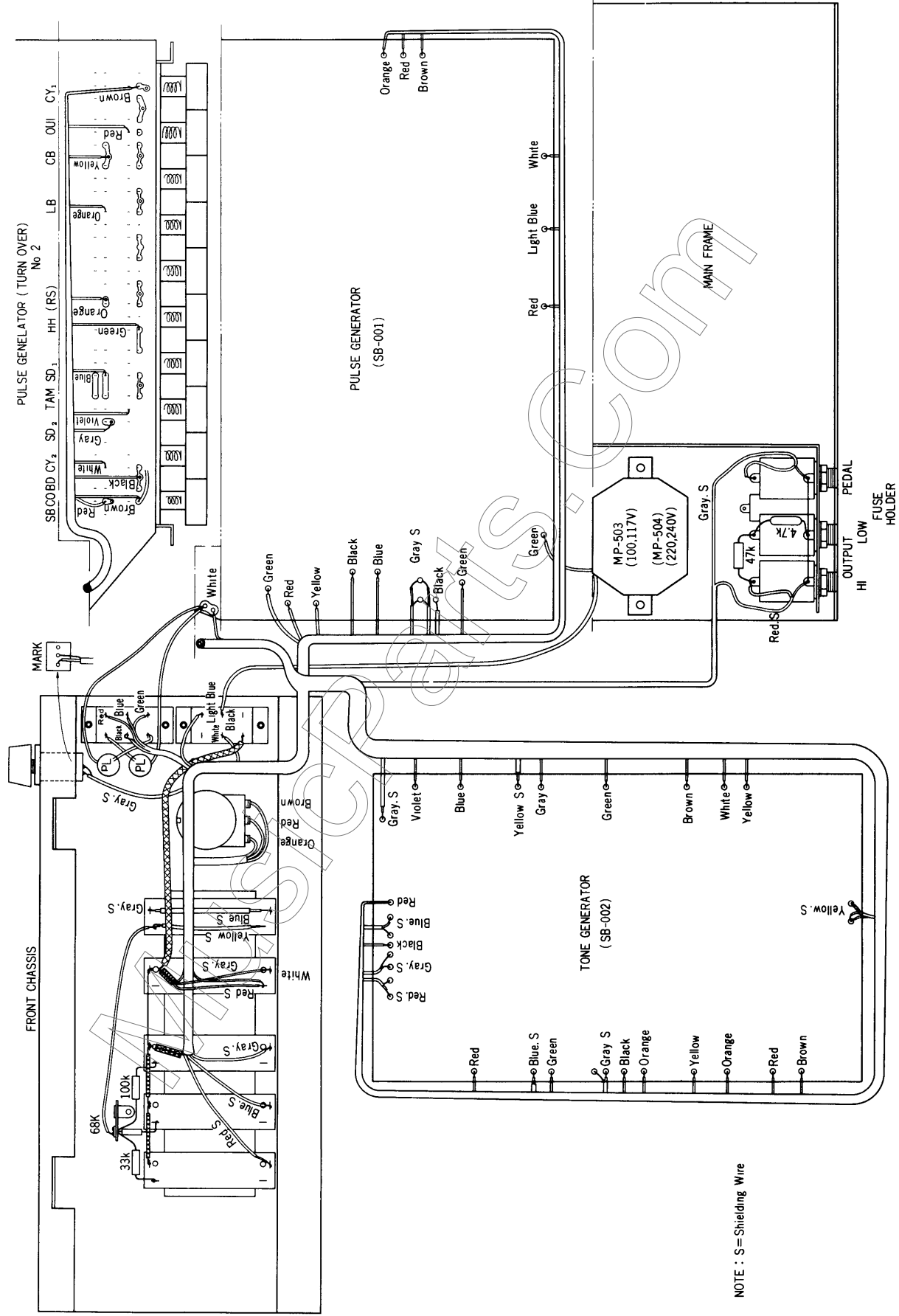
0.015

0.015

0.015

0.015

OVER-ALL WIRING DIAGRAM



NOTE : S=Shielding Wire

SR-95 OVER-ALL CIRCUIT DIAGRAM

