



Serban Nichifor

Composer, Teacher

Roumania, Bucarest

About the artist

http://www.voxnovus.com/composer/Serban_Nichifor.htm

Born: August 25, 1954, in Bucharest, Romania

Married to Liana Alexandra, composer: http://www.free-scores.com/partitions_gratuites_lianaalexandra.htm#

Studies

National University of Music, Bucharest, Doctor in Musicology

Theology Faculty, University of Bucharest

International courses of composition at Darmstadt, Weimar, Breukelen and Munchen

USIA Stipendium (USA)

Present Position

Professor at the National University of Music, Bucharest (Chamber Music Department);

Member of UCMR (Romania), SABAM (Belgium), ECPMN (Holland)

Vice-president of the ROMANIA-BELGIUM Association

Cellist of the Duo INTERMEDIA and co-director of the NUOVA MUSICA CONSONANTE-LIVING MUSIC FOUNDATION INC.(U.S.A) Festival, with Liana ALEXANDRA

Selected Works

OPERA, SYMPHONIC, VOCAL-SYMPHONIC AND CONCERTANTE MUSIC:

Constellations for Orchestra (1977)

Symphony I Shadows (1980)

Cantata Sources (1977)

Cantata Gloria Heroum Holocausti (1978)

Opera Miss Christina (libretto by Mircea ELIADE, 1981... (more online)

Qualification: PROFESSOR DOCTOR IN COMPOSITION AND MUSICOLOGY

Personal web: <http://romania-on-line.net/whoswho/NichiforSerban.htm>

Associate: SABAM - IPI code of the artist : I-000391194-0

About the piece



Title: Dr. Rhythm DR-55 [electronic music]

Composer: Nichifor, Serban

Licence: Copyright © Serban Nichifor

Publisher: Nichifor, Serban

Instrumentation: Electroacoustic

Style: Electro

Serban Nichifor on [free-scores.com](http://www.free-scores.com)

- Contact the artist
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Serban Nichifor

"Dr. Rhythm DR-55"
for tape



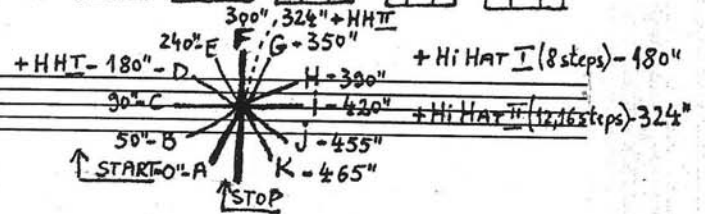
*) see APPENDIX -

1.) RHYTHM PATTERNS (MEMORY) p. 9-14

B.D.
S.D.
R.S.
A.C.

1. (32 steps) α β
2. (32 steps) α β
3. (32 steps) α β
4. (32 steps) α β
5. (32 steps) α β
6. (32 steps) α β
7. (24 steps) α β
8. (24 steps) α β

2.) TEMPI



- TEMPO A = 17" / pattern (32 steps)

- TEMPO B = 16" / pattern

- TEMPO C = 11,5" / pattern

- TEMPO D = 7,5" / pattern

- TEMPO E = 5,3" / pattern

- TEMPO F = 4,2" / pattern

- TEMPO G = 3" / pattern

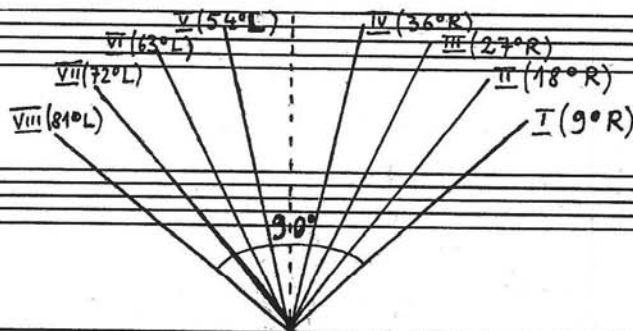
- TEMPO H = 2,4" / pattern

- TEMPO I = 1,8" / pattern

- TEMPO J = 1,4" / pattern

- TEMPO K = 1,1" / pattern

3.) PAN POT OF CHANNELS I-VIII

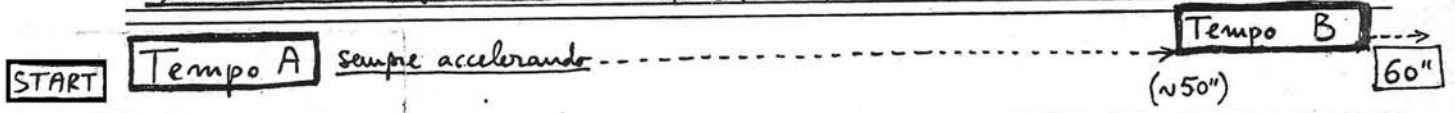


Serban Nichifor
(1986)

"Dr. Rhythm DR-55" for tape

Time: ~ 8'06"

Quasi "Toaca" (accelerando perpetuo)



Channel I (9°)

Channel II (18°)

Channel III (27°)

Channel IV (36°)

Channel V (54°)

Channel VI (63°)

Channel VII (72°)

Channel VIII (81°)

Patterns ($\alpha + \beta$):

1 4 2 8 5

PPP poco a poco crescendo

(sempre accelerando) → **Tempo C** →

(~90") (110") **120"**

Patterns: 1 4 2
(2+3)

I

II

III

IV

V

VI

VII

VIII 7 1 8 5 | 7 1 4 2

PP sempre crescendo

(sempre accelerando) ----->

($\approx 150''$)

180''

I 8 5 7 1 8 5 | 7 1 4 2 8 3 5 7 1 4 2

Patterns ($\alpha + \beta$)

1 4 2 8 5 7 1 8 5

VIII 8 3 5 7 1 4 2 | 8 5 3 1 2 5 2 4

P sempre crescendo ----->

+ Hi HAT I (8 steps)

Tempo D (*sempre accelerando*)

($\approx 205''$)

($\approx 225''$)

240''

Handwritten musical notation on eight staves (I-VIII). The notation consists of numbers written on the staves, representing rhythmic patterns. Vertical dashed lines divide the notation into three sections corresponding to the tempo markings above. The patterns are as follows:

- Staff I: 8 5 3 1 2 5 2 4 | 2 5 7 8 1 6 8 | 7 1 4 3
- Staff II: Patterns ($\alpha + \beta$): 1 4 2 8 5
- Staff III: 7 1 4 2 8 3 5 7 | 1 4 2 8 5 3 | 1 2 5 2
- Staff IV: (Empty)
- Staff V: Patterns ($\alpha + \beta$): 1 4 2 8 5 7 | 1 8 5 7 1 4 2
- Staff VI: (Empty)
- Staff VII: (Empty)
- Staff VIII: 2 5 7 8 1 6 | 8 7 1 4 3 7 1 | 6 4 5 7

mp *sempre crescendo*

Tempo E (sempre accelerando)

(~248")

(~275")

(~290")

300"

I 7 1 6 4 5 7 1 8 5 2 3 1 8 6 5 8 2 5 8 1 6 4 6

II 7 1 8 5 7 1 4 2 8 3 5 7 1 4 2 8 5 3 4 2 5 2 4

III 4 7 2 5 3 7 2 4 6 1 5 3 2 4 7 8 1 5 3 7 2 4 8

IV Patterns ($\alpha+\beta$): 1 4 2 8 5 7 1 8 5 7 1

V 8 3 5 6 2 8 5 1 4 3 7 5 1 2 6 4 3 1 2 4 5 3

VI Patterns ($\alpha+\beta$): 1 4 2 8 5

VII Patterns ($\alpha+\beta$): 1 4 2 8 5 7 1 8 5 7 1 4 2 8 3 1 6 8 7

VIII 4 8 5 2 3 1 8 6 5 8 2 5 8 1 6 4 6 1 2 1 5

mf sempre crescendo

+ Hi HAT II (12, 16 steps)

Tempo F (sempre accelerando) (v324") Tempo G (v350") 360"

Handwritten musical notation for eight staves (I-VIII) with rhythmic patterns and dynamics. The notation includes notes, rests, and dynamic markings such as *poco* and *f*. Vertical dashed lines indicate tempo changes at approximately the 4th and 11th measures.

Staff I: 1 2 1 5 3 7 2 6 1 4 | 5 2 4 3 1 8 5 7 2 | 6 3 1 5 4

Staff II: 2 5 7 8 1 6 8 7 1 | 4 3 3 7 1 6 4 5 | 7 1 8 5

Staff III: 1 6 4 3 7 2 4 8 1 | 3 2 6 5 1 4 8 3 8 | 7 2 1

Staff IV: 2 8 3 5 6 4 7 2 6 | 3 5 1 8 3 8 6 2 5 1 | 4 3 2 5 1

Staff V: 2 5 6 7 1 4 3 6 | 2 5 1 3 8 6 1 2 | 4 3 5

Staff VI: 7 1 8 5 7 1 2 6 8 | 5 3 1 6 5 7 1 8 | 6 3 2 5 1 4

Staff VII: 4 2 5 3 1 8 6 7 | 8 2 5 3 1 8 6 5 | 2 4 1 3 7

Staff VIII: 3 7 2 6 1 4 5 2 4 3 | 1 8 5 7 2 6 3 1 5 | 4 7 8 2

f sempre crescendo

Reverberation poco a poco - - - - -

(sempre accelerando) - - - - -

Tempo H

(~390")

420"

Handwritten musical score for eight staves (I-VIII). Each staff contains a sequence of numbers representing fingerings. Below the numbers are various articulation marks, including slurs and accents, with the word "piu" written below some of them. A vertical dashed line is drawn between the 5th and 6th measures of each staff. The staves are labeled I through VIII on the left side.

ben f sempre crescendo - - - - -

(sempre Reverberation) - - - - -

+N6"

(sempre accelerando) - - - - -

Tempo j

molto affrettando - - - - -

Tempo K

480"

(N445")

(N465")

Handwritten musical notation for eight staves (I-VIII). Each staff contains a sequence of numbers and dynamic markings. The numbers are: I: 4783546273451 4345712423 1(β); II: 634125764 32634251843 24376412518 2(α); III: 83763251417628 3126412474835 3(β); IV: 72454482671623513 817432164(α+β); V: 42653726235412641317242 5(α); VI: 135287368512846832451487 6(α); VII: 74352813246135478252813642 7(β); VIII: 7534567132784138651487654 218(α+β). Dynamic markings include *molto*, *possibile*, and *fff*. A vertical dashed line is drawn between the first and second groups of numbers on each staff.

STOP

l.v.

ff *sempre crescendo* - - - - - *fff* *possibile*



20.11.1986

Suhau Nichifor

APPENDIX

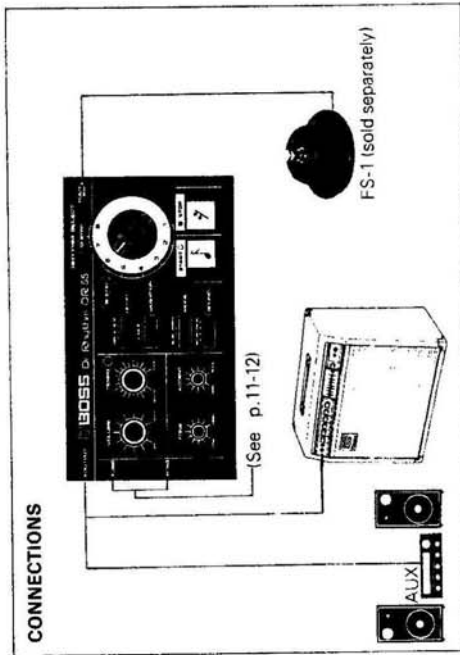
BOSS DR-55 Dr. Rhythm OWNER'S MANUAL



FEATURES DR-55

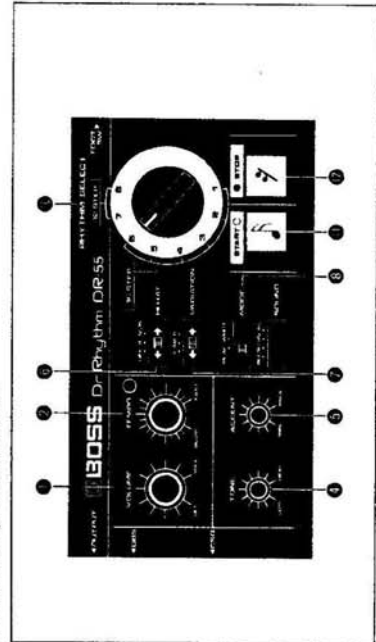
Dr. Rhythm is an extremely small and compact programmable rhythm machine. Sixteen different rhythm patterns can be loaded into the memory, and will be remained even when the power switch is turned off. Each rhythm pattern is divided into sixteen steps with each step loaded one at a time for quick and accurate loading. The three rhythm sounds are: bass drum, snare drum, and rim shot. A standard pattern hi hat sound can also be added to each rhythm. Accents can also be programmed into each pattern. Other machines such as a sequencer or synthesizer can be used with Dr. Rhythm.

2



OPERATION (PLAY) Mode.

Standard rhythm patterns were loaded into memory at the time of manufacture, so that Dr. Rhythm is ready to use right out of the box.



1. Set the controls as shown in the drawing.

2. Press START (8) to start the rhythm and STOP (8) to stop it.

3. Adjust the loudness of the sound with the VOLUME control (1) and the external amplifier volume control.

4. While listening to the rhythm, try the TEMPO (2), TONE (4), ACCENT (3), HI HAT (5), VARIATION (6), and RHYTHM SELECT (7) controls to see what effect they have. These controls are covered in detail in the following pages.

NOTE: Do not change the position of the MODE switch (9).

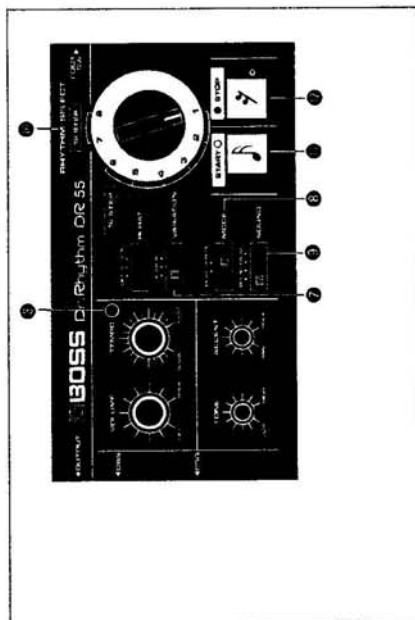
3

WRITE Mode

Writing a rhythm into memory will erase any previous rhythm pattern written there, so be sure that the RHYTHM SELECT ① and VARIATION ② switches are set as desired before writing new patterns.

With Dr. Rhythm, each measure is divided into sixteen steps (or twelve steps) for writing rhythm patterns, the patterns should be thought of in terms of sixteenths. In other words, think of $\frac{1}{16}$ as being: $\text{♩} \text{♩} \text{♩} \text{♩} \text{♩} \text{♩} \text{♩} \text{♩} \text{♩} \text{♩} \text{♩} \text{♩} \text{♩} \text{♩} \text{♩} \text{♩} \text{♩} \text{♩}$

To load this pattern, press [L] ① for ♩ and [R] ② for ♩ .



Writing 16-Step Patterns

1 Set RHYTHM SELECT ① as desired; set the VARIATION switch ② at "A" or "B". In the example, the rhythm pattern will be loaded as rhythm pattern 1-A.

2 Set the MODE switch ③ at WRITE; the TEMPO indicator ④ should light indicating the beginning of the measure.

NOTE: The MODE switch ③ should be changed to the WRITE position *only* when the rhythm pattern is not running. If the TEMPO indicator ④ does not light, use either of these two methods:
Press [L] ① enough times to light the TEMPO indicator.

Set the MODE switch ③ at PLAY

and press «STOP», then return the MODE switch ③ to WRITE.

3 Select the desired sound with the SOUND switch ⑤. After loading sixteen steps, the TEMPO indicator ④ will light showing that the measure is fully loaded.
In the example, the bass drum sound has been selected for loading.

4 Write the rhythm using the [L] ① and [R] ② buttons. After loading sixteen steps, the TEMPO indicator ④ will light showing that the measure is fully loaded.
If the TEMPO indicator ④ does not light, it indicates that the measure has not been completely loaded. Check by playing the rhythm, or write the rhythm again from the beginning.

5 Repeat Steps 3 and 4 above for

Writing 12-Step Patterns

Set RHYTHM SELECT ① at either "7" or "8". Load in the same manner as above, but using twelve steps instead of sixteen.

12-step rhythm patterns can be used for triple rhythms such as 3/4 and 3/2.

Writing 32- and 24-Step Patterns

If the VARIATION switch ② is at "AB", the rhythm pattern will alternate between A and B when played. Often, the pattern loaded into B is a variation of the A pattern in order to get more variety during performance; however, if the two 16-step (or 12-step) measures produced by the AB pattern are thought of as one 32-step (or 24-step) measure, patterns based on 32 and 24 steps can be programmed.

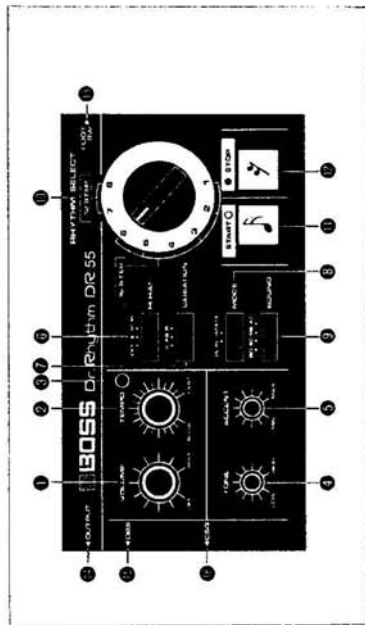
To load, set the VARIATION switch ② at "AB" and load 32 steps (or 24 steps with RHYTHM SELECT ① at "7" or "8"). The TEMPO indicator ④ will light once halfway through the pattern, and again at the end of the pattern to indicate that loading is complete.

Example of use:

With a little forethought, it would be possible to load various rhythm patterns such as an introduction, fill-ins, breaks, etc. into the various memory slots in such a way that the rhythm part for an entire composition could be produced non-stop by changing the RHYTHM SELECT ① and VARIATION ② switches while the rhythm pattern runs. To accomplish this, rhythm patterns at the beginning of the composition should be loaded into the lower numbered

places of the RHYTHM SELECT switch ①. For example, the introduction should be loaded into position 1. The main rhythm patterns for the composition should be near the center; positions 3 and 4, for example. Position 6 would be used for the close. In this way, the RHYTHM SELECT ① switch need be moved only one step at a time when a change occurs. Changes in RHYTHM SELECT ① and the VARIATION switch ② should be made as close to the bar lines as possible in order to produce a smooth transition.

NAMES AND FUNCTIONS OF THE CONTROLS



1 VOLUME Control/POWER Switch
The VOLUME control **2** also serves as the POWER switch. Turn the VOLUME control **2** fully counter-clockwise to turn the DR-55 off.

NOTE: The POWER switch function is interlocked to the OUTPUT jack **9**. If there is no connection at the OUTPUT jack **9**, the DR-55 cannot be turned on.

3 TEMPO Control
Controls the tempo of the rhythm when played.

4 TEMPO Indicator LED
Flashes at the beginning of each measure.

In the PLAY mode, the TEMPO indicator **4** gives a visual indication of the tempo.

In the WRITE mode, the TEMPO indicator **4** indicates the point where loading can begin, and after loading the correct number of steps (12 or 16),

function of the DR-55 remotely when in the PLAY mode.

5 OUTPUT Jack
For connection to an amplifier. A cord must be connected to this jack to be able to turn on the POWER SWITCH **1**.

6 DBS Jack
7 CSQ Jack
For controlling external devices with the DR-55.

DBS: Outputs a pulse for each step in the rhythm pattern.

CSQ: Outputs a pulse at each step where an accent is programmed. When this jack is used, accents no longer occur in the programmed rhythm patterns.

With new batteries, the output pulses are:

DBS: +5v, 8ms

CSQ: +4v, 10ms

Remember that these pulse levels will

8 START Button
9 STOP Button

In the PLAY mode, these buttons control the start and stop of the rhythm patterns. Pressing START will always start the rhythm from the beginning of the measure. When the rhythm is not running, the STOP button **9** can be used to return the rhythm sequence to the first beat in the measure.

In the WRITE mode, these buttons are used to load the sound selected with the SOUND switch **4**. The rhythm is loaded one step at a time; press **8** for those steps where the sound is to occur and press **9** where no sound is to occur.

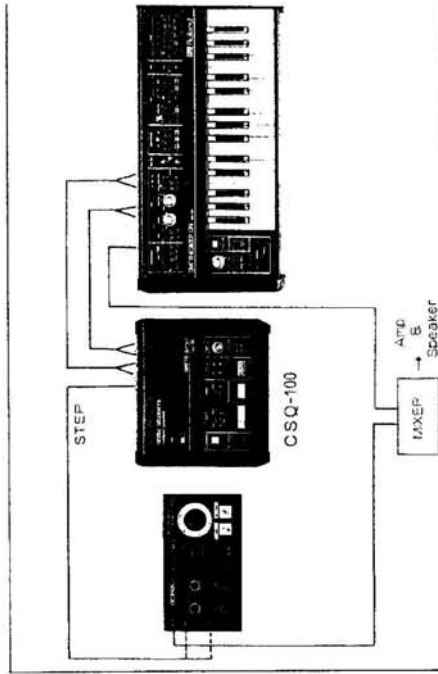
10 FOOT SWITCH Jack
By connecting a foot switch (such as the Roland FS-1, sold separately) to the FOOT SWITCH jack **10**, it is possible to control the START/STOP

become lower as the batteries age.

10

USING EXTERNAL DEVICES

1. Using the CSQ-100 Digital Sequencer



2 MODE Switch

Determines whether the DR-55 is in the PLAY mode or WRITE mode. When not actually programming rhythm patterns, this switch should always be left in the PLAY mode position to prevent accidental erasure of rhythm patterns.

3 SOUND Switch
Used to select sounds and accent when programming rhythm patterns.

BD = bass drum; **SD** = snare drum; **RS** = rim shot; **AC** = accent

4 RHYTHM SELECT
In PLAY mode, determines which rhythm will be played; in WRITE mode, determines where the rhythm will be written.

5 VARIATION Switch

For each position of RHYTHM SELECT **4**, it is possible to load two rhythm patterns: A and B. In other words, using the A and B variations and the eight positions of RHYTHM SELECT **4**, it is possible to load sixteen separate rhythm patterns.

In the PLAY mode:
At "A" or "B", the A and B variations are produced. At "AB", the A and B patterns are played one after the other in series: A, B, A, B, etc.

In the WRITE mode:
The VARIATION switch **5** determines which variation memory (A or B) the pattern will enter when loaded. At "AB", two measures can be loaded in series.

it comes on again to indicate that loading is complete.

6 TONE Control
Controls the tone color of the percussion sounds.

7 ACCENT Control
Controls the dynamic range of the rhythm patterns. At MIN, the programmed accents will be weak; at MAX, strong.

If accents are not programmed, this control has no effect on the sound.

8 HI HAT Switch
This switch is for adding the hi hat sound to the programmed pattern. At OFF, there is no hi hat sound. At "8", the hi hat sound will occur eight times per measure. At "12/16", the hi hat will occur twelve times per measure in the 12-beat rhythm and sixteen times for the 16-beat rhythm.

9

11

A. DBS jack to the CSQ-100 STEP INPUT jack

The CSQ-100 will advance one step each time the DR-55 advances one step. (one step = sixteenth note).

B. CSQ jack connected to CSQ-100 STEP INPUT jack

The CSQ-100 will advance one step at each point where an accent is programmed.

If the position of RHYTHM SELECT is changed at the end of each measure, twelve measures of different melody rhythm can be played.

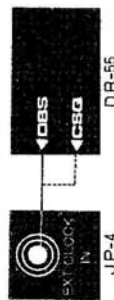
If the CSQ jack is connected to the CSQ-100 GATE INPUT jack, the CSQ-100 GATE REWRITE mode can be used for programming rhythm patterns loaded into the DR-55.

	DR-55	CSQ-100
(a) DBS	<p>DBS Pulse</p>	<p>CSQ Pulse</p>
(b) CSQ	<p>CSQ Pulse</p>	<p>CSQ Pulse</p>

LOAD MODE (CV ONLY)

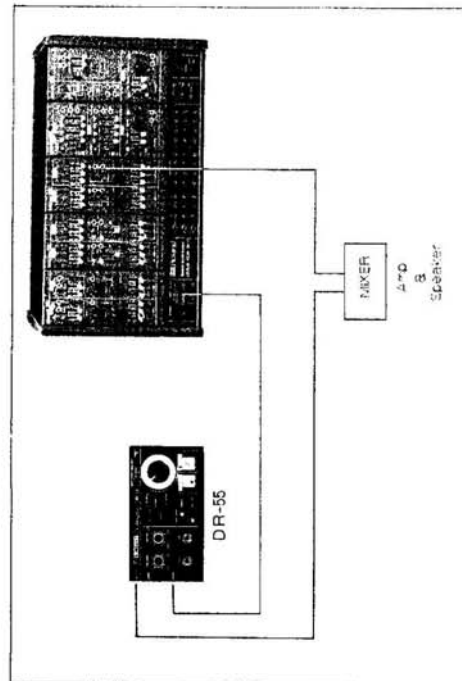
2. Using the JP-4 Polyphonic Synthesizer

The DBS output can be used to control the JP-4 arpeggio rate.

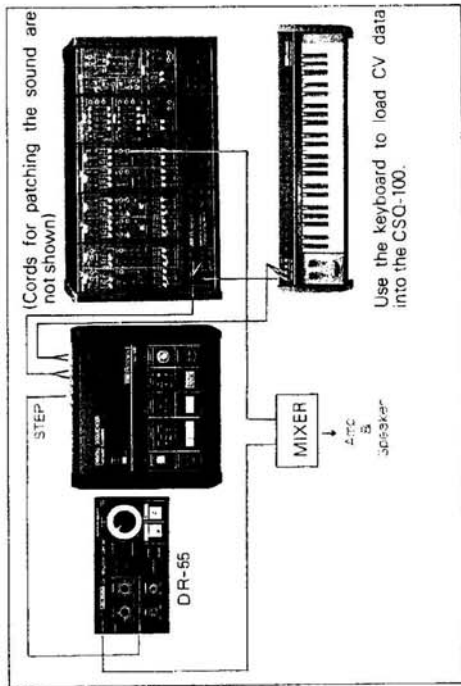


3. Using the System 100M Synthesizer

A percussion voice can be synthesized with the System 100M Synthesizer and triggered from the CSQ jack. In this way, another voice can be added to the DR-55 rhythm patterns.



Examples: Use the CSQ-100 Digital Sequencer for percussion voices with pitch or tone color changes.



CHANGING BATTERIES

When the batteries have become one year old, or when the tone color of the percussion sounds begins to deteriorate, the batteries should be replaced. If the new batteries are inserted within approximately three minutes of removing the old batteries, the rhythm patterns contained in the memory will remain intact.

TO REPLACE:

1. Turn off the POWER switch, remove the screw and open the lid.
2. Being careful not to pinch the wires, remove the battery case from the compartment and un-snap the connector from the battery case.
3. Replace the old batteries with new batteries; **OBSERVE POLARITY.**
4. Re-connect the connector.
5. Being careful not to pinch the wires, replace the battery case in its compartment.
6. Close the lid and replace the screw.

Supply: 6V dc
 Dimensions: 211(w) x 116(d) x 53(h) mm
 Weight: 850g
 Dimensions: Batteries UM-3
 Weight: Connection cord (PJ-1)
 Access

Specifications are subject to change
 without notice

- SPECIFICATIONS**
DR. RHYTHM DR-55
Controls and Switches
 VOLUME Control / POWER Switch ①
 TEMPO Control ② / TEMPO Indicator ③
 TONE Control ④
 ACCENT Control ⑤
 HI-HAT Switch (OFF, 8, 12/16) ⑥
 VARIATION Switch (A, AB, B) ⑦
 MODE Switch (PLAY, WRITE) ⑧
 SOUND Switch (BD, SD, RS, AC) ⑨
 RHYTHM SELECT (1-8) ⑩
 START Button ⑪
 STOP Button ⑫
Jacks
 OUTPUT Jack ⑬
 DBS Jack ⑭ (output pulse: +5V, 8ms)
 CSQ Jack ⑮ (output pulse: +4V, 10ms)
 FOOT SWITCH Jack ⑯ (for FS-1)

Adjust TEMPO control as desired.

Standard rhythm patterns were loaded into memory at the time of manufacture.

and at

Press at

RHYTHM SELECT 3

BD-LED
 SD-LED
 AC-LED
 VARIATION → AB
 HI-HAT OFF

RHYTHM SELECT 4

BD-LED
 SD-LED
 RS-LED
 AC-LED
 VARIATION → AB
 HI-HAT → 8, 16

RHYTHM SELECT 5

BD-LED
 SD-LED
 RS-LED
 AC-LED
 VARIATION → AB
 HI-HAT → 8, 16

RHYTHM SELECT 6

BD-LED
 SD-LED
 RS-LED
 AC-LED
 VARIATION → AB
 HI-HAT → OFF, 8, 16

RHYTHM SELECT 7.

RHYTHM SELECT 8.

LED

BD-..... LED

SD-..... LED

RS-..... LED

AC-..... LED

REPEAT

VARIATION → AB

VARIATION → A, B or AB

HIHAT → (6)12

LED

BD-..... LED

SD-..... LED

AC-..... LED

REPEAT

VARIATION → AB

VARIATION → A, B or AB

HIHAT → 8, 16

