

Note:

The pilot lamp is on when writing the first instrument sound or when clearing the rhythms. But when writing the four instrument sounds in order, the lamp will light up from the second through fourth instrument sound, when the first step has been written.

■ Specifications

Mode Switch	1
Step Selector	1
Write Key ()	2
Pilot Lamp	1
Output Plug	3
(black, red, gray)	
Power Source	(006P battery)
Dimensions	100(W) × 55(H) × 75(D) mm
Weight	380 g



WS-1 OWNER'S MANUAL



Roland Corporation



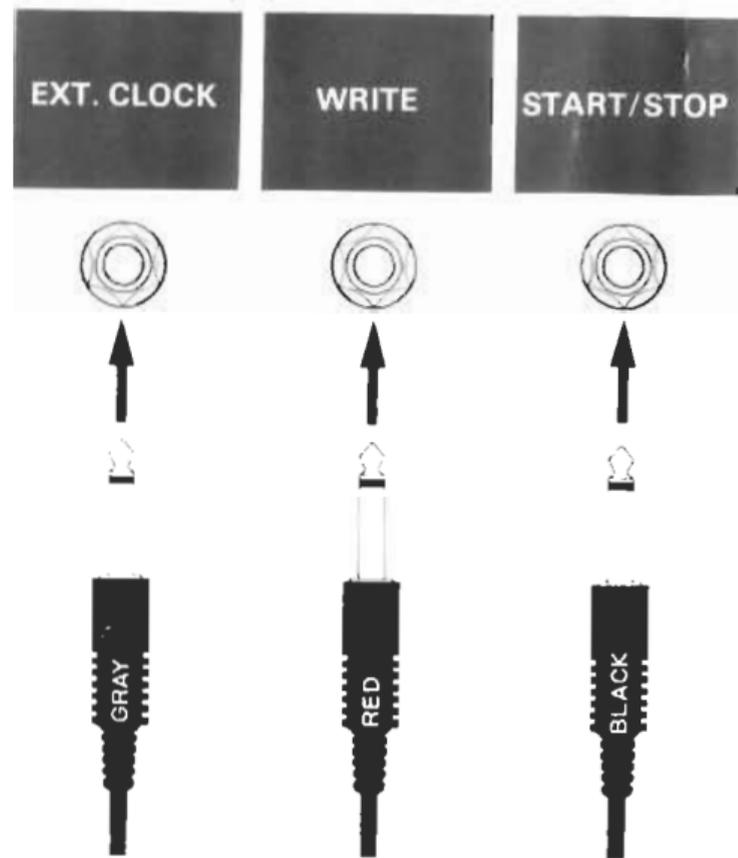
BATTERY POWER

Write Switch the WS-1 is a writing machine made exclusively for the CR-78. The rhythm pattern is divided into steps of either 8, 12, 16, 24 and 48 and each step is programmed mechanically. This makes the writing of rhythms easy as well as precise.

Note:

- The WS-1 can only be used with the CR-78.
- The WS-1 uses the DC power source (006P battery). If the pilot lamp does not light up when the power is turned on, remove the four screws at the bottom and change the battery.
- Always turn off the Mode Selector when the WS-1 is not in use.

Connections



● Instructions for Operation

Writing Rhythms

- 1** After making the necessary connections, first set the Mode Switch to WRITE and then turn on the power of the CR-78.

WS-1

MODE SW
CLEAR ●
WRITE ●
POWER ●
OFF

CR-78

POWER
ON
OFF
- 2** Press the Start/Stop Button of the CR-78 once. Check to see if the Tempo Pilot lamp is on. If the lamp is not lighted up, start from instruction no. 1 all over again.

CR-78

START/STOP
- 3** Choose the place where you want to write in the rhythm from the Program Rhythm buttons I - IV of the CR-78.

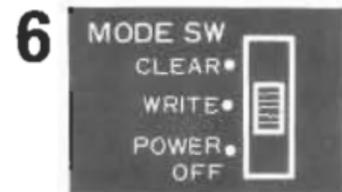
CR-78

PROGRAM RHYTHM
- 4** Set the Mode Switch of the WS-1 at CLEAR.

WS-1

MODE SW
CLEAR ●
WRITE ●
POWER ●
OFF

5 Set the Program Switch of the CR-78 at ALL and press the Clear Button. This will erase any rhythm programmed in the place selected in instruction no. 3.

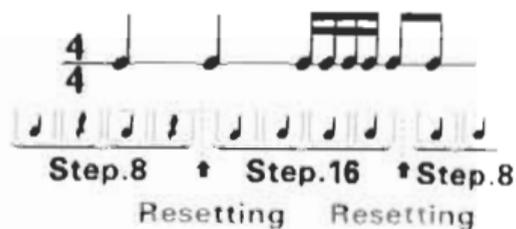


6 Set the Mode Switch of the WS-1 back to WRITE.

7 Set the program switch of the CR-78 to MEMORY.



8 Set the step number to write with the Step Selector of the WS-1. (e.g., for writing the 8-beat, set at "8")
Re-setting the step number can be done during the process of writing.



9 Choosing the sound you want to write in with the Instrument Selector of the CR-78, write the rhythm using the  and the  with the Write Key of the WS-1.

- Since the CR-78 has two measures worth of memory, the writing in of rhythms with the Step Selector should be done twice since the process conducted once with the Step Selector only amounts to half the memory capacity of the CR-78.

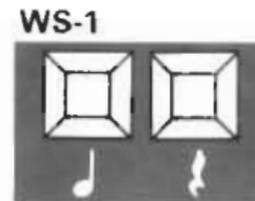
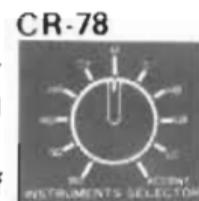
- The tempo pilot lamp of the CR-78 will go off when rhythm writing starts. Afterwards, it will light up when the first step of the measure has been written.

- If writing rhythms is continued after the first two measures have been completed, sounds will be continuously added to it instead of erasing it.

10 For each instrument sound, repeat instructions 8 and 9.

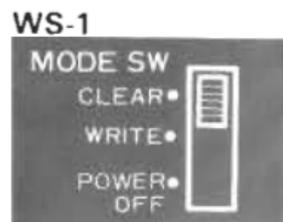
Note: ● If the memory of the CR-78 is cleared before connecting it to the WS-1, instructions 4 and 6 can be omitted. Make sure the power switch is off when making connections.

- If the power is accidentally turned off when making changes with the Mode Switch, start the writing procedure from the beginning.



Clear To erase or correct rhythms;

- 1 Set the Mode Switch to CLEAR.



- 2 **CR-78** For erasing only one instrument sound, set the program switch of the CR-78 to MEMORY. For erasing the whole rhythm, set the program switch to ALL. Press the Clear Button of the CR-78 for procedures.



- 3 Set the Mode Switch of the WS-1 back to WRITE.
 • After taking this procedure, rhythms can be programmed from no. 7 of the rhythm writing instructions.

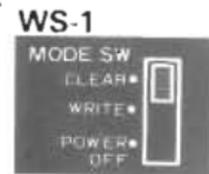


Note:

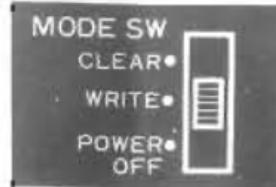
If the rhythms do not seem to have been cleared completely, follow the first two instructions for writing rhythms and then the procedures for clearing the rhythms over again.

Measures If you lose track of a measure, start from the beginning.

- 1 Set the Mode Switch of the WS-1 to CLEAR. Check to see that the Tempo pilot lamp of the CR-78 is on.
 • If the pilot lamp is not lighted, set the Mode Switch to WRITE and then re-set it back to CLEAR.



- 2 Set the Mode Switch back to WRITE and write the rhythm.



Note:
 This is the same process as the instructions given for clearing the rhythms.

Checking the written rhythms

1. The rhythms will start by pulling out the EXT. CLOCK (gray) plug.
 Do not touch the Write Key or the Mode Switch.
 2. For further rhythm writing, hook up the EXT. CLOCK plug again.

★ Experiment!

1. Follow the steps from 1-7 of the instructions for writing rhythms.
 2. 8 and 9 of the instructions for writing rhythms.

WS-1	CR-78	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
R	H-H	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B	S-U	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
H	R-D	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→
B	AGE	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→

3. Listen to what you wrote the example above is the same rhythm as the pre-set rhythm Rock-2 A in the CR-78. Compare what you did to the pre-set rhythm.