Professional

ELKA

DRUMSTAR 80

UNITÀ RITMICA DIGITALE PROGRAMMABILE
PROGRAMMABLE DIGITAL RHYTHM UNIT

Manuale d'istruzione
Operating manual

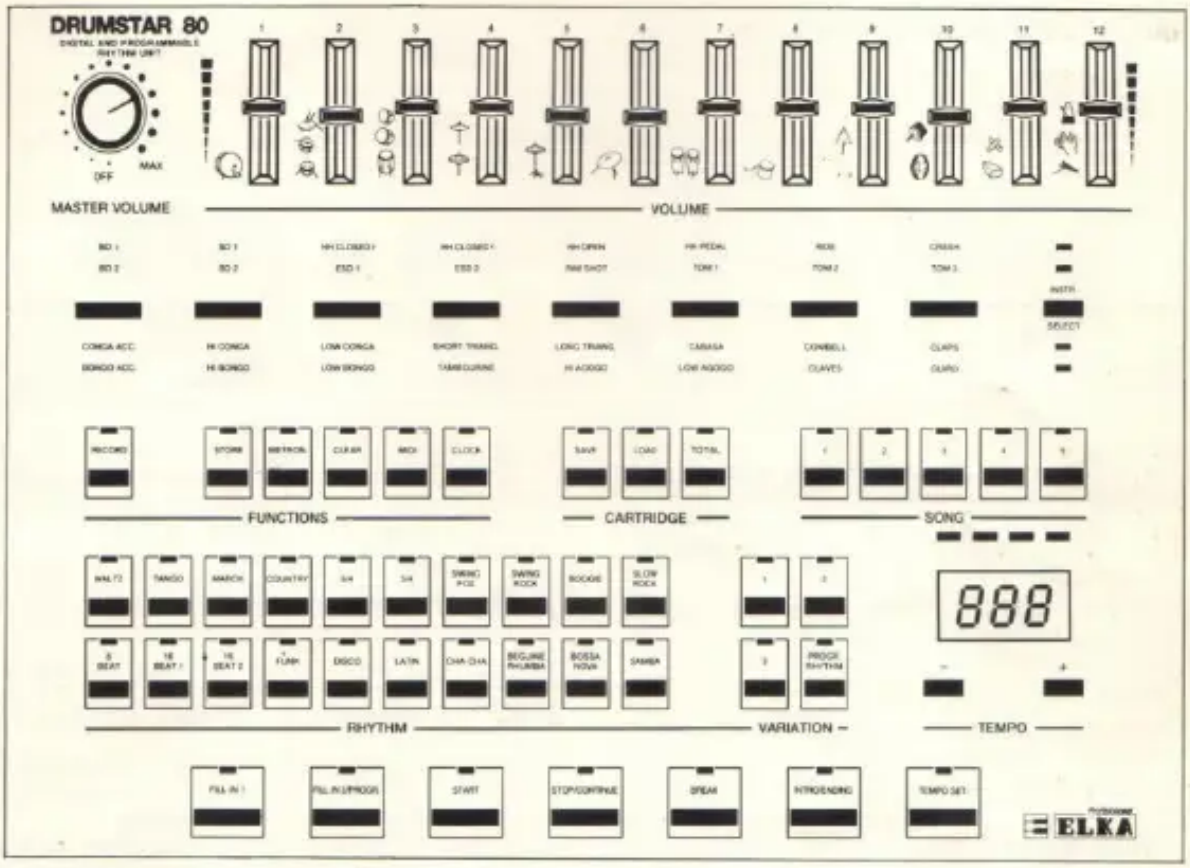
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DRUMSTAR 80



INTRODUCTION

The Drumstar 80 is a programmable digital rhythm unit with 32 percussion instruments recorded with P.C.M. (Pulse Code Modulation) technology and 20 Rhythms, each with 4 variations, making a total of 80 variations in all. One intro, one ending and 2 fill ins for each rhythm, make this instrument extremely versatile and immediately ready to use.

With the Drumstar 80 it is possible to programme 20 rhythms, 20 fill ins and 5 songs and then transfer them to the Ram 80 cartridge.

Twelve separate outputs enable equalizing and the adding of effects to each percussion instrument.

All these features, together with a complete Midi interface, make the Drumstar 80 the ideal partner for any musician.

In thanking you for having shown your trust in us, and feeling sure that you will not be disappointed, we would like to advise you to read this manual very carefully in order to obtain the best performance from the instrument.

PRECAUTIONS

To avoid damage and defective working, do not use or leave the instrument, for long periods, in direct sunlight, in extreme high or low temperature or humidity conditions, or in dusty or sandy areas.

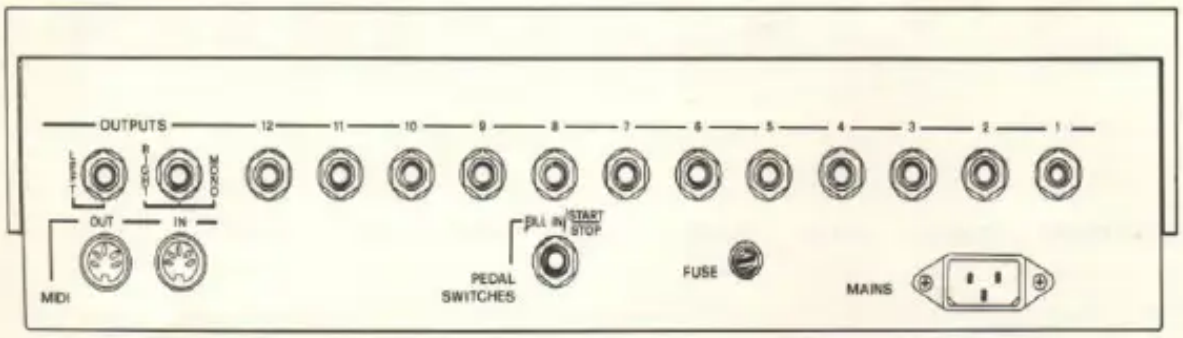
Be sure to check that your AC power supply outlet provides the correct voltage for the instrument.

The instrument is supplied with an internal Lithium battery, which keeps the internal memory, used for storing the songs and rhythms, in activity, also when the instrument is switched off.

The life of this battery greatly depends on the ambient conditions, and when it starts to run down, the memory will begin to lose the data used in the programming.

It is advisable to have the battery replaced by a qualified technician. To clean the outside surfaces of the instrument, use only a soft dry cloth. Never use petrol, alcohol or other solvents, as these will cause damage to the surface finishes and panel.

CONNECTIONS



Before making the above connections, be sure that all the instruments (amplifier, mixer, etc.) are switched off.

OUTPUTS

To connect the Drumstar 80 to an amplifier or mixer, use both the left and right output sockets to obtain a stereo effect or only that of the right output for mono.
By using the other 12 numbered outputs, you will obtain 12 separate output channels, each with it's own volume control. For this purpose, all similar instruments have been grouped into the same channel as will be seen below:

CHANNEL	INSTRUMENTS
1	BD1-BD2 (Bass Drum 1-2)
2	SD1-SD2 (Snare Drum 1-2), ESD1-ESD2 (Electric Snare Drum 1-2), Rim Shot
3	Tom 1 - Tom 2 - Tom 3
4	Hi Hat Closed > - Hi Hat Closed < (> accent, < without accent) - Hi Hat Open
5	Hi Hat Pedal
6	Ride - Crash (Cymbals)
7	Conga Accent - High Conga - Low Conga
8	Bongo Accent - High Bongo - Low Bongo
9	Short Triangle - Long Triangle - High Agogo - Low Agogo
10	Cabasa - Tambourine
11	Claves - Cow Bell
12	Claps - Guiro - Metronome

PEDAL SWITCHES - FILL IN - START/STOP

A socket on the back panel is provided to enable the connection of an SP 2 pedal. This pedal will give you remote control of the Start/Stop, Fill In 1, Fill In 2 or Break functions.
The selection of these functions is made from the front control panel; if, for example, the Fill In 2 button is pressed, then each time you press the Fill In switch on the pedal, you will automatically activate Fill In 2.

FUSE

220V/250mA (Europe), 117V/500mA (U.S.A. and Canada)

MIDI (Musical Instrument Digital Interface)

IN: By using this socket, you will be able to control the Drumstar 80 from any other Midi compatible instruments.
OUT: This socket is for connecting to other Midi compatible instruments that you want to control from the Drumstar 80.

MAINS

Connect the power supply cord to an AC voltage outlet socket of the correct voltage. In connecting the amplifying equipment, it is advised that only one part of the equipment (Rhythm unit or Amplifier/Mixer) be connected to the ground pin on the mains plug, to avoid annoying mains derived hums.

CONTROLS

1) MASTER VOLUME

This control switches on the instrument and varies the total volume. Before starting the rhythm, be sure to check that this knob and the volumes of the 12 channels are not at zero.



MASTER VOLUME

2) RHYTHM-VARIATION

The 20 buttons, under the heading of Rhythm, enable you to select one of the eighty rhythms available. To start a Rhythm you just have to press the relative button.
Each of these rhythms has 4 different variations which you can select by means of the 1-2-3-Progr. Rhythm buttons in the section, under the heading Variation.



3) START

Starts the rhythm. If, after pressing this button, the unit does not start playing, then read carefully the instructions under the heading of Clock in the Midi section.



4) STOP/CONTINUE

Stops the rhythm, which will restart at exactly the same point at which it was stopped, when repressing this button.
To restart the Rhythm from the beginning, press "Start".



5) TEMPO

The rhythm timing can be varied by using the + and – buttons found on the right of the panel under the "Tempo" heading.
The speed is shown on the display, which indicates the metronomic timing, that is the number of beats per minute.
Furthermore, four leds will light up in succession at various different speeds, according to how you have adjusted the "Tempo".
The red led will indicate the first beat of each bar.



6) TEMPO SET

Presetting of one of the rhythm speeds is possible by means of this button.
The procedure is as follows:
a) Be sure that the rhythm selected is that on which you want to use the presetted rhythm.
b) Press "Tempo Set".
c) Adjust the rhythm speed with the + and – buttons.
d) Press "Tempo Set" again to disactivate this function.
Each time you need the presetted variation of the Tempo, just press "Tempo Set" and, to return to the previous timing, repress this button.



7) INTRO/ENDING

This button has two different uses:
a) If pressed before "Start", it will give a one bar introduction to the Rhythm.
b) If pressed during the playing of a Rhythm, it will play the Ending to that same Rhythm.



8) FILL IN 1-FILL IN 2/PROGR.

Each Rhythm has two different Fill Ins, (Drum Breaks) which are activated by pressing the corresponding buttons. Each Fill In is of a one bar length.
If pressed before Start, the Rhythm will begin with the Fill In sequence.



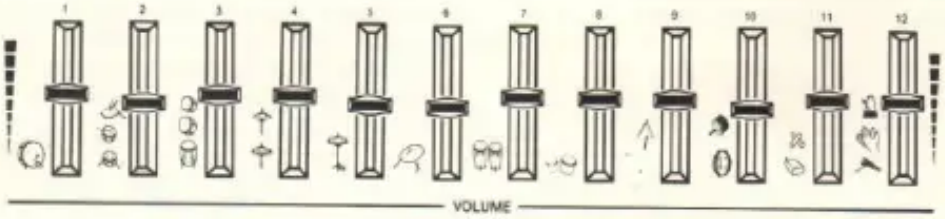
9) BREAK

If pressed, allows a one bar pause in the rhythm, which will resume automatically in time with the beat.



10) VOLUME

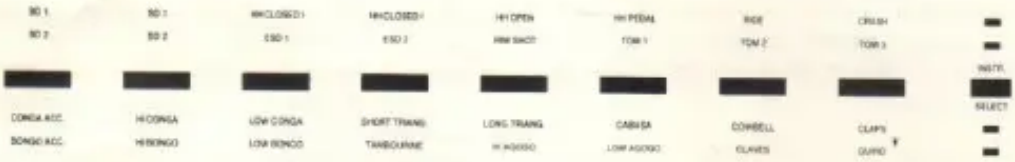
The Drumstar 80 has 32 percussion instruments divided into 12 different channels. Each channel has a separate volume control and it's own output socket which enables the adding of special effects (echo, reverb, equalizer, etc.).
All similar instruments are grouped into the same channels.



11) REAL TIME SOUND

The eight buttons, under the volume controls, allow the playing, eight at a time, of the 32 instruments of the Drumstar 80.
The selection is made by pressing "Instr. Select", and the line of available active instruments is indicated by the leds situated above and below this button.

When the Rhythm has started, it is possible to add-in various instruments by means of the eight buttons, but always take into account that the instruments which form part of the same channel, cannot play at the same time. You should not forget this rule in all your programming.



PROGRAMMABILITY OF THE DRUMSTAR 80

The Drumstar 80 has 20 rhythms, 20 fill ins and 5 songs all programmable. The Rhythms and Fill Ins which you can programme are those called up by the "Progr. Rhythm" and "Fill In 2/Program" buttons. Each Rhythm is made up of two bars, while a Fill In, is of one.
All four of the tempo indication leds will light up together, to indicate the beginning of each bar.
The five Songs are used for recording sequences, with programmable Rhythm Tempo, Intros, Breaks, Fill Ins, Tempo Sets, Endings and any real time writing in of instruments that you care to carry out.

RECORD

To enter into the programming procedure, you need to press "Record", which flash the leds in the "Progr. Rhythm", "Fill In 2/ Progr." and the five "Song" buttons; by pressing one of these, you can choose what you would like to programme.

RHYTHM PROGRAMMING

When you want to programme a new Rhythm, you must remember not to forget this basic rule: by virtue of the fact that the new Rhythm is none other than the fourth variation of an existing Rhythm, before entering into the programming, you must select a Rhythm that already has the same musical division and quantization (minimum division of a bar) to that which you will be programming.
To simplify this task, we have prepared the following table:

RHYTHM	TEMPO	QUANTIZATION
Waltz	3/4	1/16
Tango	4/4	1/16
March	4/4	1/16
Country	4/4	1/12
9/4	9/4	1/16
5/4	5/4	1/12
Swing Fox	4/4	1/12
Swing Rock	4/4	1/12
Boogie	4/4	1/12
Slow Rock	4/4	1/12
8 Beat	4/4	1/16
16 Beat 1	4/4	1/16
16 Beat 2	4/4	1/16
Funk	4/4	1/16
Disco	4/4	1/16
Latin	4/4	1/16
Cha-Cha	4/4	1/16
Beguine/Rhumba	4/4	1/16
Bossa Nova	4/4	1/16
Samba	4/4	1/16

To programme a Rhythm, follow this procedure:
1) From the table above select a compatible Rhythm to the new one that you want to programme.
2) Press "Record".
3) Press "Progr. Rhythm", which will be flashing.
4) Start the Rhythm, by pressing "Start".

To programme a Rhythm, follow this procedure:
1) From the table above select a compatible Rhythm to the new one that you want to programme.
2) Press "Record".
3) Press "Progr. Rhythm", which will be flashing.
4) Start the Rhythm, by pressing "Start".

At this stage you have three possibilities:
a) **To add instruments to the existing Rhythm:**
   1) Select the instrument by means of "Instr. Select".
   2) Press the button of the instrument that you want to add, with the beat required, for a maximum length of two bars.

b) **To cancel some instruments from an existing Rhythm and to add others:**
   1) Select the instrument or instruments to be cancelled with "Instr. Select".
   2) Press "Clear", and at the same time, that of the instrument, at the precise moment that you want to cancel it (for a two bar period, if you intend to cancel it completely). The same operation, before starting a Rhythm will instantly cancel this instrument in the whole line.
   3) Repeat the procedure for adding an instrument as outlined in (a).

c) **To cancel the whole Rhythm in order to programme another:**
   1) Press "Clear" and "Progr. Rhythm" simultaneously. Thereby cancelling all the drum instruments.
   2) Press "Metron", which will start the metronome.
   3) Adjust the metronome level (by means of Volume 12) and the Tempo if necessary.
   4) Carry out the procedure for adding instruments, see (a), and then just compose a new Rhythm.

To memorize the Rhythm, follow the instructions under the heading "Store".

PROGRAMMING OF FILL IN 2 / PROGR.

For the programming of Fill In 2 / Progr., you should proceed in the same manner as explained in "Rhythm Programming", bearing in mind that after having pressed "Record", you must choose between "Fill In 2" and "Program" by pressing "Fill In 2 / Progr.", and also that the "Fill In" is of a one bar length.
To memorize a Fill In 2 / Progr. follow the instructions under the heading "Store".

PROGRAMMING OF A SONG

In order to record a complete musical accompaniment, you should make use of the five buttons that come under the heading "Song". With each of these, you can record a sequence, with programmable Tempo, Intro, Break, Fill In, Ending and the adding in of instruments in real time.
Each song has the possibility to record a maximum of 160 variations (or insertions).

To programme a Song you should follow these instructions:
1) Press "Record".
2) Press one of the five "Song" buttons, which will be seen to be flashing.
3) Press the "Rhythm" or the "Variation" with which you want to begin (it is also possible to begin with a "Fill In", a "Break" or an "Intro").
4) Press "Start", which will start the recording of the passage. During the recording, it is possible to carry out variations of "Tempo", "Rhythm", "Fill In" and "Break", and to add in instruments in real time (real time writing) by means of the eight buttons that select the instruments.
5) Press "Stop/Continue" to suspend or finish the recording. Pressing this button again will continue the playing of the Rhythm from the same point at which it was interrupted.

After beginning the recording, the pressing of "Intro/Ending", will automatically end the recording of the song, and the display will show "End".
The same message will appear when the recording goes to more than 160 variations.
N.B.: If, after having stopped the rhythm unit, you happen to press "Start", the Drumstar 80 will restart the recording process from the beginning, so cancelling everything recorded previously.

STORE

When the memorizing of any part of the programming is required, "Rhythm", "Fill In 2 / Progr.", or "Song", just follow the procedure below:
1) Stop the recording of the part being programmed with "Stop/Continue". In the case of a "Song", the stop can also be given by "Intro/Ending".
2) Press the "Store" button which will turn off the "Record" button led.

At this stage, having pressed "Store", everything you have just programmed up to a maximum of 20 "Rhythms", 20 "Fill-Ins" and 5 "Songs" will have been stored in the memory, to be recalled whenever needed.
If you want to re-establish the old "Rhythm", "Fill In 2 / Progr.", or "Song" and therefore not memorize that just written, leave the programming procedure by pressing "Record" once again.

TO RETURN TO THE STANDARD PRESET RHYTHMS MODE

To return to the Presets established initially by the factory, Rhythms (Progr. Rhythm) and Fill Ins (Fill In 2 / Progr.) you must go ahead as follows:
1) Be sure that the external cartridge is not plugged into the memory cartridge port at the back of the instrument.
2) Stop the Rhythm unit by means of "Stop/Continue".
3) Press the "Load" and "Progr. Rhythm" simultaneously if you want to re-establish the selected Rhythm.
4) Press "Load" and "Fill In 2 / Program" together, if you need to re-establish only the "Fill In" of the selected Rhythm.
5) Press "Load" and "Total" at the same time, to recover all the factory preset Rhythms and Fill Ins.

CARTRIDGE

By plugging the Ram 80 cartridge into the Memory Cartridge port, you will be able to save all the registrations made, and recall them whenever you need to. With one Ram 80 cartridge, it is possible to memorize all the contents of the Drumstar 80's programming, that is 20 Rhythms, 20 Fill Ins and 5 Songs.

SAVE

To transfer the contents of the programming carried out, into a Ram 80, do as follows:
1) Stop the Rhythm with "Stop/Continue".
2) Plug in the Ram 80 cartridge.
3) Press "Save" and "Progr. Rhythm" simultaneously, or likewise "Save" and "Fill In 2 / Progr." or "Save" and one of the "Song" buttons, according to what you want to transfer to the cartridge.
4) Press "Save" and "Total" together, if you want to transfer all the contents of the programming (20 Rhythms, 20 Fill Ins and 5 Songs).

During the Save operation, the selected buttons will flash for a variable time according to the memorized contents. The transfer time of the total contents of a Ram 80 cartridge is about five minutes.

LOAD

To transfer the contents of the Ram 80 to the Drumstar 80, you must carry out the following:
1) Stop the Rhythm by pressing "Stop/Continue".
2) Plug in the Ram 80 cartridge.
3) Select the Rhythm that you want to load, and simultaneously press "Load" and "Progr. Rhythm", or "Load" and "Fill In / Progr." or else "Load" and one of the five "Song" buttons according to what you want to transfer.
4) Simultaneously press "Load" and "Total" if you want to transfer the complete contents of the Ram 80 to the inside of the Drumstar 80.

N.B. If, after having pressed "Save" and "Load" you see the message "Err" appear on the display, it means that you have not used the correct cartridge.

MIDI

The Midi is a digital interface for musical instruments, which allows different instruments to communicate with one another. It provides a common series of specifications for the connecting together of more than one type of instrument for a simultaneous performance.
To connect these instruments, you must use a Midi DIN standard connecting cable. The Midi in the Drumstar 80 is used to syncronize or syncronize itself (Clock) with other Midi compatible instruments such as sequencers and synthesizers.
Furthermore, to be able to play it's 32 percussion instruments through a keyboard or computer.

The setting up operations of the Midi are as follows:

1) Press "Midi" to choose the reception or transmission channel. On the display you will see:

C.01 The number following "C" goes from 1 to 16. With the + or - buttons you can modify the transmission or reception channel of the Drumstar 80.

2) With "Midi" still pressed, press "Record" to choose the reception method, Omni Off or Omni On. On the display you will see:

0. 0 = Omni Off. The Drumstar 80 only receives information on one channel in this mode. By means of + or - you can change to:

0. 1 = Omni On. In this mode the Drumstar 80 receives on all channels.

3) Press "Record" a second time, to choose whether the percussion instruments of the Drumstar 80 will be receiving information from a keyboard or a sequencer. The following messages will be shown on the display:

1. 0 = Although receiving the key code, this code does not allow the percussion instruments of the Drumstar 80 to play. With + or - you can change to:

1. 1 = This code enables the percussion instruments to play, if they receive the following codes:

42	F		1	B.D. 1	58	A	2	Conga Acc.
43	F	♯	1	B.D. 2	59	A	♯	2	Hi Conga
44	G		1	S.D. 1	60	B	2	Low Conga
45	G	♯	1	S.D. 2	61	C	3	Bongo Acc.
46	A		1	E.S.D. 1	62	C	♯	3	Hi Bongo
47	A	♯	1	E.S.D. 2	63	D	3	Low Bongo
48	B		1	Rim Shot	64	D	♯	3	Hi Agogo
49	C		2	Tom 1	65	E	3	Low Agogo
50	C	♯	2	Tom 2	66	F	3	Short Triangle
51	D		2	Tom 3	67	F	♯	3	Long Triangle
52	D	♯	2	H.H. Closed	68	G	3	Cabasa
53	E		2	H.H. Closed	69	G	♯	3	Tambourine
54	F		2	H.H. Open	70	A	3	Claves
55	F	♯	2	H.H. Closed	71	A	♯	3	Cow Bell
56	G		2	Ride	72	B	3	Guiro
57	G	♯	2	Crash	73	C	4	Claps

4) Press "Clock" to select an external clock drive for the Drumstar 80. These messages will be seen:

C. 1 = This code does not allow external clock driving of the Drumstar 80. With + or - you can change to:

C. E = This code allows external clock driving, and external Start. Stop and Continue comands are also accepted. In this function the Start and Stop/Continue buttons do not work.

Date: 09.09.86
Version: V.3

MODEL DRUMSTAR 80 MIDI Implementation Chart

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default	X	1	
	Changed	X	1-16	
Mode	Default	X	1	
	Messages	X	OMNI ON/OFF	
	Altered	X	2,4 - 1	
Note Number		X	X 0 (42 - 73)	
	True Voice	X	X	
Velocity	Note ON	X	X	
	Note OFF	X	X	
After Touch	Key's	X	X	
	Ch's	X	X	
Pitch Bender		X	X	
Control Change		X	X	
Prog Change		X	X	
	True*	X		
System Exclusive		X	X	
System Common	:Song Pos	X	X	
	:Song Sel	X	X	
	:Tune	X	X	
System Real Time	:Clock	0	0	
	:Commands	0	0	

Mode 1: OMNI ON, POLY
Mode 2: OMNI ON, MONO
Mode 3: OMNI OFF, POLY
Mode 4: OMNI OFF, MONO

0: Yes
X: No

MIDI Data Format DRUMSTAR 80
1. TRANSMITTED DATA

STATUS	DATA 1st	DATA 2nd	Description	
11111000			Clock	(Refer to Note 1)
11111010			Start	
11111011			Continue	(Refer to Note 2)
11111100			Stop	

1) When the internal clock is selected, the tempo clock inside the percussive unit is transmitted. When the external MIDI clock is selected, a signal which synchronizes with the timing clock received from the external equipment is transmitted.
2) The continue signal is transmitted when starting the rhythm again after it has stopped at the position in the sequence.

ACCESSORI - ACCESSORIES





ACCESSORI OPZIONALI:
Pedale SP2 per Start-Stop/Fill in
RAM 80 Cartridge
Borsa CB 80

OPTIONAL ACCESSORIES:
Pedal SP2 for Start-Stop/Fill in
RAM 80 Cartridge
Bag CB 80

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