



## miniKORG-700S MIDI Retrofit Kit Instruction Manual

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**miniKORG-700S MIDI Retrofit Kit**



## Product Information

The Kenton MIDI retrofit kit is designed for Korg miniKORG-700S synthesizers (not the single-oscillator 700) and is compatible with firmware MSRK5208 or later produced after 18th August 2022. The kit adds MIDI interface functionality to the synthesizer and allows users to control various parameters using MIDI controllers.

### Using the MIDI Interface

When the synthesizer is turned on for the first time, it will be in omni-off mode channel 1 for receive. Users can select a receive channel, and it will be stored in memory, which will be remembered when the synthesizer is turned on subsequently. To reset the synthesizer to factory default settings, switch on the synth while holding the red push button pressed for a few seconds and then release.

### Red Push Button

Two modes are available by pushing the red push button during normal playing mode. Before pressing the red button, make sure that no keys are pressed on the remote MIDI keyboard. The key presses can only be entered from the remote MIDI keyboard and may be sent on any MIDI channel.

### Assigning MIDI Controllers

Note that Aftertouch, Velocity, and Pitchbend can only be used as controller sources for any of Aux 1 to 4. Any other controllers can only be set to CC numbers or OFF. Note that Off merely stops that particular Aux (or other destination) from responding to any further MIDI messages.

### Parameters with updateable and storable values are as follows:

- Aux 1 controller – LP filter cutoff
- Aux 3 controller – HP filter cutoff
- Synth internal LFO
- MIDI LFO to Aux1 controller
- MIDI LFO to CV controller
- MIDI LFO Speed
- MIDI LFO waveshape
- MIDI LFO – MIDI Sync

- Portamento on-off controller
- Portamento rate controller [default CC16] [default CC18] [default CC 1] [default CC17] [default CC15] [default CC14] [default CC13] [default CC12] [default CC65] [default CC 5]

### **Internal LFO**

The internal MIDI sync-able LFO can be controlled using the default controller numbers, which can be changed as shown.

## **Product Usage Instructions**

1. Install the Kenton MIDI retrofit kit on your Korg miniKORG-700S synthesizer.
2. Turn on the synthesizer. It will be in omni-off mode channel 1 for receive.
3. Select a receive channel, and it will be stored in memory for subsequent use.
4. To reset the synthesizer to factory default settings, switch on the synth while holding the red push button pressed for a few seconds and then release.
5. To assign MIDI controllers, follow the instructions on page 1 of the user manual. Note that Aftertouch, Velocity, and Pitchbend can only be used as controller sources for any of Aux 1 to 4.
6. Use the default controller numbers or change them as shown on page 3 to control the internal MIDI sync-able LFO.

## **Using the MIDI Interface**

When you turn on the synthesizer for the first time, you will be in omni-off mode channel 1 for receive – See the following pages for other factory default settings. When you select a receive channel, this will be stored in memory and will be remembered for when you subsequently turn on the synth – all parameters listed on the next page are stored. If you want to put the synth back to the factory default settings at any time, switch the synth on whilst holding the red push button pressed – hold for a couple of seconds then release.

## **Red Push Button**

Two modes are available by pushing the red push button during normal playing mode. Before you press the red button, however, make sure that no keys are pressed on the remote MIDI keyboard otherwise the results may be unpredictable. The key presses can be entered only from the remote MIDI keyboard and may be sent on any MIDI channel.

### **1. Setup Mode**

For setting MIDI channels and assignments. Give the red push button a short press (half a second) – then release. Follow this with a key press or sequence of key presses as detailed on page 3. After making a MIDI channel assignment, you will be immediately returned to playing mode but after making other assignments you will need to press the ENTER key (Top C) to return to playing mode; this is to enable you to make the multiple key presses required when re-assigning Sources to Destinations. (N.B. all set-ups are stored in non-volatile memory).

### **2. Transpose Mode**

Press and hold the red push button for about four seconds – then release. A note will sound on the miniKORG-700S and continue to sound until you press a key on the remote keyboard. Pressing middle C itself (on the remote keyboard) gives zero transpose, pressing the G above middle C will transpose up by 7 semitones, or the F below middle C will transpose down by 7 semitones. You can set any value up to two octaves up or down

- settings outside this range will be ignored. Note that transpose mode cannot be entered from set-up mode. The transpose setting will not be stored.

## Assigning MIDI Controllers

1. To assign MIDI controllers for the destinations available on page 3:
  - Press the red push button to enter set-up mode (short press and release)
  - Either send the controller you want to assign by moving the knob or slider on your remote keyboard or press a key on your remote keyboard to select Aftertouch, Velocity, Pitchbend or Off as a source
  - Next press a key on your remote keyboard to select the destination you want to be controlled with it.
  - Then either hit Top C to enter/exit and store, or go back to B) to make another assignment.
2. Note that Aftertouch, Velocity, and Pitchbend can only be used as controller sources for any of Aux 1 to 4. Any other controllers can only be set to CC numbers or OFF
3. Note that “Off” merely stops that particular Aux (or other destination) from responding to any further MIDI messages. It will stay at the level you last set (until next turned on) and will not be reset to default or any other value.
4. If you have used Control Change (CC) messages to set certain parameters, you can store these values in nonvolatile memory. By entering and then immediately exiting setup mode, data values for the parameters listed below are updated in non-volatile memory. To do this, give the red push button a short press, then press top C to exit (without pressing any other keys).

### Parameters that have updateable and storable values are as follows:

- Aux 1 controller – LP filter cutoff [default CC16]
- Aux 3 controller – HP filter cutoff [default CC18]
- Synth internal LFO [default CC 1]
- MIDI LFO to Aux1 controller [default CC17]
- MIDI LFO to CV controller [default CC15]
- MIDI LFO Speed [default CC14]
- MIDI LFO waveshape [default CC13]
- MIDI LFO – MIDI Sync [default CC12]
- Portamento on-off controller [default CC65]
- Portamento rate controller [default CC 5]

For example, if you send a MIDI CC to control a parameter such as MIDI LFO speed (CC14 by default), the new data value (the new speed) set using that MIDI CC can be stored as the new power-on value (speed in this case) by entering and then immediately exiting setup mode. Note that it is the data value that is being stored by this means, not the CC number itself.

5. Receive channel setting will return you directly to playing mode, all other keys will let you stay in SET-UP mode until you press the ENTER key (Top C).
6. The ENTER key (Top C) also resets all the controllers (e.g., pitch wheel, modulation wheel etc) – OFF in most cases, but ON for volume, and centre for pitch bender.
7. If you want to put the MIDI retrofit back to its factory default settings at any time, switch the miniKORG-700S on whilst holding the red push button pressed – hold for a couple of seconds then release.
8. During set-up mode, the retrofit will receive on ALL MIDI channels.

## Internal LFO

**The internal MIDI sync-able LFO can be controlled as follows:**

- MIDI LFO to CV controller [default CC15]
- MIDI LFO Speed [default CC14]
- MIDI LFO waveshape [default CC13]
- MIDI LFO – MIDI Sync [default CC12]

The default controller numbers can be changed as shown.

C	Receive channel	1 (default)	[ Bottom C – MIDI note #36 ]
Db	” “	2	
D	” “	3	
Eb	” “	4	
E	” “	5	
F	” “	6	
Gb	” “	7	
G	” “	8	
Ab	” “	9	
A	” “	10	
Bb	” “	11	

B	” “	12	
C	” “	13	
Db	” “	14	
D	” “	15	
Eb	” “	16	
E	” “	sets the MIDI channel this note was received on	
F Gb	Not Used ” “		
G Ab	Aftertouch as controller source for any of Aux 1-4 Velocity as controller source for any of Aux 1-4	\	Sources
A Bb B	Pitchbend as controller source for any of Aux 1-4 OFF as controller source for any of Aux 1-4 Not Used	/	Sources can also be any CC #0-119

C	Aux 1 controller – LP filter cutoff	[default cc16]					[ Middle C – MIDI note #60 ]
Db	\ Aux 2 controller – Not Used						
D	Aux 3 controller – HP filter cutoff	[default cc18]					
Eb	Aux 4 controller – Not Used		\				
E	Synth internal LFO	[default cc 1]			\		
F	MIDI LFO to Aux1 controller	[default cc17]				\	\ Destinations
Gb	MIDI LFO to CV controller	[default cc15]					/

G	MIDI LFO Speed	[default cc14]				
	MIDI LFO waveshape	[default cc13]				
	MIDI LFO – MIDI Sync	[default cc12]				
Ab A	Portamento on-off controller	[default cc65]				
	/					
Ab A	Portamento rate controller	[default cc 5]				
	/ Not Used					
Bb	” ”					
B	” ”					
C	” ”					
Db	” ”					
D	” ”					
Eb	” ”					
E	” ”					
F	” ”					
Gb	” ”					
G	” ”					
Ab	” ”					
A	” ”					
Bb	” ”		/	/	/	
B	” ”					
C	” ”					
Db	” ”					
D	” ”					
Eb	” ”					
E	” ”					
F	” ”					
Gb	” ”					
G	” ”					
Ab	” ”					
A	” ”					
Bb	Single trigger mode					
B						
C	Multi trigger mode	[default] Pitchb				
	end range 2 semitones (a tone)	[default] Pitchbend ran				
	ge 7 semitones (a fifth)					
	Pitchbend range 12 semitones (one octave)					
	<b>ENTER</b> key Press & release to store & return to play mode					
						[ Top C – MIDI note #96 ]

## General Information About MIDI Connections



Any MIDI IN should be connected to a MIDI OUT or a MIDI THRU similarly any MIDI OUT should be connected only to a MIDI IN and any MIDI THRU should also only be connected to a MIDI IN. MIDI OUT (if fitted) is the signal from the synthesizer (or drum machine etc.) that is to be sent to another instrument. MIDI IN is a received signal that contains MIDI information from another synth, and MIDI THRU is an exact copy of information arriving at the MIDI IN socket. This allows several instruments to be connected together.

If you want to wire your own MIDI cables the following information may be useful.

1. Although a 5-pin connector is used, only two connections plus an earth connection are required.
2. If you look at the din plug from the wiring side you will see that the pins are numbered. From left to right (or clockwise) these are 1 – 4 – 2 – 5 – 3.
3. The pins numbered 1 & 3 are not used.
4. The screen (earth) is connected to pin 2 (center pin)
5. Pin 4 of one plug should be connected to pin 4 of the other
6. Pin 5 of one plug should be connected to pin 5 of the other
7. You should now have a working MIDI lead
8. It is preferable to label one end of the cable MIDI IN & the other end MIDI OUT, to avoid confusion.

## Warranty

All Kenton MIDI Kits come with a 12-month (from the purchase date) back-to-base warranty, (i.e., the customer must arrange and pay for carriage to and from Kenton Electronics). Note that kits should be fitted as soon as possible after purchase, as the retrofit kits are in a continuous state of development.

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## Documents / Resources

 <small>KENTON KENTON ELECTRONICS LIMITED Unit 13, First Quarter, Blenheim Road, Epsom, Surrey KT19 9QN, UK Tel: +44 (0)20 8544 9200 Fax: +44 (0)20 8544 9300 www.kenton.co.uk</small>	<a href="#">KORG miniKORG-700S MIDI Retrofit Kit</a> [pdf] Instruction Manual miniKORG-700S MIDI Retrofit Kit, miniKORG-700S, MIDI Retrofit Kit, Retrofit Kit
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## References

-  [Kenton Electronics - Welcome](#)