Hamichord

MC-3

User Manual
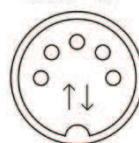
MIDI · FATAR WATERFALL TOUCH · MFU · EPS Easy Preset Store

MADE IN ITALY

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1)<u>GENERAL WARNINGS</u>

PLEASE READ CAREFULLY BEFORE CONNECTING ANY CABLES.

<u>!!! WARNING !!!</u>

CAUTION
RISK OF ELECTRICAL SHOCK
DO NOT REMOVE THE COVER

- Do not place the instrument in wet or dirty environments
- Do not remove the protective coverings.
- Do not touch the AC plug with wet hands.

!!!WARNING!!!
TO REDUCE THE RISK OF FIRE
OR ELECTRICAL SHOCK DO NOT
EXPOSE THIS PRODUCT TO RAIN
OR MOISTURE

DEFAULT OF FACTORY

- Your instrument by default will work from 100V to 240V AC 50/60 Hz and it is a legal requirement that you are advised of this.
- Be sure that local electrical standards are compliant with the instrument.
- Your serial number is written on the back panel of your instrument.

DO NOT REMOVE THE UPPER OR BACK COVERS FOR ANY REASON!

IN THE EVENT THAT YOU REQUIRE SUPPORT OR TECHNICAL ASSISTANCE ON YOUR INSTRUMENT, PLEASE ASK YOUR DEALER OR AN AUTHORISED BG'S TECHNICAL CENTER.

THE AC CONNECTION IS NEXT TO THE ON-OFF BUTTON AND IS SITUATED AT THE BACK LEFT HAND SIDE OF THE INSTRUMENT.

BEFORE CONNECTING THE AC CABLE PLEASE MAKE ALL OTHER CONNECTIONS FIRST.

<u>!!!WARNING!!!</u>

THIS IS A CLASS 1 PRODUCT AND SO REQUIRES A GOOD EARTH CONNECTION IN ORDER TO WORK PROPERLY.

PRECAUTIONS

When you are using the instrument, please be aware of the following:

- If present, ventilation holes must not be covered.
- Air must circulate freely around instrument
- The instrument must be installed in a place free of vibration.
- Do not expose it to electro-magnetic interference
- Do not expose it to heat, cold, wet and dust.
- Do not expose it to direct sunlight.
- Do not expose it to electrostatic forces.
- Do not place on it things with flames like candles etc…
- Do not place on it vessels containing fluids.

If anything enters the instrument, please contact your dealer or the official Bg's Musical instruments service support.

N.B.

1. Do not unplug the AC cord by forcing the cable.
2. When not in use please unplug the AC cable
3. Please unplug the AC cable during thunderstorms.

!!!WARNING!!!

PLEASE BE AWARE THAT WHEN THE 'ON-OFF' BUTTON IS AT "0", THE INSTRUMENT IS STILL CONNECTED TO THE MAIN POWER.

WHEN THE INSTRUMENT IS CONNECTED TO THE AC LINE AND THE ON-OFF BUTTON IS IN POSITION "1" (ON), THE MIDI INTERFACE AND THE CONTROLLER IS ON. JUST REMEMBER THAT WHEN YOU TURN THE ON-OFF BUTTON TO "1" (ON), THE 4 LEDS SHOULD LIGHT: THIS INDICATES THAT THE INSTRUMENT IS OPERATING.

2) PACKAGE AND HANDLING

Please remove the organ from its packaging carefully. The organ midi controller weights just over 25 KG!

If not placed in the original Hamichord stand, we recommend that the organ has to be placed on a stand which is rated at least at 40 KG which will give a more than sufficient safety margin.

!!!WARNING!!!

The packaging bag is not a toy! Keep it outside the reach of children!

BG's Musical Instruments, is not responsible for any injuries incurred by incorrect use of the organ or the packaging materials.

3) PACKAGING CONTENTS

The Hamichord MC-3 pack contains:

- **HAMICHORD MC-3** organ midi controller
- Owner Manual
- AC plug IEC and ROHS compliant
- Hamichord swell pedal

4)CONNECTIONS, CONTROLS AND POSITIONING.

The power lead supplied is a standard IEC connector terminated with a German 'Schuko' plug.

Be sure that the 'on/off' switch is in the 'off' position before connecting the power cable.

The instrument is suitable to be used in most countries of the world accepting **voltages between 100 to 240 AC**. But please ask your dealer for using in your country, and please be sure that your personal AC supply is suitable with the instrument requirements.

CONNECTION OF THE ORGAN

Please remember that **we HIGHLY suggest the use of the Hamichord swell pedal**. We cannot guarantee that every pedal on the market is suitable for use with your organ: Before connecting another kind of pedal, please be sure that it is electrically compliant. BG's srl is not responsible for any damage that may happen to the instrument due to the use of an incompatible swell pedal or volume pedal!

POSITIONING

The optimal support for the instrument is the original Hamichord stand, however, you can use alternative supports if they are suitable for the weight of the organ.

CONNECTIONS AND CONTROLS

Back panel connections:

- AC Plug in (from 100 to 240 V)

- Button **On/I** – **Off/0**

- **Rotator EXT-INT:** With this selector you can choose between the internal rotary simulator and switching to an external rotary speaker. When the selector is in "internal" position, the front switch will use the internal rotary simulator. When the selector is in "external" position, the internal simulation is turned off and the front switch will switch speeds on your external rotary speaker connected via the 11 pin connector (if connected to exp-edition).

- **Swell Pedal**: jack stereo output ¼ Inch

  Please use only the original HAMICHORD swell pedal, other pedals may damage the instrument; if you would like to know if your own pedal is compatible with Hamichord please contact us.
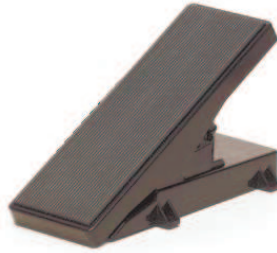
WARNING!: do not plug or unplug the swell pedal with the organ on! This may damage the organ or cause it to work incorrectly.

- **Midi Out**: standard din 5 pin output.
  With this socket you can connect various types of MIDI systems: default controller configuration is:

  Channel 1 : Drawbars, buttons, slides, swell pedal and other controllers. Upper keyboard.
  Channel 2 : Lower keyboard.

- **Midi IN**: input din 5 pin.
  With this connector you can use an external system capable of sending midi messages (such as a master-keyboard) and can also be used to upgrade the firmware of the instrument with the MFU Technology.

- **Midi THRU**: output din 5 pin.
  Unfiltered copy of Midi in.

  WARNING: We strongly suggest you not to connect or disconnect midi cables when the system is running!!! The instrument may not work properly and it can result in damaging.

- **Access to internal rack slot for connecting exp-edition.** Near the on/off button, you can see a metal panel that is easily removable with two screws.

HAMICHORD FUNCTIONS
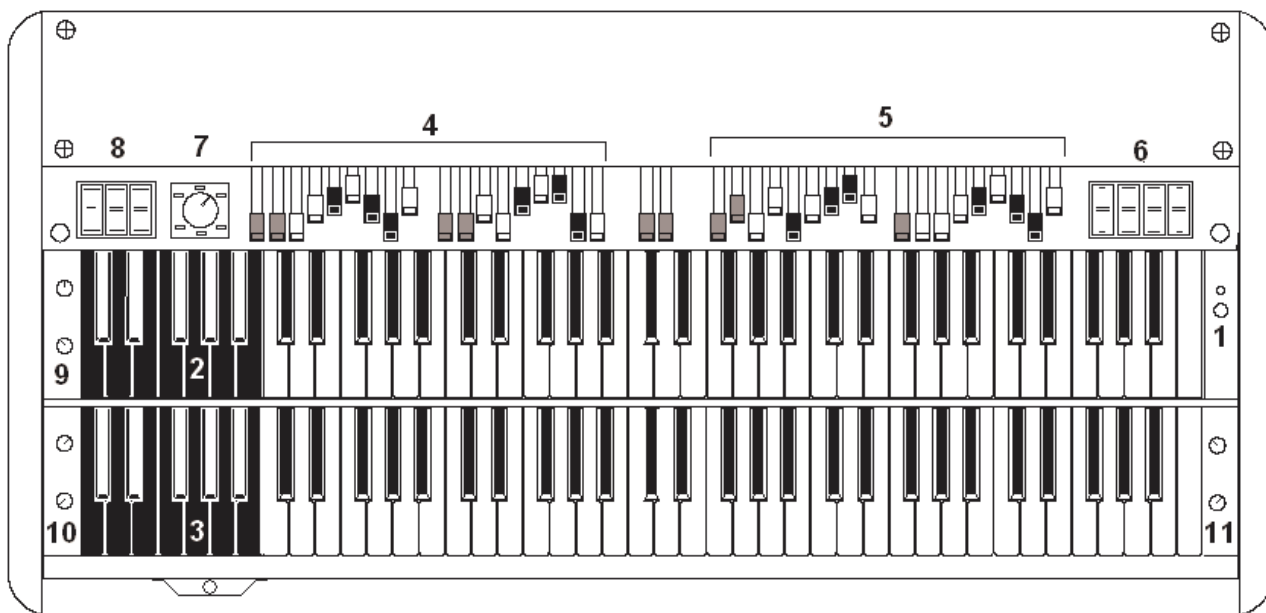
START THE MIDI CONTROLLER

In this state Hamichord can only talk to an external MIDI devices (sequencer, computer, etc) using the "midi out" socket; also the other midi sockets work. Once you connect the AC plug, turn the on/off button to I (on): this operation will turn on the midi controller that will be in full operation in 3-4 seconds; The system is ready when all of the four lights above the drawbars are on. After this, the midi controller needs to be synchronized with the hardware interface: the preset section hasn't got the mechanical latch system, the first thing to do before playing is to choose one preset or choose the drawbar sets by pressing A# or B key on the lower and on the upper manual. The respective LEDs of the drawbars set power up; drawbars set not active has got the LED off. If Hamichord Exp-edition is connected you can turn-on it through the switch **(1)** you find on the upper right End-block. When the system start the LED above the switch will light.

GENERAL PRINCIPLES OF WORKING

The organ has 2 manuals consisting of 61 keys and 12 keys of presets on each manual: you can recognize preset keys from playing keys by the fact that presets keys are on the left and the colours are inverted.

Functions related to presets are:

Presets upper manual *(2)*

C: **cancel**, All drawbars closed – no sound. Leds of related drawbars sets flashing.

C#- A Each key could be modified by user: see the "store prest function" section. Leds of related drawbars sets off.

A#: **drawbars set I** active - relative led is on

B: **drawbars set II active with percussion** - relative led is on

Presets lower manual *(3)*

C: **cancel**, All drawbars closed – no sound . Led's of related drawbars sets flashing.

C#- A Each key could be modified by user: see the "store prest function" section. Leds of related drawbars sets off.

A#: **drawbars set I** active - relative led is on

B: **drawbars set II active** - relative led is on

Drawbars Section

Each Upper **(4)** and Lower **(5) drawbars** set has 9 rotary slides with caps of these colors:

brown: 16' – 5&1/3'
white: 8' – 4' – 2' – 1'
black: 2&2/3' – 1&1/3' – 1&3/5'

With these you can mix the harmonics and set the volume of each foot by moving from **0** (drawbar close) to **8** (drawbar open) .

From left to right every set is made by:

16'	One octave below 8' with repetition of first low octave.
5-1/3	A fifth over 8'
8'	Fundamental
4'	An octave above 8'
2-2/3	One octave and a fifth above 8'
2	Two octaves above 8' with repetition of the last upper octave.
1-1/3	Two octaves and a third above 8'.
1-3/5	Two octaves and a fifth above 8'
1	Three octaves above 8' with repetition of last 2 high octaves.

Pedal Board Drawbars

In the middle of the 4 drawbars set, you will find 2 brown drawbars that are used for controlling the 32' and 16' when an external midi pedal board is connected.

STORE PRESETS FUNCTION:

With EPS Technology you can easily save your own drawbars configuration and recall when you want (also after shut down) by operate in this way:
Do your own drawbars configuration on the upper manual moving each drawbar (first set from the left): when you reach the desired sound, choose the preset key (inverted coloured keys) where you want your sound to be saved: press and hold keys for 4-5 seconds until the related LEDS will flash one time.
Done! Now your sound is stored in that preset key. You can delete it by do the operation described above another time.
For store presets on the lower manual do the same but using the third set from the left.
For store and recall presets use only the inverted coloured keys from C# to A. of both manuals.

EFFECTS

Percussion (6)

In the Upper manual with **the B preset active**, is it possible to activate the percussion effect with the buttons set in the higher right part of the instrument.

Perc. On/off: Percussion on or percussion off.
Perc. Volume Soft/Norm. : Two different volumes of percussion.
Perc. Decay :   Percussion decay **Fast** and **Slow**
Perc. Harmonic :   Harmonic of the percussion , II (second)
and **III** (third).

Vibrato / Chorus / Volume Normal/soft

In the upper left part of the instrument you can find the knob for Vibrato and Chorus **(7)**.

V I – V II – V III :   Three different vibrato depths.

C I – C II – C III :   Three different chorus depths.

This effect can be assigned separately for each manual selecting the Upper and Lower Tabs **(8)** in the extreme left of the panel.

In the same left part of the instrument there's also a tab called "Volum normal/soft" **(8)** that decrease 2/3 of the general volume of the controller.

Rotating controllers and knobs

On the left and the right end blocks of the Hamichord there are 6 knobs which send specific MIDI MESSAGES (control changes (CC)) which you can assign to a particular feature (please refer to your expander instruction or to your software manual).

On Upper Left End-block **(9)** you have two potentiometers for controlling the general volume and the quantity of saturation of the internal tube amp simulator:

On Lower Left End-block **(10)** you will find two knobs that control the key-click and reverb.

On the Lower Right End-block **(11)** there are two knobs for controlling the treble and bass level

Pedal Board Drawbars

In the middle of the 4 drawbars set, you will find 2 brown drawbars that are used for controlling the 32' and 16' when an external midi pedal board is connected.

All CC are fixed and cannot be changed by the user: see the CC map for reference.

Turning off the instrument

When the instrument is operating as a MIDI CONTROLLER, to turn off the instrument you have to simply turn the rear button to 0 (off).

APPENDICES

HAMICHORD M-C3 MIDI IMPLEMENTATION CHART

FUNCTION	TRASMITTED	RECOGNIZED	REMARKS
Basic Channel Default: Changed:	:1-2 :1-2	X	
Mode Messages Default: Altered:	X	X	
Note Number True Voice	0-127 _____	X	
Velocity Note On Note Off	X X	X X	X Without velocity kit
Aftertouch Keys: Channel :	X X	X X	
Pitch Bend	X	X	
Control Change	X	X	
Program Change	X	X	
System Exclusive	GM, GM2, MMC	O, firmware upgrade	
Song Position Common song select	X	X	
System : Clock Exclusive : Command	X X	X X	
Aux : Local ON/OFF Messages: All Notes OFF :Active Sense :Reset	X X X X	O O O O	
Notes			

MIDI CC MAP

	CONTROL	CC NUMBER	AUTOMATION	VALUE	NOTES
A Set - active if A# preset key of upper manual is selected	Upper Drawbar 16' (brown)	12		0-127	
	Upper drawbar 5 1/3' (brown)	13		0-127	
	Upper drawbar 8' (white)	14		0-127	
	Upper drawbar 4' (white)	15		0-127	
	Upper drawbar 2 2/3' (black)	16		0-127	
	Upper drawbar 2' (white)	17		0-127	
	Upper drawbar 1 3/5' (black)	18		0-127	
	Upper drawbar 1 1/3' (black)	19		0-127	
	Upper drawbar 1' (white)	20		0-127	
B Set - Active if B preset key of upper manual is selected	Upper Drawbar 16' (brown)	12		0-127	
	Upper drawbar 5 1/3' (brown)	13		0-127	
	Upper drawbar 8' (white)	14		0-127	
	Upper drawbar 4' (white)	15		0-127	
	Upper drawbar 2 2/3' (black)	16		0-127	
	Upper drawbar 2' (white)	17		0-127	
	Upper drawbar 1 3/5' (black)	18		0-127	
	Upper drawbar 1 1/3' (black)	19		0-127	
	Upper drawbar 1' (white)	20		0-127	
C Set - Active if A# preset key of lower manual is selected	Lower Drawbar 16' (brown)	21		0-127	
	Lower drawbar 5 1/3' (brown)	22		0-127	
	Lower drawbar 8' (white)	23		0-127	
	Lower drawbar 4' (white)	24		0-127	
	Lower drawbar 2 2/3' (black)	25		0-127	
	Lower drawbar 2' (white)	26		0-127	
	Lower drawbar 1 3/5' (black)	27		0-127	
	Lower drawbar 1 1/3' (black)	28		0-127	
	Lower drawbar 1' (white)	29		0-127	

D Set - Active if B preset key of lower manual is selected	Lower Drawbar 16' (brown)	21		0-127	
	Lower drawbar 5 1/3' (brown)	22		0-127	
	Lower drawbar 8' (white)	23		0-127	
	Lower drawbar 4' (white)	24		0-127	
	Lower drawbar 2 2/3' (black)	25		0-127	
	Lower drawbar 2' (white)	26		0-127	
	Lower drawbar 1 3/5' (black)	27		0-127	
	Upper drawbar 1 1/3' (black)	28		0-127	
	Lower drawbar 1' (white)	29		0-127	

Upper presets	C		Cancel	ON-OFF	
	C#		Preset 1	ON-OFF	EPS
	D		Preset 2	ON-OFF	EPS
	D#		Preset 3	ON-OFF	EPS
	E		Preset 4	ON-OFF	EPS
	F		Preset 5	ON-OFF	EPS
	F#		Preset 6	ON-OFF	EPS
	G		Preset 7	ON-OFF	EPS
	G#		Preset 8	ON-OFF	EPS
	A		Preset 9	ON-OFF	EPS
	A#		first set active	ON-OFF	sync
	B		second set active	ON-OFF	sync

Lower presets	C		Cancel	ON-OFF	
	C#		Preset 1	ON-OFF	EPS
	D		Preset 2	ON-OFF	EPS
	D#		Preset 3	ON-OFF	EPS
	E		Preset 4	ON-OFF	EPS
	F		Preset 5	ON-OFF	EPS
	F#		Preset 6	ON-OFF	EPS
	G		Preset 7	ON-OFF	EPS
	G#		Preset 8	ON-OFF	EPS
	A		Preset 9	ON-OFF	EPS
	A#		Third set active	ON-OFF	sync
	B		fourth set active	ON-OFF	sync
Controllers	Pedalboard Drawbar 32'	30		0-127	
	Pedalboard Drawbar 16'	31		0-127	
	Vibrato-Chorus	32		0-127	
	Rotator ON/OFF	33-53		ON-OFF	
	Volume	36		0-127	
	Volume Normal-soft	36	decrease 50% of Volume pot		
	Drive	35		0-127	
	Click	38		0-127	
	Reverb	39		0-127	
	Treble	40		0-127	
	Bass	41		0-127	
	Percussion ON	42		ON-OFF	Only if set B is active
	Percussion Volume	43		ON-OFF	
	Percussion Decay	44		ON-OFF	
	Percussion Harmonic	45		ON-OFF	
	Vibrato upper	46		ON-OFF	
	Vibrato lower	47		ON-OFF	
	Rotary run	48		ON-OFF	
	Rotary fast	49		ON-OFF	

TROUBLESHOOTING

If you experience problems, please see the relevant item and take the appropriate measures.

1)The power is turned ON(I), but the four leds don't light.

    -Be sure the power chord is connected to the AC main.
    -Be sure the power chord is fixed well in the rear panel of M-C3.
    -Check if the controller is able to send midi messages, if so, please contact assistance.

2)The power is turned ON(I), the four leds light but the controller doesn't send midi messages.

    -Check the midi cable you are using.
    -Check the instruments that is receiving midi messages from M-C3 : in particular check configuration of midi channel, general midi configuration, and other midi function: see your midi instrument manual for details.
    -if you are not sure about configuration of the midi instrument connected to M-C3, use a MIDI cable/adapter with indication of midi activities.
    If there's no midi activities, please contact the assistance.

3)Operating with the percussion ON/OFF tab, it's impossible to enable the percussion sound.

    -Check if the led above the B drawbars set is active, if not, please select the appropriate set (percussion only work on set B).

4)Connecting M-C3 to a midi system like PC with VST or expander, control changes don't work in the right way.

   -Please remember that M-C3 control change messages are fixed and is impossible to change them; according to this, you have to manually change in the midi system connected to M-C3 every control change number for match with the controller or use the midi-learn function of the expander-PC/VST. See your instrument manual for detail.

If you experience problems not listed above or if you notice strange behaviour on your instrument, don't hesitate to contact BG's Musical instrument or the authorized assistance.

CE

This product is made under the actual rules of the CE.
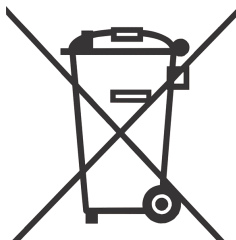
In case in the future your instrument gets too old to play/use or malfunctions beyond repair, please observe the instructions of this mark or, if any question, be sure to contact your dealer or your nearest town or municipal office for its proper disposal.

Contacts

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