# Hamichord

# Exp-edition
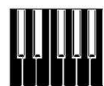


# User Manual
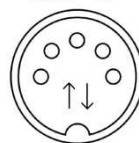
MIDI · FATAR WATERFALL TOUCH · MFU · EPS Easy Preset Store

**MADE IN ITALY**

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# 1)<u>GENERAL WARNINGS</u>

PLEASE READ CAREFULLY BEFORE CONNECTING ANY CABLES.

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

- 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.

**FACTORY DEFAULT**

- The system works with a 12 VDC Supply and can be connected to the M-C3 Organ or to his Power Supply if sold separetely from the M-C3 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 front panel of your instrument.

DO NOT REMOVE THE UPPER OR BACK COVERS FOR ANY REASON, DON'T OPEN THE UNIT 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.

BEFORE CONNECTING THE AC CABLE OF THE POWER SUPPLY AND BEFORE CONNECT THE POWER SUPPLY IN THE UNIT, PLEASE MAKE ALL OTHER CONNECTIONS FIRST.

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

**THIS IS A CLASS 1 PRODUCT AND SO, THE POWER SUPPLY, 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 or the power supply plug 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 CONNECTING THE POWER SUPPLY TO AC MAIN, THE UNIT IS JUST WORKING!**

**ALSO IF THE FRONT LED IS OFF, THE UNIT IS ON "SLEEP" MODE: PUSHING THE "ON" BUTTON, SYSTEM WILL BOOT.**

## 2) PACKAGE AND HANDLING

Please remove the unit from its packaging carefully.

If not placed inside Hamichord M-C3, we recommend that the unit has to be placed in a standard rack system ensuring it with the screws!!!

## !!!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 exp-edition pack contains:

- **HAMICHORD EXP-EDITION** organ sound engine.
- Owner Manual.
- Power supply ( if included ).
- Software package ( if present ).

## 4)<u>CONNECTIONS, CONTROLS AND POSITIONING.</u>

## CONNECTION OF THE MODULE

If you plan to use the exp-edition inside the Hamichord M-C3, you must connect only the power supply connector ( on the rear of the module ) and the 15 pin connector ( on the right side ) coming from inside M-C3.
If you plan to use the exp-edition as a standalone device, you must connect the power supply using the original Hamichord one; leave the 15 pin connector free and please DO NOT CONNECT ANY DEVICE TO IT!

## CONNECTIONS AND CONTROLS

**Back connections:**

- Power supply IN ( use only original Hamichord power supply!!!)

**Right connections:**

- **15 PIN** to Hamichord M-C3 connector : use this connector ONLY for connect the module to Hamichord M-C3 using the cord coming from the organ.

**Front connectors:**

- **Power** : Use this button to boot the module, if used together with M-C3 you can also use the power button on Hamichord M-C3 console. When the module is up and running the blue led will light.

- **Audio OUT L & R** : main audio out of the module ( stereo ) , if you plan to use only mono connection please use L channel.

- **Headphone** : you can connect here an headphone.

- **Midi IN**: input din 5 pin.
  Connect here you master-keyboard for controlling the module exp-edition ( only if used as a standalone device ). If exp-edition is inside M-C3, please don't use this connector. You can use, If connected, the M-C3 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.**

## 5) <u>START-UP AND SHUT DOWN OF THE INSTRUMENT: INSTRUCTIONS FOR USE.</u>

If used inside M-C3, Hamichord exp-edition will work as default sound module for the organ, and together they are a "COMPLETE SYSTEM": to start the sound module, you can use the "**on**" switch in the M-C3 console ( right part ) or the exp-edition "**power button**";
After around 25 seconds your organ is ready to play. First of all, when the organ sounds, select the drawbars set you want to use by pressing the **A#** or **B** reverse colour keys for both manuals. This is useful to **Sync MIDI** of Hamichord and MIDI of exp-edition too.
For other info about using EXP-EDITION with M-C3 please read M-C3 user manual in the dedicated section.

If used as standalone device, once you checked connections of power supply, audio cables and midi cables, you can boot the module by pressing the "Power Button" in the panel of exp-edition.

Default internal software configuration is set for use with M-C3; Inside Exp-edition you will find VB3 HE II. For setting the software for work with your midi configuration, please refer to these simple steps and informations.
Please refer to VB3 instruction for setting up your system.

Hamichord exp-edition is a PC-Based sound module in rack format. The operating system of exp-edition is windows XP embedded.
Windows XP Embedded, commonly abbreviated "XPe", is a componentized version of the Professional edition of Windows XP. The manufacturer is free to choose only the components needed thereby reducing operating system footprint and also reducing attack area as compared with XP Professional; XPE provides the full Windows API, and support for the full range of applications and device drivers written for Microsoft Windows. The hamichord operating system based on XPE was created and it's optimized for making music.
XPE is commonly used by slot machines, cash registers, industrial robotics, thin clients, set-top boxes, network attached storage (NAS), time clocks, navigation devices, and industrial automation.
Apart from this features, that ensure maximum system stability and make your instrument closer to a Robot than a computer, XPE has also new and particular add-ons such as ability to boot from net or run headless. One of this is The EWF - Enhanced Write filter: it provides a facility for protecting a partition from write accesses. The data to be written is diverted to RAM; after a restart, the system is again in its original state. In Hamichord situation this has 3 reasons:

1) Protected the booting media: it provides a means for protecting a volume from writes. This allows hamichord to boot from read-only media such as CD-ROMs, write-protected hard disks, or flash media ( in our case is a Disk on Module, the system doesn't have hard disks) All writes to an EWF-protected volume are redirected to an overlay. These writes are cached in the overlay and made available as part of

the volume. This gives the appearance that the volume is writeable. The overlay may exist either on disk or in Random Access Memory (RAM). If desired, the data stored in the overlay may be committed to the protected volume.

2) Have always the same configuration when you turn up your instrument: hamichord is an organ, it isn't a workstation or a keyboard, so everytime you turn on your instrument you need to find everytime the same working way. So, by default if you make changes in the system, they will be erased in the next boot up of the system.

3) Restart safely and always in the same way also if you turn off the instrument by phisical unplugging the AC cord.

By default Hamichord has a particular factory configuration that works in perfect way: you can modify this configuration works on the EWF: this isn't difficult, but a basic knowledge of computing is required, so please don't do any modification if you're not sure!

## DISABLING EWF

1) Plug a keyboard ( not really necessary ), a mouse and a monitor in the related ports       ( USB1, USB2, PS/2 and VGA)
2)Start your module; in few seconds you will see "HAMICHORD" booting message in the monitor screen, wait until the system is ready to work ( the system is ready when you can play and sound is emitted and when you can see the software GUI).
3) Close the sound application.
4) Find the application called "EWF manager" and open it.
5) Click on "DISABLE"
6) You can now do all the customisations that you want, including removing software or installing new one, custom modification in the sound software or in the soundcards settings; in brief, EXP-EDITION is turned into something similar to a standard windows computer and every time you re-start your system, the modification you did will remain in memory.

**WARNING: ONCE YOU FINISH CUSTOMIZE YOUR SYSTEM, IT IS IMPORTANT AND SAFE TO ENABLE THE FILTER: THIS WILL PREVENT THE SYSTEM TO DAMAGE THE "DISK ON MODULE" MEDIA THAT IS THE "CORE" OF THE ENTIRE SYSTEM: WORKING OR PLAYING THE INSTRUMENT WITH EWF FILTER DISABLED FOR LONG PERIODS CAN CAUSE THE SYSTEM TO STOP WORKING!!! PLEASE CONSIDER THIS WHEN YOU ARE DOING MODIFICATION AND ALWAYS REMEMBER TO RE-ENABLE THE EWF FILTER!**

# ENABLING EWF

Make all operations listed above on point 1), 2), 3), 4)
5) click on "ENABLE"
6) On the next starting of the EXP-EDITION, the filter will be enabled and system
protected.


## COMMIT CHANGES

With this function, when EWF is enabled, you can store you modification "on the fly" without disabling the filter: it is useful for little or simple changes in the system, for example changing parameters of VB3. For use it: make all the modifications needed in the sound software, open EWF MANAGER and click on "commit changes". All changes will be stored in the disk with no nedd to rebooting.


## COMMITANDDISABLE -LIVE

With this function, when EWF is enabled, you can store you modification and turn off EWF in a single step. For use it: make all the modifications needed in the system, open EWF MANAGER and click on "commitanddisable -live". All changes will be stored in the disk and EWF will be disabled. Please when finished, remember to re-enable it using the "enable EWF function".


## WARNING!!!

**MAIN FEATURE OF EWF IS PREVENT WRITING ON THE BOOTING SUPPORT AND FOR HAVING ALWAYS THE SAME BOOT CONFIGURATION, SO WE HIGHLY SUGGEST TO RE-ENABLE THE FILTER AS SOON AS POSSIBLE AFTER YOU DID ALL THE MODIFICATION AND AFTER TESTING THE SYSTEM WORKING.
EWF IS MAINLY A BOOTING FILTER, SO PLEASE TREAT IT IN THIS WAY!**

# CE

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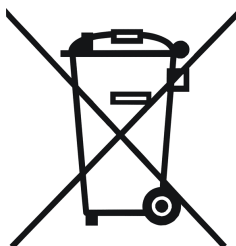
**In case in the future your instrument gets too old to play/use or malfunctions beyond repair, please observe the instructions of this mark or, if any question, be sure to contact your dealer or your nearest town or municipal office for its proper disposal.**

# Contacts

**BG's**
*Musical Instruments*

── Made in Italy ──

**BG's S.r.l.**
*Via Cilea, 30 – 60022 – Castelfidardo-AN-ITALY*
*Tel. +39-071-7825229*
*Fax +39-071-7824012*
*Vat number IT02112920422*

*Official Website:*
[www.bgmi.it](http://www.bgmi.it)

*E-mail:*
[info@bgmi.it](mailto:info@bgmi.it)

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