



DRAWBAR CONTROLLER D9X



USER MANUAL

Congratulations! You are now the owner of D9X organ-drawbar midi controller, please read this manual in its entirety and keep it in a safe place for future reference! Have fun!

D9X is a midi controller designed with 9 drawbars, pots and buttons to control your organ software/hardware rig. Drawbars are controls used in musical organs for change the volume of a particular sound component: as a drawbar is incrementally pulled out, it increases the volume of its sound. When pushed all the way in, the volume is decreased to zero. First bank sends control change messages commonly used for upper manual of a dual manual organ, second bank sends control change messages used for lower manual; you can control pedalboards, percussion, vibrato and chorus, rotary speaker and you have onboard controls like volume, drive and reverb. A rear connection for an expression pedal is provided.

Crumar D9X is the perfect companion for your organ software and works out of the box with GSi VB3 Tonewheel Organ simulation: just plug the provided USB cable to your computer, it's class compliant (no drivers required) and just start playing organ like a pro!

But D9X is more than this. You can connect it with USB to every keyboard/expander able to recognize class compliant USB devices and you can add those "typical controls" to your rig. D9X can also be used with traditional MIDI devices that use the common DIN5 connector, but needs a special "MiniJack to DIN5" adapter. This kind of MIDI connection has become a standard in the recent years, but there are two types. D9X uses TYPE B. When using normal serial MIDI, use a 5V cellphone USB Charger/PSU to power the D9X and use your adapter for the MIDI connection.

CRUMAR D9X – SPECIFICATIONS:

- USB-MIDI controller.
- 9 real drawbars.
- Percussion on, soft, fast, third.
- Vibrato and Chours controls.
- Rorary speaker fast and stop controls.
- Selections for upper, lower, pedalboard.
- Knobs for Volume, Reverb, Drive, Click, Bass and Treble.
- Expression/Volume jack plug.
- Midi out with mini jack (adapter not included).
- Class compliant and bus powered - max 500mA.
- Can be powered with a phone charger.
- Based on Arduino platform.
- 19,5cm x 13cm x h3,5cm.
- Solid metal constructions.

DEFAULT CONTROL CHANGE MESSAGES:

- Upper drawbars: 12, 13, 14, 15, 16, 17, 18, 19, 20
- Lower drawbars : 21, 22, 23, 24, 25, 26, 27, 28, 29
- Pedalboard drawbars: 33, 35
- Volume 7, Drive 76, Reverb 91, Click 75, Bass 8, Treble 10, Vibrato type 73, Vibrato upper, 31, Vibrato Lower 30, Percussion on 66, Percussion soft 70, Percussion fast 71, Percussion 3th 72, Rotary on 85, Rotary fast 1, Rotary stop 68, Expression Pedal 11.
- Midi Channel : 1

NOTES ON ARDUINO:

What is Arduino?

Arduino is an open-source electronics platform based on easy-to-use hardware and software. Arduino boards are completely open-source, empowering users to build them independently and eventually adapt them to their particular needs. The software, too, is open-source, and it is growing through the contributions of users worldwide.

What does this mean?

This means that the heart of D9X is based on a open-source platform and the project is open to everyone.

As a finished product, D9X works with the specifications written in this manual: feel free to explore the world of Arduino but keep in mind that we don't offer support on coding or hardware modifications of D9X. You can always ask the Arduino community that is everyday growing and always very helpful!

You can find project files and source codes here:

https://github.com/ZioGuido/GMLAB_D9X

Informations on Arduino here:

<https://www.arduino.cc/>

For more informations please visit www.crumar.it

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