

PROSTAGE

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USERS MANUAL



HAND CONTROLLER XHC BlackLine

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Hand Controller XHC

General Information

What is MIDI?

MIDI stands for "Music Instrument Digital Interface". MIDI is the global standard for transmitting notes and control commands to and from all kinds of electronic instruments and sound-processing equipment.

MIDI is a serial interface which only transmits control information - not audio data - between music instruments and devices. For example, if you connect a keyboard to a computer via MIDI, the computer, respectively the sequencer software can play the keyboard. The sequencer tells the keyboard which sound should be played with what velocity at what time. In other words, the computer is practically pressing the keys. The sound is not transmitted by MIDI, but is formed by the keyboard. It is also possible, of course, to connect several devices together.

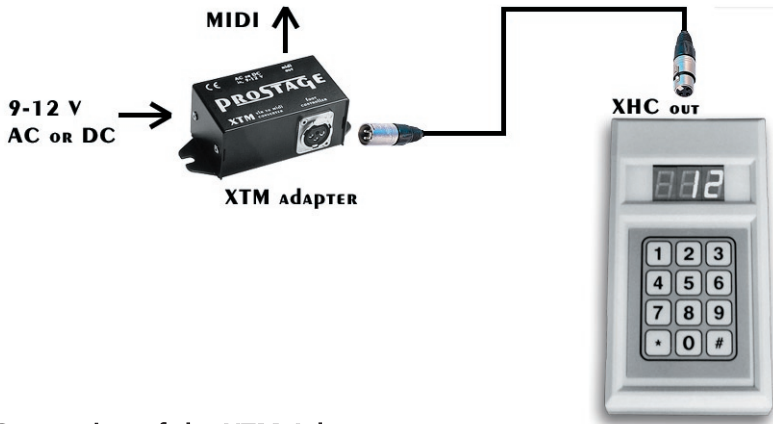
Besides notes, MIDI can transmit all kinds of control commands. For example, the Sequencer tells the keyboard what kind of sound (e.g. piano, violin etc.) the subsequent notes should have. To this end, the sequencer selects a certain program number, in which the required sound is stored.

Using these Program Change commands, numerous effects and settings can be called up in effect devices. Program Change commands switch the settings of the connected devices. The Prostage Hand Controller XHC transmits this Program Change commands. In the receiver you can store an individual setting of parameters for each of the 128 program numbers. Some units display the program numbers as 0-127, others as 1-128.

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1. Connection of the Hand Controller XHC

The prostage™ MIDI equipment is interconnected using standard microphone cables (not included). You can use any microphone cable available on the market. If you choose quality cables, then cable lengths of up to 100m work troublefree. Also transmission over a single-shielded multicore is no problem. The microphone cable not only transmits the MIDI signal but supplies the Hand Controller with power as well. You do not require a separate power supply for the XHC. The microphone cable can be extended as required. Important: Make sure the microphone cables are wired correctly. The prostage equipment does not work with cables that are wired phase reversed (microphones still work with these cables).



2. Connection of the XTM Adaptor

Connect an AC power adaptor to the power input (labeled AC or DC In) of the XTM adaptor. You can use any power supply unit with 9-12 V AC or DC output. The power supply must supply at least 150mA. Connect the MIDI Out of the XTM adaptor to the MIDI In of your equipment using a standard MIDI cable. Connect your Hand Controller using a microphone cable to the XTM adaptor.

3. Settings of the Hand Controller XHC

Inside the Hand Controller there are 8 dipswitches which allow you to set the basic functionality of your XHC. Caution: Take care when you open the housing: do not tear off the wires connected to the keyboard! We recommend to have this work carried out by a (guitar) technician. Some settings only become operational after the power has been turned off and on again. Following settings can be choosed:

Switch 1-4 Chooses the MIDI transmit channel like listed below. The selected MIDI channel is shown quickly on the display when turning on the Hand Controller.

MIDI CH	Switch 1	Switch 2	Switch 3	Switch 4	Sidekick*	Tap FC*	Tap Key*
1	OFF	OFF	OFF	OFF	1		1
2	ON	OFF	OFF	OFF	2		2
3	OFF	ON	OFF	OFF	3		3
4	ON	ON	OFF	OFF	4		4
5	OFF	OFF	ON	OFF	5		5
6	ON	OFF	ON	OFF	6		6
7	OFF	ON	ON	OFF	7		7
8	ON	ON	ON	OFF	8		8
9	OFF	OFF	OFF	ON	9		9
10	ON	OFF	OFF	ON	0		0
11	OFF	ON	OFF	ON		0	Enter
12	ON	ON	OFF	ON		1	Enter
13	OFF	OFF	ON	ON		2	Enter
14	ON	OFF	ON	ON		3	Enter
15	OFF	ON	ON	ON		4	Enter
16	ON	ON	ON	ON		Spez	Enter

*Sidekick / Tap: This column shows which switch is assigned to the Sidekick or Tap function.

Tap FC = Assignment in operation mode "Foot Controller",
Tap Key = Assignment in operation mode "Keyboard style".
(See Chapter 4.3 for details).

Switch 5 chooses the display mode as well as the MIDI channel for the Tap command: (See Chapter 4.3):
OFF: Leading zero is displayed (e.g. 001).
ON: Leading zero is not displayed (e.g. 1)
OFF: The Tap commands are transmitted on the assigned (switch1-4) MIDI Channel.
ON: The Control Change command #14 is transmitted on MIDI channel 14, the Control Change command #15 is transmitted on MIDI channel 15.
The Hand Controller transmits the following 2 Tap commands:
=> The command "Control Change #15 on" is transmitted each time you press the Tap switch, "Control Change #15 off" is transmitted when you release it. (momentary switch)
=> The command "Control Change #14 on" is transmitted when you press the Tap switch the first time and the command "Control Change #14 off" is transmitted when you press it the second time. And so on.. (alternating switch)

Switch 6 chooses the operating / display range:
OFF: works from 0 to 127
ON: works from 1 to 128

Switch 7 chooses the program (operating mode) of the Hand Controller (see Chapter 4 for details):
OFF: operation mode "Foot Controller"
ON: operation mode "Keyboard Style"

Switch 8 enables the Tap or Sidekick function (see chapter 4.3 for details):
OFF: Tap / Sidekick function disabled
ON: Tap / Sidekick function enabled

=> default setting is all "OFF"
except switch 7 "ON"

There are some more options that can be set inside the Foot Controller. Please contact Prostage for detailed information.

Inner bridge: No basic settings / reset will be sent at startup.

Outer bridge: The display does not automatically stop blinking after approx. 10 seconds.

4. Operation of the Hand Controller XHC

There are two different ways how the Hand Controller XHC can work. The operation mode as well as the basic functions can be set inside the Hand Controller (see chapter 3). In both operation modes, the Hand Controller sends MIDI Program Change commands. These commands are limited between 0 and 127. Most units display them as 1-128. No numbers outside this range will be accepted.

There are no presets that can be stored in the Hand Controller. Programming has to be done in the device that has to be controlled. E.g. if you control an effects unit, you either have to store your settings to the corresponding preset number, or you have to program a MIDI mapping. See your effects unit manual for details.

4.1 Operation mode “Keyboard Style “

The Hand Controller works like a numerical computer keyboard. First you enter the number. The # key is your enter key. As soon as you press this key, the selected program number is sent. The * key is your clear key. This switch resets the display; no MIDI data will be sent.

4.2 Operation mode “Foot Controller “

In this operation mode the Hand Controller works like a standard Foot Controller. The * and # keys work as bank up/down switches. You can step (short pressing the switch) or scroll (holding the switch) up and down in steps of 10 using these switches. No MIDI data will be sent when stepping thru banks. The number keys chooses a number inside the selected bank. As soon as you press a number key, the corresponding MIDI program number is sent.

4.3 Tap and Sidekick functions

If Tap or Sidekick function is enabled, one switch of the Foot Controller has a special function. Which switch is assigned to this function is determined by the MIDI channel (see Chapter 3 for details). E.g. if you like switch 4 to act as Sidekick, you must use MIDI channel 4. In this case, the device(s) you want to control must also be set to MIDI channel 4 or Omni mode in order to work properly. Taping or active Sidekick is indicated by a red dot on the display. You can only use the Tap or Sidekick function. It is not possible to use both simultaneously.

4.3.1 Tap function

The Tap function allows you to set (tap) the delay time as well as other song tempo specific parameters of your effect unit(s) in realtime. By rhythmic pressing of the Tap key, pre-defined Control Change commands are sent (see Chapter 3 for details). The effect unit has to be programmed in such a way that it accepts these commands as Tap. If your effect unit does not accept MIDI commands to Tap the delay time but has an connector for an external Tap switch (like the TC D-two), then you require a special adaptor in order to make it work. (ask: info@prostage.eu). If one of the keys 0-9 is defined as Tap switch, then this switch is no longer available for sending program change commands.

=> Special case, operation mode "Foot Controller": If you define "Spez" (MIDI channel 16) as Tap switch, then the Tap function is always assigned the last pressed number key. In other words: When you press the number key the first time, the program number is sent. Each further press of the same key sends the Tap commands.

=> Special case, operation mode "Keyboard Style": The use of "Enter" (arrow down) as Tap functions as follows: If the display does not flash (this means no new program number is pre-selected), then Tap commands are sent each time you press it. If a number is preselected (display flashes), then "Enter" sends the program number.

4.3.2 Sidekick function (operation mode "Foot Controller" only)

Sidekick works the following way: As soon as you press the sidekick switch, the program number will be sent. As soon as you release the switch, the old program number (the one selected before using the Sidekick button) will be restored. Sidekick works in all banks (e.g. 4 - 14 - 24 ...).

This function makes sense to recall an effect preset for a short time, and then revert to the old effect settings.

5. Warranty / Support

The Hand Controller XHC is covered by a 2-year warranty. Prostage shall not be liable if the damage was caused by inappropriate use or if the Hand Controller was connected to anything else than the XTM / XTMpro adaptor or a device with a Prostage compatible Foot Controller connector. The detailed terms of the warranty can be downloaded from the Prostage website.

If you need technical support, please contact your local dealer or email to info@prostage.eu

