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(1) Preface

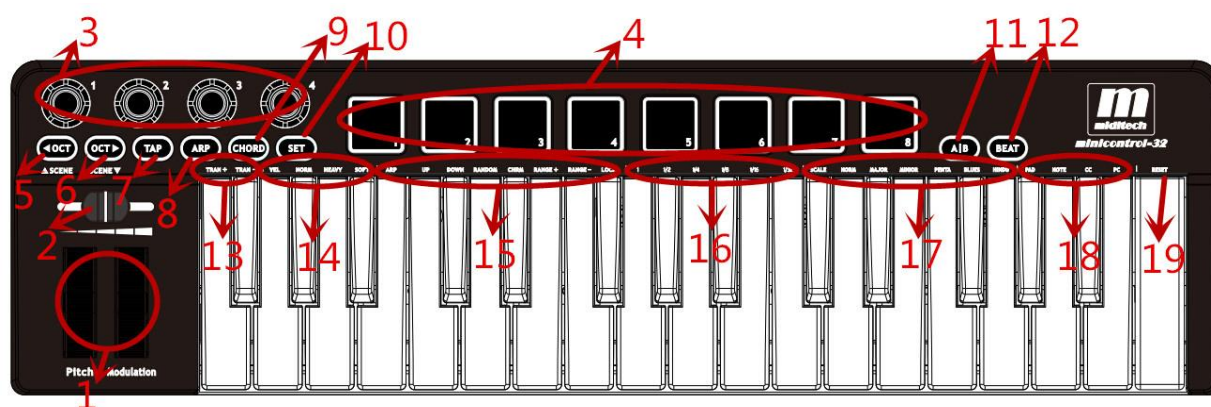
Congratulations on your purchase of MIDITECH minicontrol-32. minicontrol-32 is a petite appearance and powerful MIDI keyboard, portable and powerful MIDI function, is a cost-effective products, worth you have. Next to introduce minicontrol-32 function and operating, it set powerful MIDI functions, Includes 32 key miniature keyboard, pitch and modulation wheels, volume clipper potentiometer, Unlimited rotation data regulator, octave buttons (Up & Down), powerful arpeggiator, chord mode button, set button, Drum PAD, Drum PAD switch button, Tick device button. The keys of composite function, includes transpose Buttons (Up & Down), reverberation function selection, three velocity curve, arpeggiator mode, arpeggiator /tick time, scales mode select , PAD Mode select and reset. pedal input jack and USB socket . minicontrol-32 support apple system and the Microsoft Windows XP/7/8 system, do not need to install the USB driver, the system can directly identify the MIDI USB devices.

(2) What's in the Box?

- 1.minicontrol-32 force sensing 32 key keyboard USB MIDI controller.
- 2.A standard manual.
- 3.A standard USB wire.

(3) Panel overview :

3.1 Front panel overview



3.2 Rear panel overview



Function of the serial number
(1) Pitch and Modulation wheels
(2) Volume clipper potentiometer
(3) Unlimited rotation data regulator
(4) Drum PAD
(5) Octave buttons- (DOWN)
(6) Octave buttons+ (UP)
(7) Metronome (TAP)
(8) Arpeggiator (ARP)
(9) CHORD
(10) SET
(11) Switch A/B (Drum PAD)
(12) Tick device(BEAT)
(13) Transpose+/-
(14) Velocity Curve(VEL/NORM/HEAVY/SOFT)
(15) Arpeggiator mode(ARP MODE)
(16) Arpeggiator/Tick time(ARP TIME/BEAT TIME)
(17) Keyboard Scale(SCALE)
(18) PAD Operating mode(PAD MODE)
(19) Reset the parameters(Reset)
(20) Pedal switch(SUSTAIN)
(21) USB 2.0

(4) Functions overview :

4.1 Pitch and Modulation wheel:

Pitch wheel: Transmits MIDI Pitch Bend information to raise or lower the pitch of a note temporarily.

Modulation wheel: This wheel can be used to transmit continuous controller data (CC #1 or Modulation Depth).

4.2 Volume clipper potentiometer

The potentiometer can adjust the MIDI volume, adjust the volume potentiometer will transmit the MIDI messages.

4.3 Unlimited rotation data regulator (Data)

Unlimited rotation data regulator to send specific controller information, you can use MIDI Editor software editing a CC value

4.4 Drum PAD:

Drum PAD: Send PAD MIDI information, you can use MIDI Editor software editing a CC value

4.5&4.6 Octave buttons(DOWN& UP)

Octave buttons(DOWN& UP), can be used to enlarge the 0-key to 88-key or more. Every time to reduce or increase an octave(the default value of 4),

1. To reduce an octave (octave value less than 4)"OCTAVE UP" LED light;
2. To increase an octave (octave is greater than 4)"OCTAVE DOWN"LED light;

3. Octaves Value is 4, "OCTAVE UP" LED and "OCTAVE DOWN" LED will put out. At the same time press "OCTAVE DOWN" & "OCTAVE UP" buttons, the octaves value return to the default value(4).
4. When the CHORD mode enabled, these two octave buttons can adjust the chord types.

4.7 TAP tempo

Edit arpeggio/tick device rhythm tempo. After opening the "ARP/BEAT", "TAP" LED will be flashing, flashing rate associated with the current tempo, the user can repeat press this button ("TAP") adjust the tempo, repeated press rate is proportional to the tempo, the press rate faster, the faster tempo rhythm, LED blink rate faster, the faster the arpeggio/tick sends, conversely the more slowly.

4.8 Arpeggiator(ARP)

Arpeggiator switch, When press the button to open the arpeggios, LED lighting, press the button, once again and arpeggio function will be closed, the LED put out, after the arpeggiator is ON, can be used together with the keyboard. Arpeggio function: If the current press the keyboard of C2, will send C2, C3, C2,C3.....;If the current press D3 keys, will send D3, D4, D3, D4.....

When arpeggio (ARP) began, tick (BEAT) stop.

4.9 CHORD

press the "CHORD", Chord is ON, LED lights. Press the button again, close the chord function, LED put out. In chord mode, through "the OCTAVE" and "OCTAVE >" button to change different chords, chord types including "Major", "Minor", "Minor 6", "Minor 7", "Augmented", "Major 6", "Major 7", "Suspended", "Diminished".

4.10 SET

Composite keyboard mode switch, When press "SET" button, not loosen, LED lights, the composite keyboard mode is ON, then press any keyboards and will make can reuse functions. For example: "SET" is ON, press the keys of the first (Transpose +), can Transpose +1.

Loosen the "SET" button will exit composite keyboard mode.

4.11 Switch A/B (Drum PAD)

A: 1~8 PAD

B: 9~16 PAD

4.12 Tick device (BEAT)

Tick device is turned on, the LED light, tick will send similar tick, tick, clicking the MIDI note, with metronome (TEMP), reuse the keys of tick TIME (BEAT TIME) are used together, send a note speed adjustment.

After the tick is open, arpeggio (ARP) will stop

4.13 Transpose+/-

It is possible to transpose up or down by as much as 12 MIDI notes.

4.14 VELOCITY Curve (VEL/NORM/HEAVY/SOFT)

Choose velocity curve (VEL/norm/heavy/soft), the user can choose according to personal feel the velocity of the corresponding curve.

VEL: Closing velocity sensing, velocity always 127

4.15 ARP MODE

When the "ARP" is ON , LED lights.

UP: Up mode, the arpeggiator will play the notes in increasing chromatic order. If a Cmaj chord is played, the pattern would be: C, E, G, C, E, G,

DOWN: Down mode, the arpeggiator will play the notes in decreasing chromatic order. If a Cmaj chord is played, the pattern would be: G, E, C, G, E, C,

RANDOM:RANDOM mode, arpeggiator playing notes random broadcast, not according to the notes in order to play, random play the notes.

CHRN: Order mode, the arpeggiator will play back the notes in the order that they were pressed. If the following notes were pressed and held in this order: C, G, E, B. The output of notes would follow that order and playback: C, G, E, B, C, G, E, B, C, G, E, B.....

RANGE+: Arpeggiator octave+1, since the default value(1) + 1, a maximum of 4. When the arpeggiator octave is 1, arpeggiator sent two notes. Press the "RANGE+", arpeggiator octave+1, the notes add an octave, then sent three arpeggio notes at the same time. For example, the arpeggiator octave is 1, sent C2,C3; The arpeggiator octave is 2, sent C2,C3,C4; The arpeggiator octave is 3, sent C2,C3,C4,C5.....

RANGE- : Arpeggiator octave-1, a minimum of 1. When the arpeggiator octave is 2, arpeggiator sent three notes. Press the "RANGE-", arpeggiator octave-1, the notes reduce an octave, then sent two arpeggio notes at the same time. For example, the arpeggiator octave is 1, sent C2,C3; The arpeggiator octave is 2, sent C2,C3,C4; The arpeggiator octave is 3, sent C2,C3,C4,C5.....

LOCK: Latches arpeggio. Latch current keys arpeggio effect, until a new keys pressed to change

ARP keys are consistent with the UP the keys for the same function

4.16 Arpeggiator/Tick time(ARP TIME/BEAT TIME)

When the "ARP/BEAT" is ON, ARP TIME/BEAT TIME---1~1/32:These keyboards are adjust fixed time for arpeggiator/BEAT. Arp time/Beat time: play arpeggiator/tick notes of frequency. Here with the QN said that if

QN is a crotchets , so are defined as follows:

1 note = QN * 4

1/2 note = QN * 2

1/4 note = QN

1/8 note = (QN/2)

1/16 note = (QN/4)

1/32 note = (QN/8)

4.17 Keyboard Scale (SCALE)

Keyboard Scale, a group of 12 key note the order of keys in C ~ B

Scale No.	Pitch name	C	C#	D	D#	E	F	F#	G	G#	A	A#	B
	Note number:	1	2	3	4	5	6	7	8	9	10	11	12
001	Major Scale	C	C	D	D	E	F	F	G	G	A	A	B
004	Minor Scale	C	C	D	D#	D#	F	F	G	G#	G#	A#	A#
002	Pentatonic Major Scale	C	C	D	D	E	E	G	G	A	A	A	A
003	Blues Major Scale	C	C	D#	D#	F	F	F#	G	G	A	A	A
026	Hindu Scale	C	C	D	D	E	F	F	G	G#	G#	A#	A#

The NORM for the general scale.

Keys SCALE is consistent with the keys to NORM for the same function

4.18 PAD operating mode (PAD MODE)

PAD: Beating the Drum PAD, will send a Drum notes. For example: (99 18 7F, 99 18 00), in this mode, send channel default is 10, namely Drum information channel

NOTE: Beating the Drum PAD, will send a keyboard notes. For example:(90 18 7F , 80 18 00)

CC: Beating the Drum PAD, will be sent a similar controller message .For example: (B0 18 7F, B0 18 00), in this mode, beat PAD, LED lighting, knock again, the LED will go out

PC: Beating the Drum PAD, will send a tone message. For example:(C0 18 , C0 18)

In addition to the PAD mode, the rest of the model can be fixed by the MIDI EDITER software change channels

4.19 RESET

When parameters change, multiplexing mode by pressing the button, the parameters will be reset to the default boot state, LED out.

4.20 Pedal switch (SUSTAIN)

Connect the pedal to the pedal jack, if on the pedal, it can make the pedal MIDI value.

4.21 USB 2.0

There will be a USB jack on the side of the unit. The unit will be a class compliant with both Mac and PC. It will mount as a USB-MIDI device. The unit will be fully powered by USB.

(5) 5.1 Restore factory parameter function

At the same time, press the "TAP""SET""A/B" three keys, as shown in the figure below red box button. Panel key lights, flicker phenomenon that success set to restore the factory parameter. If equipment anomalies or MIDI information through the MIDI Editor software, after the modification of the MIDI value at the same time you press the "TAP""SET""A/B" three key parameters can restore the factory.



5.2 Minimum System Requirements

If you are using your minicontrol-32 with a computer, the following minimum system requirements need:

Windows	Mac OS
Pentium 3 800MHz or higher	Macintosh G3*800/G4*733MHz or higher
CPU requirement may be higher laptops	CPU requirement may be higher for laptops
256 MB RAM	OS X 10.3.9 with 256MB RAM
Direct X 9.0b or higher	OS X 10.4.2 or greater with 512 MB RAM
Windows XP(SP2) or higher	*G3/G4 accelerator cards are not supported.
Windows 98,Me,NT or 2000 not supported	

(Attention: Window98/ME/NT or 2000 are not supported)

MIDITECH suggests that you connect directly to your computer built in USB ports.

(6) minicontrol-32 MIDI Editor Software

minicontrol-32 connect computer, and then open the minicontrol-32 MIDI Editor software, pay attention to the computer have to recognize minicontrol-32 USB devices, minicontrol-32 MIDI Editor software can display the connection status and the firmware version number, such as picture 1. Computers have no recognize minicontrol-32 device or No insert minicontrol-32 equipment, open minicontrol-32 MIDI Editor software will display not connected state: **Disconnect**, such as picture 2, please check.

Picture 1: Drive connect (display **Connect**, firmware version number: **FW: V0.02**)



Picture 2: Drive not connected (display: **Disconnect**)



MIDI Editor software functional description



Function of the serial number	Function of the serial number
(1)Filename	(11) Encoder (DATA)
(2)New construction parameters(NEW)	(12) Drum PAD
(3)Open the construction file(OPEN)	(13) Function of the alias
(4)Reset parameters and synchronize data(RESET)	(14) Modify the alias
(5)Export construction file(EXPORT)	(15) Data byte(VALUE)
(6)Save the parameters(SAVE)	(16) Edit channel(CHANNEL)
(7)Sync to computer(SYNC TO PC)	(17)Data type(TYPE)
(8)Sync to the device(SYNC TO FW)	(18) Real-time status information
(9)The composite function area	
(10) Pusher potentiometer(SLIDER)	

6.1 Filename

Users in the area of autonomous operation function.

6.2 New construction parameters (NEW)

Click "NEW", at the option to restore for the default parameters.

6.3 Open the construction file (OPEN)

Click "OPEN", can open the saved construction file, the file named "****. CUS"

6.4 Reset parameters and synchronize data to the device (RESET)

If minicontrol-32 connected, click the "RESET", the software configuration parameters restore to the factory, and synchronous data to the minicontrol-32 ;

If minicontrol-32 not connected, click the "RESET", said the wrong window will pop up, remind users to connect minicontrol-32 .

6.5 Export construction file (EXPORT)

Click on the "EXPORT", the user parameter export is saved as a file, in order to backup the user parameter file;

6.6 Save the parameters (SAVE)

Modify the software configuration parameters, click "SAVE" and save the parameters, to open the software will not missing parameters

6.7 Sync to computer (SYNC TO PC)

Click the "SYNC TO the PC," minicontrol-32 configuration parameters will be synchronized to the computer software (minicontrol-32 MIDI EDITOR)

6.8 Synchronized to the device (SYNC TO FW)

Click the "SYNC TO FW," The computer software (minicontrol-32 MIDI EDITOR) configuration parameters will be synchronized to the device (minicontrol-32)

6.9 The composite function area

This area can edit the composite function parameters of the minicontrol-32 , the user can click on any options changes;

Such as: "ARP MODE" choice (UP/DOWN/RANDOM/CHRN)...

"ARP MODE" choice (UP/DOWN/RANDOM/CHRN)

"ARP TIME" choice (1, 1/2,1/4,1/8,1/16,1/32)

"SCALE" choice (NORM , MAJOR, MINOR , PENTA ,BLUES ,HINDU)

"ARP OCTAVE" choice (0~4)

"VELOCITY" choice (VEL , NORM , HEAVY , SOFT)

"PAD MODE" choice (PAD , NOTE , CC , PC)

"BEAT TYPE" choice (1 beat~6 beat): "BEAT TYPE" is the choice of the special function for the minicontrol-32 MIDI EDITOR, can control the rhythm of tick note type

"KEY CHANNEL" choice (0~16): The keyboard, PAD, PITCH BEND, MODULATION channel value

6.10 Pusher potentiometer (SLIDER)

Use the mouse to click the Slider icon, software interface appears translucent red label, indicating the user can change the Slider custom functions, such as status byte: TYPE, data bytes: VALUE, the channel: CHANNEL.

6.11 Encoder (DATA)

Use the mouse to click the Encoder icon, software interface appears translucent red label, indicating the user can change the encoder custom functions, such as status byte: TYPE, data bytes: VALUE, the channel: CHANNEL.

6.12 Drum PAD

Use the mouse to click the Drum PAD, software interface appears translucent red label, indicating the user can change the Drum PAD custom functions, such as status byte: TYPE, data bytes: VALUE.

PAD model by PAD MODE change, CHANNEL and KEY CHANNEL to share

6.13 Function of the alias

The area used to display the function of the alias, convenient user to see the alias of the custom function.

6.14 Modify the alias

User can input function on the edit field alias, note the use of the name to function.

6.15 Data byte (VALUE)

User can click on the "VALUE" on the left side of the square space, fill in 0 ~ 127, such as the currently selected edit encoder, the "TYPE" select "NOTE", "VALUE" fill in 127, the synchronous data to the minicontrol-32, minicontrol-32 sends a message format for the encoder (state bytes: 0x90, data bytes: 0x7f, velocity bytes: 0 ~ 0x7f)

6.16 Edit channel (CHANNEL)

Click on the "CHANNEL", the user can choose the encoder, Pusher potentiometers on the channel (channel value is 0 ~ 15)

6.17 Data type (TYPE)

"TYPE" drop-down box to choose NOTE (0x90), PC (0xc0), PITCH BEND (0xe0), AFTER TOUCH (0xd0), CC (0xb0);

In the encoder (Data) mode with CC (Relative) and CC (Absolute)

CC(Relative):0xBx (The encoder back to normal mode) ;

CC(Absolute):0xBx, Only the encoder (6.11), velocity bytes will enable the absolute value model, each turn left, velocity bytes will start from 0x40 decreased ; Each turn right, velocity bytes will start from 0x40 began to increase

6.18 Real-time status information (STATUS, DATA1, DATA2, DEC/HEX)

After connect minicontrol-32, rotate any potentiometer or encoder and press the button have information uploaded to the software, according to the real-time STATUS: STATUS byte (x > 0 x80), DATA1: data bytes (x < 0 x80), DATA2: byte (x < 0 x80), DEC: decimal, HEX: hexadecimal display