



MULTITRACK REMIX CONTROLLER

# ***VCM-600***

**取扱説明書**

P.1~

**OWNER'S MANUAL**


P.17~

# CONGRATULATIONS !


Thank you for purchasing the Vestax VCM-600. Please read through the user’s manual thoroughly to use the VCM-600 safely and at its best performance.

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**CAUTION**  
RISK OF ELECTRIC SHOCK DO NOT OPEN



**CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK  
DO NOT REMOVE COVER (OR BACK)  
NO USER-SERVICEABLE PARTS INSIDE  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL**



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

# IMPORTANT SAFEGUARDS

## READ BEFORE OPERATING EQUIPMENT

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. Read instructions-All the safety and operating instructions should be read before the appliance is operated.
2. Retain instructions-The safety and operating instructions should be retained for future reference.
3. Heed Warnings-All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions-All operating and use instructions should be followed.
5. Cleaning-Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. Attachments-Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture-Do not use this product near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
8. Accessories-Do not place this product on an unstable cart, stand, tripod, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with product. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
9. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
10. Power sources-This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company.
11. Lightning-For added protection of this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.
12. Overloading-Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
13. Object and Liquid Entry-Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
14. Servicing-Do not attempt to service product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified personnel.

# FEATURES

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- The VCM-600 can control 160 parameters of Ableton DJ software and other MIDI compliant software with high resolution MIDI signals sent via USB.
- Multi track control (track bank)
- High quality input faders and pitch faders from the VCI-100 and PMC-580 are also applied to the VCM-600 for advanced operability.
- Vestax quality Input fader/Cross fader curve control.
- Simple plug & play activation with Apple and Windows operating system computers.
- Lightweight, high durability aluminum body

## Included items

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- VCM-600 midi controller
- User manual
- USB cable
- 「Live Lite 7 Vestax Edition」 Install • discs

※DC Adaptor not included

# Minimum system requirement

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Required system for the bundle software Live Lite 7 Vestax Edition(Win / Mac)

Audio Interface (ASIO or CoreAudio)

QuickTime6.5

Internet connection

<Windows>

Windows XP (SP2)

Windows Vista (SP1)

※64bit cannot be used

CPU : CPU Clock frequency more 1.5GHz

RAM : 512MB RAM ( more than 1GB)

USB port (USB2.0 Compatible)

DVD-ROM drive

<Macintosh>

Mac OS X 10.4(10.5)

CPU : G4 /(Intel CPU recommended)

RAM : 512M RAM (more than 1GB)

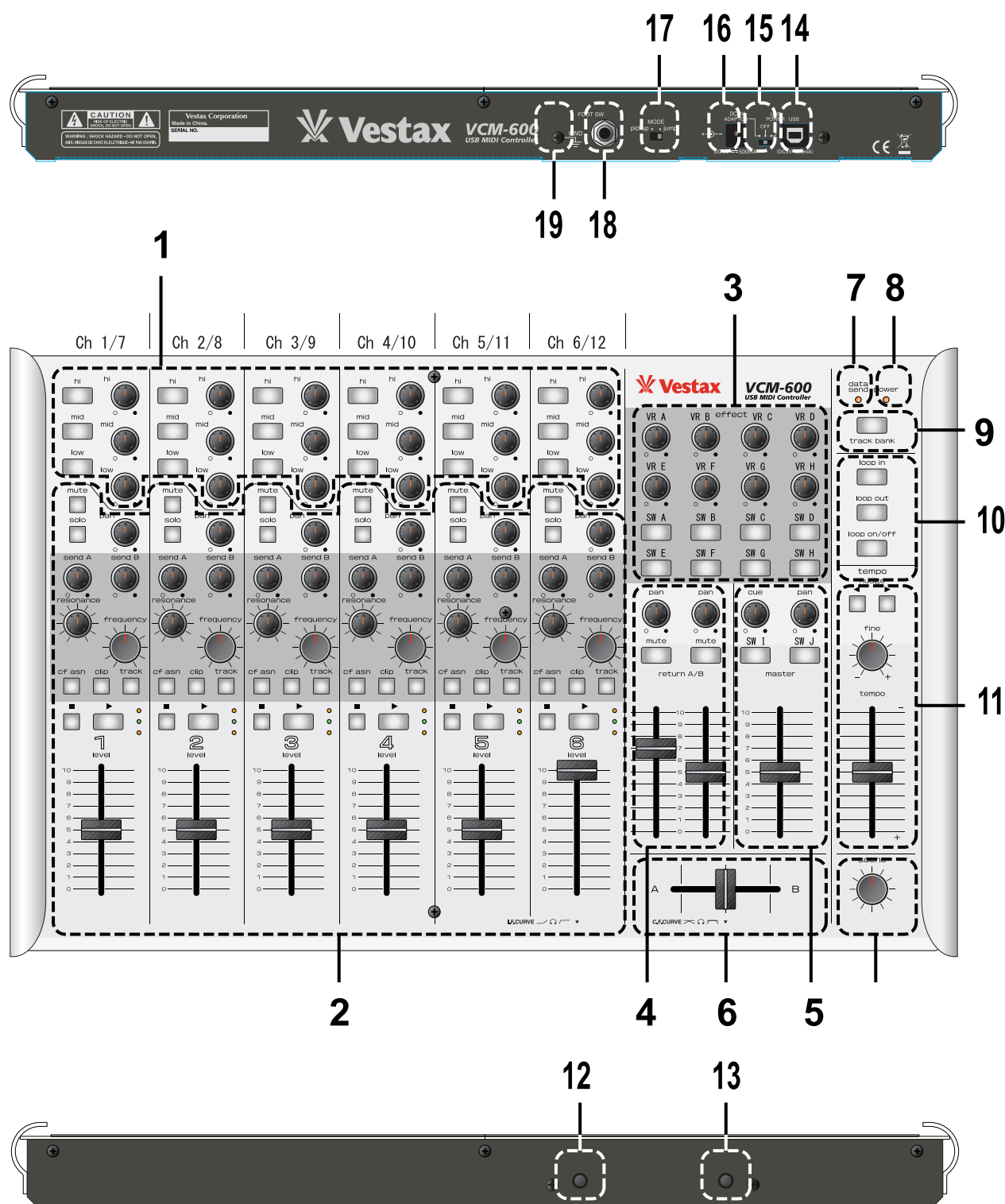
USB port(USB2.0 Compatible)

DVD-ROM drive

NOTE:

Be aware that the requirements above do not guarantee operation with all computers and devices.

# Controls and functions



## 1. Equalizer section

Each knob affects a designated frequency of the channel.

※This function operates when the equalizer plug-in effect is inserted to each track.

- hi : Controls the increase and decrease of the high frequency
- mid : Controls the increase and decrease of the mid frequency
- low : Controls the increase and decrease of the low frequency
- hi : Kill switch for high frequency
- mid : Kill switch for mid frequency
- low : Kill switch for low frequency

## 2. Program Session

- mute : Mutes each channel
- solo : Enables to listen to the selected channel only and mute all others.

The LED illuminates in yellow when ON

- pan : Adjusts the pan (LR balance) level
- send A : Adjusts the level of each channel sent to “send A”
- send B : Adjusts the level of each channel sent to “send B”
- resonance : Adjusts the Q rate
- frequency : Adjusts the frequency value
- cf asn (Cross Fader Assign) : Assigns each channel to the cross fader

One push: ch.A Two pushes: ch.B LED off: Master fader

※Click on the “X” button of LIVE to check the current assign setting.

- clip : Clip view ON/OFF
- track : Track view ON/OFF
- Stop button : Stops the sample loop of each channel
- Start button : Starts the sample loop of each channel. The button will illuminate in green when the selected scene is playing.
- Fader : Controls the volume of each tracks sound.

## 3. Effect control section

Free assign knobs and buttons. This section is mainly assigned as effects but can be assigned to other parameters as well.

- Control knobs : These knobs are mainly assigned to parameters which need graded control.

ex : Volume, filter frequency, EQ

- Buttons : Turns each assigned parameter ON/OFF.

ex: Effects

#### 4. Return Control section

Controls each channels signal sent via “send”

- pan : Adjusts the LR balance of the signal sent to the return channel.
- mute : Mutes the return channel.
- Fader : Controls the sound level of the signal sent to the return channel

#### 5 Master section

- cue : Adjusts the monitor level
- pan : Adjusts the LR balance of the signal sent to the master fader.
- Assign button : Free assign buttons. Assign any optional parameter.
- Fader : Adjusts the master volume

6.Cross fader : Selects channel A and B. The C.F.CURVE knob on the front panel adjusts the curve of the fader.

※Click the “X” button on LIVE to check the cross fader in the software.

7.data send : This LED will illuminate when any knob, fader or button has been operated and the VCM-600 has outputted MIDI signals . If this LED does not illuminate when any control has been operated, parts of the power source or controller may have an error or have worn out. Please read TROUBLESHOOTING first before considering repair.

8. POWER LED : Illuminates when power is provided via USB or from the power adaptor.

9.track bank : This button shifts the control for all channels between 1 – 6 and 7 – 12.

The VCM-600 will control channel 1 to 6 when the button LED is off, will control 7 – 11 when the button is red.

#### 10. Loop

- loop in : Sets the start point of the loop. The button turns yellow when set.
- loop out : Sets the end point of the loop. The button turns yellow when set.
- loop on/off : Sets the loop ON/OFF. The button turns yellow when ON.

#### 11.Tempo

- tempo nudge : Temporarily nudges the speed of the track up and down to match the tempo.
- fine : Fine adjusts the tempo.
- tempo : Fader : Controls the tempo
- scene : Switches the scene of each track. (Rotate to select. Push the knob to play the scene)



12. I.F CURVE : (Input Fader Curve control)

Controls each input channels (1 – 6) faders curve characteristic.

The curve inclines sharply near the bottom of the fader when the knob is turned to the left and sharply near the top when the knob is turned to the right.

13. C.F.CURVE : (Cross Fader Curve control)

Controls the cross faders curve characteristic.

The cross-fade curve inclines gently when the knob is turned to the left, inclines sharply when turned to the right.

14 USB jack : Connect to the USB jack of your computer. All MIDI signals to control the software is sent through this connection. Also receives USB buss power from the computer.

15.Power select switch :

This switch selects the power source for the VCM-600.

Select “AC ADAPTOR” if using the Vestax power adaptor (not included) and “USB BUSS POWER” if utilizing electricity provided from the computer through the USB cable.

16. AC Adaptor jack : Connection for the Vestax power adaptor (not included)

※NOTE : If using a non-powered USB hub or if the computers power capacity is not sufficient, use the Vestax power adaptor(not included) for stable operation.

17. Mode Select Switch: This switch sets the action of the input faders when channels have been shifted with the “track bank” button.

jump : The parameter value changes immediately when the fader is moved. (The previous value “jumps” to the new value)

pick up : The parameter value changes when the fader has reached the same value as the parameter. (When the fader of the VCM-600 has reached the same position within the software)

The three LED lights above the input fader indicate if the parameter value is above or below the current fader position. For example, if the parameter value is above the fader position after shifting tracks, the top orange LED will illuminate. The green LED in the middle will illuminate when the fader (VCM-600) has reached the same value as the parameter (software) and indicate that the two are synchronized.

18.Footswitch : Connection for foot switch units. Assign free.

19. GND jack : Connect to devices which require ground connection with a ground cable.

# Connection with computer

## ●Windows

1. Select a power source with the Power Select switch on the rear panel.  
Select AC ADAPTOR if using the Vestax power adaptor, USB BUSS POWER if utilizing USB buss power from the computer.  
※NOTE : If using a non-powered USB hub or if the computers power capacity is not sufficient, use the Vestax power adaptor (not included) for stable operation.
2. Connect the VCM-600 to the computer with the included USB cable.  
The power LED and both sides of the panel will light up.

Windows XP pops up a “New hardware found ” message, and then automatically installs all required drivers. (The pop-up message may not appear when the VCM-600 is connected for the second time or when the driver is already installed)

3. Move any knob and fader to check that the data send LED illuminates along with all control movements.
4. To check connection status in Windows XP, view [control panel] > [system] > [hardware] > [device manager] > inside USB controller find [USB combined device] (Property: Location: Vestax VCM-600) > inside sound, video and game controller find [USB Audio device] (Property: Location: Vestax VCM-600). If both are displayed and the status is "This device is installed normally", the VCM-600 is functioning with the computer.

## ●Macintosh

1. Select a power source with the Power Select switch on the rear panel.  
Select AC ADAPTOR if using the Vestax power adaptor, USB BUSS POWER if utilizing USB buss power from the computer.  
※NOTE : If using a non-powered USB hub or if the computers power capacity is not sufficient, use the Vestax power adaptor (not included) for stable operation.
2. Connect the VCM-600 to the computer with the included USB cable.  
The power LED and both sides of the panel will light up.
3. Move any knob and fader to check that the data send LED illuminates along with all control movements.
4. To check the connection status in Macintosh, view [Applications] > [Utilities] > [Audio MIDI setting] > [MIDI device] and find "VCM-600". Click on the VCM-600 icon to see property.  
Device: VCM-600  
Manufacturer: Vestax  
Model: VCM-600

# Install 「Live Lite 7 Vestax Edition 」

This software's program is specialized for the VCM-600 and enables immediate function.

## ●Windows

1. Insert the included install disc to the computer.

2-1.Click 「Setup.exe」 and start the installer.

2-2.Select a language (U.S. English / French / Deutsch) from the list below.



2-3.Click NEXT



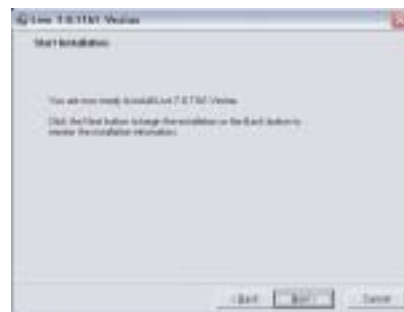
3. The following license agreement notice will appear. Select “I Agree” to continue.



4-1.Default setting will create a folder titled “Ableton” inside “Program Files” and install “Live 7.0.10”. Click “Browse” to select a different location for the software to be installed. Click “Next” after selecting a location.



4-2 Click “Next”



4-3.Click “Next”



#### 4-4. Install in progress



## 5. Install completed



●Macintosh

1. Insert the included install disc to the computer.
2. To install Live Lite Vestax Edition,  
drag 「Live Lite 7.0.11 OS X」 to your Hard Disk.



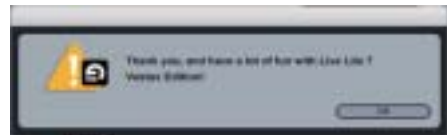
# Start Live Lite 7 Vestax Edition

1. Click the Live Lite 7 Vestax Edition icon to start the software.

2. The software will ask for the serial number if it's the first time to operate, or if it is not registered. Enter the serial number printed on the included install guide.



3. Select a method to unlock Live Lite 7 Vestax Edition. If you have internet connection, select UNLOCK ONLINE, if not follow the guide to proceed. (Make sure to write down the challenge code)



4. Live Lite 7 Vestax Edition is unlocked when this message pops up.

5. If it's your first time to use Live, we recommend to use the Live 7 Lessons feature. Go to "Help" > Lessons Table of Contents".



There are lessons such as "A Tour of Live", "Recording Audio", "Creating Beats" and more that will help you learn how to use Live Lite 7 Vestax Edition easily. Also check "Audio I-O" and "MIDI Controllers" for setup tips.



# MIDI Mapping

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1. Open “Preferences ” from the “Live” menu.
2. Click the MIDI Sync tab and check that “Remote” in the MIDI ports menu is set to ON.  
(If not click the box)
3. Return to the main screen and select a parameter you wish to assign. Right click the parameter (Mac: control + click) and select Edit MIDI map, or click the MIDI button on the right top of the screen to open the MIDI Mapping menu.
4. Click on the parameter (If you have opened the MIDI Mapping menu with right click, the parameter is already selected.) and move the fader, knob or button you wish to assign. The assign information will be listed on the left screen of the MIDI Mapping menu.
5. Continue step 3 &4 to complete your preferred setup.

●The included Live Lite 7 Vestax Edition can be used right away easily after following a few simple settings.

- 1.Open “Preferences ” from the “Live” menu
- 2.Click the MIDI sync tab
- 3.Select VCM-600 from the “Control Surface ”, “Input” and “Output ” list
- 4.The VCM-600’ s controls are now synced with the main features of Live Lite 7 Vestax Edition.

# Troubleshooting

## ● The computer doesn't identify the VCM-600

We recommend not connecting other USB devices to the computer when mixing / editing with music / video software. USB is a reliable protocol but multimedia software is CPU-intensive to the processor and USB bus. It is possible to connect multiple USB devices to one USB outlet on the computer via hubs, but may cause complicated problems to the hardware and software.

- 1 : If the computer doesn't identify the VCM-600, disconnect as many USB device you can and restart the computer.
- 2 : Open Control Panel >> System >> Select the hardware tab and then click on "Device manager". Click the "+" on the left of "Sound, Video, Game controller". Disconnect the VCM-600 if there is a "+" or "!" mark next to "USB audio device" and check that "USB audio device" disappears from the device manager list. If it disappears, reconnect the VCM-600 to a different USB port and see if the problem is solved.
- 3 : Check if the DJ software is set to use the VCM-600 as its controller. Check the software's preference, or open the control section and check if the software is identifying "USB audio device" and is set to receive MIDI data from the VCM-600.
- 4 : For Macintosh computers, view [Applications] > [Utilities] > [Audio MIDI setting] > [MIDI device] and find "VCM-600". Click on the VCM-600 icon to see property and check that it displays, Device: VCM-600, Manufacturer: Vestax, Model: VCM-600.
- 5 : Check that the VCM-600 is connected to the computer with the included USB cable.
- 6 : If the VCM-600 is connected via USB hub, check if the problem solves by connecting the VCM-600 directly to the computer.

## ● No audio output from the computer

The VCM-600 is a simple USB MIDI controller and does not input or output any sound data. If the computer does not output sound signals, the relation between the software, OS and hardware is not working normally. Please check the software settings and audio driver settings of the computer.

## ● No audio output when the VCM-600 is connected.

The controls assign setting for the VCM-600 and software may be incorrect. Move all volumes, faders and switches to check if the master out, cross fader and monitor volumes level is zero. Also check if the Mute button is ON or if it's assigned to other buttons or controls.

## ■ Technical support & Customer service

Please visit the website below for all technical support and customer service regarding the VCM-600.

Website : <http://.pcdj.vestax.com/>



# Specification

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VOLTAGE: 5V (USB POWER)

POWER CONSUMPTION: 300mA

POWER ADAPTOR: DC 9V 500mA

SIZE: 478(W) x 305(D) x 45(H) [55(H) with knobs] mm

WEIGHT: 5kg

●send

•switch

Push switch Note On, send(vv=7F). Release switch Note Off send(vv=00). Send data(hexadecimal)(16進)

switch name	track bank LED=OFF	track bank LED=ON	switch name	track bank LED ON/ OFF
Ch1/ 7 hi cut	90 3C vv	96 3C vv	effect A	9C 46 vv
Ch1/ 7 mid cut	90 3D vv	96 3D vv	effect B	9C 47 vv
Ch1/ 7 low cut	90 3E vv	96 3E vv	effect C	9C 48 vv
Ch1/ 7 mute	90 3F vv	96 3F vv	effect D	9C 49 vv
Ch1/ 7 solo	90 40 vv	96 40 vv	effect E	9C 4A vv
Ch1/ 7 cf asn	90 41 vv	96 41 vv	effect F	9C 4B vv
Ch1/ 7 clip	90 42 vv	96 42 vv	effect G	9C 4C vv
Ch1/ 7 track	90 43 vv	96 43 vv	effect H	9C 4D vv
Ch1/ 7 STOP	90 44 vv	96 44 vv		
Ch1/ 7 PLAY	90 45 vv	96 45 vv	return mute A	9C 4E vv
			return mute B	9C 4F vv
Ch2/ 8 hi cut	91 3C vv	97 3C vv		
Ch2/ 8 mid cut	91 3D vv	97 3D vv	master I	9C 50 vv
Ch2/ 8 low cut	91 3E vv	97 3E vv	master J	9C 51 vv
Ch2/ 8 mute	91 3F vv	97 3F vv		
Ch2/ 8 solo	91 40 vv	97 40 vv	loop in	9C 52 vv
Ch2/ 8 cf asn	91 41 vv	97 41 vv	loop out	9C 53 vv
Ch2/ 8 clip	91 42 vv	97 42 vv	loop on/ off	9C 54 vv
Ch2/ 8 track	91 43 vv	97 43 vv		
Ch2/ 8 STOP	91 44 vv	97 44 vv	nudge minus	9C 55 vv
Ch2/ 8 PLAY	91 45 vv	97 45 vv	nudge plus	9C 56 vv
Ch3/ 9 hi cut	92 3C vv	98 3C vv	scene push	9C 57 vv
Ch3/ 9 mid cut	92 3D vv	98 3D vv		
Ch3/ 9 low cut	92 3E vv	98 3E vv	foot switch	9C 58 vv
Ch3/ 9 mute	92 3F vv	98 3F vv		
Ch3/ 9 solo	92 40 vv	98 40 vv	•Encoder	
Ch3/ 9 cf asn	92 41 vv	98 41 vv	turn encoder send On te On (vv=7F)/ On te Off (vv=00).	
Ch3/ 9 clip	92 42 vv	98 42 vv		
Ch3/ 9 track	92 43 vv	98 43 vv	scene plus	9C 59 vv
Ch3/ 9 STOP	92 44 vv	98 44 vv	scene minus	9C 5A vv
Ch3/ 9 PLAY	92 45 vv	98 45 vv		
Ch4/ 10 hi cut	93 3C vv	99 3C vv		
Ch4/ 10 mid cut	93 3D vv	99 3D vv		
Ch4/ 10 low cut	93 3E vv	99 3E vv		
Ch4/ 10 mute	93 3F vv	99 3F vv		
Ch4/ 10 solo	93 40 vv	99 40 vv		
Ch4/ 10 cf asn	93 41 vv	99 41 vv		
Ch4/ 10 clip	93 42 vv	99 42 vv		
Ch4/ 10 track	93 43 vv	99 43 vv		
Ch4/ 10 STOP	93 44 vv	99 44 vv		
Ch4/ 10 PLAY	93 45 vv	99 45 vv		
Ch5/ 11 hi cut	94 3C vv	9A 3C vv		
Ch5/ 11 mid cut	94 3D vv	9A 3D vv		
Ch5/ 11 low cut	94 3E vv	9A 3E vv		
Ch5/ 11 mute	94 3F vv	9A 3F vv		
Ch5/ 11 solo	94 40 vv	9A 40 vv		
Ch5/ 11 cf asn	94 41 vv	9A 41 vv		
Ch5/ 11 clip	94 42 vv	9A 42 vv		
Ch5/ 11 track	94 43 vv	9A 43 vv		
Ch5/ 11 STOP	94 44 vv	9A 44 vv		
Ch5/ 11 PLAY	94 45 vv	9A 45 vv		
Ch6/ 12 hi cut	95 3C vv	9B 3C vv		
Ch6/ 12 mid cut	95 3D vv	9B 3D vv		
Ch6/ 12 low cut	95 3E vv	9B 3E vv		
Ch6/ 12 mute	95 3F vv	9B 3F vv		
Ch6/ 12 solo	95 40 vv	9B 40 vv		
Ch6/ 12 cf asn	95 41 vv	9B 41 vv		
Ch6/ 12 clip	95 42 vv	9B 42 vv		
Ch6/ 12 track	95 43 vv	9B 43 vv		
Ch6/ 12 STOP	95 44 vv	9B 44 vv		
Ch6/ 12 PLAY	95 45 vv	9B 45 vv		

\*volume

Control change send. vr = VR position 00~7F. Send data(hexadecimal)(16進)

volume name	track bank LED=OFF	track bank LED=ON	volume name	track bank LED ON/OFF
Ch1/7 EQ hi	B0 10 vr	B6 10 vr	effect A	BC 0C vr
Ch1/7 EQ mid	B0 11 vr	B6 12 vr	effect B	BC 0D vr
Ch1/7 EQ low	B0 12 vr	B6 13 vr	effect C	BC 0E vr
Ch1/7 pan	B0 0A vr	B6 0A vr	effect D	BC 0F vr
Ch1/7 send A	B0 13 vr	B6 13 vr	effect E	BC 10 vr
Ch1/7 send B	B0 14 vr	B6 14 vr	effect F	BC 11 vr
Ch1/7 resonance	B0 15 vr	B6 15 vr	effect G	BC 12 vr
Ch1/7 frequency	B0 16 vr	B6 16 vr	effect H	BC 13 vr
Ch1/7 level	B0 17 vr	B6 17 vr		
			return A pan	BC 14 vr
Ch2/8 EQ hi	B1 10 vr	B7 10 vr	return B pan	BC 15 vr
Ch2/8 EQ mid	B1 11 vr	B7 12 vr	return A level	BC 16 vr
Ch2/8 EQ low	B1 12 vr	B7 13 vr	return B level	BC 17 vr
Ch2/8 pan	B1 0A vr	B7 0A vr		
Ch2/8 send A	B1 13 vr	B7 13 vr	master cue	BC 18 vr
Ch2/8 send B	B1 14 vr	B7 14 vr	master pan	BC 0A vr
Ch2/8 resonance	B1 15 vr	B7 15 vr	master level	BC 07 vr
Ch2/8 frequency	B1 16 vr	B7 16 vr		
Ch2/8 level	B1 17 vr	B7 17 vr	cross fader	BC 08 vr
Ch3/9 EQ hi	B2 10 vr	B8 10 vr	tempo fine	BC 19 vr
Ch3/9 EQ mid	B2 11 vr	B8 12 vr	tempo	BC 1A vr
Ch3/9 EQ low	B2 12 vr	B8 13 vr		
Ch3/9 pan	B2 0A vr	B8 0A vr		
Ch3/9 send A	B2 13 vr	B8 13 vr		
Ch3/9 send B	B2 14 vr	B8 14 vr		
Ch3/9 resonance	B2 15 vr	B8 15 vr		
Ch3/9 frequency	B2 16 vr	B8 16 vr		
Ch3/9 level	B2 17 vr	B8 17 vr		
Ch4/10 EQ hi	B3 10 vr	B9 10 vr		
Ch4/10 EQ mid	B3 11 vr	B9 12 vr		
Ch4/10 EQ low	B3 12 vr	B9 13 vr		
Ch4/10 pan	B3 0A vr	B9 0A vr		
Ch4/10 send A	B3 13 vr	B9 13 vr		
Ch4/10 send B	B3 14 vr	B9 14 vr		
Ch4/10 resonance	B3 15 vr	B9 15 vr		
Ch4/10 frequency	B3 16 vr	B9 16 vr		
Ch4/10 level	B3 17 vr	B9 17 vr		
Ch5/11 EQ hi	B4 10 vr	BA 10 vr		
Ch5/11 EQ mid	B4 11 vr	BA 12 vr		
Ch5/11 EQ low	B4 12 vr	BA 13 vr		
Ch5/11 pan	B4 0A vr	BA 0A vr		
Ch5/11 send A	B4 13 vr	BA 13 vr		
Ch5/11 send B	B4 14 vr	BA 14 vr		
Ch5/11 resonance	B4 15 vr	BA 15 vr		
Ch5/11 frequency	B4 16 vr	BA 16 vr		
Ch5/11 level	B4 17 vr	BA 17 vr		
Ch6/12 EQ hi	B4 10 vr	BB 10 vr		
Ch6/12 EQ mid	B4 11 vr	BB 12 vr		
Ch6/12 EQ low	B4 12 vr	BB 13 vr		
Ch6/12 pan	B4 0A vr	BB 0A vr		
Ch6/12 send A	B4 13 vr	BB 13 vr		
Ch6/12 send B	B4 14 vr	BB 14 vr		
Ch6/12 resonance	B4 15 vr	BB 15 vr		
Ch6/12 frequency	B4 16 vr	BB 16 vr		
Ch6/12 level	B4 17 vr	BB 17 vr		

●receive

・LED

Receive Note On (vv=01~7F) , LED ON.

Receive Note Off(vv=00) or 8x nn ff (x=channel number,nn=note number,ff=OFF velocity) , LED OFF.

track bank LED=OFF Ch1~Ch6 render, track bank LED=ON Ch7~Ch12 render. Receive data(hexadecimal)(16進)

LED名	LED ON(vv=01~7F)	LED OFF(vv=00)		(ff=00~7F)	
Ch1 hi cut	90 3C vv	90 3C 00	or	80 3C ff	
Ch1 mid cut	90 3D vv	90 3D 00	or	80 3D ff	
Ch1 low cut	90 3E vv	90 3E 00	or	80 3E ff	
Ch1 mute	90 3F vv	90 3F 00	or	80 3F ff	
Ch1 solo	90 40 vv	90 40 00	or	80 40 ff	
Ch1 cf asn	90 41 vv	90 41 00	or	80 41 ff	
Ch1 clip	90 42 vv	90 42 00	or	80 42 ff	
Ch1 track	90 43 vv	90 43 00	or	80 43 ff	
Ch1 STOP	90 44 vv	90 44 00	or	80 44 ff	
Ch1 PLAY	90 45 vv	90 45 00	or	80 45 ff	
Ch2 hi cut	91 3C vv	91 3C 00	or	81 3C ff	
Ch2 mid cut	91 3D vv	91 3D 00	or	81 3D ff	
Ch2 low cut	91 3E vv	91 3E 00	or	81 3E ff	
Ch2 mute	91 3F vv	91 3F 00	or	81 3F ff	
Ch2 solo	91 40 vv	91 40 00	or	81 40 ff	
Ch2 cf asn	91 41 vv	91 41 00	or	81 41 ff	
Ch2 clip	91 42 vv	91 42 00	or	81 42 ff	
Ch2 track	91 43 vv	91 43 00	or	81 43 ff	
Ch2 STOP	91 44 vv	91 44 00	or	81 44 ff	
Ch2 PLAY	91 45 vv	91 45 00	or	81 45 ff	
Ch3 hi cut	92 3C vv	92 3C 00	or	82 3C ff	
Ch3 mid cut	92 3D vv	92 3D 00	or	82 3D ff	
Ch3 low cut	92 3E vv	92 3E 00	or	82 3E ff	
Ch3 mute	92 3F vv	92 3F 00	or	82 3F ff	
Ch3 solo	92 40 vv	92 40 00	or	82 40 ff	
Ch3 cf asn	92 41 vv	92 41 00	or	82 41 ff	
Ch3 clip	92 42 vv	92 42 00	or	82 42 ff	
Ch3 track	92 43 vv	92 43 00	or	82 43 ff	
Ch3 STOP	92 44 vv	92 44 00	or	82 44 ff	
Ch3 PLAY	92 45 vv	92 45 00	or	82 45 ff	
Ch4 hi cut	93 3C vv	93 3C 00	or	83 3C ff	
Ch4 mid cut	93 3D vv	93 3D 00	or	83 3D ff	
Ch4 low cut	93 3E vv	93 3E 00	or	83 3E ff	
Ch4 mute	93 3F vv	93 3F 00	or	83 3F ff	
Ch4 solo	93 40 vv	93 40 00	or	83 40 ff	
Ch4 cf asn	93 41 vv	93 41 00	or	83 41 ff	
Ch4 clip	93 42 vv	93 42 00	or	83 42 ff	
Ch4 track	93 43 vv	93 43 00	or	83 43 ff	
Ch4 STOP	93 44 vv	93 44 00	or	83 44 ff	
Ch4 PLAY	93 45 vv	93 45 00	or	83 45 ff	
Ch5 hi cut	94 3C vv	94 3C 00	or	84 3C ff	
Ch5 mid cut	94 3D vv	94 3D 00	or	84 3D ff	
Ch5 low cut	94 3E vv	94 3E 00	or	84 3E ff	
Ch5 mute	94 3F vv	94 3F 00	or	84 3F ff	
Ch5 solo	94 40 vv	94 40 00	or	84 40 ff	
Ch5 cf asn	94 41 vv	94 41 00	or	84 41 ff	
Ch5 clip	94 42 vv	94 42 00	or	84 42 ff	
Ch5 track	94 43 vv	94 43 00	or	84 43 ff	
Ch5 STOP	94 44 vv	94 44 00	or	84 44 ff	
Ch5 PLAY	94 45 vv	94 45 00	or	84 45 ff	
Ch6 hi cut	95 3C vv	95 3C 00	or	85 3C ff	
Ch6 mid cut	95 3D vv	95 3D 00	or	85 3D ff	
Ch6 low cut	95 3E vv	95 3E 00	or	85 3E ff	
Ch6 mute	95 3F vv	95 3F 00	or	85 3F ff	
Ch6 solo	95 40 vv	95 40 00	or	85 40 ff	
Ch6 cf asn	95 41 vv	95 41 00	or	85 41 ff	
Ch6 clip	95 42 vv	95 42 00	or	85 42 ff	
Ch6 track	95 43 vv	95 43 00	or	85 43 ff	
Ch6 STOP	95 44 vv	95 44 00	or	85 44 ff	
Ch6 PLAY	95 45 vv	95 45 00	or	85 45 ff	

Ch7 hi cut	96 3C vv	96 3C 00	or	86 3C ff	
Ch7 mid cut	96 3D vv	96 3D 00	or	86 3D ff	
Ch7 low cut	96 3E vv	96 3E 00	or	86 3E ff	
Ch7 mute	96 3F vv	96 3F 00	or	86 3F ff	
Ch7 solo	96 40 vv	96 40 00	or	86 40 ff	
Ch7 cf asn	96 41 vv	96 41 00	or	86 41 ff	
Ch7 clip	96 42 vv	96 42 00	or	86 42 ff	
Ch7 track	96 43 vv	96 43 00	or	86 43 ff	
Ch7 STOP	96 44 vv	96 44 00	or	86 44 ff	
Ch7 PLAY	96 45 vv	96 45 00	or	86 45 ff	
Ch8 hi cut	97 3C vv	97 3C 00	or	87 3C ff	
Ch8 mid cut	97 3D vv	97 3D 00	or	87 3D ff	
Ch8 low cut	97 3E vv	97 3E 00	or	87 3E ff	
Ch8 mute	97 3F vv	97 3F 00	or	87 3F ff	
Ch8 solo	97 40 vv	97 40 00	or	87 40 ff	
Ch8 cf asn	97 41 vv	97 41 00	or	87 41 ff	
Ch8 clip	97 42 vv	97 42 00	or	87 42 ff	
Ch8 track	97 43 vv	97 43 00	or	87 43 ff	
Ch8 STOP	97 44 vv	97 44 00	or	87 44 ff	
Ch8 PLAY	97 45 vv	97 45 00	or	87 45 ff	
Ch9 hi cut	98 3C vv	98 3C 00	or	88 3C ff	
Ch9 mid cut	98 3D vv	98 3D 00	or	88 3D ff	
Ch9 low cut	98 3E vv	98 3E 00	or	88 3E ff	
Ch9 mute	98 3F vv	98 3F 00	or	88 3F ff	
Ch9 solo	98 40 vv	98 40 00	or	88 40 ff	
Ch9 cf asn	98 41 vv	98 41 00	or	88 41 ff	
Ch9 clip	98 42 vv	98 42 00	or	88 42 ff	
Ch9 track	98 43 vv	98 43 00	or	88 43 ff	
Ch9 STOP	98 44 vv	98 44 00	or	88 44 ff	
Ch9 PLAY	98 45 vv	98 45 00	or	88 45 ff	
Ch10 hi cut	99 3C vv	99 3C 00	or	89 3C ff	
Ch10 mid cut	99 3D vv	99 3D 00	or	89 3D ff	
Ch10 low cut	99 3E vv	99 3E 00	or	89 3E ff	
Ch10 mute	99 3F vv	99 3F 00	or	89 3F ff	
Ch10 solo	99 40 vv	99 40 00	or	89 40 ff	
Ch10 cf asn	99 41 vv	99 41 00	or	89 41 ff	
Ch10 clip	99 42 vv	99 42 00	or	89 42 ff	
Ch10 track	99 43 vv	99 43 00	or	89 43 ff	
Ch10 STOP	99 44 vv	99 44 00	or	89 44 ff	
Ch10 PLAY	99 45 vv	99 45 00	or	89 45 ff	
Ch11 hi cut	9A 3C vv	9A 3C 00	or	8A 3C ff	
Ch11 mid cut	9A 3D vv	9A 3D 00	or	8A 3D ff	
Ch11 low cut	9A 3E vv	9A 3E 00	or	8A 3E ff	
Ch11 mute	9A 3F vv	9A 3F 00	or	8A 3F ff	
Ch11 solo	9A 40 vv	9A 40 00	or	8A 40 ff	
Ch11 cf asn	9A 41 vv	9A 41 00	or	8A 41 ff	
Ch11 clip	9A 42 vv	9A 42 00	or	8A 42 ff	
Ch11 track	9A 43 vv	9A 43 00	or	8A 43 ff	
Ch11 STOP	9A 44 vv	9A 44 00	or	8A 44 ff	
Ch11 PLAY	9A 45 vv	9A 45 00	or	8A 45 ff	
Ch12 hi cut	9B 3C vv	9B 3C 00	or	8B 3C ff	
Ch12 mid cut	9B 3D vv	9B 3D 00	or	8B 3D ff	
Ch12 low cut	9B 3E vv	9B 3E 00	or	8B 3E ff	
Ch12 mute	9B 3F vv	9B 3F 00	or	8B 3F ff	
Ch12 solo	9B 40 vv	9B 40 00	or	8B 40 ff	
Ch12 cf asn	9B 41 vv	9B 41 00	or	8B 41 ff	
Ch12 clip	9B 42 vv	9B 42 00	or	8B 42 ff	
Ch12 track	9B 43 vv	9B 43 00	or	8B 43 ff	
Ch12 STOP	9B 44 vv	9B 44 00	or	8B 44 ff	
Ch12 PLAY	9B 45 vv	9B 45 00	or	8B 45 ff	
effect A	9C 46 vv	9C 46 00	or	8C 46 ff	
effect B	9C 47 vv	9C 47 00	or	8C 47 ff	
effect C	9C 48 vv	9C 48 00	or	8C 48 ff	
effect D	9C 49 vv	9C 49 00	or	8C 49 ff	
effect E	9C 4A vv	9C 4A 00	or	8C 4A ff	
effect F	9C 4B vv	9C 4B 00	or	8C 4B ff	
effect G	9C 4C vv	9C 4C 00	or	8C 4C ff	
effect H	9C 4D vv	9C 4D 00	or	8C 4D ff	
return mute A	9C 4E vv	9C 4E 00	or	8C 4E ff	
return mute B	9C 4F vv	9C 4F 00	or	8C 4F ff	
master I	9C 50 vv	9C 50 00	or	8C 50 ff	
master J	9C 51 vv	9C 51 00	or	8C 51 ff	
loop in	9C 52 vv	9C 52 00	or	8C 52 ff	
loop out	9C 53 vv	9C 53 00	or	8C 53 ff	
loop on/ off	9C 54 vv	9C 54 00	or	8C 54 ff	
nudge minus	9C 55 vv	9C 55 00	or	8C 55 ff	
nudge plus	9C 56 vv	9C 56 00	or	8C 56 ff	

