



## ***WELCOME to the malletKAT Quick–Start Guide!***

Congratulations! You have purchased the world’s most powerful MIDI mallet percussion Controller. This guide is designed to get you started as quickly as possible. We are leaving most of the technical programming material out of this guide. There’s the full manual for that. We don’t want to scare you, but want you to start having FUN right away. So please, sit back and take a few moments to read this info so that your experience will become more meaningful. First impressions are the most powerful and we want you to start on the right foot.

We have also included a VIDEO HELP DESK in this guide. These are a series of short video clips that cover the basics on the malletKAT. For those of you just getting started, watch the “Connections” Video and the “malletKAT for Drummers” videos as well.

### **WHAT IS THE malletKAT? WHAT IS A MIDI CONTROLLER?**

When you look at the malletKAT, it becomes obvious that the pads closely resemble a standard mallet percussion layout. Yes, the pads are made out of neoprene, and it feels a little different than a marimba or vibraphone and yes, the bars are all symmetric, BUT after just a few minutes of playing on it, you will discover that playing is easy and natural. As a mallet percussionist, you often jump from bells, to xylophone etc. When you think about it, each one of them has different size bars, different ranges and feels. Think of the malletKAT as another mallet instrument with its own distinct characteristics.

We didn’t just make the malletKAT so that you could emulate a vibraphone or marimba. No, the malletKAT was designed to offer you a whole new vocabulary of expression that is just not possible on an acoustic mallet instrument. Let me give you some examples.

### **SOUNDS**

Now you can sound like any instrument, thanks to MIDI. The malletKAT WS has a built in sound card with 128 instruments like pianos, basses, guitars, strings, drums and percussion and more. You can use headphones to practice or you can plug the malletKAT right into an amplifier so that the world can hear you.

You can upgrade your sounds by using other manufacturers’ synthesizers and sound modules. We offer the Kurzweil PC2R, Yamaha MOTIF ES and the Ketron SD2. These synths sound beautiful. You can watch the malletKAT videos on our web site to hear what they sound like. If you get one of these sound modules, we offer a special software chip for the malletKAT that makes them work right out of the box. In other words, you don’t have to program the malletKAT or the sound module. You just “pick up your sticks and play”.



## **ARTICULATIONS**

When you first started studying how to play the mallets, you had to learn the layout of the “land”. The malletKAT is much the same, only it has an enormous “land”. For example, you can learn how to bend notes like a guitar or flute player, or add vibrato to your sound. You can dampen notes like a vibe player. You can control how long a tone lasts or change the octave on the fly. You can have several instrument sounds layered on top of each other and you can control these sounds by how hard or soft you are playing. Each of these articulations require a gesture movement on your part, and incorporating these new moves into your playing style will allow you to express how you feel in ways that will “move” you! This is the heart and soul of malletKAT playing.

## **KITs**

The malletKAT has built in KITs called Factory and User KITS. A KIT is a collection of parameters that are stored for each kit. These parameters control the octave range, the length of a notes sound, the name of the kit, program changes, etc. Factory Kits are permanently built in, so you can not erase them. User kits are your own parameter configurations. There are 128 Factory Kits and 128 User Kits.

If you have the malletKAT WS, or are using a General MIDI External synthesizer, then the Factory Kits are where you want to begin. Everything is ready to go. If you have one of the sound modules that we offer like the Kurzweil Pc2r, the Yamaha Motif ES or the Ketron SD2, then we have pre-programmed software chips that makes the User Kits work perfectly with these modules as well.

## **MIDI CONTROL**

MIDI is the digital language that allows us to communicate our playing into sounds. A “controller” like the malletKAT allows us to manipulate the instrument in specific ways. We can train the pads to respond to dynamics the way we like. We can tell the malletKAT to remember what sound we want on what pad and how loud it is going to play. We can send our real time playing information to a computer using a sequencer software program so that our performance can be played back or even scored automatically. The possibilities are endless. I promised to leave out most of the technical stuff, but I must tell you that the malletKAT is a powerful MIDI controller. You will be able to do things you haven’t even imagined yet!



## SETTING UP YOUR EXPANDERS

If you purchased extra octaves or expanders for your malletKAT, you will need to connect them to the main unit. We have included a video clip that will show you how to connect the expander to the malletKAT, but below is an explanation on how to set it up.

Your Expander comes with:

(1) piece of felt with adhesive, (2) aluminum strapping bars, (1) 7 pin Expander Cable

You will need a Phillips screwdriver.

To attach your Expander to the malletKAT PRO or malletKAT EXPRESS, turn the unit off and unplug all cords. Turn the malletKAT upside down on a flat surface. Position the Expander upside down next to the LOWEST octave of the malletKAT.

Take the piece of felt and line it up to the side of the Expander that will be attached to your Pro/Express. Remove the release paper on the felt and adhere it to the side of the Expander. Set the Expander back down lining it up with the malletKAT so that the felt is touching it.

Remove the last four screws on the malletKAT furthest from the display, two screws from the top row and two from the bottom row.

Remove the adjacent four screws on the Expander Unit as well, two from the top row and two from the bottom row. (These are 6-32 X 1/2" pan head phillips screws).

Position the aluminum strapping bars with the oblong hole lining up on the malletKAT and the last two holes lining up on the Expander. Replace the screws you just removed, attaching the strapping bars to the malletKAT and the Expander.

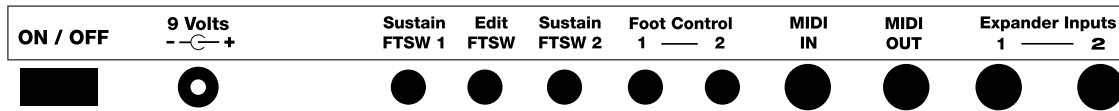
Turn the malletKAT back over. Plug the special Expander Cable from the malletKAT to the Expander. Use Output number ONE on the malletKAT for a single expander, and Output number TWO for the second expander furthest from the display.

**ALWAYS** plug in the Expander cable **BEFORE** turning on the malletKAT.



## CONNECTIONS ON THE malletKAT

Let's take a look at all of the connections and buttons on the malletKAT. Take a look at the diagram. The malletKAT should now be placed on a keyboard style stand. Walk around the stand and look at the back connections going from left to right. Here's what you should see.



### ON/OFF Switch

Turns the malletKAT on and off.

### DC INPUT

Make sure that you are using a KAT transformer or an adapter that matches our power specifications (9 Volt 1.6 Amps, Positive Tip). Our power supplies have a special screw in connector so that it stays attached during performances.

### SUSTAIN FTSW 1

Use this foot switch when you want to sustain the sound that you are playing. It is very similar to the sustain pedal on a piano. The malletKAT comes with a sustain pedal (a square black foot switch - KF1). You can use this foot switch on any of the FTSW inputs. They can also be used on Foot Control inputs under certain circumstances. You might want to get some extra foot switches if you plan on doing editing and if you want to use all of the FTSW functions at the same time.

### EDIT FOOTSWITCH

Insert a foot switch here when you want to edit the malletKAT. With the exception of changing kits (sounds), all of the editing functions require that you first step down on this pedal to begin an editing function.

### SUSTAIN FTSW 2

This is the coolest foot switch input. Depending on the kit, when you step on this foot switch, a pre-defined function will happen. This includes things like pitch bending, octave shifting on the pads or even a different sound playing. You will have plenty of time to check these functions later.

### FOOT CONTROL 1 and FOOT CONTROL 2

Unlike the foot switch inputs that “see” an on/off connection, these programmable input jacks require a special controller pedal. These pedals move from up to down in increments. Depending on the function, they can control the volume of a sound, or affect the pitch of a



note. There's a long list of cool things that these pedals can do. Of course, the full manual will get into the details of these functions.

## MIDI IN

You can attach a MIDI cable to this input, when you want to have some other MIDI device “share” your malletKAT sounds so that they can be played by an external sequencer or your keyboard player.

## MIDI OUT

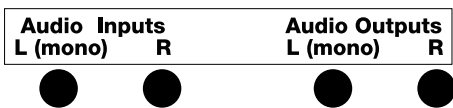
Plug a MIDI cable into this output when you want to connect the malletKAT to another sound module like the Kurzweil PC2r, to a sequencer, or to a data storage device. Make sure that you plug the other end of the cable into the MIDI IN jack on the receiving device.

## EXPANDER INPUTS

These input jacks are for connecting your expander octaves. You can connect up to two expanders on a malletKAT. Expander ONE is the closet expander to the malletKAT itself.

## AUDIO INPUT / AUDIO OUT JACKS *(For the malletKAT WS only)*

The malletKAT WS has 2 audio input and 2 audio output jacks. It also has a headphone jack plus two buttons for volume up and down. Looking from the rear view, on the right side of the malletKAT are four audio jacks. The two holes on the LEFT are INPUT jacks. You can plug your CD player into these jacks and play along with it. The audio coming from these inputs automatically gets routed to the headphones and the audio out jacks.



Next the input jacks on the RIGHT are the AUDIO OUT jacks. Take two ¼' audio cables and plug them into your amplifier. If you only have one input on your amp, just use the jack that says MONO. The malletKAT automatically takes both the left and right audio signals and puts them on the one mono jack.

## BUTTONS

There are two small buttons on the FRONT side of the malletKAT. These are the volume controls. UP raises the volume, DOWN lowers the volume.

## HEADPHONE JACK

You guessed it. This is where you plug in your headphones.





## PLAYING SOUNDS

Are you ready to check out the malletKAT? If you have a malletkAT WS, turn it on now and start playing. If you have an external sound module, make sure that you plug a MIDI cable from the MIDI OUT port on the malletKAT to the MIDI IN port on your module. There is another MIDI OUT port on the malletKAT on the right side of the instrument. You can use that as well.

When you want to change a sound, tap on either of the rectangles called the FORWARD or BACKWARD pads. It will take two strikes on these pads in succession for the kits for change. Once they start changing, each single strike on the pad will increment or decrement the kit (sound) by one. There are 128 Factory Kits built in. There are short cuts to get to any kit, but this stuff is all in the full manual.

If you have a malletKAT WS version or are using a General MIDI External Sound Module, then take a look at the listing on page 13 to see the different sounds available.

On the top line of the display on the malletKAT you will see a number like F22, “Accordion”. This means that you are hearing and playing on Factory KIT number 22.

On the third line on the display you will see the Instrument Name of F22 Accordion. These instrument names correspond to this chart.

## BASIC EDITING to the malletKAT

There are a few basic editing concepts that must be understood if you ever want to make any changes to the malletKAT. The first thing to look at is the word names under the pads. Notice under the “white keys” that there are words like, OCTAVE, CHANNEL, SETUP, BANK, etc, etc. These are the functions of the malletKAT. When you step on the EDIT Footswitch and hit one of these pads, you are now editing that function. Now take a look at the “black” keys. On the highest C# and D# are your Increment and Decrement keys.

If you wanted to change the octave (raise the pitch of the instrument) you would step on the edit footswitch and while held down, tap on the E pad (on the highest octave). Then you would tap on the D# (increment pad) to raise the octave. Do all of this while the edit footswitch is held down. That is the whole concept. Lets look at it some more.

## HOW TO EDIT

All of the Editing Functions on the malletKAT are performed by stepping down on the Edit Foot switch, and then while that foot switch is held down, you hit one of the white key pads. Each one of the pads are assigned a function or a group of related functions. As soon as you hit one of the pads with the foot switch held down, the function is displayed on the screen.



## What is a **FUNCTION** anyway?

A **FUNCTION** on the malletKAT controls how the malletKAT operates when you play on it. If you look at the words underneath the keys on the malletKAT, you will see lots of words in CAPS. These are the **FUNCTIONS** that reside under those pads. Sometimes there are a group of **FUNCTIONS** that are closely related to a **TYPE** of **FUNCTION**.

Look at the note “E” on the second octave from the top. It says **LAYER**. If you activate the **LAYER** Mode by tapping this pad with the **EDIT** foot switch down, then the malletKAT will play two sounds, **LAYERING** them. To get back to the normal mode, step on the **EDIT** foot switch and tap the **HANG** pad, C natural.

## **CHANGING VALUES**

Just for fun, step on the Edit foot switch and while it is held down, hit B natural pad, second one down from the top. You are calling up the **CHANNEL** **FUNCTION**. The display will say the word **CHANNEL**. You will also notice that **01** is blinking on the next line. This is the parameter that can be changed on this screen. In this case, Channels can be a number from 1 to 16.

The way that you change **VALUES** on the malletKAT is to use the **INCREMENT** and **DECREMENT** pads. These are the **C#** and **D#** keys on the highest octave. Try changing the **CHANNEL** **VALUE** from one to six.

### **The steps are:**

Step on the Edit Foot switch and hold it down. The display changes and says...

**EDIT CONTROLLER 1 or EDIT CONTROLLER 2** on the second line

Now tap on the B natural key (octave). The screen now says...

**EDIT CONTROLLER 1 (2)** on the second line

The third line says... **CHANNEL**. This is the function that we are editing

The fourth line says... **01** and it is blinking.

Now tap on the **D#** key (the increment pad) **FIVE TIMES**.

Each time that you tap on it, the value increments by one. It will go from one to six. When you release the foot switch, that value is now loaded into the kit setup. Try it again, but this time, get the value back to Channel One. Are you getting it?

So now you know that **VALUES** are changed by using the **C#** and **D#** keys on the highest octave. You know that they are **VALUES** because they are **BLINKING**.



## **WHAT is the DISPLAY SAYING?**

There are four lines of text on the display. The display changes it's look as different features are called up. Let's begin with the first Line

### **KIT NUMBERS**

The very first character on Line one will either be:

F followed by a number. Example F 01 meaning Factory Kit 1 or

U followed by a number. Example U 89 meaning User Kit 89 or

C followed by a group of numbers. Example. C02-12 Meaning Chain Two, Setup 12.

The F stands for FACTORY KITS. There are 128 Factory Kits that are in the malletKAT. These KITS are stored in memory and can't be over-written. This means that any changes that you make to the FACTORY Kits are gone as soon as you leave the KIT. If you want to make permanent changes to a FACTORY Kit, then you will need to save them in a USER KIT.

If you see a U followed by a number on the first line, then you are in the USER KITS. There are also 128 USER KITS in the malletKAT. Here you can name your own kits, change any parameter and have them stored into permanent memory. If you see a number looking like C01-01, then you are in CHAIN MODE. CHAIN MODE allows you to arrange your KITS in a non-contiguous fashion. You can store 16 Chains, each having the ability to arrange 16 KITS in each Chain.

### **CHANGING KITS**

You can change KITS at any time by using the Backward /Forward Pads, the little pads on the right side of malletKAT by striking the pad twice.

### **CHANGING KIT BANKS (FACTORY, USER and CHAIN)**

You can jump between these three modes by holding down the EDIT FOOTSWITCH and hitting F Natural (lowest octave). It says KIT BANK under the pad. Use the DECrement, INCrement pads (C# and D# on the Master Octave) to change modes.

There are several other ways to change kits. For more information regarding KITS and CHAINS, refer to the Index in the manual for specific pages on these subjects.

### **LAYER MODE**

Immediately following the KIT NUMBER, you will see on the first line of the display one of the following LAYER MODES on the screen.



Hang = Hang Mode

Doub = Double Mode

Mel1 = Melody Chord Mode 1

Mel2 = Melody Chord Mode 2

Mel3= Melody Chord Mode 3

VEL S = Velocity Shift Mode

Alt = Alternate Mode

Layer Modes tell the malletKAT how to control its sound layers. These layers are called CONTROLLER ONE AND CONTROLLER TWO. These Layers can be total independent, layered, velocity shifted, alternated or used as a controller function.

Below is a one sentence explanation of the Layer Modes.

**HANG.** When you step on Sustain Foot switch 2, you will either hear another sound, or the same sound in a different octave.

**DOUBLE.** This means that you are either hearing two different sounds at the same time or you are hearing the same sound in octaves.

**VelShift.** There are two sounds available, and how hard you play determines which sound you are going to hear.

**ALT.** Two sounds alternate every time you hit the same pad.

The malletKAT is really TWO CONTROLLERS, (actually three, but more on that in the full manual). You can control them independently or they can function as one. If you are pressing on Sustain Footswitch 1, and you are in Hang Mode, you are using Controller One. When you step on the Sustain Footswitch 2, Controller number 2 is active. When you first step on the EDIT Footswitch, the malletKAT tells you if you are editing Controller One or Two.

## **CONTROLLER ONE and TWO CONTROLLER FUNCTIONS**

On the second line of the Display, you will see the word “Controller” followed by 1 or 2. Whenever you edit the malletKAT, you will need to know what layer you are working on.

You can change what Controller you are using by stepping on the EDIT Footswitch , and while held down, tap the INC or DEC pads (C#-D# keys on the highest octave). The display will show the 1 or 2 Controller.



## KEYBOARD MODES

On line two immediately after the Controller number is displayed, a choice of what Keyboard mode is also displayed. The Keyboard Modes are:

Poly, Mono, RTC, PTW, CTLA

**Poly.** This means that you can play more than one note at the same time. This is the normal mode for instruments like piano,

**Mono.** This means that you can only play one note at a time. This is the normal mode for instruments like flute that can not play chords, but sound just one note at a time.

**PTW.** This is a special mode. When you are playing on controller one, you can pitch bend notes by stepping on Foot switch 2 and hitting a “white” key. Hitting a white key with FTSW2 held down, on the upper end of the keyboard makes the pitch go up. Hitting the white key on the lower end of the keyboard makes the pitch go down. You must also be sustaining (having foot switch one held down) in order to hear the pitch bend effect.

You will learn more about Keyboard Modes in the malletKAT manual.

## GENERAL MIDI NAME

The name of the KIT displayed on line three is a GENERAL MIDI Name. These names will only line up with the names that are on your sound source if your module or keyboard has the GM logo on it. If you do not have a GM synth, the malletKAT has no way of knowing what sound source it is connected to. You will need to go to the User Kits to make your own KIT names. The malletKAT WS is General MIDI, so the names you see in the Factory Kits correspond to the sounds that you will hear.

*\*If you purchase a Yamaha or Kurzweil sound module from us, the USER Kit names will correspond to the sounds on the module.*

## PRESSURE MODES

The malletKAT can detect continuous pressure on a pad. This gesture of applying pad pressure can be interpreted by the malletKAT to perform specific functions such as mallet dampening, dead stroking or pressure sustaining.

On the first line of the display on the far right of the screen, there are several choices of Pressure Modes. They are:

**NORMAL.** This is the standard normal pressure mode.

**DAMPEN.** After you strike a note with the sustain pedal down, in this mode you can dampen the note by applying pressure to the pad.



**DEAD STROKE** After you strike a note, you can get another sound from the same pad by applying pressure to the pad.

You will learn more about Pressure Modes in the malletKAT manual.

## **INSTRUMENT NAMES / KIT NAMES / NONE**

On the third line of the display, you can choose one of three options for what will be displayed on that line. This option is decided in the GLOBAL AUX Screens, D natural, middle octave. In the Factory Kits, Instrument Names are displayed.

### **INSTRUMENT NAMES**

These are the General MIDI Program Names. In the Factory Kits, you cannot change these names. The Instrument Names correspond to the Program Numbers that have been assigned to them.

If you have a General MIDI sound module, the INSTRUMENT NAMES on the malletKAT display will automatically correspond to the screen names and sounds of your synthesizer. If you are using a non standard sound source, or a different sound bank on a GM compatible synthesizer, the names will NOT correspond. You should then go to function called BANK (Select F natural, lower octave) change Factory Kit to User Kits using the Increment or Decrement Key

### **KIT NAMES**

In the USER KITS on the malletKAT, you can choose to name your own kits. This is helpful when creating a KIT that has combinations of sounds in them. This mode should be used if you are using a sound source that is not GM compatible.

The KIT NAME is the same for BOTH CONTROLLERS. You can make your own Kit Names in the KIT AUXILIARY Screens for your USER Kits. See the manual for details.

## **THE FOURTH LINE BANK, PROGRAM and VOLUME INFO**

There is a lot of information packed into the fourth line of the display.

First, is the MSB, LSB Bank Change information. You will see a number like this: B 01-02. The B stands for BANK, the first number 01 is the MSB number. The dash separates the LSB number from the MSB. Bank Numbers are changed by going into the KIT AUXILIARY Screens. Please refer to the manual for more details.

Following the Bank Number Display is the letter P followed by a number. This is the PROGRAM CHANGE number. There are 127 Program Change numbers available, each number representing a sound on your synthesizer.



Finally there is the letter V. This represents the Volume Number.

As you can see, each kit in the malletKAT stores a Bank, Program and Volume Number. It acts like a mixer, completely setting up your synth with the right sound and the right volume. You'll almost never need to touch the sound module.

That's it. Hopefully there is enough information to get you started. We recommend that you use the pdf version of the full manual, this way you can use the SEARCH feature to find the specific information that you are looking for. Remember to also watch the videos.

**ENJOY YOUR NEW MALLETKAT!**



# malletKAT WS Factory Sound Chart

<b>FACTORY</b>	<b>INST Name</b>	<b>FACTORY</b>	<b>INST Name</b>
1	Grand Piano	65	Soprano Sax
2	Brite Piano	66	Alto Sax
3	E Grand	67	Tenor Sax
4	Honky Tonk	68	Baritone Sax
5	E Piano 1	69	Oboe
6	E Piano 2	70	Eng Hom
7	Harpsi	71	Bassoon
8	Clavinet	72	Clarinet
9	Celesta	73	Piccolo
10	Glockenspiel	74	Flute
11	Music Box	75	Recorder
12	Vibes	76	Pan Flute
13	Marimba	77	Bottle
14	Xylophone	78	Shakhchi
15	Tubul Bells	79	Whistle
16	Dulcimer	80	Ocarina
17	Draw Organ	81	Square Lead
18	Perc Organ	82	Saw Lead
19	Rock Organ	83	Caliop Lead
20	Church Organ	84	Chiff Lead
21	Reed Organ	85	Charan Lead
22	Accordian	86	Voice Lead
23	Harmonica	87	Fifth Lead
24	Tango Acd	88	Bass and Lead
25	Nylon Guitar	89	New Age Pad
26	Steel Guitar	90	Warm Pad
27	Jazz Guitar	91	Poly Synth Pad
28	Clean Guitar	92	Choir Pad
29	Muted Guitar	93	Bowed Pad
30	OverDrive	94	Metal Pad
31	Dist Guitar	95	Halo Pad
32	Guitar Harmonic	96	Sweep Pad
33	Acoustic Bass	97	Rain
34	Finger Bass	98	Sound Track
35	Pick Bass	99	Crystal
36	Fretless	100	Atmosphere
37	Slap Bass 1	101	Bright
38	Slap Bass 2	102	Goblins
39	Synth Bass 1	103	Echoes
40	Synth Bass 2	104	Sci_Fi
41	Violin	105	Sitar
42	Viola	106	Banjo
43	Cello	107	Shamisen
44	Contrabassoon	108	Koto
45	Trem Strings	109	Kalimba
46	Pizz Strings	110	Bagpipe
47	Harp	111	Fiddle
48	Timpani	112	Shanai
49	Strings 1	113	Tinkle Bell
50	Strings 2	114	Agogo
51	Syn Strings	115	Steel Drum
52	Syn Strings 2	116	Wood Block
53	Choir Aah	117	Taiko Drum
54	Voice Ooh	118	Melodic Tom
55	Synth Voice	119	Synth Drum
56	Orch Hit	120	Rev Cymbal
57	Trumpet	121	Fret Noiz
58	Trombone	122	Breath Noize
59	Tuba	123	Seashore
60	Mute Trumpet	124	Tweet
61	French Hom	125	Telephone
62	Brass Section	126	Helicopter
63	Synth Brass 1	127	Applause
64	Synth Brass 2	128	Gunshot



*For more information on the malletKAT, please refer to the full manual. You can also access our website 24/7 at [AlternateMode.com](http://AlternateMode.com) for videos and the user forum. Enjoy the malletKAT and remember, you're only limited by your imagination.*

*Make sure to check out [AlternateMode.com](http://AlternateMode.com) for info on our other midi controllers including the trapKAT, pankAT and drumKAT.*

## **Alternate Mode Inc.**

*Manufacturers of KAT MIDI Controllers and Accessories*

**53 First Ave., Chicopee, MA 01020**

**Tel: 413-594-5190 Fax: 413-592-7987**

**Web: [www.alternatemode.com](http://www.alternatemode.com)**

**Email: [katsales@alternatemode.com](mailto:katsales@alternatemode.com)**