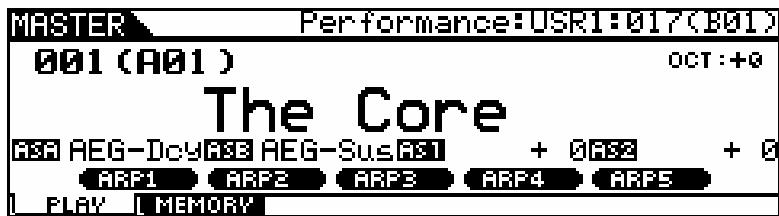


# YAMAHA

## POWER USER

### Understanding MO Master Mode



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Technology Products  
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The Master setups can be used to organize and memorize your MO (Program) selections in one neat bank. It can also function as a place to store your external MIDI Controller setups when using the MO as a 4-Zone Master MIDI controller. Familiarize yourself with basic MO modes and operations before diving in this end of the pool. Save any personal data before following this document.

The principal modes of MO are VOICE, PERFORMANCE, SONG and PATTERN. A Master mode setup can be used to recall a Voice, a Performance, a Song or a Pattern. Therefore a good use of the Master setups is organizing your favorite things to do with the MO into one Bank called the MASTER Bank. Rather than jumping back and forth between modes, organize things in one Bank to rule them all. You can then easily access setups via a Foot Switch (FS). The programmable FS assigned to cc99 will increment you through the Master setups.

A second use for Master setups is to integrate and organize your external MIDI gear as well. This is with

the ZONE Switch active. You can send a Bank Select and Program Change message on four different MIDI channels simultaneously when you recall a MASTER setup. The Bank Select and Program Change data can be "preset" so that you can address internal MO Voices and/or external device setups from your 4 Zones.

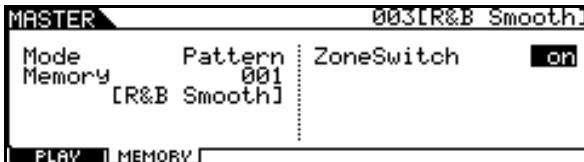
Although Master setups are non-volatile, often the data they point to is volatile. Read on...

## MASTERING MASTER MODE

If you are using a MO alone (that is, no external MIDI devices), Master Mode can be used to assemble your on-board MO setups (Programs) in one convenient bank. A Master location can point to a Voice, a Performance, a Song Mix or a Pattern Mix. You can use a Footswitch to advance through the Master setups during a live session. Study the Factory "AutoLoad" data for examples of this type of usage of the Master setups. The MASTER setups are used to recall different Performances, Voices, Patterns, or Songs. You can set up a Footswitch (FS) assigned to Control Change 99 to advance through the Master setups:

- Press [UTILITY]
- Press [F4] CTL ASN
- Press [SF3] FT SW
- Set FS = 99 [PC INC]
- Press STORE to lock in UTILITY mode changes

To learn from these MASTER setups press [F2] MEMORY from the main MASTER screen to see how they are directly associated with a Voice, Performance, Song or Pattern. Master number 003 is associated with a PATTERN: Memory 001 [Smooth R&B]



Master mode has a second more complex use – with ZONE control. You see the Zone Switch is set to ON in the screen shot above. Master mode can be used to control internal sounds, and/or complex configurations where both internal and external sounds are used together, that is, setups where some "Zones" are controlling Internal MO Voices or a MO Performance while other Zones might be controlling external devices. By the time you reach the level of creating your own Master setups you should have gained a thorough knowledge of the MO and its modes. We will state them here so that you can fully understand what is possible and what is impossible from a Master setup. Then we will look at a possible scenario.

Rule 1: A Voice is the fundamental playable entity in the MO. The internal Voices are made up of up to four multi-sampled sounds called Elements. Each Voice has a Dual Insertion effect, a reverb and a chorus processor available. The Dual Insertion effect can be real time controlled via MIDI controllers and has an intricate relationship to the individual Elements of the Voice. The Dual

Insertion effect is an important component – and is often the "personality" of the Voice. A Voice occupies a single MIDI channel and in Voice mode, only one Voice can be recalled at a time. There are 4 banks of 128 Preset Voices, 256 User Voices in 2 banks, 128 Normal General MIDI Voices, 64 Preset Drum Kits, 32 User Drum Kits and a GM Drum Kit.

Rule 2: A Performance is a combination of up to four Voices. Each Performance has a reverb, a chorus effect processor and three of the assigned Voices can recall its own Dual Insertion effects from Voice mode (including the real time effect controller assignments). Performances are made up of sounds found in Voice mode. It places up to four of them into what are called PARTS. Through these you can edit the sound of a Voice in a Performance without changing the original Voice data. All Voices in a Performance occupy the same basic MIDI channel and one Performance can be recalled at a time. There are 128 USER Performances. In fact all the Performances are USER. A Performance can be copied into a Song and/or Pattern, as necessary. This actually places the PARTS (up to 4) in a MIX with each one set to the same Basic Receive Channel. See the Power User article entitled: [Recording Performances to the Sequencer](#) for details on the Performance Copy function (PF COPY).

These two modes, Voice and Performance, are the principal playable setups on the MO. Song and Patterns have multi-part setups (called MIXING) to playback up to 16 tracks, typically from a device like a sequencer. When you enter a Song or Pattern you can play on one MIDI channel at a time (unless you use a MASTER Zone setup –more on this in minute). Several PARTS, however, can be assigned to a single MIDI channel. Thus it is possible to transmit from a single channel yet play multiple VOICES (PARTS).

Rule 3: 128 MASTER Control setups can be created with a MO Voice, Performance, Song or Pattern MEMORY location associated with it. You have the option of activating the ZONE switch with any of them - which adds communication to both internal and external sounds to create your own Master setups. You can have up to 4 Zones. The MO can transmit to itself and OUT via MIDI on up to 4 Zones. Zones can address internal sounds (referred to as TG = Tone Generator) **and/or** to external sounds (referred to as MIDI).

To understand rule 3 please take your time with this article. We have all ready seen how MASTER setups can be used to simply recall a Voice, a Performance, a Song or a Pattern. Now, we need

to understand how a MASTER can work as a "multi-zoned" controller setup, controlling both internal and external tone modules. The architecture of the MO is extremely flexible.

**NOTE:** Your mileage will vary depending on the MIDI modules you are using. Please refer to the Owner's Manuals of your external gear for Bank Select and Program Change numbers. Also find out what information they are capable of receiving in this fashion. Some modules require you store the Volume and Pan information locally in their own setup, which you recall. Some modules can receive Volume and Pan commands directly.

When a Master Zone Switched Setup is recalled (F2 MEMORY from the main MASTER screen) you can have it send a Bank Select and Program Change both to the internal tone generator and out via MIDI or, if you wish, to one or the other, as is necessary to setup your rig. The key thing to know is that you can control up to 4 individual ZONES. You can send the Bank Select and Program Change at anytime by pressing [F6] SEND found on the PRESET screen (shown below). That said, you might find some unique uses for the Master setups as you get to know them better.

MASTER	ZONE1	GM:001 [HP:Concert.Gnd]			
	ZONE1	ZONE2	ZONE3	ZONE4	
Bank MSB	000	000	000	000	
Bank LSB	000	000	000	000	
PgmChange	001	001	001	001	
Volume	100	100	100	100	
Pan	C	C	C	C	
[TRANS]	[NOTE]	[TX SW]	[PRESET]	[KN/CS]	<b>SEND</b>

#### Bank Select and Program Change

MO sounds can be recalled via standard MIDI messages for Bank Select as follows:

Bank	MSB	LSB	PC range
Pre1	063	000	1-128
Pre2	063	001	1-128
Pre3	063	002	1-128
Pre4	063	003	1-128
User1	063	008	1-128
User2	063	009	1-128
Preset Drum	063	032	1-64
User Drum	063	040	1-32
Mix Voice	063	060	1-16 ~
GM	000	000	1-128
GM Drum	127	000	1

~ Mix Voice can be recalled if you are within the Song or Pattern Mix it was created for... There are 16 per Song or Pattern but a maximum of 256 total.

MO Performances can be recalled via the same type of Bank Select messages. You can use a Performance when a Performance Memory location is associated with the Master setup.

#### Bank MSB LSB PC range

Performance 063 064 1-128

If, for example, you want a MASTER to recall the Organ Voice: You could simply associate the MASTER with the VOICE on the F2 MEMORY screen without using the ZONE Switch. But let's see how you can use the MSB/LSB screen to address internal sounds...Make sure the ZONE Switch is set to ON back on the F2 MEMORY page. Press EDIT and touch Track 1 to select ZONE 1 for editing...The MSB/LSB Preset page is F4:

"Vintage C" located in PRESET bank #1, position 52, you would associate the MASTER with VOICE mode, then send MSB = 063/ LSB = 000 (to select Preset 1) and PC 52. To recall an entire Performance you would associate the MASTER to Performance mode and then send MSB = 063/ LSB = 064 followed by the Program Change number to recall the desired Performance.

You cannot use Bank Select commands to address a single Voice **within** a Performance. (Or to switch from Performance to Voice or vice versa.) A Performance must be recalled as a unit. The reason should be obvious but let's state it again anyway: A Performance addresses all of its component PARTS (Voices) on the same (Basic) MIDI channel and only one Performance can be recalled at a time. Notice that when you activate the MASTER mode the Voice, Performance, Song, or Pattern mode LED is also illuminated signifying that you are actually **in that mode...** *Its rules will apply!*

When Zone is ON and the associated Memory mode is "VOICE", you will be able to address **one** internal Voice via the Zones. The other Zones are available for external communication, only. Technically speaking, you are in Voice mode. Voice mode rules apply: i.e., In Voice mode only one Voice can be recalled at a time

When a Master Zone is associated with a "Performance" mode Memory, you will be able to address up to 4 internal Voices via a single Zone (i.e., one internal Performance). The other Zones at that point will be available for external communication, only. Depending on how you have configured your Performance, you can have complex split/layers. Technically speaking, you are in Performance mode. Performance mode rules apply. In Performance mode only one Performance can be recalled at a time.

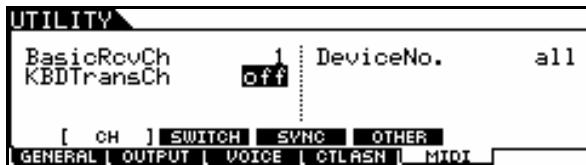
When a Zone is associated with a "Song" mode Mix or a "Pattern" mode Mix you will be able to address up to 4 separate MIDI channels,

simultaneously. This is because these are MULTI-TIMBRAL/MULTI-MIDI Channel modes. This can be very flexible depending on how you have configured your MIX. That said, if you have copied a Performance into the MIX of your Song or Pattern, it can have multiple PARTS assigned to the same MIDI channel. Then you can still address the MO internally with the other available Zones. Go crazy. But know the rules!

### MASTER mode setups combining internal sounds and external MIDI modules

About using ZONE Setups: Tips and Tricks

The Basic Receive Channel and the Keyboard Transmit Channel are global for **when** the MO is in Voice or Performance mode. When you are in a multi-timbral MIX your transmit channel will be determined by the track you select. And it will depend on what Zone you select when in a Master Zone setup.



In [UTILITY]/ [F5] MIDI/ [SF1] CH set the **Keyboard Transmit Channel** = **OFF** and the **Basic Receive Channel** = **1**. Press STORE to retain changes in the UTLITY mode settings. This is typical when you are going to use the MO as a MASTER Mode MIDI CONTROLLER in a large setup. Now all of your settings will be determined by your MASTER configurations. Setting the MIDI channel transmit to OFF will mean that you will play **only** the internal MO sounds when you are in Voice mode or Performance mode, however, when you activate the **MASTER MODE** you can be transmitting on the MIDI channels as defined by the current Master settings. This is a useful when you want to break the fulltime MIDI connection between the MO and your rig. When you recall a MASTER that is associated with either Voice or Performance mode (without the ZONE SWITCH active) you will communicate with the internal Voice and Performance as normal. If you activate the Zone Switch for a MASTER with a Voice or Performance Memory associated, as we'll see, it then will receive according to the Basic Receive Channel selected in UTILITY. You will address any external modules only when you activate the MASTER Zone control function - giving you complete control over MIDI transmit via your MASTER setups.<sup>1</sup> When a MASTER ZONE setup is

<sup>1</sup> The MO can only receive on one MIDI channel while in Voice mode and Performance mode.

associated with a Song or Pattern MIX you can address the MIX on four independent channels via the four ZONES.

Let's learn how a **MASTER** is associated with a **MODE** and **MEMORY** location:

- Recall **[MASTER]** and Initialize **MASTER 001**. Press **[JOB]/ [F1] Init** and check the **ALL** box. Press **[ENTER]/ [YES]** to execute.
- From the main **MASTER 001** screen press **[F2] Memory**. To associate this memory location select "VOICE" as the **MODE**, and "PRE1: 001 Ap:Full Grand" as the **MEMORY**.

MASTER				001[Full Grand]
Mode	Voice	ZoneSwitch		off
Memory	PRE1:001 [Ap:Full Grand]			
<b>PLAY</b>				<b>MEMORY</b>

- Press **[STORE] / [ENTER] / [YES]** to store this Master setup to location 001 (A01).

This is how a Master is associated with a particular Program location. You have 4 different Mode choices, as we have been speaking about: Voice, Performance, Pattern or Song. Each **MASTER** will always be associated with one of these 4 Modes. Just thought I'd mention it again as now you can see where this takes place (screen above). Now let's use the knowledge of **MASTER** mode to get creative – a real world application:

Scenario 1: On the opening number of the evening you need to start with a single Voice, a solo MO acoustic piano, (Full Grand). Later you will need a MO electric piano Voice (**Vintage '74**) **PRE1:019** layered with an external MIDI module set to a string-pad sound.

There are a several ways to accomplish this. We will use the Master 001 that we just stored to connect to the complex setup (all with the same **MASTER** setup). This example will give some idea of the flexibility of the **MASTER** mode when used as a Zone Controller.

- From the main **MASTER** screen, press **[F2] Memory**, we are already associated with the **VOICE** mode Memory location "PRE1: 001 Full Grand". We will activate the **ZONE** parameters to recall both the internal electric piano sound and the external string sound.
- On the right side of the **MEMORY** screen activate **ZoneSwitch = ON**.
- Now we will assign the Zones to select the sounds. This will entail going to **MASTER/**

EDIT. Press EDIT/ Touch Track [1]-[4] for Zone parameters.

Like other MO modes there are two levels of editing here: the COMMON level and the individual Zone level. The [COMMON] button selects the upper level that affects all Zones ([F1] Name/[F2] Other). The Track Select buttons [1]-[4] will select editing of the individual Zones 1-4.

- Activate **Zone 1**. Press [F1] Trans (transmit). Set the transmit channel to communicate with the internal MO Tone Generator, Channel 1.
  - TG SWITCH = ON
  - MIDI SWITCH = OFF

MASTER	ZONE1	001[FULL Grand]			
	ZONE1	ZONE2	ZONE3	ZONE4	
TransCh	1	1	1	1	
TGSwitch	on	off	off	off	
MIDIISwitch	off	off	off	off	
TRANS	I	NOTE	TX SW	PRESET	KN/CS

- Press [F2] NOTE and make any Octave, Transpose or key limits, if you need them.
- Press [F3] TX SW (Transmit Switch). Activate both **Bank(TG) = ON** and **PC(TG) = ON** for ZONE 1. This will enable us to send a Bank Select/Program Change to the internal MO tone generator when the MASTER is recalled. Nothing is sent right now, the actual value is sent when you recall the MASTER. You will see the change when you STORE this MASTER setup. (Also if you cursor-down you will see switches for your various controllers per Zone.) See screen shot below:

MASTER	ZONE1	001[FULL Grand]			
PAGE	ZONE1	ZONE2	ZONE3	ZONE4	
Bank(TG)	on	off	off	off	
PC(TG)	on	off	off	off	
Bank(MIDI)	off	off	off	off	
PC(MIDI)	off	off	off	off	
	IZONE				
TRANS	I	NOTE	TX SW	PRESET	KN/CS

- Press [F4] PRESET. Here you can set the Bank Select and Program Change values for the MO tone generator. Set this to: PRESET 1; Voice 036
  - "Bank MSB" 063
  - "Bank LSB" 000
  - "Pgm Change" 019 (Vintage '74)
  - Set "Volume", as required
  - Set "Pan", as required

MASTER	ZONE1	PRE1:019[KB:Vintage '74]			
	ZONE1	ZONE2	ZONE3	ZONE4	
BankMSB	063	000	000	000	
BankLSB	000	000	000	000	
PgmChange	019	001	001	001	
Volume	127	100	100	100	
Pan	C	C	C	C	
	SEND				
TRANS	I	NOTE	TX SW	PRESET	KN/CS

NOTE: This MSB/LSB and PC will override the associated Voice selected back on the [F2] MEMORY screen.<sup>2</sup> When you Press MASTER 001 you will get this Rhodes sound rather than the Full Grand. Now let's setup the external sound.

- Press [F1] Trans (transmit) and set parameters for **ZONE 2**. Press Track Select [2] or cursor right. Set the transmit channel to communicate with your external module. This can also be set to MIDI channel 1, as it will not interfere with the internal setup. (Select any channel, as necessary for your external module).
- TG SWITCH = OFF (this is why it doesn't interfere with internal sounds, each Zone has an independent destination in this case)
- MIDI SWITCH = ON

MASTER	ZONE2	001[FULL Grand]			
	ZONE1	ZONE2	ZONE3	ZONE4	
TransCh	1	1	1	1	
TGSwitch	on	off	off	off	
MIDIISwitch	off	on	off	off	
TRANS	I	NOTE	TX SW	PRESET	KN/CS

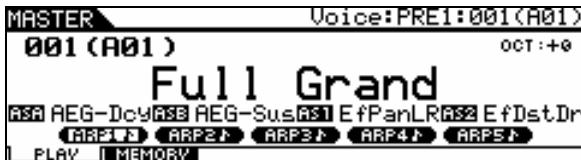
- Press [F2] NOTE and make any Octave, Transpose or key range limits, if you need them.
- Press [F3] TX SW (Transmit Switch). Activate both **Bank(MIDI) = ON / PC(MIDI) = ON** for ZONE 2. This will set up the Bank Select and Program Change messages we will send. Make sure your external module is set to receive these messages.

MASTER	ZONE2	001[FULL Grand]			
PAGE	ZONE1	ZONE2	ZONE3	ZONE4	
Bank(TG)	on	off	off	off	
PC(TG)	on	off	off	off	
Bank(MIDI)	off	on	off	off	
PC(MIDI)	off	on	off	off	
	IZONE				
TRANS	I	NOTE	TX SW	PRESET	KN/CS

- Press [F4] PRESET. Here you can set the Bank Select and Program Change values for your external module. Refer to the documentation of your external device to find the MSB/LSB and PC numbers. Check to see if your external module will receive Volume and Pan information in this manner. With some devices you will have to store that information in the external devices setup. You also need to decide whether to use your external module in its single or multi-timbral mode.

<sup>2</sup> We will see later how this feature can be used to further the flexibility of your MASTER setup.

- [STORE] your MASTER setup. [ENTER]/[YES]. As you execute the STORE function the Bank Select/Program Change and other data are sent out. It is the same as recalling it.



When setting up the MASTER location, we associated it with a VOICE on the MEMORY screen, by pressing [F2] from the main MASTER screen. Place the single Voice that you are going to play on the left side of this screen. In our example we associated the Voice "Full Grand" as that single Voice. We used the MASTER Zone MSB/LSB setup to point to the "Vintage '74" Rhodes sound at PRE1:019 internally, and the String-pad sound externally. When this MASTER setup is recalled, the Vintage '74/External layer sound overrides the Full Grand. To play just the "Full Grand" just press the [VOICE] mode button – this will **exit** MASTER mode and recall the associated Full Grand sound; to play the internal/external layer press the MASTER button. This works because when you recall the MASTER it will send out the Bank Select and Program Change information to both the internal MO controlled Zone, also to the external Zone, and when you select [VOICE] mode you are not transmitting out via MIDI (MIDI Transmit OUT parameter, which effects Voice mode, is set to OFF, remember?) so that the Full Grand Voice is in waiting, so to speak. Cool! Now you might want to rename the MASTER something other than "Full Grand" since technically it is more than just that. Naming it the name of the SONG you are playing is probably the recommended thing so that you know what is going on. NAME is a COMMON parameter and will be found by pressing MASTER/ EDIT/ COMMON/ F1 NAME.

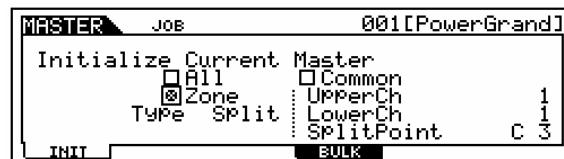
This tip will work anytime your principal sound, in this case a MO Voice, **and** your Zone controlled sound is also a MO Voice. It will work if your associated sound is a Performance **and** your Zone controlled sound is also a MO Performance. In other words, you cannot use this trick to switch from an associated Voice to a Zone-selected Performance (or vice versa) with this power tip. This should not present a problem since a Performance can be made that contain any single Voice you need, if necessary. In fact, the sounds that are active when a MO Performance is recalled are programmable. For example, the Volume

slider position is storable in a Performance; therefore a Performance that normally contains a Piano layered with strings could be recalled with the Volume of the strings stored at zero. You can fade them in or out, as you need, with a CS (control slider).

**Summary:** A Master setup can be activated (associated) with a single MO Voice, or a single MO Performance. Basically, a MASTER memorizes the MO MODE and the selection (Voice or Performance). If the Zone Switch is active, a MASTER can additionally include all the setup parameters for communication, internally to the memorized mode, and externally to your connected MIDI modules. Yes, you could attempt to create a setting where you were simultaneously attempting to communicate with the MO TG via 4 different channels while in association with a Voice or Performance. Nothing in the parameter page prevents you from setting this up...however you would be deluding yourself. It ain't gonna happen! Although you can make these settings, they will be illogical and ignored. By definition, Rules 1 and 2, the MO Voices and Performances occupy a single MIDI channel and only one can be active at a time. If you wish to address **four** MO Voices simultaneously, then you need to create a MO Performance. (Again, by definition, this is what a Performance is). If you want to address the MO on four **separate** MIDI channels via four **discreet** Zones you would have to associate the MASTER with a SONG or a PATTERN MIX and select a 4-ZONE setup. Then you can address multiple PARTS of the MIX, independently.

#### ZONE Templates

The MO gives you 3 templates for setting up ZONE configurations. To use these templates from MASTER mode, you would press [JOB]/ [F1] INIT. Uncheck the box that says ALL and highlight the box that says ZONE. Press [YES] to check it. You can select a **SPLIT** (2 Zones will be activated with a default split point at C3), **4-ZONE** (all four will be activated) and **LAYER** (2 Zones will be activated across the MIDI key range). Select a template, set MIDI channels (for Split or Layer) and press [ENTER]/ [YES] to execute.





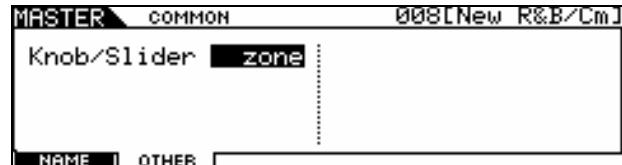
Initializing with the 4-Zone routine will create a Note Limit arrangement dividing the keyboard into 4 discreet Zones. You can, however, divide it in any manner that you need including overlapping Zones.

MASTER zone1 001[PowerGrand]				
	ZONE1	ZONE2	ZONE3	ZONE4
Octave	+0	+0	+0	+0
Transpose	+0	+0	+0	+0
NoteLimitH	B 0	B 2	B 4	G 8
NoteLimitL	C -2	C 1	C 3	C 5

TRANS | NOTE | TX SW | PRESET | KN/OS

### KNOBS and SLIDERS

In MASTER/ EDIT/ COMMON/ F2 Other you can set up how the Knobs and Sliders behave per Master setup. You can select between PAN, TONE, ASSIGN, PART EQ, MASTER EFFECTS, ARP FX and ZONE. What this refers to is how the KNOB CONTROL FUNCTION is set when the MASTER setup is recalled. If you select PAN, for example, the LED at the top of the Knob Control Function will illuminate and you will have access to KN1 = Pan, KN2 = Reverb Send, KN3 = Chorus Send, KN4 = Tempo. If you select TONE then the four knobs will be Cutoff, Resonance, Attack and Release. If you select ASSIGN the knobs will be Assign A, Assign B, Assign 1 and Assign 2 (recalling what they were programmed to do in the original Voice or Performance that is associated). If you select PART EQ the bottom LED will illuminate and you will have access to the gain control for the e-band PART EQ (KN 1, 2 and 4). If MASTER EFFECT (MEF) is selected you will have access to the pre-determined control functions. If ARP FX is selected you will have control over the Swing, Gate time, Velocity and Unit Multiply parameters of the assigned Arpeggios. If your MASTER is a "Zoned" setup you will probably want to select ZONE (all LEDs go out).

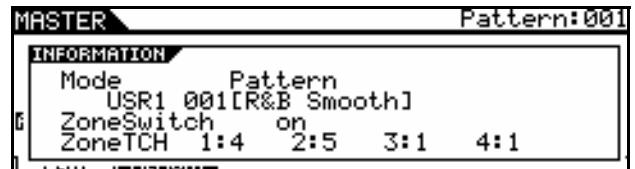


This will make the settings you make per each Zone, active. Use Track buttons [1]-[4] to view individual Zone parameters. The default assignment when you select ZONE is for PAN (10) for the KNOBS and Volume (7) for the CONTROL SLIDERS. KN1 is Pan for Zone 1, KN2 is Pan for Zone 2, KN3 is Pan for Zone 3, and KN4 is Pan for Zone 4. Each Slider 1-4 is the Volume for the Zone 1-4. You can set the KNOBS per Zone to any MIDI control change message between 1-95 (except 32), per MASTER setup. Likewise, the Sliders can be programmed per MASTER setup, per Zone to any control change number from 1-95 when "ZONE" is selected as the Control Function option.

There is a difference between the normal VOLUME assignment of the Control Sliders and when the ZONE assignment is set to control VOLUME. Let's assume a VOICE MEMORY is associated with a MASTER, if the "VOLUME" LED is illuminated, the SLIDERS assignment will be controlling the internal Voice's Element Volumes – as they do in Voice mode. If you select ZONE as the assignment (all the LEDs will go OUT), then the Sliders will be controlling the Volume of the entire Voice assigned to that ZONE.

You can always see an overview of your MASTER setup by pressing the INFORMATION button while in Master Play mode.

- Press [Master]/ [F1] Play/ [INFORMATION].



In the above screen shot of MASTER 003 it is associated with a PATTERN, Pattern :001. There are actually 2 ZONES active (shown below) allowing you to play two sounds (Split) at once on top of this Pattern. Check it out:

MASTER ZONE1 003[R&B Smooth]				
	ZONE1	ZONE2	ZONE3	ZONE4
TransCh	4	5	1	1
TGSwitch	on	on	off	off
MIDISwitch	on	on	off	off

TRANS | NOTE | TX SW | PRESET | KN/OS

Notice that TG Switch is active for the first two Zones – by using this MASTER setup to recall the "R&B Smooth" Pattern you can actually select 2 different PARTS and play them Live on top. As you can see MIDI channel 4 and 5 are active internally. Letting you play a synth bass (left-hand), and a nylon guitar (right-hand) at once. If you simply recall the Pattern (from Pattern Mode) you could only play one PART at a time. Master mode is giving the ability to address two Parts via the Zone setup. These Parts are NOTE LIMITED by the Master Zone setup:

MASTER	003[R&B Smooth]			
	ZONE1	ZONE2	ZONE3	ZONE4
Octave	+0	+0	+0	+0
Transpose	+0	+0	+0	+0
NoteLimitH	B 2	G 8	G 8	G 8
NoteLimitL	C -2	C 3	C -2	C -2
		KBD		
[ TRANS ] [ NOTE ] [ TX SW ] [ PRESET ] [ KM/CS ]				

### Designing your own setups

How complex can these setups get? This is unknown. If you have a need, you'll figure it out, necessity being the mother of invention. The thing is; if you understand the fundamental rules, you will know the difference between what is and what is not possible. For example, if you play in a live scenario, you may need to play more than one keyboard at sometime during the madness of an evening's set. Can you recall a Master setup on the MO that sends setup data to your other devices and play an internal/external combination when you are playing *on* the MO's keybed and play a different sound *from* the MO when you move to a second external keybed? Well, yes, that is possible. If you have a Master Zone setup that is associated with a MIX, you can certainly play a 4-Zone setup with as many as four internal/external sounds and still access the MO sound set, independently, via the MIDI IN jack. Because the MO is multi-timbral and capable of receiving on multiple MIDI channels when in a SONG or PATTERN MIX, you will be able to control a PART or PARTS of that MIX via MIDI IN. Imagine that your second keyboard when set to transmit on MIDI channel #16 communicates with PART 16 of the MO's MIX. At the same time you can independently be transmitting via a ZONE MASTER to 4 separate PARTS when you play the MO's keyboard (let's say on channels 1-4). If you send Program Changes from your external keyboard on any unused MIDI channel (5-16) you can select and change the sounds in the MO's MIX remotely. If that external keyboard can send Bank Select and Program Changes you can select VOICES from the entire MO palette. No one article can outline all the possibilities. But if you understand MIDI and you understand how the MO

behaves in response to your MIDI settings you will be able to design some pretty complex but thoroughly useful setups. This article can only hope to get you started.

### Storage issues

Your MASTER setups will be saved as part of an "ALL" data FILE type. Master setups will remain in memory after power down but will be cleared if you perform a Factory Reset. Backup all data by saving an "ALL" file type to an optional SmartMedia card or USB drive. The data that they "point" to must be returned to its appropriate place, i.e., Voice data, Performance data, Song/Pattern. If you change or replace any of the target data, then the MASTER setups will be altered. The MASTER actually stores 'pointers' not the actual data. So a MASTER setup may be there but the song, pattern or sound it is referencing my not. For example, if your MASTER setup targets a USER bank Voice, if you do not have that USER Voice in the proper location, the data for the MASTER will be incorrect. It will simply target the Voice in that location. If the MASTER is associated with a SONG MEMORY location and the song data is not loaded into that location, the MASTER will point to the location but the data will not be there. For this reason Master's cannot be loaded individually – they depend on all the components being in the proper places, because all a Master is, is a collection of pointers. To restore your MASTER setups you would need to restore ALL data.

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