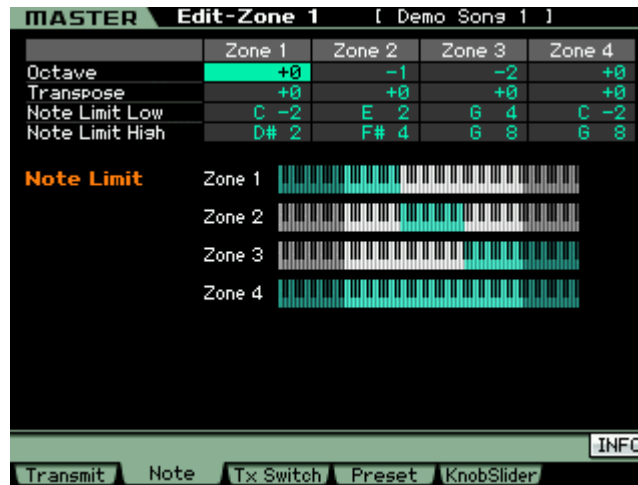




# POWER USER

## MOTIF XS

### Understanding Master Mode



Phil Clendeninn  
 Senior Product Specialist  
 Technology Products  
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*"This synthesizer is loaded with such a wealth of different features, functions and operations, you may find it difficult to locate and call up the particular feature you need. This is where the Master function comes in handy. You can use it to memorize the operations you use most often in each mode, and call them up instantly anytime you need them with a single button press. The MOTIF XS has space for a total of 128 of your own User Master settings. Press the [MASTER] button to enter the Master Play mode."*

The Master programs can be used to organize and memorize your MOTIF XS programs into one neat bank. It can also function as a place to store your external MIDI Controller setups when using the MOTIF XS as an 8-Zone Master MIDI controller. Familiarize yourself with basic MOTIF XS modes and operations before diving in this end of the pool. Save any personal data before following this document.

The principal modes of MOTIF XS are VOICE, PERFORMANCE, SONG and PATTERN. A Master mode setup can be used to recall a Voice, a Performance, a Song or a Pattern. 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 cc98 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 eight 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 MOTIF XS Voices and/or external device setups from your 8 Zones.

Although Master setups are non-volatile (they do remain in memory between power cycles), often the data they point to **is** volatile - this can present a problem if you are not organized and aware of this fact. For example, if you load new data into a location or are pointing to volatile User sample data, this can cause the Master to not sound properly. In general, if you are going to setup and use MASTERS you will want to save your data in ALL data files. This way you restore all the information that your MASTER programs might be accessing. Read on...

## MASTERING MASTER MODE

If you are using a MOTIF XS alone (that is, no external MIDI devices), Master Mode can be used to assemble your on-board MOTIF XS 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 98 to advance through the Master setups. If you want to use this function you will need to program it for **each** Performance and Mixing setup... More on this function a bit later.

To learn from these MASTER setups:

- Press [EDIT]
- Press [COMMON EDIT]
- Press [F2] OTHER

Here you can see how they are directly associated (linked) with a "MODE": Voice, Performance, Song or Pattern. Master number **008** is associated with "MODE": SONG; "MEMORY":01 [Demo Song 1]



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 MOTIF XS Voices or a MOTIF XS 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 MOTIF XS 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 few possible scenarios.

**Rule 1:** A **Voice** is the fundamental playable entity in the MOTIF XS. The internal Voices are made up of up to eight 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, significantly only one Voice can be recalled at a time. There are 1024 Preset Voices in 8 banks of 128. There are 384 User Voices in 3 banks. There are 128 Normal General MIDI Voices and a GM Drum Kit; 64 Preset Drum Kits; and 32 User Drum Kits. When you associate a MASTER with VOICE mode, you will be able to play just one VOICE (Voice mode rules will apply). Even if you activate the ZONE SWITCH, only one Zone will be able to access an internal sound – because in VOICE mode only one Voice can be recalled at a time.



**Rule 2:** A Performance is a combination of up to four Voices. Each Performance has a reverb, a chorus effect processor and all four of the assigned Voices can recall their own Dual Insertion effects from Voice mode (including the real-time effect controller assignments). All four Voices can recall their full compliment of arpeggios, as well, because the XS features up to four simultaneous arpeggios. It is important to realize that Performances are made up of sounds found in Voice mode. It places up to four of them into what are called "PARTS". Through these, PARTS, you can edit the sound of a Voice in a Performance without changing the original Voice

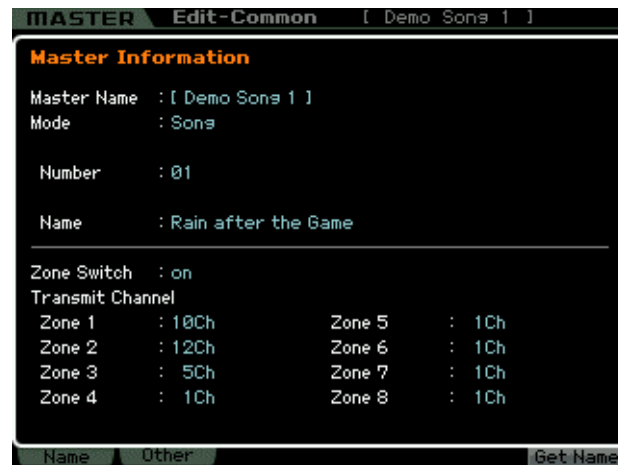
data. This is accomplished by applying “offsets” to the original data. All Voices in a Performance occupy the same basic MIDI channel and only one Performance can be recalled at a time. There are 384 USER Performances in 3 Banks of 128. In fact, all the Performances are USER. A Performance can be copied 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. A Performance can be recorded directly to either a SONG or PATTERN via the new innovative DIRECT PERFORMANCE RECORD feature. When you associate a MASTER with PERFORMANCE mode, you will be able to play just one (Performance mode rules will apply). Even if you activate the ZONE SWITCH, only one Zone will be able to access an internal Performance – because in PERFORMANCE mode only one PERFORMANCE can be recalled at a time. All four PARTS of the PERFORMANCE will be addressed together by a single ZONE.



These two modes, Voice and Performance, are the principal playable programs on the MOTIF XS.

**Rule 3:** Then there are the **SEQUENCER MODES: Song and Pattern**. These have multi-part setups (called MIXING) to hold up to 16 PARTS, typically used when playing back from the 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 – at which point you can play on up to 8 MIDI channel simultaneously). Several PARTS, however, can be assigned to the same MIDI channel, as necessary to accomplish very complex setups. Thus it is possible to transmit from a single channel yet play multiple VOICES (PARTS). But typically a SONG MIXING and/or PATTERN MIXING program is used to place 16 different sounds on 16 different MIDI channels for play from a sequencer. You can, as mentioned, use the Master Mode ZONE function to

actually play on 8 separate MIDI channels simultaneously. That is how powerful the combination of MIXING and MASTER mode can be... as we will see. When you associate a MASTER with a SONG MIXING or PATTERN MIXING setup – the Masters can be routed internally and/or externally as necessary in any number of combinations totaling eight Zones. Therefore you can use this to address multiple internal PARTS on discreet MIDI channels (which is **not** possible in Voice or Performance mode).



**Rule 4:** 128 MASTER Control setups can be created with a MOTIF XS Voice, Performance, Song or Pattern MEMORY location associated (memorized) 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 8 Zones. The MOTIF XS can transmit to itself and OUT via MIDI on up to 8 Zones. Zones can address internal sounds and/or external sounds.

To understand rule 4 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 MOTIF XS is extremely flexible.

**NOTE:** Your mileage will vary depending on the external MIDI module you may be 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. Additionally, you can control parameters on each ZONE 'live' from within a Master program.

When a Master Zone Switched Setup is recalled 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 8 individual ZONES. That said you might find some unique uses for the Master setups as you get to know them better.

**Learning About Bank Select and Program Change information**

Although you do not necessarily need to use MSB and LSB Bank Select commands to "associate" a MASTER program with an internal sound, we will learn about these here so that you can see how they can be used to add flexibility. This is the type of information you will need to find about for any of your external MIDI modules, keyboards, etc. Bank Select messages are actually MIDI Control Change messages. MSB (Most Significant Byte) is Control Change message 000, and LSB (Least Significant Byte) is Control Change message 032. In spite of the name, both are (significant) important. They are used together to allow MIDI devices to have 128 x 128 banks (That's 16,384 banks for you math majors). Not that you will need all of these but they are there for you if you need that many banks. Each will have 128 places, 000-127, to store program data.

The Bank Select messages for the Motif XS are shown below.

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
Pre5	063	004	1-128
Pre6	063	005	1-128
Pre7	063	006	1-128
Pre8	063	007	1-128
User1	063	008	1-128
User2	063	009	1-128
User3	063	010	1-128
Preset Drum	063	032	1-64
User Drum	063	040	1-32
User Sample	063	050	1-128*
Mix Voice	063	060	1-16 ~
GM	000	000	1-128
GM Drum	127	000	1

\* (63/50) A User Sample Voice is one that is recorded directly to the Integrated Sampling Sequencer using the "sample+note" or "slice+seq" sample record types. This

Voice is only local to the current Song or Pattern in which it is created.

~ (63/60) A Mix Voice can be recalled if you are within the Song or Pattern Mix for which it was created ... There are 16 per Song or Pattern but a maximum of 256 MIX VOICES total.

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

Bank	MSB	LSB	PC range
Performance	063	064	1-128

I will reiterate this important point – you do not have to use MSB/LSB number to associate a Voice, Performance with a MASTER. If, for example, you want a MASTER to recall the Organ Voice: You could simply associate the MASTER with the VOICE **without** activating the ZONE Switch and **without** using MSB/LSB numbers. But, so we can learn about all of this: let's see how you could use the MSB/LSB screen to address internal sounds... and then we will give you a useful trick that can go along with this.

Make sure the ZONE Switch is set to ON:

- Press [EDIT]
- Press [COMMON EDIT]
- Press [F2] OTHER page.
- Memorize MODE = VOICE and MEMORY = PRE 1: 085(F05) First 3 w/Perc



- Set ZONE SWITCH = ON
- Set the Knob Control Assign = ZONE
- Press Track [1]

This will select ZONE 1 for editing...

The MSB/LSB Preset page is [F4] PRESET:

MASTER Edit-Zone 1 Initialized Master				
	Zone 1	Zone 2	Zone 3	Zone 4
Bank MSB	063	000	000	000
Bank LSB	000	000	000	000
Program Change	085	001	001	001
Volume	100	100	100	100
Pan	C	C	C	C

Transmit Note Tx Switch Preset KnobSlider MIDI Send

The Tone Wheel organ sound: "First 3 w/Perc" located in PRESET 1, position 085(F05), translates to MSB = 063; LSB = 000 (to select Preset 1) and Program Change 085.

To recall an entire Performance you would have to associate the MASTER with 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. Nor can you switch from Performance Mode to Voice Mode or vice versa with these types of commands. If you select the MASTER to associate with a VOICE you can select a VOICE. If you associate the MASTER with a PERFORMANCE you can select a PERFORMANCE.

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. There would be no way to recall with a Program Change different Voices within the PERFORMANCE – it is a unit.

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! Don't fight this – this is a rule.*

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 internal 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, however, you will be able to address up to 8 separate MIDI channels, simultaneously and you can transmit to any combination of internal and/or external ZONES. This is because these are MULTI-TIMBRAL/MULTI-MIDI Channel modes. This can be very flexible depending on how you have configured your MIX. Now you can address individually eight separate PARTS of a 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 MOTIF XS internally with the other available Zones. Go crazy. **But know the rules!**

### Combining internal and external:

--Tips and Tricks--

The Basic Receive Channel and the Keyboard Transmit Channel are global for **when** the MOTIF XS is in Voice or Performance mode. When you are in a multi-timbral SONG/PATTERN MIX your transmit channel will be determined by the track you select. However, when in MASTER Mode your transmit channel will depend on what Zones are active in the current Master program.

- Press [UTILITY]
- Press [F5] CONTROL
- Press [SF2] MIDI

UTILITY			
<b>Channel</b>		<b>Switch</b>	
Basic Receive Ch	1	Bank Select	on
Keyboard Transmit Ch	off	Program Change	on
Device Number	all	Local Control	on
		Receive Bulk	on
<b>Interface</b>			
MIDI In/Out	MIDI		
<b>Sync</b>		<b>Other</b>	
MIDI Sync	internal	Controller Reset	reset
Clock Out	on	Bulk Dump Interval	0ms
Sequencer Control	in/out		
MTC Start Offset	00 : 00 : 00 : 00		

Remote MIDI INFO

General I/O Voice VoiceAudio Control



In the "CHANNEL" area of the screen above you see the MIDI channel parameters; These apply to VOICE and PERFORMANCE mode only.<sup>1</sup>

- Set the **Keyboard Transmit Channel = OFF**
- Set the **Basic Receive Channel = 1**
- Press [STORE]

This will write the changes in the UTILITY mode settings to FLASH ROM. Setting the keyboard transmit channel OFF is typical when you are going to use the MOTIF XS 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 MOTIF XS 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 MOTIF XS 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] mode. 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>2</sup> When a MASTER ZONE setup is associated with a Song or Pattern MIX you can address the MIX on eight independent channels via the eight ZONES.

Let's create a MASTER program. First let's associate it with an internal 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 [EDIT] > [COMMON EDIT] > [F2] OTHER. To associate this memory location select "VOICE" as the MODE, and "PRE1: 001(A01): Full Concert Grand" as the MEMORY.

<sup>1</sup> Device Number is a parameter that lets you differentiate between multiple units. For example, if you owned two Motif XS synthesizers you could set them to unique Device numbers and address them individually.

<sup>2</sup> The Motif XS can only receive on one MIDI channel while in Voice mode and Performance mode.



- Press [F6] GET NAME (if you wish to capture the name of the associated program). Handy.
- 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 MOTIF XS acoustic piano, (Full Concert Grand). Later you will need the MOTIF XS piano Voice *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. This example will give some idea of the flexibility of the MASTER mode when used as a Zone Controller.

- We are already associated with the VOICE mode Memory location "PRE1: 001 Full Concert Grand". We will activate the ZONE parameters to recall both the internal piano sound and the external string sound.
- Activate **Zone Switch = ON**.
- Set the **Knob Control Assign = ZONE**
- Now we will assign the Zones to select the sounds. This will entail going to MASTER-EDIT.
- Press [EDIT]
- Press Track [1]-[8] for Zone parameters.

Like other MOTIF XS modes there are two levels of editing here: the COMMON EDIT level and the individual ZONE level. The [COMMON EDIT] button selects the upper level that affects all Zones ([F1] NAME/ [F2] OTHER). The Track Select buttons [1]-[8] will select editing of the individual Zones 1-8.

- Activate **Zone 1**.
- Press [F1] TRANS (transmit). Set the transmit channel to communicate with the internal MOTIF XS Tone Generator, Channel 1.
  - INT SWITCH = ON (check)
  - EXT SWITCH = OFF



- Press [F2] NOTE and make any Octave, Transpose or Note Limits, if you need them.
- Press [F3] TX SWITCH (Transmit Switch).
  - Press [SF1] PROGRAM
  - Activate both **Int Bank Select = ON** and **Int PrgmChange = ON** for ZONE 1.

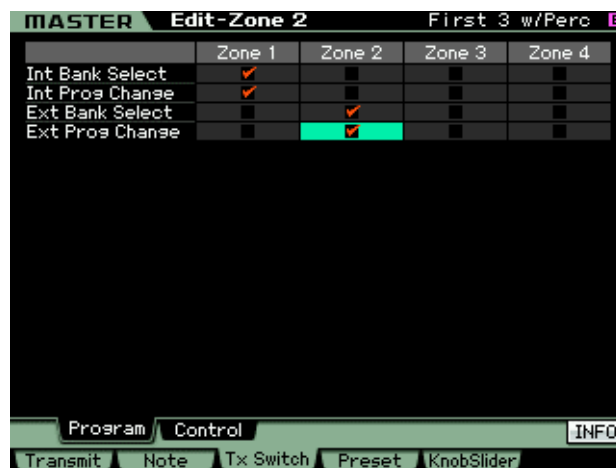
This will enable us to send a Bank Select/Program Change to the internal MOTIF XS tone generator when the MASTER is recalled. Nothing is sent right now, the actual value is sent when you recall the MASTER or you activate the SEND command (more on this later). You will see the change when you STORE this MASTER setup.

- Press [SF2] CONTROL - you will see switches for your various controllers per Zone.
- Press [F4] PRESET. Here you can set the Bank Select and Program Change values for the MOTIF XS tone generator. Set this to: PRESET 1; Voice 001(A01)
  - "Bank MSB" = 063
  - "Bank LSB" = 000
  - "Pgm Change" = 001 (Full Concert Grand)

- Set "Volume", as required
- Set "Pan", as required

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 – this zone will be setup for external use only. (Select any channel, as necessary for your external module).
- INT SWITCH = OFF (this is why it doesn't interfere with internal sounds, each Zone has an independent destination in this case)
- EXT SWITCH = ON
- Press [F2] NOTE and make any Octave, Transpose or Note Limits, if you need them.
- Press [F3] TX SWITCH (Transmit Switch). Activate both **Ext Bank Select = ON / Ext Prog Change = 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.



- 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.

- You can change the NAME of the MASTER if you prefer. [COMMON EDIT] > [F1] NAME
- [STORE] your MASTER setup. [ENTER]/[YES].

When setting up the MASTER location, we “associated” it with VOICE mode. In our example we associated the Voice “Full Concert Grand” as that single Voice. We also used the MASTER Zone’s MSB/LSB function to point to the “Full Concert Grand” sound, internally, and the String-pad sound, externally. When this [MASTER] program is recalled, the Full Concert Grand/External layer sound will play. To play **just** the “Full Concert Grand” simply press the [VOICE] mode button – this will **exit** MASTER mode and recall the Full Concert Grand piano sound in VOICE mode. To play the internal/external **layer**, press the MASTER button. This will return you to your Internal/External layered program.

This works because when you recall the MASTER program it will send out the Bank Select and Program Change information to the internal MOTIF XS controlled Zone. Also it will send it 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 Concert Grand Voice is played without transmitting out via MIDI. Cool!

This tip will work anytime your principal sound, in this case a MOTIF XS Voice, **and** your Zone controlled sound is also a MOTIF XS Voice. It will work if your associated sound is a Performance **and** your Zone controlled sound is also a MOTIF XS 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 MOTIF XS 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 MOTIF XS Voice, or a single MOTIF XS Performance. Basically, a MASTER memorizes the MOTIF XS 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 MOTIF XS 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 MOTIF XS Voices and Performances occupy a single MIDI channel and only one can be active at a time. If you wish to address **four** MOTIF XS Voices simultaneously, then you need to create a MOTIF XS Performance. (Again, by definition, this is what a Performance is). If you want to address the MOTIF XS on four **separate** MIDI channels via four **discreet** Zones you would have to associate the MASTER with a SONG or a PATTERN MIX and setup a 4-ZONE program. Then you can address multiple PARTS of the MIX, independently. In fact, you can address the internal Motif XS on as many as 8 Zones.

#### **ZONE Templates**

The MOTIF XS gives you several 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, for example, ZONE. Press [YES] to check it. You can select a **SPLIT** (2 Zones will be activated with a default split point at C3), **ZONE** (the first four will be activated/while Zones 5-8 will be Off) 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.

If the “Note Limit Low” is set higher than the “Note Limit High” a region in the middle will active and notes above and below this region will be silent. This can be useful in some instances to create special regions of play and no-play.

#### **KNOBS and SLIDERS**

In a MASTER you can set up how the Knobs and Sliders behave per Master setup. You can select which row of Knob Control functions will be lit and active for your Master Program.

If your Master program is associated with an internal VOICE you can select between TONE 1,



TONE 2, ARP FX and ZONE. What this refers to is how the KNOBS in the [SELECTED PART CONTROL] are set when the MASTER setup is recalled.

If your Master program is associated with a PERFORMANCE, SONG/PATTERN MIX, you can select between TONE 1, TONE 2, ARP FX, REVERB SEND, CHORUS SEND, PAN, and ZONE. This will give you, additionally, real time access send levels in the [MULTI PART CONTROL] knobs.

If you select **TONE 1**, for example, the LED at the top of the Knob Control Function will illuminate and you will have access to:

- Knob1 = Cutoff
- Knob2 = Resonance
- Knob3 = Attack
- Knob4 = Decay
- Knob5 = Sustain
- Knob6 = Release
- Knob7 = Assign 1
- Knob8 = Assign 2

If you select **TONE 2** then the eight knobs will be:

- EQ LOW (gain)
- EQ MID Frequency
- EQ MID (gain)
- EQ MID Q (bandwidth)
- EQ HI (gain)
- PAN
- REVERB SEND
- CHORUS SEND

If you select ARP FX the knobs will access real time control over the assigned arpeggio play function, if any... recalling what the Knobs were programmed to do in the original Voice or Performance with which it is associated).

If **ARP FX** is selected you will have control over:

- Swing
- Swing Quantize
- Quantize Strength
- Gate time
- Velocity
- Octave Range
- Unit Multiply
- Tempo

If your MASTER program is a "Zoned" setup you may want to select Knob Control Assign = ZONE. This will make the settings you make per each Zone, active. Use Track buttons [1]-[4], or [5]-[8] 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.

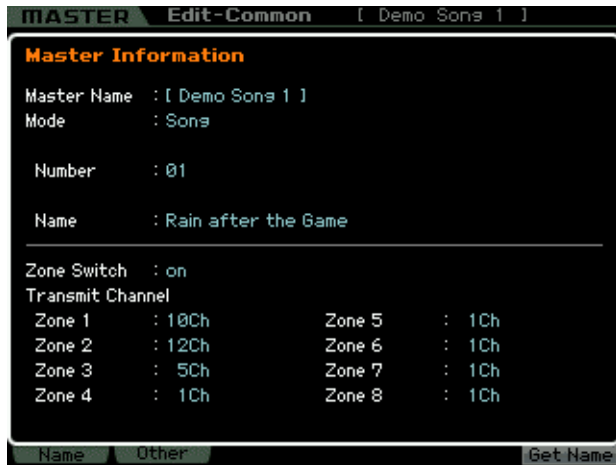


You can set the KNOBS per Zone to any MIDI control change message from 1-95 (except 32), per MASTER setup. Likewise, the Sliders can be programmed per MASTER setup, per Zone to any control change number from 1-95 when "ZONE" is selected as the Control Function option.

There is a difference between the Element VOLUME assignment of the Control Sliders, as when you are in [VOICE] mode, and when the ZONE assignment is set to control VOLUME. In VOICE mode the SLIDERS assignment will be controlling the internal Voice's Element Volumes 1-8. If you are in a MASTER program and set the ZONE SWITCH = ON, then the Sliders will be controlling the Volume of the entire Voice assigned to that ZONE (not individual Elements as in Voice mode).

You can always see a quick overview of your MASTER setup by pressing the INFORMATION button.

- Press [Master]/ [F1] Play/ [F6] INFO



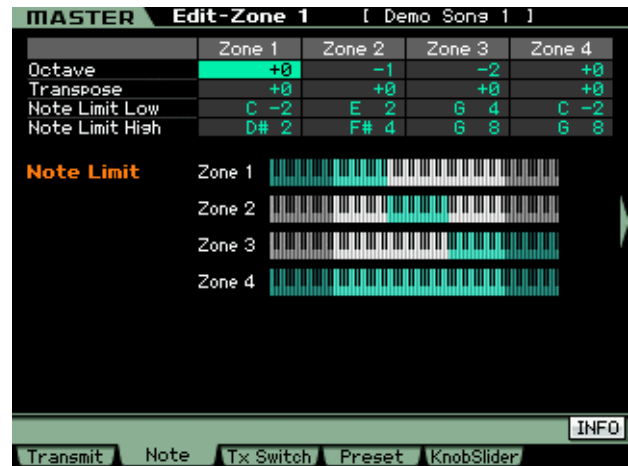
In the above screen shot of MASTER 008 it is associated with a SONG: 01. There are actually 3 ZONES active (shown below) allowing you to play three sounds at once on top of this Song. Check it out:



Notice that "Int Switch" is active for the first three Zones – by using this MASTER setup to recall the "Rain after the Game" Song you can actually select 3 different PARTS and play them 'live' on top.

As you can see MIDI channel 10, 12 and 5 are active internally. Letting you play a Drum kit, electric bass (left-hand), and a distortion guitar (right-hand) at once. If you simply recall the Song (from Song Mode) you could only play one PART at a time. Master mode is giving the ability to address multiple Parts, on separate MIDI channels

via the Zone setup. These Parts are NOTE LIMITED and OCTAVE shifted by the Master Zone setup as shown here:



You can see that the screen shots were taken on a Motif XS7. The light green area indicates the active area.

### 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 MOTIF XS that sends setup data to your other devices and play an internal/external combination when you are playing *on* the MOTIF XS keyboard and play a different sound *from* the MOTIF XS when you move to a second external keyboard? Well, yes, that is possible. If you have a Master Zone setup that is associated with a MIXING program, you can certainly play a Zone setup with as many as eight internal/external sounds and still access the MOTIF XS sound set, independently, via the MIDI IN jack. Because the MOTIF XS 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 MOTIF XS MIX. At the same time you can independently be transmitting via a ZONE MASTER to 8 separate PARTS when you play the MOTIF XS keyboard (let's say on channels 1-8). If you send Program Changes from your external keyboard on any unused MIDI channel (9-16) you can select and change the sounds in the MOTIF XS MIX remotely.

If that external keyboard can send Bank Select and Program Changes you can select VOICES from the entire MOTIF XS palette.

No one article can outline all the possibilities. But if you understand MIDI and you understand how the MOTIF XS 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.

You cannot, however, slave MASTER mode. You can when using an external controller to control the Motif XS Voice mode, Performance mode, Song Mixing mode or Pattern Mixing mode. In other words, your external controller can address the Motif XS in these modes... but there are no commands that you can send in via MIDI to manipulate Master mode... it is after all, MASTER mode.

### Tricky Stuff

When you are using the Motif XS as your Master keyboard controller – meaning that the ZONE Switch is ON – we stated that the rules of the associated mode will apply. For example, say you have a Master program associated with an internal VOICE, but you only want the external Zone to play. Many of the physical controllers are designed to be routed to the internal tone engine (such as the [AF1], [AF2] buttons, and the AS1 and AS2 knobs) – these can be used as controllers for external devices as well because they can be made to send specific Control Change messages. For example, [AF1] and [AF2] by default send cc086 and cc087, but can be programmed in VOICE/Utility mode to send different Control Change messages and in a PERFORMANCE or MIXING setup can be customized on a per PERFORMANCE, per MIXING basis. So you can get very flexible with these. The AS1 and AS2 knobs send cc016 and cc017 by default when you are in VOICE mode, and likewise can be customized. If you want to use these physical controls on an external device but not have an internal program respond – you must make the internal ZONE active and make the physical controller active. However, you can prevent the internal program from sounding by note limiting its range off the keyboard (for example, set the low note limit to C-2 and set the high note limit also to C-2).

### Storage issues

Your MASTER setups will be saved as part of an "ALL" data FILE type (.XOA). Master setups will remain in memory after power down but will be cleared if you perform a Factory Reset or you load in another ALL data file (.XOA). Backup all data by saving an "ALL" file type to an optional USB drive

or via Ethernet to your computer. 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 may 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 logically 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. It is simply a matter of logic.

Phil Clendeninn  
Senior Product Specialist  
Product Support Group  
Pro Audio & Combo Division  
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