

# **MIDI MATRIX**

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# **AMP CONTROLLER**

*Owner's Manual*



# **MIDI MATRIX**

## **AMP CONTROLLER**

### *Table of Contents*

PRECAUTIONS	
OVERVIEW	1-2
QUICK START GUIDE	2-3

## **CONTROLS AND CONNECTIONS**

STORE (LED)	3
STORE (BUTTON)	4
SWITCHING FUNCTION BUTTONS & LEDS	4
DIP SWITCH ARRAY	4
MIDI CHANNEL SWITCH	5
9V AC/DC	5
MIDI IN	5
MIDI THRU	5
DIN (TO AMP FT-SW JACK)	5
TRS1 (TO AMP EXT-SW OR FT-SW JACK)	6
TRS2 (TO AMP EXT-SW OR FT-SW JACK)	6
CONTROLLING MESA/BOOGIE AMPLIFIERS & PRODUCTS	6-24
CABLE TYPE AND CROSS REFERENCE	25-26

## **MIDI OPERATING INSTRUCTIONS**

FACTORY DEFAULTS	27
MIDI MESSAGES OVERVIEW	27
MIDI PROGRAM CHANGE & PRESETS	27
BANK SELECTION	27-28
MIDI CONTROL CHANGE & DIRECT ACCESS	28
USER DATA DUMP (BACKUP)	29
USER DATA LOAD (RESTORE)	29-30
SOFTWARE VERSION SYSEX MESSAGE	30

## **CONFIGURATION & SET UP MODE**

MESA PRE-CONFIGURATION	31
LATCH/MOMENTARY SWITCHING	31
NORMALLY OPEN/CLOSED SWITCHING	31-32
LINKED GROUP A FUNCTIONS	32
LINKED GROUP B FUNCTIONS	32
LINKED ALL OFF & MIDI SETTINGS	32-33
FACTORY RESTORE	33
SOFTWARE UPDATE	33-34
SPECIFICATIONS	35
MIDI IMPLEMENTATION CHART	36-38

## IMPORTANT SAFETY INSTRUCTIONS

Read these instructions.

Follow these instructions.

Heed all notes and warnings.

Do not use this device near water.

Clean this device only with a dry cloth.

Keep these instructions for future reference.

Damage to this device by improperly connected and/or grounded equipment is not covered under warranty.

This device contains no user-serviceable parts and includes components which are susceptible to damage by electrostatic discharge (ESD).

Be sure to use only a properly rated "wall-wart" power adapter or universal pedalboard power supply, with extra attention paid to the correct voltage and current. Applying the improper voltage or insufficient current to this device may cause poor and/or inconsistent performance, and even damage! Refer to the SPECIFICATIONS and CONTROLS & CONNECTIONS sections for more information.

Do not defeat, remove or "lift" an amplifier's safety ground, which is provided by the 3-prong AC power-cord plug! Doing so may not only be ILLEGAL, but it may also pose a SHOCK or ELECTROCUTION HAZARD.

**!! WARNING !!** When setting the DIP Switch Array, we recommend you begin by setting all of the DIP switches to the OFF position, and turning ON only the DIP switches utilized by the amplifier(s) and/or product(s) being controlled. This will ensure a DIP switch has not been forgotten in the ON position, which could result in damage to the MIDI Matrix™ Amp Controller and/or the connected amplifier(s) or product(s).

**READ AND FOLLOW INSTRUCTIONS OF PROPER USAGE.**

# **MIDI MATRIX**

## **AMP CONTROLLER**

### **Operating Instructions**

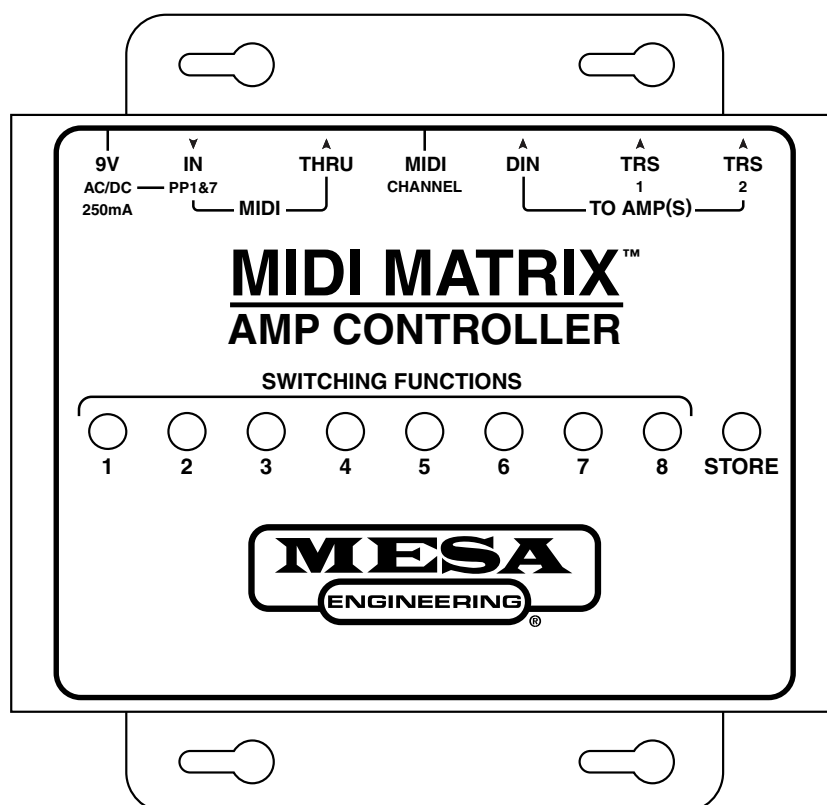
Congratulations on your choice of MESA/Boogie and welcome to the MESA Family! The same passion for excellence, commitment to quality and dedication to customer satisfaction is present in each and every product we make in our one-and-only shop in Petaluma, California, U.S.A. Rest assured that the very same people that hand-build the finest amplifiers in the world, also built your MIDI Matrix™ Amp Controller, and you have access to the same resources for help that all our customers do. Call on us anytime and enjoy!

#### **OVERVIEW**

The MIDI Matrix™ Amp Controller replaces your MESA/Boogie amplifier's multi-pin foot-switch and instantly automates the selection of amplifier channels and functions, such as EQ, effects loop, solo boost and reverb, via MIDI. Now, using the same MIDI foot-controller that you use to control your rack effects and/or looped pedals, you're also able to control your amplifier's channels and functions, creating preset combinations of them, and changing everything in your rig with the single stomp of a button. It can also automate the switching on MESA/Boogie amplifiers and products that have 1/4" foot-switch and external switching jacks.

Thanks to a DIP Switch Array and Mesa Pre-Configurations, the MIDI Matrix™ Amp Controller can automate every amplifier and product that MESA/Boogie has ever produced, and in most cases — without the need for costly, custom cables or dongles. The 8-pin DIN and two 1/4" TRS (tip-ring-sleeve) switching jacks are completely isolated, preventing ground loop hum and noise, allowing you to control functions on up to three different amplifiers or products at the same time, depending on the number of functions that you need to switch, of course.

#### **TOP VIEW: MIDI MATRIX™**



The MIDI Matrix™ Amp Controller is compatible with all MIDI foot-controllers, as well as MIDI capable multi-effect pedal systems from a wide variety of companies. Support for MIDI Program Change or MIDI Control Change messages allows for seamless system integration with up to 250 presets or direct-access, respectively. And thanks to its compact design, you should be able to mount it inside your combo, head, rack, or even on your pedalboard.

## QUICK START GUIDE

1. Locate the MESA/Boogie amplifier or product you wish to control, in the table of section Controlling MESA/ Boogie Amplifiers & Products.
2. Ensure you have the required cable(s) and adjust the DIP Switch Array, as indicated (with NO power applied).

**NOTE:** *If the MIDI Matrix™ Amp Controller has been previously used, we recommend you perform a Factory Restore, as outlined in the Configuration & Setup Mode section.*

3. Apply power while pressing the Store button and Switching Function button #1, both LEDs will turn on, but only the Store LED will remain on after you let go of both buttons.
4. Press the Switching Function button indicated in the table, to select the Mesa Pre-Configuration required by the amplifier or product. If no Mesa Pre-Configuration is required, make sure all eight LEDs are off.
5. Press the Store button to save the Mesa Pre-Configuration setting, and automatically restart the MIDI Matrix™ Amp Controller.

**NOTE:** *A few amplifiers and products require that a particular Switching Function or two, be configured for Momentary and/or Normally Closed switching — as indicated in the table. If that is the case, refer to the Configuration & Setup Mode section and make the necessary changes before continuing through this QSG.*

6. Connect your MIDI foot-controller to the MIDI In jack, and the required cable(s) between the MIDI Matrix™ Amp Controller and the amplifier or product being controlled, as indicated in the Controlling MESA/Boogie Amplifiers & Products table.
7. Press the assigned Switching Function buttons on the MIDI Matrix™ Amp Controller and confirm the amplifier or product channel(s) and/or feature(s) are being switched on and off as expected (and outlined in the table).
8. The factory default MIDI settings are receive MIDI Program Change messages on MIDI channel #1. Ensure your MIDI foot-controller's transmit settings are the same, otherwise refer to sections Controls & Connections to change the MIDI Channel switch setting and/or Configuration & Setup Mode to change the type of MIDI messages the MIDI Matrix™ Amp Controller responds to, from MIDI Program Change messages to MIDI Control Change messages.

**NOTE:** *When using a MIDI foot-controller that is capable of sending MIDI Control Change messages, you assign buttons on the MIDI foot-controller for direct-access to individual Switching Functions on the MIDI Matrix™ Amp Controller. In turn, it's actually the MIDI foot-controller that saves preset combinations in its memory, of the on/off states of the eight Switching Functions. Refer to section MIDI Control Change & Direct Access for more information.*

**NOTE:** *If the Store LED flashes quickly when a button on the MIDI foot-controller is pressed, but none of the eight Switching Functions change on/off states, or pressing the Store button to save a preset doesn't seem to work, that indicates a valid MIDI message hasn't been received. Check to make sure that the MIDI Matrix™ Amp Controller and the MIDI foot-controller are set to send/receive the same type of MIDI messages, and on the same MIDI channel.*

### If using MIDI Control Change messages;

9. Program each of the MIDI foot-controller's direct-access buttons with the MIDI Control Change message assigned to each Switching Function, and the MIDI Matrix™ Amp Controller MIDI channel setting.
10. Press the direct-access buttons on your MIDI foot-controller, the Store LED should flash quickly once, every time a button is pressed, indicating the reception of a MIDI Control Change message, and the Switching Function assigned to the direct-access buttons pressed, should turn on or off.

### **If using MIDI Program Change messages;**

9. Select a preset on your MIDI foot-controller, the Store LED should flash quickly once, indicating the reception of a MIDI Program Change message.
10. Press the assigned Switching Function buttons to turn the desired amplifier or product channel(s) and/or feature(s) on or off, then press the Store button to save the settings — the Store LED should flash once slowly, indicating the settings have been saved.
11. Selecting the preset again on your MIDI foot-controller will recall the saved settings.
12. Repeat Step #9 and Step #10 for other presets or MIDI Program Change messages.

## **CONTROLS & CONNECTIONS**

It's always a good idea to make any audio and control connections with every piece of equipment in a guitar rig turned off, or at least the amplifier volume(s) turned down, to avoid loud bursts of sound from damaging speakers or other components.

Apply power without any buttons pressed, the Store LED will flash slowly and the eight Switching Functions and corresponding LEDs will remain off.

**STORE (LED)** This red LED provides a variety of indications depending on the mode of operation or function being performed.

### **Normal Operation**

- Flashes slowly once, on power-up.
- Flashes slowly once, whenever the MIDI Channel switch is changed.
- Flashes slowly once, whenever the Store button is pressed to save a MIDI preset with the current on/off state of the eight Switching Functions.
- Flashes quickly once, whenever a MIDI Program Change or Control Change message is received, confirming the reception of MIDI messages, and power.
- Remains on, if a MIDI reception error occurs. The error can be cleared by toggling the MIDI Channel switch.

### **User Data Dump & Load**

- Flashes slowly once, whenever a User Data Load has been successfully received.
- Flashes slowly twice, whenever the Store button is pressed to send a User Data Dump.
- Remains on, if a User Data Load is unsuccessful. Performing another User Data Load that's successful will turn it off. It can also be turned off by toggling the MIDI Channel switch or by pressing the Store button (which will send a User Data Dump).
- Blinks on and off quickly, if an error is found with the User Data EEPROM Memory during a User Data Load, indicating that the integrity of at least one User Data EEPROM Memory location is becoming, or has become, compromised.

### **Software Update Mode**

- Remains on, while waiting to receive a Software Update file or if reception of a previous file was unsuccessful.
- Blinks on and off quickly, while a Software Update file is being received.

### **Configuration & Setup Mode**

- Remains on, while in Configuration & Setup mode.
- Blinks on and off quickly, if an error is found with the User Data EEPROM Memory during a Factory Restore, indicating that the integrity of at least one User Data EEPROM Memory location is becoming, or has become, compromised.

## STORE (BUTTON)

This push-button is used to save a MIDI preset with the current on/off state of the eight Switching Functions, or to send a User Data Dump file and MIDI SysEx messages. It is also used in conjunction with other buttons, when the two are pressed while applying power, to enter the Configuration & Setup Mode. Refer to the Configuration & Setup Mode and MIDI Operation sections for more information.

Pressing the Store button will have no effect if the MIDI Matrix™ Amp Controller is configured to respond to MIDI Control Change messages, and has received either a MIDI Control Change message or a MIDI Program Change message, which is ignored.

Pressing this button after power-up and prior to receiving any MIDI messages, or after receiving a User Data Load file, whether successful or not, will result in a User Data Dump file being sent via the MIDI Thru/Out jack. The Store LED flashes slowly twice, whenever the Store button is pressed to send a User Data Dump.

Pressing this button will save the current on/off state of the eight Switching Functions as a MIDI preset in the User Data EEPROM Memory (which is non-volatile), if the MIDI Matrix™ Amp Controller is configured to receive MIDI Program Change messages, and has received a MIDI Program Change message on the same MIDI channel as the MIDI Channel switch. The Store LED flashes slowly once, whenever the Store button is pressed to save a MIDI preset.

**NOTE:** To recap, User Data Dumps are disabled when either a MIDI Control Change or MIDI Program Change message is received, on any MIDI channel, and saving a preset is enabled only after a MIDI Program Change message is received on the same MIDI channel as the MIDI Channel switch.

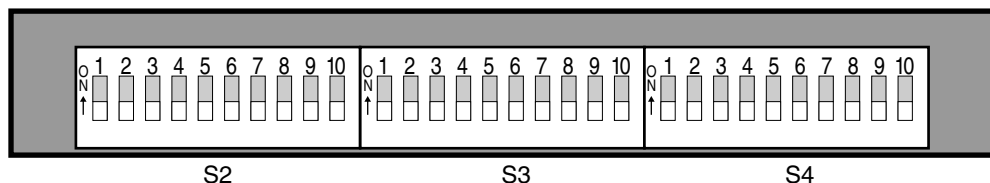
## SWITCHING FUNCTION BUTTONS & LEDs

These eight buttons turn each of the Switching Functions on or off. The corresponding LED turns on when the Switching Function is turned on, and off when the Switching Function is turned off. Switching Functions can control all of the foot-switchable or remote controlled features of MESA/Boogie amplifiers and products that don't have MIDI capability already built-in, such as — channel, EQ, effects loop, mute, reverb, solo boost, etc. The MESA/ Boogie amplifier(s) and/or product(s) being controlled, and the DIP Switch Array, usually determine which of the eight Switching Functions controls an amplifier's and/or a product's specific features. Refer to the Controlling MESA/Boogie Amplifiers & Products section for additional information.

**NOTE:** Switching Functions #5 to #8 are available on the DIN jack and the TRS jacks. They are electrically isolated from one another, but they're not switched separately. For example, if the button for Switching Function #5 is pressed, it will change the Switching Function's on/off state on both the DIN jack and the TRS jack, at the same time. As is the case with Switching Functions #6 to #8. This allows multiple amplifiers and/or products to be switched at the same time, and in sync if you will, while each is connected to a different jack.

## DIP SWITCH ARRAY

This array of 30-DIP switches is used along with the programmable Mesa Pre-Configurations to physically (and electrically) configure and setup the MIDI Matrix™ Amp Controller to control every MESA/Boogie amplifier or product made that has a foot-switch jack or external switching jacks. Refer to the Controlling MESA/Boogie Amplifiers & Products section for detailed information on how to set the DIP Switch Array for the amplifier(s) and/or product(s) being controlled. To access the DIP Switch Array, carefully remove the four (4) screws from the rotatable bottom mounting plate, exposing the switches through a rectangular cut-out in the enclosure's base.



**!!WARNING!!** When setting the DIP Switch Array, we recommend you begin by setting all of the DIP switches to the OFF position, and turning ON only the DIP switches utilized by the amplifier(s) and/or product(s) being controlled. This will ensure a DIP switch has not been forgotten in the ON position, which could result in damage to the MIDI Matrix™ Amp Controller and/or the connected amplifier(s) or product(s).



## MIDI CHANNEL SWITCH

This 16-position rotary switch is used to select the MIDI channel on which MIDI messages must be received, to be valid. The Store LED flashes slowly once, whenever the position of the MIDI Channel switch is changed.

MIDI CHANNEL SWITCH POSITION	SELECTED MIDI CHANNEL	MIDI CHANNEL SWITCH POSITION	SELECTED MIDI CHANNEL
0	#1	8	#9
1	#2	9	#10
2	#3	A	#11
3	#4	B	#12
4	#5	C	#13
5	#6	D	#14
6	#7	E	#15
7	#8	F	#16

## 9V AC/DC

This standard female receptacle is the external power supply jack and accepts a 2.1x5.5mm male barrel connector from a standard 9V AC or DC “wall-wart” power adapter, or a universal pedalboard power supply. Refer to the Specifications section for more information.

**NOTE:** An external “wall-wart” power adapter is not included.

**!!WARNING!!** To avoid immediate damage to this device and voiding the warranty, do NOT connect any AC-Voltage or DC-Voltage power supply to this jack, other than that specified above and in the Specifications section.

## MIDI IN

This 7-pin DIN jack accepts incoming MIDI messages, and is also completely compatible with standard 5-pin DIN MIDI cables. Connect a MIDI foot-controller here, as this jack can provide phantom power, from the 9V AC/DC power jack, to a compatible MIDI foot-controller when using a 7-pin MIDI cable. Or simply use any standard 5-pin MIDI cable if phantom power is not required. The majority of MIDI foot-controllers operate on 9VAC or 9VDC, but check its power specs to be absolutely sure. When providing phantom power to a MIDI foot-controller make sure the total current (or mA) required by the MIDI Matrix™ Amp Controller and the MIDI foot-controller, doesn't exceed the total current provided by the “wall-wart” power adapter or universal pedalboard power supply.

## MIDI THRU

This standard 5-pin DIN jack is a MIDI output which passes any MIDI messages received at the MIDI IN, unchanged, onto other MIDI devices. It also serves as the MIDI output for User Data Dump files and MIDI SysEx messages that originate from the MIDI Matrix™ Amp Controller.

## DIN (TO AMP FT-SW JACK)

This 8-pin DIN jack is where in most cases, you will be able to connect one end of an existing MESA/Boogie foot-switch cable, to control your amplifier via MIDI using the MIDI Matrix™ Amp Controller. The other end of the cable plugs into the foot-switch jack on your amplifier. This jack is completely compatible with 5-pin and 7-pin DIN foot-switch cables. Before connecting your amplifier to this jack for the first time, refer to the Controlling MESA/Boogie Amplifiers & Products section for detailed and important information about the amplifier(s) and product(s) you are planning to control with the MIDI Matrix™ Amp Controller.

**!!WARNING!!** The ground reference of this jack is configurable, through the use of the DIP Switch Array, and is always electrically isolated from all of the other jacks, to prevent ground loops when controlling multiple devices. **Never** use a breakout-box or cable, to control multiple amplifiers and/or products from this single jack. Doing so will most certainly lead to a ground loop, resulting in hum/noise, or even worse! It may damage the MIDI Matrix™ Amp Controller, and/or one, or all of the connected amplifiers and/or products.

### TRS1 (TO AMP EXT-SW OR FT-SW JACK)

This 1/4" TRS jack provides Switching Functions #5 (ring) and #7 (tip), and can be connected to a 1/4" foot-switch jack or external switching jack on a multitude of different amplifiers and products. Either a mono (tip-sleeve) or stereo (tip-ring-sleeve) cable can be plugged into this jack. **Before** using this jack for the first time, refer to the Controlling MESA/Boogie Amplifiers & Products section for detailed and important information about the amplifier(s) and product(s) you are planning to control with the MIDI Matrix™ Amp Controller.

### TRS2 (TO AMP EXT-SW OR FT-SW JACK)

This 1/4" TRS jack provides Switching Functions #6 (ring) and #8 (tip), and can be connected to a 1/4" foot-switch jack or external switching jack on a multitude of different amplifiers and products. Either a mono (tip-sleeve) or stereo (tip-ring-sleeve) cable can be plugged into this jack. **Before** using this jack for the first time, refer to the Controlling MESA/Boogie Amplifiers & Products section for detailed and important information about the amplifier(s) and product(s) you are planning to control with the MIDI Matrix™ Amp Controller.

**!!WARNING!!** The sleeve of the two TRS jacks is electrically isolated from all the other jacks, to prevent ground loops when controlling multiple devices. **Never** use a Y-cable or an Insert Cable, to control two different amplifiers or products from a single TRS jack. Doing so will most certainly lead to a ground loop, resulting in hum/noise, or even worse! It may damage the MIDI Matrix™ Amp Controller, and/or one, or both of the connected amplifiers and/or products.

## CONTROLLING MESA/BOOGIE AMPLIFIERS & PRODUCTS

The initial design objective of the MIDI Matrix™ Amp Controller was to have an all-in-one MIDI controller for MESA/Boogie amplifiers that have a single DIN or XLR foot-switch jack. After going through the MESA Engineering archives and making a detailed spreadsheet of every amplifier and product, jack type, and switching requirements, we decided to add a couple of 1/4" jacks. The result was a solution that would actually be capable of controlling every single amplifier or product that MESA/Boogie has ever made. Multiple jacks also meant that the MIDI Matrix™ Amp Controller would be able to control 2 or 3 amplifiers or products at the same time, depending on the number and type of jacks, and functions that needed to be switched. The other really big objective for the MIDI Matrix™ Amp Controller was for it to control every MESA/Boogie amplifier and product, without the need for costly, custom cables/dongles, and except for handful, we succeeded! Refer to the Cable Type And Cross Reference section for a summary of all the cables utilized by the MIDI Matrix™ Amp Controller and the MESA/ Boogie amplifier or product that the cables are used to control.

To determine if the MIDI Matrix™ Amp Controller can control the multiple amplifiers and/or products in your arsenal, locate them in the following table, and look at the "@GLANCE" column. A check-mark indicates the jack and/or Switching Function is required/used by the amplifier or product, and an "x" indicates that it's free/available, for use by another amplifier or product. Simply make sure that none of the amplifiers and/or products use the same jacks and/or Switching Functions, as indicated by a check-mark. Example #1; a 2-Ch Rectifier and a Nomad 100 can both be controlled at the same time. The Rectifier uses jacks TRS1, TRS2, and Switching Functions #7 and #8, while the Nomad 100 uses the DIN jack and Switching Functions #1 to #6. Example #2; in cases where two amps are used in the same rig, but only one is ever played through at a time, as is the case when using a head-switcher or some ABY's, it's even possible to share Switching Functions #5 through #8 between the amps since the DIN and TRS jacks are completely isolated from one another. As such, a Mark V can be controlled via the DIN jack and either an Electra Dyne, Royal Atlantic, TA30 or 2-Ch Rectifier can be controlled via the TRS jack(s). If the two amps are played through at the same time, it's common to switch channels or functions on both of them in sync, which is also made possible by using the shared Switching Functions #5 through #8...

**NOTE:** MESA/Boogie's amplifiers and products typically require Normally Open (or N.O.), Latch Switching Functions. The exception to this rule is Reverb, which sometimes requires a Normally Closed (or N.C.), Latch Switching Function. Any other exceptions to these rules that have been confirmed at time of printing this User Manual, and are indicated in the following table, but there may still be some that we've missed — simply requiring you to configure N.C. Switching or Momentary Switching, or any other combination. The only exception is Switching Functions that are linked together by a Mesa Pre-Configuration, can't have their switching type changed. For example, look at the 3-Channel Dual/Triple Rectifier in the table below. Switching Functions #1 to #3 are linked by the Mesa Pre-Configuration for channel selection, so those three Switching Functions can't be changed to N.C. or Momentary. But Switching Functions #4 or #5 and #7, which aren't linked, can have their switching type changed, if necessary.

**!!WARNING!!** When setting the DIP Switch Array, we recommend you begin by setting all of the DIP switches to the OFF position, and turning ON only the DIP switches utilized by the amplifier(s) and/or product(s) being controlled. This will ensure a DIP switch has not been forgotten in the ON position, which could result in damage to the MIDI Matrix™ Amp Controller and/or the connected amplifier(s) or product(s).

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE										
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8
2-Channel Dual Rectifier 2-Channel Triple Rectifier 50 Caliber+ Fillmore 25 Fillmore 50 Fillmore 100 Heartbreaker Mark I Mark II/A Maverick Rectoverb 25 Studio 22 Studio 22+ Studio Caliber DC-2(A) V-Twin Pedal	<b>MESA PRE-CONFIGURATION:</b> None <b>DIP SWITCH ARRAY (ON):</b> None for the TRS jack(s) <i>Reminder - turn OFF unused DIP Sw.</i> <b>TRS1 JACK CABLE:</b> Standard ¼" TS Cable <b>TRS2 JACK CABLE:</b> Standard ¼" TS Cable <b>SWITCHING FUNCTION(s) USED:</b> #7 - Channel / Feature (TRS1) #8 - Channel / Feature (TRS2)  <i>Please note, V-Twin Pedal External Bypass requires N.C. Switching.</i>	x	✓	✓	x	x	x	x	x	x	✓	✓
50 Caliber Bass 400 Bass 400+ Bass Buster 200 Blue Angel California Tweed 6V6 4:40 Head-Track King Snake M3 Carbine Mini Rectifier 25 Rectifier Stereo 2:100 Simul 395 Stereo Strategy 500 Stereo Subway D-800+ TransAtlantic TA15	<b>MESA PRE-CONFIGURATION:</b> None <b>DIP SWITCH ARRAY (ON):</b> None for the TRS jack(s) <i>Reminder - turn OFF unused DIP Sw.</i> <b>TRS2 JACK CABLE:</b> Standard ¼" TS Cable <b>SWITCHING FUNCTION(s) USED:</b> #8 - Channel / Feature (TRS2)	x	x	✓	x	x	x	x	x	x	x	✓

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE										
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8
Big Block 750 Lone Star (All Versions) M9 Carbine Mark Five:25 Rectifier Recording Preamp Revolver Solo/Single Rectifier 50 (Series I) ** Solo/Single Rectifier 50 (Series IIA) Stiletto (All Versions) Subway TT-800 Subway WD-800 Subway Rocket (Non-Rvrb)	<b>MESA PRE-CONFIGURATION:</b> None  <b>DIP SWITCH ARRAY (ON):</b> None for the TRS jack(s) <i>Reminder - turn OFF unused DIP Sw.</i>  <b>TRS2 JACK CABLE:</b> Standard ¼” TRS Cable  <b>SWITCHING FUNCTION(s) USED:</b> #6 - Channel / Feature (TRS2 - Ring) #8 - Channel / Feature (TRS2 - Tip)   <i>Determining a Series I from a Series II Single Rectifier. <b>Series I</b> amplifiers have a two-position mode switch for the 2nd Channel labeled “Vintage/Modern”. <b>Series II</b> amplifiers have a three-position mode switch labeled “Raw/Vintage/ Modern” and a 5-pin DIN foot-switch jack on the back. <b>Series IIA</b> amplifiers have a three-position mode switch labeled “Raw/Vintage/Modern” and a ¼” foot- switch jack on the front, beneath the input jack.</i>	X	X	✓	X	X	X	X	X	✓	X	✓
<b>** The sleeve of TRS2 must <u>NEVER</u> make contact with any other ground or plug or sleeve, otherwise damage <u>WILL</u> occur! (N3V)</b>												

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE											
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8	
Solo/Single Rectifier 50 (Series II)	<p><b>MESA PRE-CONFIGURATION:</b> None</p> <p><b>DIP SWITCH ARRAY (ON):</b></p> <p>S2 - 2 / 4 / 10</p> <p>S3 - 2 / 4</p> <p><i>Reminder - turn OFF unused DIP Sw.</i></p> <p><b>DIN JACK CABLE:</b></p> <p>Existing 5-pin DIN Ft-Sw Cable</p> <p><b>SWITCHING FUNCTION(s) USED:</b></p> <p>#2 - Solo on/off</p> <p>#4 - Channel select</p> <p><i>Determining a Series I from a Series II Single Rectifier. <b>Series I</b> amplifiers have a two-position mode switch for the 2nd Channel labeled “Vintage/Modern”. <b>Series II</b> amplifiers have a three-position mode switch labeled “Raw/Vintage/Modern” and a 5-pin DIN foot-switch jack on the back. <b>Series IIA</b> amplifiers have a three-position mode switch labeled “Raw/Vintage/Modern” and a ¼” foot-switch jack on the front, beneath the input jack.</i></p>	✓	x	x	x	✓	x	✓	x	x	x	x	
DC-3(A) DC-3(B) DC-5(A) DC-5(B) DC-10(B) Mark IIB ** Mark IIC+ ** Rosette 300/One:Ten Rosette 300/Two:Eight Studio Caliber DC-2(B) Studio Pre ** TransAtlantic TA30  ** See below if the amp has separate ¼” TS jacks for EQ and Reverb.	<p><b>MESA PRE-CONFIGURATION:</b> None</p> <p><b>DIP SWITCH ARRAY (ON):</b></p> <p>None for the TRS jack(s)</p> <p><i>Reminder - turn OFF unused DIP Sw.</i></p> <p><b>TRS1 JACK CABLE:</b></p> <p>Standard ¼” TS Cable</p> <p><b>TRS2 JACK CABLE:</b></p> <p>Standard ¼” TRS Cable</p> <p><b>SWITCHING FUNCTION(s) USED:</b></p> <p>#6 - Channel / Feature (TRS2 - Ring)</p> <p>#7 - Channel / Feature (TRS1)</p> <p>#8 - Channel / Feature (TRS2 - Tip)</p> <p><i>Please note, Studio Pre Reverb requires N.C. Switching.</i></p>	x	✓	✓	x	x	x	x	x	✓	✓	✓	

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE										
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8
Mark IIB Mark IIC+ Studio Pre  <i>See above if the amp has a single ¼" TRS jack for EQ and Reverb.</i>	<b>MESA PRE-CONFIGURATION:</b> None <b>DIP SWITCH ARRAY (ON):</b> None for the TRS jack(s) <i>Reminder - turn OFF unused DIP Sw.</i> <b>TRS1 JACK CABLE:</b> Standard ¼" TS Cable <b>TRS2 JACK CABLE:</b> Retail ¼" TRS-to-Dual ¼" TS <b>SWITCHING FUNCTION(s) USED:</b> #6 - EQ on/off (TRS2 - Ring) #7 - Lead/Rhythm (TRS1) #8 - Reverb on/off (TRS2 - Tip) *** *** Configure for N.C. Switching.	x	✓	✓	x	x	x	x	x	✓	✓	✓
3-Channel Dual Rectifier (Non Multi-Watt) 3-Channel Triple Rectifier (Non Multi-Watt)	<b>MESA PRE-CONFIGURATION:</b> #1 <b>DIP SWITCH ARRAY (ON):</b> S2 - 5 / 7 / 10 S3 - 5 / 7 S4 - 1 / 2 / 3 / 4 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 7-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #1 - Channel 1 #2 - Channel 2 #3 - Channel 3 #5 - Solo on/off #7 - FX Loop on/off	✓	x	x	✓	✓	✓	x	✓	x	✓	x
3-Channel Dual Rectifier Multi-Watt Version 3-Channel Triple Rectifier Multi-Watt Version	<b>MESA PRE-CONFIGURATION:</b> #1 <b>DIP SWITCH ARRAY (ON):</b> S2 - 4 / 5 / 7 / 10 S3 - 4 / 5 / 7 S4 - 1 / 2 / 3 / 4 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 7-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #1 - Channel 1 #2 - Channel 2 #3 - Channel 3 #4 - Mute on/off #5 - Solo on/off #7 - FX Loop on/off	✓	x	x	✓	✓	✓	✓	✓	x	✓	x

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE										
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8
Amp Switcher	<b>MESA PRE-CONFIGURATION: #6</b> (Mutually Exclusive) or None (Individual on/off) <b>DIP SWITCH ARRAY (ON):</b> None for the TRS jack(s) <i>Reminder - turn OFF unused DIP Sw.</i> <b>TRS1 JACK CABLE:</b> Retail ¼" TRS-to-Dual ¼" TS <b>TRS2 JACK CABLE:</b> Retail ¼" TRS-to-Dual ¼" TS <b>SWITCHING FUNCTION(s) USED:</b> #5 - Amp 1 on/off (TRS1 - Ring) #6 - Amp 2 on/off (TRS2 - Ring) #7 - Amp 3 on/off (TRS1 - Tip) #8 - Amp 4 on/off (TRS2 - Tip)	x	✓	✓	x	x	x	x	✓	✓	✓	✓
Basis M-2000	<b>MESA PRE-CONFIGURATION: #7</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 10 S3 - 5 / 6 S4 - 1 / 5 / 6 / 7 / 8 / 9 / 10 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Custom DIN7-to-XLR6 <b>SWITCHING FUNCTION(s) USED:</b> #1 - FET #2 - Mix #3 - Tube #4 - Tube Hi-Gain #5 - EQ-Tube on/off #6 - EQ-FET on/off	✓	x	x	✓	✓	✓	✓	✓	✓	x	x
Bass Prodigy Four:88	<b>MESA PRE-CONFIGURATION: None</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 1 / 3 / 6 / 7 / 9 S3 - 1 / 3 / 6 / 7 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 8-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #1 - FX on/off #3 - Voice on/off #6 - Solo on/off #7 - Mute on/off	✓	x	x	✓	x	✓	x	x	✓	✓	x

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE										
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8
Bass Strategy Eight:88	MESA PRE-CONFIGURATION: None DIP SWITCH ARRAY (ON): S2 - 1 / 2 / 3 / 6 / 7 / 9 S3 - 1 / 2 / 3 / 6 / 7 Reminder - turn OFF unused DIP Sw. DIN JACK CABLE: Existing 8-pin DIN Ft-Sw Cable SWITCHING FUNCTION(s) USED: #1 - FX on/off #2 - EQ on/off #3 - Voice on/off #6 - Solo on/off #7 - Mute on/off	✓	x	x	✓	✓	✓	x	x	✓	✓	x
Big Block Titan V-12	MESA PRE-CONFIGURATION: None DIP SWITCH ARRAY (ON): S2 - 1 / 4 / 5 / 6 / 7 S3 - 1 / 4 / 5 / 6 / 7 / 9 Reminder - turn OFF unused DIP Sw. DIN JACK CABLE: Existing 7-pin DIN Ft-Sw Cable SWITCHING FUNCTION(s) USED: #1 - A / B select #4 - Drive on/off #5 - Solo on/off #6 - Mute on/off #7 - Chan select	✓	x	x	✓	x	x	✓	✓	✓	✓	x



MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE										
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8
Dual Rectifier Road King (Series I) Dual Rectifier Road King IIA (s/n 2148 to 2647)	MESA PRE-CONFIGURATION: #2 DIP SWITCH ARRAY (ON): S2 - 4 / 5 / 6 / 7 / 8 / 10 S3 - 4 / 5 / 6 / 7 / 8 S4 - 1 / 2 / 3 / 4 Reminder - turn OFF unused DIP Sw. DIN JACK CABLE: Existing 8-pin DIN Ft-Sw Cable SWITCHING FUNCTION(s) USED: #1 - Channel 1 #2 - Channel 2 #3 - Channel 3 Channel 4 selected when Switching Functions #1, #2, and #3 are all off. #4 - FX1 on/off #5 - Solo on/off #6 - FX2 on/off #7 - Reverb on/off *** #8 - Ext. Trigger on/off ^^ *** Configure for N.C. Switching. ^^ Configure for MOM Switching.	✓	x	x	✓	✓	✓	✓	✓	✓	✓	✓
Dual Rectifier Road King IIB (s/n 2648 - above)	MESA PRE-CONFIGURATION: #2 DIP SWITCH ARRAY (ON): S2 - 4 / 5 / 6 / 7 / 8 / 10 S3 - 4 / 5 / 6 / 7 / 8 S4 - 1 / 2 / 3 / 4 Reminder - turn OFF unused DIP Sw. DIN JACK CABLE: Existing 8-pin DIN Ft-Sw Cable SWITCHING FUNCTION(s) USED: #1 - Channel 1 #2 - Channel 2 #3 - Channel 3 Channel 4 selected when Switching Functions #1, #2, and #3 are all off. #4 - FX1 on/off #5 - Solo on/off #6 - FX2 on/off #7 - Reverb on/off *** #8 - Mute on/off *** Configure for N.C. Switching.	✓	x	x	✓	✓	✓	✓	✓	✓	✓	✓

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE											
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8	
Dual Rectifier Roadster	<b>MESA PRE-CONFIGURATION: #2</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 4 / 5 / 6 / 7 / 10 S3 - 4 / 5 / 6 / 7 S4 - 1 / 2 / 3 / 4 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 8-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #1 - Channel 1 #2 - Channel 2 #3 - Channel 3 Channel 4 selected when Switching Functions #1, #2, and #3 are all off. #4 - FX on/off #5 - Solo on/off #6 - Mute on/off #7 - Reverb on/off *** *** Configure for N.C. Switching.	✓	x	x	✓	✓	✓	✓	✓	✓	✓	x	
Electra Dyne Royal Atlantic  <i>This option uses an existing Ft-Sw or standard cable and Switching Functions #6 - #8.</i>	<b>MESA PRE-CONFIGURATION: #3</b> <b>DIP SWITCH ARRAY (ON):</b> None for the TRS jack(s) <i>Reminder - turn OFF unused DIP Sw.</i> <b>TRS2 JACK CABLE:</b> Standard ¼” TRS Cable <b>SWITCHING FUNCTION(s) USED:</b> #6 - Low #7 - Clean #8 - High	x	x	✓	x	x	x	x	x	✓	✓	✓	
Electra Dyne Royal Atlantic  <i>The <b>Custom/3rd-Party</b> DIN7-to-1/4” TRS cable is only being listed here as an option (see above), allowing the TRS jacks to be used for two other amps or products. Switching Functions #1 - #3 are used in this application.</i>	<b>MESA PRE-CONFIGURATION: #1</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 1 / 2 / 9 S3 - 1 / 2 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Custom/3rd-Party DIN7-to-¼” TRS <b>SWITCHING FUNCTION(s) USED:</b> #1 - High #2 - Low #3 - Clean	✓	x	x	✓	✓	✓	x	x	x	x	x	

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE										
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8
Express Series 5:25 Express Series 5:50	<b>MESA PRE-CONFIGURATION:</b> None <b>DIP SWITCH ARRAY (ON):</b> S2 - 1 / 2 / 4 / 5 / 9 S3 - 1 / 2 / 4 / 5 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 5-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #1 - Contour 1 on/off #2 - Contour 2 on/off #4 - Channel select #5 - Reverb on/off	✓	x	x	✓	✓	x	✓	✓	x	x	x
Express+ Series 5:25+ Express+ Series 5:50+	<b>MESA PRE-CONFIGURATION:</b> None <b>DIP SWITCH ARRAY (ON):</b> S2 - 2 / 4 / 6 / 7 / 9 S3 - 2 / 4 / 6 / 7 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 8-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #2 - Channel select #4 - EQ on/off #6 - Solo on/off #7 - Reverb on/off	✓	x	x	x	✓	x	✓	x	✓	✓	x
F30 F50 F100 Rocket 44 Subway Reverb Rocket	<b>MESA PRE-CONFIGURATION:</b> None <b>DIP SWITCH ARRAY (ON):</b> S2 - 2 / 4 / 5 / 10 S3 - 2 / 4 / 5 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 5-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #2 - Contour on/off #4 - Channel select #5 - Reverb on/off	✓	x	x	x	✓	x	✓	✓	x	x	x

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE										
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8
Formula Pre	<b>MESA PRE-CONFIGURATION: #1</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 5 / 10 S3 - 5 S4 - 1 / 2 / 3 / 4 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 5-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #1 - Channel 1 #2 - Channel 2 #3 - Channel 3 #5 - EQ on/off	✓	x	x	✓	✓	✓	x	✓	x	x	x
M-Pulse 360 M-Pulse Venture M-Pulse 600 Ver. 1 (s/n 1867 - below)	<b>MESA PRE-CONFIGURATION: None</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 1 / 3 / 4 / 5 S3 - 1 / 3 / 4 / 5 / 9 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 5-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #1 - FX on/off #3 - Solo on/off #4 - EQ on/off #5 - Comp on/off	✓	x	x	✓	x	✓	✓	✓	x	x	x
M-Pulse 600 Ver. 2 (s/n 1868 - above)	<b>MESA PRE-CONFIGURATION: None</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 1 / 3 / 4 / 5 / 7 S3 - 1 / 3 / 4 / 5 / 7 / 9 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 7-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #1 - FX on/off #3 - Solo on/off #4 - EQ on/off #5 - Comp on/off #7 - Mute on/off	✓	x	x	✓	x	✓	✓	✓	x	✓	x

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE										
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8
M6 Carbine  <i>This option uses two retail 1/4" TRS-to-Dual 1/4" TS cables and does not control the Mute function.</i>	<b>MESA PRE-CONFIGURATION: #6</b> <b>DIP SWITCH ARRAY (ON):</b> None for the TRS jack(s) <i>Reminder - turn OFF unused DIP Sw.</i> <b>TRS1 JACK CABLE:</b> Retail 1/4" TRS-to-Dual 1/4" TS <b>TRS2 JACK CABLE:</b> Retail 1/4" TRS-to-Dual 1/4" TS <b>SWITCHING FUNCTION(s) USED:</b> #5 - Voice 1 on/off (TRS1 - Ring) #6 - Voice 2 on/off (TRS2 - Ring) #7 - Voice 4 on/off (TRS1 - Tip) #8 - Voice 5 on/off (TRS2 - Tip) Voice 3 / Flat selected when Switching Functions #5, #6, #7, #8 are all off.	x	✓	✓	x	x	x	x	✓	✓	✓	✓
M6 Carbine  <i>This option uses two retail 1/4" TRS-to-Dual 1/4" TS cables PLUS a <b>Custom/3rd-Party</b> DIN7-to-1/4" TRS cable and controls all five functions including the Mute.</i>	<b>MESA PRE-CONFIGURATION: #6</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 1 / 9 S3 - 1 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Custom/3-Party DIN7-to-1/4" TRS <b>TRS1 JACK CABLE:</b> Retail 1/4" TRS-to-Dual 1/4" TS <b>TRS2 JACK CABLE:</b> Retail 1/4" TRS-to-Dual 1/4" TS <b>SWITCHING FUNCTION(s) USED:</b> #1 - Mute on/off (DIN - Tip) #5 - Voice 1 on/off (TRS1 - Ring) #6 - Voice 2 on/off (TRS2 - Ring) #7 - Voice 4 on/off (TRS1 - Tip) #8 - Voice 5 on/off (TRS2 - Tip) Voice 3 / Flat selected when Switching Functions #5, #6, #7, #8 are all off.	✓	✓	✓	✓	x	x	x	✓	✓	✓	✓

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE											
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8	
Mark III  <i>The <b>Custom/3rd-Party</b> DIN7-to-1/4" TRS cable is only necessary if the amp has an optional EQ / Reverb jack.</i>  <i>The sleeve of TRS1 must <b>NEVER</b> make contact with any other ground or plug or sleeve, otherwise damage <b>WILL</b> occur! (N3V)</i>	<b>MESA PRE-CONFIGURATION: #3</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 1 / 2 / 9 S3 - 1 / 2 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Custom/3rd Party DIN7-to-1/4" TRS <b>TRS1 JACK CABLE:</b> Standard 1/4" TS Cable <b>TRS2 JACK CABLE:</b> Standard 1/4" TS Cable <b>SWITCHING FUNCTION(S) USED:</b> #1 - EQ/Reverb on/off (DIN - Tip) #2 - EQ/Reverb on/off (DIN - Ring) #6 - Rhy1 #7 - Rhy2 #8 - Lead  Connect DIN to EQ-REV, TRS1 to Rhythm 2, and TRS2 to Foot-Switch.	✓	✓	✓	✓	✓	x	x	x	✓	✓	✓	
Mark IV	<b>MESA PRE-CONFIGURATION: #7</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 10 S3 - 5 / 6 S4 - 1 / 5 / 6 / 7 / 8 / 9 / 10 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Custom DIN7-to-XLR6 <b>TRS1 JACK CABLE:</b> Standard 1/4" TS Cable <b>TRS2 JACK CABLE:</b> Standard 1/4" TS Cable <b>SWITCHING FUNCTION(S) USED:</b> #1 - R1 #2 - R2 #3 - LD #4 - LDEQ #5 - FX on/off #6 - EQ on/off #7 - Reverb on/off (TRS1) *** #8 - Simul/Class-A select (TRS2) *** Configure for N.C. Switching.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE										
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8
Mark V	<b>MESA PRE-CONFIGURATION: #1</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 4 / 5 / 6 / 7 / 8 / 10 S3 - 4 / 5 / 6 / 7 / 8 S4 - 1 / 2 / 3 / 4 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 8-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #1 - Channel 1 #2 - Channel 2 #3 - Channel 3 #4 - EQ on/off #5 - Solo on/off #6 - Mute on/off #7 - Reverb on/off *** #8 - FX Loop on/off *** Configure for N.C. Switching.	✓	x	x	✓	✓	✓	✓	✓	✓	✓	✓
Mark Five:35	<b>MESA PRE-CONFIGURATION: None</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 2 / 3 / 4 / 9 S3 - 2 / 3 / 4 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 5-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #2 - Channel select #3 - Solo on/off #4 - EQ on/off	✓	x	x	x	✓	✓	✓	x	x	x	x

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE										
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8
Nomad 45 Nomad 55	<b>MESA PRE-CONFIGURATION: #1</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 4 / 5 / 10 S3 - 4 / 5 S4 - 1 / 2 / 3 / 4 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 5-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(S) USED:</b> #1 - Channel 1 #2 - Channel 2 #3 - Channel 3 #4 - Reverb on/off *** #5 - Solo on/off *** Configure for N.C. Switching.	✓	x	x	✓	✓	✓	✓	✓	x	x	x
Nomad 100	<b>MESA PRE-CONFIGURATION: #1</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 4 / 5 / 6 / 10 S3 - 4 / 5 / 6 S4 - 1 / 2 / 3 / 4 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 7-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(S) USED:</b> #1 - Channel 1 #2 - Channel 2 #3 - Channel 3 #4 - Reverb on/off *** #5 - Solo on/off #6 - EQ on/off *** Configure for N.C. Switching.	✓	x	x	✓	✓	✓	✓	✓	✓	x	x



MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE											
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8	
Quad Preamp (4-Pin Ft-Sw)  <i>A <b>Custom/3rd-Party</b> DIN8-to-Eight-1/4" breakout box (BOB) and 8-pin DIN cable are required to control all 8 functions.</i>	<b>MESA PRE-CONFIGURATION: #4</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 S3 - 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Custom/3rd Party DIN8-to-8-1/4" BOB & Cable <b>SWITCHING FUNCTION(S) USED:</b> #1 - R1 #2 - R2 #3 - LD1 #4 - LD2 #5 - EQ1 on/off #6 - EQ2 on/off #7 - Reverb Boost on/off #8 - Reverb Cancel on/off	✓	x	x	✓	✓	✓	✓	✓	✓	✓	✓	
Quad Preamp (6-Pin Ft-Sw)	<b>MESA PRE-CONFIGURATION: #7</b> <b>DIP SWITCH ARRAY (ON):</b> S2 - 10 S3 - 5 / 6 S4 - 1 / 5 / 6 / 7 / 8 / 9 / 10 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Custom DIN7-to-XLR6 <b>TRS1 JACK CABLE:</b> Standard 1/4" TS Cable <b>TRS2 JACK CABLE:</b> Standard 1/4" TS Cable <b>SWITCHING FUNCTION(s) USED:</b> #1 - R1 #2 - R2 #3 - LD1 #4 - LD2 #5 - EQ2 on/off #6 - EQ1 on/off #7 - Reverb Boost on/off (TRS1) #8 - Reverb Cancel on/off (TRS2)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE										
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8
RectoVerb 50 (Series 1) RectoVerb 50 (Series 2)	<b>MESA PRE-CONFIGURATION:</b> None <b>DIP SWITCH ARRAY (ON):</b> S2 - 2 / 4 / 5 / 10 S3 - 2 / 4 / 5 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 5-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #2 - Solo on/off #4 - Channel select #5 - Reverb on/off  <i>Determining a Series I from a Series II RectoVerb. <b>Series I</b> amplifiers have a two-position mode switch for the 2nd Channel labeled “Vintage/Modern”. <b>Series II</b> amplifiers have a three-position mode switch labeled "Raw/Vintage/Modern".</i>	✓	x	x	x	✓	x	✓	✓	x	x	x
Rocket 440	<b>MESA PRE-CONFIGURATION:</b> None <b>DIP SWITCH ARRAY (ON):</b> S2 - 2 / 3 / 4 / 5 / 10 S3 - 2 / 3 / 4 / 5 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Existing 5-pin DIN Ft-Sw Cable <b>SWITCHING FUNCTION(s) USED:</b> #2 - Contour on/off #3 - Tremolo on/off #4 - Channel select #5 - Reverb on/off	✓	x	x	x	✓	✓	✓	✓	x	x	x
Stereo Simul-Class 2:90 Series I & II	<b>MESA PRE-CONFIGURATION:</b> None <b>DIP SWITCH ARRAY (ON):</b> None for the TRS jack(s) <i>Reminder - turn OFF unused DIP Sw.</i> <b>TRS1 JACK CABLE:</b> Standard ¼” TS Cable <b>TRS2 JACK CABLE:</b> Retail ¼” TRS-to-Dual ¼” TS <b>SWITCHING FUNCTION(s) USED:</b> #6 - Deep on/off (TRS2 - Ring) #7 - ½ Drive on/off (TRS1) #8 - Modern on/off (TRS2 - Tip)	x	✓	✓	x	x	x	x	x	✓	✓	✓

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE										
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8
Tremoverb	<b>MESA PRE-CONFIGURATION:</b> None <b>DIP SWITCH ARRAY (ON):</b> None for the TRS jack(s) <i>Reminder - turn OFF unused DIP Sw.</i> <b>TRS1 JACK CABLE:</b> Retail ¼" TRS-to-Dual ¼" TS <b>TRS2 JACK CABLE:</b> Retail ¼" TRS-to-Dual ¼" TS <b>SWITCHING FUNCTION(s) USED:</b> #5 - Channel select (TRS1 - Ring) #6 - Tremolo on/off (TRS2 - Ring) #7 - Reverb on/off (TRS1 - Tip) #8 - FX Loop on/off (TRS2 - Tip)	x	✓	✓	x	x	x	x	✓	✓	✓	✓
V-Twin Rack Preamp  <i>This option uses standard ¼" TS and ¼" TRS cables to turn the FX Loop on/off, and to switch between the two Channels and the Mix Mode.</i>  <i>To turn the FX Loop on/off and switch between all 6 of the Channel Voicings, a <b>Custom/3rd-Party</b> DIN8-to-Eight-1/4" breakout box (BOB) and 8-pin DIN cable are required, see below.</i>	<b>MESA PRE-CONFIGURATION:</b> None <b>DIP SWITCH ARRAY (ON):</b> None for the TRS jack(s) <i>Reminder - turn OFF unused DIP Sw.</i> <b>TRS1 JACK CABLE:</b> Standard ¼" TS Cable <b>TRS2 JACK CABLE:</b> Standard ¼" TRS Cable <b>SWITCHING FUNCTION(s) USED:</b> #6 - Cln on/off (TRS2 - Ring) #7 - FX Loop on/off (TRS1) #8 - Solo on/off (TRS2 - Tip) Mix Mode is automatically selected when Clean and Solo are turned on.	x	✓	✓	x	x	x	x	x	✓	✓	✓
V-Twin Rack Preamp  <i>This option uses two retail ¼" TRS-to-Dual ¼" TS cables to switch between 4 of the 6 Channel Voicings and the Mix Mode.</i>  <i>To turn the FX Loop on/off and switch between all 6 of the Channel Voicings, a <b>Custom/3rd-Party</b> DIN8-to-Eight-1/4" breakout box (BOB) and 8-pin DIN cable are required, see below.</i>	<b>MESA PRE-CONFIGURATION:</b> None <b>DIP SWITCH ARRAY (ON):</b> None for the TRS jack(s) <i>Reminder - turn OFF unused DIP Sw.</i> <b>TRS1 JACK CABLE:</b> Retail ¼" TRS-to-Dual ¼" TS <b>TRS2 JACK CABLE:</b> Retail ¼" TRS-to-Dual ¼" TS <b>SWITCHING FUNCTION(s) USED:</b> #5 - Ext. Ch. Sel. 1 of 6 (TRS1 - Ring) #6 - Ext. Ch. Sel. 2 of 6 (TRS2 - Ring) #7 - Ext. Ch. Sel. 3 of 6 (TRS1 - Tip) #8 - Ext. Ch. Sel. 4 of 6 (TRS2 - Tip) Mix Mode is automatically selected when Clean and Solo are turned on.	x	✓	✓	x	x	x	x	✓	✓	✓	✓

MESA/BOOGIE AMPLIFIER / PRODUCT	MESA PRE-CONFIGURATION DIP SWITCH ARRAY SETTINGS CABLE REQUIREMENTS SWITCHING FUNCTION ASSIGNMENT	JACKS & SWITCHING FUNCTIONS @GLANCE											
		DIN	TRS1	TRS2	1	2	3	4	5	6	7	8	
V-Twin Rack Preamp  <i>This option uses two retail 1/4" TRS-to-Dual 1/4" TS cables PLUS a <b>Custom/3rd-Party</b> DIN7-to-1/4" TRS cable to turn the FX Loop on/off, and switch between 4 of the 6 Channel Voicings and the Mix Mode.</i>  <i>To turn the FX Loop on/off and switch between all 6 of the Channel Voicings, a <b>Custom/3rd-Party</b> DIN8-to-Eight-1/4" breakout box (BOB) and 8-pin DIN cable are required, see below.</i>	<b>MESA PRE-CONFIGURATION:</b> None <b>DIP SWITCH ARRAY (ON):</b> S2 - 1 / 9 S3 - 1 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Custom/3rd Party DIN7-to-1/4" TRS <b>TRS1 JACK CABLE:</b> Retail 1/4" TRS-to-Dual 1/4" TS <b>TRS2 JACK CABLE:</b> Retail 1/4" TRS-to-Dual 1/4" TS <b>SWITCHING FUNCTION(s) USED:</b> #1 - FX Loop on/off (DIN - Tip) #5 - Ext. Ch. Sel. 1 of 6 (TRS1 - Ring) #6 - Ext. Ch. Sel. 2 of 6 (TRS2 - Ring) #7 - Ext. Ch. Sel. 3 of 6 (TRS1 - Tip) #8 - Ext. Ch. Sel. 4 of 6 (TRS2 - Tip) Mix Mode is automatically selected when Clean and Solo are turned on.	✓	✓	✓	✓	x	x	x	✓	✓	✓	✓	
V-Twin Rack Preamp  <i>A <b>Custom/3rd-Party</b> DIN8-to-Eight-1/4" breakout box (BOB) and 8-pin DIN cable are required to turn the FX Loop on/off and switch between all 6 of the Channel Voicings.</i>	<b>MESA PRE-CONFIGURATION:</b> #8 <b>DIP SWITCH ARRAY (ON):</b> S2 - 1 / 2 / 3 / 4 / 5 / 6 / 7 / 9 S3 - 1 / 2 / 3 / 4 / 5 / 6 / 7 <i>Reminder - turn OFF unused DIP Sw.</i> <b>DIN JACK CABLE:</b> Custom/3rd Party DIN8-to-8-1/4" BOB & Cable <b>SWITCHING FUNCTION(s) USED:</b> #1 - Solo 1 on/off #2 - Solo 2 on/off #3 - Solo 3 on/off #4 - Clean 1 on/off #5 - Clean 2 on/off #6 - Clean 3 on/off #7 - FX Loop on/off Mix Mode is automatically selected when Clean and Solo are turned on. Solo side is muted when Switching Functions #1, #2, and #3 are all off. Clean side is muted when Switching Functions #4, #5, and #6 are all off.	✓	x	x	✓	✓	✓	✓	✓	✓	✓	x	

## CABLE TYPE AND CROSS REFERENCE

Here's a summary of all the cables utilized by the MIDI Matrix™ Amp Controller and the MESA/Boogie amplifier or product that the cables are used to control.

MIDI MATRIX™ AMP CTLR CABLE TYPE	MESA/BOOGIE AMPLIFIER / PRODUCT	
Standard / Existing ¼" TS Ft-Sw Cable (Mesa #678462)	2-Channel Dual Rectifier	Mark IIB
	2-Channel Triple Rectifier	Mark IIC+
	50 Caliber	Mark IV
	50 Caliber+	Maverick
	Bass 400	Mini Rectifier 25
	Bass 400+	Quad Preamp (6-Pin Ft-Sw)
	Bass Buster 200	Rectifier Stereo 2:100
	Blue Angel	Rectoverb 25
	California Tweed 6V6 4:40	Rosette 300/One:Ten
	DC-3(A)	Rosette 300/Two:Eight
	DC-3(B)	Simul 395 Stereo
	DC-5(A)	Stereo Simul-Class 2:90 Series I & II
	DC-5(B)	Strategy 500 Stereo
	DC-10(B)	Studio 22
	Fillmore 25	Studio 22+
	Fillmore 50	Studio Caliber DC-2(A)
	Fillmore 100	Studio Caliber DC-2(B)
	Head-Track	Studio Pre
	Heartbreaker	Subway D-800+
	King Snake	TransAtlantic TA15
	M3 Carbine	TransAtlantic TA30
	Mark I	V-Twin Pedal
	Mark II/A	V-Twin Rack Preamp
Standard / Existing ¼" TRS Ft-Sw Cable (Mesa #678457)	Big Block 750	Revolver
	DC-3(A)	Rosette 300/One:Ten
	DC-3(B)	Rosette 300/Two:Eight
	DC-5(A)	Royal Atlantic
	DC-5(B)	Solo/Single Rectifier 50 (Series I)
	DC-10(B)	Solo/Single Rectifier 50 (Series IIA)
	Electra Dyne	Stiletto (All Versions)
	Lone Star (All Versions)	Studio Caliber DC-2(B)
	M9 Carbine	Studio Pre
	Mark IIB	Subway Rocket (Non-Rvrb)
	Mark IIC+	Subway TT-800
	Mark Five:25	Subway WD-800
	Rectifier Recording Preamp	TransAtlantic TA30
		V-Twin Rack Preamp

MIDI MATRIX™ AMP CTRLR CABLE TYPE	MESA/BOOGIE AMPLIFIER / PRODUCT	
Existing 5-pin DIN Ft-Sw Cable (Mesa #678465)	Express Series 5:25 Express Series 5:50 F30 F50 F100 Formula Pre M-Pulse 360 M-Pulse 600 Ver. 1 (s/n 1867 - below) M-Pulse Venture	Mark Five:35 Nomad 45 Nomad 55 RectoVerb 50 (Series 1) RectoVerb 50 (Series 2) Rocket 44 Rocket 440 Subway Reverb Rocket Solo/Single Rectifier 50 (Series II)
Existing 7-pin DIN Ft-Sw Cable (Mesa #678470)	3-Channel Dual/Triple Rectifier (Non Multi-Watt) 3-Channel Dual/Triple Rectifier Multi-Watt Version	Big Block Titan V-12 M-Pulse 600 Ver. 2 (s/n 1868 - above) Nomad 100
Existing 8-pin DIN Ft-Sw Cable (Mesa #678468)	Bass Prodigy Four:88 Bass Strategy Eight:88 Dual Rectifier Road King I Dual Rectifier Road King IIA Dual Rectifier Road King IIB Dual Rectifier Roadster	Express+ Series 5:25+ Express+ Series 5:50+ Mark V Quad Preamp (4-Pin Ft-Sw)** V-Twin Rack Preamp** ** Requires a Custom/3rd-Party Breakout Box, see below
Custom DIN7-to-XLR6 (Mesa #CBL.XLR6)	Basis M-2000 Mark IV Quad Preamp (6-Pin Ft-Sw)	
Retail ¼” TRS-to-Dual ¼” TS <i>Hosa #STP201 (3.3ft)</i> <i>Hosa #STP202 (6.6ft)</i> <i>Hosa #STP203 (9.9ft)</i> <i>Pro Co #IPBQ2Q-3 (3ft)</i> <i>Pro Co #IPBQ2Q-5 (5ft)</i> <i>Pro Co #IPBQ2Q-10 (10ft)</i>	Amp Switcher M6 Carbine (to also control the Mute function, see below) **** Mark IIB (only necessary if amp has separate ¼” TS jacks for EQ & Reverb) Mark IIC+ (only necessary if amp has separate ¼” TS jacks for EQ & Reverb) Stereo Simul-Class 2:90 Series I & II Studio Pre (only necessary if amp has separate ¼” TS jacks for EQ & Reverb) Tremoverb V-Twin Rack Preamp	
Custom / 3rd-Party DIN7-to-¼” TRS	M6 Carbine (allows controlling the Mute on/off, if necessary) **** Mark III (only necessary if amp has an optional EQ/Reverb jack) V-Twin Rack Preamp (allows switching 4 of the 6 Channel voicings and FX)	
Custom / 3rd-Party DIN8-to-Eight-¼” TS Breakout Box & Mesa Cable #678468	Quad Preamp (4-Pin Ft-Sw) V-Twin Rack Preamp (only necessary to switch all 6 Channel voicings and FX)	

## MIDI OPERATION

### Factory Defaults

All eight Switching Functions are configured for Normally Open, Latch Switching, no Mesa Pre-Configuration is selected, both Linked Group A and Linked Group B are empty, all presets are blank, and MIDI Program Change messages on MIDI Channel #1 are considered valid. Refer to the Configuration & Setup Mode section to change any of these settings.

### MIDI Messages Overview

The MIDI Matrix™ Amp Controller is compatible with all MIDI foot-controllers, and is configured at the factory to respond to MIDI Program Change messages on MIDI Channel #1. It can be configured to respond to MIDI Control Change messages instead, but will never respond to both at the same time — eliminating the possibility of odd or unexpected behavior. The MIDI channel can be changed to any one of sixteen channels via the MIDI Channel switch. Whenever a MIDI Program Change message or MIDI Control Change message is received, the Store LED will flash quickly once, confirming the reception of MIDI messages (whether valid or not) and power.

**NOTE:** *If the Store LED flashes quickly when a button on the MIDI foot-controller is pressed, but none of the eight Switching Functions change on/off states, or pressing the Store button to save a preset doesn't seem to work, that indicates a valid MIDI message hasn't been received. Check to make sure that the MIDI foot-controller and the MIDI Matrix™ Amp Controller are set to send and receive the same type of MIDI messages, and on the same MIDI channel.*

### MIDI Program Change & Presets

Up to 250 presets or patches can be saved and recalled, using MIDI Program Change messages 1 through 128 in bank 1, and 1 through 122 in bank 2. When a MIDI Program Change message is received on the same MIDI Channel as the MIDI Channel switch, the saved on/off settings of the eight Switching Functions, for the received MIDI Program Change message, will be recalled.

Select, edit and save a MIDI preset, in three easy steps:

1. Using the MIDI foot-controller, select a MIDI Program Change message — the Store LED will flash quickly.
2. Using the eight Switching Function buttons, select the desired amplifier and/or product channels and functions.
3. Press the Store button — the Store LED will flash slowly, indicating the current on/off state of the eight Switching Functions have been saved in a MIDI preset.

A preset cannot be saved under the following conditions;

- The MIDI Matrix™ Amp Controller is first powered-up, and has not yet received a valid MIDI Program Change message.
- The MIDI Matrix™ Amp Controller has received a User Data Load file, whether successful or not, and has not yet received a subsequent MIDI Program Change message.

**NOTE:** *If the Store LED flashes quickly when a button on the MIDI foot-controller is pressed, but none of the eight Switching Functions change on/off states, or pressing the Store button to save a preset doesn't seem to work, that indicates a valid MIDI message hasn't been received. Check to make sure that the MIDI foot-controller and the MIDI Matrix™ Amp Controller are set to send and receive the same type of MIDI messages, and on the same MIDI channel.*

### Bank Selection

As mentioned above, a total of 250 presets can be saved between two different banks.

Bank 1 is the power-on default, and MIDI Program Change messages will recall presets in this bank.

Bank 2 is accessible using a MIDI Bank Select message, which is MIDI Control Change message CC#0.

Sending MIDI Control Change message CC#0 with a MIDI Control Value of 0 from the MIDI foot-controller, selects Bank 1.

Sending MIDI Control Change message CC#0 with a MIDI Control Value of 1 (or greater) from the MIDI foot-controller, selects Bank 2.

**NOTE:** Bank selection is semi-permanent, meaning any subsequent MIDI Program Change messages will recall a preset in the selected bank. For example; after selecting bank 2, all subsequent MIDI Program Change messages will recall presets 129 through 250, which are in bank 2. After selecting bank 1, all subsequent MIDI Program Change messages will recall presets 1 through 128, which are in bank 1.

### MIDI Control Change & Direct Access

In addition to supporting MIDI Program Change messages, the MIDI Matrix™ Amp Controller also accepts MIDI Control Change messages (also known as MIDI Continuous Controllers or CC messages).

When using a MIDI foot-controller that's capable of sending MIDI Control Change messages, you can assign buttons on the MIDI foot-controller for direct-access to individual Switching Functions on the MIDI Matrix™ Amp Controller. In turn, it's actually the MIDI foot-controller that saves preset combinations in its memory, of the on/off states of the eight Switching Functions.

The MIDI Matrix™ Amp Controller can respond to MIDI Control Change messages in six different ranges. Range #1 and #2 were selected logically, and range #3 to #6 correspond to GCX #1 to #4, respectively. Selecting one of these ranges and setting the MIDI Matrix™ Amp Controller MIDI Channel to #16 will allow the MIDI Matrix™ Amp Controller to respond to same MIDI messages as the GCX Audio Switcher by Voodoo Lab / Digital Music Corporation (GCX is a trademark of Digital Music Corp.).

MIDI CONTROL CHANGE MESSAGE						MIDI CONTROL VALUE	SWITCHING FUNCTION & ON/OFF STATUS
RANGE #1 [MESA#1]	RANGE #2 [MESA#2]	RANGE #3 [GCX#1]	RANGE #4 [GCX#2]	RANGE #5 [GCX#3]	RANGE #6 [GCX#4]		
#21	#111	#80	#88	#64	#56	64 - 127 0 - 63	Switching Function #1 on Switching Function #1 off
#22	#112	#81	#89	#65	#57	64 - 127 0 - 63	Switching Function #2 on Switching Function #2 off
#23	#113	#82	#90	#66	#58	64 - 127 0 - 63	Switching Function #3 on Switching Function #3 off
#24	#114	#83	#91	#67	#59	64 - 127 0 - 63	Switching Function #4 on Switching Function #4 off
#25	#115	#84	#92	#68	#60	64 - 127 0 - 63	Switching Function #5 on Switching Function #5 off
#26	#116	#85	#93	#69	#61	64 - 127 0 - 63	Switching Function #6 on Switching Function #6 off
#27	#117	#86	#94	#70	#62	64 - 127 0 - 63	Switching Function #7 on Switching Function #7 off
#28	#118	#87	#95	#71	#63	64 - 127 0 - 63	Switching Function #8 on Switching Function #8 off



## User Data Dump (Backup)

A User Data Dump will send a User Data Dump file with the MIDI Matrix™ Amp Controller 250 presets and all its configuration settings out through the MIDI Thru/Out jack, as a MIDI SysEx message. The User Data Dump file includes CRC (Cyclic Redundancy Check) bytes for MIDI error detection.

To perform a User Data Dump from one MIDI Matrix™ Amp Controller, to another MIDI Matrix™ Amp Controller, making an exact clone, connect the MIDI Thru/Out jack of the original, to the MIDI In jack of the clone. Remember to set the MIDI Channel of the clone so it matches that of the original MIDI Matrix™ Amp Controller (unless you don't actually want them to respond to MIDI messages on the same MIDI channel).

The User Data Dump file can also be saved to a computer, as a backup or to load the data into another MIDI Matrix™ Amp Controller, at some other time. In addition to the computer, you will also need a MIDI/USB Interface, and a MIDI app/utility capable of sending and receiving MIDI SysEx messages and files. Two free apps that we recommend are SysEx Librarian by [www.snoize.com](http://www.snoize.com) (Mac OS X) and MIDI-OX by [www.midiox.com](http://www.midiox.com) (Microsoft Windows).

### A User Data Dump can be performed after;

- The MIDI Matrix™ Amp Controller is first powered-up, and prior to receiving any MIDI messages.
- The MIDI Matrix™ Amp Controller has received a User Data Load file, whether successful or not.

### Perform a User Data Dump in four easy steps;

1. Connect the MIDI Matrix™ Amp Controller MIDI Thru/Out jack to either the MIDI In of another MIDI Matrix™ Amp Controller or that of a MIDI/USB Interface, in which case launch the MIDI app/utility you plan to use, and make sure the Interface is connected to the computer.
2. If dumping to a computer, set the MIDI app/utility to receive, then press the MIDI Matrix™ Amp Controller's Store button to begin sending the User Data Dump file.
3. The MIDI Matrix™ Amp Controller Store LED will turn on immediately, and after the User Data Dump file has been sent, the Store LED will turn off.
4. The Store LED will then turn on again, when a second, very short MIDI SysEx message containing the MIDI Matrix™ Amp Controller software version information is sent.

A User Data Dump should take no more than 1 to 2 seconds to complete.

**NOTE:** The Software Version SysEx message that follows every User Data Dump file, providing a simple means of identification, can be ignored, unless it's needed for troubleshooting a particular problem.

## User Data Load (Restore)

A User Data Load can be performed at any time and can be received at full MIDI speeds. When receiving a User Data Dump file, it is first saved in the MIDI Matrix™ Amp Controller RAM memory, and does NOT immediately overwrite the existing presets and configuration settings that are saved in the User Data EEPROM Memory. The existing presets and configuration settings will ONLY be overwritten after the entire User Data Dump file has been completely and successfully received without CRC errors.

Perform a User Data Load in four easy steps;

1. Connect the MIDI Matrix™ Amp Controller MIDI In jack to either the MIDI Thru/Out of another MIDI Matrix™ Amp Controller or that of a MIDI/USB Interface, in which case launch the MIDI app/utility you plan to use, and make sure the Interface is connected to the computer.

2. If loading from a computer, locate the User Data Dump file and begin sending it, or press the Store button on the MIDI Matrix™ Amp Controller that you're sending the User Data Dump file from.
3. The MIDI Matrix™ Amp Controller Store LED will turn on immediately, as it starts receiving the User Data Dump file, and after its been saved in the User Data EEPROM Memory, the Store LED will turn off.
4. The Store LED will turn on again as the MIDI Matrix™ Amp Controller restarts, which is necessary since the User Data Dump file also contains configuration and setup information.

A User Data Load should take no more than 1 to 2 seconds to complete.

If a User Data Load fails, the Store LED will remain on, until the MIDI Matrix™ Amp Controller begins receiving another User Data Dump file, or any other process occurs that turns the Store LED on and off, such as receiving a User Data Load successfully, pressing the Store button, or changing/toggling the MIDI Channel. Any failures could only be due to a corrupted file, but rest assured that the MIDI Matrix™ Amp Controller built-in CRC/MIDI error detection will prevent a corrupted file from overwriting existing presets and settings.

If the Store LED begins to blink on and off quickly after Step #3, it indicates that the integrity of at least one User Data EEPROM Memory location is becoming, or has become compromised. The User Data Load has still been performed and completed, but the MIDI Matrix™ Amp Controller must be powered-down, and powered-up again to be used.

### Software Version SysEx Message

A very short MIDI SysEx message will follow every User Data Dump file, as a simple means of identifying the MIDI Matrix™ Amp Controller software version. This message is ignored when a User Data Load is being received. To view this, you'll need a computer, a MIDI/USB Interface, and a MIDI app/utility capable of sending and receiving MIDI SysEx messages and files. Two free apps that we recommend are SysEx Librarian by [www.snoize.com](http://www.snoize.com) (Mac OS X) and MIDI-OX by [www.midiox.com](http://www.midiox.com) (Microsoft Windows). To capture and view this message on a computer, simply select "Record Many" or "Receive Many", as an option within the MIDI app/utility being used, before performing a User Data Dump.

The Software Version SysEx Message will look like: `F0 00 02 20 07 68 x y F7`

Where `x y` is the actual software version, for example 3.1 would be shown as: `03 01`

## CONFIGURATION & SETUP MODE

To enter the Configuration & Setup Mode, apply power while pressing the Store button plus one of the eight Switching Function buttons, the sub-modes are listed below. Both the Store LED and the Switching Function's LED will illuminate. The Store LED always remains on while in the Configuration & Setup Mode, but the Switching Function's LED will turn off when its button is released. Then approximately half-a-second later, the eight Switching Function LEDs will display the stored settings of the sub-mode selected for modification.

- Button #1 — Mesa Pre-Configuration
- Button #2 — Latch/Momentary Switching
- Button #3 — Normally Open/Closed Switching
- Button #4 — Linked Group A Functions
- Button #5 — Linked Group B Functions
- Button #6 — Linked All Off & MIDI Settings
- Button #7 — Factory Restore
- Button #8 — Software Update

## Mesa Pre-Configuration (Store + Button #1)

Mesa Pre-Configurations are provided to quickly setup the MIDI Matrix™ Amp Controller circuitry and programming for use with MESA/Boogie amplifiers and products which require linked Switching Functions, instead of individual on/off Switching Functions. Mesa Pre-Configurations are independent of Linked Group A and Linked Group B.

Press the (mutually exclusive) Switching Function buttons to select 1-of-8 Mesa Pre-Configurations as per the following list of amplifiers and products, or none, when all eight of the LEDs are off. After you've made your selection, press the Store button to save the settings and automatically restart the MIDI Matrix™ Amp Controller.

Refer to sections DIP Switch Array, and Controlling MESA/Boogie Amplifiers & Products for detailed and important information about the amplifier(s) and product(s) you are planning to control with the MIDI Matrix™ Amp Controller.

- Button #1 — 3-Channel Dual/Triple Rectifier (Non-MW), 3-Channel Multi-Watt Dual/Triple Rectifier, Electra Dyne, Formula Pre, Mark V, Nomad 45/55/100, Royal Atlantic
- Button #2 — Dual Rectifier Road King (Series I), Dual Rectifier Road King IIA (s/n 2148-2647), Dual Rectifier Road King IIB (s/n 2648-above), Dual Rectifier Roadster
- Button #3 — Electra Dyne, Mark III, Royal Atlantic
- Button #4 — Quad Preamp (4-Pin Ft-Sw)
- Button #5 — Reserved (#1 - #4 Linked, 1-on/auto-off/all-off)
- Button #6 — Amp Switcher, M6 Carbine
- Button #7 — Basis M-2000, Mark IV, Quad Preamp (6-Pin Ft-Sw)
- Button #8 — V-Twin Rack Preamp

All other MESA/Boogie amplifiers and products can be controlled without using a Mesa Pre-Configuration (i.e. all eight of the LEDs should be off).

**NOTE:** *Selecting a Mesa Pre-Configuration removes the Switching Functions that are linked by the Mesa Pre-Configuration from both Linked Group A and Linked Group B, and prevents their Latch/Momentary and Normally Open/Closed Switch settings from being changed.*

## Latch/Momentary Switching (Store + Button #2)

Some amplifiers and products may have features that require Momentary Switching rather than the more common Latch Switching. Switching Functions that are configured for Latch Switching remain in one of two states which can be either opened or closed, or vice versa, when they are on or off, respectively. Switching Functions that are configured for Momentary Switching change on and off states by opening or closing the switch contacts for a short period of time, then returning to the closed or open state again, respectively. The MIDI Matrix™ Amp Controller Momentary Switching time is 50 milliseconds.

Press the Switching Function buttons that need to be Momentary, turning on the corresponding LEDs, and make sure those that need to be Latching have the LEDs turned off. After you've made your selection, press the Store button to save the settings and automatically restart the MIDI Matrix™ Amp Controller.

**NOTE:** *The Latch/Momentary Switching settings of the Switching Functions, linked by a Mesa Pre-Configuration that is selected, can't be changed.*

## Normally Open/Closed Switching (Store + Button #3)

Some amplifiers and products may have features that require a Normally Closed (or N.C.) or reverse polarity Switching Function. For example, switching an amplifier's reverb on/off with a Normally Open (or N.O.) Switching Function may sometimes result in the MIDI

Matrix™ Amp Controller Switching Function LED being on, when the reverb is off, and the LED is off when the reverb is actually on. Changing the Switching Function to Normally Closed Switching or reversing its polarity, corrects this sync or switching issue.

Press the Switching Function buttons that need to be Normally Closed, turning on the corresponding LEDs, and make sure those that need to be Normally Open have the LEDs turned off. After you've made your selection, press the Store button to save the settings and automatically restart the MIDI Matrix™ Amp Controller.

**NOTE:** *The Normally Open and Normally Closed Switching settings of the Switching Functions, linked by a Mesa Pre-Configuration that is selected, can't be changed.*

#### **Linked Group A Functions (Store + Button #4)**

#### **Linked Group B Functions (Store + Button #5)**

Many amplifiers and products use multiple Switching Functions to select different channels, and require that only one Switching Function be turned on at a time, otherwise chaos may ensue because more than one channel can't be active at any given time. Linked Group A and Linked Group B allow up to eight Switching Functions to be linked together in a group, with only one Switching Function allowed on at any given time within each group. So, when a Switching Function is OFF, pressing its button will turn it ON, and the Switching Function that was ON before, will turn OFF automatically. Some of these amplifiers and products may also have a channel or feature that can be selected when the linked Switching Functions are all turned OFF. This can be configured in the next Configuration & Setup Mode selection (Store + Button #6) which allows for Linked Group A and Linked Group B to have the Switching Function that is currently turned ON, turn OFF, when its button is pressed. Mesa Pre-Configurations are independent of Linked Group A and Linked Group B, so the MIDI Matrix™ Amp Controller can actually support up to three different groups of linked Switching Functions.

Press the Switching Function buttons that should be part of Linked Group A or Linked Group B, turning on the corresponding LEDs, and make sure those that should not be part of the group have the LEDs turned off. After you've made your selection, press the Store button to save the settings and automatically restart the MIDI Matrix™ Amp Controller.

**NOTE:** *Adding a Switching Function to either Linked Group A or Linked Group B, will automatically remove the Switching Function from the other Linked Group, and if a Mesa Pre-Configuration is selected that also uses the same Switching Function, the Mesa Pre-Configuration will be de-selected automatically. Also, if Linked Group A or Linked Group B has only one Switching Function assigned to it, the group will be cleared automatically.*

#### **Linked All Off & MIDI Settings (Store + Button #6)**

As mentioned, some amplifiers and products that utilize Linked Group A or Linked Group B Functions, may have a channel or feature that can be selected when the Switching Functions in the group are all turned off. Switching Function buttons #1 and #2 configure Linked Group A and Linked Group B, respectively, to have that ability, when either LED is turned on. For example, if Linked Group A has Switching Functions #1 to #4 assigned to it and Switching Function #4 is turned ON, pressing its button will turn it OFF, resulting in all four Switching Functions within the group being turned OFF, selecting a possible fifth channel or other feature. The factory default for Switching Function buttons #1 and #2 in this Configuration & Setup Mode is LEDs off, so both Linked Group A and Linked Group B, respectively, will always have one Switching Function turned on, and pressing that button will not turn it off.

Button #1 — Linked Group A All Off (LED on)

Button #2 — Linked Group B All Off (LED on)

Switching Function buttons #3 to #8 configure the type of MIDI messages that the MIDI Matrix™ Amp Controller will respond to. Press the (mutually exclusive) Switching Function buttons to select 1-of-6 different MIDI Control Change message ranges that the MIDI Matrix™ Amp Controller can respond to, or when all six LEDs are off, MIDI Program Change messages will be selected. The MIDI Matrix™ Amp Controller will respond to either MIDI Program Change or MIDI Control Change messages, but never both — eliminating the possibility of odd or unexpected behavior. After you've made your selection, press the Store button to save the settings and automatically restart the MIDI Matrix™ Amp Controller.

- Button #3 — MIDI Control Change #21 to #28 (Range #1)
- Button #4 — MIDI Control Change #111 to #118 (Range #2)
- Button #5 — MIDI Control Change #80 to #87 (Range #3)
- Button #6 — MIDI Control Change #88 to #95 (Range #4)
- Button #7 — MIDI Control Change #64 to #71 (Range #5)
- Button #8 — MIDI Control Change #56 to #63 (Range #6)

**NOTE:** MIDI Control Change Range #3 to #6 correspond to GCX #1 to #4, respectively. Selecting one of these ranges and setting the MIDI Channel to #16 will allow the MIDI Matrix™ Amp Controller to respond to same MIDI messages as the GCX Audio Switcher by Voodoo Lab / Digital Music Corporation (GCX is a trademark of Digital Music Corp.).

### **Factory Restore (Store + Button #7)**

Performing a Factory Restore will return all of the MIDI presets and Configuration & Setup Mode settings to the same state as when the MIDI Matrix™ Amp Controller left our one-and-only shop in Petaluma, California. The factory defaults are; all eight Switching Functions are configured for Normally Open and Latch Switching, no Mesa Pre-Configuration is selected, both Linked Group A and Linked Group B are empty, all presets are blank, and MIDI Program Change messages on the selected MIDI channel are considered valid.

Perform a Factory Restore in five easy steps;

1. Press and hold both the Store button and Switching Function #7 button, while applying power to the MIDI Matrix™ Amp Controller.
2. When the Store and the Switching Function #7 LEDs turn on, release only the Switching Function #7 button, its LED will turn off.
3. While still holding the Store button, press and hold Switching Function #1 button, its LED will turn on.
4. Release only the Store button. Switching Function #1 LED will turn off and the Factory Restore will begin, you can now release Switching Function #1 button.
5. After the Factory Restore is completed, the Store LED will turn off and on again, as the MIDI Matrix™ Amp Controller is automatically restarted.

A Factory Restore should take no more than 1 to 2 seconds to complete.

If the Store LED begins to blink on and off quickly after Step #4, it indicates that the integrity of at least one User Data EEPROM Memory location is becoming, or has become compromised. The Factory Restore has still been performed and completed, but the MIDI Matrix™ Amp Controller must be powered-down, and powered-up again to be used.

**NOTE:** If the Store button is released before Switching Function #7 button (in Step #2) or the Switching Function #1 button is not pressed when the Store button is released (in Step #4) the Factory Restore will be aborted, and the MIDI Matrix™ Amp Controller will power-up normally.

### **Software Update (Store + Button #8)**

To perform a Software Update, you'll need a Software Update file (which can be obtained from us via e-mail or the web), a computer, a MIDI/USB Interface, and a MIDI app/utility capable of sending and receiving MIDI SysEx messages and files. Two free apps that we recommend are SysEx Librarian by [www.snoize.com](http://www.snoize.com) (Mac OS X) and MIDI-OX by [www.midiox.com](http://www.midiox.com) (Microsoft Windows).

**!! IMPORTANT !!** MIDI app/utility settings for the Software Update:

SysEx Librarian (Mac OS X)

Menu > Preferences

Transmit Speed = 50% or 1565 bytes/sec max.

MIDI-OX (Microsoft Windows)

Main Menu > View > SysEx

SysEx Window Menu > SysEx > Configure

Low Level Output Buffers, Size = 256 & Num = 64

Output Timing & Delay Between Buffers = 192ms min.

Auto-Adjust Buffer Delays If Necessary = Off/Unchecked

As with any piece of gear, it's always a good idea to backup your presets and other settings before performing a Software Update.

Perform a Software Update as follows:

1. Press and hold both the Store button and Switching Function #8 button, while applying power to the MIDI Matrix™ Amp Controller.
2. When the Store and the Switching Function #8 LEDs turn on, release both buttons. The Switching Function #8 LED will turn off, but the Store LED will remain on, indicating the Software Update mode.
3. Connect the MIDI/USB Interface to your computer, launch the MIDI app/utility you plan to use, and then connect the Interface's MIDI Output to the MIDI Matrix™ Amp Controller MIDI In jack.
4. Locate the Software Update file you received from us, or downloaded, and verify its checksum is correct (as follows) before proceeding to Step #5.

SysEx Librarian includes two different methods of calculating a file's checksum. You should check one or both of these against the checksums we've published to ensure the file you have, is not corrupted.

Unfortunately MIDI-OX doesn't provide a built-in checksum feature, but Microsoft does offer a free utility called "Microsoft File Checksum Integrity Verifier" which does the same thing. Download it from [www.microsoft.com](http://www.microsoft.com).

5. Begin sending the Software Update file. Upon receiving it, the Store LED will begin to blink on and off quickly, and will continue to blink during file reception, providing an indication that the Software Update is progressing problem free.
6. After performing a successful Software Update, the Store LED will stop blinking and turn off, and on again, as the MIDI Matrix™ Amp Controller is automatically restarted.

A Software Update should take no more than 20 to 30 seconds to complete.

If a Software Update fails, the Store LED will stop blinking and remain on until the MIDI Matrix™ Amp Controller begins receiving another Software Update file. Any failures could only be due to either a corrupted file or because the file is being sent to the MIDI Matrix™ Amp Controller faster than it can be processed. So, if a Software Update failure occurs, stop the file transfer, and check the MIDI app/utility data transmission/speed settings.

- If the settings are not as shown above, correct them, then press Switching Function #1 button (this resets the MIDI Matrix™ Amp Controller Software Update process) before attempting to send another Software Update file.
- If the settings are correct, then chances are the Software Update failure was due to a file corruption error. Retry sending the Software Update file. If the Store LED doesn't begin to blink on and off quickly, press Switching Function #1 button, to reset the Software Update process, and try re-sending the Software Update file.

**NOTE:** To abort a Software Update before sending a Software Update file (in Step #5), simply remove power. The MIDI Matrix™ Amp



*Controller will return to its normal mode of operation when powered-up again. Never abort a Software Update after the MIDI Matrix™ Amp Controller has started to receive a Software Update file, and never use a MIDI Matrix™ Amp Controller that has not had its software successfully updated, as indicated above (in Step #6).*

## SPECIFICATIONS

- Operating Voltage: 9V AC or DC
- Minimum DC Operating Voltage: 9V DC
- Maximum DC Operating Voltage: 12V DC
- Maximum Current Draw: 250mA @ 9V DC
- DC Adapter (Optional): 2.1 x 5.5mm Barrel Plug
- Weight: 0.9lbs (408.2g)
- Dimensions (W x D x H): 5.23 x 3.77 x 1.59 in. (132.8 x 95.8 x 40.4mm)
- Bottom Mounting Plate, Rotatable (W x D x H): 4.97 x 3.69 x 0.063 in. (126.2 x 93.7 x 1.6mm)
- Momentary Switching Time: 50ms (milliseconds)
- User Data Memory Size: 250 presets, organized in 2 banks
- User Data Memory Type: Non-Volatile EEPROM (no battery)
- Foot-Controller Phantom Power: Yes, provided via MIDI IN jack pins 6 & 7, same voltage as the POWER jack.

**NOTE:** *Device specifications are subject to change without notice.*

**FCC** **NOTE:** *This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.*

MIDI Implementation Chart v2.0 (Page 1 of 3)			
Manufacturer: MESA Engineering	Model: MIDI MATRIX Amp Controller	Version: 1.x	Date: Apr. 16, 2019
1. Basic Information	Transmit/Export	Recognize/Import	Remarks
MIDI Channels	No	1 - 16	Select w/Rotary DIP Sw.
Note Numbers	No	No	
Program Change	No	1 - 128	Bank #1, 128 Presets Bank #2, 122 Presets
Bank Select response? (Yes/No) If yes, list banks utilized in remarks column.	No	No	Responds to CC#0 only! CV0:Bank1, CV≥1:Bank2
Modes Supported: Mode 1: Omni-On, Poly (Yes/No) Mode 2: Omni-On, Mono (Yes/No) Mode 3: Omni-Off, Poly (Yes/No) Mode 4: Omni-Off, Mono (Yes/No) Multi Mode (Yes/No)	No No No No No	No No Yes Yes No	
Note-On Velocity (Yes/No)	No	No	
Note-Off Velocity (Yes/No)	No	No	
Channel Aftertouch (Yes/No)	No	No	
Poly (Key) Aftertouch (Yes/No)	No	No	
Pitch Bend (Yes/No)	No	No	
Active Sensing (Yes/No)	No	No	
System Reset (Yes/No)	No	No	
Tune Request (Yes/No)	No	No	
Universal System Exclusive: Sample Dump Standard (Yes/No) Device Inquiry (Yes/No) File Dump (Yes/No) MIDI Tuning (Yes/No) Master Volume (Yes/No) Master Balance (Yes/No) Notation Information (Yes/No) Turn GM1 System On (Yes/No) Turn GM2 System On (Yes/No) Turn GM System Off (Yes/No) DLS-1 (Yes/No) File Reference (Yes/No) Controller Destination (Yes/No) Key-Based Instrument Ctrl (Yes/No) Master Fine/Coarse Tune (Yes/No) Other Universal System Exclusive	No No No No No No No No No No No No No No No No	No No No No No No No No No No No No No No No	
Manufacturer or Non-Commercial System Exclusive	Yes	Yes	Mesa/Boogie ID 00 02 20
NRPNS (Yes/No)	No	No	
RPN 00 (Pitch Bend Sensitivity) (Yes/No)	No	No	
RPN 01 (Channel Fine Tune) (Yes/No)	No	No	
RPN 02 (Channel Coarse Tune) (Yes/No)	No	No	
RPN 03 (Tuning Program Select) (Yes/No)	No	No	
RPN 04 (Tuning Bank Select) (Yes/No)	No	No	
RPN 05 (Modulation Depth Range) (Yes/No)	No	No	
2. MIDI Timing & Synchronization			
MIDI Clock (Yes/No)	No	No	
Song Position Pointer (Yes/No)	No	No	
Song Select (Yes/No)	No	No	
Start (Yes/No) Continue (Yes/No) Stop (Yes/No)	No	No	
MIDI Time Code (Yes/No)	No	No	
MIDI Machine Control (Yes/No)	No	No	
MIDI Show Control (Yes/No) If yes, MSC Level supported.	No	No	
3. Extensions Compatibility			
General MIDI compatible? (Level(s)/No) Is GM default power-up mode? (Level/No)	No	No	
DLS compatible? (Levels(s)/No) (DLS File Type(s)/No)	No	No	
Standard MIDI Files (Type(s)/No)	No	No	
XMF Files (Type(s)/No)	No	No	
SP-MIDI compatible? (Yes/No)	No	No	

Notes: (1) CV refers to Control Value  
(2) CC refers to Control Change  
(3) Factory Default recognized MIDI message is Program Change  
(4) Refer to User Manual section Configuration & Setup Mode to change recognized MIDI message to Control Change



**MIDI Implementation Chart v2.0 (Page 2 of 3)**
**Manufacturer:** MESA Engineering

**Model:** MIDI MATRIX Amp Controller

**Version:** 1.x

**Date:** Apr. 16, 2019

Control #	Function	Transmitted (Y/N)	Recognized (Y/N)	Remarks
0	Bank Select (MSB)	No	Yes	Ctrl Valu 0 = Bank 1, Ctrl Valu ≥ 1 = Bank2
1	Modulation Wheel (MSB)	No	No	
2	Breath Controller (MSB)	No	No	
3		No	No	
4	Foot Controller (MSB)	No	No	
5	Portamento Time (MSB)	No	No	
6	Data Entry (MSB)	No	No	
7	Channel Volume (MSB)	No	No	
8	Balance (MSB)	No	No	
9		No	No	
10	Pan (MSB)	No	No	
11	Expression (MSB)	No	No	
12	Effect Control 1 (MSB)	No	No	
13	Effect Control 2 (MSB)	No	No	
14		No	No	
15		No	No	
16	General Purpose Controller 1 (MSB)	No	No	
17	General Purpose Controller 2 (MSB)	No	No	
18	General Purpose Controller 3 (MSB)	No	No	
19	General Purpose Controller 4 (MSB)	No	No	
20		No	No	
21		No	Yes	Switching Function #1 (CC Range #1)
22		No	Yes	Switching Function #2 (CC Range #1)
23		No	Yes	Switching Function #3 (CC Range #1)
24		No	Yes	Switching Function #4 (CC Range #1)
25		No	Yes	Switching Function #5 (CC Range #1)
26		No	Yes	Switching Function #6 (CC Range #1)
27		No	Yes	Switching Function #7 (CC Range #1)
28		No	Yes	Switching Function #8 (CC Range #1)
29		No	No	
30		No	No	
31		No	No	
32	Bank Select (LSB)	No	No	Use CC#0 instead!
33	Modulation Wheel (LSB)	No	No	
34	Breath Controller (LSB)	No	No	
35		No	No	
36	Foot Controller (LSB)	No	No	
37	Portamento Time (LSB)	No	No	
38	Data Entry (LSB)	No	No	
39	Channel Volume (LSB)	No	No	
40	Balance (LSB)	No	No	
41		No	No	
42	Pan (LSB)	No	No	
43	Expression (LSB)	No	No	
44	Effect Control 1 (LSB)	No	No	
45	Effect Control 2 (LSB)	No	No	
46		No	No	
47		No	No	
48	General Purpose Controller 1 (LSB)	No	No	
49	General Purpose Controller 2 (LSB)	No	No	
50	General Purpose Controller 3 (LSB)	No	No	
51	General Purpose Controller 4 (LSB)	No	No	
52		No	No	
53		No	No	
54		No	No	
55		No	No	
56		No	Yes	Switching Function #1 (CC Range #6)
57		No	Yes	Switching Function #2 (CC Range #6)
58		No	Yes	Switching Function #3 (CC Range #6)
59		No	Yes	Switching Function #4 (CC Range #6)
60		No	Yes	Switching Function #5 (CC Range #6)
61		No	Yes	Switching Function #6 (CC Range #6)
62		No	Yes	Switching Function #7 (CC Range #6)
63		No	Yes	Switching Function #8 (CC Range #6)

**Notes:**

(1) CC refers to Control Change

(2) Refer to User Manual section Configuration &amp; Setup Mode to select CC Range #1 through #6

(3) For Switching Functions #1 through #8; Control Value 0-63 = Off and Control Value 64-127 = On

**MIDI Implementation Chart v2.0 (Page 3 of 3)**
**Manufacturer:** MESA Engineering

**Model:** MIDI MATRIX Amp Controller

**Version:** 1.x

**Date:** Apr. 16, 2019

Control #	Function	Transmitted (Y/N)	Recognized (Y/N)	Remarks
64	Sustain Pedal	No	Yes	Switching Function #1 (CC Range #5)
65	Portamento On/Off	No	Yes	Switching Function #2 (CC Range #5)
66	Sostenuto	No	Yes	Switching Function #3 (CC Range #5)
67	Soft Pedal	No	Yes	Switching Function #4 (CC Range #5)
68	Legato Footswitch	No	Yes	Switching Function #5 (CC Range #5)
69	Hold 2	No	Yes	Switching Function #6 (CC Range #5)
70	Sound Controller 1 (Def: Sound Variation)	No	Yes	Switching Function #7 (CC Range #5)
71	Sound Controller 2 (Def: Timbre/Harm. Quality)	No	Yes	Switching Function #8 (CC Range #5)
72	Sound Controller 3 (Def: Release Time)	No	No	
73	Sound Controller 4 (Def: Attack Time)	No	No	
74	Sound Controller 5 (Def: Brightness)	No	No	
75	Sound Controller 6 (GM2 Default: Decay Time)	No	No	
76	Sound Controller 7 (GM2 Default: Vibrato Rate)	No	No	
77	Sound Controller 8 (GM2 Default: Vibrato Depth)	No	No	
78	Sound Controller 9 (GM2 Default: Vibrato Delay)	No	No	
79	Sound Controller 10 (GM2 Default: Undefined)	No	No	
80	General Purpose Controller 5	No	Yes	Switching Function #1 (CC Range #3)
81	General Purpose Controller 6	No	Yes	Switching Function #2 (CC Range #3)
82	General Purpose Controller 7	No	Yes	Switching Function #3 (CC Range #3)
83	General Purpose Controller 8	No	Yes	Switching Function #4 (CC Range #3)
84	Portamento Control	No	Yes	Switching Function #5 (CC Range #3)
85		No	Yes	Switching Function #6 (CC Range #3)
86		No	Yes	Switching Function #7 (CC Range #3)
87		No	Yes	Switching Function #8 (CC Range #3)
88		No	Yes	Switching Function #1 (CC Range #4)
89		No	Yes	Switching Function #2 (CC Range #4)
90		No	Yes	Switching Function #3 (CC Range #4)
91	Effects 1 Depth (Default: Reverb Send)	No	Yes	Switching Function #4 (CC Range #4)
92	Effects 2 Depth (Default: Tremolo Depth)	No	Yes	Switching Function #5 (CC Range #4)
93	Effects 3 Depth (Default: Chorus Send)	No	Yes	Switching Function #6 (CC Range #4)
94	Effects 4 Depth (Default: Celeste [Detune] Depth)	No	Yes	Switching Function #7 (CC Range #4)
95	Effects 5 Depth (Default: Phaser Depth)	No	Yes	Switching Function #8 (CC Range #4)
96	Data Increment	No	No	
97	Data Decrement	No	No	
98	Non-Registered Parameter Number (LSB)	No	No	
99	Non-Registered Parameter Number (MSB)	No	No	
100	Registered Parameter Number (LSB)	No	No	
101	Registered Parameter Number (MSB)	No	No	
102		No	No	
103		No	No	
104		No	No	
105		No	No	
106		No	No	
107		No	No	
108		No	No	
109		No	No	
110		No	No	
111		No	Yes	Switching Function #1 (CC Range #2)
112		No	Yes	Switching Function #2 (CC Range #2)
113		No	Yes	Switching Function #3 (CC Range #2)
114		No	Yes	Switching Function #4 (CC Range #2)
115		No	Yes	Switching Function #5 (CC Range #2)
116		No	Yes	Switching Function #6 (CC Range #2)
117		No	Yes	Switching Function #7 (CC Range #2)
118		No	Yes	Switching Function #8 (CC Range #2)
119		No	No	
120	All Sound Off	No	No	
121	Reset All Controllers	No	No	
122	Local Control On/Off	No	No	
123	All Notes Off	No	No	
124	Omni Mode Off	No	No	
125	Omni Mode On	No	No	
126	Poly Mode Off	No	No	
127	Poly Mode On	No	No	

Notes: (1) CC refers to Control Change  
(2) Refer to User Manual section Configuration & Setup Mode to select CC Range #1 through #6  
(3) For Switching Functions #1 through #8; Control Value 0-63 = Off and Control Value 64-127 = On

# ***MESA/BOOGIE***<sup>®</sup>

*The Spirit of Art in Technology*

*Thank you for trusting MESA/Boogie to be your amplifier company and we wish you many years of toneful enjoyment from this handbuilt all tube instrument.*



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*(707) 778-6565      FAX NO. (707) 765-1503*  
*1317 Ross Street Petaluma, CA 94954*  
*USA*