

# BookerLAB

## Vintage Motor Controller (VMC) Manual



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## Product Description

**The Vintage Motor Controller (VMC) from BookerLAB provides complete motor control for vintage Leslie® dual-stack motors.**

The VMC allows a Leslie to be controlled with an AC Dual Motor Monitor (DMM; either internal or external), a half-moon switch, a footswitch, or MIDI Controller. Each of these input devices can select Tremolo, Chorale, or Stop, while an optional second switch provides Memphis Mode and Stop Mode.

“Memphis Mode” simulates what vintage players did by unplugging the lower motors, thus preventing the bass rotor from spinning at all. This feature is popular for using the organ bass pedals on the bass string lines where the Leslie effect may not be desired. Memphis Mode on the VMC emulates this effect by disabling the bass rotor while still allowing the horn rotor to spin at the fast (tremolo) and slow (chorale) speeds. Stop Mode disables both sets of motors, upper and lower, preventing rotation.

The VMC mounts inside or outside the Leslie cabinet and receives AC power from the amplifier's reverb outlet, or another suitable AC outlet. The upper and lower motors then plug into the Fast and Slow AC outputs on the VMC.

**The VMC family is available in three versions:**

- BL-VMC – Vintage Motor Controller for external motor control
- BL-VMC-MM – VMC with integrated Dual Motor Monitors (DMM)
- BL-VMC-MIDI – VMC-MM with integrated MIDI Controller

## VMC Family Comparison

	VMC	-MM	-MIDI
Four AC outlets for controlling vintage dual stack motors with fused (3A) main input	✓	✓	✓
Adds Memphis and Stop modes to stock Leslie speakers	✓	✓	✓
Speed controlled by half-moon switch, footswitch, or hard-wired switch	✓	✓	✓
Speed controlled by Dual Motor Monitor (DMM)	**	✓	✓
Speed can be controlled via MIDI, or with a standard sustain pedal			✓
Status LEDs indicate input power (blue), Memphis mode (red), Stop mode (red), Tremolo (green) and Chorale (yellow)	✓	✓	✓
Removable 3-pin terminal block (speed input) allows flexible application with various remote switches and modes	✓	✓	✓
Bypasses or replaces the mechanical relays in older amplifiers	✓	✓	✓
Rugged, plastic, flanged enclosure mounts securely almost anywhere	✓	✓	✓

*\*\* Dual Motor Monitor (DMM) available as optional, external accessory.*

## VMC Ideal Users

### Hammond/Leslie Technicians

- Debugging and troubleshooting Leslie issues
- Assisting with field repairs on Leslie speakers
- Temporary setup for repair situations

### Live Players

- Control of Leslie speaker using keyboard's built-in MIDI controls
- Increased flexibility in Leslie speed control (footswitch, sustain pedal or MIDI)
- MIDI allows recording of live Leslie speed changes
- Live Memphis control for guitar players

### Recording Studios

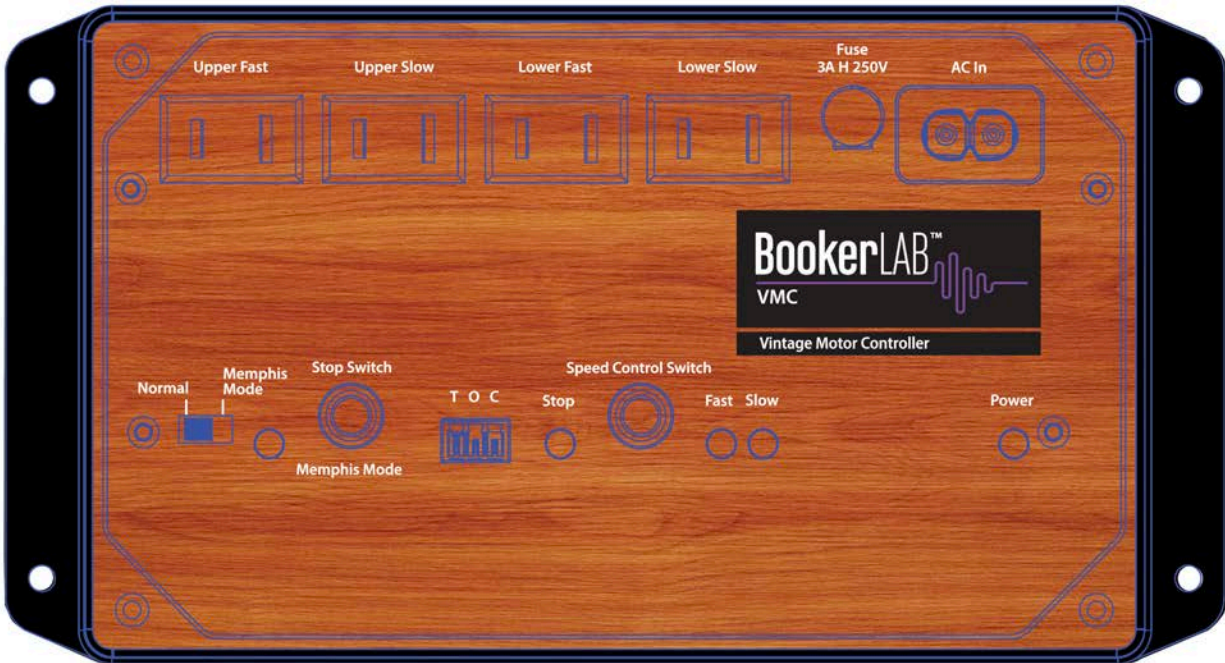
- MIDI control allows engineers to automate Leslies speakers
- MIDI allows control from clonewheel and combo organs
- Stop and Memphis upgrade
- Backline and studio rental

### Do-It-Yourself (DIY)

- Ideal for DIY Leslie projects
- Repair non-working or spare Leslie cabinets
- Use preferred new old stock (NOS) Leslie motors
- Use of two-speed motor stacks with older single-speed Leslie amplifiers
- Special "black box" projects are possible
- Stop and Memphis upgrade vs. costly Trek II upgrades

## VMC Models & Features

### VMC – Vintage Motor Controller



### VMC Features

- Ideal for bypassing Leslie amplifier for speaker control
- Useful for DIY projects, guitar control, clonewheel or other keyboards/organs
- Adds Memphis and Stop Modes to stock Leslie speakers controlled via ¼" jack
- Speed controlled by half-moon switch or footswitch via ¼" jack
- Requires optional Dual Motor Monitor (DMM) for amplifier speed control

### What's Included

- VMC – Vintage Motor Controller (Plastic enclosure with mounting ears)
- CA724-RED – 110 VAC 18AWG NEMA 1-15P to C7 1M power cord (Red heat shrink)
- KT137 – Accessory bag with:
  - (2) 10-24 machine bolts, black stainless
  - (4) 3/4" wood screws, black stainless
  - (4) 3/16" flat washers, black stainless
  - (4) 4" plastic mini cable ties, nylon

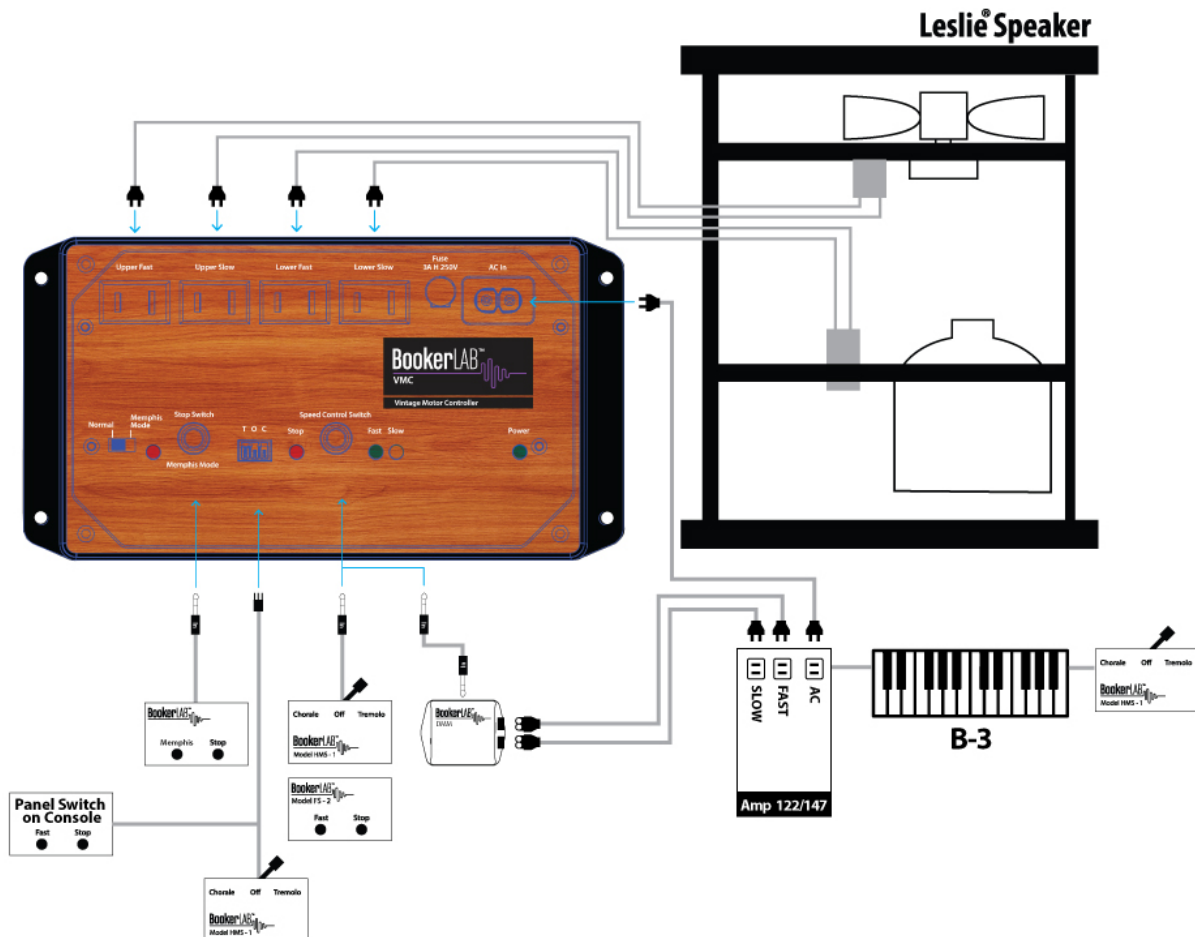
## VMC Configuration Options

The following diagram illustrates the configuration capabilities available with the VMC.

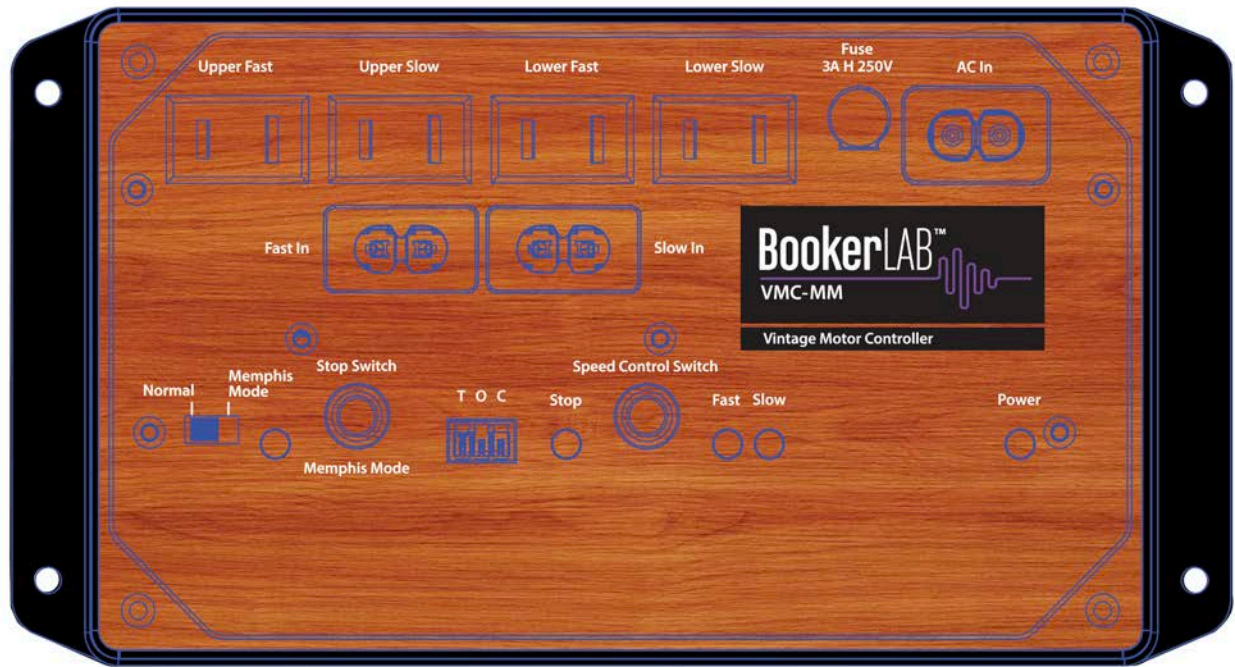
Speed can be controlled by an existing Hammond console mounted switch. Speed changes are echoed through the amplifier to the VMC via the optional, external Dual Motor Monitor (DMM) accessory, plugged into the **Speed Control Switch** ¼" jack, which in turn controls the Leslie motors.

Alternatively, a half-moon switch or footswitch can be plugged into the **Speed Control Switch** ¼" jack, instead of the DMM box, to control the speed.

The addition of Stop and Memphis provided by the VMC can be controlled by a footswitch plugged into the **Stop Switch / Memphis Mode** ¼" jack. A half-moon switch or custom panel-mounted toggle switch can be hardwired using the 3-pin removable terminal block.



## VMC-MM – Vintage Motor Controller + Motor Monitors



### VMC-MM Features

- Ideal for Leslie speaker speed controls via stock amplifier
- Adds Memphis and Stop Modes to stock Leslie speakers
- Also allows speed control by half-moon switch or footswitch via ¼" jack
- Memphis and Stop Modes controlled by 2-position footswitch via ¼" jack
- Integrates Dual Motor Monitor (DMM) for stock amplifier speed control

### What's Included

- VMC-MM – Vintage Motor Controller (Plastic enclosure with mounting ears)
- CA724-BRN – 110 VAC 18AWG NEMA 1-15P to C7 1M power cord (Brown heat shrink)
- CA724-RED – 110 VAC 18AWG NEMA 1-15P to C7 1M power cord (Red heat shrink)
- CA724-WHT – 110 VAC 18AWG NEMA 1-15P to C7 1M power cord (White heat shrink)
- KT137 – Accessory bag with:
  - (2) 10-24 machine bolts, black stainless
  - (4) 3/4" wood screws, black stainless
  - (4) 3/16" flat washers, black stainless
  - (4) 4" plastic mini cable ties, nylon

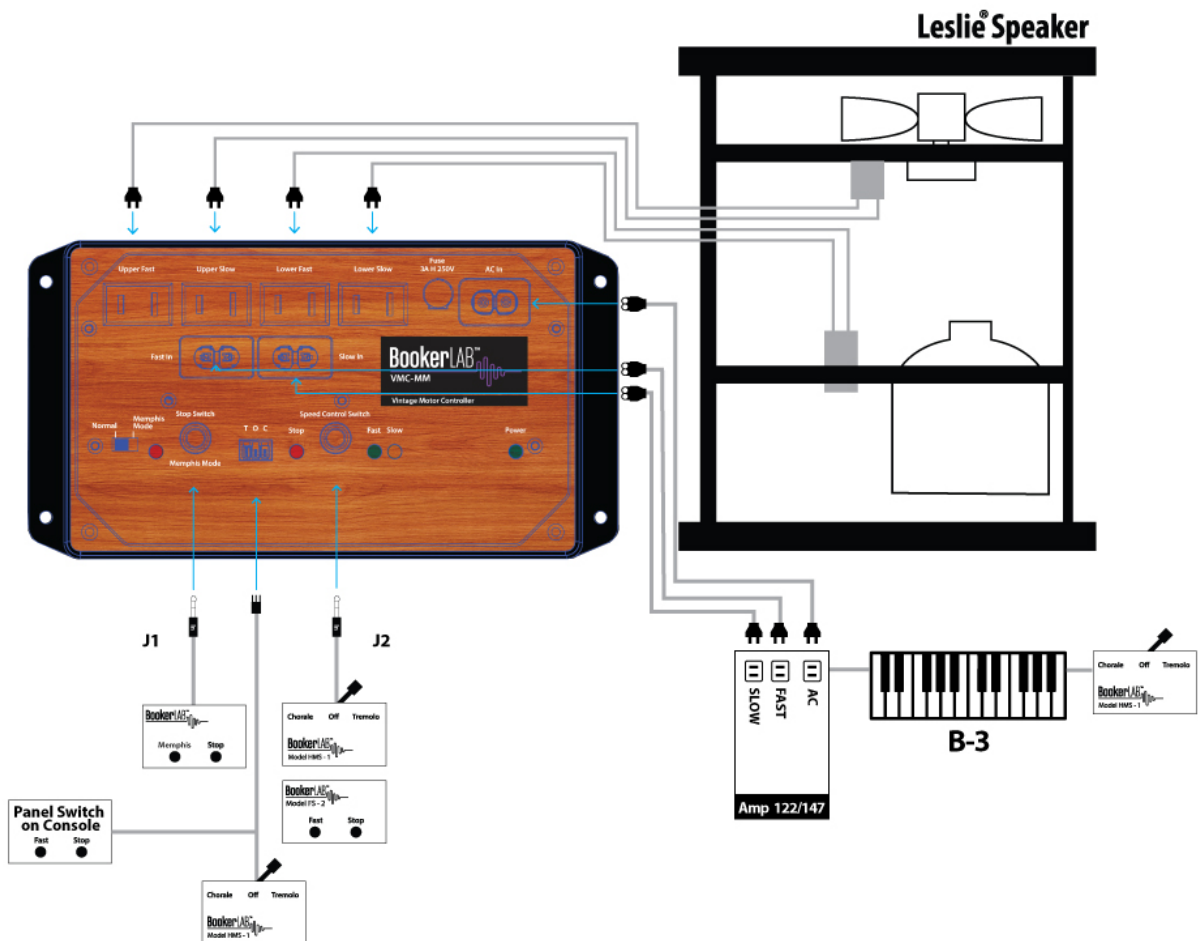
## VMC-MM Configuration Options

The following diagram illustrates the configuration capabilities available with the VMC-MM.

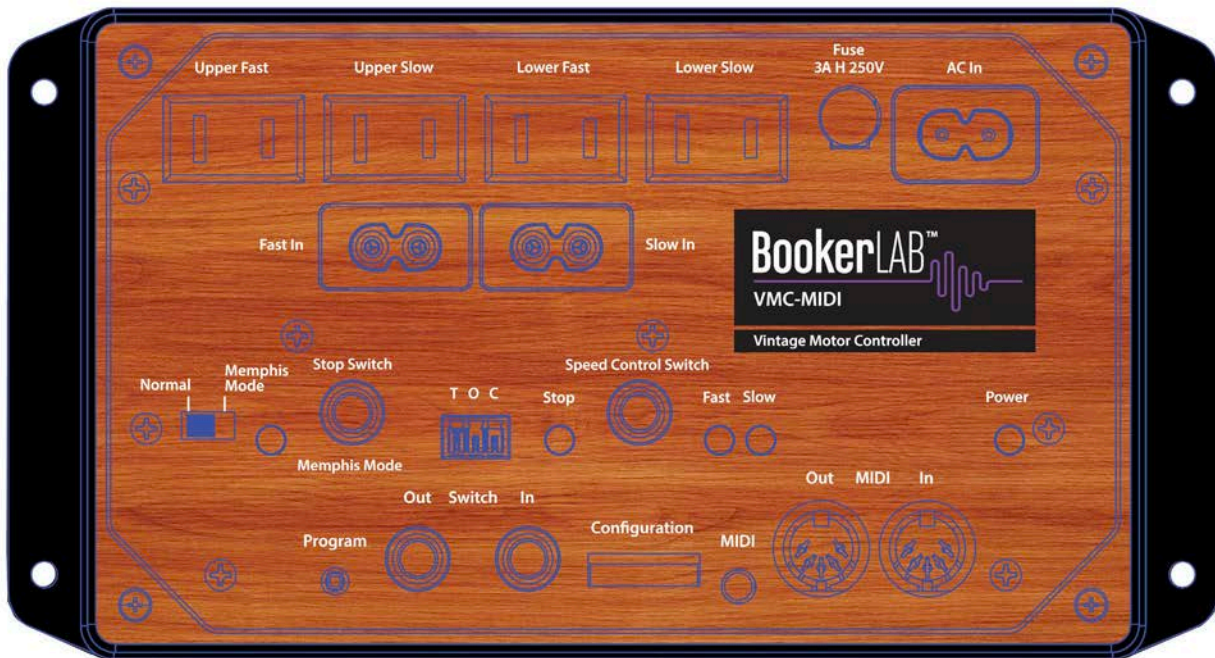
Speed is controlled by an existing Hammond console mounted switch. Speed changes are echoed through the amplifier to the VMC via the integrated motor monitors, which in turn controls the Leslie motors.

Alternatively, speed can be controlled by a half-moon switch or footswitch plugged into the **Speed Control Switch** ¼" jack. This jack will override speed changes from the Leslie amplifier.

The addition of Stop and Memphis provided by the VMC can be controlled by a footswitch plugged into the **Stop Switch / Memphis Mode** ¼" jack. A half-moon switch or custom panel-mounted toggle switch can be hardwired using the 3-pin removable terminal block.



## VMC-MIDI – Vintage Motor Controller + Motor Monitors + MIDI



### VMC-MIDI Features

- Ideal for Leslie speaker speed control via stock amplifier, external switch or MIDI
- Adds Memphis and Stop Modes to stock Leslie speakers
- Adds MIDI (Speed, Memphis & Stop) control of Leslie speaker
- Speed also controlled by half-moon switch or sustain pedal via ¼" jack
- Memphis and Stop Modes also controlled by 2-position footswitch via ¼" jack
- Integrates Dual Motor Monitor (DMM) for amplifier speed control

### What's Included

- VMC-MIDI – Vintage Motor Controller (Plastic enclosure with mounting ears)
- CA724-BRN – 110 VAC 18AWG NEMA 1-15P to C7 1M power cord (Brown heat shrink)
- CA724-RED – 110 VAC 18AWG NEMA 1-15P to C7 1M power cord (Red heat shrink)
- CA724-WHT – 110 VAC 18AWG NEMA 1-15P to C7 1M power cord (White heat shrink)
- KT137 – Accessory bag with:
  - (2) 10-24 machine bolts, black stainless
  - (4) 3/4" wood screws, black stainless
  - (4) 3/16" flat washers, black stainless
  - (4) 4" plastic mini cable ties, nylon

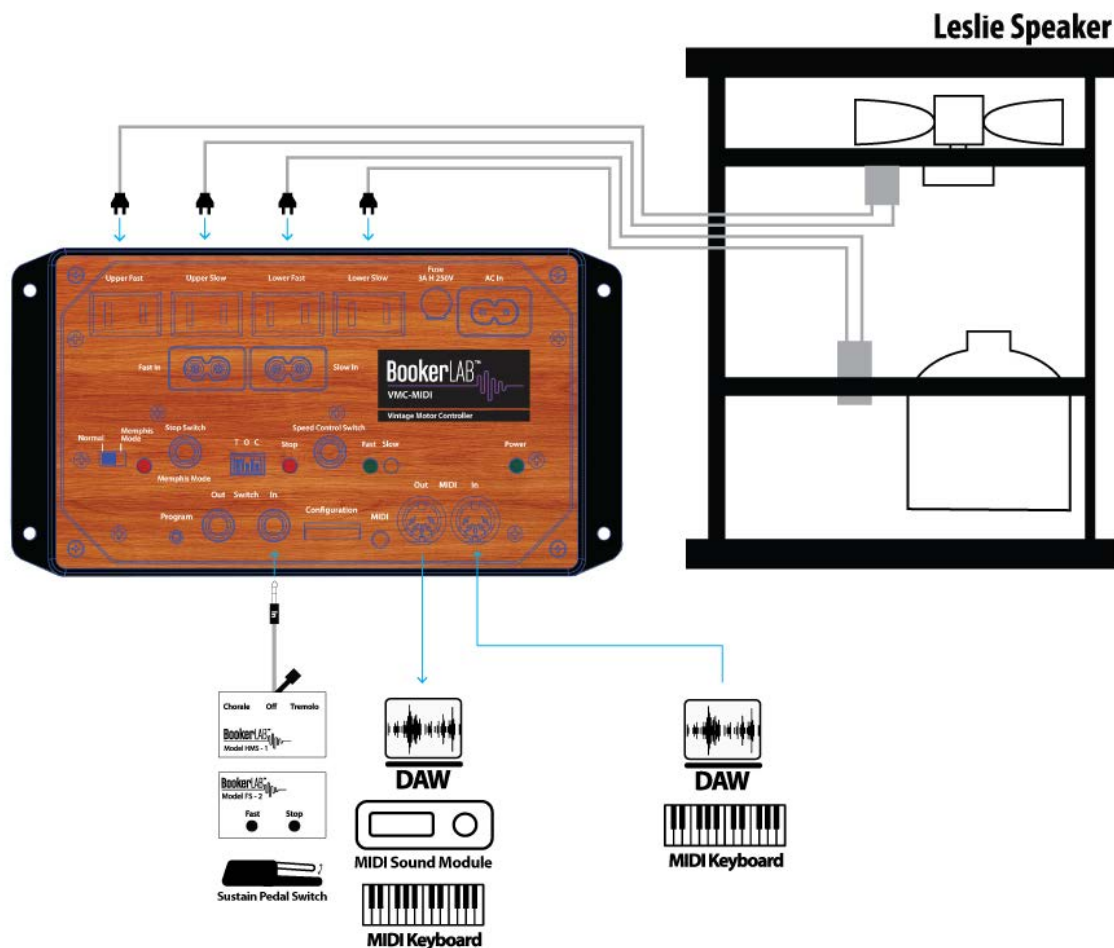
## VMC-MIDI Configuration Options

The following diagram illustrates the configuration capabilities available with the VMC-MIDI.

Speed is controlled by a MIDI-enabled keyboard, with a console mounted switch, wired to the **MIDI IN** 5-pin DIN connector on the VMC. Speed changes are sent over MIDI to the VMC, which in turn controls the Leslie motors. The MIDI LED on the VMC will pulse to confirm communication activity. Alternatively, speed can be controlled by a half-moon switch, footswitch, or piano sustain pedal plugged into the **Switch In** ¼" jack. This jack will override speed changes from your MIDI keyboard.

The **MIDI OUT** on the VMC is a soft-thru connection. You can connect other equipment to be controlled by your organ/keyboard, or it can be connected to a DAW for recording Leslie speed changes that originated via MIDI, half-moon, footswitch, or sustain pedal.

**Note:** The **Speed Control Switch** ¼" jack is plugged to prevent accidental use. If this plug is removed, anything plugged in to the **Speed Control Switch** will override MIDI controls.



## Connector Descriptions

### VMC Connectors

- **AC In** – (1) AC power input with filter and inline fuse (3A H 250V) to power VMC unit
- **Power LED** – Blue LED confirms VMC is powered
- **Upper Fast & Upper Slow** – (2) AC upper Leslie motor control outlets
- **Lower Fast & Lower Slow** – (2) AC lower Leslie motor control outlets
- **Speed Control Switch** – (1) TRS 1/4" input jack for connecting an external speed switch, a Hammond Suzuki CU-1 half-moon switch, or compatible switch.  
***Note:** This jack is plugged on the VMC-MIDI version. Removing this plug and connecting an external switch will override **all** MIDI functions.*
- **Fast/Stop/Slow LEDs** – Status LEDs will illuminate to confirm Stop (red), Fast (green), or Slow (yellow) speed modes
- **Stop Switch / Memphis Mode** – (1) TRS 1/4" input jack for connecting an external switch for selecting Stop Mode and Memphis Mode. Can be connected to a half-moon or custom switch. A red status LED will confirm Memphis Mode.  
MS/Norm/TS labeled for: Memphis Stop, Normal or Total Stop
- **Normal / Memphis Mode** – Switch to control Memphis Mode at the VMC when external switch is unavailable
- **T O C** – T-Tremolo; O-Off (Common/Ground); and C-Chorale  
Terminal Block Input: Removable 3-pin terminal block allows an external switch to be hard-wired to the VMC

### VMC-MM Connectors

Same connectors as VMC (above), plus:

- **Fast In / Slow In** – (2) AC Dual Motor Monitor (DMM) inputs detect speed changes from the Leslie amplifier

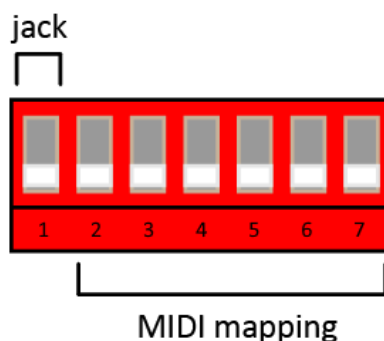
### VMC-MIDI Connectors

Same connectors as VMC and VMC-MM (above), plus:

- **Program** button – Allows updating VMC firmware via MIDI. Instructions will be included with firmware update utility.
- **Switch In / Out** – (1) TRS 1/4" **In** jack for connecting an external speed switch, Hammond Suzuki CU-1 half-moon switch, or compatible switch. A standard sustain pedal can also be used to toggle between chorale and tremolo.  
***Note:** The 1/4" **Out** jack is non-functional and is plugged to prevent accidental use.*
- **Configuration** – 7-position DIP switch for configuring the **Switch In** 1/4" jack and MIDI mapping to support various keyboards (instructions on following page)
- **MIDI** status – Green LED that pulses to indicate MIDI command communication
- **MIDI In / Out** – Standard MIDI 5-pin DIN connectors

## MIDI Configuration

### Speed Control Input Jack & MIDI Mapping DIP Switch



#### Switch In – Configuration

The left (1) DIP switch position controls how the **Switch In** 1/4" jack is interpreted. When in TRS mode, the 1/4" jack conforms to the Tremolo-Off-Chorale (TOC) switch convention. When in TS mode, pushing and releasing a sustain pedal will toggle between Chorale and Tremolo.

Input Configuration	Position
<b>Switch #</b>	<b>1</b>
TS: 1/4" input jack is configured for standard piano sustain pedal with TS plug	up
TRS: 1/4" input jack is configured for Hammond-Suzuki CU-1 halfmoon switch, or compatible (Default)	down

#### Keyboard MIDI Mapping

The next six (2-7) DIP switches allow you to select the MIDI mapping used for a specific keyboard model. For MIDI to correctly control your motor speed, these switches must be set to match the keyboard connected to your VMC. The currently supported keyboards are:

Keyboard Model	DIP Switch Position					
	2	3	4	5	6	7
Viscount Legend / Legend Live (Default)	down	down	down	down	down	down
Crumar Mojo	down	down	down	down	down	up
Nord C1	down	down	down	down	up	down
Nord C2	down	down	down	down	up	up
Nord Electro / Electro 2	down	down	down	up	down	down
Nord Electro 3 / 4 / 5	down	down	down	up	down	up
Nord Electro 6	down	down	down	up	up	down
Nord Stage / EX	down	down	down	up	up	up
Nord Stage 2 / EX	down	down	up	down	down	down
Nord Stage 3	down	down	up	down	down	up
Hammond-Suzuki Sk1	down	down	up	down	up	down

**Note:** Support for additional keyboards will be added with future MIDI mappings.

## Available Accessories

- CA724-BRN – 110 VAC 18AWG NEMA 1-15P to C7 1M power cord (Brown heat shrink)
- CA724-RED – 110 VAC 18AWG NEMA 1-15P to C7 1M power cord (Red heat shrink)
- CA724-WHT – 110 VAC 18AWG NEMA 1-15P to C7 1M power cord (White heat shrink)
- KT137 – Replacement accessory bag with:
  - o (2) 10-24 machine bolts, black stainless
  - o (4) 3/4" wood screws, black stainless
  - o (4) 3/16" flat washers, black stainless
  - o (4) 4" plastic mini cable ties, nylon
- BL-DMM – External Dual Motor Monitor (DMM) accessory for VMC
- BL-HMS1 – BookerLAB Half-Moon Switch – Supports Chorale/Off/Tremolo switching. Includes a 15' cable with ¼" TRS male phono plugs at each end
- BL-FS2 – Dual-Button Footswitch with single ¼" socket
  - o When connected to **Speed Control Switch**, the left button controls speed (Fast/Slow), right button controls Stop
  - o When connected to **Stop Switch / Memphis Mode**, left button toggles Memphis/Normal modes, right button controls Stop
- BL-FS1 – Single-Button Footswitch
  - o When connected to **Speed Control Switch**, the button controls speed (Fast/Slow)
  - o When connected to **Stop Switch / Memphis Mode**, the button toggles Memphis/Normal modes
- CA720 – 15' Hosa TRS cable with ¼" male phono plugs
- CA719 – 5' Standard MIDI cable with 5-pin DIN connectors
- CA718 – 10' Standard MIDI cable with 5-pin DIN connectors

# Installation

## Before You Get Started

- Installing the VMC will take approximately 15 minutes.
- No permanent changes are required to your Leslie cabinet, unless you wish to permanently mount the VMC inside or onto the back of the Leslie. We supply machine bolts and wood screws for a variety of mounting options.
- The recommended mounting location is on the upper left corner of the middle panel on the Leslie cabinet and the instructions on the following pages assume this location. The mounting holes on the VMC align perfectly with the stock mounting holes on the cabinet. You will use the included 10-24 machine bolts to secure the VMC enclosure to the back of the Leslie cabinet (the washers on the stock bolts won't work with VMC).
- The following instructions assume you are facing the rear of the Leslie cabinet.



## Installing the VMC

- Make sure you can comfortably access the rear of the Leslie speaker cabinet.

**IMPORTANT!** Disable power to the Leslie cabinet by disconnecting the large 6-pin cable connected to the amplifier (lower left) by pulling it straight out.

- Remove the middle and lower panels from the back of the Leslie cabinet. The original machine screws on most cabinets are slotted.
- Locate the Leslie power amp in the bottom left side of the cabinet. The vintage motors use standard 2-prong household AC plugs. A single-speed Leslie has one plug per motor; a dual-speed Leslie has two plugs per motor.
- The upper motors plug into the top of the amplifier and are typically marked Fast and Slow (with the colors in parenthesis). Disconnect the cables from the amp. To keep track of upper from lower, you can wrap a rubber band, twist-tie, or string around the plugs.
- The lower motors plug into the front of the amplifier and are typically unmarked.
- Move the plugs up into the middle section of the cabinet and pass them through the rectangular port on the middle panel.
- Pass the red VMC power cord through the same port and route the plug down through the slot on the left side the amplifier.
- You should end up with 2-4 motor plugs and the red AC cord, figure-eight end, hanging out of the middle panel. Secure the panel to the cabinet temporarily with one of the stock mounting screws (upper right screw location is ideal).
- Locate the VMC on the upper left side of the middle panel. The holes will align with the stock mounting holes in the cabinet. Use the supplied 10-24 mounting bolts to secure the VMC to the cabinet. Add the remaining stock mounting screws.
- Connect the motor plugs to the outlets on the VMC. Upper motors on the left, lower motors on the right. Connect the brown plugs to fast and white plugs to slow.
- Connect the AC power cord (red heat-shrink) to the VMC outlet marked AC In. Connect the other end to the Leslie amp outlet marked Reverb Amp Only (or another suitable outlet if your amp doesn't have a Reverb outlet).
- Connect the appropriate half-moon switch and/or footswitch to the **Speed Control Switch** and **Stop Switch / Memphis Mode** ¼" jacks.
- Your Leslie speaker can now be controlled by external half-moon switches or footswitches.

## Installing the VMC-MM

- Follow the instructions for installing the VMC as above. Additionally, you will need to connect the speed control power cords on the Leslie amplifier to the VMC.
- Connect the power cords (brown and white heat-shrink) included with VMC-MM to the **Fast In** and **Slow In** AC inputs on the VMC. Connect the brown cord to Fast In and white cord to Slow In.
- Plug the other end of the AC cords to the amplifier, either top or front. Connect the brown cord to Fast and white cord to Slow.
- Your Leslie can now be controlled by either the stock amplifier or external half-moon switches or footswitches.

***Note:** Plugging anything into the **Speed Control Switch** ¼" jack will override the stock amplifier control. To resume amplifier speed control, unplug anything connected to this ¼" jack.*

## Installing the VMC-MIDI

- Follow the instructions for installing the VMC and VMC-MM as above. Additionally, you will need to connect your MIDI source to the VMC.
- MIDI OUT from your keyboard connects to the MIDI IN on the VMC. The MIDI OUT on the VMC is a soft-thru connection. This can be connected to other equipment to be controlled by your organ/keyboard, or it can be connected to a DAW for recording Leslie speed changes that originated via MIDI, half-moon, or footswitch.
- The DIP switches are used to configure the VMC-MIDI to listen for specific keyboard manufacturer MIDI messages (see DIP switch chart in MIDI Configuration section).
- The LED will pulse to confirm MIDI communication activity.
- Your Leslie can now be controlled by MIDI, the stock Leslie amplifier or external half-moon switches or footswitches.

## Cleaning Up & Testing

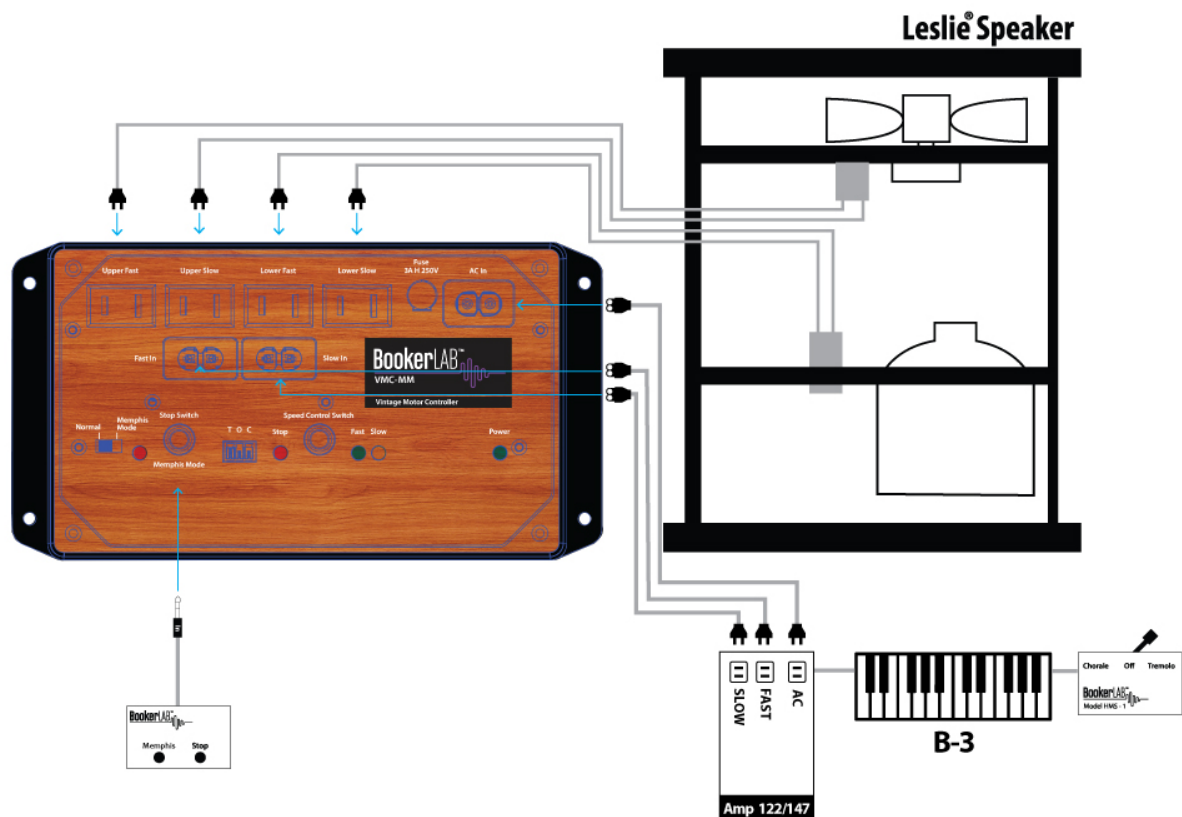
- Secure all wires with cable ties, making sure the power cables are routed away from the moving rotors, drive belts, and motor pulleys.
- Connect power to the Leslie speaker cabinet via the large 6-pin cable connector. Two of the pins are slightly larger and will be the top-most pins. The connector is keyed with the two larger pins on top – the connector pushes straight in.
- Power up the organ. Test the installation by playing the organ and selecting Fast and Slow modes on either the console mounted switch, half-moon switch or footswitch.
- Congratulations! Your Leslie speaker is now powered by the BookerLAB VMC Vintage Motor Controller.

## Example Operating Modes

### Plug'n'Play (VMC-MM)

Speed can be controlled by an existing Hammond Console mounted switch, and the player doesn't know anything has changed. Speed changes are echoed through the amplifier to the integrated Motor Monitors, thus controlling the Leslie motors.

The VMC adds Stop and Memphis Modes, which can be controlled by a footswitch, as shown below.



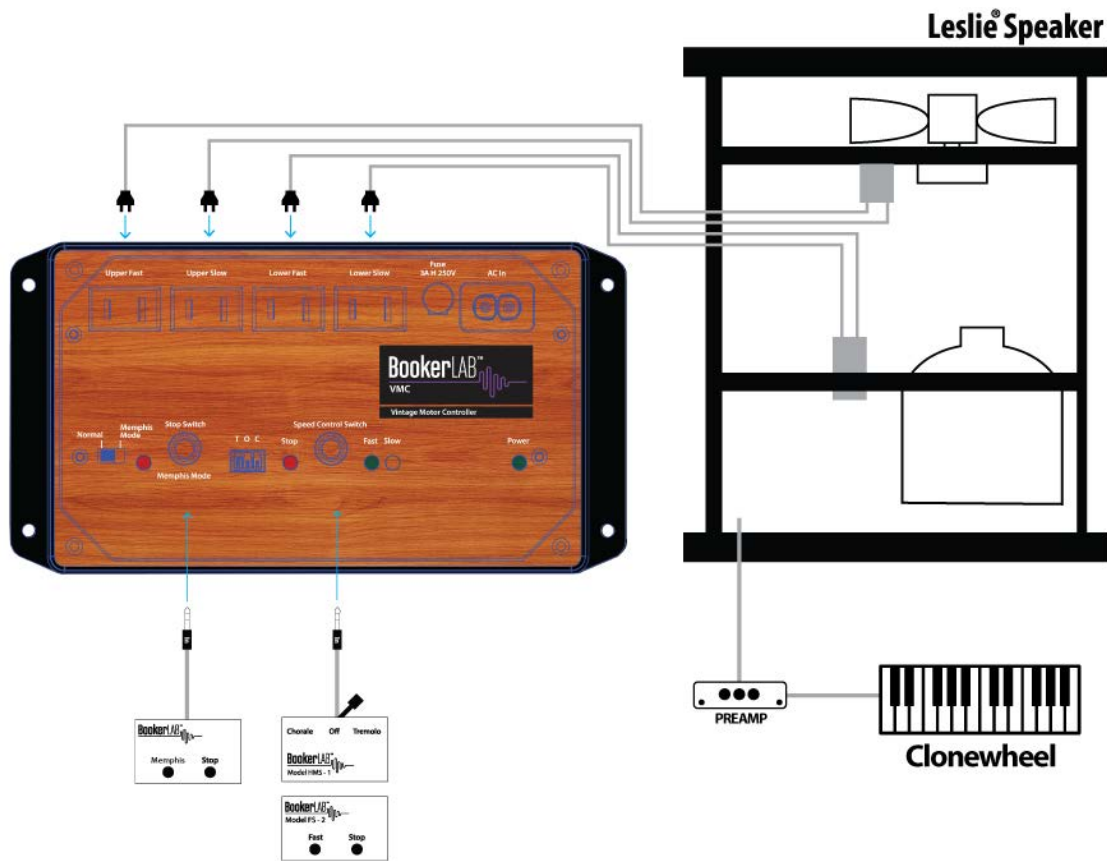
### Using External Speed Switches

The VMC-MM and -MIDI versions have the integrated Motor Monitors internally connected to the **Speed Control Switch** 1/4" jack (J2). If you wish to use an external method of speed selection, plugging a compatible switch in will override the Motor Monitors and amplifier speed control.

## Clonewheel or Non-Hammond Keyboards (VMC)

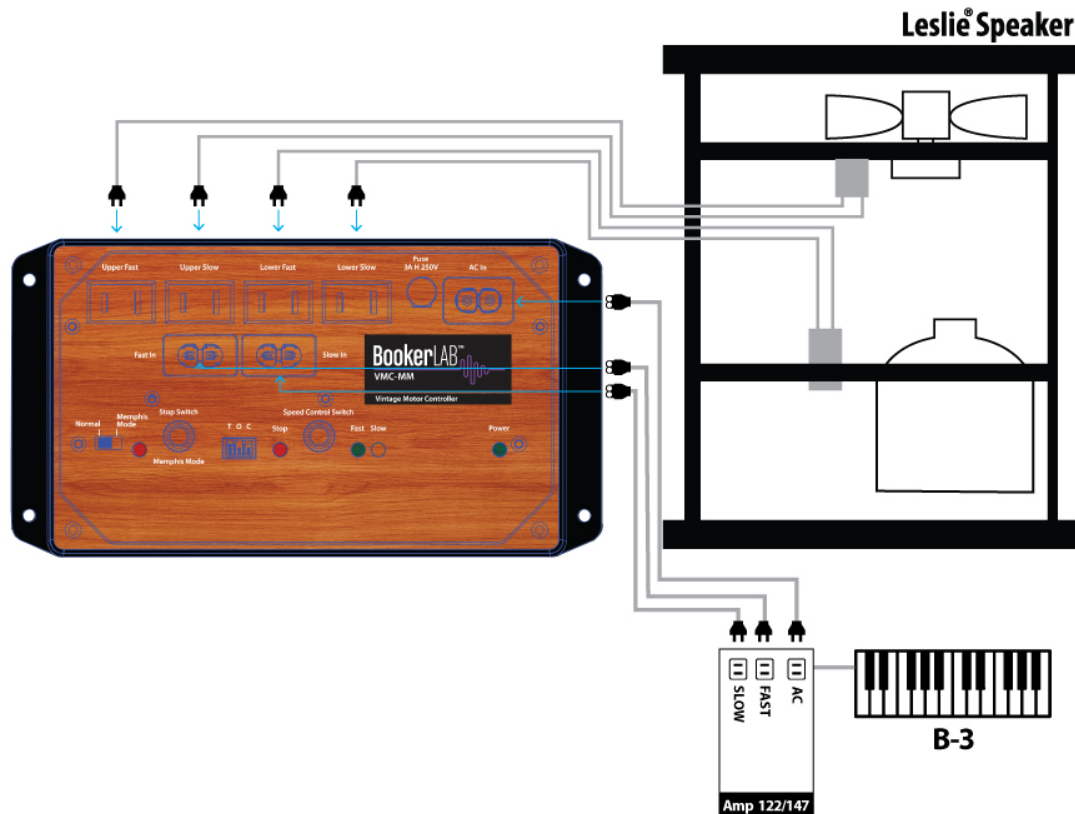
This control mode is for Nords, Viscounts, etc. that output audio on a ¼" TRS or XLR connector and don't generate speed signals. Here, speed is controlled by a half-moon switch, or footswitch, plugged into the **Speed Control Switch** ¼" jack on the VMC. The player can then select Fast, Slow or Stop.

The VMC adds Stop and Memphis Modes, which can be controlled by a footswitch connected to the **Stop Switch / Memphis Mode** ¼" jack, as shown below.



## Fast / Slow AC Inputs

The VMC supports Fast/Slow, or only Fast In, where Stop isn't desired or enabled in the Leslie amplifier with an EIS/Trek II relay. Simply connect the appropriate speed control cable(s) to the amplifier. Connect the appropriate Leslie motor cable(s) to the AC speed control outlets on the VMC.



## Technical Notes

### Speed Control Switch

1 TRS ¼" jack (J2) input for the speed control switch, compatible with Hammond-Suzuki CU-1 half-moon switch, or equivalent.

**Note:** Any plug in this jack will override the amplifier speed control.

Speed In – Connector Pin Out	
Tip = Chorale	
Ring = Tremolo	
Sleeve (Shield) On = Connect Tip or Ring to Sleeve	

### Stop Switch / Memphis Mode

1 TRS ¼" jack (J1) input for selecting Memphis and Stop Modes. Compatible with footswitch, half-moon custom switch, panel-mounted toggle switch, or equivalent.

Stop / Memphis – Connector Pin Out	
Tip = Memphis Mode (Stop lower motors)	
Ring = Total Stop (All motors)	
Sleeve (Shield) On = Connect Tip or Ring to Sleeve	

## Memphis Mode Override

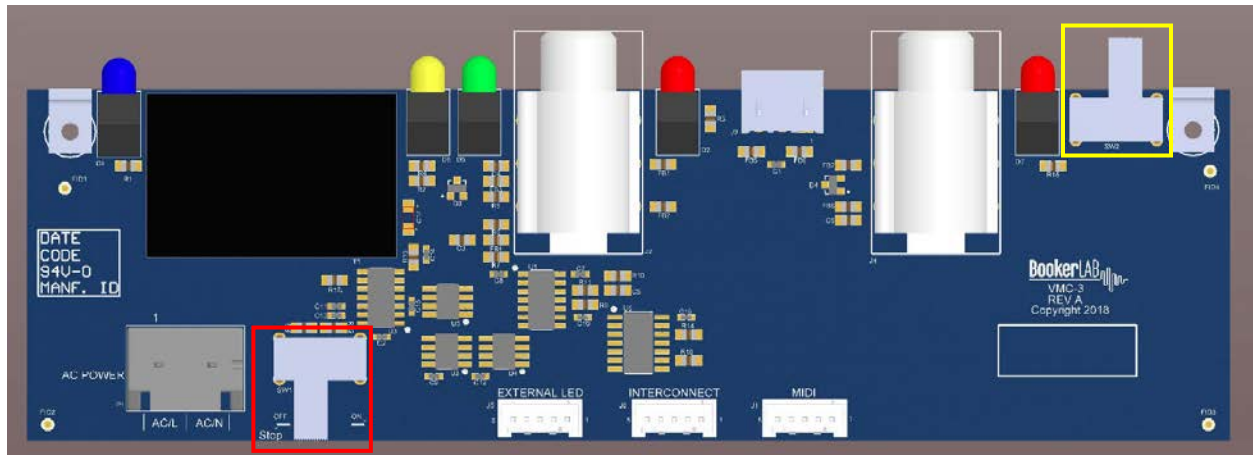
There are two switches on the VMC printed circuit board (PCB) that control Memphis Mode. An internal switch allows you to override Memphis Mode, regardless of the external switch setting.

### SW1: ON (Allow Memphis Mode)

Board switch SW1 labeled “**Stop**” (red outline on graphic) is located on the PCB inside the VMC enclosure. SW1 **ON** (default configuration) allows the external switch and ¼” jack to operate Memphis Mode. However, if you want to completely disable Memphis Mode, set SW1 **OFF**. This will override Memphis Mode and the **Normal / Memphis** external switch will only operate in Normal mode, regardless of switch position. Any switch connected to the **Stop Switch / Memphis Mode** ¼” jack will only operate full Stop.

### SW2: OFF (Memphis Mode – User Selectable)

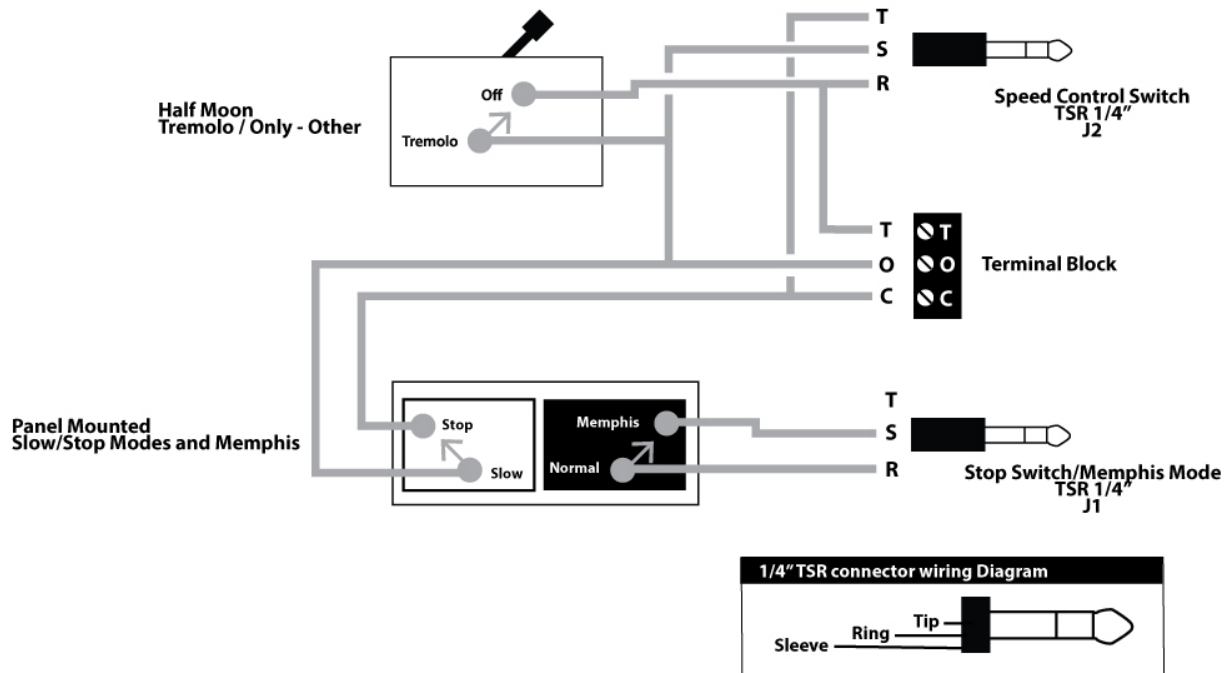
Board switch SW2 (yellow outline on graphic), externally labeled as **Normal / Memphis**, selects whether Memphis Mode is enabled or disabled. SW2 **OFF (Normal)** allows the Leslie to operate normally with both upper (horn) and lower (bass) rotors spinning. SW2 **ON (Memphis Mode)** disables the bass rotor and only allows the horn rotor to spin. Fast, Slow and Stop are fully supported on the horn rotor in Memphis mode.



## Console-Mounted Slow/Stop Speed Control Wiring Diagram

The following graphic shows how it is possible to wire a console-mounted speed control switch with panel-mounted Stop and Memphis Mode toggle switches on the VMC and VMC-MM.

**Note:** On VMC-MIDI, anything plugged into the **Speed Control Switch** or **Stop Switch / Memphis Mode** ¼" jacks, or **T O C** terminal block will override MIDI controls.



## Warranty & Support

### Warranty Period

BookerLAB ("BookerLAB") is committed to providing the most reliable products for musicians and the music industry by offering a five-year (5) warranty on the Vintage Motor Controller (VMC) and included accessories, from the date of original purchase. We are able to offer this generous warranty due to our partnership with Sealevel Systems, Inc. Sealevel maintains tight manufacturing quality control and has a history of providing highly-reliable products to the most demanding customer applications, since 1986. BookerLAB products are designed and manufactured by Sealevel, allowing direct control over product development, production, burn-in and testing. Sealevel has maintained ISO-9001:2015 certification since 2002.

### Warranty Policy

BookerLAB warrants that the Vintage Motor Controller ("VMC") shall conform to and perform in accordance with the published specifications and shall be free of defects in materials and workmanship for the full warranty period. In the event of failure, BookerLAB will repair or replace the VMC or included accessories, at their sole discretion. Failures resulting from misuse, product modifications, failure to adhere to product specifications or instructions, or failure resulting from neglect, abuse, accidents, or acts of nature are not covered under this warranty.

Warranty service may be obtained by contacting BookerLAB and providing proof of purchase. The Customer agrees to insure the Product or assume the risk of loss or damage in transit, to prepay shipping charges to BookerLAB, and to use the original shipping materials or equivalent. The warranty is valid only for original purchaser and is not transferable.

This warranty applies to BookerLAB manufactured products and accessories. Any third-party products purchased through BookerLAB will be supported by the original manufacturer and retain the original manufacturer's warranty.

### Return Merchandise Authorization (RMA)

If you need to return a product for warranty or non-warranty repair or service, you must first obtain an RMA number before any return merchandise can be accepted. To obtain an RMA number, please contact BookerLAB by phone or email, during normal business hours. Returns for refund/credit beyond 30 days from original purchase may be charged a restocking fee.

### BookerLAB Support

Availability	Monday – Friday, 8:00AM to 5:00PM EST
Phone	+1 (864) 843-4459
Email	<a href="mailto:support@bookerlab.com">support@bookerlab.com</a>