

# M5 Stompbox Modeler

# Pilot's Handbook

Manuel de pilotage Pilotenhandbuch Pilotenhandboek Manual del Piloto 取扱説明書

# Important Safety Instructions



# CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN



**WARNING**: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THE APPLIANCE TO RAIN OR MOISTURE.

**CAUTION:** This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



The lightning symbol within a triangle means "electrical caution!" It indicates the presence of information about operating voltage and potential risks of electrical shock.



The exclamation point within a triangle means "caution!" Please read the information next to all caution signs.

#### Please Note:

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Line 6, Inc

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26580 Agoura Road, Calabasas. CA 91302-1921 USA

| SERIAL NO: |  |
|------------|--|
|            |  |



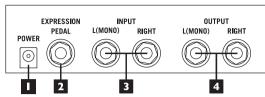
## You should read the selm portant Safety Instructions. Keep these instructions in a safe place and the self of th



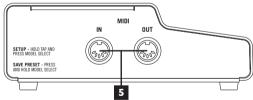
- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- This apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- WARNING: To reduce the risk of fire or electric shock do not expose this apparatus to rain or moisture.
- The appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
- Connect only to AC power outlets rated: 100/120V 220/240V 50/60Hz (depending on the voltage range of the included power supply).
- Prolonged listening at high volume levels may cause irreparable hearing loss and/or damage. Always be sure to practice "safe listening."
- Service is required when the apparatus has been damaged in any way, such as:
  - power-supply cord or plug is damaged.
  - liquid has been spilled or objects have fallen into the apparatus.
  - the unit has been exposed to rain or moisture.
  - the unit is dropped or the enclosure is damaged.
  - the unit does not operate normally or changes in performance in a significant way.



#### REAR CONNECTIONS

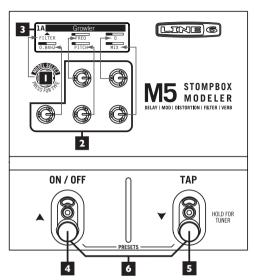


- Power Connect the included 9VDC 500mA Power Supply here to power the unit.
- **2. Expression Pedal -** Compatible with standard expression pedals, including the Line 6 EX-1. Control effects parameters in real time by assigning them to this expression pedal input. The Line 6 expression pedal is a passive 10K ohm mono linear taper pot, using a standard 1/4 inch mono instrument cable.
- Stereo Input When connecting your guitar or other mono source use the L(MONO) input.
- 4. Stereo Output For mono output, use the L(MONO) output.



**5. MIDI In/Out -** Allows you to remote control preset changes, expression pedals, and tap tempo plus dump and receive preset data via MIDI System Exclusive messages.

#### **BASIC OPERATION**



- I. Model Select Press in the knob to select an effect type (Delay, Modulation, Distortion, Filter or Reverb) you want. Then turn the knob to scroll through available effect models.
- 2. Parameter Knobs Use these knobs to edit current effect settings shown in your display. These knobs control the setting locations as shown in the diagram above. NOTE: For fine control of an edit parameter, press and hold TAP while turning the PARAMETER KNOB.
- **3. Display -** Your display will show all the settings for the selected effect. The display illuminates the color of current effect type (Distortion–yellow, Delay–green, Modulation–blue, Filter–purple & Reverb–orange).

**4. TAP -** Tap tempo is available for all Delay effects, most Modulation effects, and some Filter effects. For Delay and Modulation effects turn the middle top row **PARAMETER KNOB** or for Filters turn the left bottom row **PARAMETER KNOB** all the way to max, and you'll switch between tap tempo and regular control modes. Once you're in tap tempo control mode, turn the knob to select one of the available note values. Tap two or more times on the **TAP** switch, and all the effects set to tap tempo control will change their time/speed/tempo to match the tempo you tapped. To end tap tempo operation for an effect, turn the knob to max again. **NOTE**: Parameters set to tap tempo control are not affected by expression pedal operation.

**TUNING -** Press and hold **TAP** to enter Tuner Mode. All effects processing will be bypassed. Use your lower left parameter knob to set your reference frequency. Use the lower right parameter knob to select either "BYPASS AUDIO" or "MUTE AUDIO" for silent operation. Press **ON/OFF** or **TAP** to exit the tuner.



- **5. ON / OFF -** Turns your effect on or off. When enabled the footswitch will be brightly lit.
- **6. Presets -** Press both **ON/OFF** and **TAP** simultaneously to enter Preset Mode. M5 comes preloaded from the factory with 24 presets. The DISPLAY will show three presets at a time with the currently selected preset always in the middle.

O1 Slap Back Delay
O2 Analog Chorus
O3 Particle Verb

Press **TAP** "V" to advance down to the next preset or press **ON/OFF** "A" to advance up to the previous preset. Press both **ON/OFF** and **TAP** to load the selected preset and return to "Performance Mode". When in Presets Mode you can also turn the **MODEL SELECT** knob to scroll through presets - press down on the **MODEL SELECT** knob to commit

the highlighted preset and return to Performance Mode.

### SAVING, NAMING & ARRANGING PRESETS

You can customize and save your own presets or easily rename any of the factory presets. To initiate the save procedure, press and hold the **MODEL SELECT** knob for approximately 2 seconds. Your display should now look similar to this:



Turn the top right **PARAMETER KNOB** to select the preset location (01-24) to save your new preset. If you would like to rename your preset, use the top center **PARAMETER KNOB** to move the cursor to the character segment you would like to change. Press MODEL SELECT to choose through four character sets (all caps, lower-case, numerical, and symbols), then turn the **MODEL SELECT** knob to scroll through the character set. Once you have renamed the preset, press and hold **MODEL SELECT** for approximately 2 seconds to save the preset and return to Performance Mode. You can abort a save by pressing the TAP footswitch. **Note:** The M5 allows two different modes for saving presets, which can be changed in the set-up pages (See "Manual/Auto Save (Presets) below). AUTOSAVE allows every adjustment you make in a given effect to be retained without going thru the above saving routine. Use this mode when you don't want to have to rename your preset every time you make a tweak. When PRESETS are set to MANUAL, your adjustments are not recalled unless you go through the save routine.

#### SETUP

To access the setup pages, press and hold the **TAP** footswitch then press the **MODEL SELECT** knob. The **DISPLAY** should look similar to this:

|   | Prefs       | Presets        | Display |
|---|-------------|----------------|---------|
| - | DSP BYP     | AUTOSAVE       | CONTRST |
|   | REL<br>POTS | LOAD<br>PRESET | V. 1.0  |

You can exit the setup pages at anytime by pressing the **TAP** button.

#### True Bypass / DSP Bypass

Choose True Bypass when you want to remove the M5 Stomp Modeler from your signal path when the FX Unit or Tuner is not in use. When choosing DSP Bypass you'll get the benefit of hearing delay and reverb trails smoothly decay when disengaging those effects.

#### Manual / Auto Save (Presets)

As you adjust an effect those adjustments are retained as you switch away to a different preset and back again—no save function is required. It's just as if you were adjusting different physical stompboxes, each of which would still have the last knob settings you made to it.

If you prefer that presets not remember new adjustments, use the top center **PARAMETER KNOB** to change the setting to "MANUAL". To save any new adjustments you will now need to follow the steps described in the [Save, Renaming & Arranging Presets] section of this manual.

#### **Contrast**

This sets the brightness of display.

#### **Relative / Absolute Pots**

In REL mode when you turn a knob the parameters will not jump to the position of the knob but change proportionally to the amount of your parameter knob movement up or down. When set to ABS it is not possible to make incremental edits of an effect parameter. The parameter value always adjusts from the current pot position.

#### **Load / Instant Preset**

Your M5 factory defaults this setting to "LOAD". When you enter Preset Mode a new preset selection will not initiate until you press both **ON/ OFF** and **TAP** or by pressing the **MODEL SELECT** knob.

You can set this to "INSTANT PRESET" by turning the bottom center **PARAMETER KNOB**. In this setting, once you enter Preset Mode, presets will load instantaneously as you use the footswitches or turn the **MODEL SELECT** knob.

#### **Firmware Version**

The bottom right corner of the Setup page 1 displays your current firmware version. You can use the free Line 6 Monkey software application available at www.line6.com to check for updates to your M5.

# ADDITIONAL SETUP (PAGE 2)

To access page 2 of the Setup screens press the **MODEL SELECT** knob once. The **DISPLAY** should now look similar to this:

| MIDI      | Tempo         | Gate   |
|-----------|---------------|--------|
| DUMP ALL? | 120.0BPM      | THRESH |
| CH1       | PRESET<br>TAP | DECAY  |

#### MIDI

With a MIDI interface and a sysex application, you can back up all your M5 presets to your computer. This makes it easy to build a custom preset library, or exchange presets with others. To backup your presets, or to dump the current preset, follow these steps:

- Turn bottom left **PARAMETER KNOB** to set your MIDI Channel (Ch. 1-16 or Omni the default is Ch. 1).
- Turn the Model Select knob to select "DUMP ALL?" (to back up all 24 presets) or "DUMP PRE?" (to back up your current preset).
- With your computer set up to record sysex, press and hold TAP while you press down on the MODEL SELECT knob.

The M5 will immediately transmit the sysex file to your computer, creating a backup of your presets that you can store and recall at any time.

To load presets back into your M5, simply transmit the sysex file from your computer into the M5 via MIDI. A single preset will be loaded into M5's current location.

**FACTORY RESET:** There may be times when you'd like to reset your M5 to its Factory settings. You may want to recall a particular Factory preset, for example, or just get back to square one.

To do a Factory Reset, first back up any presets you'd like to keep (as described above), then follow these steps.

- Turn the **MODEL SELECT** knob until "RST FACT?" is displayed.
- Press and hold ON/OFF while you press down on the MODEL SELECT knob - "Reset To Factory? Are You Sure" will be displayed.
- To initiate the Factory Reset, hold **ON/OFF** and press down on the **MODEL SELECT** knob again.

All Factory defaults will be reset, including presets and global settings.

**FIRMWARE UPDATE INSTRUCTIONS:** Here are some instructions on how to update your M5's Firmware using your computer. Visit www. Line6.com to keep up-to-date on the latest M5 news - that's the best place to get information about any new firmware update that may be released. You will need the following items:

- A MIDI interface that connects to your computer (most commonly via USB). Be sure and download the current Driver for it if you don't already have it installed.
- 2 MIDI cables (or a MIDI interface that comes with MIDI cables attached).
- The latest Line 6 Monkey application installed on your computer.

Now follow this procedure to update:

- Connect your M5 to your computer via your MIDI interface and MIDI cables.
- Make sure your MIDI interface Driver is installed and working.
- Launch the Line 6 Monkey application.
- You should see your M5 as a connected device.

- Select the Flash Memory line item.
- Click the blue button and follow the on-screen instructions.

Line 6 Monkey will install the latest firmware into your M5.

#### **Tempo**

Use TEMPO to manually adjust your **TAP** tempo from 30 to 240 BPM instead of using the **TAP** footswitch. You can assign **TAP**/BPM as a global or per preset setting by turning the bottom row center **PARAMETER KNOB**. **Note:** For fine control when adjusting BPM, continue holding the **TAP** footswitch after entering the setup pages. While **TAP** is pressed, BPM will now move in .1 increments as you turn the **PARAMETER KNOB**.

#### Gate

Think of the Gate as a special additional pedal that applies to each preset. There is no footswitch control for this effect so only use it when you always want the gate engaged. This is handy for taming some of the wilder distortion and fuzz effects or use it to eliminate the hum you get from a guitar equipped with single coils. Your top right **PARAMETER KNOB** sets the THRESHOLD and your bottom right **PARAMETER KNOB** sets the DECAY of this effect.

#### Using an Expression Pedal

You can adjust any or all of the effect parameters with real time control via an external expression pedal. Expression pedal parameter assignments are stored individually per preset.

Connect an expression pedal to your M5 Stompbox modeler. Start with the pedal in the toe position. Once you have your effect parameters settings as desired rock the expression pedal to its heel position. Now set your parameters to your desired settings. Now as you move your expression pedal from heel to toe you'll see all of the adjusted parameters move between these settings.



All parameters affected by an expression pedal will show a pixel notch at the top indicating a parameter's setting for the toe position of the pedal. You'll also see a notch at the bottom that indicates a parameter's setting with the expression pedal in the heel position. **NOTE:** In any case, the bar graph will automatically never display in the areas above the rightmost pixel or below the left-most pixel, since these are the extremes that the pedal's parameter control are set to go to. If no expression pedal heel and toe values are set for a particular parameter, there will be no pixel cutout in the graphic. **TIP:** If you want to "clear out" your expression pedal settings: Disconnect your expression pedal momentarily, tweak any parameters that you want to "clear" the expression pedal control of, and reconnect your pedal to start fresh with setting up your expression pedal control settings for those parameters.

#### MIDI CONTROL

The M5 will send and receive MIDI CC and Program Change messages on any MIDI Channel from 1 thru 16 or Omni, selectable from the MIDI screen in Setup mode. MIDI implementation includes MIDI CCs for FX Unit On and Bypass messages, Tap Tempo, Expression Pedal CCs and Program Change messages for presets. You can control the M5 from a MIDI controller or a computer sequencer.

The MIDI Reference Tables below represent the currently implemented MIDI spec.

| FUNCTION           | MESSAGE         | VALUE RANGE                            | NOTES   |
|--------------------|-----------------|--|---|
| Preset Change      | PC              | 0-23 (Corresponds to<br>Presets 01-24) |   |
| Тар Тетро          | CC#64           | 64-127                                 |   |
| FX on/off          | CC#II           | 0-63 (Bypass)<br>64-127 (On)           |   |
| Expression Pedal   | CC#01           | 0-127                                  |   |
| Tuner Mode on/off  | CC#69           | 0-63 (Exit)<br>64-127 (Enter)          |   |
| Sync to MIDI clock | MIDI Beat Clock |  | Tap Tempo - enabled FX automatically sync to incoming MIDI Beat Clock when it is received |

| BPM To Milliseconds Conversions |          |          |           |             |             |           |
|---------------------------------|----------|----------|-----------|-------------|-------------|-----------|
| ВРМ                             | I/4 Note | I/8 Note | I/I6 Note | I/4 Triplet | I/8 Triplet | I/32 Note |
| 80                              | 750      | 375      | 187.5     | 500         | 250         | 94        |
| 82                              | 732      | 366      | 183       | 488         | 244         | 91        |
| 84                              | 714      | 357      | 178       | 476         | 238         | 89        |
| 86                              | 698      | 348      | 174       | 465         | 233         | 87        |
| 88                              | 682      | 341      | 170       | 455         | 227         | 85        |
| 90                              | 667      | 333      | 167       | 444         | 222         | 83        |
| 92                              | 652      | 326      | 163       | 435         | 217         | 82        |
| 94                              | 638      | 319      | 159       | 426         | 213         | 80        |
| 96                              | 625      | 312      | 156       | 417         | 208         | 78        |
| 98                              | 612      | 306      | 153       | 408         | 204         | 77        |
| 100                             | 600      | 300      | 150       | 400         | 200         | 75        |
| 102                             | 588      | 294      | 147       | 392         | 196         | 74        |
| 104                             | 577      | 288      | 144       | 385         | 192         | 72        |
| 106                             | 566      | 283      | 142       | 377         | 189         | 71        |
| 108                             | 555      | 277      | 139       | 370         | 185         | 69        |
| 110                             | 545      | 272      | 136       | 364         | 182         | 68        |
| 112                             | 536      | 268      | 134       | 357         | 179         | 67        |
| 114                             | 526      | 263      | 132       | 351         | 175         | 66        |
| 116                             | 517      | 259      | 129       | 345         | 172         | 65        |
| 118                             | 508      | 254      | 127       | 339         | 169         | 64        |
| 120                             | 500      | 250      | 125       | 333         | 167         | 63        |
| 122                             | 492      | 246      | 123       | 328         | 164         | 61        |
| 124                             | 484      | 242      | 121       | 323         | 161         | 60        |
| 126                             | 476      | 238      | 119       | 317         | 159         | 60        |
| 128                             | 469      | 234      | 117       | 312         | 156         | 59        |
| 130                             | 462      | 231      | 115       | 308         | 154         | 58        |
| 132                             | 455      | 227      | 113       | 303         | 152         | 57        |