# FLINT

—— tremolo & reverb

USER MANUAL

USB
TRS MIDI
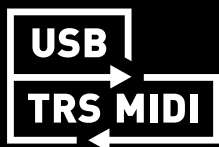
strymon®

# Contents

# Knobs and Switches

## Front Panel Controls - Tremolo

### TREMOLO

Switches between three tremolo modes.

**'61 harm:** harmonic band filtering that alternates low and high frequencies for a hypnotic effect

**'63 tube:** a smooth volume pulsing created by modulating the bias point of the output tubes

**'65 photo:** a sharper-edged volume effect achieved by using a photocell and light-dependent resistor

### INTENSITY

Controls the depth of the tremolo effect. This is accomplished by varying the amplitude of the LFO that controls the tremolo. At minimum position, the LFO is off and no tremolo effect is heard, but the signal still travels through the tremolo "circuit."

### SPEED

Varies the tremolo LFO frequency from slow to fast. The slow range is extended to give lower trem speeds than were generally available in the original, vintage offerings.

### TREMOLO ON

Engages and bypasses the tremolo effect. RED LED on indicates that the effect is engaged. Bypass mode is true bypass by default. See page 15 for details.
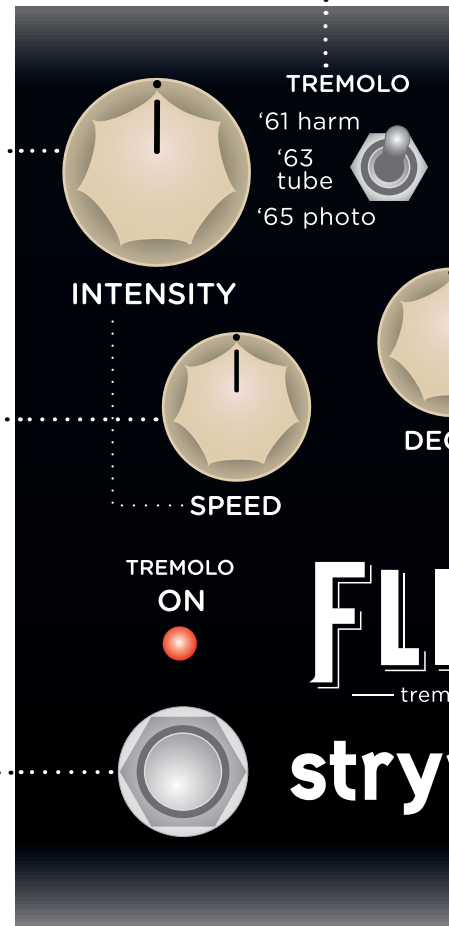
# Knobs and Switches

## Front Panel Controls - Reverb

### REVERB

Switches between three different reverb types.

**'60s:** full-size two-spring tank typical of those found on vintage guitar amps

**'70s:** electronic plate that uses multi-tap parallel delay lines with filtered feedback paths

**'80s:** studio digital microprocessor rack hall reverb with modulating delay lines

### MIX

Controls the reverb wet mix from full dry at minimum to full wet with no dry signal at maximum. 50/50 mix is at the 3 o'clock position.

### DECAY

Controls the duration of the reverberated signal's decay. The '70s and '80s verbs will approach "infinite" decay at maximum.

### COLOR

Varies the reverb tone from darker at low settings, to brighter at higher settings. This is critical for dialing in the sweet spot in front of a variety of amps.

### REVERB ON

Engages and bypasses the reverb effect. RED LED on indicates that the effect is engaged. Bypass mode is true bypass by default. See page 15 for details.

# Rear Panel I/O and Control

## AUDIO INPUT SELECTOR

**MONO:** Use with a mono input signal, such as a guitar. Output is stereo. Use **OUT L** for mono connection.

**STEREO:** Use with a stereo input signal. Output is stereo.

INPUT
MONO   STEREO     USB     9VDC
IN      OUT L      OUT R   EXP / MIDI
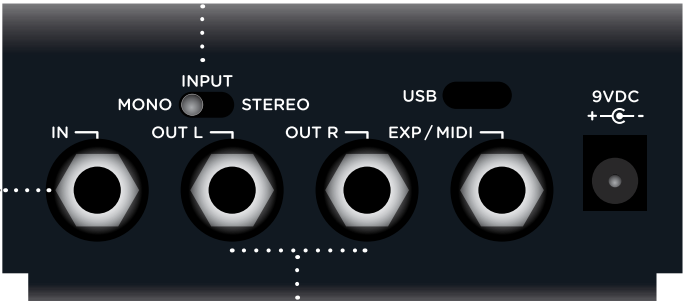
## IN

High impedance, ultra low-noise, discrete Class A JFET preamp input. Use a TRS stereo adapter/cable for stereo input.

## OUTPUTS

Low impedance stereo outputs. Use **OUT L** for mono output.

# Rear Panel I/O and Control (cont.)

### USB

Computer connection for MIDI control as well as for performing firmware updates.

### 9VDC

Use the included power supply or an adapter with the following rating:

- 9VDC, center negative
- 300mA minimum
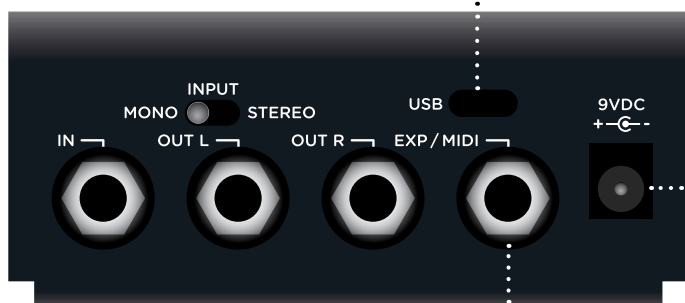


### EXP / MIDI

Multifunction communication jack for external control of Flint's features and functions. Can be set to operate in one of the following modes. (See "Configuring the EXP/MIDI Jack" on page 17 for details.)

**Expression Pedal mode** (see page 19).

**Favorite mode** (see page 20).

**Tap mode** (see page 22).

**MIDI mode** (see "Configuring MultiSwitch Plus" on page 23 or "Saving Presets in MIDI Mode" on page 30).

# Live Edit Functions

Use the following steps to enter Live Edit mode to access several knobs' secondary functions. Any of the following secondary functions can be edited while in Live Edit mode.

## Tremolo Boost/Cut

Allows you to adjust a +/- 3dB volume boost or cut when the Tremolo is On.

**1** Press and hold the **REVERB ON** footswitch to enter Live Edit mode. Once both LEDs flash, release the footswitch.



**2** Turn the **INTENSITY (**TREMOLO BOOST/CUT**)** knob to adjust the amount of volume boost or cut for the Tremolo. Both **ON** LEDs indicate your knob changes smoothly from -3dB cut (GREEN) at minimum to +3dB boost (AMBER) at maximum. Unity gain is at the 12 o'clock position (default).

**3** Press the **REVERB ON** footswitch to exit and store your Tremolo Boost/Cut setting.

**NOTE:** The Tremolo Boost/Cut setting is saved per Favorite setting or MIDI preset.

# Live Edit Functions

## Reverb Boost/Cut

Allows you to adjust a +/- 3dB volume boost or cut when the Reverb is On.

**1** Press and hold the **REVERB ON** footswitch to enter Live Edit mode. Once both LEDs flash, release the footswitch.



**2** Turn the **MIX (**REVERB BOOST/CUT**)** knob to adjust the amount of boost or cut level of the Reverb. Both **ON** LEDs indicate your knob changes smoothly from -3dB cut (GREEN) at minimum to +3dB boost (AMBER) at maximum. Unity gain is at the 12 o'clock position (default).

**3** Press the **REVERB ON** footswitch to exit and store your Reverb Boost/Cut setting.

**NOTE:** The Reverb Boost/Cut setting is saved per Favorite setting or MIDI preset.

# Live Edit Functions

## Tap Division

Sets the desired tap tempo, note sub-division for the Tremolo LFO when an external TAP footswitch is used.

**1** Press and hold the **REVERB ON** footswitch to enter Live Edit mode. Once both LEDs flash, release the footswitch.



**2** Turn the **SPEED** (TAP DIVISION) knob to select the preferred division. Both **ON** LEDs' colors indicate your setting:

- 1/16 = RED
- Triplet = AMBER
- 1/8 = GREEN
- 1/4 = BLUE (default)



**3** Press the **REVERB ON** footswitch to exit and store your Tap Division setting.

**NOTE:** The Tap Division setting is saved per Favorite setting or MIDI preset

# Live Edit Functions

## Effect Order

Sets whether the signal travels through Reverb into Tremolo or Tremolo into Reverb. The default is Reverb into Tremolo, as this is how many vintage amplifier circuits worked.

**1** Press and hold the **REVERB ON** footswitch to enter Live Edit mode. Once both LEDs flash, release the footswitch.



**2** Turn the **DECAY** (EFFECT ORDER) knob to select the order. The **TREMOLO ON** LED indicates your setting:
  • Reverb > Tremolo: left, GREEN (default)
  • Tremolo > Reverb: right, RED



**3** Press the **REVERB ON** footswitch to exit and store your Effect Order setting.

**NOTE:** The Effect Order setting is saved per Favorite setting or MIDI preset.

# Live Edit Functions

## Pre-Delay

Adjust the amount of time between the original dry sound and the onset of the reverb's early reflections and tail. Shorter Pre-Delay time emulates the sound of a smaller space. Longer Pre-Delay time produces the ambience of a larger space and can provide more clarity to the original dry signal.

**1** Press and hold the **REVERB ON** footswitch to enter Live Edit mode. Once both LEDs flash, release the footswitch.



**2** Turn the **COLOR (PRE-DELAY)** knob to turn the adjust the amount of Pre-Delay. The **REVERB ON** LED changes color to indicate your setting:

- Minimum Pre-Delay time: left, GREEN (default)
- Maximum Pre-Delay time: right, AMBER

**3** Press the **REVERB ON** footswitch to exit and store your Reverb Pre-Delay setting.

**NOTE:** The Pre-Delay setting is saved per Favorite setting or MIDI preset.
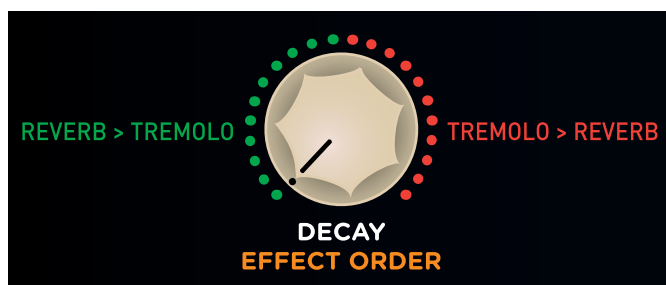
# Live Edit Functions

## MIDI Clock Sync

Determine whether Flint's Tremolo Speed will sync to incoming MIDI Clock messages.

**1** Press and hold the **REVERB ON** footswitch. Once both LEDs flash, release the footswitch.



**2** Set the position of the **REVERB (**MIDI CLOCK SYNC**)** type switch to select whether Flint will sync to incoming MIDI Clock messages. Both LEDs will momentarily change color to indicate the current status as you set the switch.

- Off: RED (default)- Flint will not respond to MIDI Clock.
- On: BLUE - Flint will respond to MIDI Clock.

**NOTE:** When synced to MIDI Clock, the **TREMOLO ON** LED will light PINK, and the **SPEED** knob will act as a multiplier or divider of the incoming clock tempo. The synced **SPEED** multi/div settings are: 1/4 (min), 1/3, 1/2, x1 (at 12 o'clock), x2, x3, x4 (max).

**3** Press the **REVERB ON** footswitch to exit and store your MIDI Clock setting.

**NOTE:** The MIDI Clock setting is saved per Favorite setting or per MIDI preset.

# Live Edit Functions

## Respond/Ignore MIDI Expression

When set to MIDI mode, this setting determines whether Flint will respond to MIDI Expression CC# 100, values 0 (heel) to 127 (toe), to control the knob settings in the same manner as a TRS Expression pedal.

**1** Press and hold the **REVERB ON** footswitch. Once both LEDs flash, release the footswitch.



**2** Set the position of the **TREMOLO** (MIDI EXP) type switch to select whether Flint will respond to MIDI Expression CC #100. Both LEDs will momentarily change color to indicate the current status as you set the switch.

- On: BLUE (default) - Flint will respond to MIDI Expression.
- Off: RED - Flint will not respond to MIDI Expression.

**3** Press the **REVERB ON** footswitch to exit and store your MIDI Expression setting.

**NOTE:** The MIDI Expression setting is saved per Favorite setting or per MIDI preset.

# Power Up Modes

## Input Level

Select the input level that is routed to the effect processing.

**1** Press and hold the **REVERB ON** footswitch while powering up Flint. Once both LEDs flash, release the footswitch.



**2** Turn the **INTENSITY** (INPUT LEVEL) knob to select the Input Level mode. The **TREMOLO ON** LED will change color to indicate the current status as you turn the knob.

- Instrument: GREEN (default) - Input headroom is set for an instrument level source, such as a guitar or a bass.
- Line: RED - Input level is set for a line level source, such as a keyboard or synthesizer. 10dB of headroom is added.

**3** Press either footswitch to store the Input Level setting and begin using Flint.

**NOTE:** The Input Level setting persists across power cycles and is not saved per preset.

# Power Up Modes

## Bypass Mode

Setting Flint to Buffered Bypass mode preserves the high frequency response of your guitar signal through your pedal chain and long cable runs.

**1** Press and hold the **REVERB ON** footswitch while powering up Flint. Once both LEDs flash, release the footswitch.



**2** Turn the **MIX** (BYPASS MODE) knob to choose between True Bypass or Buffered Bypass modes. The **REVERB ON** LED will change color to indicate the current status.

- True Bypass: GREEN (default).
- Buffered Bypass: RED

**3** Press either footswitch to store the Bypass Mode and begin using Flint.

**NOTE:** The Bypass Mode setting persists across power cycles and is not saved per preset.

# Power Up Modes

## Spillover Mode

Setting Flint to Spillover Mode allows the wet reverb signal of a currently selected preset to "spill" into bypass or the next selected preset.

> **NOTE:** Because of the buffer architecture, the current preset must be active for at least 5 seconds before Spillover between presets will be operational. Spillover is available immediately when bypassing the effect.

**1** Press and hold the **REVERB ON** footswitch while powering up Flint. Once both LEDs flash, release the footswitch.



**2** Turn the **DECAY (SPILLOVER MODE)** knob to turn Spillover Mode on or off. Both LEDs will change color to indicate the current status as you turn the knob.

- Spillover Mode Off: AMBER (default)
- Spillover Mode On: PURPLE

**3** Press either footswitch to store the Spillover Mode status and begin using Flint.

> **NOTE:** The Spillover Mode setting persists across power cycles and is not saved per preset.

# Power Up Modes

## Configuring the EXP/MIDI Jack

**1** Press and hold the **TREMOLO ON** footswitch while powering up Flint. Once both LEDs flash, release the footswitch.



**2** Turn the **MIX** (EXP/MIDI JACK) knob to select the function of the rear panel's **EXP/MIDI** jack. The **REVERB ON** LED will change color to indicate the current status as you turn the knob.

- **Expression Pedal mode:** GREEN (default) - Allows continuous control over any of the knobs in any direction with a standard TRS expression pedal. (See page 19 for details.)

- **Favorite mode:** AMBER - Allows you to recall a Favorite setting using a Strymon MiniSwitch. (See page 20 for details.)

- **Tap mode:** RED - Allows you to set the speed of the tremolo via tap tempo using a Strymon MiniSwitch. (See page 22 for details.)

- **MIDI mode:** BLUE - Allows for the selection of three presets using a Strymon MultiSwitch Plus. Full MIDI functionality is available by sending MIDI Program Change messages via 1/4" TRS MIDI connection using a Strymon Conduit or MIDI EXP cable. Up to 300 presets are available via MIDI. (See "Configuring MultiSwitch Plus" on page 23 or "Saving Presets in MIDI Mode" on page 30.)

## Configuring the EXP/MIDI Jack (cont.)



**3** Press **either** footswitch to store the EXP/MIDI jack mode and begin using Flint.

**NOTE:** The EXP/MIDI jack mode setting persists across power cycles and is not saved per preset.

# External Control

## Expression Pedal Setup

Use a TRS expression pedal to control the knobs of Flint. (By default, the Expression pedal is configured to control Flint's Speed knob.)

**①** Configure the **EXP/MIDI** jack for Expression mode. (See for configuration instructions.)

**②** Connect an expression pedal to the **EXP/MIDI** jack of Flint using a TRS cable.
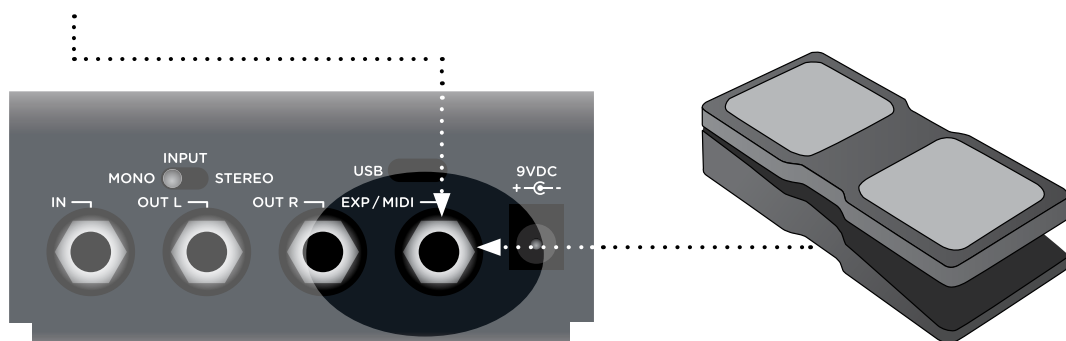


**③** Press and hold both footswitches until both LEDs blink GREEN.

**④** Rock the expression pedal to the HEEL position. Only the **TREMOLO ON** LED will blink GREEN.

**⑤** Set the knob(s) you would like to control to the desired settings for the HEEL position of the expression pedal. Only the **TREMOLO ON** LED will turn RED.

**⑥** Rock the expression pedal to the TOE position. Only the **REVERB ON** LED will blink GREEN.

**⑦** Set the knob(s) you would like to control to the desired settings for the TOE position of the expression pedal. Only the **REVERB ON** LED will turn RED.

**⑧** Press either footswitch to exit and store your expression pedal setup.

> **NOTE:** Your expression pedal assignment is saved per Favorite setting or per MIDI preset.

> **NOTE:** If Flint is set to respond to **MIDI EXPRESSION** and the **EXP/MIDI** jack is set to **MIDI** mode, you can send MIDI CC# 100 with values 0 (heel) to 127 (toe) to perform the expression pedal setup.

# External Control

## Favorite Switch Setup and Compare Mode

Connect MiniSwitch or other external latching footswitch with a TRS cable to store and recall your favorite setting.
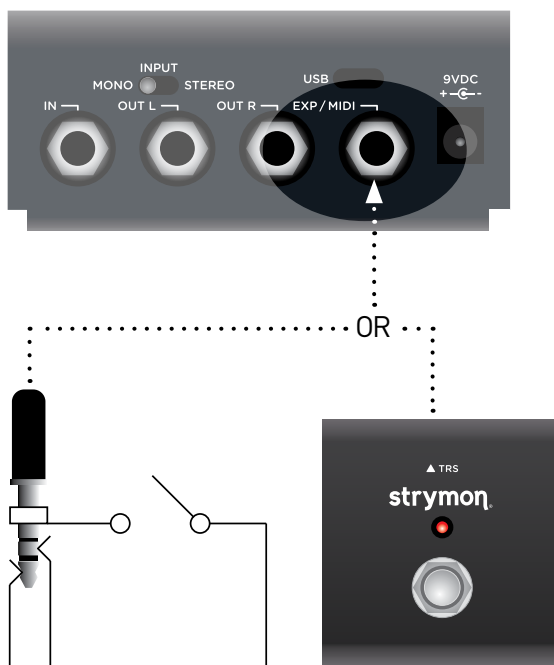


**1** Configure the **EXP/MIDI** jack for Favorite mode. (See for more info.)

**2** Connect an external switch with a TRS cable to the **EXP/MIDI** jack.

**3** Dial in your desired sound.

**4** To save your sound as the new Favorite setting, press and hold the **TREMOLO ON** footswitch until the LED blinks BLUE. Press the **TREMOLO ON** footswitch once more to save the Favorite setting.

Step on the external footswitch to toggle between your Favorite setting and the current setting on Flint.

## Favorite Switch Setup and Compare Mode (cont.)

### Compare Mode

With the Favorite engaged, as a knob or switch is adjusted, both LEDs flash GREEN when the current knob or toggle switch position matches the setting of the saved Favorite setting.

**NOTE:** Along with the knobs and toggle switches on the face of the pedal, all Live Edit settings and the Tremolo and Reverb bypass states are stored with the Favorite MIDI presets. Power Up modes are not stored with the presets.

**NOTE:** Saving presets works differently when using MIDI. (See for more details.)

**NOTE:** The Favorite setting is stored at MIDI program change location 0.

# External Control

## Tap Mode

Connect a MiniSwitch or other external momentary footswitch with a TRS cable to tap in the speed of the tremolo.
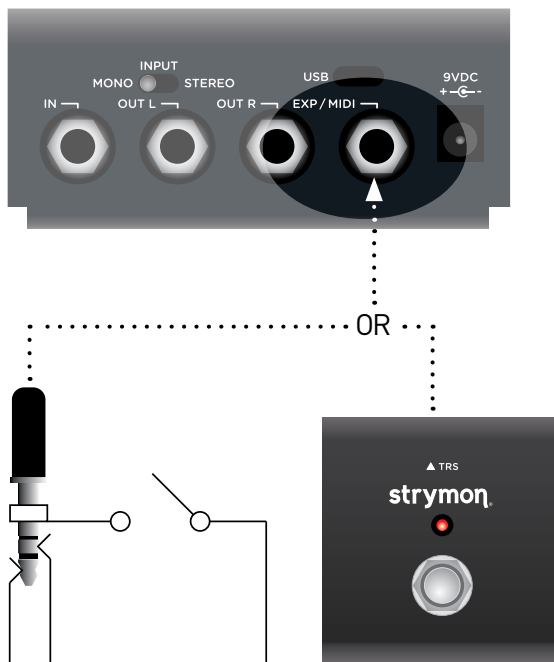


**1** Configure the **EXP/MIDI** jack for Tap mode. (See page 17 for more info.)

**2** Connect an external switch with a TRS cable to the **EXP/MIDI** jack.

**3** Tap in a tempo in to set the speed of the tremolo.

**NOTE:** By default, the external tap is set to respond with quarter note tap division. This can be changed via the Tap Division Live Edit function. (See page 9 for details.)

# External Control

## Configuring MultiSwitch Plus

Configure Flint and MultiSwitch Plus for remote access to three additional presets.

**1** Press and hold the **TREMOLO ON** footswitch while connecting power to the pedal. Hold until both LEDs stop blinking.

**2** Turn the **INTENSITY** knob all the way counter-clockwise to set the MIDI channel to Channel **1**. The **TREMOLO ON** LED should be GREEN.

**3** Turn the **DECAY** knob to select any of the following options:

- Send MIDI CC, PC, and Other Data: WHITE
- Send MIDI CC and Other Data: GREEN
- Send MIDI PC and Other Data: PURPLE
- Send Other Data: AMBER

**4** Turn the **MIX** knob all the way clockwise to set the **EXP/MIDI** jack to MIDI mode. The **REVERB ON** LED should be BLUE.

**5** Press either footswitch to exit and store the MIDI channel, the **MIDI OUTPUT** setting, and the **EXP/MIDI** jack mode.

**6** Connect a TRS cable to Flint's **EXP/MIDI** jack.
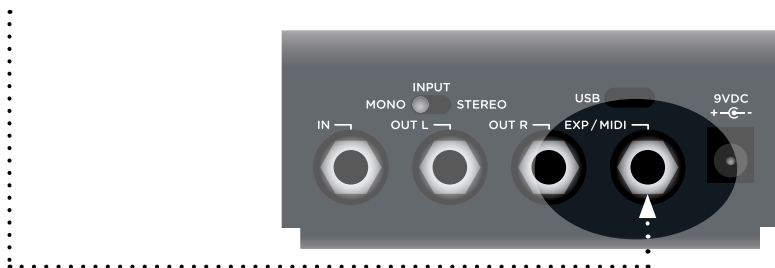


**7** Press and hold the **A** footswitch on MultiSwitch Plus while connecting the TRS cable to any one of the three jacks to set it to Preset mode.

# External Control

## Using MultiSwitch Plus

Selecting and saving Flint presets using MultiSwitch Plus.



Preset 1          Preset 2          Preset 3

**NOTE:** Footswitches **A**, **B**, and **C** on MultiSwitch Plus correspond to MIDI Program Changes 1, 2, and 3.

**1** Step on a switch that is not illuminated to recall the corresponding preset.

**2** Step on an illuminated switch to bypass Flint.

## Saving Flint Presets with MultiSwitch Plus:

**1** Dial in the sound that you would like to save as your preset on Flint.

**2** Press and hold Flint's **TREMOLO ON** footswitch until the LED blinks **BLUE**.

**3** Press the **A**, **B**, or **C** footswitch on MultiSwitch Plus to save the current state of the pedal to the desired location.

# MIDI Functionality

## Configuring Flint to Use MIDI

Using MIDI unlocks a set of tools that can be used to load any of Flint's 300 preset locations using a suitable MIDI controller or interface connected to the Flint EXP/MIDI jack. This requires a Strymon MIDI EXP cable or a MIDI controller/interface, such as Strymon Conduit, with at least one quarter-inch output.

**NOTE:** When using a Strymon MIDI EXP Cable, the MIDI OUT mode must be set to Off. (See page 29 for more info.)

Please see strymon.net/support/flint-v2 for a list of compatible devices.



MIDI EXP cable

TRS cable

OR

OR

MIDI Enabled Stompbox

MIDI Controller with
1/4" TRS Output

MIDI Controller with
5-pin MIDI Outputs

1/4" TRS
MIDI Interface

(such as Strymon Conduit)
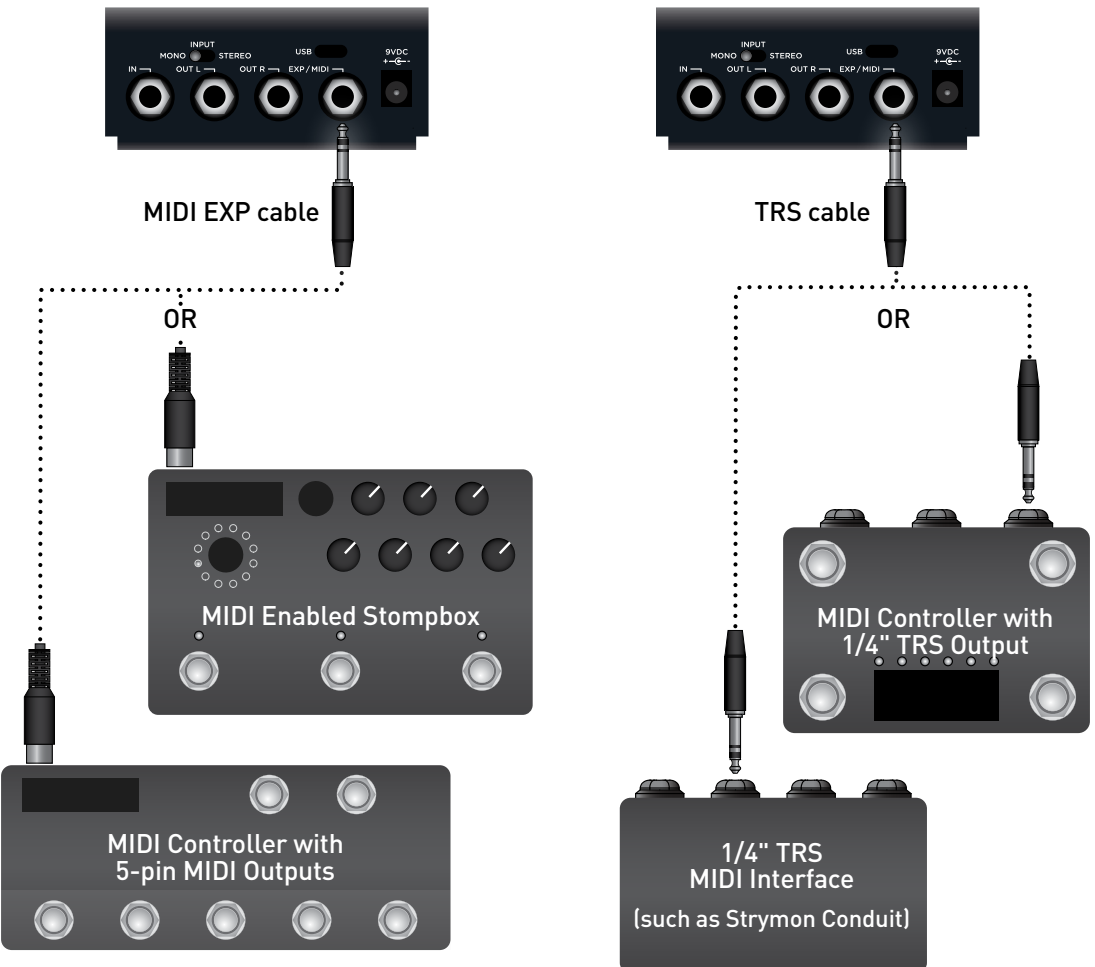
## Configuring Flint to Use MIDI (cont.)

### STEP 1 – SET EXP/MIDI JACK TO MIDI MODE

**1** Press and hold the **TREMOLO ON** footswitch while connecting power to the pedal. Once both LEDs flash, release the footswitch.



**2** Turn the **MIX** knob clockwise until the **REVERB ON** LED is BLUE to select MIDI mode.

## Configuring Flint to Use MIDI (cont.)

### STEP 2 – SET MIDI CHANNEL



**3** Turn the **INTENSITY** knob to set the MIDI communication channel. The **TREMOLO ON** LED indicates status. Your **INTENSITY** knob selections are as follows:

- **Channel 1**: GREEN (default)
- **Channel 2:** AMBER
- **Channel 3:** RED
- **Channel 4-16:** BLUE (requires 1/4" MIDI connection)

  Once the **TREMOLO ON** LED turns BLUE, it will blink until the pedal receives a MIDI Program Change message. Once a message is received, the pedal will be set to the MIDI channel that carried the message and exit the power-up mode to allow you to begin using Flint.

## STEP 2 – SET MIDI CHANNEL (CONT.)



**4** Press **either** footswitch to exit and store your MIDI Channel setting and begin using Flint.

NOTE: A simple way to check that communication is working is to send CC #10 with a value of 127 when the **TREMOLO ON** LED is bypassed. This will enable the **TREMOLO ON** LED if MIDI is properly connected and configured.

NOTE: If you are only sending data to Flint using the Strymon MIDI EXP cable, the MIDI Output mode must be set to **OFF**. (See page 29 for details on configuring the MIDI Output Mode.)

NOTE: MIDI Channel assignment is not saved per Favorite setting or MIDI preset.

## Configuring Flint to Use MIDI (cont.)

### STEP 3 – SET MIDI OUT MODE

**1** Press and hold the **TREMOLO ON** footswitch while connecting power to the pedal. Once both LEDs flash, release the footswitch.



**2** Turn the **DECAY** knob to select what kind of MIDI data is sent from Flint to other MIDI devices. Both LEDs will flash momentarily to indicate status.

- **OFF: RED** (default) - No MIDI messages are sent out of Flint.
- **THRU: BLUE** - Incoming MIDI messages are sent to the MIDI Out without any additional MIDI messages generated by Flint.
- **SEND CC, PC, OTHER: WHITE** - MIDI CC, PC, and Sysex messages generated by Flint are all sent to the MIDI Out.
- **SEND CC, OTHER: GREEN** - MIDI CC and Sysex messages generated by Flint are sent to the MIDI Out.
- **SEND PC, OTHER: PURPLE** - MIDI PC and Sysex messages generated by Flint are sent to the MIDI Out.
- **SEND OTHER: AMBER** - Sysex messages generated by Flint are sent to the MIDI Out.

**3** Press either footswitch to store the MIDI Out mode and exit.

# MIDI Functionality (cont.)

## Saving Presets in MIDI Mode

When in MIDI mode, the currently loaded settings can be saved to any of Flint's 300 preset locations at any time.

**1** To enter Save mode, press and hold the **TREMOLO ON** footswitch. the **TREMOLO ON** LED will blink BLUE to indicate that Flint is waiting to receive a MIDI Program Change message.



**2** To save the current state of the pedal to the currently loaded preset location, press the **TREMOLO ON** footswitch.

OR

To save the current state of the pedal to any preset location, send the unit a MIDI Program Change on Flint's currently selected MIDI channel. For example:

• Sending MIDI Program Change #10 will save the preset to the corresponding memory location on the pedal.

• To recall this preset, send MIDI Program Change #10 from your MIDI controller or sequencer.

**NOTE:** Press the **REVERB ON** footswitch to cancel the save operation.

# MIDI Specifications

## MIDI Program Changes

Flint contains 300 preset locations, numbered sequentially from 0-299. Because MIDI Program Change messages have a maximum number of 128 (0-127), the presets are grouped into three MIDI patch banks.

**MIDI BANK 0 =** PRESETS 0-127
**MIDI BANK 1 =** PRESETS 128-255
**MIDI BANK 2 =** PRESETS 256-299

**0** Favorite setting (accessible via MiniSwitch)
See page 20 for details.
**1** MultiSwitch Plus - footswitch 1
**2** MultiSwitch Plus - footswitch 2
**3** MultiSwitch Plus - footswitch 3
**127** Manual mode ("knobs")

**NOTE:** Some MIDI applications and controllers start with MIDI Program Change 1 instead of 0. In these setups, increment the MIDI Program Change locations above by one.

Flint always powers up in MIDI Patch Bank 0, so if you plan to stay within the first 127 presets, simply send a standard MIDI Program Change message to load a preset.

If you will be using MIDI Banks 1 and/or 2, it is advisable to send a standard MIDI Bank Change message (MIDI CC# 0 with a value equal to the MIDI Bank#) before each MIDI Program Change.

Selecting bank 0, patch 127 will put Flint into Manual mode. In this mode, the pedal will be set to the current knob and switch settings. No preset data can be stored at this preset location.

# MIDI Specifications (cont.)

## MIDI CCs

| CC# | PARAMETER | RANGE | ENUMERATION |
|-----|-----------|-------|-------------|
| | **FLINT - MIDI CC NUMBERS** | | |
| 0 | Bank Select | 0-2 | (0=Bank 1, 1=Bank 2, 2=Bank 3) |
| 10 | Tremolo Off/On | 0, 127 | (0=off, 127=on) |
| 11 | Tremolo Type | 1-3 | (1='61, 2='63 tube, 3='65 photo) |
| 12 | Intensity | 0-127 | |
| 13 | Speed | 0-127 | |
| 14 | Tap Subdivision | 0-127 | |
| 15 | Tremolo Boost/Cut | 0-127 | |
| 16 | Reverb Off/On | 0, 127 | (0=off, 127=on) |
| 17 | Reverb Type | 1-3 | (1='60s, 2='70s, 3='80s) |
| 18 | Mix | 0-127 | |
| 19 | Color | 0-127 | |
| 20 | Decay | 0-127 | |
| 21 | Reverb Pre-Delay | 0-127 | |
| 22 | Reverb Boost/Cut | 0-127 | |
| 23 | Effect Order | 0, 127 | (0=Reverb > Tremolo, 1-127=Tremolo > Reverb) |
| 25 | MIDI Clock Division | 0-6 | (0=x1/4, 1=x1/3, 2=x1/2, 3=x1, 4=x2, 5=x3, 6=x4) |
| 27 | Footswitch A | 0, 127 | (0=release, 1-127=press) |
| 28 | Footswitch B | 0, 127 | (0=release, 1-127=press) |
| 33 | Bypass/On A and B | 0, 127 | (0=bypass, 1-127=on) |
| 60 | MIDI Expression Off/On | 0, 127 | (0=off, 1-127=on) |
| 63 | MIDI Clock Off/On | 0, 127 | (0=off, 1-127=on) |
| 93 | Remote Tap | Any | |
| 100 | Expression Pedal | 0-127 | (0=heel, 127=toe) |

**NOTE:** All on/off parameters are implemented with 0=off and any other value (1-127)=on. They are documented as "0" and "127" because many MIDI controllers send out 0 and 127 for on/off switches.

# Factory Reset

Performing a Factory Reset restores the pedal to its factory default Power-up modes and secondary functions, and replaces all stored presets with their factory default settings.

**1** Press and hold the **REVERB ON** footswitch while connecting power to the pedal. Once both LEDs flash, release the footswitch.

**2** Sweep the **SPEED** knob from 0-100% and back two times. The **TREMOLO ON** LED will change colors at the extremes of the knob range and blink RED to indicate when the reset is taking place.

- **TURN 1:** AMBER
- **TURN 2:** RED
- **TURN 3:** AMBER
- **TURN 4:** Both LEDs flash RED, Flint resets and restarts.

# Factory Reset (cont.)

| FACTORY DEFAULT SETTINGS | |
|---|---|
| EXP/MIDI Jack: | Assigned to Expression mode and configured to control the **SPEED** knob |
| Input Level: | Instrument |
| Bypass Mode: | True Bypass |
| MIDI Channel: | 1 |
| MIDI Output Mode: | Off |
| MIDI Clock Sync: | Off |
| MIDI Expression: | On |
| Live Edit, Secondary Functions: | TREMOLO BOOST/CUT = 12 o'clock, no Boost/Cut<br>REVERB BOOST/CUT = 12 o'clock, no Boost/Cut<br>TAP DIVISION = 100%, 1/4 note<br>EFFECT ORDER = 0%, Reverb > Tremolo<br>PRE-DELAY = 0%, minimum PreDelay time |



Initial Default Knob & Switch Settings

# Features

- Hand crafted tremolo & reverb algorithms inspired by classic systems
- Three Tremolo types: '61 harmonic, '63 tube bias, and '65 photoresistor
- Three Reverb types: '60s spring, '70s electronic plate, and '80s rack
- Five Live Edit, secondary parameters: Tremolo Boost/Cut, Reverb Boost/Cut, Tap Division, Effect Order, and Reverb Pre-Delay
- Individual Tremolo and Reverb On/Off footswitches
- Ultra low Noise, high performance A/D and D/A converters
- +10dBu maximum input level easily handles instrument and line signals
- Expression pedal input allows the connection of a TRS expression pedal, MiniSwitch, MultiSwitch Plus, or TRS MIDI connection
- Full featured MIDI accessible via TRS supporting MIDI CCs, MIDI clock sync, access to 300 preset locations (requires Strymon MIDI EXP cable or MIDI > TRS interface such as Strymon Conduit)
- USB-C jack for controlling via MIDI from a computer or for performing potential future firmware updates
- High performance 520MHz ARM Superscalar processor
- 32-bit floating point processing
- Stereo input (requires TRS adapter cable) and stereo output
- High impedance ultra-low noise discrete Class A JFET preamp inputs
- Low impedance stereo outputs
- True bypass (electromechanical relay switching)
- Strong and lightweight anodized aluminum chassis
- Designed and built in the USA

# Specifications

| | |
|---:|:---|
| **Input Impedance:** | 1 Meg Ohm |
| **Output Impedance:** | 100 Ohm |
| **A/D & D/A:** | 24-bit 96kHz |
| **Max Input Level** | +10 dBu |
| **Signal/Noise** | 115 dB typical |
| **Bypass Switching** | True Bypass (electromechanical relay switching) |
| **Dimensions** | 4.5" deep x 4" wide x 1.75" tall |

## Power Adapter Requirements

Use an adapter with the following rating: 9VDC, center negative, 300mA minimum.

# Appendix 1: Sample Settings

# Sample Settings

### DREAMY WARM TREM



MIDI Program Change 0
MiniSwitch Favorite

### SHORT POPPY TREM



MIDI Program Change 1
MultiSwitch Plus A

### OCEAN WAVES



MIDI Program Change 2
MultiSwitch Plus B

### VAPORIZE



MIDI Program Change 3
MultiSwitch Plus C

### SLIDE ON OUT



MIDI Program Change 4

### LIVE EDIT FUNCTIONS

Flint provides a way to adjust several parameters that do not have a dedicated knob or switch. These are called **LIVE EDIT** functions and each are described in detail starting on page 7. The sample settings on this page use the factory default values for these functions.

# Appendix 2: Power Up Modes Quick Reference

# Power Up Modes Quick Reference

Global parameters and functions can be accessed via a power up procedure. All power up functions persist through power cycles.

## General Options

**1** Press and hold the **REVERB ON** footswitch while powering up Flint. Once both LEDs flash, release the footswitch.

**2** Adjust the desired functions with the knobs and buttons noted below.

**3** Press either footswitch to store your changes and exit power up mode.

| POWER UP MODE | OPTIONS |
|---|---|
| **INPUT LEVEL**<br>See page 14 for an illustrated description. | Turn **INTENSITY** knob - status shown on **TREMOLO ON** LED<br>• **Instrument:** GREEN (default)<br>• **Line:** RED |
| **BYPASS MODE**<br>See page 15 for an illustrated description. | Turn **MIX** knob - status shown on **REVERB ON** LED<br>• **True Bypass:** GREEN (default)<br>• **Buffered Bypass:** RED |
| **SPILLOVER MODE**<br>See page 16 for an illustrated description. | Turn **DECAY** knob - status shown on both LEDs<br>• **Off:** AMBER (default)<br>• **ON:** PURPLE |
| **FACTORY RESET**<br>See page 33 for an illustrated description. | Turn **SPEED** knob from 0% to 100% and back two times - status shown on both LEDs |

# Power Up Modes Quick Reference (cont.)

Global parameters and functions can be accessed via a power up proce-
dure. All power up functions persist through power cycles.

## MIDI & Jack Options

**1** Press and hold the **TREMOLO ON** footswitch while powering up Flint. Once both LEDs flash, release the footswitch.

**2** Adjust the desired functions with the knobs and buttons noted below.

**3** Press either footswitch to store your changes and exit power up mode.

| POWER UP MODE | OPTIONS |
|---|---|
| **EXP/MIDI JACK MODE**<br><br>See page 17 for an illustrated description. | Turn **MIX** knob - status shown on **REVERB ON** LED<br>• **Expression:** GREEN (default)<br>• **Favorite:** AMBER<br>• **Tap:** RED<br>• **MIDI:** BLUE |
| **MIDI CHANNEL**<br><br>See page 27 for an illustrated description. | Turn **INTENSITY** knob - status shown on **TREMOLO ON** LED<br>• **1:** GREEN (default)<br>• **2:** AMBER<br>• **3:** RED<br>• **4-16:** BLUE (channel set by next MIDI Program Change message) |
| **MIDI OUT MODE**<br><br>See page 29 for an illustrated description. | Turn **DECAY** knob - status shown momentarily on **both** LEDs<br>• **OFF:** RED (default)<br>• **THRU:** BLUE<br>• **ON CC, PC, OTHER:** WHITE<br>• **ON CC, OTHER:** GREEN<br>• **ON PC, OTHER:** PURPLE<br>• **ON OTHER:** AMBER |

# Appendix 3: Live Edit Controls Quick Reference

# Live Edit Controls Quick Reference

Flint provides a way to adjust several secondary functions that are available on several knobs. (Also, see "Live Edit Functions" on page 7.) Live Edit Functions are saved per preset.

**(1)** Press and hold the **REVERB ON** footswitch until both **LEDS** blink to enter Live Edit mode.

**(2)** Release the footswitch and use the knobs as described below.

**(3)** Press **REVERB ON** footswitch to store setting and exit Live Edit mode.

| LIVE EDIT CONTROL | OPTIONS |
|---|---|
| **TREMOLO BOOST/CUT**<br><br>See page 7 for an illustrated description. | Turn the **INTENSITY** knob—both LEDs change color from GREEN (-3dB cut) to AMBER (+3dB boost) as the control is adjusted. As the default, no Boost/Cut is applied |
| **REVERB BOOST/CUT**<br><br>See page 8 for an illustrated description. | Turn the **MIX** knob—both LEDs change color from GREEN (-3dB cut) to AMBER (+3dB boost) as the control is adjusted. As the default, no Boost/Cut is applied |
| **TAP DIVISION**<br><br>See page 9 for an illustrated description. | Turn the **SPEED** knob—both LEDs change color as the control is adjusted<br>• 1/16 = RED<br>• Triplet = AMBER<br>• 1/8 = GREEN<br>• 1/4 = BLUE (default) |
| **EFFECT ORDER**<br><br>See page 10 for an illustrated description. | Turn the **DECAY** knob—the **TREMOLO ON** LED changes color from<br>• Reverb > Tremolo = GREEN (default)<br>• Tremolo > Reverb = RED |
| **PRE-DELAY**<br><br>See page 11 for an illustrated description. | Turn the **COLOR** knob—the **REVERB ON** LED changes color from GREEN (minimum, default) to AMBER (maximum) as the control is adjusted |
| **MIDI CLOCK SYNC**<br><br>See page 12 for an illustrated description. | Set the **REVERB** type switch to the **'80s** (down) or **'60s** (up) position—status is momentarily shown on both LEDs<br>• '80s position: OFF, RED (default)<br>• '60s position: ON, BLUE |
| **MIDI EXPRESSION**<br><br>See page 13 for an illustrated description. | Set the **TREMOLO** type switch to the **'65 photo** (down) or **'61 harm** (up) position—status is momentarily shown on both LEDs<br>• '65 photo position: OFF, RED<br>• '61 harm position: ON, BLUE (default) |

# Strymon Non-Transferable Limited Warranty

## Warranty

Strymon warranties the product to be free from defects in material and workmanship for a period of two (2) years from the original date of purchase when bought new from an authorized dealer in the United States of America or Canada. If the product fails within the warranty period, Strymon will repair or, at our discretion, replace the product at no cost to the original purchaser. Please contact your dealer for information on warranty and service outside of the USA and Canada.

## Exclusions

This warranty covers defects in manufacturing discovered while using this product as recommended by Strymon. This warranty does not cover loss or theft, nor does the coverage extend to damage caused by misuse, abuse, unauthorized modification, improper storage, lightning, or natural disasters.

## Limits of Liability

In the case of malfunction, the purchaser's sole recourse shall be repair or replacement, as described in the preceding paragraphs. Strymon will not be held liable to any party for damages that result from the failure of this product. Damages excluded include, but are not limited to, the following: lost profits, lost savings, damage to other equipment, and incidental or consequential damages arising from the use, or inability to use this product. In no event will Strymon be liable for more than the amount of the purchase price, not to exceed the current retail price of the product. Strymon disclaims any other warranties, expressed or implied. By using the product, the user accepts all terms herein.

## How to Obtain Service Under this Warranty

For North American customers: Contact Strymon through our website at strymon.net/support for Return Authorization and information. Proof of original ownership may be required in the form of a purchase receipt.
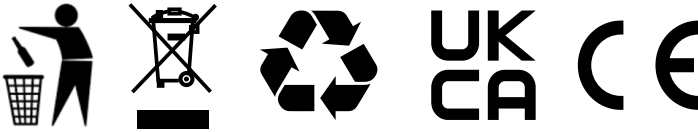
For International Customers: Contact the Strymon dealer from which the product was purchased from in order to arrange warranty repair service.

Strymon® is a division of Damage Control Engineering®, LLC.

# Safety and Compliance Information

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1) Reorient or relocate the receiving antenna.
2) Increase the separation between the equipment and receiver.
3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4) Consult the dealer or an experienced radio/TV technician for help.