

TWIN BOOST

Rev 2 – 09/10/2023

opfxs.com

The Twin Boost has 2 independent gain stages which can be set to work together (JOINT) or individually (SEPARATE).

Essentially there are 3 modes of operation:

- 1) **JOINT + PRESETS**: channels always have the same gain and it's possible to save and recall presets.
- 2) **JOINT + GAIN STEP**: channels always have the same gain which is handled with GAIN STEP function.
- 3) **SEPARATE + PRESETS**: gain of channels can be set individually and it's possible to save and recall presets.

USE THE PEDAL IN MONO with NO SECONDARY CHANNEL

Any of the 3 modes will do it but JOINT is suggested.

1. JOINT + PRESETS

When set to JOINT the amount of gain will be applied to both channels equally and it's possible to save presets.

STATUS LED color: **PINK**

F1 button:

- **Long press:** set the MIDI channel from 0 to 16. More on this in [MIDI section](#).
 - o After long press the DOT digit in the numerical display will turn on
 - o You can now set with CONTROL knob a value from 0 to 16.
 - o Long press again to save the selection, the display will blink a couple of time to confirm and dot digit will turn off
 - o Short press to exit without saving, the dot digit will turn off

F2 button:

- **Short press:** toggles between 2 or 3 presets. When pressed the preset LEDs will blink a few times.
- **Long press:** go to GAIN STEP mode

PRESET footswitch:

- **Long press:** save preset on the current position (I, II or III), current preset LED will blink to confirm
- **Short press:** change preset

To save a preset to the desired position (I, II or III), short press PRESET footswitch until reach the position, move the knob and long press the footswitch. The current preset LED will blink a few times to confirm.

The display will turn off if no preset is saved in the current position.

To recall next preset just press the PRESET footswitch.

BYPASS footswitch:

- Bypass both channels. The main channel (TIP) has relay true-bypass; the secondary channel (RING) has buffer-bypass.

2. JOINT + GAIN STEP

GAIN STEP mode is only available with JOINT channels function. In this mode you can set the gain of the channels with GAIN STEP footswitch. You can also set gain and time factor.

STATUS LED color: **BLUE**

F1 button:

- Set a new TIME FACTOR from 0 to 99. Zero means an immediate change, values above zero will make gain changes to happen gradually.

Example:

When set to 90 the gain increase/decrease time will take 900ms for each decibel to change.

When set to 10 the gain increase/decrease time will take 100ms for each decibel to change.

Essentially multiply the TIME FACTOR by 10 milliseconds.

- o After long press the DOT digit in the numerical display will turn on
- o You can now set with CONTROL knob a value from 1 to 99.
- o Long press again to save the selection, the display will blink a couple of time to confirm and dot digit will turn off
- o Short press to exit without saving, the dot digit will turn off

F2 button:

- **Short press:** set a new GAIN FACTOR from 1dB to 24dB.
 - o After long press the DOT digit in the numerical display will turn on
 - o You can now set with CONTROL knob a value from 1 to 24.
 - o Long press again to save the selection, the display will blink a couple of time to confirm and dot digit will turn off
 - o Short press to exit without saving, the dot digit will turn off
- **Long press:** return to PRESET mode

GAIN STEP footswitch:

When pressed once the gain will increase of one step according to GAIN FACTOR. If TIME FACTOR is set slow enough (high value) you can press the footswitch again to stop gain increase.

When kept pressed the gain will decrease of one step according to GAIN FACTOR. If TIME FACTOR is set slow enough (high value) you can release the footswitch again to stop gain decrease.

3. SEPARATE + PRESETS

When channels are set to SEPARATE the amount of gain for each channel can be set individually. It can be useful if you want to use the Twin Boost in different spots of your signal chain.

HOW TO TOGGLE BETWEEN JOINT AND SEPARATE

Short press BYPASS footswitch and F1 together. The yellow LED above the display will blink a few times.

It's not possible to jump from JOINT + GAIN STEP mode to SEPARATE + PRESETS and vice versa. The commutation has always to be done between JOINT + PRESET and SEPARATE + PRESET

STATUS LED color:

- **RED** when main channel (TIP) is selected
- **BLUE** when secondary channel (RING) is selected

F1 button:

- Toggles between main channel and secondary channel.

The MAIN channel is identified by the red LED status. It's carried by the TIP of the jack.

The SECONDARY channel is identified by the blue LED status. It's carried by the RING of the jack.

You can switch between channels with F1 button to check and set gain for each channel.

Save a preset in SEPARATE mode:

- Short press PRESET footswitch to select the desired preset number
- Select main or secondary channel with F1 button
- Set gain with control knob
- Long press PRESET footswitch to save

Basically in SEPARATE mode each of the 3 presets (I, II and III) has 2 values, one for MAIN channel and the other for SECONDARY channel:

PRESET NUMBER	MAIN	SECONDARY
I	0 to 24 dB	0 to 24 dB
II	0 to 24 dB	0 to 24 dB
III	0 to 24 dB	0 to 24 dB

So, for saving a preset you may want to save preset for both channels. EXAMPLE:

You want to set preset I with 9 for MAIN and 12 for SECONDARY:

- 1) *Short press PRESET footswitch to select preset number I*
- 2) *Press F1 to select MAIN channel (RED status LED)*
- 3) *Set the gain with knob to 9*
- 4) *Long press PRESET footswitch to save*
- 5) *Press F1 to select SECONDARY channel (BLUE status LED)*
- 6) *Set the gain with knob to 12*
- 7) *Long press PRESET footswitch*

More info:

- it's not important the order in which presets are saved. You can save MAIN first and SECONDARY after or SECONDARY first and MAIN after.
- The same is true for preset number, there's no order in which presets must be saved. You can save for example preset number II first, then preset III and preset I as the last one.
- You can change a value for a channel in any of 3 presets without modifying the other channel. EXAMPLE:
 - o *Returning to the example above, you want to change gain of SECONDARY channel to 15 dB:*
 - 1) *Short press PRESET footswitch to get to preset I*
 - 2) *Press F1 to select SECONDARY channel*
 - 3) *Set the gain with knob to 15*
 - 4) *Long press PRESET footswitch to save*

Recall a preset in SEPARATE mode:

To recall a preset in SEPARATE mode just press PRESET footswitch to navigate between them. The display will show gain for current selected channel. You can use F1 to check gain for the other channel.

F2 button: Toggles between 2 or 3 presets. Going from 3 to 2 presets will erase presets in position III

CONNECTIONS

MONO (no secondary channel): connect TS mono jacks on input and output

STEREO (JOINT or SEPARATE): connect a TRS to TRS stereo jack on input and output. If you want to route the signal to different spots in your signal chain connect a TRS to TS-TS (Y cable) to input and/or output.

MIDI

MIDI INPUT CHANNEL:

- When set to 0 (omni mode), the pedal will listen to all channels from 1 to 16
- A value of 1 to 16 means that the pedal is receiving MIDI messages only for that specific channel

List of MIDI messages:

CC message	CC data	Description
0	0-127	0 = bypass both channels 1-127 = turns off bypass on both channels
1	0-127	Set gain of both channels (not in dB)
2	0-24	Set gain in dB of both channels
3	0-127	Gain of TIP channel (not in dB)
4	0-127	Gain of RING channel (not in dB)
5	0-24	Gain of TIP channel in dB
6	0-24	Gain of RING channel in dB
7	0-127	0 = Mute the pedal 1-127 = turns mute off
8	0-99	Set TIME FACTOR (any data above 99 will return 99)
9	1-24	Set GAIN FACTOR in dB
10	0-127	step UP gain 0 = will stop the gain increase 1-127 = will start gain increase
11	0-127	step DOWN gain 0 = will stop the gain decrease 1-127 = will start gain decrease

SPECS:

Input impedance on both channels: 1M ohm

Output impedance on both channels: 1k ohm

Supply voltage: 9V negative center polarity (doesn't tolerate higher voltages)

Current Absorption: 120mA

Max input level before distortion: 2V RMS @ 1kHz

Dimensions and weight: 122 x 67 x 53 mm, 250gr

- JOINT CHANNELS -

in **PRESET** mode:

- LONG press: set MIDI CHANNEL 0-16

in **GAIN STEP** mode:

- SHORT press: set SLEW RATE 0-99

- LONG press: save SLEW RATE

LONG press: toggles **PRESET/GAIN STEP** modes

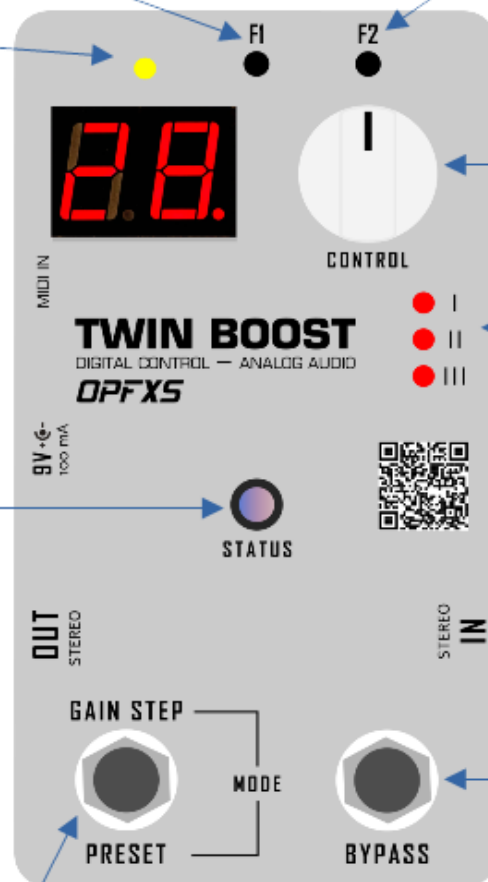
in **PRESET** mode:

- SHORT press: set 2 or 3 presets

in **GAIN STEP** mode:

- set gain factor 1-28 dB

Flashes when MIDI message is received



Set GAIN
or
MIDI CHANNEL
GAIN FACTOR
SLEW RATE

PRESET NUMBER

PINK = PRESET mode
BLUE = GAIN STEP mode

bypass both channels

in **PRESET** mode:

- SHORT press: select preset

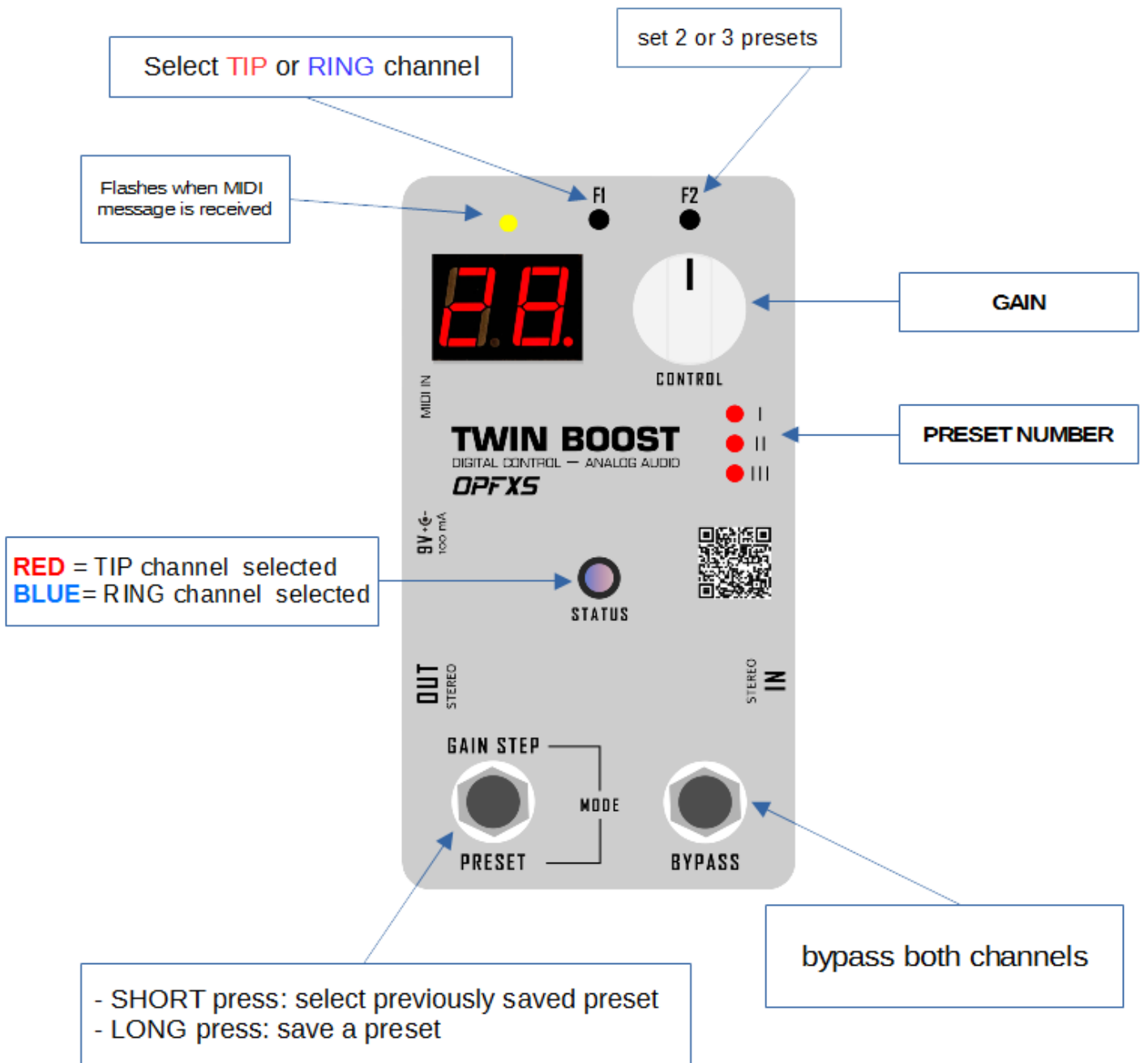
- LONG press: save preset

in **GAIN STEP** mode:

- SHORT press: gain goes UP until step factor is reached or footswitch pressed

- LONG press: gain goes DOWN until step factor is reached or footswitch released

- SEPARATE CHANNELS -



- toggle between JOINT and SEPARATE mode -

LED will blink when
F1 and BYPASS
are pressed



SHORT press together
to toggle between **JOINT** and
SEPARATE