



## modular square Bell Modal Synthesis User Manual

[Home](#) » [modular square](#) » modular square Bell Modal Synthesis User Manual 

### Contents

- [1 modular square Bell Modal Synthesis](#)
- [2 Description](#)
- [3 Installation](#)
- [4 Specifications](#)
- [5 Diagram](#)
- [6 Functional Overview](#)
- [7 Documents / Resources](#)
- [8 Related Posts](#)



modular square Bell Modal Synthesis



## Description

Bell is a melodic percussion generator based on modal synthesis. By synthesizing the vibrations of complex geometric shapes, Bell provides a simple interface for creating metallic sounds that can both emulate acoustic instruments, and defy physics. Its sonic palette includes numerous physical models that span the range of vibraphone, marimba, glockenspiel, and Tibetan bowls. In addition, damping allows for the articulation of all voices and enables drastically changing the tone of your patch with a single knob turn. It's time to ring your Bell!

- Melodic percussion generator
- 6 Voice Polyphony
- Several physical models with the ability to mutate the physics of each one
- Damping control

## Installation

To install, locate 2HP of space in your Eurorack case and confirm the positive 12 volts and negative 12 volts sides of the power distribution lines. Plug the connector into the power distribution board of your case, keeping in mind that the red band corresponds to negative 12 volts. In most systems, the negative 12 volt supply line is at the bottom. The power cable should be connected to the module with the red band facing the front of the module.

## Specifications

- Size: 2HP
- Depth 45mm

- Current Consumption:

- +12V: 86mA
- -12V: 3mA

## Diagram



## Functional Overview

### Trig

Trigger input will cause a new note to be created with the current state of the knobs and CVs. Six voices can be synthesized at once, and the oldest will be replaced when a new trigger is detected.

## Model

Selects from one of the eight following models of an exciter and resonator made up of several modal filters.

1. Pure Bell
2. Pure Vibraphone
3. Harmonic Vibraphone
4. Hard Marimba
5. Soft Marimba
6. Tibetan Bowl
7. Wine Glass
8. Redwood Plate

Bipolar CV is added to the knob position.

- **Input range:** -5V to 5V

## Damp

Changes the resonance of the excitor filters. This affects the overall decay time of a given sound. A bipolar CV is added to the knob position.

- **Input range:** -5V to 5V

## V/Oct

1V/Octave input was added to the pitch knob position.

- **Input range:** -1V to 6V


## Pitch

Sets the fundamental frequency of the bell sound. The pitch control remains active for the most recently generated note providing the opportunity for vibrato, slew, and easier tuning while a note is ringing out.

## Out

10Vpp audio output signal LED illuminates for 30ms when a new sound is triggered.

## Documents / Resources

	<a href="#">modular square Bell Modal Synthesis</a> [pdf] User Manual Bell Modal Synthesis, Bell, Modal Synthesis, Synthesis
---	---