

# Q146 Normalization

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The Q146 Normalization module eliminates patch cord clutter for common patches that require pitch control voltages to go to oscillators and gate signals to go to envelope generators. This is accomplished with twelve 48" cables behind the panels - 6 to the oscillators and 6 to the envelope generators. Special switching jacks are provided so the pre-patched connections can be broken by simply patching through the front panel of normalized modules. Additionally, 3 extra multiple jacks are provided for both pitch voltages and gate signals. Normalization can also be made to other modules including sequencers, slew limiters, etc.

## Specifications

**Panel Size:** Single width 2.125"w x 8.75"h.

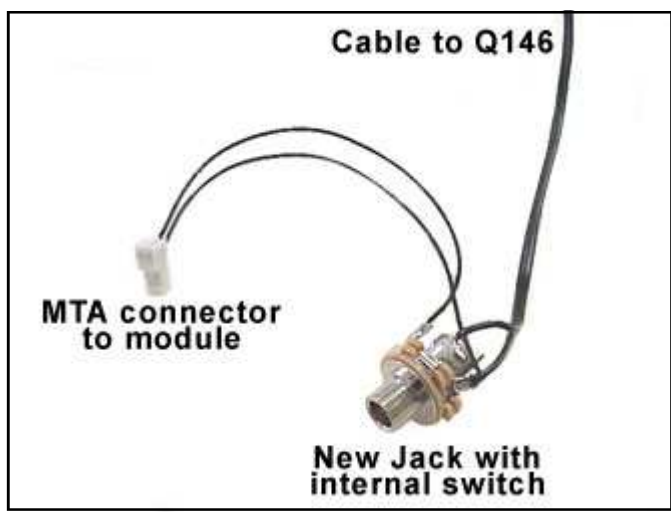
**Maximum Output Voltage Levels:** 10V PP.

**Power:** None.

## Installation

The Q146 normalization module is typically mounted on the left side of a synthesizer system which has a left-to-right signal flow. A typical arrangement would include (from left to right) Q174 MIDI interface, Q123 Standards, Q146 Normalization, then the oscillators followed by other modules.

The 12 cables behind the module must be routed to the oscillators and envelope generators (or other modules). On these modules, an existing jack assembly must be replaced with the one from the cable. The jack assembly includes a 6" wire with an MTA connector which goes to the circuit board of the module. Unused cables can be cut off or taped up for future use. Soldering is not required but installation can be time consuming and is normally performed by the more technically inclined.



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Pitch Section.  
All 4 jacks are connected together and can be used as a multiple. They are typically wired to all Q106 Oscillators 1V/Octave far left input using an internal wiring harness.



Gate Section.  
All 4 jacks are connected together and can be used as a multiple. They are typically wired to all Q109 Envelope Generator gate inputs using an internal wiring harness.

