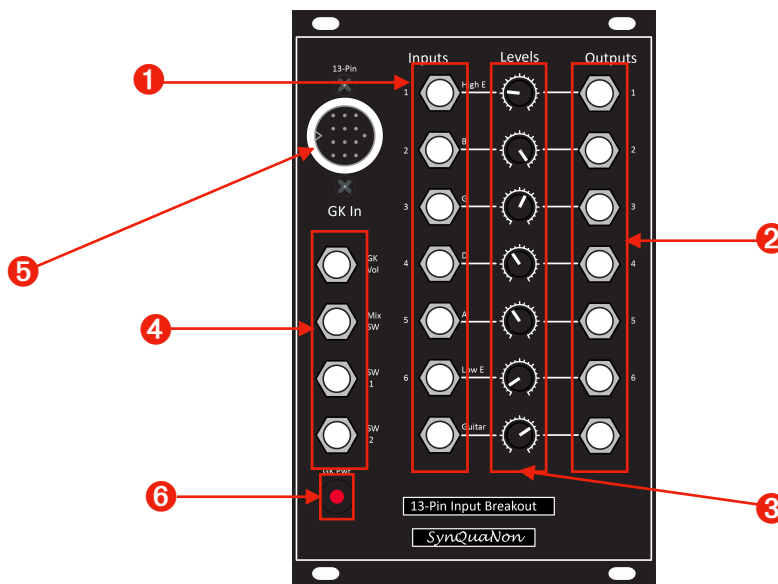# 13-Pin Input Breakout Module

Introduction

Congratulations on your purchase of this SynQuaNon product! It is our belief that our products will enable you to find new and interesting ways to create custom sounds with your synthesizer and other SynQuaNon modules. Check out our full line at www.synquanon.com.

Module front panel overview

❶ Inputs AC-coupled audio inputs 1 - 7; accept +/- 12V signals.

❷ Outputs AC-coupled audio outputs 1 - 7; up to +/- 12V signals.

❸ Gain controls Individual potentiometers adjust gain from zero to level selected on rear header (range options are 0-20dB, 0-30dB, 0-40dB).

❹ Control voltages Four standard GK guitar control voltage outputs (GK VOL, MIX SW, SW1, SW2.

❺ 13-Pin GK Jack GK input from Roland/BOSS GK-3 compatible guitars.

❺ GK Power on LED Indicates that the module is providing power to the guitar.
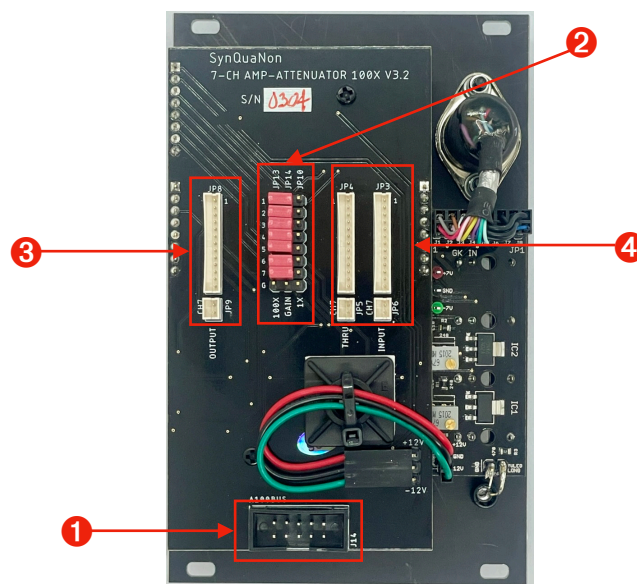
Overview

The 13-Pin Input Breakout module receives signals from a Roland GK-3 compatible guitar and converts them to modular levels using low-noise audio op-amps.

Gain controls allow you to adjust the gain from zero to full-scale in the amplified string outputs.

The module provides power to the electronics in your GK-3 compatible guitar.

Module rear panel overview

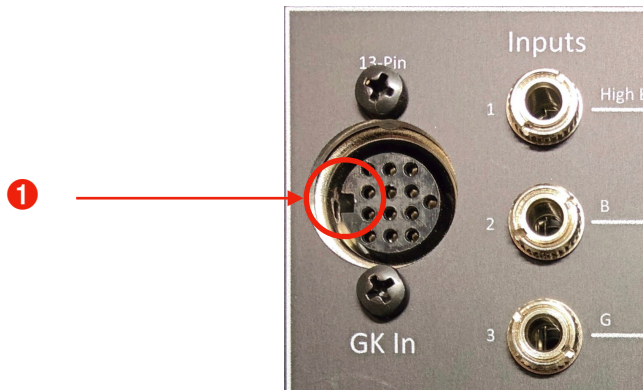|		
❶ A100 Bus		Keyed power connection with reverse polarity protection. Red stripe is on the left.
❷ Gain Select Header		Use the shorting plugs to select the amplifier gain range - unity gain is on the right (for attenuation use) and either 10x, 30x, or 100x is on the left.
❸ Output Bus Connector		AC-coupled SynQuaNon Audio Bus output connections for 7 outputs.
❹ Input Bus Connectors		AC-coupled SynQuaNon Audio Bus input and thru connections for 7 inputs.

Instructions

- Please ensure that you plug your GK 13-pin plug into the module correctly!

❶ GK Latch   Line up the latch on the GK plug with this notch on the jack. A curious problem with the Roland GK jack design will allow one to connect with the plug rotated at 180 degrees. Doing so will connect the -7V supply to ground and instantaneously destroy the 7V supply!

SynQuaNon will not warranty power supply damage caused by incorrect plug insertion, so please take a minute to avoid this nastiness!

- Adjust the gain levels for maximum undistorted signal.

- The amplifier section may be used independently by introducing signals via the front panel input jacks or the SynQuaNon Audio Bus input on the rear.

Important Note: This module has been tested successfully with Roland GK-3, Graph Tech Hexpander, and RMC Poly-Drive pickup systems. Roland GK-2A pickups (including those on the Fender GC-1) *WILL NOT WORK* with this module. There are massive issues with noise and impedance that prevent high-quality audio with GK-2A. Please use only those products listed above! Alternatively we can provide you with a special version of the module that addresses this issue.

Features

- Precision metal-film resistors for close channel gain matching.

- Low-noise audio op-amps for optimal AC performance.

- Selectable gain range (1x or 10x, 30x, 100x) for output on back of the module.

- Adjustable gain or attenuation to zero within each selected gain range.

- Ideal for guitar or bass single-string processing.

- Pairs well with 13-Pin Output Breakout, 7-Channel Amplifier-Attenuator, Hex VU Meter.

Technical Specifications + Downloads

Width	16 HP	Gain	0 dB (1x range)
Depth	40 mm		0 - 20 dB (10x range)
Power	39 mA @ +12V		0 - 30 dB (30x range) optional
	39 mA @ -12V		0 - 40 dB (100x range) optional
	0 mA @ +5V	ModularGrid	13-Pin Input Breakout

Reverse power protection, resettable fuses, extensive power supply filtering.

Support

In case of difficulty:

1. Make sure power is available to the Eurorack and that it is turned ON.
2. Check the rear module power connection (turn OFF Eurorack power first)
3. Check patch cables for continuity or shorts.
4. Check level settings on front panel. Check gain select header on rear of module for proper gain range selection (turn OFF Eurorack power first).

For additional information please feel free to contact us at support@synquanon.com