

RYNO.

MULTI-EFFECTS PEDAL • INSTRUMENT & MICROPHONE

guitar • bass • synth & keys • acoustic pickup • microphone

PRELIMINARY • ALL DATA SIMULATED



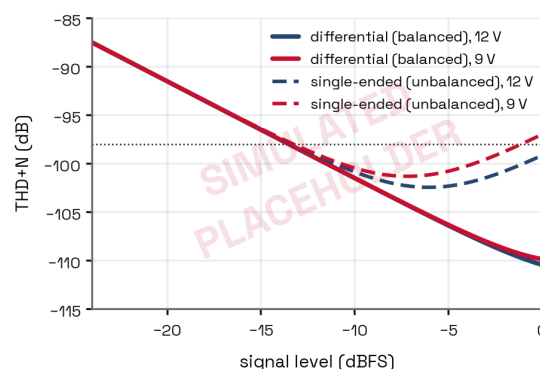
pre-production CAD render

FEATURES

- **Works with any source** — guitar, bass, synth & keys, acoustic pickup or microphone
- **+48V phantom power** — run condenser mics on saxophone, brass, upright bass, strings, vocals or any acoustic instrument, straight into the pedal
- Switchable input impedance: instrument (Hi-Z), line, or balanced mic (Lo-Z), interlocked
- Studio-grade 24-bit conversion (Asahi Kasei)
- **Multi-effects** — amp, cabinet & IR, drive, compressor, EQ, chorus, delay, reverb; chain built on the display, 1GHz-class processor
- Sunlight-readable touch display — 1200 cd/m² IPS, optically bonded cover glass
- Built-in line driver — fully differential line outputs
- **MIDI in & out** — 3.5 mm TRS jacks plus class-compliant USB; chain several RYNOs
- Solid custom milled aluminium enclosure

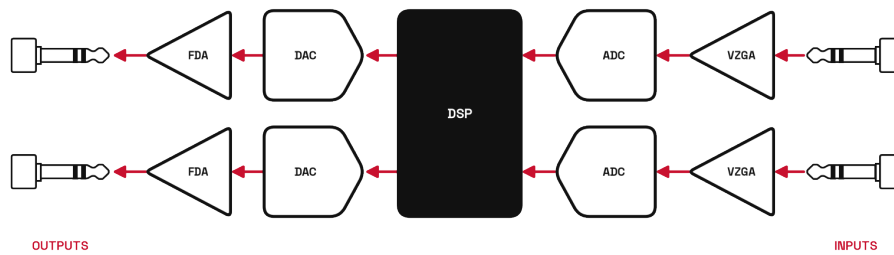
KEY SPECS (simulated)

THD+N, in to out	−98 dB [†]
THD front end, SE 5 Vpp	−99 to −97 dB
THD front end, differential	< −114 dB
Noise, 20 Hz–20 kHz	−111 dBFS
CMRR (mic)	79 dB
Max input level	5 Vpp
Mic mode gain	15 dB
Input impedance, Hi-Z	1.75 MΩ
Input impedance, Lo-Z	6 kΩ balanced



THD+N vs level, simulated: balanced (solid) and unbalanced (dashed) input, 9 and 12 V; dotted and [†]: converter floor (AKM $S/(N+D)$).

SIGNAL PATH



PEDAL SETUP



- 1 Touch display
- 2 Footswitch
- 3 Inputs — 2× 6.35 mm locking TRS
- 4 Outputs — 2× 6.35 mm TRS, line
- 5 USB-C — MIDI, presets, firmware
- 6 DC in — 9–12 V, centre-negative
- 7 MIDI in — 3.5 mm TRS, type A
- 8 MIDI out — 3.5 mm TRS, type A

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Power 6

Use a regulated 9–12 V DC supply, 2.1 mm centre-negative barrel, rated 1A or more — the same standard as most pedal supplies. Higher voltage within that range gives the analogue stages more headroom; nothing else changes.

Pick the input mode 3 1

Inputs are the **two jacks on the right** as you face the pedal. Both share one input mode, set on the display's I/O & Modes page. **Hi-Z** presents 1.75 MΩ so a passive pickup keeps its full tone: use it for guitar, bass, acoustic pickups and for keyboards or synths on ordinary unbalanced cables. **Lo-Z** is a balanced, 6 kΩ microphone input: use it for microphones and for balanced line sources such as a DI box.

Set the gain

The pedal runs at unity gain: what goes in comes out at the same level with the effects flat. In Lo-Z the mic gain step adds +15 dB for quiet dynamic mics; leave it off for loud sources and condensers. Hi-Z has 5 Vpp of headroom, so hot pickups and synth outputs don't clip.

Phantom power

Turn on +48 V for condenser mics that need it. It only exists in Lo-Z: switching to Hi-Z shuts it off automatically, so an instrument plugged in is never exposed to it.

Connect the outputs and play 4

Outputs are the **two jacks on the left**, line level. Mono rig: one input, one output into your amp. Stereo: both inputs and both outputs into an interface or a pair of monitors. Set the output level on the display and play.

USB-C 5

Class-compliant MIDI, preset backup and firmware updates over the same cable; no driver needed.

MIDI in / out 7 8

Standard 3.5 mm TRS MIDI (type A): a 5-pin adapter cable connects any controller or interface, and presets follow program changes on the listening channel set on the display. Link RYNOs out-to-in to chain them — see Chaining pedals.

CHAINING PEDALS



four RYNOs linked out-to-in, each on its own preset; only pedal 2 is engaged — pre-production CAD render

Link the MIDI out of one RYNO to the MIDI in of the next with a 3.5 mm TRS cable. The pedals find each other and take a place in the chain — 1, 2, 3, 4 — so one footswitch can act on all of them. Two chain modes, chosen on the display:

Bypass others — stepping on one pedal engages it and drops every other pedal in the chain into bypass. One press switches between whole rigs.

Preset change on command — a preset change on any pedal, by footswitch hold or a program change from a controller, is passed down the chain and the others follow to the same preset number.

ABSOLUTE MAXIMUM RATINGS (design values)

Supply voltage	18 V, reverse-polarity protected
Input level, instrument	10 V _{pp} continuous
ESD, audio jacks	±4 kV contact (EN 61000-4-2, simulated)
Operating temperature	−20 to +70 °C
Storage temperature	−30 to +80 °C

SAFETY

- Power only from a certified SELV DC adapter, 9–12 V, centre-negative, rated ≥ 1 A.
- No user-serviceable parts inside. Do not open; opening voids the warranty.
- Indoor use. Protect from rain, moisture and liquids.
- Enable +48 V phantom power only with microphones designed to accept it. Instrument (Hi-Z) mode interlocks phantom off automatically.
- After cold transport, allow the unit to reach room temperature before powering (condensation).

REGULATORY

CE

CE — EMC Directive 2014/30/EU (EN 55032 Class B, EN 55035; simulation-verified, lab pre-scan pending) • RoHS 2011/65/EU + (EU) 2015/863 • REACH SVHC clear. The EU Declaration of Conformity is available from the manufacturer.



Do not dispose of this product in household waste. Per Directive 2012/19/EU (WEEE), return it to a collection point for electrical-equipment recycling.

Manufacturer: JJ Electronics, Denmark (registered address on packaging and DoC). Consumers in the EU have a minimum two-year legal guarantee.

MECHANICAL

CNC-machined AL 6082, red satin anodize • approx. 68×124×26 mm • Neutrik locking jacks • no exposed fasteners on top or sides.

Learn more. This guide covers setup and connections. For operating the touch interface — presets, building effect chains, per-effect parameters and MIDI — see the full manual and the video walkthroughs at jjkaaberbol.com/ryno.

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