

INTRODUCTION

While modular synthesisers are most often used as stand-alone instruments, they also present exciting opportunities for processing external signals. Anything from an electric guitar to an effects send on a studio mixing desk can benefit from the unique sonic capabilities of even a modest Eurorack system.

However, patching in an external source usually requires an adapter cable and plenty of clean gain to bring the signal to Eurorack level. If the signal source is balanced, a balanced input is required as well to provide the best possible interference rejection.

Receive 2 (or RX2 for short) provides a convenient all-in-one solution. It offers two universal external inputs, which accept both balanced or single-ended signals via XLR or 6.35 mm jack connectors.

The circuit incorporates low-impedance design practices, RF filtering and premium balanced receivers to provide transformer-like interconnect performance in a compact and affordable module. And thanks to the electrostatic discharge (ESD) protection, it's rugged enough to survive the rigours of performing on the road.

The very clean integrated pre-amps feature variable gain, ranging from unity to +40 dB on each channel. As a result, Receive 2 can handle just about any signal source you may encounter, including electric instruments, piezoelectric pickups and many dynamic microphones.

Adjusting the gains is a breeze thanks to the dual peak-responding LED meters. A mix output is included as well, so external signals can be easily mixed directly in the module.

CONTENTS

In the Receive 2 box, you'll find:

- Product card, stating serial number and production batch.
- 16-to-10-pin Eurorack power cable.
- Mounting hardware: two black M3 x 6 mm hex screws, two black nylon washers and a hex key.
- And finally, the module itself, in a protective cotton bag.

If any of these items are missing, please contact your dealer or support@joranalogue.com.

CONTROLS & CONNECTIONS

1 LED METERS

The peak-responding LED bar meters give a visual indication of the output levels on the 3.5 mm sockets. The scale ranges from -18 to +6 dB, with 0 dB corresponding to the 10 V_{pp} nominal Eurorack level. Be aware that since Eurorack has limited headroom, +6 dB is very close to clipping.

2 GAIN KNOBS

Use these knobs to adjust the input gain for each channel, from 0 (unity) to +40 dB. With +4 dBu balanced 'professional' input signals, they will typically be set at about 25 % (+10 dB) to reach 10 V_{pp} on the main output sockets. For -10 dBV 'consumer' single-ended input signals, you can expect about 75 % (+30 dB) to be the ideal amount of gain. Passive sources such as dynamic microphones may require the maximum gain of +40 dB.

3 MAIN OUTPUTS

These are the main Eurorack outputs. Connect them to the modules you'd like to process the external signal(s) through.

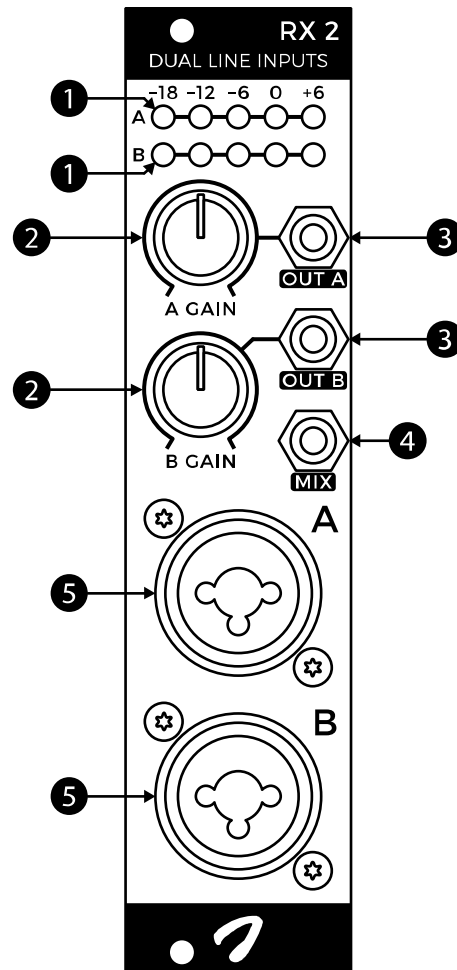
4 MIX OUTPUT

Both input signals are also mixed together internally, and the result is available from this output socket. The signals are attenuated by 6 dB before mixing to avoid clipping.

5 EXTERNAL INPUTS

Connect your external signals here. Just about any signal source may be connected: balanced or single-ended, via XLR or 6.35 mm jack connectors.

Note that the inputs are DC-coupled, so any DC offset that may be present is retained. This makes it possible to receive external CV signals, although DC accuracy may not be sufficient to process pitch CV.



6 GROUND SHORT SOLDER BRIDGE

Receive 2 features separate signal and chassis ground planes, joined together at the front panel. This helps to avoid ground currents running through the circuitry and causing audible interference, provided the module is installed in a Eurorack enclosure which is properly earth-connected at its chassis.

In sub-optimal installations, shorting together the ground planes on the rear of the circuit board at the 'ground short' solder bridge point may improve performance.

SPECIFICATIONS

MODULE FORMAT

Doepfer A-100 'Eurorack' compatible module
3 U, 6 HP, 45 mm deep (inc. power cable)
Milled 2 mm aluminium front panel with non-erasable graphics

MAXIMUM CURRENT DRAW

+12 V: 35 mA
-12 V: 35 mA

POWER PROTECTION

Reverse polarity (MOSFET)

I/O IMPEDANCE

All inputs: 48 k Ω
All outputs: 0 Ω (compensated)

OUTER DIMENSIONS

128.5 x 30 x 57 mm (H x W x D)

MASS

Module: 80 g
With packaging and accessories: 165 g

SUPPORT

As all Joranalogue Audio Design products, Receive 2 is designed, manufactured and tested with the highest standards, to provide the performance and reliability music professionals expect.

In case your module isn't functioning as it should, make sure to check your Eurorack power supply and all connections first.

If the problem persists, contact your dealer or send an email to support@joranalogue.com. Please mention your serial number, which can be found on the product card or on the module's rear side.

REVISION HISTORY

Revision A: initial release.

With compliments to the following fine people,
who helped to make Receive 2 a reality!

Ben 'DivKid' Wilson Björn Jauss

Boris Uytterhaegen Gregory Delabelle

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Lieven Stockx Sebastiaan Tulkens

Everyone at Wired Electronics

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Joranalogue
AUDIO DESIGN

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