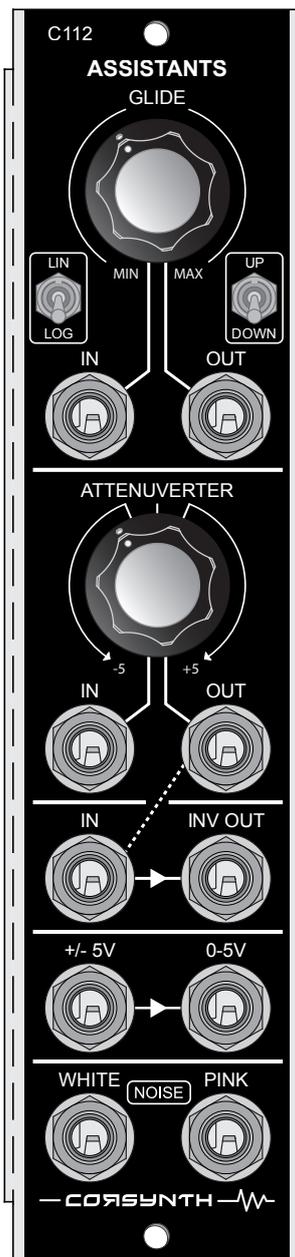


C12 ASSISTANTS



C112 ASSISTANTS

C112 Assistants is a module that combines several basic functions very important in a modular synth. Normally these kind of modules tend to be overlooked in comparison to VCOs , VCFs. The reality is that these kind of modules add a lot of synthesis options to any modular system.

The C112 Assistants combines the following functions in just one space :

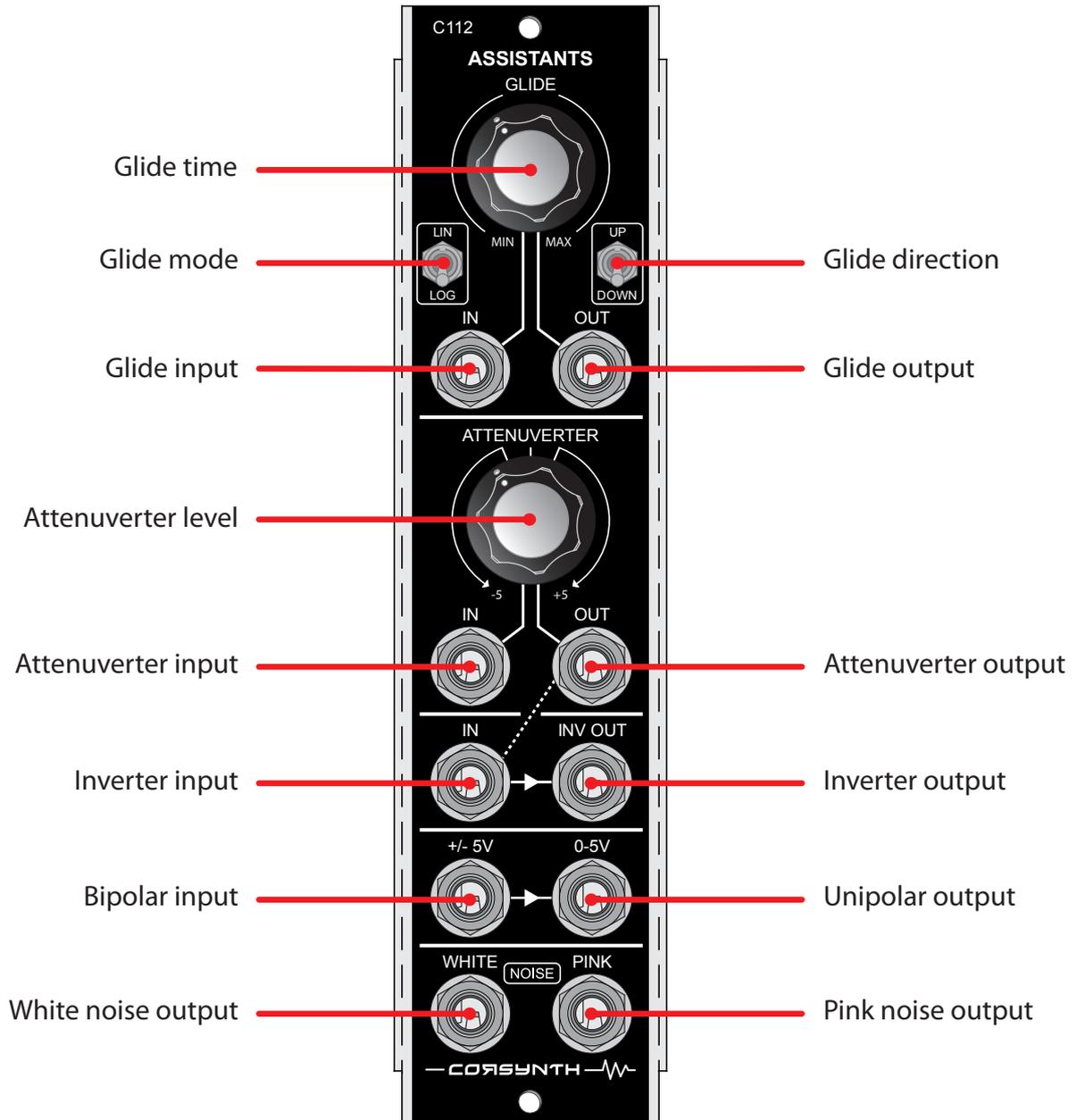
- A fully featured Glide function with Linear and Logarithmic modes. It's possible to select when the signal is affected by the glide circuit, when it goes up, down or both.
- An attenuverter that attenuates or invert and attenuates any signal.
- Variable voltage source +/-5V.
- An inverter that can be used with audio and CV signals.
- Bipolar to Unipolar function. It converts any +/-5V signal like VCOs, LFOs in a envelope type signal (0-5V). Perfect to use LFOs or VCOs with VCAs
- White and Pink Noise. Add noise to your system without taking space for other modules.

All these functions make the C112 Assistants a perfect addition to any MU format modular system



C112 ASSISTANTS

Front Panel



CONTROL DESCRIPTION

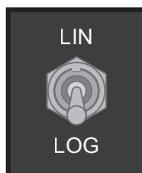
GLIDE

The glide function smooth the transition between two discrete values. The transition can be linear or logarithmic. One of its main uses is to create a portamento between notes. It can be used also to create ASR envelopes from a gate signal.



GLIDE

This control sets the glide time. The total time depends on the difference between the values and the selected glide mode. The glide time for a 0 to 5 volts signal goes in linear mode from 0.3 milliseconds to 1 second and in logarithmic mode goes from 1 millisecond to 8 seconds.



GLIDE MODE

LIN: Linear mode.

LOG: Logarithmic mode.

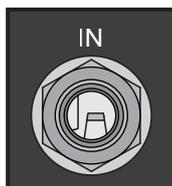


GLIDE DIRECTION

UP: Glide only affects when the signal goes from a lower to a higher value.

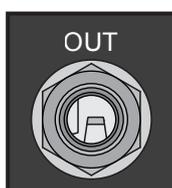
MIDDLE: The signal is always affected by the glide circuit.

DOWN: Glide only affects when the signal goes from a higher to a lower value.



GLIDE INPUT

Glide signal input.

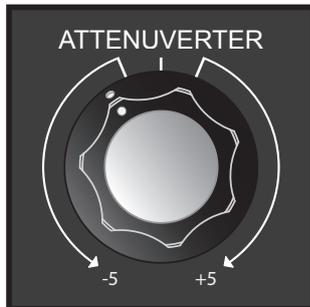


GLIDE OUTPUT

Glide signal output.

ATTENUVERTER / VARIABLE VOLTAGE SOURCE

An Attenuverter is a combination of an attenuator and an inverter. It allows to attenuate or invert and attenuate any input signal. In this module a 5V signal is prepatched to the attenuverter input. Thanks to this, it can be used as a variable voltage source between -5V and 5V.



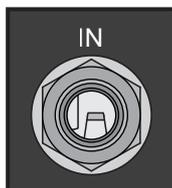
ATTENUVERTER

Sets the level of attenuation and attenuation-inversion.

Knob full left (-5) : the output has the same level than the input but inverted.

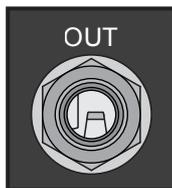
Knob middle position : the output is equal to 0V

Knob full right (+5) : the output is equal to the input.



ATTENUVERTER INPUT

Attenuverter input. Inserting a jack breaks the prepatched 5V connection.

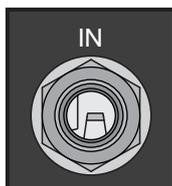


ATTENUVERTER OUPUT

Attenuverter output.

INVERTER

The output of this function is a signal equal to the input but inverted. By default the input is connected to the attenuverted output. This allows to have a signal with the same level as the attenuverter output but inverted. This is very useful for modulation signals.



INVERTER INPUT

Inverter input. Inserting a jack breaks the prepatched connection to the Attenuverter output.



INVERTER OUTPUT

Inverter output.

BIPOLAR TO UNIPOLAR / FIXED VOLTAGE SOURCE

This function transforms any +/-5V bipolar signal like VCOs or LFOs in a envelope kind of signal from 0 to 5V. The output is the same as the input but half de amplitude and from 0 to 5V. It can be used to for example to control VCAs with VCOs to get amplitude modulation (AM).If nothing is connected to the input the output is 2.5V so it can be used as a fixed voltage source.



BIPOLAR TO UNIPOLAR IN

+/- 5V bipolar input

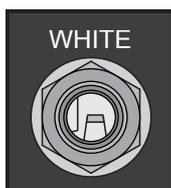


BIPOLAR TO UNIPOLAR OUT

0 to 5V unipolar output.

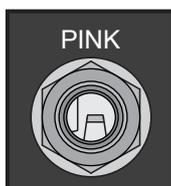
NOISE

A noise source is a basic element in any synthesizer. It can be used in many ways like audio source, as modulation, as audio signal, as control signal. In the C112 there are two types of noise available, white noise and pink noise.



WHITE

White noise output.



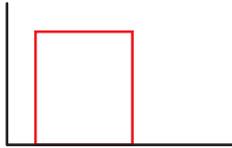
PINK

Pink noise output.

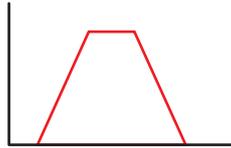
GRAPHIC EXAMPLES

GLIDE

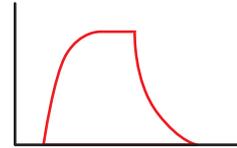
Input signal



Output linear glide

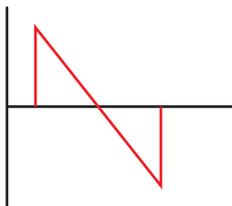
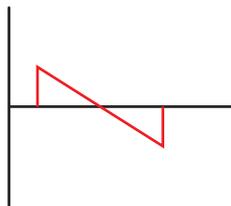
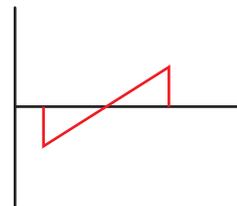


Output logarithmic glide



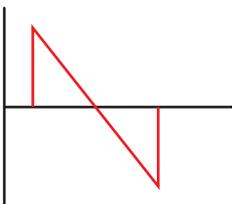
ATTENUVERTER

Input signal

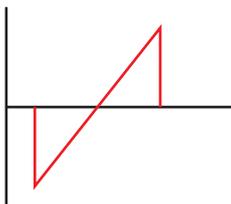
Output
(Half attenuated)Output
(Half attenuated and inverted)

INVERTER

Input signal

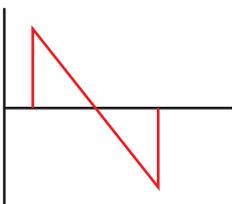


Output

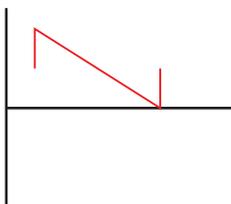


BIPOLAR TO UNIPOLAR

Input signal



Output



TRIMMERS AND POWER CONNECTORS



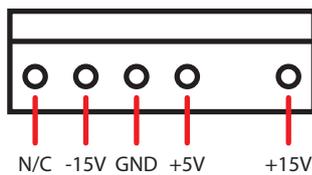
IMPORTANT !!!!

This module has two power connectors
(MU and MOTM).

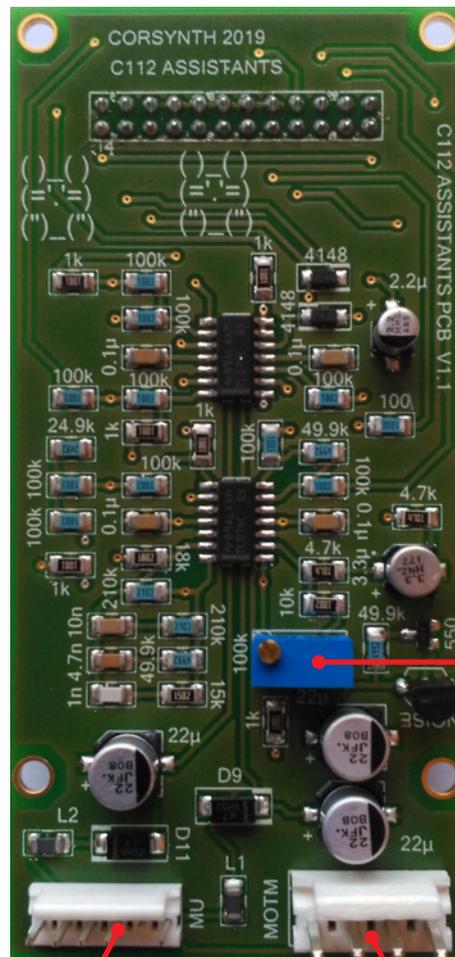
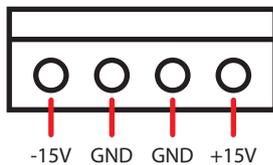
Only one is needed to power the
module. (MU or MOTM).

**Never connect both at the
same time.**

MU



MOTM



Noise gain

MU
power connector

MOTM
power connector

TECHNICAL DATA

Module Format : 5U, MU format (Synthesizers.com, Moog)

Module Width : 1 MU (Moog unit)

Module Depth : 52 mm (2,05 inches)

Power : +15V23@mA , -15V18@mA

Power connectors : MU, MOTM (4 pin)

