

# Doepfer – A-148

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[Doepfer A-148 Dual S&H Manual PDF](#)

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## Doepfer A-148 Dual S&H – Cheat Sheet

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### Quick Overview

The Doepfer A-148 is a dual Sample & Hold (S&H) and Track & Hold (T&H) module. It can generate random or stepped voltages for controlling other modules. Each of the two identical sections can be independently set to S&H or T&H by internal jumpers (for modules manufactured from Aug 2005 on).

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### Panel Controls & Features

Label	Type	Function	Voltage Range
Trig In	Jack	Input for the trigger signal (sampling clock)	Any A-100 trigs/gates
Smp In	Jack	Input for the signal to be sampled/held	-12V ... +12V
S&H Out	Jack		

Label	Type	Function	Voltage Range
		Output for the sampled and held (or tracked and held) voltage	-12V ... +12V
LEDs	Visual	Shows the polarity of the output voltage (+ LED: positive, - LED: negative)	N/A
Jumper (int.)	Header	Sets upper/lower circuit to S&H or T&H mode (default: Upper = S&H, Lower = T&H)	N/A

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## How it Works

- **Sample & Hold (S&H):** At each positive edge on Trig In, the voltage at Smp In is "captured" and held until the next trigger.
  - **Track & Hold (T&H):** The output follows the input while Trig In is high; when Trig In goes low, it holds the last value.
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## Input/Output Reference

### Inputs

- **Trig In**
- **Type:** Gate/Trigger input
- **Purpose:** Determines when to sample Smp In
- **Smp In**
- **Type:** CV/Audio input
- **Purpose:** Signal to be sampled or tracked
- **Voltage Range:** -12V to +12V (modules after Aug 2005; previous versions: -8V to +8V)

## Outputs

- **S&H Out**
  - **Type:** CV output
  - **Purpose:** Output the last sampled/tracked value
  - **Voltage Range:** Follows input within -12V to +12V (post-2005)
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## Typical Patch Examples

1. **Random Arpeggios:**
  2. Patch white noise (A-118) to Smp In, LFO to Trig In, S&H Out to VCO CV.
  3. **Glissando:**
  4. Keyboard CV through slew limiter to Smp In, LFO to Trig In, S&H Out to VCO CV.
  5. **Random Filter:**
  6. Noise to Smp In, keyboard gate to Trig In, S&H Out to filter CV input.
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## Version Differences & Jumpers

- **Pre-Aug 2005:** Max input/output voltage range -8V to +8V.
  - **Post-Aug 2005:** Full A-100 range, -12V to +12V, and S&H/T&H selectable via jumpers JP2 (upper), JP3 (lower).
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## Useful Tips

- **LEDs** helpful for monitoring whether the last held voltage is positive or negative.
  - **Voltage Range:** Always ensure input voltages are within Doepfer's -12V to +12V standard.
  - **Mode Setting:** Factory default is S&H (upper), T&H (lower).
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