



ALCHIMIST

AD12H-1020

User Manual

Advanced 1020W RMS 12-channel DSP with optical input for expanded connectivity

AD12H-1020 Overview

The Alchemist AD12H-1020 is a 12-Channel Advanced DSP Processor designed to deliver exceptional audio performance in automotive environments. Advanced 1020W RMS 12-channel DSP with optical input for expanded connectivity. Built with premium components and engineered in Germany, the AD12H-1020 represents our commitment to audiophile-grade sound quality.

Key Features

- 12-channel advanced DSP with 1020W RMS amplification
- S/PDIF optical input for digital audio sources
- 31-band parametric EQ with precise frequency control
- Advanced crossover with Butterworth and Linkwitz-Riley filters
- Independent time alignment for all 12 channels
- 4V RCA pre-out for flexible system expansion
- Durable aluminum enclosure with efficient heat dissipation

Box Contents

- 1x DSP processor unit
- 1x Wiring harness with high-level inputs
- 1x USB cable for PC connection
- 1x Remote turn-on wire
- 1x Fuse holder with fuse
- 1x Mounting bracket and hardware
- 1x Quick start guide
- 1x Optical (Toslink) cable

Technical Specifications

Parameter	Value
Model	AD12H-1020
Channels	12
Total Power Output	1020W RMS
Equalizer	31-Band Parametric EQ per channel
Sample Rate / Bit Depth	48 kHz / 24-bit
THD+N	< 0.004%
Signal-to-Noise Ratio	> 112 dB
Optical Input	S/PDIF Toslink
RCA Output Voltage	4V
Input Types	High-level, RCA, Optical, USB, BT
Dimensions (W x H x D)	240 x 50 x 170 mm
Weight	2.2 kg

Installation Guide

Connection Overview

The AD12H-1020 features clearly labeled input and output connectors on the rear panel. Refer to the connection diagram included in the box for a visual guide.

Wiring Steps

1. Disconnect the vehicle battery negative terminal before starting.
2. Mount the AD12H-1020 in a secure, ventilated location (under seat or trunk).
3. Connect the power wire (red) through the included fuse holder to the battery positive terminal.
4. Connect the ground wire (black) to a clean, solid metal chassis point within 18 inches.
5. Connect the remote turn-on wire (blue) to the head unit's remote output or ACC circuit.
6. Connect input sources: high-level speaker inputs from factory head unit, or RCA/optical inputs.
7. Connect optical cable from digital source to the S/PDIF input if using digital audio.
8. Connect RCA output cables to your amplifier(s) or powered speakers.
9. Reconnect the battery and verify the unit powers on with the ignition.
10. Configure input source and channel mapping using the Alchemist DSP software.
11. Perform initial tuning using the EQ, crossover, and time alignment tools.

Warranty & Support

12-Month Limited Warranty

Your Alchemist AD12H-1020 is covered by a 12-month limited warranty against manufacturing defects from the date of original purchase. Please retain your purchase receipt as proof of purchase for any warranty claims.

Technical Support

- Email: support@alchemists.com
- Phone: +49 (0) 69 123 4567 (Mon-Fri, 9:00-17:00 CET)
- Website: www.alchemists.com/support
- Software Downloads: www.alchemists.com/downloads

Online Resources

Visit www.alchemists.com for the latest firmware updates, tuning software, installation videos, and user community forums. Scan the QR code on the product packaging to access the dedicated support page for your model.

Register Your Product

Register your product at www.alchemists.com/register to receive firmware update notifications, extended support, and exclusive content.