



DPA-40 Amplifier

The Ikon DPA-40 is a 20 watt per channel stereo wall and dado mounting amplifier. It is ideal for multi-room audio, classroom, hotel bedroom and small meeting room applications.



Introduction

Available in brushed stainless steel, a flat white or black finish, the DPA-40 fits a standard UK format double back box and requires only a 35mm depth.

The DPA-40 uses an 86% efficient class D design and has a RMS* output of 20 watts per channel into 8 Ohms when powered from an 18V power supply or 10 watts when powered by the included 12V power supply, and as most quality loudspeakers are 8 Ohms, maximum efficiency is assured. Additionally the amplifier also has remote shutdown ability adopting an ultra low power standby state. It is fitted with rear inputs on screw terminals for permanent connections and a 3.5mm stereo jack on the front panel for other sources making the DPA-40 easy to install & use.

Supplied Parts

The amplifier kit is supplied complete with:-

- The amplifier module itself.
- 2 x M3.5 panel fixing screws.
- 12V switched mode power supply.
- Mains power cable¹.
- Instruction manual.

Please either retain packaging for future use or dispose of via recycling. All packaging is recyclable.

Overview

The Ikon DPA-40 is a wall mounted amplifier with twin unbalanced audio inputs. Input 1 is on the rear and connected via screw terminals. Input 2 is on the front panel as a 3.5mm stereo jack socket. Inserting a jack into the front socket will automatically disconnect the rear input.

¹ The mains power cable will be country specific and may be supplied external to the main amplifier packaging.

The stereo loudspeakers outputs are also rear mounted screw terminals.

DC is connected via a rear-mounted 2.1mm DC socket. The centre pin is positive (+).

The DPA-40 has a front panel volume control to adjust the level as well as a (DC) power On/Off switch with status led.

Installation

Warning Disconnect power and unplug the unit from the power source before installing or removing.

The DPA-40 is designed to fit a standard UK back box with a minimum depth of 35mm. It will fit most metal recessed, surface metal & plastic as well as dry liner and dado mounting boxes. If possible a 47mm deep box is to be preferred as this makes wiring easier.

Cable entry into the box can be from any combination of the knockouts but it is recommended that the audio input cables are kept separate from both the DC and speaker cables if at all possible. Close proximity will cause no damage but could induce noise.

Power The amplifier is DC powered and this should be fed from either the supplied power supply or suitable alternative. A mains power connection will be required for the power supply achieved by plugging the supplied cable into an adjacent socket. If the cable needs extending or connecting into a fused spur then the services of a qualified electrician to carry out the connection is recommended.

Please note that for UK installations in domestic premises connection by a part 'P' registered electrician is mandatory.

The power supply is connected to the 12-18V DC socket on the rear PCB.



For all screw terminal connections it is recommended to twist the cables before inserting but do not tin as over time this leads to cold forming and can loosen the connection.

The use of crimp ferrules is recommended.

Connecting – Stereo Mode

Loudspeakers Connect the left loudspeaker or loudspeakers to the two terminals marked L+ and L- .
Connect the right loudspeaker or loudspeakers to the two terminals marked R+ and R- .

The minimum load impedance in stereo is 8 Ohms per channel. The amplifier is a bridge design, there is no loudspeaker common, so each pair of loudspeaker cables MUST be connected back to the amplifier terminals. Please observe polarity for correct 'in phase' operation.

Rear Input Three screw terminals are provided. Connect the two screens to the Gnd terminal and the Left and Right signal cables (centre cores) to the L & R terminal respectively.
Two 3mm holes are provided to allow securing of the input cable via cable ties.

Front Input Connection is via a 3.5mm stereo jack, normally using pre-made cables. If you need to make your own cable then:

Ring – Right signal, Tip – Left signal
Sleeve – Common / Screen / Ground

When using the rear terminals you can feed the same (mono) signal to both channels by linking the L&R inputs. This facility is not available using the front panel socket unless the connection is made at the source equipment.

Connecting – Mono Mode

To use the mono mode it is necessary to short the MONO LINK with a 0.2" jumper. (Available on request from Ikon AVS or their local distributors).

Loudspeakers The L & R pairs of loudspeaker terminals are connected in parallel.

Connect the loudspeaker(s) phase (+) terminal to both L+ and R+.

Connect the loudspeaker(s) antiphase (-) terminal to both L- and R-.

The minimum load impedance in the mono mode is 4 Ohms. Please observe polarity for correct 'in phase' operation.

Rear Input Only the Right input is used in mono mode. Connect the screen to the Gnd terminal and the signal cables (centre cores) to the L terminal.

Two 3mm holes are provided to allow securing of the input cable via cable ties.

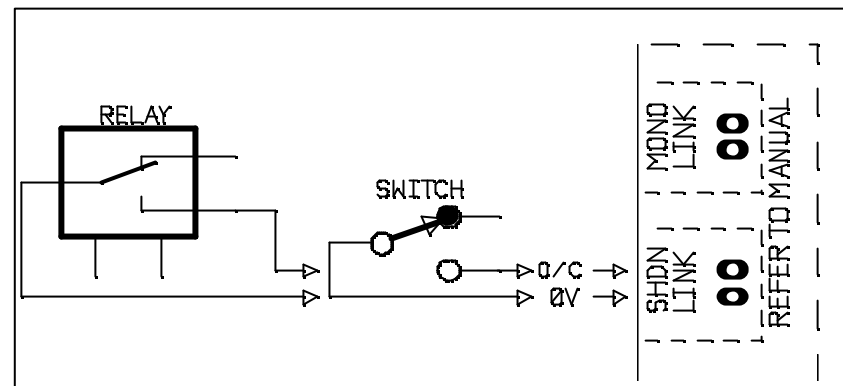
Front Input Connection is via a 3.5mm stereo jack. You need to make your own cable.

Ring – Input signal
Tip – Not Used
Sleeve – Common / Screen / Ground

Remote Shutdown

Placing a short on the SHDN link mutes any audio and places the amplifier into a low power (10mA) mode.

Connection is via a 2 pin 0.2" header and can be connected to either a remote switch, relay or open collector output. For the switch and relay polarity is unimportant. For the open collector, connect as below.



Environmental

The DPA-40 amplifier is not IP rated and should not be used in Bathrooms, outdoors or similar damp environments unless provided with additional protection of suitable IP rating.

WEEE

Under the Waste Electrical & Electronic Equipment (WEEE) Directive & Regulations, when customers buy new electronic equipment from Ikon AVS they are entitled to:-

1. Send old equipment back for recycling on a one-for-one, like-for-like basis.
2. Send the new equipment back for recycling when it ultimately becomes waste.



Recycling instructions and documentation for both Customers and Recyclers is available on the Ikon website.

Technical Specification

Power Output , 12V Stereo Mode	10W RMS* per channel into 8 Ohms
Power Output , 18V Stereo Mode	20W RMS* per channel into 8 Ohms
Power Output , 12V Mono mode	20W RMS* into 4 Ohms
Power Output , 18V Mono mode	40W RMS* into 4 Ohms
Bandwidth	20Hz to 22KHz +/- 1dB
THD & Noise	<0.8%
S/N Ratio	76dB
Gain	26dBu
Coupling	Input: AC; Output DC.
Minimum input for full power	-6dB
Protection	Integral, auto resetting, current limit & thermal protection. Integrated click & pop suppression.
Power Source	12V DC @ 2.5A (supplied) or 18V DC @ 3.5A
Power Connector	2.1mm DC connector, centre positive.
No signal current (12V)	28mA
Standby current (12V)	10mA

* The DPA-40 is a class D switching amplifier so the RMS values are RMS equivalent, this is that they give the same Sound Pressure Level using music or speech from a loudspeaker as a linear amplifier delivering the quoted RMS level.

Electromagnetic Compatibility

This equipment has been designed, manufactured and tested to conform to the European EMC directives EN55103-1 & EN55103-2 for classifications E2 and E4.

Additional EMC information for installation to comply with the EMC directives 2004/108/ec and SI 2006 No. 3418 is available on the Ikon website.

Warranty

In common with most Ikon Products, the DPA-40 carries a 3 year RTB warranty that covers parts and labour only.

There are no user serviceable parts inside and the unit should be returned to the supplier for warranty repair.

Full details of our warranty is available on the Ikon website.

Manufacturers Information

The DPA-40 is manufactured in England by IKON AVS Ltd.

For service or warranty advice please initially contact your supplier. Alternatively contact the manufactures at:-

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