

OWI SELF-AMPLIFIED (SINGLE INPUT/ SOURCE) SPEAKER MODULE AMP-IC5 OR AMP-IC6



Description:

Having many of the recent most popular installer features, the AMP-IC 5/6 power module is made to expressly fit onto the OWI Model IC5 or IC6 coaxial speaker providing a high fidelity module providing up to 25 watts of Class AB power right at the speaker. By being within inches of the speaker, the amplifier enjoys maximum damping control of the speaker since the speaker sees optimum low source impedance for maximum high fidelity reproduction. By being a dedicated amplifier to this speaker, it is tailored to match the speaker for optimum response.

Lower Noise Feature, Differential input

The power module has critical features making it a fast and easy install in the field. To reject noise, it has a fully differential amplifier at its input. Also it provides the same kind of noise suppression a transformer does with excellent common mode noise rejection.

Single ended sources (unbalanced) such as CD, DVD

Where the source is single ended such as CD player, plus goes to plus and the shield goes to the minus input. If any noise is observed, place a jumper between minus and ground.

Minimum additional space

The amplifier is molded to fit exactly around the speaker magnet allowing the smallest possible size. It adds barely an eighth of an inch more depth for those tight installations. For convenience the connectors located under the PCB are docking and simply unplug allowing convenient wire attachment.

To further enhance it's ease of installation, each power module has both a second connector for downstream amplifiers and individual volume controls at each amplifier. If no controls are wished at the speaker, simply turn it fully clockwise for maximum gain and set levels at the control electronics.

Wiring to down stream power modules using the provided output connector

Wire Plus to Plus, Minus to Minus, but only connect one end of the shield at the second amplifier module. This will optimize system noise. For third amplifiers etc. follow the same rule; connect all three wires at the farthest module and don't connect the shield at the second connector

Wiring the speakers. - The amplifier is capable of delivering power into either 4 or 8 ohms.

1 speaker – direct

2 speakers – Parallel - Since the speaker is 8 ohms, two in parallel work well

4 Speakers – Use series parallel- Wire speaker pairs in series then take the pairs and place them in parallel. This will provide approximately 6.5 watts per speaker or a maximum of 25 watts. Actually the output power is influenced by the length the wire is run, and wire gauge.

Power source

Power is provided by a 12 volts AC source. There is no polarity on the power input.

If the installer is stuck with only DC, it will work too. Either AC or DC power source will work up to 14 volts. The Power Module AMP-IC 5/6 comes with a 12-volt AC power supply optimized for this amplifier.

Wire gauge

For music applications, where one amplifier is powering one more speaker, use a minimum of 16-gauge wire. For Monday night football bar installations, make the wire gauge as large as possible between speakers.

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Low level audio wire runs

Low-level audio needs only 22 gauge twisted pair with shield. Beldon 9451 or equivalent is a popular choice. Being differential, the low level input can be as long as 3500 feet without concern. If the source is unbalanced, a balancing preamplifier is recommended for longer runs over 200 ft.

Powering secondary speakers without amplifiers in paging only applications

For paging applications, voice only, very minimal current is needed therefore 18 gauge in most cases up to 250 ft will be sufficient.

Amplifier Protection

The amplifier is protected from shorts, over heating and will shut itself down until the heat or short is removed. To avoid heat issues, an extra large heat sink is featured on the amplifier.

Loud music installations, dance floors etc.

Provide power at every speaker. Turn their volumes all the way up controlling level at a central location. If a subwoofer is used, crossover at 180 Hz and provide signal the module from 180 Hz and up. A CD output on each channel will power up to 5 power modules. After that, a preamplifier will be needed.

In most cases, particularly if a subwoofer is used, 12.5 watts per speaker will provide excellent sound and that will allow each module to power one more speaker.

Specifications:

Model Number

AMP-IC5 / AMP-IC6

Frequency Response	50 Hz to 15kHz. HF is optimized to enhance frequency response of the speaker.
THD	<.1%
S/N	>90dB
Input Configuration	Differential (noise reducing)
Minimum Common Mode Rejection	40dB
Maximum Power Output	25 Watts
At load impedance	4 Ohms (2 speakers in parallel or 4 speakers in series parallel)
Minimum Power Supply Voltage	8 Volts
Maximum Supply Voltage	14 Volts
Maximum current protected	Yes
Short Circuit protected	Yes
One wire to ground protected	Yes
Minimum Load Impedance	3.2 Ohms
Input Load Impedance	10K Ohms
Plastic	Fire rated V-0
Maximum number of Amplifiers on one line	20
Available Backcan (Sold Separately)	UL Listed and Plenum rated
Available Tile Bridge (Sold Separately)	Support Truss
Warranty	1 year