

iSP
Technologies

ACTIVE
SERIES



PROWEDGE 212
ACTIVE 2-WAY MONITOR SYSTEM
OWNERS MANUAL

IMPORTANT SAFETY INSTRUCTIONS!

Please read this very carefully before operating this unit

- Read **ALL** instructions carefully before using this unit.
- Do not operate this unit near water, in the rain or where there is moisture. If this warning is ignored a serious electrical shock or death may occur.
- Do not attempt to service this unit. No user serviceable parts inside. Refer servicing to qualified, ISP approved service personnel.
- Never remove or defeat the ground connection on the power cord of this unit.
- Care should be taken to avoid spilling any foreign objects or liquid into this unit.
- This active speaker system has a three-channel internal power amplifier with a heatsink and a fan located inside the speaker for cooling. Air is drawn in the front grille and hot air is exhausted out of front exhaust ports behind the grille of the cabinet. Care should be taken to avoid placing this active speaker in a location where the exhaust ports are obstructed and does not allow proper cooling of the internal amplifiers. Avoid placing this system close to other heat sources. The internal heatsink may reach high temperatures under normal use. Make certain there is proper ventilation for the speaker when in use.
- Do not drive the ProWedge 212 into excessive heavy distortion for an extended period of time to avoid premature speaker failure.
- Failure to follow these instructions may void the warranty.



Caution: Exposure to extremely high noise levels can cause permanent hearing loss.

The ProWedge 212 system is capable of producing in excess of 137db SPL at 1 meter. Continued exposure to noise levels in excess of 90db may cause permanent hearing loss. Below is a chart of the OSHA (Occupational Safety & Health Administration) regulations for Occupational Noise Exposure. Please note: OSHA requires hearing protection for any work environment when the sound levels exceed those shown in Table G-16 when measured on the A scale of a standard sound level meter at slow response.

TABLE G-16- PERMISSIBLE NOISE EXPOSURES	
Duration per day, hours	Sound level dBA slow response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4	115

INTRODUCTION

Thank you for purchasing ISP Technologies ProWedge 212 active speaker system. The ProWedge 212 is a high output, powered; two-way monitor at home on the loudest stages, but providing accurate, detailed reproduction.

A 60 x 60 degree constant directivity horn pattern and use of dual woofers results in controlled dispersion to reduce bleed into adjacent performers spaces, yet reduces the extreme beaming of important high frequency information found on competing wedges.

The Sleek, modern design can actually be used in 4 different positions: Normal position with a 40 degree baffle tilt, 'Longer-throw' position with a 50 degree baffle tilt, front-fill position with a vertical baffle orientation, or side-fill position standing on end on top of a sub. XLR signal and Powercon™ connectors are recessed on the side, with 'thru' outputs for connection to multiple wedges.

The internal amplifier is based on ISP Technologies patent pending D-CAT (Dynamic Current Amplifier Technology) amplifier technology. The D-CAT technology is capable of delivering extremely high output current providing an improvement in transient response, output current and a noticeable improvement in **PUNCH**. The D-CAT amplifier technology utilizes a high performance power amplifier driver that reduces parts count and greatly improves reliability. The D-CAT amplifiers provide improved reliability by including short circuit and over temperature protection.

The woofer cones are fully waterproofed to survive the elements and abuse. A reinforced, foam-backed, curved grille provides further protection. The Baltic birch plywood box is coated with a tough polyurethane finish for durability.

SUSPENDING LOUDSPEAKERS

Important Notice!!!

The information in this section has been gathered from engineering data and is for informational purposes only. None of the information in this section should be used without first obtaining competent advice with respect to applicability to a given circumstance. None of the information presented herein is intended as a representation of warranty on the part of ISP Technologies. Anyone making use of this information assumes all liability arising from such use.

All information presented in this manual is based upon materials and practices that are most common to The United States of America and may not directly apply to other countries because of differing material dimensions, specs, and/or local regulations. Users in outside countries should consult with appropriate engineering and regulatory authorities for specific guidelines.

Correct use of all flyware is required for secure system suspension. Careful calculations should always be performed to ensure that all components are used within their working load limits before the cabinet suspended. Never exceed the maximum load ratings.

Before hanging any speaker system, always inspect all components for cracks, deformations, corrosion, missing, loose or damaged parts that could reduce strength and safety of the cabinet. Do not suspend the cabinet until the proper corrective action has been taken.

ATTACHMENT TO STRUCTURES

A licensed professional engineer must approve the placement and method of attachment to the structure prior to the installation of any overhead object. The following performance standards should be provided to the professional engineer for design purposes; Uniform building code as applicable, Municipal Building code as applicable and Seismic Code as applicable.

INSPECTION and MAINTENANCE

Suspension systems are comprised of mechanical devices and, as such, they require regular inspection and routine maintenance to insure proper function ability. Any suspended ISP Technologies loudspeaker must be inspected for fatigue at least annually. The inspection shall include a visual survey of all corners and load bearing surfaces for signs of cracking, water damage, de-lamination, or any other condition that may decrease the strength of the loudspeaker enclosure.

Flyware that is provided with or for any ISP Technologies loudspeakers must be inspected for fatigue at least annually. The inspection shall include a visual survey of the material for signs of corrosion, bending, or any other condition that may decrease the strength of the fastener.

ISP Technologies is not responsible for the application of its products for any purpose or the misuse of this information for any purpose. ISP is also not responsible for the abuse of its products caused by avoiding compliance with inspection and maintenance procedures.

REAR PANEL CONNECTION DIAGRAM



THERMAL CONDITIONS

The ISP ProWedge 212 is capable of producing in excess of 900 watts at full power. This generates heat that must be dissipated in order to maintain reliability and insure the amplifier components stay within their operating temperature specs. To accomplish this the amplifier is mounted on a heatsink that is internal to the cabinet. Airflow is forced through a port near the internal heatsink.

In addition the amplifiers are thermally protected internally via a thermal switch which will attenuate the signal 40db if the heatsink temperature exceeds a certain temperature. When the temperature drops below a certain point, full signal will be restored. Tests have shown under extreme conditions that cycling will occur approx. (40 sec. ON, 20 sec. OFF)

It should also be noted that a separate internal thermal breaker also protects the power transformers. If one power transformer temperature reaches a critical point the internal thermal breaker will open. If this condition occurs simply reduce the signal level of the system. This will only occur if the ProWedge 212 is continually pushed into heavy distortion.

SPECIFICATIONS

Configuration:	2-way
LF Drivers:	2 x 12 inch, high sensitivity, neo magnet, water resistant cones.
HF Drivers:	2 x 2.6 inch compression, 1.4 inch throat, neo magnet, polymer diaphragm, on multiple-aperture waveguide.
Coverage:	60 H x 60 V
Frequency Resp.:	60 Hz to 16 kHz
Maximum peak SPL:	137 dB @ 1m
Construction:	Baltic Birch Plywood, foam-backed powder coated heavy duty steel grille.
Dimensions:	27.2" W x 16.9" H x 21" D
Weight:	80 lbs.
Amplifier:	900 W RMS, 3 channels high current DCAT, fan cooled.
Power Required:	5.5 amps x 120 VAC.
Power Connections:	Powercon Input, Powercon Thru.
Audio Connections:	Female XLR Input, Male XLR Thru. Electronically balanced, 20k ohm differential between pins 2 and 3. Pin 2 hot.
Crossover:	Built-in line-level electronic, 1 KHz nominal, 4 th order.

WARRANTY AND SERVICE

The Internal Circuitry is fully guaranteed to be free of defects under normal use and service for a period of two years from the date of purchase. The Speakers and Cabinet that are used in this product are fully guaranteed to be free of defects under normal use and service for a period of three years.

Any damage resulting from the misuse or the failure to follow the precautions and instructions will void the warranty.

In the event that the unit needs to be repaired. Please return the unit to ISP Technologies directly. Simply repack the unit, send a copy of the original receipt, a note stating the problem, and send it to:

ISP Technologies, LLC
5479 Perry Drive Suite B
Waterford, MI 48329
Attn: Repair Dept.

All shipping charges must be fully prepaid.

ISP will not be responsible for any damages incurred in shipping of any unit. Any claim will need to be settled with the shipping company.

The warranty will be voided if the serial number has been tampered with in any way. The warranty card must also be filled out and returned in order to activate the warranty.

Should you have any questions for the repair department prior to returning the product please call 1-(248)-673-7790

NOTE: If it is determined that the power amp module has failed, it is possible for an ISP certified service center to remove the module from the cabinet by removing the mounting screws and disconnecting the speaker terminals and the transformer. The module may be sent back to ISP separately. Please contact ISP for technical support to help determine if the amplifier module may be defective.



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