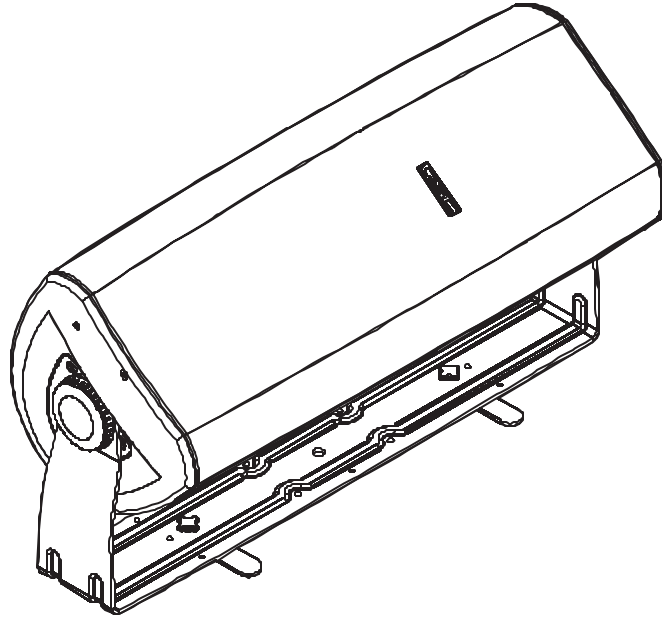


QSC™

High-power Two-way Multi-U e Loud peaker

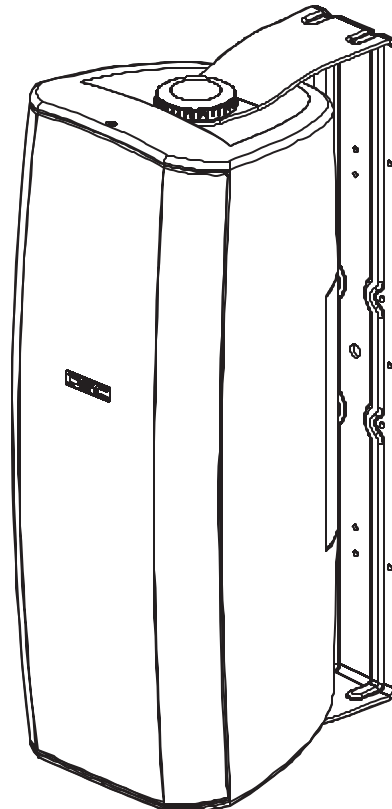
- two 8-inch (203mm) neodymium magnet low-frequency driver
- 1-inch throat compression high-frequency driver
- yoke mount

I-282H Speakon® input, pole cup, and floor-mount swivel feet. Bi-amp capable, 8 ohm



AD-S282H bi-amp capable, 8 ohm

AD-S282HT 70V/100V transformer equipped, bypassable to 8 ohm



IMPORTANT SAFETY PRECAUTIONS & EXPLANATION OF SYMBOLS

- 1- Read the e in truction .
- 2- Keep the e in truction .
- 3- Heed all warning .
- 4- Follow all in truction .
- 5- Clean only with a dry cloth.
- 6- In tall in accordance with QSC Audio Product in truction and a licen ed, profe ional engineer.
- 7- Do not in tall near any heat ource uch a radiator , heat regi ter , tove , or other apparatus (including ampli- fier) that produce heat.
- 8- Only u e attachment /acce orie from QSC Audio Product , Inc.
- 9- U e only with mount or bracket pecified by QSC Audio Product .
- 10- Refer all ervicing to qualified per onnel. Servicing i required when the apparatus ha been damaged in any way.



The exclamation point within an equilateral triangle i intended to alert the u er to the pre ence of important operating and maintenance (ervicing) in truction in thi manual.



WARNING! Before placing, in talling, rigging, or u pending any peaker product, in pect all hardware, u pen ion, cabinet , tran ducer , bracket and a ociated equipment for damage. Any mi ing, cor- roded, deformed or non-load rated component could ignificantly reduce the trength of the in tallation, placement, or array. Any uch condition everely reduce the afety of the in tallation and hould be immediately corrected. U e only hardware which i rated for the loading condition of the in tallation and any po ible hort-term unexpected overloading. Never exceed the rating of the hardware or equip- ment. Con ult a licen ed, profe ional engineer when any doubt or que tion ari e regarding a phy ical equipment in tallation.

Warranty (USA only; other countrie , ee your dealer or di tributor)

Di claimer

QSC Audio Product , Inc. i not liable for any damage to amplifier , or any other equipment that i cau ed by negligence or improper in tallation and/or u e of thi loud peaker product.

QSC Audio Product 3 Year Limited Warranty

QSC Audio Product , Inc. (QSC) guarantee it product to be free from defective material and / or workman hip for a period of three (3) year from date of ale, and will replace defective part and repair malfunctioning product under thi warranty when the defect occur under normal in tallation and u e - provided the unit i returned to our factory or one of our authorized ervice ta- tion via pre-paid tran portation with a copy of proof of purcha e (i.e., ale receipt). Thi warranty provide that the examination of the return product mu t indicate, in our judgment, a manufacturing defect. Thi warranty doe not extend to any product which ha been ubjected to mi u e, neglect, accident, improper in tallation, or where the date code ha been removed or defaced. QSC hall not be liable for incidental and/or con equential damage . Thi warranty give you pecific legal right . Thi limited warranty i freely tran ferable during the term of the warranty period.

Cu tomer may have additional right , which vary from tate to tate.

In the event that thi product wa manufactured for export and ale out ide of the United State or it territorie , then thi limited warranty hall not apply. Removal of the erial number on thi product, or purcha e of thi product from an unauthorized dealer, will void thi limited warranty.

Periodically, thi warranty i updated. To obtain the mo t recent ver ion of QSC warranty tatement, plea e vi it www.qcaudio.com.

Contact u at 800-854-4079 or vi it our web ite at www.qcaudio.com.

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Introduction

Thank you and congratulation on your purchase of the I-282H, AD-S282H, or AD-S282HT multi-use, weather resistant loud speaker. The e product represent the state-of-the-art in lightweight sound reinforcement loud speaker system. To get the most from your investment, we encourage you to review this manual carefully.

The e loud speaker system are full range, high output, two-way design delivering superior sound quality and high SPL in a weather resistant enclosure. The low frequency driver feature neodymium magnet, while the high frequency driver feature a ferrite magnet. The included yoke mount provide secure and versatile installation. The e loud-speaker make an excellent choice for a wide variety of application. All model include an adapter plate for user who desire to use OmniMount® suitable loud speaker mounting option.

The I-282H feature two Speakon® connector wired in parallel for fast, reliable connection and easy parallel connection of multiple loud speaker. The Speakon connector are wired for passive or bi-amp use and have a selector switch for bypassing the crossover when used in bi-amp application. Additionally, the I-282H include two swivel outrigger feet for converting the yoke mount to a floor monitor application.

The AD-S282H and AD-S282HT model feature weather resistant input wiring cover and wiring strain relief bushing. They also include socket head screw for application where enhanced mounting security may be desired (used in place of the yoke mount retaining knob).

The AD-S282H model is bi-amp capable and feature a crossover bypass switch.

The AD-S282HT is 70V/100V matching transformer equipped complete with an integral power-tap selector switch. The transformer may be bypassed for low impedance (8 ohm) application versatility. Two set of parallel-connected input wiring barrier-strip terminal are provided for connecting multiple loud speaker.



What Included

I-282H

- I-282H loud speaker (1 each)
- Yoke mount (1 each)
- Yoke mount retaining knob (2 each)
- M10 x 1.0 x 23mm socket head screw, with flat and lock washer for security-enhanced yoke mounting (2 each)
- Yoke mount insert plug for non-yoke mount application (2 each)
- Swivel feet and retaining knob for floor monitor application (2 each)
- Self-adhesive rubber feet for swivel (4 each)
- Omni-Mount adapter plate and M4 self-tapping retaining screw (1 each)
- This User Manual

AD-S282H and AD-S282HT

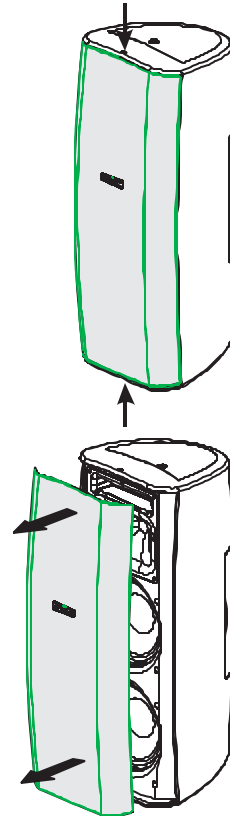
- AD-S-282H or AD-S282HT loud speaker (1 each)
- Yoke mount (1 each)
- Yoke mount retaining knob (2 each)
- M10 x 1.0 x 23mm socket head screw, with flat and lock washer for security-enhanced yoke mounting (2 each)
- Yoke mount insert plug for non-yoke mount application (2 each)
- Input wiring cover and gasket (1 each)
- Input wiring cover retaining screw, M4 x 1.4 x 15 mm (2 each)
- Input wiring strain relief bushing with wire hole (2 each, may be part of cover)
- Input wiring strain relief bushing, no wire hole (1 each)
- Strain relief bushing retaining nut with wire hole (2 each)
- Strain relief bushing retaining nut, no wire hole (1 each)
- Omni-Mount adapter plate and M4 self-tapping retaining screw (1 each)
- This User Manual

Grill Removal

If it is necessary to remove the protective grill, do so with care and to avoid bending or distorting the grill. The grill is held in place by two retaining screws, one at the front edge of the top of the cabinet and one at the front edge of the bottom.

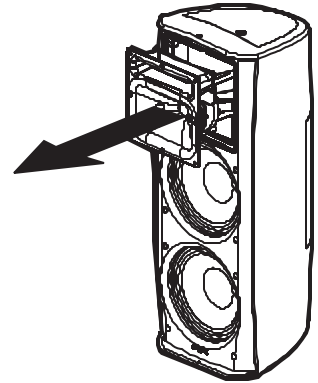
Removing the Grill

- 1- Using a #2 Phillip-head screwdriver, remove the two grill retaining screws.
- 2- Carefully pry the grill from its retaining groove using a plastic flat-blade tool such as a plastic putty knife. Gently and evenly work the grill out of its retaining groove to avoid bending the grill.



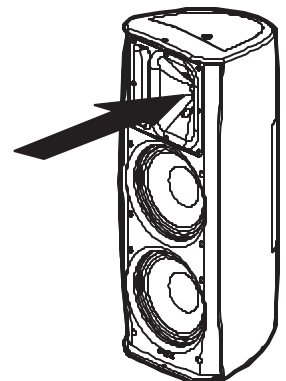
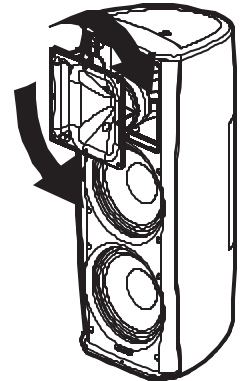
Coverage Angle

Before mounting the loudspeaker, determine the mounting orientation and desired coverage angle. As supplied from the factory, the loudspeaker coverage angles are 90° (horizontal) x 60° (vertical) with the cabinet oriented vertically. The waveguide can be rotated to interchange the coverage angle.



Rotating the Waveguide to Alter HF Coverage Pattern

- 1- Remove the grill as outlined, above.
- 2- Remove the eight waveguide retaining screws. A #2-size Phillip screwdriver is recommended.
- 3- Reach into the waveguide port and pull gently to remove the waveguide. Be careful not to damage the connection, wiring, or the gasket between the waveguide and the cabinet.
- 4- Rotate the horn 90° clockwise or counter clockwise and set it back in place. Make certain the wiring is not stretched or pulled loose from its connection.
- 5- Before reinstalling the waveguide screws, lift the assembly a small distance and make sure that the gasket is properly in place. Reposition it, if required. Set the waveguide in place and reinstall the screws. Do not overtighten.
- 6- Replace the grill and install the upper and lower grill retaining screws.



Mounting



IMPORTANT! ENSURE THAT THE LOUDSPEAKER IS MOUNTED PROPERLY AND A SAFETY CABLE IS INSTALLED TO RETAIN THE LOUDSPEAKER IN THE EVENT OF A MOUNTING FAILURE. CONSULT A LICENSED, PROFESSIONAL ENGINEER WHEN ANY DOUBT OR QUESTIONS ARISE REGARDING A PHYSICAL EQUIPMENT INSTALLATION.

Safety Cable Attachment (all model)

On the back of the loud speaker, near the bottom, is a safety cable attachment point. Install a safety cable strong enough to support several times the weight of the loud speaker assembly in the event it may fall. The cable must be secured to a secondary support point which is also strong enough to support several times the loud speaker weight.

Yoke Mount (all model)

The included yoke mount handle is for surface mounting application. It is constructed of light, strong alloy and pre-drilled for ease of use. Integral bushing at the cabinet contact point ensure ease of positioning. A large center-hole is provided on the mounting surface for wiring pass-through.

Mount the yoke to a surface strong enough to support the weight of the loud speaker assembly using suitable hardware (not included). If any doubt exist as to the suitability or strength of the mounting surface, consult a qualified professional engineer. After securing the yoke to the mounting surface, have an assistant hold the loud speaker in place while installing either the retaining knob or socket head screw with flat and lock washer (AD-S282H and AD-S282HT only). Once the loud speaker has been positioned for desired acoustic coverage, tighten the hardware securely.

Floor Monitor (I-282H only)

The I-282H yoke mount comes with two swivel feet, four self-adhesive rubber feet, and retaining knob. Attach the two of the rubber feet to each of the two swivel outrigger bars, one at each end. Press firmly in place to ensure adhesion. Then attach each of the two swivel outrigger bars to the yoke mount using the two small retaining knobs included. The rubber feet should be oriented away from the yoke mount. Swivel the outrigger bars perpendicular to the long axis of the yoke and tighten the retaining knob. Set the completed yoke assembly on the floor, resting on the rubber feet. Place the loud speaker into the yoke and secure using the two large retaining knobs provided. Position the loud speaker for desired acoustic coverage and tighten the retaining knob securely.

Pole Mounting (I-282H only)

On the bottom of the I-282H is a pole cup that accepts 1.375 or 1.500 (35 mm or 38 mm) pole diameter. For pole mounting, lift the loud speaker into position over the pole end and set it onto the pole. Ensure the pole is fully and firmly seated into the pole cup of the loud speaker.

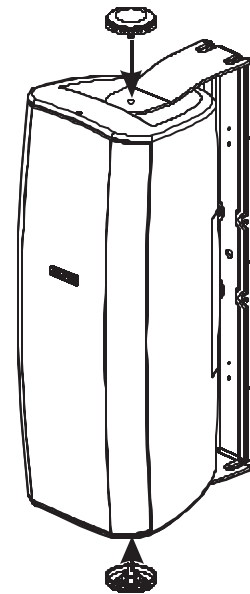
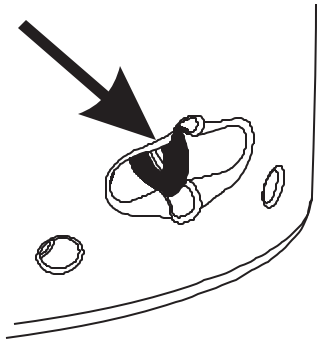
OmniMount (all model)

For application requiring the use of OmniMount Pro 60.0 mount, there is an adapter plate included. The adapter plate is used between the OmniMount bracket and the loud speaker cabinet. Orient the plate with its curved side toward the loud speaker and its safety cable access cut-out toward the bottom of the loud speaker. Attach to cabinet using the provided M4 x 18mm self-tapping screws. Consult OmniMount literature and installation recommendation for proper and safe application of their product.

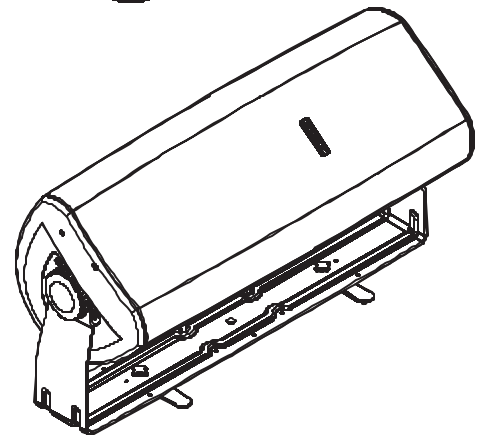


We recommend the use of M8 x 1.25 x 50mm bolt for securing the OmniMount bracket to the loud speaker cabinet.

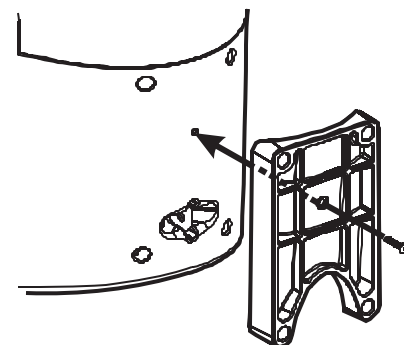
Attach safety cable here



For enhanced security, use the included M10 socket head screw to secure the loud speaker to the yoke mount.



OmniMount adapter plate- Attach to cabinet using provided M4 x 18mm self tapping screws, then attach OmniMount following manufacturer recommendation.



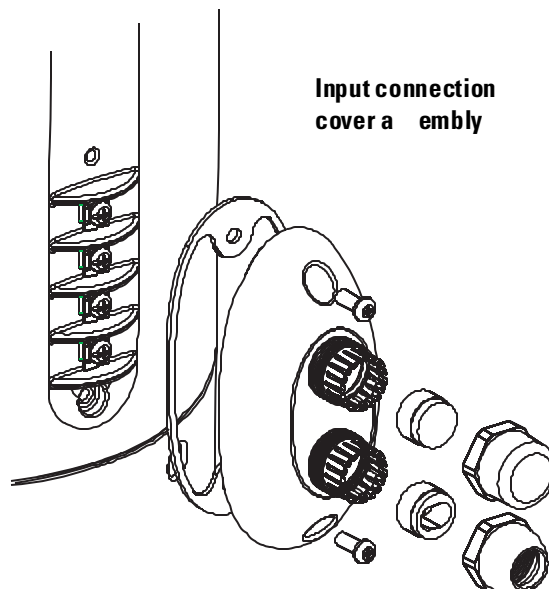
Input Connection Cover (AD-S282H/HT model)

The loud speaker include a weather resistant cover for the input terminal . If using the cover, be sure to pass the wiring through the bushing nut, bushing, cover, and gasket before making connection .The input wiring cover is keyed to fit one way only! Be sure the keyed end is oriented toward the bottom of the loud speaker cabinet. For proper sealing, we recommend #12 to #10 AWG (3.3 to 5.3mm²) stranded loud speaker cable with a flat or twisted cross section. If using smaller gauge wiring, it may be necessary to use additional weather resistant compound to achieve proper sealing of the wire entry point .

- Pass the wire through the wire cover/gasket, bushing, and nut.
- Strip the wire and connect to barrier strip terminal .
- Slide the cover over the terminal and secure using the two machine screws provided.
- Ensure gasket is seated properly; tighten compression nut.



To assure weather-tight connection , make sure the input cover is installed with its keyed end toward the loud speaker bottom, fit flush against the loud speaker cabinet, all gaskets are properly placed, and all hardware tightened sufficiently.



Bi-amp / Passive Mode Selector Switch (I-282H and AD-S282H model)

Before applying signal to the loud speaker, ensure the BI-AMP / PASSIVE mode selector switch is set to the appropriate position. Use a coin or flat-tipped screwdriver to change the switch position.

BI-AMP

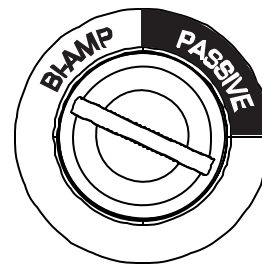
Bi-amp mode requires pre-processing of the signal before the loud speaker so that low-frequency signal only is connected to the LF terminal , and high-frequency only signal is connected to the HF terminal . The internal crossover network is bypassed completely when the switch is set to BI-AMP.

PASSIVE

Passive mode utilizes the loud speaker internal crossover network and requires a full-range signal be applied to the PASSIVE terminal . Do not use the terminal marker HF when using the loud-speaker in passive mode.

Set the mode selector switch to the appropriate position before applying signal to the loud speaker to avoid the possibility of damaging the driver .

Mode selector switch



Transformer Tap Selector Switch (AD-S282HT)

Set the transformer tap selector switch to the appropriate setting before applying audio. To select the power level, align the tap selector switch slot with the desired power setting number. Use a coin or flat tip screwdriver to operate the switch.

70V Distributed System : use the right side marking . Select from **25, 50, 100,** or **200** watt .

100V Distributed System : use the left side marking . Select from **50, 100,** or **200** watt . the **X** position should not be used.

8 Ohm low impedance System : Set the tap selector switch to **8 ohm** .

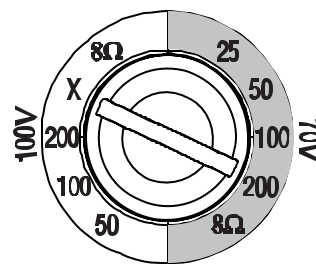


NOTE! 8 ohm setting should be used for 8 ohm audio system only. Do not use 8 ohm setting when connecting the AD-S282T loud speaker to 70V/100V distributed audio system .



Set the tap selector switch to the appropriate position before applying signal to the loud speaker to avoid the possibility of damage.

Transformer tap selector switch



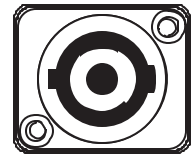
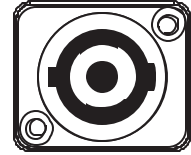
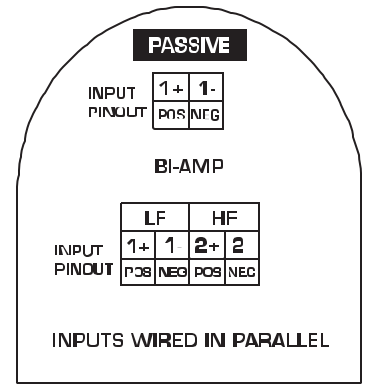
Connection

I-282H

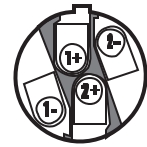
PASSIVE: Set the **BI-AMP / PASSIVE** selector switch to **PASSIVE**. Connect the full-range + input signal to Speakon pin 1+ and the full range - input signal to Speakon pin 1-. The two Speakon connector wired in parallel, allowing a second I-282H loud speaker (also set for **PASSIVE** operation) to be connected directly to the remaining Speakon connector.

ACTIVE: Set the **BI-AMP / PASSIVE** selector switch to **BI-AMP**. Connect the low frequency + signal to Speakon pin 1+ and the low frequency - signal to Speakon pin 1-. Connect the high frequency + signal to Speakon pin 2+ and the high frequency - signal to Speakon pin 2-. A second I-282H loud speaker (also set for **BI-AMP** operation) may be connected in parallel by connecting it to the remaining Speakon connector using a four wire Speakon connection.

I-282H Speakon pinout



Speakon plug pinout as viewed from wire-side

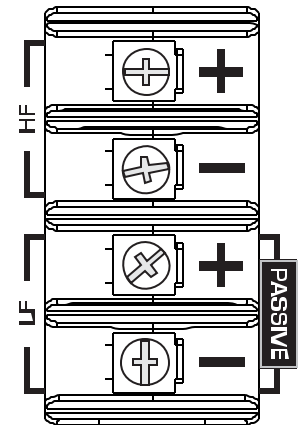


AD-S282H

PASSIVE: Set the **BI-AMP / PASSIVE** selector switch to **PASSIVE**. Connect the input to the **PASSIVE +** and **PASSIVE -** terminal on the rear of the loud speaker. Do not use the second set of terminal marked **HF +** and **HF -**.

BI-AMP: Set the **BI-AMP / PASSIVE** selector switch to **BI-AMP**. Connect the low frequency signal to the terminal marked **LF +** and **LF -**. Connect the high frequency signal to the terminal marked **HF +** and **HF -**.

AD-S282H terminal pinout

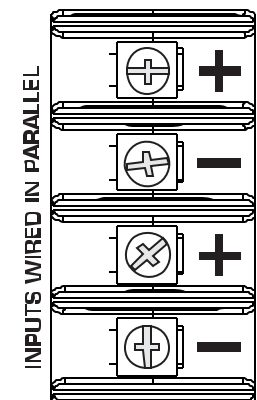


AD-S282HT

Connect the input to one set of the **+** and **-** terminal on the rear of the loud speaker.

Additional loud speaker may be connect to the second set of **+** and **-** terminal.

AD-S282HT terminal pinout



Specification - AD-S282H (passive), AD-S282HT, I-282H (passive)

Frequency Range:	80- 27.7k Hz (-6 dB, free field response) 60- 29.5k Hz (-10 dB, free field response)		
Maximum Output:	119dB SPL continuous output (calculated) 125dB SPL peak output (calculated)		
Impedance:	8 ohm nominal 5.5 minimum at 17.6k Hz 64.2 maximum at 2.56k Hz		
Power Rating:	400 watt rms (IEC 268-5, 8 hour, 50-20k Hz, 6dB crest factor)		
Recommended Amp Power:	800 watt rms		
Sensitivity:	93dB, 1 watt, 1 meter, free field (4 pi)		
Nominal Coverage:	90° horizontal x 60° vertical with waveguide aimed at factory		
Directivity Index and Q:	<u>Frequency</u>	<u>DI</u>	<u>Q</u>
	500 Hz	6.2	4.2
	1k Hz	9.5	8.9
	2k Hz	11.0	12.6
	4k Hz	9.5	8.9
	8k Hz	8.5	7.1
	16k Hz	8.0	6.3
Transformer (AD-S282HT only)	<u>70V</u>		<u>100V</u>
Tap (switch selectable)	25, 50, 100, and 200W		50, 100, and 200W
8 ohm bypass	Yes		Yes

Specifications are subject to change without notice.

Specification - AD-S282H and I-282H with Recommended Signal Processing

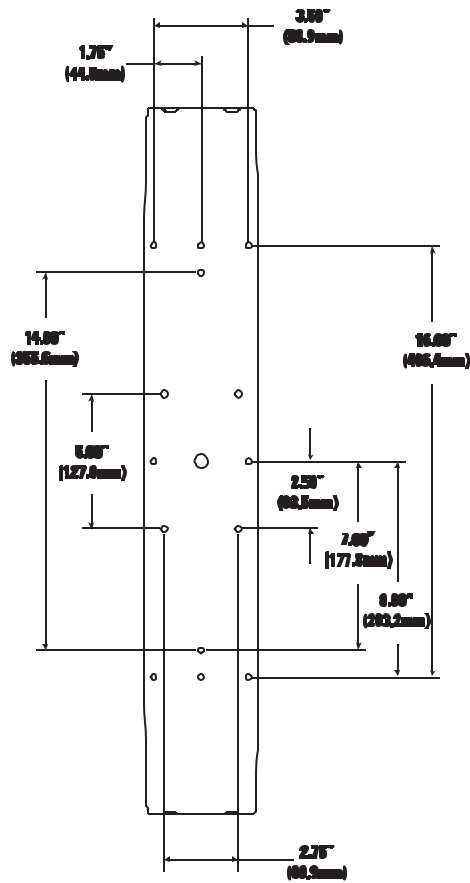
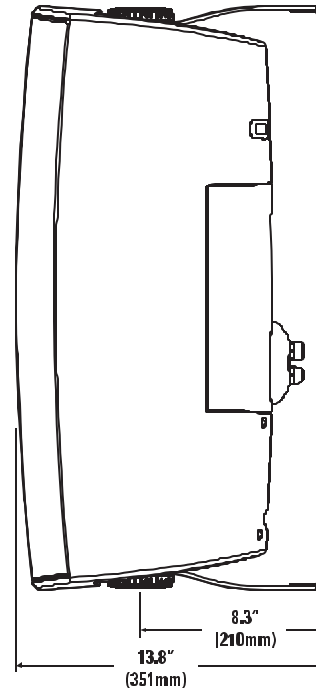
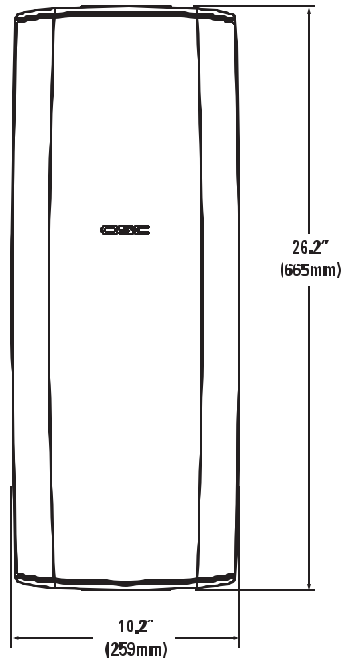
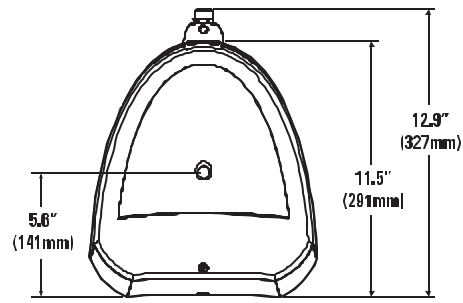
	<u>Low Frequency Driver (parallel)</u>	<u>High Frequency Driver</u>
Frequency Range:	70- 2.1k Hz (-6 dB, free field response) 60- 2.7k Hz (-10 dB, free field response)	2.1k- 24.0k Hz (-6 dB, free field response) 1.9k- 24.0k Hz (-10 dB, free field response)
Power Rating:	400W (8 hr., IEC268-5, 50- 2.0k Hz, 6dB crest factor)	50W (8 hr., IEC268-5, 1.0k- 20.0k Hz, 6dB crest factor)
Recommended Amp Power:	800W	100W
Nominal Coverage:	90° horizontal x 60° vertical with waveguide antenna installed at factory	

Physical Specification

Weight:	I-282H: 28.5 lb. net, 36.8 lb. shipping (12.9 kg., 16.7 kg.) AD-S282H: 27.7 lb. net, 35.6 lb. shipping (12.6 kg., 16.1 kg.) AD-S282HT: 32.9 lb. net, 40.8 lb. shipping (14.9 kg., 18.5 kg.)
Enclosure and Grill:	Painted high impact polystyrene, removable aluminum grill
Control	AD-S282HT: rotary tap selector switch AD-S282H and I-282H: Active / Passive mode selector rotary switch
Connector :	I-282H- 2 NL4 Speakon wired in parallel AD-S282H- barrier strip screw terminal, 1 set used for passive, 2 set used for bi-amp AD-S282HT- barrier strip screw terminal, 2 set wired in parallel
Mounting Hardware:	All model - yoke mount with retaining knob I-282H- include swivel outrigger feet, retaining knob, and rubber feet, integral pole cup accept 1.375" or 1.500" (35 mm or 38 mm) pole diameter AD-S282H and AD-S282HT: include socket head screw and washer for enhanced security

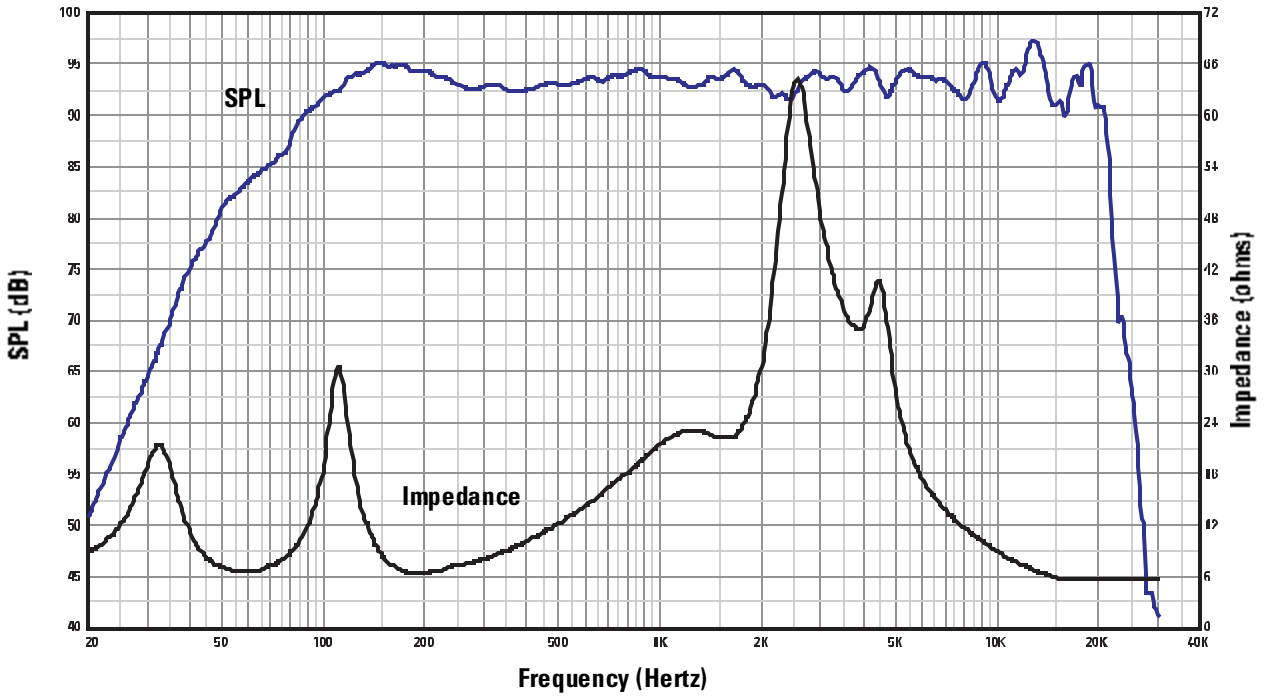
Specifications are subject to change without notice.

Dimen ion

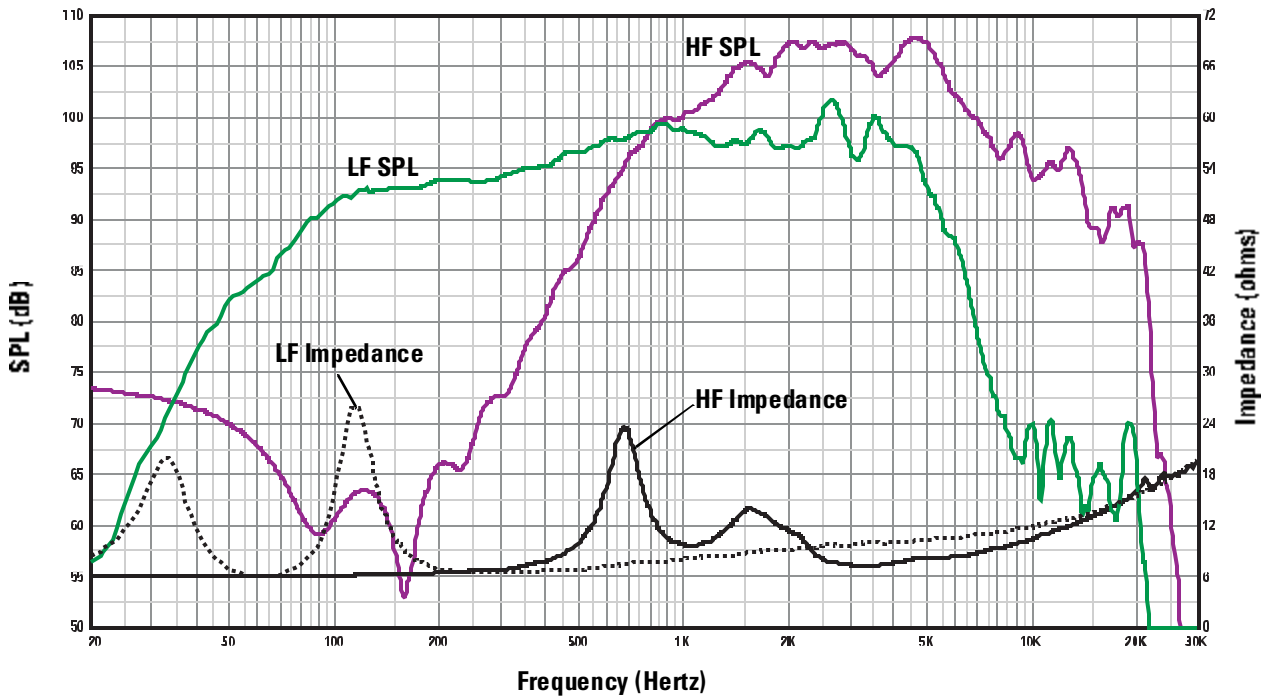


I-282H, AD-S282H, and AD-S282HT Beamwidth, Response, and Impedance Curve

On-axis Response and Impedance vs. Frequency, Passive



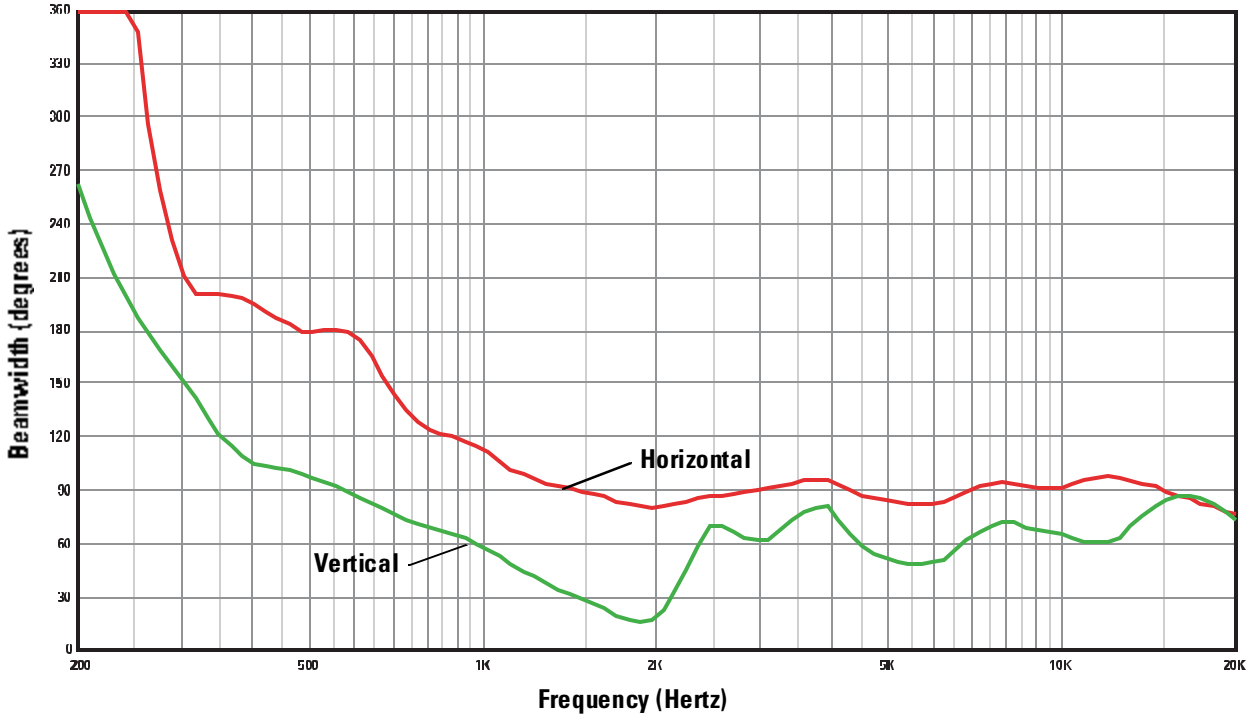
On-axis Response and Impedance vs. Frequency, Bi-amp



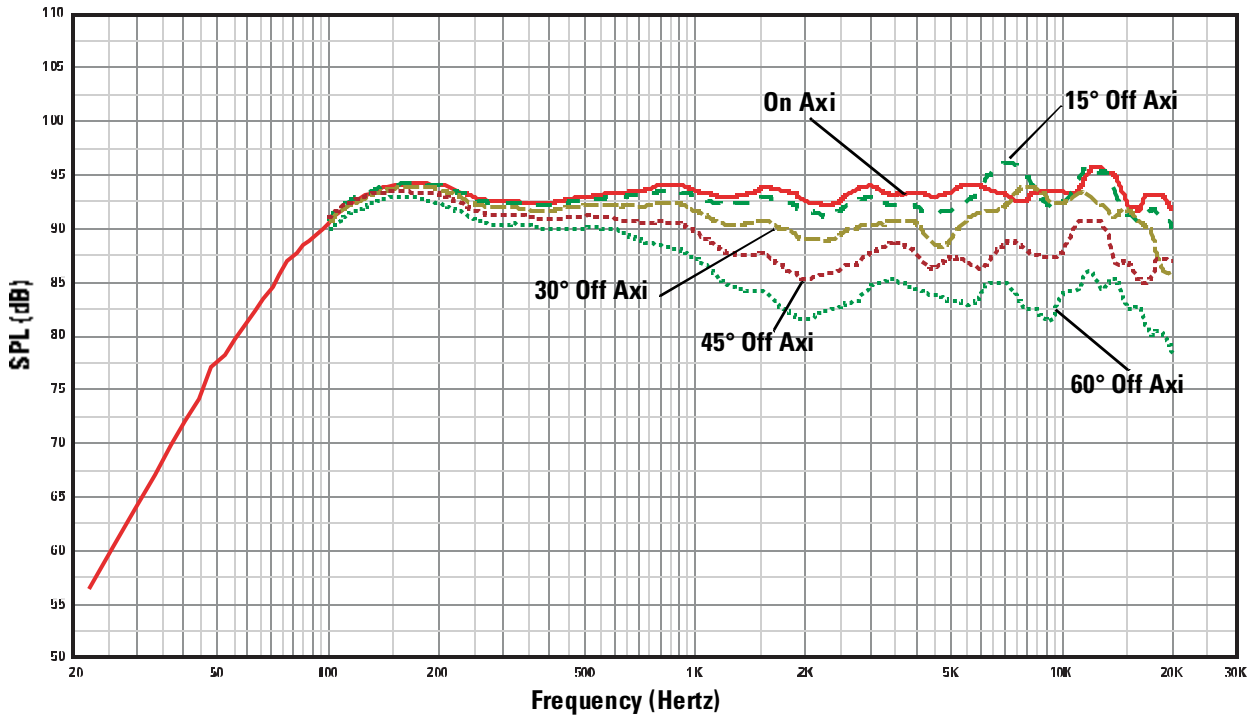
Specifications are subject to change without notice.

I-282H, AD-S282H, and AD-S282HT Beamwidth and On/Off Axis Response Curve

Horizontal and Vertical Beamwidth V . Frequency



Response On-Axis, 15°, 30°, 45°, and 60° Off-Axis V . Frequency



Painting the Loud speaker

The loud speaker enclosure, grill, and mount can be painted to match any decor, provided the following precautions are observed. The cabinet is made of high impact polyethylene which requires controlled painting procedure in order to obtain good results. Use a paint system designed for high impact polyethylene from any reputable paint supplier.

- 1- Remove the grill.
- 2- If painting mount and loud speaker as a unit: Attach the ball mount or yoke mount.
- 3- Mask the loud speaker input connector.
- 4- Mask the woofer, tweeter, and port being certain not to apply tape directly to the driver. Alternatively, the inside of the grill can be completely masked and set in place on the loud speaker enclosure for painting.
- 5- Wash the component to be painted with a mild soap and hot water. Be careful not to get water on or into either of the driver or the input connection. Rinse with hot water. Allow to dry thoroughly.
- 6- Scuff- sand the component to be painted using red Scotchbrite® pad or 320 - 400 grit sandpaper.
- 7- Using compressed air, remove all dust from the component to be painted. Do not blow compressed air directly into either driver.
- 8- Clean the component to be painted.
- 9- Using a clean, lint-free, white cloth, wipe the component to be painted with suitable prep solution.
- 10- Apply adhesion promoter.
- 11- Apply primer topcoat.
- 12- Apply paint.
- 13- Allow to dry for at least 8 hours before handling.