



IS 2.8P

8 x 2-inch
column speakers

IS 3.8P

8 x 3-inch
column speakers

SP 12.1P

Twelve-inch subwoofer

IS-TR7B

Tripod mount for IS 2.8P or IS 3.8P

IS-PM6B

Pole mount for IS 2.8P or IS 3.8P
+ SP 12.1P

IS-TWM

Tilt wall mount for IS 2.8P or IS 3.8P

IS-FWM

Flush wall mount for IS 2.8P or IS 3.8P

IS-JP2

Joining bracket for two IS 2.8Ps or IS 3.8Ps

Operating and Installation Manual



IS-JP2

IS-TWM

IS-FWM

Safety and Operation Precautions.

1. **Heed all warnings; follow all instructions.**
2. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way.

Installation and Mounting

3. To prevent inductive effects from causing hum and/or noise, loudspeaker lines should not be laid together with other electric cables, microphone or line level signal cables connected to amplifier inputs.
4. To ensure proper sound reproduction, correct loudspeaker polarity is necessary. Check "+" and "-" polarity at both the amplifiers and the IS Series speakers.
5. Make sure loudspeaker lines are not shorted before turning the amplifier on.
6. The entire audio system must comply with the current local standards and regulations regarding electrical systems.
7. Ashly recommends this product only be permanently installed by licensed, professional installers (or specialized firms) who can ensure a correct installation and certified by a local inspector.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Use only with mounts or brackets specified by Ashly Audio.
10. Check the suitability of the support surface to which the product is anchored (wall, ceiling, structure, etc.) and the attachment components (wall plugs, screws, brackets etc.) to confirm that they are in compliance with requirements set forth by local building, safety and electrical codes.
11. Make sure all connections have been made correctly and the loudspeaker input voltage is suitable for the amplifier output.

12. Protect loudspeaker lines from damage. Make sure they are positioned in a way that they cannot be stepped on or crushed by objects.
13. Make sure that no objects or liquids can get into this product, as this may cause a short circuit.
14. Place the SP 12.1P subwoofer on a flat, rigid and anti-skid surface.

Pole, Tripod Mount, Joining Plate

15. Please use Ashly **IS-TR7B** tripod mount for IS 2.8P and IS 3.8P speakers. If mounting the speakers on top of the SP12.1P subwoofer, use only **IS-PM6B** adjustable speaker poles.
16. When pole or tripod mounting IS column speakers, make certain units are placed in a safe and secure area which is free from foot traffic or other activities which could cause accidental tripping or stand collapse.
17. Open the mount's three "legs" as wide as possible to ensure its stability.
18. Tighten the height-adjustment bolt firmly.
19. Insert the safety pins on both the fixed and extendable parts of the tripod or pole.
20. Make sure the the Ashly IS-JP2 accessory joining plate used to connect to IS speakers is securely attached.
21. When using two IS speakers joined by an IS-JP2 vertical mounting plate, pay particular attention to tripod placement. Confirm that the tripod mounts' three legs are fully extended. Remember that the center of gravity is higher than with a single IS speaker.

Operation

22. IS column line arrays can deliver high sound pressure that can surpass 90 dB. Exposure to high sound levels can cause permanent hearing loss. Monitor and control the volume at all times.
23. If amplifiers or other connected equipped displays "clipping", "peak", or other overload conditions, adjust to assure these are operating below that threshold to prevent a distorted signal, which may cause damage to the speakers.
24. To avoid clipping, always use a clip limiter if available. Always observe specified high pass filtering recommendations; failure to do so may result in damage to drivers.
25. Contact your authorized service center or qualified personnel should any of the following occur:
 - The loudspeaker does not function normally
 - The cable has been damaged
 - Objects or liquids have gotten into the unit
 - The loudspeaker has been damaged due to heavy impacts
26. Clean only with a dry cloth. Do not use solvents, alcohol, benzene, or other volatile substances for cleaning the external parts of this product.
27. Don't unplug signal cables when the amp connected to your IS Series speakers is still on.
28. Don't remove the metal grille of the speaker, which can cause damage to the speaker cones.
29. Depending on the impedance switch setting on the back of the IS speakers (8/32 ohms), make sure to limit the number of connected speakers to match the amplifier's minimum safe operating impedance. Please refer to the Ashly amplifiers operations manual for the correct settings and speaker count.

IS 2.8P & IS 3.8P

- 8 x 2-inch (IS 2.8P) and 8 x 3-inch (IS 3.8P) matched, high power handling transducers with Neodymium magnet structures and heat-resistant voice coils
- Switchable 8 Ω / 32 Ω impedance allows up to eight loudspeakers to be driven by a single amplifier channel.
- AquaControl™ and Protēa DSP presets for selected Ashly power amplifiers and DSP processors (see page 6 for listing)
- 2-pole Euroblock connector, plus 2 x ¼-inch phone jacks (IS 2.8P)
4-pole Euroblock connector, plus 2 x SpeakOn® Connectors (IS-3.8P)
- High-strength and light aluminum enclosure
- Durable, chip-resistant polymer coating
- Optional pole, tripod, and tilt or flush wall mounts

SP 12.1P

- 12-inch, high power handling (350 W) low-frequency transducer with ferrite magnet structure
- 4-pole Euroblock terminal inputs
- Neutrik® SpeakOn x 2 inputs
- Internally-braced birch ply enclosure
- Pole sockets on top and side

Thank you for choosing Ashly IS Series line array column speakers (and hopefully our matching subwoofer). We know that there are many choices on the market today; so we have worked hard to create column speakers that set themselves apart from the rest.

Elevate or wall-mount a pair of IS 3.8P or IS 2.8P speakers on stands, add one or more SP 12.1P subwoofers and you have a high-fidelity, high-output system that's perfect for reception halls, small churches, mobile discos, bars, coffee shops, and many other applications.

Before installation, check for any possible shipping damage. Also, please read all of the **Safety and Operation Precautions** on the previous page.

Note that this Guide also covers **IS-TWM Tilt Wall Mount Bracket, IS-JP Joining Bracket, and IS-FWM Flush Wall Mount Bracket.**

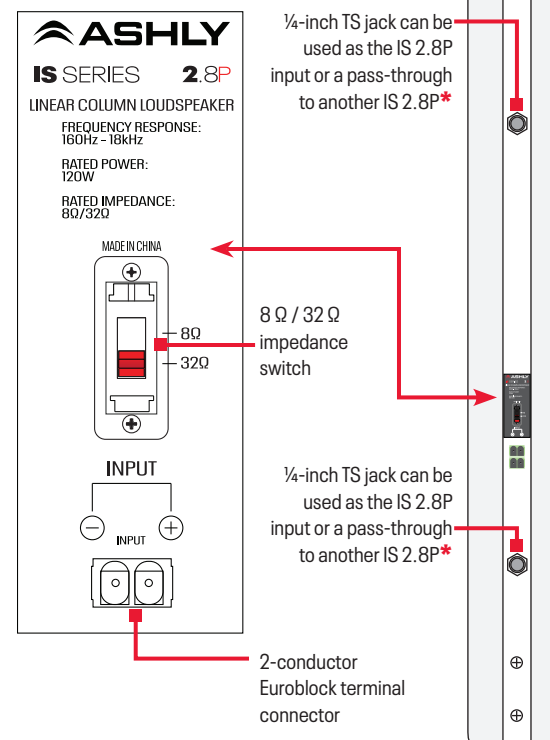
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Back Panel Connections

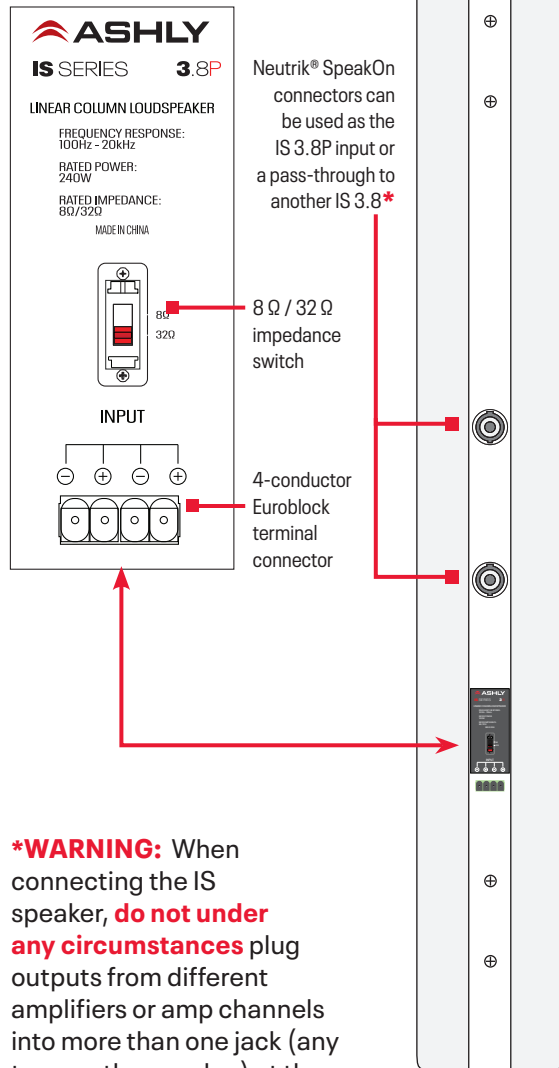
IS Series columns are designed for both permanent and mobile applications. Both models have Neutrik® connections. The IS 3.8P adds Neutric SpeakOn connectors; the IS 2.8P has ¼-inch TS jacks.

IS 2.8P



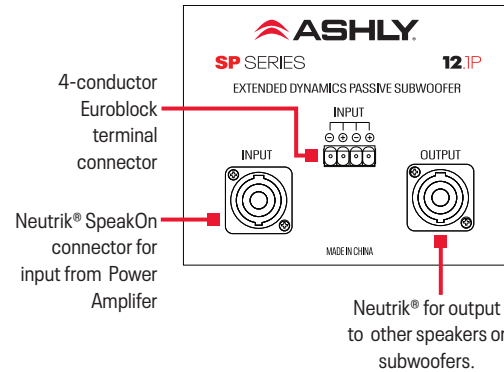
***WARNING:** When connecting the IS speaker, **do not under any circumstances** plug outputs from different amplifiers or amp channels into more than one jack (any type on the speaker) at the same time.

IS 3.8P



***WARNING:** When connecting the IS speaker, **do not under any circumstances** plug outputs from different amplifiers or amp channels into more than one jack (any type on the speaker) at the same time."

SP 12.1P



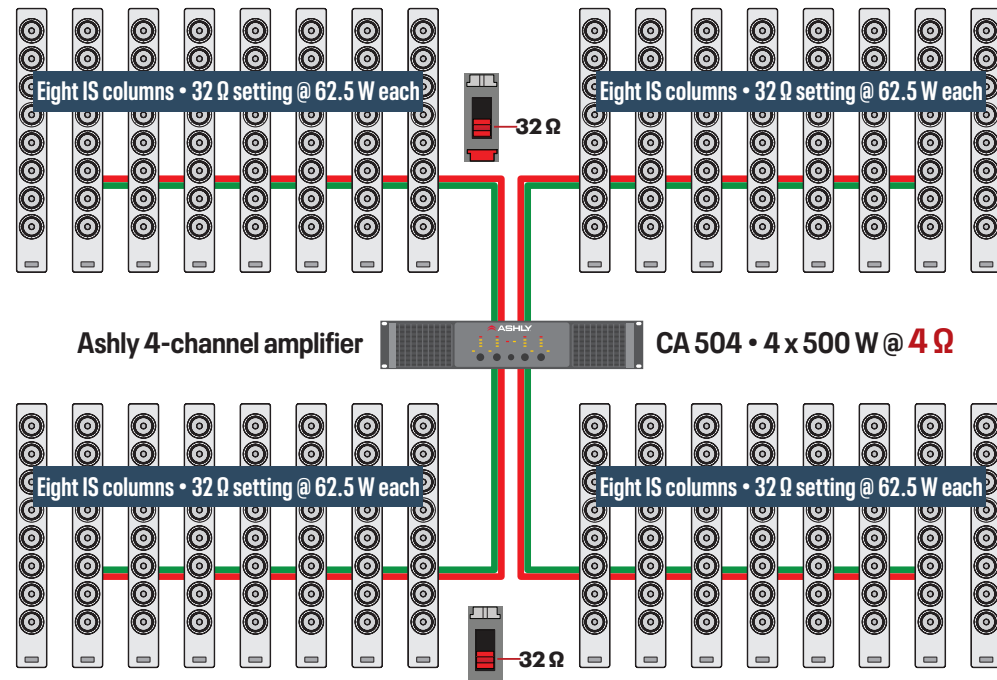
System configurations with Dual-impedance IS Series

IS Series' Hi-Z / Lo-Z design allows more connection options than typical single-impedance column speakers.

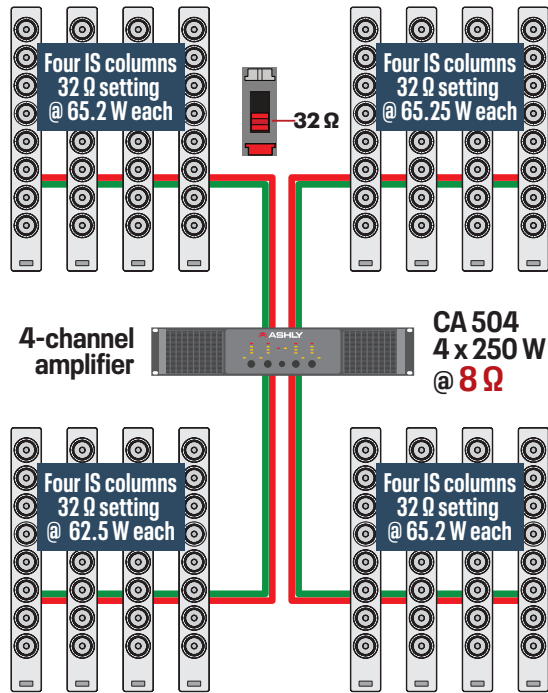
In 8 Ω mode, IS columns are ideal for typical low-Z and live performance applications.

However, switching IS columns to 32 Ω lets one Ashly 4-channel amplifier drive up to 32 individual IS 2.8P or IS 3.8P speakers!

The example below shows 32 IS columns driven with 62.5 watts each via a 4 x 500-watt amplifier.



Shown below is a system with 16 IS columns driven at 62.5 watts each through a 4 x 250-watt amp.



Wattage for each column =
 amplifier power (per channel @ stated impedance) / total number of columns

For example, 500 W @ 4 Ω = 62.5 W per column.
 impedance) / total number of columns.

Impedance =

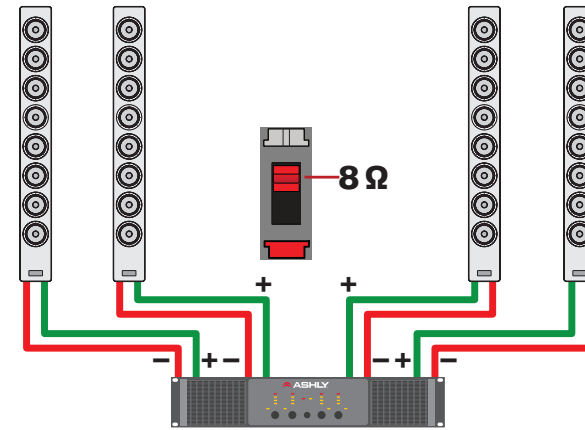
$32 / \text{total number of columns}$

For example, for 8 IS speakers: $32 / 8 = 4$ ohms.

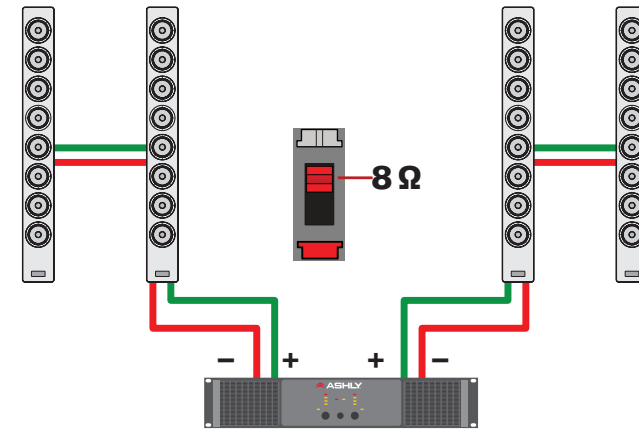
Required amplifier power =
 total number of cabinets x desired speaker wattage

If you need 60W per IS Series speaker,
 then $60 \times 8 = 480$ W

Other typical configurations

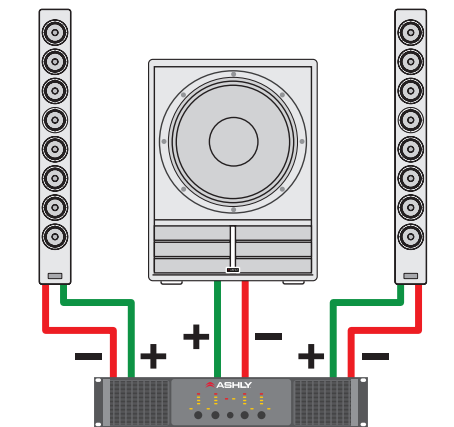
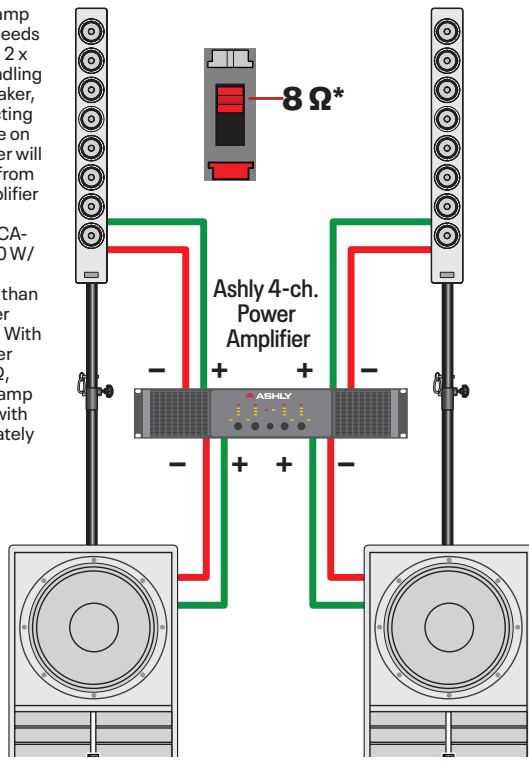


Ashly 4-ch. Power Amplifier
 Each channel delivers power @ 8 Ω

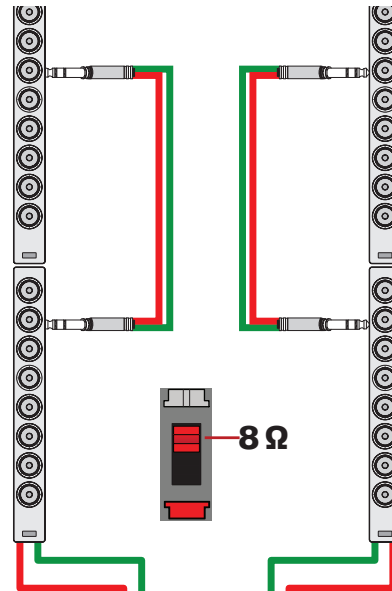
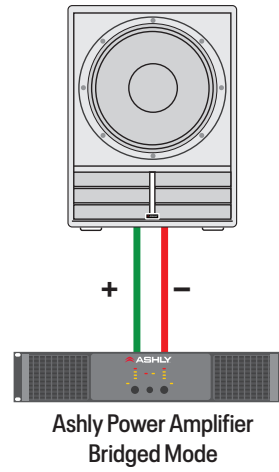


Ashly 2-ch. Power Amplifier

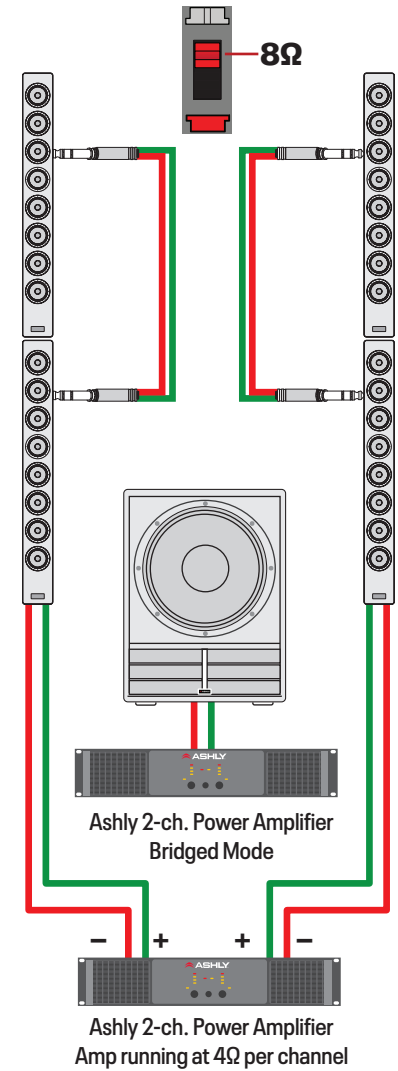
NOTE: If amp power exceeds more than 2 x power handling of the speaker, then selecting 32 Ω mode on the speaker will draw less from those amplifier channels.
 Example, CA-1.04 = 500 W/ch @ 8 Ω (more than 2 x speaker handling). With the speaker set to 32 Ω, the same amp operates with approximately 125 W.



Ashly 4-ch. Power Amplifier
 2 channels @ 8 Ω, 2-channels Bridge Mode (sub)



Ashly 2-ch. Power Amplifier
 Amp running at 4 Ω per channel



Ashly 2-ch. Power Amplifier
 Bridged Mode
 Ashly 2-ch. Power Amplifier
 Amp running at 4 Ω per channel

Ashly AquaControl (via AquaControl™) and Protêa™ software presets for IS Speakers

Audio performance, including directivity and frequency response of IS Series speakers can be enhanced when used in conjunction with:

- mXa-1502 mixer amplifier
- Pêma amplifiers
- ne amplifiers (pe version only)
- nXp amplifiers
- ne DSP system and matrix processors
- ne 24.24m DSP matrix processor
- SP series DSP loudspeaker processors

The various capabilities and software used are shown as follows:

Ashly Product	Ashly Software	Directivity-weighted, optimized linear frequency response	Universal crossover implementation for use between subwoofers and full-range loudspeakers	FIR-corrected, linear phase response above about 300 Hz	Basic loudspeaker processing
mXa-1502	AquaControl	✓	✓	✓	N/A
Pêma amplifiers	Protêa™	✓	✓	✓	N/A
ne amplifier (pe version)	Protêa™	✓	✓	✓	N/A
nXp amplifiers	Protêa™	✓	✓	✓	N/A
ne system and matrix processors	Protêa™	✓	✓	✓	N/A
ne 24.24m DSP matrix processor	Protêa™	✓	*	—	N/A
SP series speaker processors	Protêa™	—	*	—	✿

* Basic loudspeaker processing is defined as basic EQ (4-Band PEQ) approximating the appropriate curve, plus Delay. No advanced EQ or FIR filters.

* HPF/LPF only

IS 2.8P Specifications

Transducer	8 x 2-inch (51 mm) Neodymium
Frequency Response (-10dB limits) ¹⁾	115 Hz - 20 kHz
Sensitivity (ref 2.83V) ^{1,2)}	88 dB
Nominal Impedance	8 Ω / 32 Ω switchable
Maximum Continuous SPL, @ a MIV (continuous / peak) ^{1,2,3)}	104 dB / 115 dB
Maximum Continuous SPL, calculated from power handling (continuous / peak) ^{1,2,3)}	109 dB / 115 dB
Maximum Input Voltage (MIV) ^{1,2)}	28 dBV, 25.1 V (equivalent to 80 W into rated impedance)
Power Handling	120 W
Beamwidth ⁴⁾	Horizontal: 190° Vertical: 30°
Directivity Index (DI) ⁴⁾	14.4 dB
Directivity Factor (Q) ⁴⁾	27.4
Input Connectors	2 x ¼-inch (6.3 mm) phone jack 1 x 2-position Euroblock
Mounting Provisions	IS-TWM Tilt Wall Mount IS-FWM Flush Wall Mount Bracket (included)
Enclosure Material	Aluminum
Dimensions (HxWxD)	24.00 in. x 2.76 in. x 3.54 in. 610 mm x 70 mm x 90 mm
Net Weight	6.4 lbs. / 2.9 kg
Recommended amplifiers	Single-ch.: nXp 400 or higher Bridged: nXp 150 or higher Pema 4125, 4250, 8125, 8250

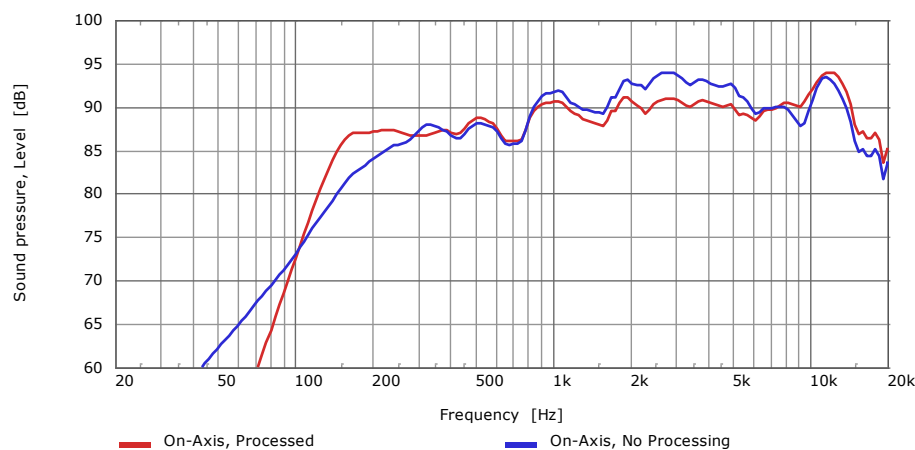
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2) Referenced to 1 m

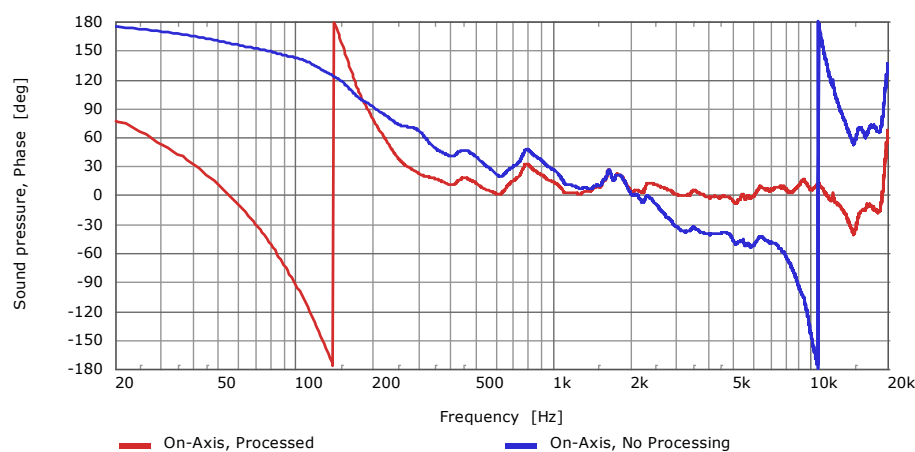
3) The maximum input voltage (MIV) is determined by no more than a 3 dB change in the frequency response of the loudspeaker system

4) Averaged from 400 Hz to 10 kHz

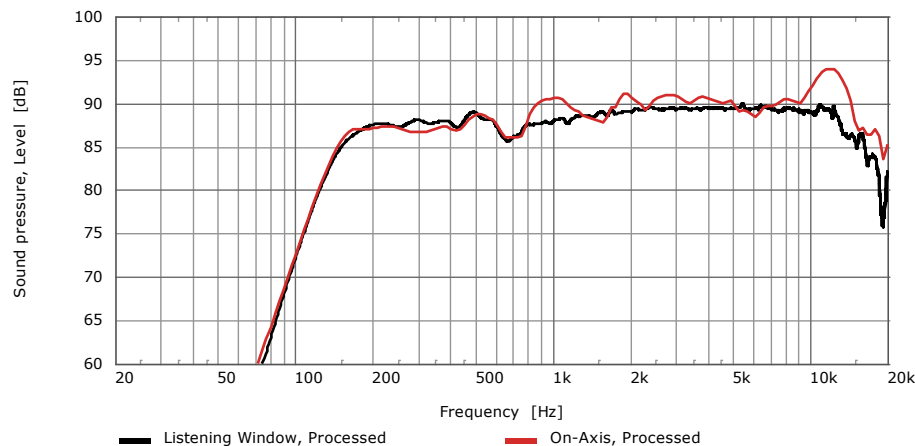
Frequency Response (On-Axis)



Phase Response (On-Axis)

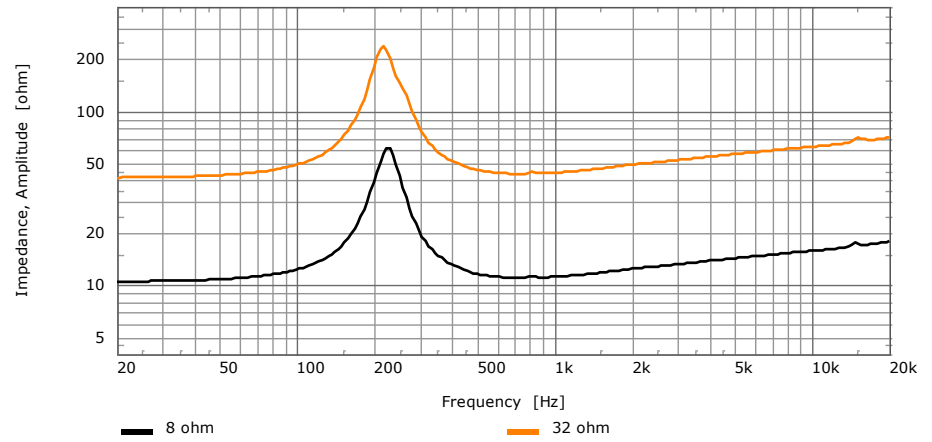


Frequency Response (Listening Window)

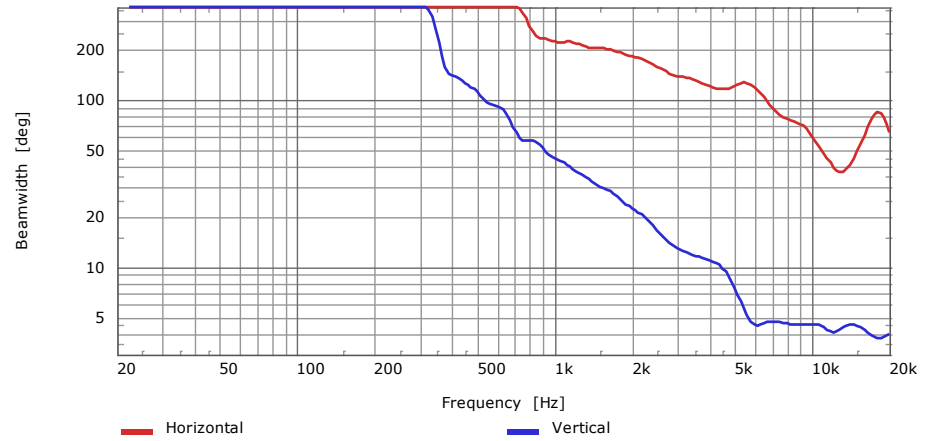


IS 2.8P Specifications

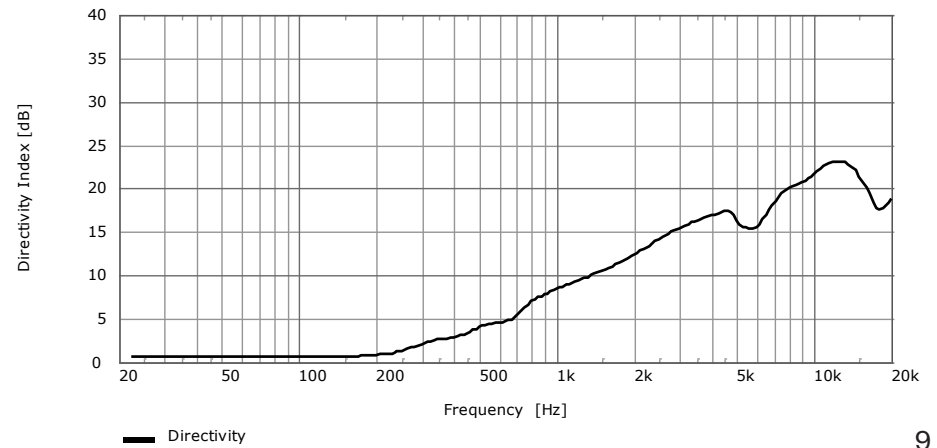
Impedance



Beamwidth



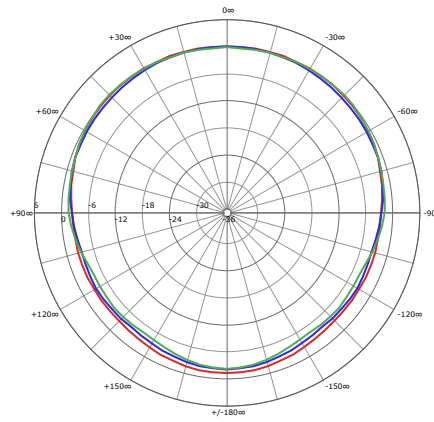
Directivity Index



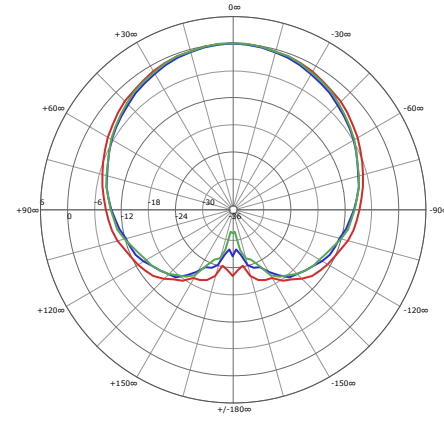
IS 2.8P Specifications

Horizontal & Vertical Polars (1/3 octave)

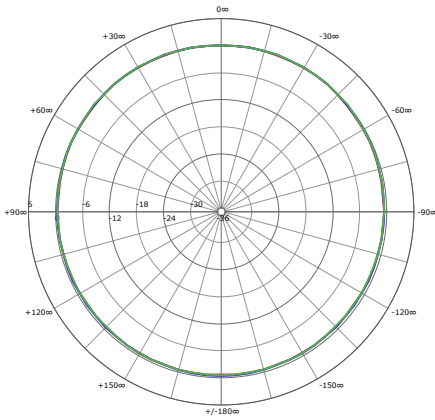
Horizontal



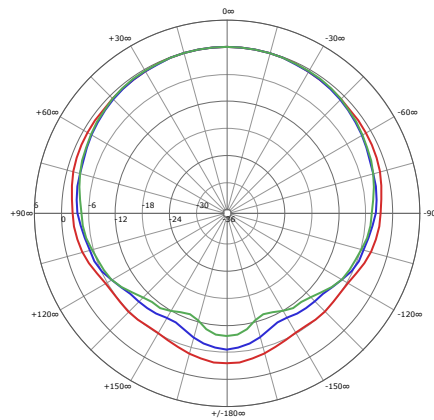
400 Hz 630 Hz



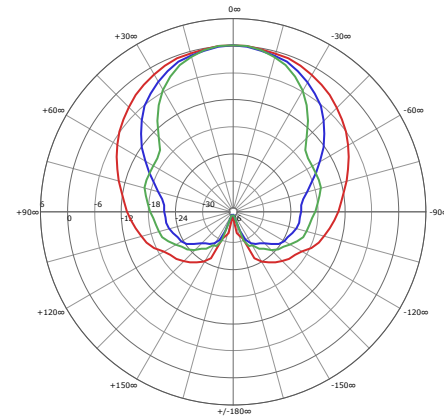
3.15 kHz 5 kHz



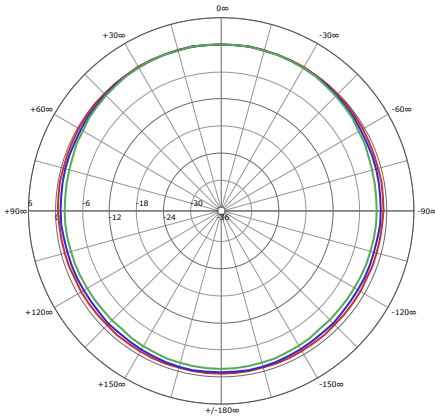
100 Hz 160 Hz



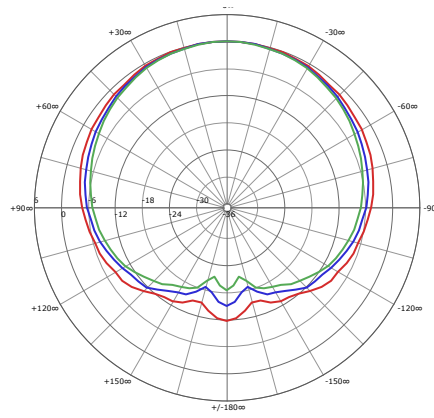
800 Hz 1.25 kHz



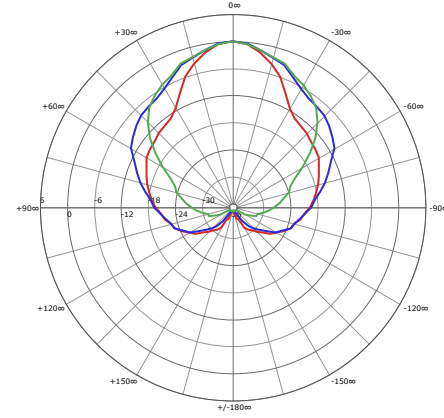
6.3 kHz 10 kHz



200 Hz 315 Hz



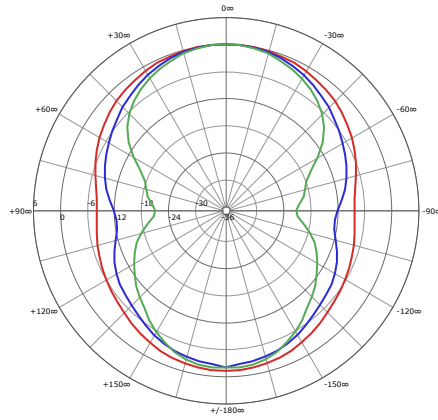
1.6 kHz 2.5 kHz



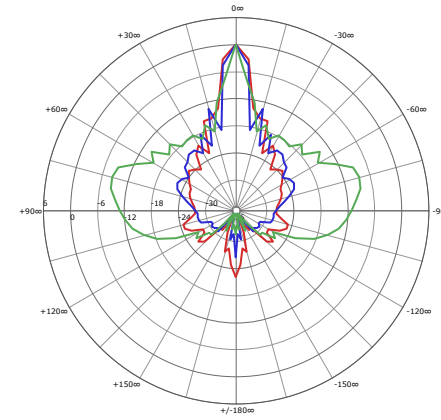
12.5 kHz 20 kHz

IS 2.8P Specifications

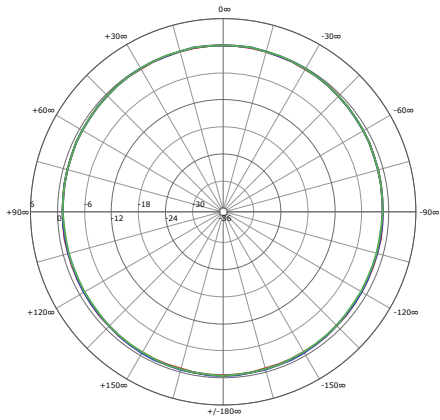
Vertical (1/3 octave)



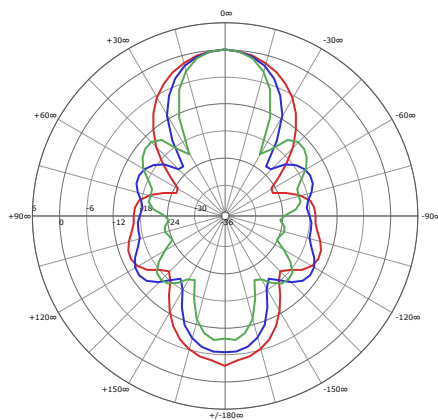
— 400 Hz — 500 Hz — 630 Hz



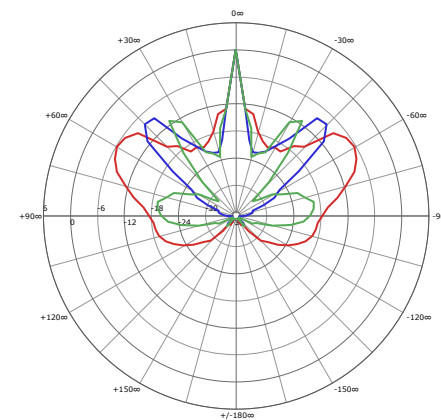
— 3.15 kHz — 4 kHz — 5 kHz



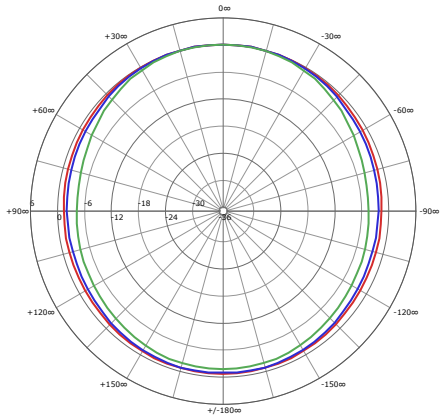
— 100 Hz — 125 Hz — 160 Hz



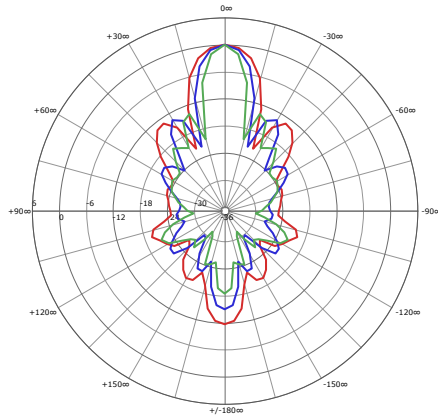
— 800 Hz — 1 kHz — 1.25 kHz



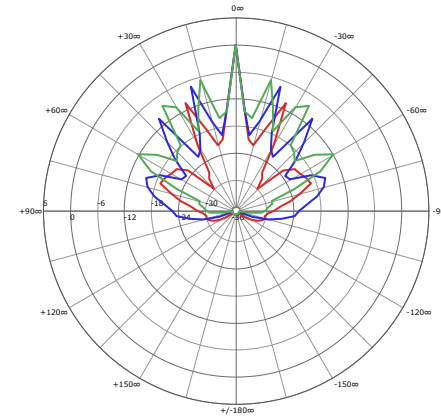
— 6.3 kHz — 8 kHz — 10 kHz



— 200 Hz — 250 Hz — 315 Hz



— 1.6 kHz — 2 kHz — 2.5 kHz



— 12.5 kHz — 16 kHz — 20 kHz

IS 3.8P Specifications

Transducer	8 x 3-inch (76 mm) Neodymium
Frequency Response (-10dB limits) ¹	105 Hz - 19 kHz
Sensitivity (ref 2.83V) ^{1,2}	95 dB
Nominal Impedance	8 Ω / 32 Ω switchable
Maximum Continuous SPL, @ a MIV (continuous / peak) ^{1,2,3}	113 dB / 124 dB
Maximum Continuous SPL, calculated from power handling (continuous / peak) ^{1,2,3}	119 dB / 125 dB
Maximum Input Voltage (MIV) ^{1,2}	30 dBV, 31.6 V (equivalent to 125 W into rated impedance)
Power Handling	240 W
Beamwidth 4	Horizontal: 170° Vertical: 25°
Directivity Index (DI) ⁴	11.8 dB
Directivity Factor (Q) ⁴	15.2
Input Connectors	2 x NL4 SpeakOn 1 x 4-position Euroblock
Mounting Provisions	IS-TWM Tilt Wall Mount IS-FWM Flush Wall Mount Bracket (included)
Enclosure Material	Aluminum
Dimensions (HxWxD)	31.77 in. x 4.06 in. x 5.12 in. 807 mm x 103 mm x 130 mm
Net Weight	12.8 lbs. / 5.8 kg
Recommended amplifiers	Single-channel: nXp 400 or higher Bridged: nXp 400 or higher Pema 4125, 4250, 8125, 8250

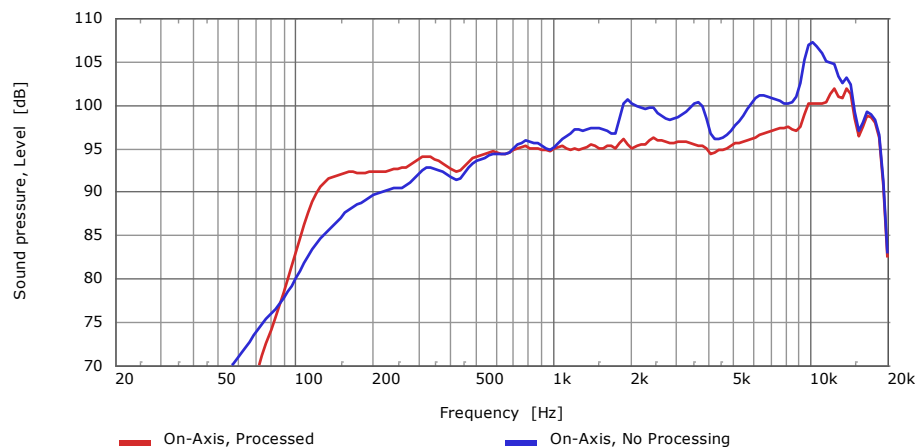
1) With recommended processing (see previous page)

2) Referenced to 1m

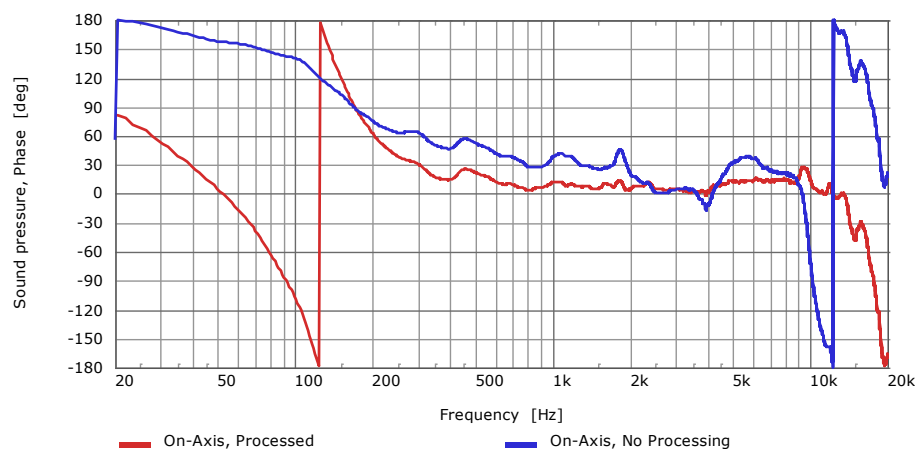
3) The maximum input voltage (MIV) is determined by no more than a 3 dB change in the frequency response of the loudspeaker system

4) Averaged from 400 Hz to 10 kHz

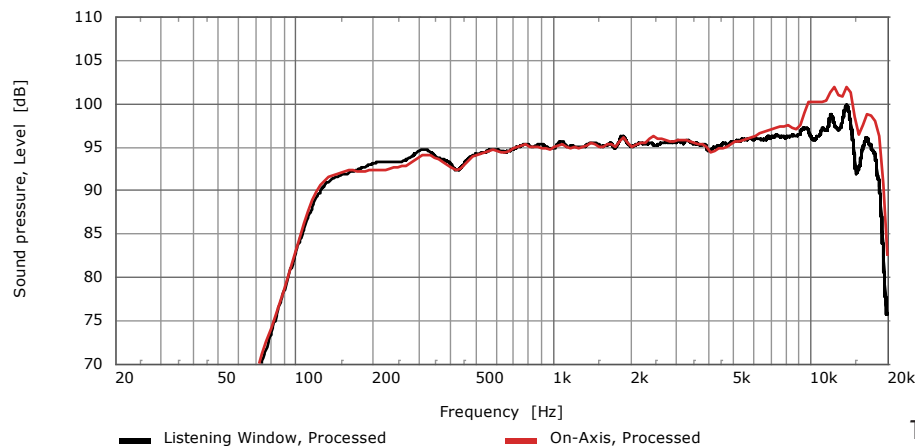
Frequency Response (On-Axis)



Phase Response (On-Axis)

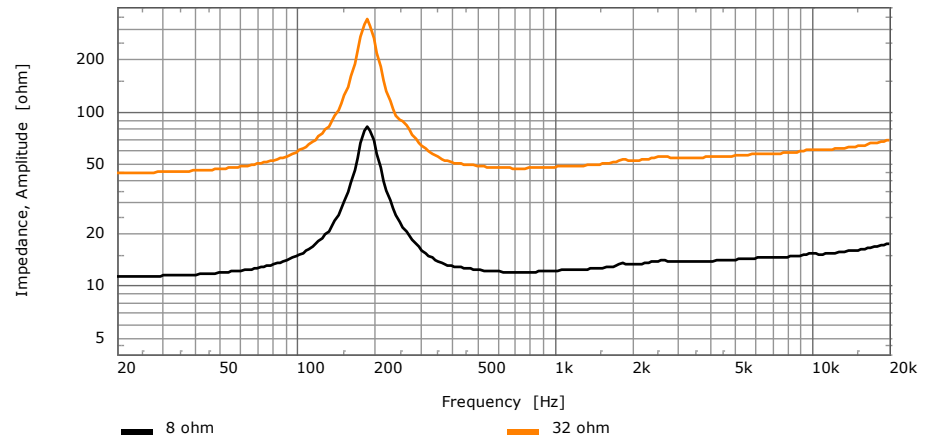


Frequency Response (Listening Window)

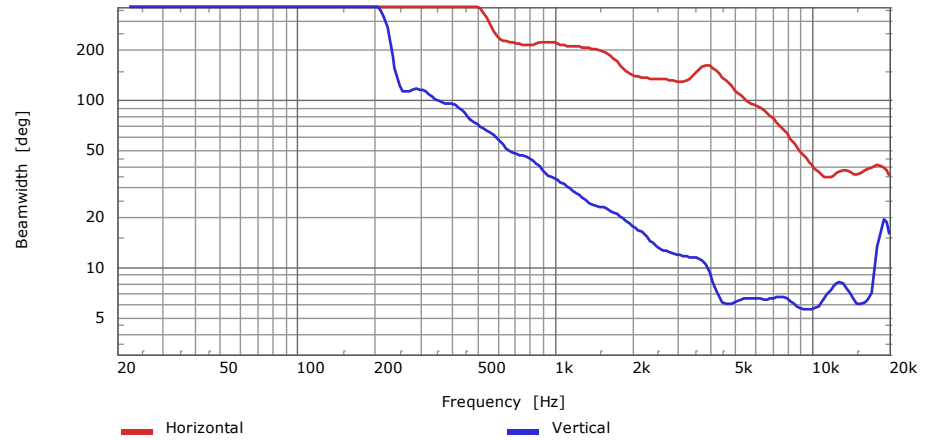


IS 3.8P Specifications

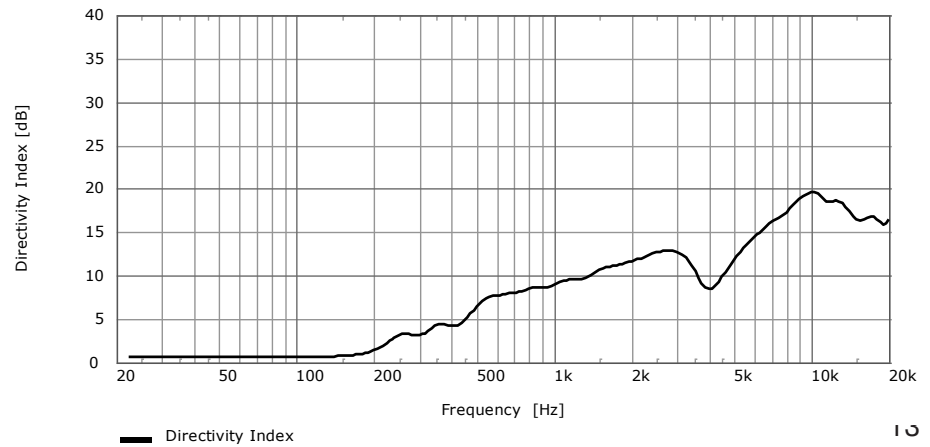
Impedance



Beamwidth



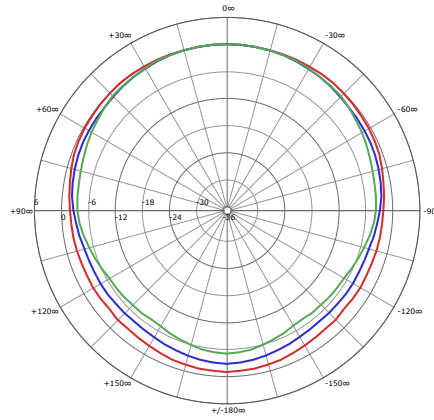
Directivity Index



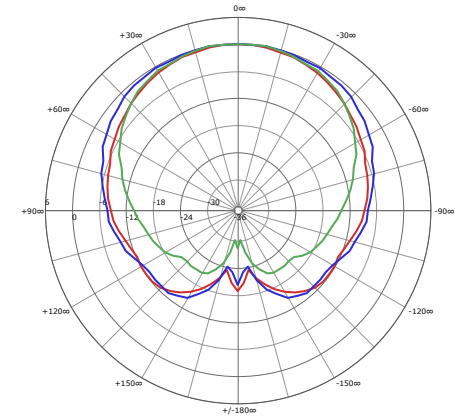
IS 3.8P Specifications

Horizontal & Vertical Polars (1/3 octave)

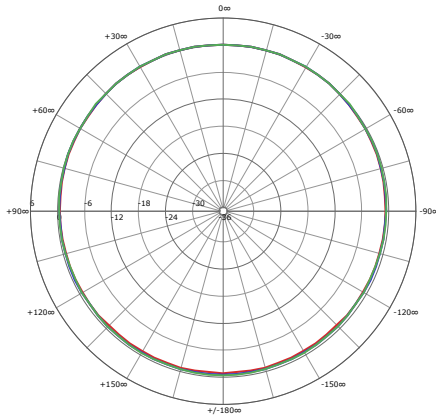
Horizontal



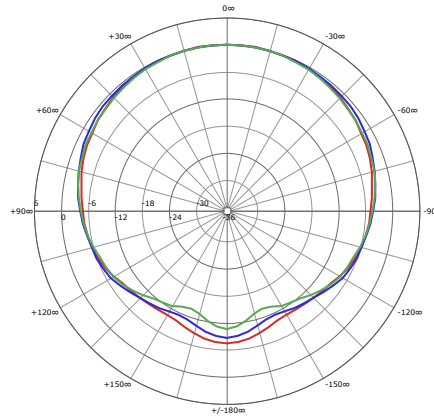
400 Hz 360 Hz
500 Hz



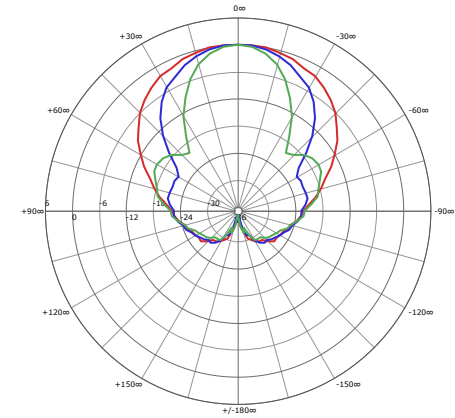
3.15 kHz 5 kHz
4 kHz



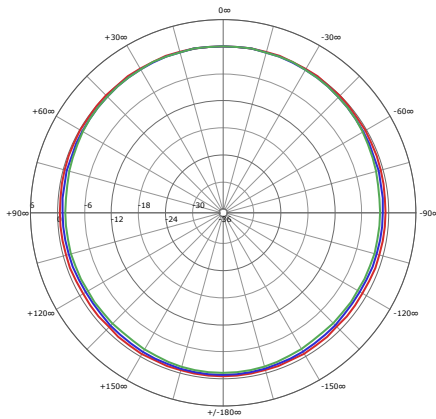
100 Hz 160 Hz
125 Hz



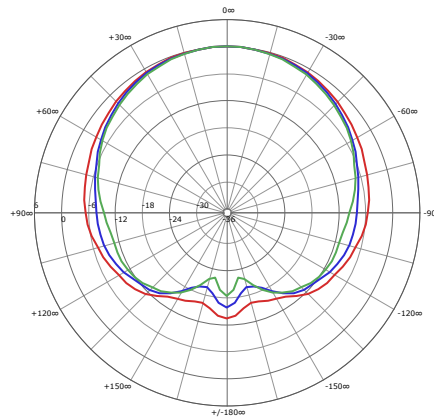
800 Hz 1.25 kHz
1 kHz



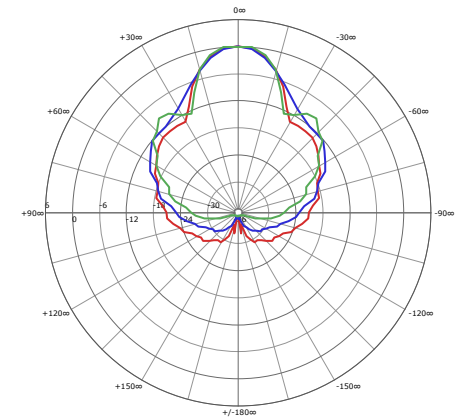
6.3 kHz 10 kHz
8 kHz



200 Hz 315 Hz
250 Hz



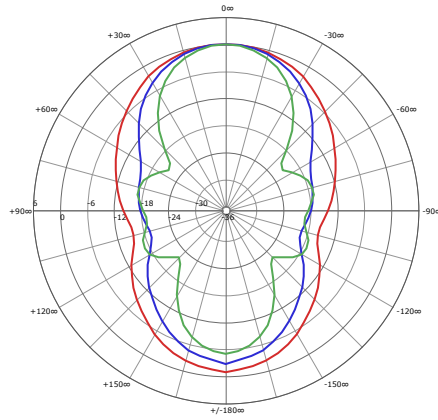
1.6 kHz 2.5 kHz
2 kHz



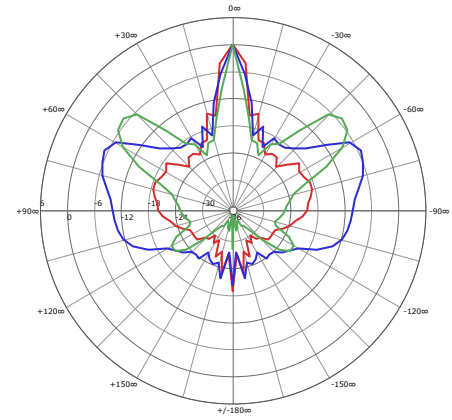
12.5 kHz 20 kHz
16 kHz

IS 3.8P Specifications

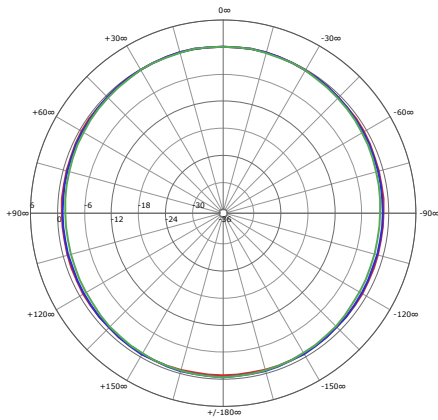
Vertical



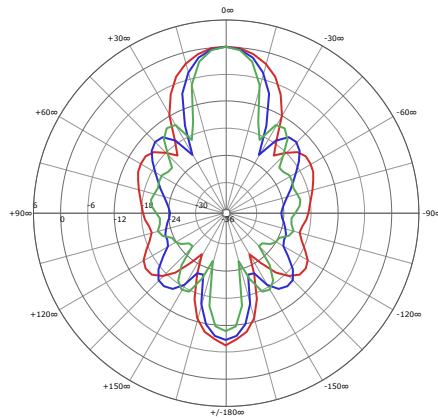
400 Hz 500 Hz 630 Hz



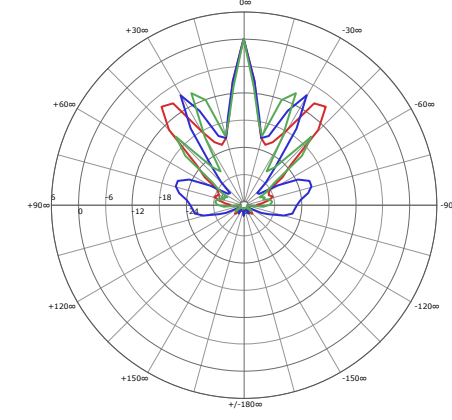
3.15 kHz 4 kHz 5 kHz



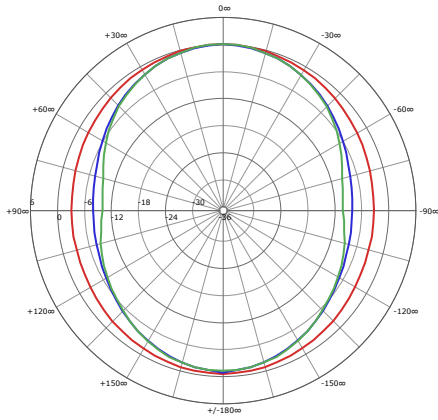
100 Hz 125 Hz 160 Hz



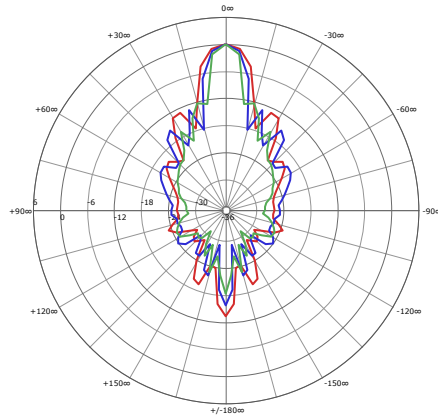
800 Hz 1 kHz 1.25 kHz



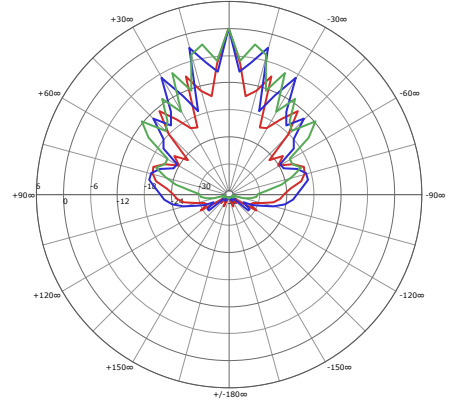
6.3 kHz 8 kHz 10 kHz



200 Hz 250 Hz 315 Hz



1.6 kHz 2 kHz 2.5 kHz



12.5 kHz 16 kHz 20 kHz

SP 12.1P Specifications

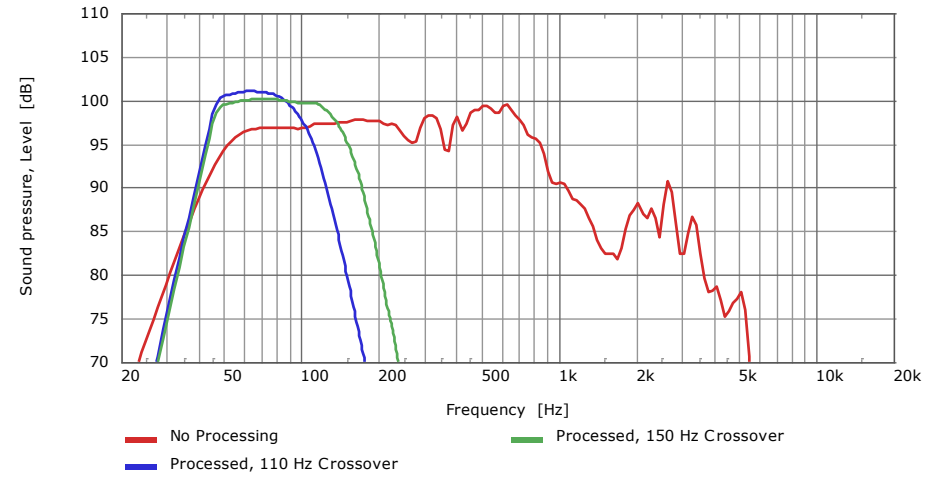
Transducer	1 x 12-inch (300 mm) Ferrite woofer
Frequency Response (-10dB limits) ¹	39 Hz - 180 Hz
Sensitivity (ref 2.83V) ^{1,2}	99 dB
Nominal Impedance	8 Ω
Maximum Continuous SPL, @ a MIV (continuous / peak) ^{1,2,3}	120 dB / 128 dB
Maximum Continuous SPL, calculated from power handling (continuous / peak) ^{1,2,3}	124 dB / 130 dB
Maximum Input Voltage (MIV) ^{1,2}	32 dBV, 31.6 V (equivalent to 200 W into rated impedance)
Power Handling	350 W
Input Connectors	2 x NL4 SpeakOn 1 x 4-position Euroblock
Enclosure Material	Birch Plywood
Dimensions (HxWxD)	17.8" H x 14.8" W x 18.85" D/ 452 mm H x 376 mm W x 479 mm D
Net Weight	39.5 lbs / 18 kg
Recommended amplifiers	Single-channel: nXp 400 or higher Bridged: nXp 400 or higher Pema 4125, 4250, 8125, 8250

1) With recommended processing (see previous page)

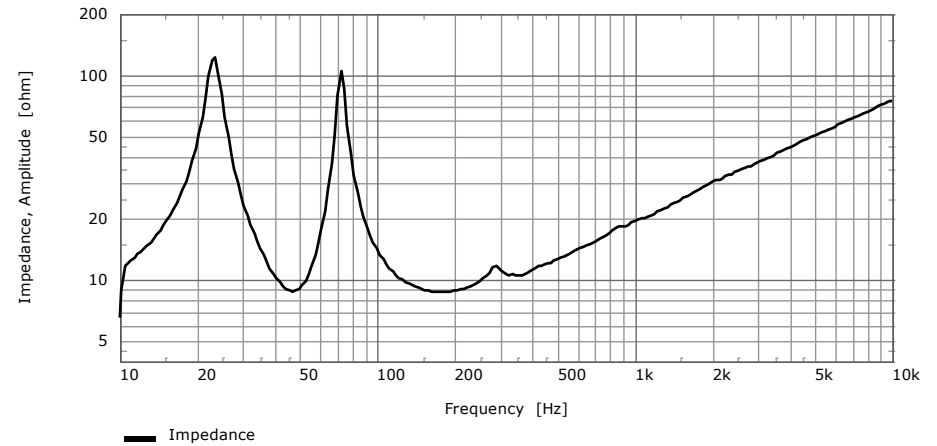
2) Referenced to 1 m

3) The maximum input voltage (MIV) is determined by no more than a 3 dB change in the frequency response of the loudspeaker system

Frequency Response (On-Axis)

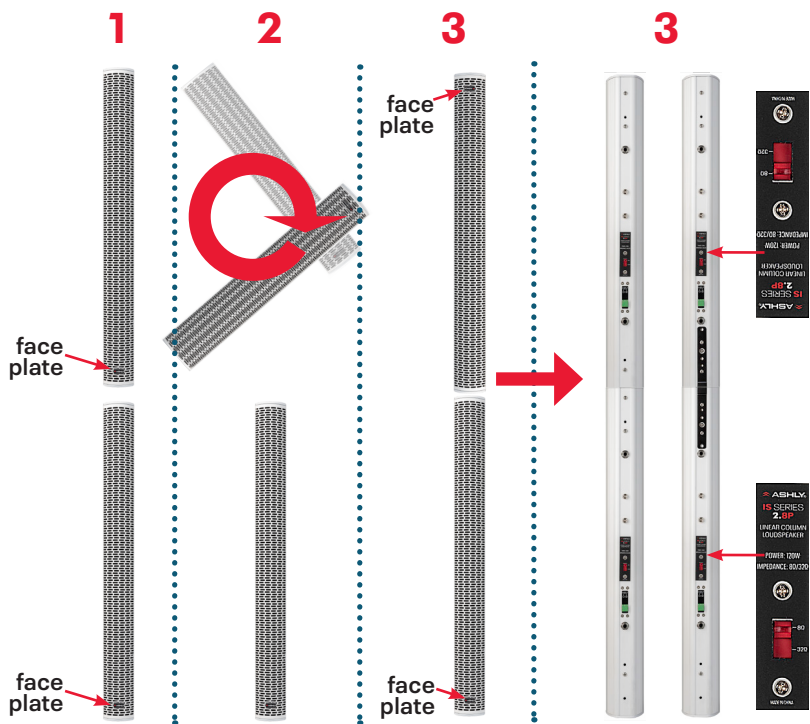
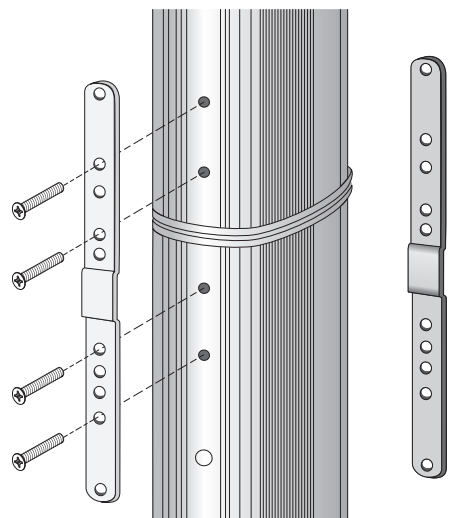


Impedance



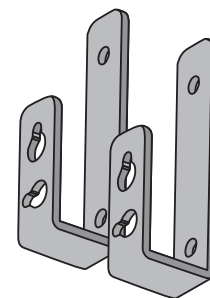
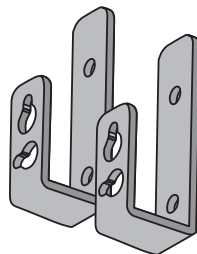
IS-JP2 Joining Bracket Install

NOTE: When joining two IS speakers invert the upper speaker as shown below.

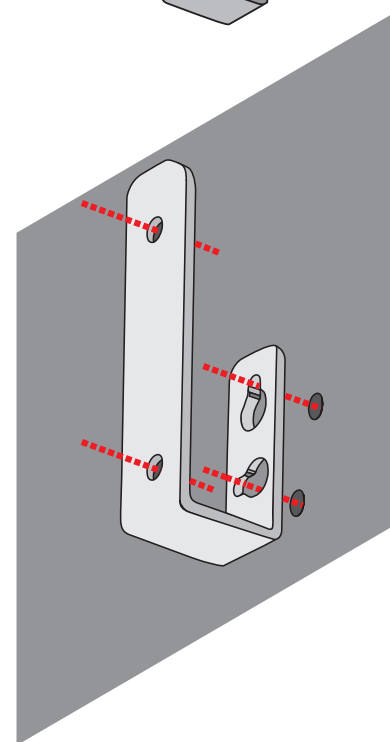


IS-FW Joining Bracket Install

Easy peasy. Use correct fasteners for the wall type. Align to a wall stud when possible. Be sure to securely attach the safety cable.



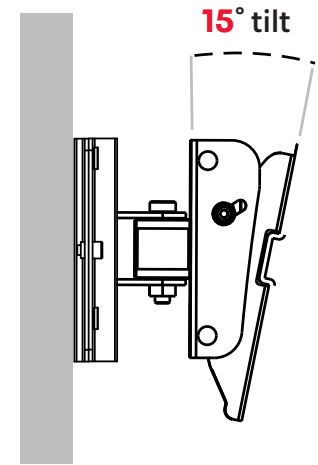
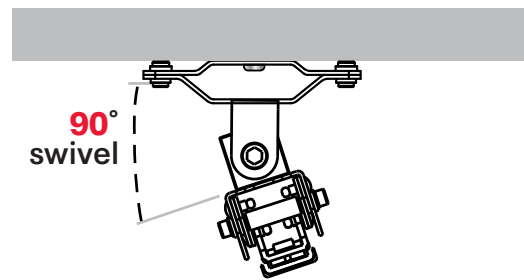
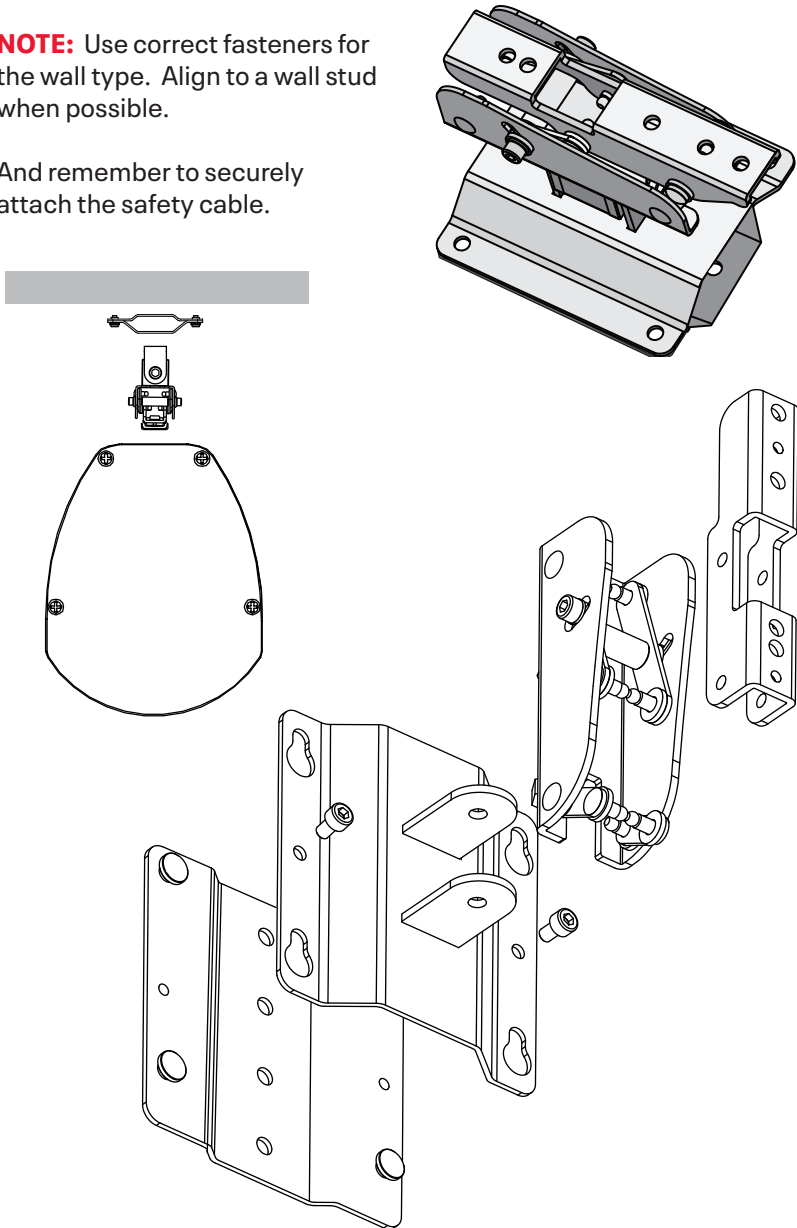
And remember to set the Impedance switch before mounting.



IS-TWM Tilt Bracket Install

NOTE: Use correct fasteners for the wall type. Align to a wall stud when possible.

And remember to securely attach the safety cable.

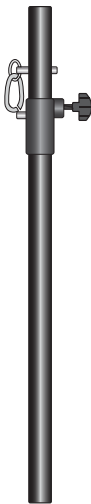


Other IS Accessories

IS-TP7B Tripod
for IS 2.8 & IS 3.8



IS-PM6B
Pole Mount
for IS 2.8 &
IS 3.8





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