Qt EMITTER™

3.25"
(8.3 cm)

1"
(2.5 cm)

Acoustical tile mounting shown
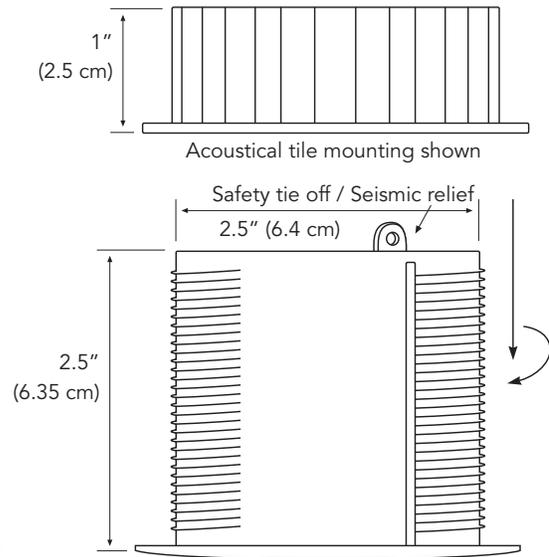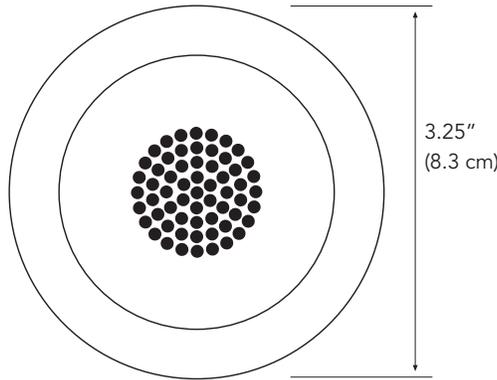
Safety tie off / Seismic relief
2.5" (6.4 cm)

2.5"
(6.35 cm)

APPLICATION

Qt emitters are miniature, direct field speakers and are omni-directional, providing nearly 180 degrees of sound dispersion. These plug-and-play emitters may be used interchangeably with all of Cambridge Sound Management's sound masking, paging and music control modules.

In addition to the standard Qt emitter, CSM also offers a micro adjustable emitter. These adjustable emitters allow the sound masking input to be reduced by up to 9dB, in 3dB increments, to compensate for different acoustic conditions within a zone.

HOW TO SPECIFY

Emitter	Color	Control	Mounting Options	Standard cable lengths May be specified
E	W (White)	S (Standard)	AT (Acoustical tile slip ring)	16ft (4.9 m)
	B (Black)*	A (Adjustable)	UB (Universal Bracket)	30ft (9.1 m)
	C (Custom)*		BB (Beam Bracket)	
			DM (Drywall Mount)	
			CM (Conduit Mount for Dywall)	
			PBC (Plenum Back Can)	

* For black and custom color emitters, CSM ships white emitters with the appropriate color cap. Emitter caps easily attach to the emitter grill for a flawless painted look

Examples:

E-W-S-AT-16: A white standard emitter for an acoustical tile installation with a 16' (4.9 m) cable.
E-B-A-BB-30: A black adjustable emitter and black beam bracket with a 30' (9.1 m)cable.
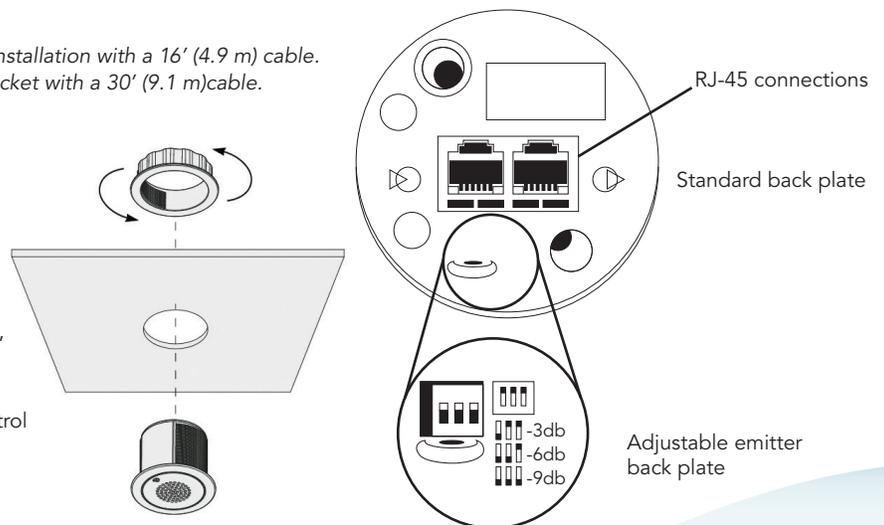
STANDARD INSTALLATION

Installation is on a simple grid pattern. (A standard 9' (2.74 m) ceiling uses a 10' X 10' (3 m x 3 m) grid.)
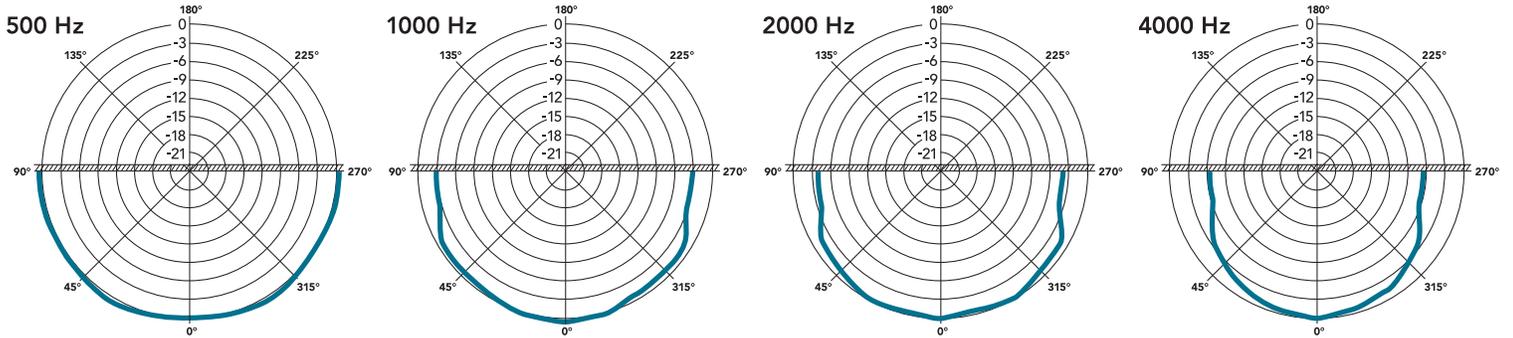
Emitters are plug-and-play, daisy-chained together with CAT-3, plenum-rated cables, pre-terminated with industry standard RJ-45 connectors. The Qt adjustable emitter back plate features three dip switches to enable -3dB, -6dB and -9dB adjustments.

Emitters fit any ceiling tile from 0.5" to 1.5" (1.3 cm - 3.8 cm) thick. The required hole saw is included with purchase of control module.

For installations in other ceiling types, see mounting options.

RJ-45 connections

Standard back plate

-3db
-6db
-9db

Adjustable emitter
back plate

HALF-SPACE POLAR RESPONSE

500 Hz

1000 Hz

2000 Hz

4000 Hz

EMITTER TECHNICAL SPECIFICATIONS

Grill Diameter:
3.25" (8.3 cm)

Enclosure Height:
2.5" (6.4 cm)

Weight:
5.6 oz. (159 g)

Wiring:
Standard CAT3/5/5A/6 cables

Sensitivity:
50 dB at 1 meter (3.3 ft) and 1 milliwatt input

Spectral Output:
Within 1 dB of optimum spectrum shape for sound masking as measured in standard ISO 1/3 Octave bands as equalized by control module

Certifications:
Plenum-rated, UL-listed and complies with UL-2043

Frequency Response:
Flat +/- 1 dB in 1/3 octave bands over entire speech range as equalized by control module

Nominal Impedance:
4000 ohms nominal: typically permits coverage of 6000 sq. ft. (557 m²) of office area per distribution line without significant line loss

Masking Output Level:
36 – 57 dB when operated from any control module and recommended emitter array

Directivity:
3 dB hemispherically omni-directional when mounted in a ceiling tile. Within 1 ½ dB of axial response at 60 degrees and 2 kHz (see polar plots)

Spatial Uniformity:
+/- 1 dB throughout office space at any speech frequency when installed in recommended density array

Maximum Sound Pressure Output:
74 dB at 1 meter (3.3 ft) when operated with control module

Power Handling Capacity:
2 watts maximum

Accessories:
1. 2-11/16" (6.8 cm) diameter hole saw for ceiling tiles (provided with every control module)
2. CAT3/5/5A/6 cable with RJ45 connectors (see ordering guide for standard lengths)
3. Control modules are ordered separately

MOUNTING OPTIONS & SPECIFICATIONS

Universal Bracket (SKU: UB)

Cylinder Length:	3.9" (9.9 cm)
Cylinder Diameter:	3.3" (8.4 cm)
Weight:	3.3 oz. (94 g)
	(w/o emitter)
Material:	PC/ABS
Color:	White or black

Conduit Mount for Drywall (SKU: CM)

Cylinder Length:	4" (10.2 cm)
Cylinder Diameter:	3" (9.5 cm)
Conduit Fitting	
Hole Diameter:	0.75" (1.9 cm)
	(Conduit fitting by others)
Weight:	6.5 oz. (184 g) (w/o emitter)
Material:	Steel/Aluminum
Max. Drywall Depth:	0.75" (1.9 cm)
Color:	White

Beam Bracket (SKU: BB)

Cylinder Length:	3.9" (9.9 cm)
Cylinder Diameter:	3.3" (8.4 cm)
Weight:	4.0 oz. (113 g)
	(w/o emitter)
Clamp Opening:	0.95" (2 cm)
Material:	PC/ABS
Color:	White or black

Plenum Back Can (SKU: PBC)

Cylinder Length:	4.5" (11.4 cm)
Cylinder Diameter:	2.7" (6.9 cm)
Conduit Fitting	
Hole Diameter:	0.75" (1.9 cm)
	(Conduit fitting by others)
Weight:	2.8 oz. (79 g) (w/o emitter)
Material:	Aluminum
Max. Tile Depth:	1.5" (3.8 cm)
Color:	White

Drywall Mount (SKU: DM)

Cylinder Length:	2.1" (5.4 cm)
Cylinder Diameter:	3" (8.9 cm)
Weight:	1.2 oz. (34 g)
	(w/o emitter)
Material:	Plenum rated plastic with steel springs
Max. Drywall Depth:	0.75" (1.9 cm)
Color:	White
Hole saw diameter:	3" (7.6 cm)
(Ordered separately)	

CABLE SPECIFICATIONS

Cables are plenum-rated, solid conductor 24 AWG CAT-3, pre-terminated with bent 3-tyne (prong) contacts straddling each conductor in RJ-45 connectors. Cables are straight through and terminated in T568B wiring scheme. All cables tested for continuity.

ARCHITECTURAL SPECIFICATIONS

The emitter shall consist of a single 1.5" (3.8 cm) full range transducer installed in a sealed airtight enclosure. The transducer shall have a rolled edge suspension surround. The enclosure and grill shall be one piece with material meeting UL Standard 2043 requirements for heat and smoke release in accordance with the provisions of the following codes: National Electric Code, NFPA 70; International Mechanical Code, NFPA 5000; Standard for the Installation of Air Conditioning and Ventilating Systems, and NFPA 90A.

The emitter shall be provided with internal logic to automatically sequence 4 channels of mutually incoherent masking sound generators when connected with standard CAT type cables. Input and output receptacles shall be standard RJ45 quick connect network type with positive locking. A twist-and-lock mounting ring shall be provided for quick and secure mounting in ceiling materials. The enclosure shall provide a secondary attachment for a security cable where required by local authorities.

≈ **cambridge**
SOUND MANAGEMENT