

One-Shot® ‘Rat-Trap’ EWIS Fire Ceiling Speakers

SP-C 2170 100mm (4”) 100V 5W Ceiling Speaker White AS ISO7240.24

SP-C 2171 100mm (4”) 100V 5W Ceiling Speaker Black AS ISO7240.24

- ✓ Designed to meet Australian Standard AS ISO7240.24
- ✓ Excellent speech intelligibility
- ✓ Tuned PA driver designed to meet the latest fire standards
- ✓ High quality speaker driver developed for BGM, paging and emergency warning applications
- ✓ Patented 3 way latching ensures a neat, sag free installation.
- ✓ Fitted with 4 way wire protect terminal for loop in, loop out wiring.
- ✓ Fitted with cable restraint plate and flame retardent safety cover.
- ✓ Fitted with supervisory capacitor for line monitoring.
- ✓ Assembled in Australia.
- ✓ 5 year warranty.



Application

This range of speakers have been engineered to meet the requirements of evacuation and occupant warning paging systems. The high efficiency speaker and transformer combination ensures high SPL, wide frequency response, superior speech intelligibility and reproduction for mission critical applications. All components of the fixture are manufactured from high quality, long lasting, flame retardant material and tested to the rigours of the new standard. On site installation will be simple and straight forward. Oversized cable glands and terminal blocks will make on site termination easier than other competing products. Finally the speaker will just ‘snap fit’ into the ceiling. Far easier than competitors models being offered on the market.

Manufacturing & Performance

Redback® drivers are engineered and manufactured to stringent specifications ensuring maximum reliability under all operating conditions. Each driver has a power rating well above the max tapping of the transformer, ensuring reliable operation and excellent longevity. A strict quality control procedure is employed during every step of the manufacturing process. Finally, every finished speaker is 100% QC checked prior to shipping.

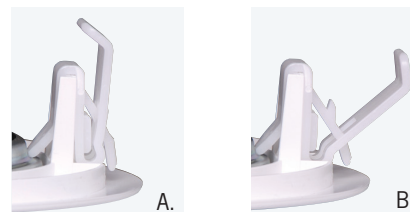
About Redback® Speaker Drivers

Each custom designed speaker and transformer combination has been specifically engineered to ensure a wide frequency range and dispersion angle, plus a high sound pressure level (SPL) ensuring excellent music and speech intelligibility; which is critical for emergency paging applications.

Each transformer is fitted with multiple power settings which are user selectable via taps on the transformer.

The Labour Saving One-Shot® Mounting System

Redback® “One-Shot®” speaker units install in seconds providing substantial labour cost savings for the professional installer compared to traditional mounting methods.



The “Rat-Trap” utilises a spring latching system. Each latch is set like a rat trap before installation into the speaker hole (picture A). When the speaker is pushed into the ceiling, the latches spring open, securing the speaker in place (picture B).

The snap clip material is formulated to retain long service life strength and spring action, ensuring a firm vibration free fit to either gyprock tiles, mineral fibre tiles or fixed gyprock ceilings.

Installation Guidelines

These models are fitted with a 4 way wire protect screw terminal block suitable for loop in, loop out cabling. The cable can be secured to the in-built restraint plate and run through the safety cover cable glands provided.

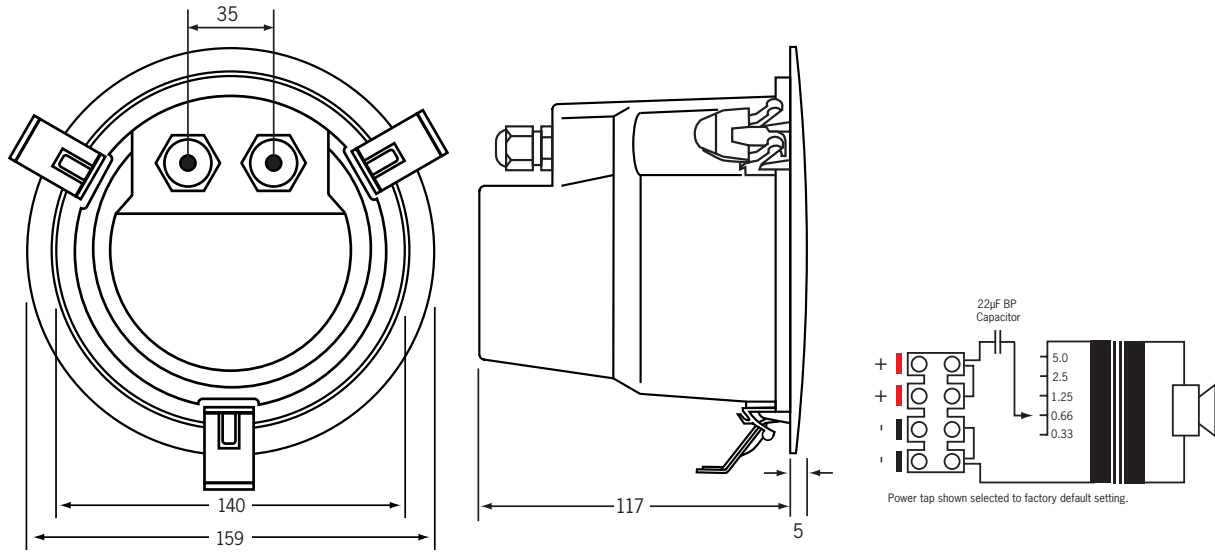
All One-Shot® speakers are designed for fast installation due to the integral pressure clips which grip to the reverse side of the ceiling tile. They suit any 10-13mm ceiling tile, including gyprock, mineral fibre or fixed gyprock ceilings. Redback provide a range of optional tile supports to minimise sag and vibration.

Ceiling support pans: These pans fit inside the ‘t-bar’ supports for the tile ceiling and provide a solid surface on which the One-Shot® clips secure to. Once the hole is cut, these simply slide up into the hole, the speaker is then pushed in until the clips release.

Ceiling support ring: This plastic ‘split-ring’ offers the same protection for soft tiles. With the added benefit of being lightweight and compact.

We recommend a speaker hole of 140mm. This is easily cut using the SP-T 2312A holesaw.

Dimensions & Transformer Detail



Specifications

Electrical

Power taps:	0.33, 0.66, 1.25, 2.5, 5W
SPL 1W @ 1m:	92.7dB @ 1kHz (+/- 2dB)
Frequency response:	100Hz-15kHz
Connection:	4 way terminal block + 22uF bipolar capacitor
Approval:	AS ISO7240.24

Mechanical

Grille, clip and safety cover material:	Flame retardant ABS
Driver construction:	Paper cone
Ceiling cutout:	140mmØ
Grille diameter:	159mmØ
Mounting depth:	117mm (including ceiling tile thickness)
Overall weight:	700g

Environmental

Operating temperature:	-25°C to +55°C
Relative humidity:	< 95%

Additional Installation Accessories

- SP-C 2163 Steel ceiling tile support pan
- SP-C 2164 Ceiling tile support split ring
- SP-T 2312A 140mm holesaw

Architectural Specifications

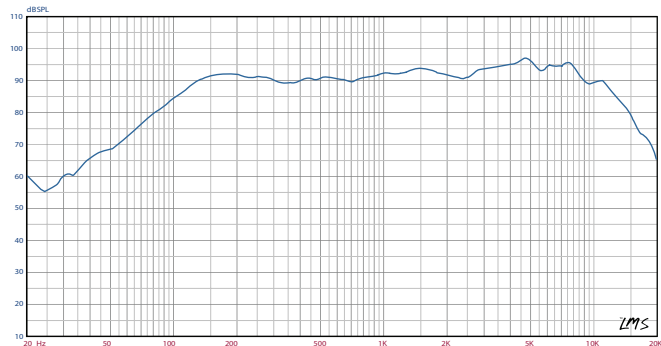
SPC 2170

The speaker shall be of 100mm diameter and be low profile fitted with a 100V transformer with power taps of 5W, 2.5W, 1.25W, 0.66W and 0.33W. It shall have a SPL of 92.7dB (1W@1m). It shall be approved to the AS ISO7240.24 fire and evacuation announcement standard. It shall be fitted with a 4 way wire protect terminal block for connection and 22uF bipolar capacitor for line monitoring. The speaker shall be attached to a flame retardant white ABS grill with One-Shot mounting mechanism and red safety cover. The safety cover shall be fitted with dual oversized cable glands. The speaker/grille combination shall be a Redback model SP-C 2170.

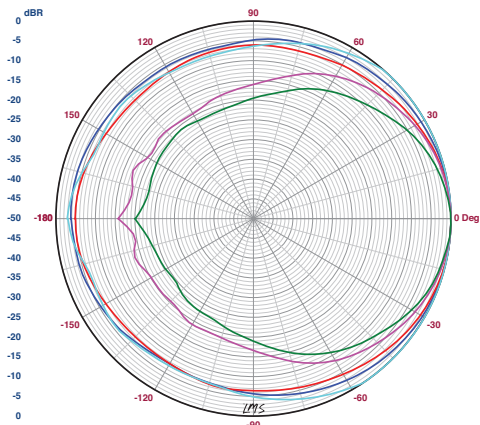
SPC 2171

The speaker shall be of 100mm diameter and be low profile fitted with a 100V transformer with power taps of 5W, 2.5W, 1.25W, 0.66W and 0.33W. It shall have a SPL of 92.7dB (1W@1m). It shall be approved to the AS ISO7240.24 fire and evacuation announcement standard. It shall be fitted with a 4 way wire protect terminal block for connection and 22uF bipolar capacitor for line monitoring. The speaker shall be attached to a flame retardant black ABS grill with One-Shot mounting mechanism and red safety cover. The safety cover shall be fitted with dual oversized cable glands. The speaker/grille combination shall be a Redback model SP-C 2171.

Frequency Response (SPL 1W @ 1m)



Polar Plot (Ratio vs Angle)



	500Hz	1kHz	2kHz	4kHz	6kHz
SPL 1W @ 1m (dB)	91.2	92.7	92.4	95.4	95
Beam Width (BW)	273	149	182	91	69
Q-Factor	1.3	2.4	2.0	4.0	5.2
Directivity Index (DI)	1.2	3.8	3.0	6.0	7.2