



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 3426	12-Feb-2020	Number 4	Issue date 22-Mar-2023	30-Apr-2024

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Product designation

Redback, Model C2160/C2161, type A, indoor, flush-mount, emergency sound-system loudspeaker

(Refer to the Schedule/enclosures for further specified details)

Agent/distributor

Altronic Distributors Pty Ltd
174 Roe Street, PERTH, WA, AUSTRALIA, 6000

Registrant

Altronic Distributors Pty Ltd
174 Roe Street, PERTH, WA, AUSTRALIA, 6000

Producer

Altronic Distributors Pty Ltd
174 Roe Street, PERTH, WA, AUSTRALIA, 6000

Conformance criteria and evaluation

The Redback, Model C2160/C2161, type A, indoor, flush-mount, emergency sound-system loudspeaker has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS ISO 7240.24:2015, 'Fire detection and alarm systems - Part 24: Sound-system loudspeakers'.

Limitations/conditions of conformance

Limitations/conditions of conformance, where identified on this certificate, are derived from qualifications from evaluation(s) for conformity and/or other related technical documentation. All details with respect to design, assembly and installation instructions and restrictions should be checked against the producer's current technical manual/data sheets and the requirements of the Authority having Jurisdiction.

This certification is issued within the scope of CSIRO Verification Services – Rules governing ActivFire Scheme and is valid only for the product(s) as submitted for evaluation and verification of conformity, subject to the following conditions.

- Reference to details, limitations and requirements, where documented as a schedule/enclosure with this certificate.
- The Registrant is responsible for their attestation of conformity and ensuring that on-going production complies with the conformance criteria defined in this certificate.
- This certificate will not be valid if any changes or modifications are made to the product which have not been notified and validated by CSIRO Verification Services.
- This certificate is subject to periodical re-validation upon verification that all requirements, as determined by the conformity assessment body, continue to be satisfactorily met by the Registrant.
- This certificate may only be reproduced in its published form, without modification and inclusive of all schedules/enclosures.
- Any changes, errors or omissions, must be submitted in writing and if necessary or requested, substantiated with relevant evidence.
- Any representations, such as advertising or other marketing related activities or articles shall reflect the correct contents of this certificate and conform with all relevant trade practices and consumer protection legislation and regulations.
- Any terms or conditions of use as applicable to content and documentation as published or accessed through web sites administered by the CSIRO Verification Services.

Issued by

Kaj Loh
Executive Officer – ActivFire Scheme



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Producer's description

The Redback, Model C2160/C2161, type A, indoor, flush-mount, emergency sound-system loudspeaker is designed to be flush-mounted into a suspended ceiling to provide emergency warning audible broadcasts.

It is fitted with a 100 mm paper cone speaker driver and is rated for a maximum power output of 5 W when provided with an input signal of 100 Vac. Five taps are provided on the included transformer for operating at a range of output levels.

This equipment has a white (C2160) or black (C2161) plastic circular front grill, approximately 160 mm in diameter, with a concentric pattern of holes, plus a slip-on rear cover which is fitted with two cable glands for connection to an emergency sound system. It is fitted with three retaining clips.

The Redback, Model C2160/C2161, type A, indoor, flush-mount, emergency sound-system loudspeaker intended for indoor applications.

Technical specification

The following details are a representative extract of the technical specification for the Redback, Model C2160/C2161, type A, indoor, flush-mount, emergency sound-system loudspeaker and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Schedule of variant designations

The following is a schedule of validated variant designations of the certified/listed equipment.

Variant		Description	Colour
Type	Ident.		
Model	C2160	Type A, indoor, flush-mount, emergency sound-system	White
	C2161	loudspeaker	Black

Schedule of properties/characteristics

The following schedule is an extract of physical and operational properties/characteristics of the certified/listed equipment.

Rated noise power	5 Watts (100V line)
Power taps & impedance (100V line)	0.33W (30kΩ), 0.66W (15kΩ), 1.25W (8kΩ), 2.5W (4kΩ), 5W (2kΩ)
Sensitivity	89dB (1W @ 1m), 77dB (1W @ 4m)
Maximum sound pressure level	96dB (5W @ 1m), 84dB (5W @ 4m)
Frequency response	100Hz - 15kHz
Coverage angle (-6dB)	500Hz: >180°, 1000Hz: >180°, 2000Hz: 163°, 4000Hz 77°
Environmental	Type A (for indoor applications as per standard)
Speaker component	100 mm (4") paper cone speaker
Mounting hole	140∅ mm
Mounting method	3 x plastic spring loaded clip
Line monitoring	Yes, 22μF bipolar capacitor
Applicable cable	2.5 mm ² (14AWG) max conductor area
Connection	4 way screw terminal
Finish	White (C2160) or black (C2161) flame retardant ABS grille (Taitalac 8540T) Clear Flame retardant ABS spring clips (Makrolon 6657) Red flame retardant ABS transformer dome cover (Starex VH-0800)
Dimensions	159∅ x 65 D mm
Weight	710g

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Supplementary information

Schedule of relevant articles

The following schedule is an extract of articles significant and/or related as evidence of conformity.

Reference		Title / description	Date issued (or date validated)	Source
Ident. type	Ident.			
Report	XF2980/R7	Evaluation for Conformity of the Redback, Model C2160/C2161, type A, indoor, flush mount, emergency sound-system loudspeaker to the requirements of AS ISO 7240.24:2015	5-Aug-2019	CSIRO, Fire Systems Laboratory, AU
Datasheet	C2160	Redback® Data Sheet C 2160 100mm (4") 100V 5W Ceiling Speaker White AS ISO7240.24 C 2161 100mm (4") 100V 5W Ceiling Speaker Black AS ISO7240.24 (C2160 datasheet revised July 2019.pdf)	8-Jul-2019	Altronic Distributors Pty Ltd, WA, AU