AS 2353:2018



Pedestrian push-button assemblies



This Australian Standard® was prepared by Committee LG-006, Road Traffic Signals. It was approved on behalf of the Council of Standards Australia on 8 March 2018. This Standard was published on 3 May 2018.

The following are represented on Committee LG-006:

- Australian Industry Group
- CIE Australia
- Department of Planning, Transport and Infrastructure, SA
- Department of Transport and Main Roads, Qld
- Hire and Rental Industry Association of Australia
- IES: The Lighting Society
- Intelligent Transport Systems Australia
- Main Roads Western Australia
- Roads and Maritime Services, NSW
- Traffic Management and Safety—Roads, ACT
- VicRoads

This Standard was issued in draft form for comment as DR AS 2353:2017.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

Keeping Standards up-to-date

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting **www.standards.org.au**

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at **mail@standards.org.au**, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

Australian Standard®

Pedestrian push-button assemblies

Originated as AS 2353—1990. Previous edition 1999. Fifth edition AS 2353:2018.

COPYRIGHT

© Standards Australia Limited

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968.

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 76072 049 0

PREFACE

This Standard was prepared by the Standards Australia Committee LG-006, Road Traffic Signals, to supersede AS 2353—1999. It is one of a number of Standards that set out requirements for the equipment associated with traffic signal installations.

The objective of this Standard is to specify requirements for the design, construction and performance of push-button assemblies and associated equipment to facilitate pedestrian usage of signalized intersections or dedicated pedestrian crossings. It is intended for application by road and traffic authorities and their suppliers to facilitate the manufacture, purchase and use of pedestrian push-button assemblies.

This Standard was revised to bring it up-to-date, to include additional design detail and to include provision for cyclists.

Statements expressed in mandatory terms in footnotes to tables are deemed to be requirements of this Standard.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

CONTENTS

3

	F	Page
SECTIO	N 1 SCOPE AND GENERAL	
1.1	SCOPE AND GENERAL	1
1.1	REFERENCED DOCUMENTS	
	DEFINITIONS	
1.3	DEFINITIONS	3
SECTIO	N 2 PUSH-BUTTON ASSEMBLY	
2.1	COLOUR AND SURFACE FINISH	6
2.2	ENCLOSURE	-
2.3	TERMINAL BLOCK	
2.4	PUSH-BUTTON AND SWITCH MECHANISM	-
2.5	PEDESTRIAN DEMAND INDICATOR LIGHT	
2.6	DIRECTION ARROW AND OTHER SYMBOLS	
2.0	MARKING	
2.1		12
SECTIO	N 3 AUDIO–TACTILE FACILITY	
3.1	DRIVER UNIT	13
3.2	TRANSDUCER	17
3.3	MARKING	
an am a		
	N 4 AUDIO-TACTILE SIGNALS	
4.1	APPLICATION	
4.2	REQUIRED SIGNAL TYPES	
4.3	GENERAL REQUIREMENTS	
4.4	AUDIBLE LOCATING SIGNAL	
4.5	AUDIBLE CROSSING SIGNAL	24
4.6	TACTILE LOCATING SIGNAL	25
4.7	TACTILE CROSSING SIGNAL	25
4.8	OFF STATE	25
4.9	SAFETY INTERLOCK	25
4.10	OPERATION OF AUDIO-TACTILE SIGNALS	27
4.11	SOFTWARE	27
4.12	ELECTRONIC INTERFACE REQUIREMENTS	27
GEOTIO		
	N 5 ELECTRICAL REQUIREMENTS	20
	ELECTRICAL SAFETY	
5.2	SUPPLY VOLTAGE	28
SECTIO	N 6 ENVIRONMENTAL REQUIREMENTS	
6.1	WEATHER RESISTANCE	29
	ENVIRONMENTAL CONDITIONS	
6.3		
APPEN		•
A	PURCHASING GUIDELINES	
B	MEASUREMENTS OF AUDIBLE SIGNAL CHARACTERISTICS	31
С	PERFORMANCE OF DRIVER UNITS UNDER HIGH AND LOW	
	TEMPERATURE CONDITIONS	38
D	INTERFACE REQUIREMENTS FOR DRIVER UNITS AND TRANSDUCERS	
	WHERE SUPPLIED AS SEPARATE COMPONENTS	
Е	ENVIRONMENTAL TESTS	42

STANDARDS AUSTRALIA

Australian Standard Pedestrian push-button assemblies

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements and tests for the design, construction and performance of pedestrian push-button assemblies and associated equipment, which are designed to facilitate the safe movement of pedestrians at locations controlled by traffic signals. It includes requirements for the generation of audio-tactile signals, for use in conjunction with push-button assemblies, to assist pedestrians who are vision impaired.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS 1231	Aluminium and aluminium alloys—Anodic oxidation coatings
1420	ISO metric hexagon socket head cap screws
2144	Traffic signal lanterns
2339	Traffic signal posts, mast arms and attachments
2700	Colour standards for general purposes
60068 60068.2.2 60068.2.30	Environmental testing Part 2.2: Tests—Tests B: Dry heat Part 2.30: Tests—Test Db and guidance: Damp heat, cyclic (12 + 12-hour cycle)
60529	Degrees of protection provided by enclosures (IP Code)
AS/NZS 2053 2053.4 2053.7 3100	Conduits and fittings for electrical installations Part 4: Flexible plain conduits and fittings of insulating material Part 7: Rigid metal conduits and fittings Approval and test specification—General requirements for electrical equipment
5000 5000.1	Electric cables—Polymeric insulated Part 1: For working voltages up to and including 0.6/1 (1.2) kV
61000 61000.4.5 61000.6.1	 Electromagnetic compatibility (EMC) Part 4.5: Testing and measurement techniques—Surge immunity test Part 6.1: Generic standards—Immunity for residential, commercial and light-industrial environments Part 6.2: Concrist standards—Emission standard for residential commercial
61000.6.3	Part 6.3: Generic standards—Emission standard for residential, commercial and light-industrial environments
AS/NZS	
61210	Connecting devices—Flat quick-connect terminations for electrical copper conductors—Safety requirements