SAL
LIGHTING A SMARTER FUTURE™

IMPORTANT: IN THE INTEREST OF PRODUCT PERFORMANCE AND SAFETY PLEASE READ THESE INSTALLATION AND WARRANTY INSTRUCTIONS BEFORE INSTALLING THE PRODUCT.

MUST BE INSTALLED BY A LICENSED ELECTRICIAN

SAL products are designed in accordance with all mandatory International and Australian Standards, which require installation in accordance with AS/NZS3000 by a qualified installer and regular cleaning and maintenance of the equipment. Products are sold in accordance with the following instructions and SAL standard terms and conditions of sale, available via www.sal.net.au.

Due to continued product and information updates, product data sourced from sal.net.au shall not form part of any contract and or technical performance guarantee unless expressly confirmed in writing by SAL at the time of order.

PIXIE SDD400RS/BTAM rippleSHIELD™ SMART DIMMER electrical and installation specification effective 25/10/2024.

Model No.	Input (V)/(Hz)	Max. loads	Colour	Dimension L x W x H (mm)	Wireless
SDD400RS/BTAM	220-240/50	150VA - Refer chart*	Matt grey, White cap	42 x 24 x 24	PIXIE connectivity

*De-rating applies for multi-gang configuration.

Nominal frequency (Hz)	50	Product installation orientation	Horizontal wall mount
Operating ambient min/max (°C)	0 to 40	Product application	Interior residential or commercial
Operating humidity	10% to 85% RH, NC	PIXIE connectivity	Yes, via app or paired PIXIE secondary device
Storage ambient limit (°C)	0 to 40	IP rating*	20
Storage humidity	10% to 85% RH, NC	Attachment type	N/A
IP rating for interior products: The designated IP rating is "from below the ceiling" unless otherwise specified.			
IP rating ALL products: Termination of the product must be made in accordance with the IP rating.			

General product application requirements (if applicable) :

1. **CCT or POWER selections (where supplied)** – IMPORTANT, where CCT colour temperature or POWER selection switching is provided, it is important to switch OFF the power before the selection is made, otherwise equipment damage may occur.

2. **Recycling** – SAL encourages recycling, please consider the environment when disposing of packaging, batteries & components.

3. **Switching or test intervals** – For optimum product performance, good design practice does not encourage 24/7 operation of lighting products without the provision of a routine switching or regulatory test cycle. As a guide for continual operation installations, a twelve (12) hour duration for Industrial and Commercial applications and a six (6) hour duration for Residential applications should be considered.

4. **Product maintenance** – In line with the relevant design standards and to protect your investment, it is important to have in place a routine cleaning program that reflects the installation environment and maintains the product in a clean and functional condition.

IMPORTANT - The supply must be isolated before any product maintenance or cleaning is conducted. In addition, damage to ANY cable or cord supplied with the product must be addressed as follows; For attachment type X having a specially prepared cable, if the external flexible cable is damaged, it must be replaced by an equivalent cable exclusively available from the manufacturer or authorised installer. For attachment type Y, if the external flexible cable is damaged, it must be exclusively replaced by an equivalent cable by the manufacturer or authorised installer. For attachment type Z, if the external flexible cable is damaged, the cable cannot be replaced and the luminaire must be destroyed.

5. **Adverse, corrosive and coastal installation environments** – Unless the product is specifically designated for such applications in these installation instructions, which is supported by a professional maintenance program; installation of equipment in such environments is not recommended.

6. **Dimming products** – Dimming circuits and product compatibility must be validated by the installer before installation; SAL cannot be responsible for third party changes in dimmer compatibility.

7. **Suspended products** – For installation safety, any suspended products must NOT be installed in high air movement spaces or locations subject to impact.

8. **Light source replacements** – (Non-replaceable light sources) - The light source of the product is deemed not replaceable, when the product reaches its end of life the complete product, it must be replaced by a qualified installer. (Non-user replaceable light sources) - The light source of the product must only be replaced by the manufacturer or qualified installer. **Caution, risk of electric shock.**

9. **Interior downlights and sensors with remote drivers and electrical accessories** – The mounting facilities provided for the transformer/driver (if any), need only be utilized if in the application of the product is required by AS3000. Drivers are not designed for installation environments that restrict conventional airflow.

10. **Floodlight products** – Unless nominated aiming restrictions or installation parameters apply, products are designed for installation environments between ground and 15 metres in height, subject to the desired optical performance being achieved. For floodlight installation environments that have restricted access (eg: columns and roof-lines) which are subject to unstable electrical supply or electrical surges (which void warranty), consideration of the installation of an independent surge protector is strongly recommended.

11. **Emergency enabled products** – In the interest of transport and safety, emergency products are supplied with the battery disconnected. In addition to specific emergency commissioning instructions, this battery MUST be connected at the time of installation. Continual use in emergency mode greater than 240 hours without recharge, will result in battery failure and void battery warranty.

12. Specific installation procedures (if any) - this device must be installed by a licensed electrician and is **ONLY compatible with SAL rippleSHIELD™ fittings**:

- Switch off the mains electricity supply
- Check the load compatibility, make sure the loads are SAL ripple SHIELD™ dimmable fittings only
- Connect the dimmer according to the wiring diagram
- Energize, wait for 5 seconds
- Press the dimmer button once and allow 5 seconds self-calibration before the next operation. The lights will turn OFF and ON, then slowly change brightness. The LED indicator flashes during the calibration process. When the LED indicator stops flashing and the lights brightness stays constant, the calibration is complete.

Features

- Eliminates ripple induced nuisance flicker
- Smooth and precise dimming to 1% light output, with soft ON and soft OFF control
- Fits most Australian switch plates, 1-6 gang switch application
- Compatible with the SAL PIXIE smart system, via the app or paired secondary device
- LED indicator - indicator colour is white when the product is new or it has been reset the indicator colour is blue when the product is added to a network

SDD400RS/BTAM - Standard wiring diagram

LOAD •

ACTIVE •

SDD400RS/BTAM
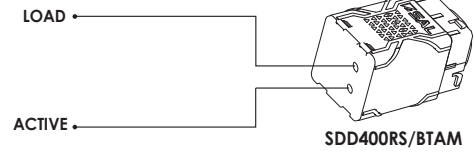
MULTI-GANG DE-RATING (maximum 6 x gang configuration)

No. of dimmer	Capacitive load (LED)
1	150VA
2	100VA
3	100VA
4	80VA
5	80VA
6	60VA

Compatible Loads

RIPPLE SHIELD™   SFI

Operation	Function Description	LED Indicator	Remark
1 click	Turn ON/OFF the lights	Maximum brightness when the lights are ON, minimum brightness when the lights are OFF	When turning the lights ON, they will adjust to the last used brightness setting
Double click	The lights go to maximum brightness	Maximum brightness	A quick shortcut to maximum brightness regardless if the lights are ON or OFF
Long press	Dimming the lights up or down	Maximum brightness when the lights are ON, minimum brightness when the lights are OFF	When the lights are ON, long press the button to dim up or down, release the button to stop. When the lights are OFF, long press the button to turn on lights at minimum brightness and increase brightness, release the button to stop.
4 clicks	Enter pairing mode	Rapid flashing blue and white for 30 seconds	This function is to pair a secondary device like PIXIE multifunction control (model NO. SMF/BTAS) or PIXIE multifunction remote control (model NO. SMC3BTAS), to achieve remote control.
6 clicks	Calibrate dimming compatibility	Maximum brightness	Manually recalibrate the dimmer to achieve the best dimming performance. Only use when necessary.The lights turn off and on, then slowly change brightness. The LED indicator flashes during the calibration process. When the LED indicator stops flashing and the lights brightness stays still, the calibration is successful.
9 clicks	Reset the product to factory default	Flashes white and blue for 3 seconds, then remains white	This operation will clear all the settings, and reset the product to factory default.

Multiway control

There are three products (PIXIE secondary devices) that can support SDD400RS/BTAM and achieve multiway control, covering different installation scenarios.

Product option	Feature	Requirement	Wiring
PIXIE multifunction control (SMF/BTAS)	Recommended for most multiway applications. Can create 2-way up to 9-way control	Active and neutral wire required at the remote end for SMF/BTAS	Active and neutral wire termination to the PIXIE multifunction control (SMF/BTAS)
PIXIE multifunction remote control (SMC3BTAS and SMRM/BTAS)	Portable battery powered remote, suitable for locations where no usable wire is available. Can create 2-way up to 9-way control	No special requirements	No wiring is needed
PIXIE multiway switch (S2W/BTAS)	Utilize the existing (traditional) 2-way/3-way cables in the wall, suitable for renovating traditional 2-way or 3-way circuits where neutral wire is not available. Can create 2-way and 3-way control	Existing cables in the wall for traditional 2-way/3-way switching. No less than 2 pcs rippleSHIELD™ light fittings in the circuit and no more than 12 pcs rippleSHIELD™ light fittings in the circuit	Refer to the installation instruction of PIXIE multiway control (S2W/BTAS)

A pairing process is required before the multiway control is set namely.

1. Ensure the SDD400RS/BTAM and the relevant PIXIE secondary device are wired correctly and energized.

2. Quickly click the button of the SDD400RS/BTAM 4 x consecutive times, it then enters pairing mode as the LED indicator rapidly flashes blue and white

3. Quickly click the button of the PIXIE secondary device 4 x consecutive times within 30 seconds, when its LED indicator flashes blue twice and remains solid blue for 2 seconds, the pairing is successful.

13. **Warranty** – In accordance with SAL's standard terms and conditions of sale, SAL warrant this product to be free from defects in materials and or workmanship for a period as stated below for goods not subject to incorrect installation, maintenance, operation, mishandling, environmental, unauthorised modifications or electrical operating conditions outside the nominated product specification as detailed in these installation instructions. The benefits to you given by this warranty are in addition to other rights and remedies you have under law. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Warranty term – Residential usage (12) months, Commercial usage (12) months, Replaceable Lamps (where supplied) (12) months and Lithium batteries where supplied (24) months from date of purchase. For New Zealand, please refer to www.sal.co.nz for warranty conditions and service.

How to make a claim?

Step # 1 – Within 30 days of the fault discovery, please contact the original place of the SAL product purchase during standard (local) business hours, with the following information **(a)** proof of purchase **(b)** description and quantity of the claimed fault **(c)** address of installation. **(d)** operating hours of the product.

Step # 2 – It is then the responsibility of the original place of product purchase to report the matter to SAL aftersales;

NSW | ACT	- SAL National Pty Ltd, 40 Biloela Street Villawood NSW 2163	| P # 02 9723 3099
QLD	- SAL National Pty Ltd, 36 Whitelaw Place Richlands QLD 4077	| P # 07 3879 5999
VICT | TAS	- SAL National Pty Ltd, 46-48 Keys Road Moorabbin Victoria 3189	| P # 03 9532 3168
SA | NT	- SAL National Pty Ltd, Unit 1, 9 Alfred Avenue, Beverley SA 5009	| P # 08 7084 1958
WA	- SAL National Pty Ltd, 29 Beringarra Av Malaga WA 6090	| P # 08 9248 7458
NZ	- Hamer, 130 Bush Road, Albany, Auckland, 0632	| P # 0800 239 239

Step # 3 - Upon review of your claim and if the product is required to be returned to SAL for technical evaluation, then at the owners expense the product must be returned to SAL as per the above nominated locations.

Step # 4 - Pending the evaluation, the claim will be validated resulting in the product being repaired or replaced with the same or best equivalent product at the discretion of SAL, or rejected if the product fault was found to be caused by conditions beyond the responsibility of SAL warranty obligations. Consideration of installation, product removal, return freight and or testing fees are not the responsibility of SAL.