

The logo features two vertical bars of different heights to the left of the word "CLIPSAL" in a bold, sans-serif font.

by Schneider Electric

The logo consists of a stylized arc above the text "c-thru" and "The Clear Choice" below it.

Trailing Edge Dimmer

32E450T
Series



Installation Instructions

REGISTERED DESIGN • REGISTERED PATENT

Table of Contents

1.0	Product Range	3
2.0	Description	3
3.0	Features	3
4.0	Load Compatibility	4
5.0	Incompatible Loads	4
6.0	Important Warning	4
7.0	Installation Instructions	5
7.1	Wiring Details.....	5
7.2	Soft Start Feature.....	5
7.3	Minimum Brightness Settings	5
7.4	Multi-Gang Derating.....	5
7.5	Thermal Overload Protection Circuitry.....	5
7.6	Thermal Overload Compensation	5
7.7	Thermal Cut-Out.....	5
8.0	Wiring Diagrams	6
8.1	One-Way Operation	6
8.2	Two-Way Operation.....	6
9.0	Electrical Specifications	7
10.0	Warranty Statement	8

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1.0 Product Range

32E450TM	Dimmer, Trailing Edge, 220-240V a.c., 50Hz, 450W (30 Series Mechanism)
32E450T	Dimmer, Trailing Edge, 220-240V a.c., 50Hz, 450W (Standard Range)
2032E450T	Dimmer, Trailing Edge, 220-240V a.c., 50Hz, 450W (2000 Series)
C2032E450T	Dimmer, Trailing Edge, 220-240V a.c., 50Hz, 450W (Classic™ Series)
SC2032E450T	Dimmer, Trailing Edge, 220-240V a.c., 50Hz, 450W (Slimline® Series)
SL2032E450T	Dimmer, Trailing Edge, 220-240V a.c., 50Hz, 450W (Eclipse® Series)
P2032E450TM	Dimmer, Trailing Edge, 220-240V a.c., 50Hz, 450W (Prestige™ Mechanism)
P2032E450T	Dimmer, Trailing Edge, 220-240V a.c., 50Hz, 450W (Prestige™ Series)
1920E450T	Dimmer, Trailing Edge, 220-240V a.c., 50Hz, 450W (Heritage™ Series)

Please note that these products are also available in other configurations and in a wide range of colours. For further information, please contact your nearest Clipsal Sales Representative.

2.0 Description

The Clipsal 32E450T Series Dimmer is a separately switched, compact, modular dimming mechanism rated at 450W (1.8A). The unit utilises state-of-the-art trailing edge dimming technology to provide full control of incandescent lighting and electronic transformer based low voltage lighting.





The 32E450T Series Dimmer is suitable for use in any new installation, but is also retrofittable, and may be used to replace a standard switch in any existing installation.

3.0 Features

- Separately switched compact modular dimming mechanism
- 450W rating
- Wall or architrave mounting options
- Wide range of plate styles and colour variants available
- Suitable for one-way or two-way operation
- Suitable for incandescent (tungsten filament) lamps
- Suitable for low voltage downlights using electronic transformers
- Soft start operation
- Preset minimum brightness
- Over temperature compensation
- Fitted with suppressors to minimise radio frequency interference
- Complies with Australian and International EMC Standards.

4.0 Load Compatibility

The Clipsal 32E450T Series Dimmer is a part of the c-thru[®] Dimmer range. Each dimmer mechanism is colour coded to indicate load compatibility.

LOAD SYMBOL	COMPATIBLE LOADS	C-THRU COLOUR			
		32E450L	32E450T	32E500F	32E450UD
		BLUE	GREEN	AMBER	TRANSPARENT
		LEADING EDGE DIMMER	TRAILING EDGE DIMMER	FAN SPEED CONTROLLER	UNIVERSAL DIMMER
		450W	450W	500W	450W
	Incandescent Lighting Halogen/Dichroic 240V Lamps	✓	✓	✗	✓
	Low Voltage Halogen/Dichroic Lighting with Iron-Core Transformers	✓	✗	✗	✓
	Low Voltage Halogen/Dichroic Lighting with Electronic Transformers	✗	✓	✗	✓
	Small Motor Loads Exhaust Fans Ceiling Fans	✗	✗	✓	✓

IMPORTANT NOTES:

- Any number of low voltage lighting transformers can be used providing the total lamp wattage does not exceed the maximum load rating of the dimmer.
- Use only electronic transformers compatible with electronic switches/phase controlled dimmers as recommended by the manufacturer.
- It is recommended that when using electronic transformers, each be loaded to at least 75% of their maximum rated load. This reduces the possibility of lamp flicker when dimming, as is common with some transformers. Refer to the manufacturer's specifications for the transformer being used.

5.0 Incompatible Loads

Under NO CIRCUMSTANCES should the 32E450T be used for inductive load types such as low voltage lighting with iron-core transformers or fan motors. Failure to comply with this instruction will void any warranty associated with the product.

Exercise care when using dimmable linear fluorescent or compact fluorescent load types (max. load 300W). Use only lamps/ballasts that are compatible with trailing edge phase angle control (lagging). Refer to the lamp/ballast manufacturer's specifications for further recommendations. Dimmer warranty is void when controlling incompatible load types as determined by Schneider Electric (Australia) Pty Ltd.

6.0 Important Warning

It is illegal for persons other than an appropriately licensed electrical contractor or other persons authorised by legislation to work on the fixed wiring of any electrical installation. Penalties for conviction are severe.

7.0 Installation Instructions

7.1 Wiring Details

1. Disconnect power to the relevant circuit at the main switchboard.
2. Remove existing switch from wall.
3. Connect the dimmer in accordance with the wiring diagrams shown on page 6.
4. Refit switch plate to wall.
5. Reconnect power.
6. Turn switch on and check dimmer operation by turning control knob through full range.

7.2 Soft Start Feature

The Trailing Edge Dimmer incorporates a soft start feature providing a noticeably smooth lamp illumination at turn on. This feature also minimises lamp filament start up stress, which may increase lamp life.

7.3 Minimum Brightness Settings

The minimum brightness level has been factory preset to suit most applications.

7.4 Multi-Gang Derating

For applications where 32E450T Series Dimmers are multi-ganged, derate the maximum load rating of the unit according to the derating table shown at right.

Number of Dimmers	Maximum Incandescent Load per Dimmer
1	450W
2	350W
3	250W

7.5 Thermal Overload Protection Circuitry

The 32E450T Series Dimmers incorporate two levels of thermal overload protection.

7.6 Thermal Overload Compensation

Automatically reduces lamp brightness should the dimmer be inadvertently overloaded. Primary defence against overload or short circuit. Resets automatically once overload conditions are corrected.

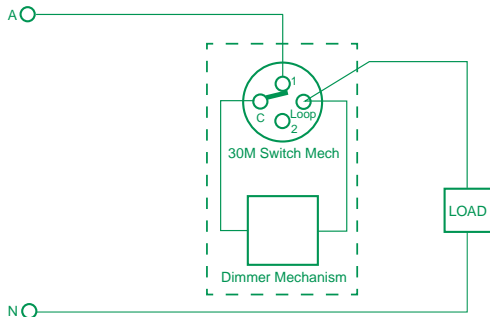
7.7 Thermal Cut-Out

The unit contains a non-resettable thermal fuse device designed to blow in case of catastrophic circuit failure. This is a secondary protection measure intended to operate as a backup in case of persistent or prolonged overload conditions. If the thermal cut-out fuse blows, then the dimmer will be rendered permanently inoperable and must be replaced.

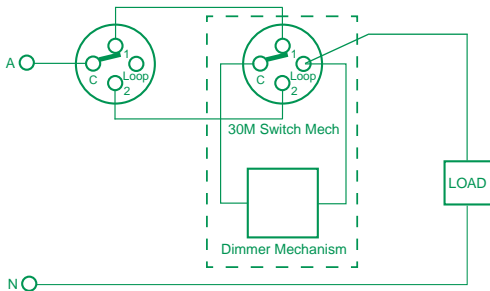
Any significant overload should be avoided in order to prevent damage to the load, fixed wiring of the installation or other hardware connected to the affected circuit.

8.0 Wiring Diagrams

8.1 One-Way Operation








8.2 Two-Way Operation



NOTE:

- If the unit is wired for two-way operation it can be switched ON or OFF from either location, but the lamp brightness can only be adjusted from one location.
- Two or more dimmers cannot be connected in parallel or series to control the same load from two different locations.
- Dimmer mechanism wiring is NOT polarity sensitive.

9.0 Electrical Specifications

Parameter	Value	
Nominal Operating Voltage	220 - 240V a.c.	
Nominal Operating Frequency	50Hz	
Maximum Load	450W @ 240V a.c., 400W @ 220V a.c. Derate for multi-gang applications	
Minimum Load	10W	
Dimming Technique	Trailing edge phase control	
Compatible Loads		Incandescent lighting Halogen 240V lamps
		Low voltage lighting with electronic transformers
Incompatible Loads		Fluorescent lighting
		Low voltage lighting with iron-core transformers
		Exhaust fans (shaded pole induction motors) Ceiling fans (split-phase induction motors)
Operating Temperature Range	0 to 45°C	
Operating Humidity Range	10 to 90% RH	
Mounting Centres	84mm Australian Pattern Plate	
Shipping Weight	25g (dimmer mechanism only)	
Safety Compliance	AS/NZS3100, IEC60669-2-1	
EMC Emission Compliance	AS/NZS CISPR15:2002	
Specifications Typical @ 240V a.c., 25°C		
No User Serviceable Parts Inside		

WARNING:

Operation at temperatures or voltages outside of specification (240V a.c., 25°C) may cause the thermal protection circuitry to operate. Decrease the size of the connected load to prevent reoccurrence.

10.0 Warranty Statement

1. The benefits conferred herein are in addition to, and in no way shall be deemed to derogate; either expressly or by implication, any or all other rights and remedies in respect to the Clipsal Product, which the consumer has under the Commonwealth competition and consumers act or any other similar State or Territory Laws.
2. The warrantor is Schneider Electric (Australia) Pty Ltd of 33-37 Port Wakefield Road, Gepps Cross, South Australia 5094. With registered offices in all Australian states.
3. This Clipsal product is guaranteed against faulty workmanship and materials for a period of two (2) years from the date of installation.
4. Schneider Electric (Australia) Pty Ltd reserves the right, at its discretion, to either repair free of parts and labour charges, replace or offer refund in respect to any article found to be faulty due to materials, parts or workmanship.
5. This warranty is expressly subject to the Clipsal product being installed, wired, tested, operated and used in accordance with the manufacturer's instructions.
6. All costs of a claim shall be met by Schneider Electric (Australia) Pty Ltd, however should the product that is the subject of the claim be found to be in good working order all such costs shall be met by the claimant.
7. When making a claim the consumer shall forward the Clipsal product to the nearest office of Schneider Electric (Australia) Pty Ltd with adequate particulars of the defect within 28 days of the fault occurring. The product should be returned securely packed, complete with details of the date and place of purchase, description of load, and circumstances of malfunction.

Schneider Electric (Australia) Pty Ltd

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