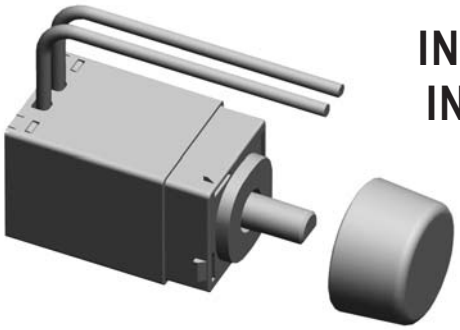
Auto Detect Intelligent Universal dimmer

Model : ATE-VR300AU



INSTALLATION INSTRUCTION

IMPORTANT !

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

WARNING : ELECTRIC SHOCK HAZARD

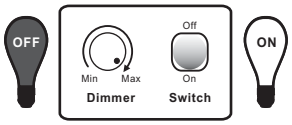
Hazardous voltage maybe present at the output of the dimmer despite setting the dimmer to zero brightness level. Look out and tag the input circuit before accessing the wiring connections. Failure to follow this warning can result in death or serious injury.

FEATURES :

- Suitable for 1-way or 2-way switching.
- Minimum load down to 5W of capacitive or resistive load, such as Dimmable LED Lighting, Incandescent Lighting, MV Halogen / LV Halogen Lighting with electronic transformers.
- Lamps soft-start operation, to extend longer lifetime for the lamp.
- User setting for the minimum dim Level.
- Build-in short circuit protect, designed to ensure the dimmer can survive in case of wiring fault or catastrophic failure of the load.
- Build-in re-settable thermal cut-off to protect the dimmer over normal operation temperature caused by overloads.
- Complies with Australian and International safety standards.

NORMAL OPERATION

Operation of Dimmer Knob and Switch :



Switch **ON** or Switch **OFF** the lamp.
Turn knob right to increase brightness to maximum level.
Turn knob left to decrease brightness to minimum level.

ELECTRICAL SPECIFICATIONS

Parameter	Value
Supply voltage & Frequency	230-240V ~ 50Hz
Maximum Load	300W @ 240V~ , derate for multi-gang installations
Dimming Technology R.C.L	Auto Detect Trailing / Leading edge driven control Also, Leading edge dimming mode can be set by user manually.
Compatible loads for **TEauto mode**	LED Dimmable — Dimmable LED lighting with compatible Electronic Transformers
	Incandescent lighting, MV Halogen lamps
	LV Halogen Lighting with electronic transformers
Compatible loads for **LE mode** *Must be manual change to LE mode	LV Halogen Lighting with Iron-core transformers
	Small motor loads, ceiling sweep fans
Operating Temperature	0° - 45°C
Operating Humidity	10 - 90% R.H.
Mounting Centres	84mm Australian Pattern Plate
Safety Compliance	AS/NZS 60669-2-1 : 2013
EMC Compliance	AS/NZS 60669-2-1 : 2002+A1:2008+A2:2015 Excepting when used in conjunction with electronic load

NOTE :
Operation at elevated temperatures or voltages may cause the thermal protection circuit to operate. If this happen, decrease the connected load to prevent re-occurance.

THERMAL OVERLOAD PROTECTION

Build-in thermal protect circuit. Apply a re-settable thermostat component, when module temperature raise achieve 110°C will activate the protection, while temperature cool down approx. 75°C it will become normal operation. If occur frequently, please reduce loading.

SHORT CIRCUIT PROTECTION

Build-in short circuit protect, once activate, the dimmer will suspend operation around 5 second after that, it will auto-ON again. If detect remain short circuit or over current, the module will suspend operation until disconnect dimmer power and Switch ON dimmer again reset to normal operation. In this case, please check the circuit with electrical technician.

INSTALLATION

Wiring Details :

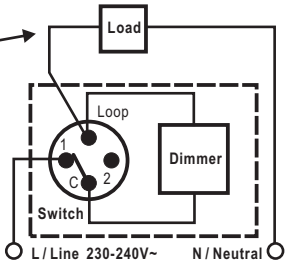
1. Disconnect power. Lock out and tag the relevant circuit at the mains switchboard.
2. Remove existing switch from wall.
3. Connect the dimmer in accordance with the wiring diagrams.
4. Refit switch plate to wall and fit the dimmer knob to the shaft.
5. Reconnect power. Switch ON and dim with turning knob.

WIRING DIAGRAMS

One Way Operation

The Dimmer must always be connected to the LINE side of the load.

The Dimmer wiring is NOT polarity sensitive.

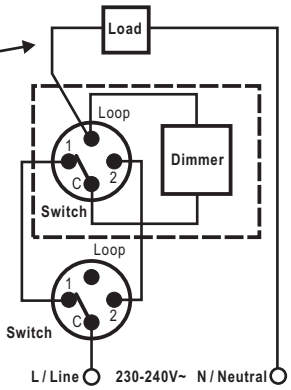


Two Way Operation

The Dimmer must always be connected to the LINE side of the load.

For 2-way switching operation, the load can be switched ON or OFF from either switch. However, lamp brightness can only be adjusted from the dimmer location.

NOTE:
Two or more dimmers MUST NOT be connected in parallel or series to control the same load from two different locations.



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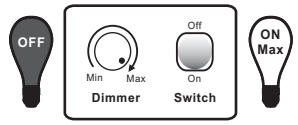
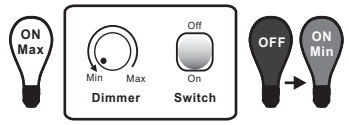
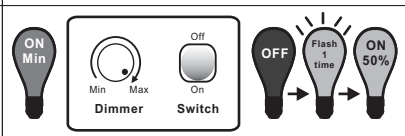
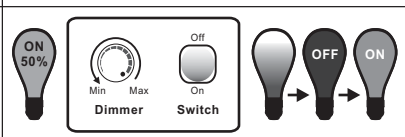
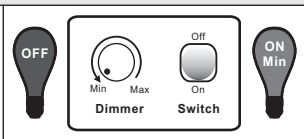
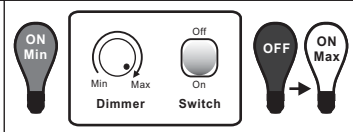
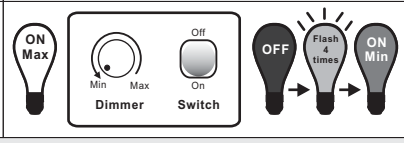
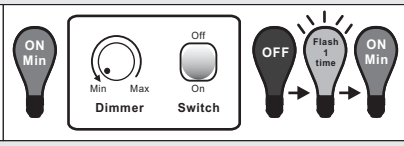
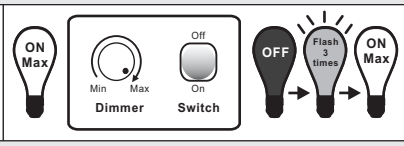
MINIMUM BRIGHT LEVEL SETTING

How to set the Minimum bright level :

	Operate steps of Dimmer and Switch	Actions
1		Lamp in **OFF** state, at max position and until around 5 seconds to switch **ON**, and wait lamp stable.
2		Turn to min position, switch **OFF** and switch **ON** at min. bright.
3		Turn to max position, switch **OFF** and **ON** again, lamp will appear flash 1 time at half-bright level, now is entry minimum Brightness settings.
4		Set your desire min bright, switch **OFF** and **ON** for once, lamp will appear at half-bright level then return to normal bright level, it's confirmed and save setting.
Each step must be performed within 10 seconds, if no, it will time out and auto exit program without save		

MODE SETTING

How to set TEauto or LE Mode (Factory default TEauto mode) :

	Operate steps of Dimmer and Switch	Actions
1		Lamp in **OFF** state, at min position and until around 5 seconds to switch **ON**, and wait lamp stable.
2		Turn to max position, switch **OFF** and switch **ON** at max bright.
3		Turn to min position, switch **OFF** and **ON** again, lamp will appear flash 4 times at half-bright level, now is entry TEauto / LE mode settings.
	For select TEauto mode (Factory default) ***SEE COMPATIBLE LOADS**	
TEauto mode		At min position, switch **OFF** and **ON** at min bright to confirm and save setting with flash 1 time.
	For select LE mode (for special required*) ***SEE COMPATIBLE LOADS**	
LE mode		Turn to max position, switch **OFF** and **ON** at max bright to confirm and save setting with flash 3 times.
Each step must be performed within 10 seconds, if no, it will time out and auto exit program without save		

COMPATIBLE LOADS

Compatible loads for **TEauto mode**	
LED Dimmable	Integral Dimmable LED lamps
	Dimmable LED lighting with compatible Electronic Transformers
	Incandescent lighting, MV Halogen lamps
	LV Halogen Lighting with Electronic Transformers
Compatible loads for **LE mode** ***Must be manual change to LE mode**	
	LV Halogen Lighting with Iron-core Transformers
M	Small motor loads, ceiling sweep fans

NOTE :
When connect with IRON-CORE transformers or MOTOR-LOADS, Only Leading Edge mode (LE) could be applied, the TEauto mode can not be used in this case.

Multiple compatible loads can be used as the total lamp wattage does not exceed the maximum load rating of the dimmer.

Some lamps may exhibit unexpected performance characteristics when cold. Dimming performance should improve after the lamp warms up. Or in case of lamp appears unstable status, it could be changed to LE mode.

MULTI-GANG DERATING

For applications where Dimmers are multi-ganged, derate the maximum load rating of the unit accrding to the derating table show as below :

Number of Dimmers	Maximum Load per Dimmer
x1	300W
x2	250W
x3	200W

NOTE :

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