

# Stop Flickering on Dimmable LED Downlights



Eliminates nuisance ripple induced flicker between 750 - 1050Hz typically found in the QLD and NSW regions.

POWERED BY

PIXIE

## Step 1



SDD400SFI

- ▶ Install the SDD400SFI trailing edge 2-wire dimmer
- ▶ **Dimmer is Powered by PIXIE (smart home system)**
- ▶ Or just use as a stand alone push button dimmer:
  - Single press on / off
  - Press and hold to Dim up / down

## Step 2

- ▶ Swap your down lights to SFI enabled models
- ▶ Choose from two SFI enabled downlight families
- ▶ Remote drivers with flex and plug for a simple plug and play fix



UNIFIT S9053WP/SFI - 9W



OR



ECOGEM S9041TC SFI - 10W



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SFI = SAL Flicker Immunity. No more flickering LED down lights.





## WHAT IS SFI TECHNOLOGY ?

**SFI is a new cost effective approach to eliminating the 'ripple injection' flickering problem experienced in NSW and QLD by users of dimmable LED down lights.**

SFI eliminates the tell-tale flickering of LED down lights at the same time of day and / or night in Australian homes associated with a tone injected into the electricity supply by electricity operators.

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## WHAT IS THIS 'TONE' FOR ?

Electricity operators in NSW and QLD inject this tone to primarily activate residential off-peak hot water systems. This tone is a signal to those homes that have an "off-peak relay" in the electrical board to start and stop the off-peak heating of the electrical hot water tank on site.

Even if homes don't use electric hot water heating, as this tone is injected into the electricity supply, any homes connected to that supply can potentially receive it and be impacted by it.

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## WHY DOES THIS MAKE LED LIGHTS FLICKER ?

This is quite complicated with many factors affecting why, when and the intensity of the flickering experienced.

However, this has been happening for decades and many people probably didn't notice it if they were not dimming lights or they were using more traditional light sources like tungsten and halogen globes/bulbs/lamps. This is because those legacy light sources essentially use a hot metal filament to create light, and when the tone is injected there is sufficient 'thermal inertia' in the filament to maintain its output (at least to the human eye).

LED lights operate in a very different way with the benefit of being much more energy efficient, and being more impacted by the ripple injection process.

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## WHY DO I HAVE TO SWAP MY DIMMERS AND DOWN LIGHTS ?

SFI is a system designed to be 100% compatible with each other, and when used together, eliminate this flickering. The SFI combined solution is a simple and cost effective way to completely eliminate this flickering, by swapping the dimmer and down lights on affected circuits.

**An added benefit when using the SFI system, home owners will also experience much deeper dimming down to 1% and smooth dimming up and down through the whole range of dimming.**

As the SFI dimmer is Powered by PIXIE, homeowners can also control their lights using the free SAL PIXIE App and add more PIXIE smart home devices to expand their smart home system in the future. However it does not NEED to be controlled by PIXIE and acts as a standard dimmer.