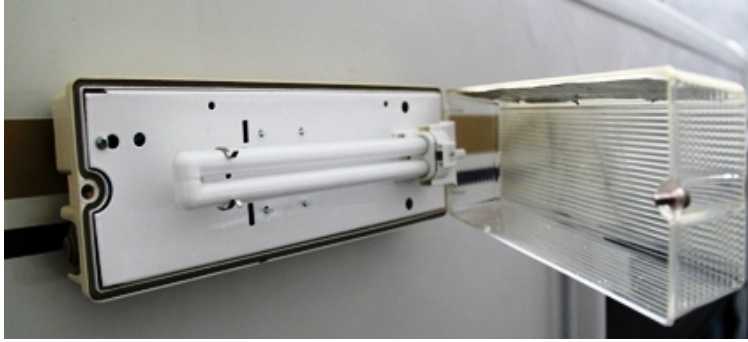


# External Fluro conversion to LED



Most fittings are made so that they can be accessed easily in order to change faulty light globes or cleaning purposes.

Understanding this; diffusers, covers, protective surrounds etc. can usually be removed by; undoing clips, turning or squeezing the plastic surround, inserting a thin object to prise the cover open, unscrewing diffusers or screws. Sometimes the method is not immediately obvious but hang-in there as there *is* a way.

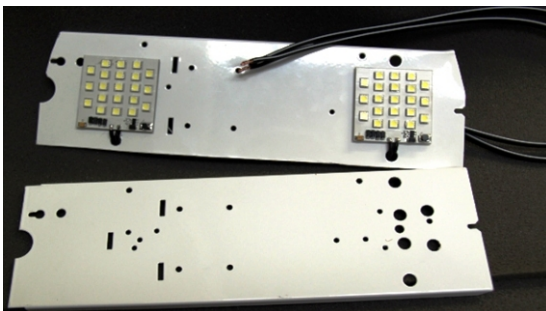
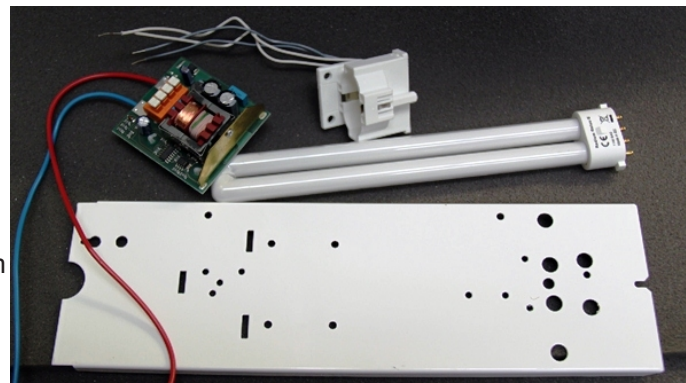
**NB:** Go slow and careful, plastic parts can be easily broken and also difficult, inconvenient and costly to replace.

In the picture above we can see that the diffuser has been opened to expose the Fluro, the Fluro is usually held by a plastic or metal clip or mount. In this case the Fluro sits on a plate that conceals the electronic driver for the Fluro. We start by removing the plate along with the Fluro tube. In this case the electronic driver is located on the back of the plate, held on by plastic mounts. The electronic driver changes your 12V DC battery supply to a higher AC. The electronic driver also uses unnecessary power doing this.

## The idea is to use the least amount of power!

In the next picture we can see that all above mentioned items have been removed from the housing. When cutting the supply wires from your battery to the housing, cut them **one by one** where they attach to the electronics board for the Fluro.

In this case we are using the LK 41 LED card as the LK 43NH strip is too long for the housing and being an outdoor light we have used 2 LK 41 cards. The LK 41 card comes with mounting tape on the back and fly leads.



**NB:** Koloona LED cards and strips are not polarity and can be easily installed using basic skills. However, we recommend that you follow the same colour match when re-wiring for good practise.

When comparing the brightness of existing Fluro globes to our LED cards or strips the power consumed by the electronics must be taken into account. Most Fluro fittings only allow a maximum of 21W due to the excessive heat that is given off by the Fluro exceeds the allowed temperature for the plastic housing, so, as a standard we have found the majority are 16W globes. Now 21W and 16W is not just a brightness indicator for Fluro and incandescent globes, it also shows the power consumed by the globes adding 5-8W for the electronics gives you a more accurate figure of the average power consumed by the Fluro.

**LK 41 uses 3.5W of power, emitting a brightness equal to 25W**

This application required much more light for the same area and it was decided to use 2 X LK 41, thereby increasing the light output by almost 4 times and only using approx. 60% the previous power.

**NB:** The customer even angled the plate so that the direction of emitted light is better utilised.

