

# CABLE SPECIFICATIONS

## OVERVIEW

- Low voltage lighting systems require a specific amount of power ( voltage ) in order to function correctly. Being low voltage, it is important to understand that cable length and gauge ( thickness of copper ) will play a major role in ensuring the correct voltage reaches the light. Incorrect cable gauge and length can cause multiple problems with low voltage lighting systems; from lights receiving too much voltage and failing prematurely, to not receiving enough voltage and failing to operate completely. With this in mind, Spa Electrics has developed this guide to assist you in choosing the correct cable for your application, as well as highlighting a few points which can help to achieve the most out of your lighting systems.

## LIGHT INFORMATION

### HALOGEN SERIES

- STANDARD CABLE LENGTH  
18 METERS
- STANDARD CABLE GAUGE  
2.5mm<sup>2</sup>
- MINIMUM CABLE LENGTH  
10 METERS @ 2.5mm<sup>2</sup>  
15 METERS @ 4.0mm<sup>2</sup>
- MAXIMUM CABLE LENGTH  
( SUPPLIED BY SPA ELECTRICS )  
24 METERS @ 4.0mm<sup>2</sup>
- EXTENDING CABLE  
24 - 28M = 4mm<sup>2</sup>  
29 - 35M = 6mm<sup>2</sup>  
36 - 50M = 10mm<sup>2</sup>

### WN / GK SERIES (CLE)

- STANDARD CABLE LENGTH  
20 METERS
- STANDARD CABLE GAUGE  
0.75mm<sup>2</sup>
- MINIMUM CABLE LENGTH  
3 METERS @ 0.75mm<sup>2</sup>  
10 METERS @ 2.5mm<sup>2</sup>
- MAXIMUM CABLE LENGTH  
( SUPPLIED BY SPA ELECTRICS )  
50 METERS @ 2.5mm<sup>2</sup>
- EXTENDING CABLE  
51 - 75M = 2.5mm<sup>2</sup>  
76 - 100M = 4.0mm<sup>2</sup>

### EM SERIES (CLE)

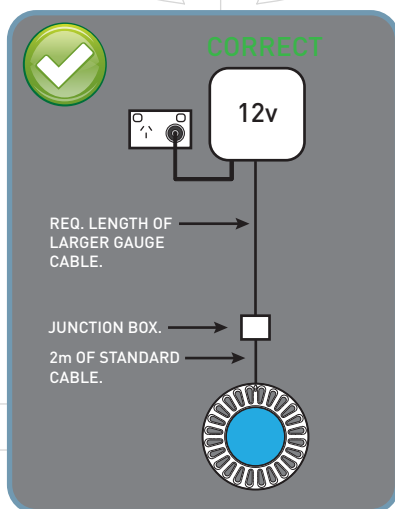
- STANDARD CABLE LENGTH  
20 METERS
- STANDARD CABLE GAUGE  
0.5mm<sup>2</sup>
- MINIMUM CABLE LENGTH  
3 METERS @ 0.5mm<sup>2</sup>  
10 METERS @ 0.75mm<sup>2</sup>
- MAXIMUM CABLE LENGTH  
( SUPPLIED BY SPA ELECTRICS )  
50 METERS @ 0.75mm<sup>2</sup>
- EXTENDING CABLE  
51 - 90M = 1.5mm<sup>2</sup>  
91 - 150M = 2.5mm<sup>2</sup>

#### PLEASE NOTE:

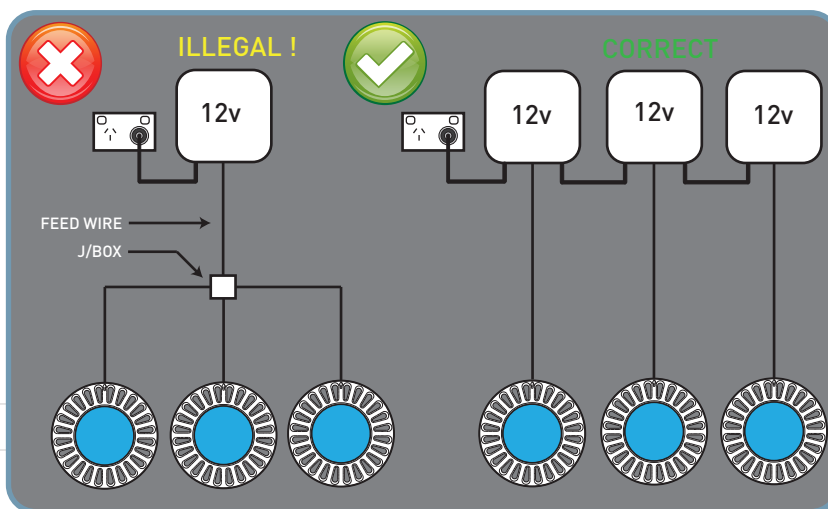
- \* REDUCING CABLE LENGTH BELOW MINIMUM RATED LENGTHS ON HALOGEN LIGHTING MAY RESULT IN REDUCED GLOBE LIFE.
- \* SPA ELECTRICS DOES NOT SUPPLY 6mm<sup>2</sup> OR 10mm<sup>2</sup> CABLES. - DUE TO THE COSTS INVOLVED, IT MAY BE MORE COST EFFECTIVE TO INVEST IN CERAMIC LIGHT ENGINE LIGHTING.

## BASIC WIRING PRACTICES

### EXTENDING CABLE



### CONNECTING SWIMMING POOL / SPA LIGHTS ( AS PER AS/NZS3000:2007 )



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