

# IMPORTANT INSTRUCTIONS

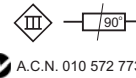
## For installation of Fitting LS333AN

MODELS LS333AN-1

12V 20watt max. lamp  
IP68 rated



0.5m  
20"  
Locate a minimum of .5m (20")  
from illuminated object



### WARNING

DO NOT SHORTEN, INTERFERE OR DISCONNECT CABLE FROM FITTING. WARRANTY WILL BE VOID IF CABLE ASSEMBLY IS TAMPERED WITH.

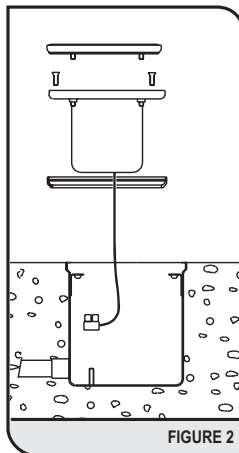
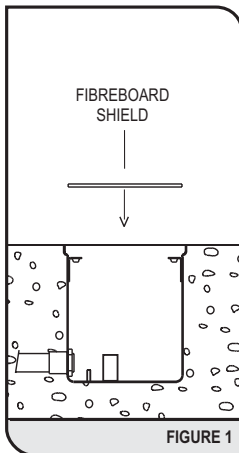
**CAUTION - HOT BULBS. Keep Away From Curtains And Other Combustible Material.**

1

### INSTALLATION - LS333AN-1

#### NICHE INSTALLATION (FIG 1)

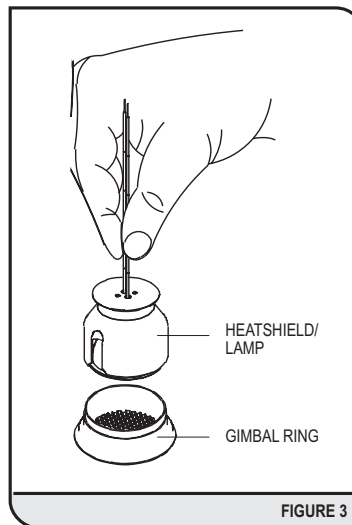
1. Locate niche in site and position level, making allowance for any finishing material above concrete. Connect 20mm PVC conduit using suitable conduit sealant.
2. Fit fibreboard shield to opening of niche before concreting. Ensure that no concrete enters niche.



2

### RELAMPING

1. Remove lamp gimbal from body of fitting. Gently pull on the lamp holder leads to remove heatshield/lamp assembly from gimbal ring (fig 3).
2. Once removed, take the rim of the lamp between your thumb and forefinger. The slots provided in the heatshield allow for ease of grip. Pull to remove lamp.



#### LS333AN 12V SUPPLY

#### FITTING INSTALLATION (FIG 2)

1. Use a burial cable, or PVC cable in conduit to connect the fitting to the Low Voltage circuit. (If using a burial cable, replace conduit entry with IP68 Nylon cable gland. Tighten cable gland sealing nut firmly to ensure a good seal around cable.)
2. Connect to the low voltage circuit using a suitable enclosure. (It is ideal if this connection can be done above ground, but if this is not possible, care should be taken to avoid a situation where the connections will be permitted to lay in water.) The attached chart provides a guide to voltage drops over specified cable distances.
3. Test the fixture for correct operation. Run for 5 minutes without lid to remove any moisture from fitting.
4. Ensure there is no sand or grit on fitting sealing area or retaining screw threads. Fit lid/seal assembly. Tighten retaining screws firmly to maintain maximum seal.

Note: Thermal protection device in-stalled.

1. Do not locate fitting near heatsources.
2. Connect to maximum of 12v input.

### IMPORTANT

When Installing or re-lamping, the thermal cutout **MUST** be repositioned beneath the terminal block mounting bracket (refer fig 4). Failure to do this will cause the fixture to cycle.

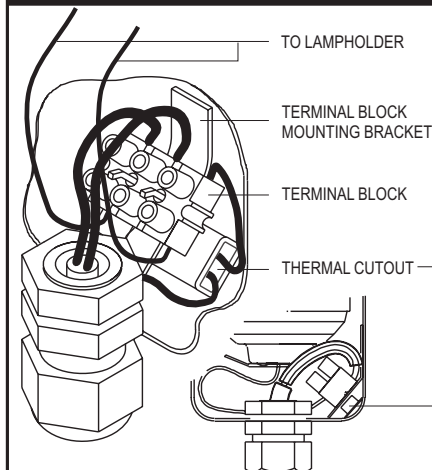


FIGURE 4



LUMASCAPE  
USA INC.

#### LUMASCAPE USA INC.

US Head Office  
1300 Industrial Rd., Unit #19  
San Carlos, CA 94070  
USA

Telephone  
1-(650)-595-LUMA(5862)

Fax  
1-(650)-595-5820

[www.lumascope.com](http://www.lumascope.com)

Free Call  
**1-866-695-LUMA(5862)**  
(US & Canada)

### 3 VOLTAGE DROP CHARTS - 12 VOLT CABLE

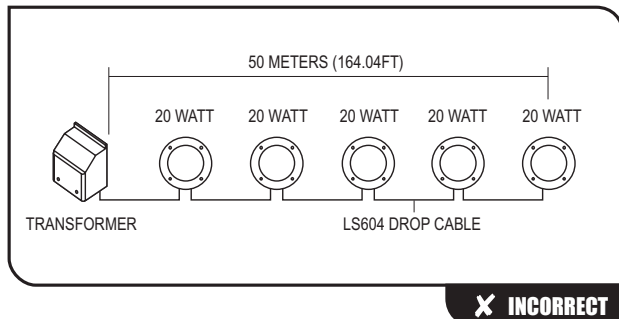
Note: The information below relates to Lumscape LS604 Direct Burial Cable only.

It is important that the Voltage Drop ( the amount of Voltage lost over a length of cable) is kept to a maximum 1 Volt (ie. the Voltage should not be less than 11 Volts at the fixture).

When using 6mm (0.23in) or 10mm (0.39in) trunk cable, the 3.3mm (0.13in) drop cable can be a maximum of 6m from main trunk line.

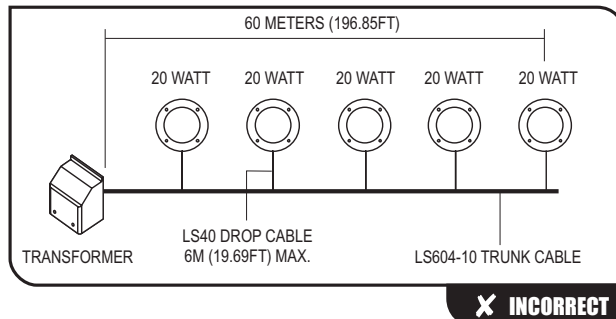
A larger cable will experience a lower voltage drop over the same length of cable (refer Voltage Drop Chart below).

#### EXAMPLE 1 - USING DROP CABLE ONLY

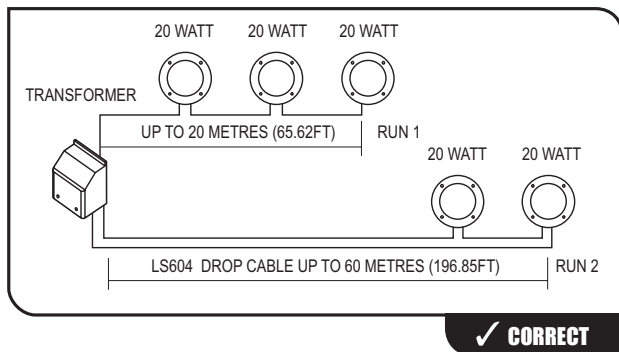


This example shows the incorrect way of installing a system using LS604 Drop Cable - The total load is 100 watts over 50 metres (164.04ft) which is more than the 12 metres (39.37ft) which is allowed in the Voltage Drop Chart below (refer to (1)).

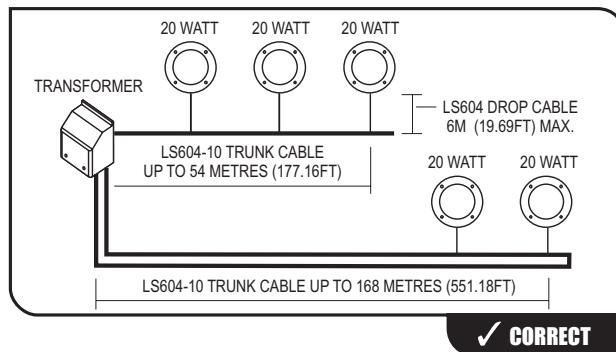
#### EXAMPLE 2 - USING TRUNK AND DROP CABLE



This example shows the incorrect way of installing a system using LS604-10 Trunk Cable - The total load is 100 watts over 60 metres (196.85ft) which is much more than the 36 metres (118.11ft) which is allowed in the Voltage Drop Chart below (refer to (4)).



This example shows the correct way of installing the system using LS604 Drop Cable - The total load on RUN1 is 60 watts over 20 metres (65.62ft) which is allowed in the Voltage Drop Chart below (refer to (2)). The load on RUN2 is 40 watts and using a doubled cable allows the run to be up to 60 metres long (196.85ft) (refer to (3)).



This example shows the correct way of installing the system using LS604-10 Trunk Cable - The total load on RUN1 is 60 watts at 54 metres (177.17ft) which is the maximum allowed in the Voltage Drop Chart below (refer to (5)). The load on RUN2 is 40 watts and using a doubled cable allows the run to be up to 168 metres (551.18ft) long (refer to (6) in Voltage Drop Chart).

#### VOLTAGE DROP CHART

LOAD	3.3MM (0.13IN) LS604 DROP CABLE		6MM (0.24IN) LS604-6 TRUNK CABLE		10MM (0.39IN) LS604-10 TRUNK CABLE	
	Single	Double	Single	Double	Single	Double
20W	70m (229.66ft)	140m (459.32ft)	105m (344.49ft)	210m (688.98ft)	140m (459.32ft)	280m (918.64ft)
40W	30m (98.43ft)	60m (196.85ft) (3)	55m (180.45ft)	110m (360.90ft)	84m (275.59ft)	168m (551.18ft) (6)
50W	25m (82.02ft)	50m (164.04ft)	44m (144.36ft)	88m (288.72ft)	62m (203.41ft)	124m (406.82ft)
60W	20m (65.62ft) (2)	40m (131.24ft)	36m (118.11ft)	72m (236.22ft)	54m (177.16ft) (5)	108m (353.02ft)
70W	15m (49.21ft)	30m (98.42ft)	30m (98.43ft)	60m (196.86ft)	50m (164.04ft)	100m (328.08ft)
80W	14m (45.93ft)	28m (91.86ft)	27m (88.58ft)	54m (177.16ft)	46m (150.92ft)	92m (302.15ft)
90W	13m (42.65ft)	26m (85.30ft)	24m (78.74ft)	48m (157.48ft)	42m (137.76ft)	84m (275.52ft)
100W	12m (39.37ft) (1)	24m (78.74ft)	21m (68.90ft)	41m (137.80ft)	36m (118.11ft) (4)	72m (236.22ft)
120W	10m (32.81ft)	20m (65.62ft)	18m (59.06ft)	36m (118.11ft)	30m (98.43ft)	60m (196.86ft)
250W	4m (13.12ft)	8m (26.24ft)	9m (29.52ft)	18m (59.05ft)	17m (55.77ft)	34m (112ft)

**CAUTION**  
The distances and wattages shown are maximum and should not be exceeded.

#### IMPORTANT SAFETY INSTRUCTIONS

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, OR INJURY TO PERSONS

**WARNING** - To reduce the risk of FIRE or INJURY:

1. Turn Off and allow to cool before replacing lamp.
2. Lamp gets hot quickly! Contact only switch/plug when turning on.
3. Do not touch hot lens, guard, or enclosure.

#### SAVE THESE INSTRUCTIONS.

4. Keep lamp away from materials that may burn.
5. Do not touch the lamp at any time. Use a soft cloth. Oil from skin may damage lamp.
6. Do not operate the lighting fixture with a missing or damaged shield.