

IMPORTANT INSTRUCTIONS

For installation of Fitting LS333A

MODELS	LS333A, LS333A-UL	 LISTED LOW VOLTAGE FIXTURE 1F30	 0.5m 20° Locate a minimum of .5m (20") from illuminated object	 A.C.N. 010 572 773
	12V 20watt max. lamp IP68 rated			

Note: To achieve IP68 rating, use round cable (size 5-10mm) to suit entry gland supplied with fixture.

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 - LS333A INGROUND / WALLMOUNT

1. Site the fixture, fix in place with supplied screws where possible.
 2. Connect the fitting to the Low Voltage circuit using V90 cable with outside insulation diameter of between 5 -10mm (3/16" - 3/8") to suit cable gland, and with a wire size of 2.0mm (0.08") max. At the terminal block connection, slide glass fibre sleeves over cable insulation for thermal protection. Tighten cable gland sealing nut firmly to ensure a good seal around cable. Note: Ensure only round supply cable is used and cable gland seals on the outer insulation to ensure maximum IP rating.
2. Alternative for UL Fixture ONLY

Connect the fitting to the Low Voltage circuit using V90 cable in conduit. Attach to fixture via 1/2" NPT adaptor supplied. Strip outer insulation of supply cable to 64mm (2 1/2"), and internal insulation 6mm (1/4") from end. At the terminal block connection, slide glass fibre sleeves over cable insulation for thermal protection.
3. 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.)
4. Test the fixture for correct operation. Run for 5 minutes without lid to remove any moisture from fitting.
5. Ensure there is no sand or grit on sealing area or retaining screw threads. Replace seal. Tighten retaining screws.

NOTE: Ensure heads of mounting screws are level to achieve good seal. Always ensure there is no debris in seal area when replacing seal. When re-lamping, remove any water droplets which may collect in outer seal area, before replacing seal.

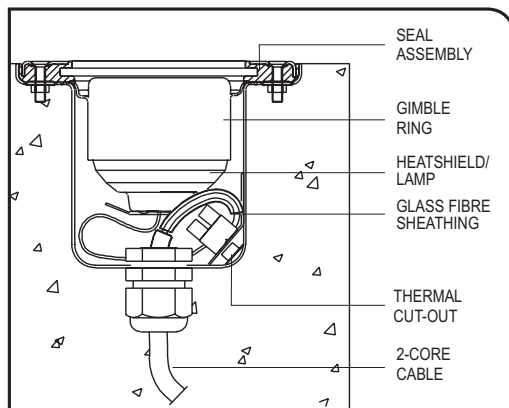


FIGURE 1

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 2).
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.

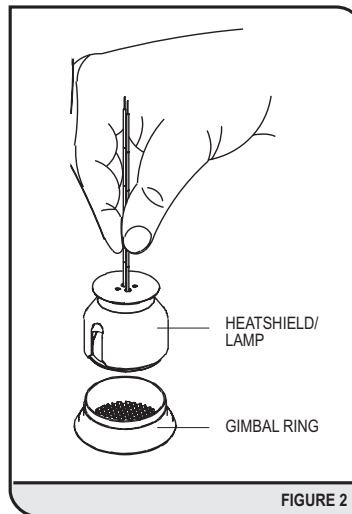


FIGURE 2

Note: Thermal protection device in-stalled.

1. Do not locate fitting near heat sources.
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, within the LS333 fixture (refer fig 3). Failure to do this will cause the fixture to cycle.

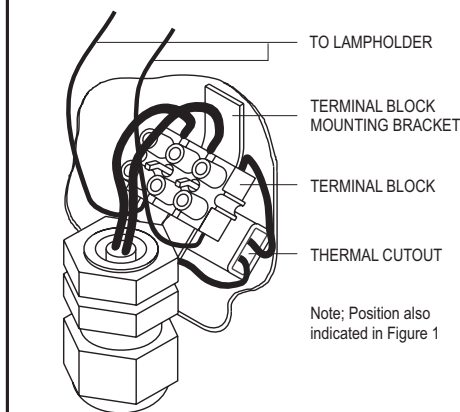


FIGURE 3



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3 VOLTAGE DROP CHARTS - 12 VOLT CABLE

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

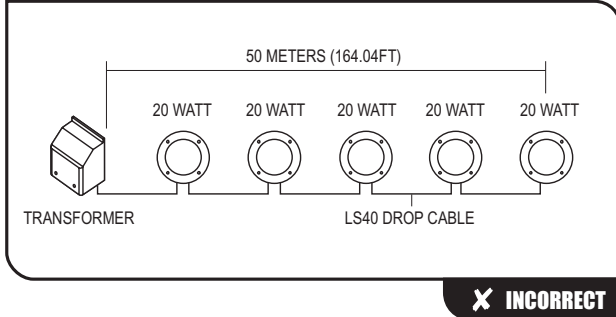
Cable runs should be kept as short as possible and should not exceed 100 Watts unless absolutely necessary.

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 (2.36in) or 10mm (3.94in) trunk cable, the 3.3mm (0.13in) drop cable can be a maximum of 6m from main trunk line.

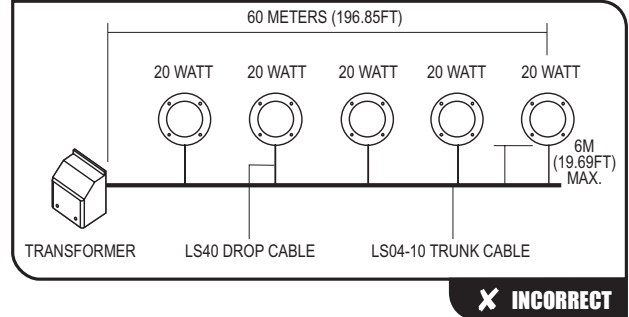
A larger cable will experience a lower voltage drop over the same length able (refer Voltage Chart below).

EXAMPLE 1 - USING DROP CABLE ONLY

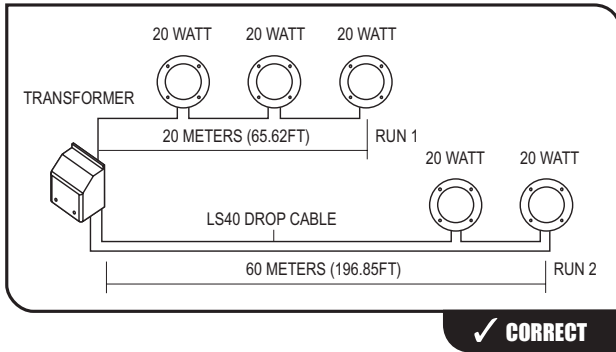


This example shows the incorrect way of installing a system using LS604 Drop Cable - The total load is 100 watts over 50 metres (164.04ft) which is much more than the 12 metres (39.37ft) which is allowed in the Drop chart below (refer to (1) in Voltage Drop Chart).

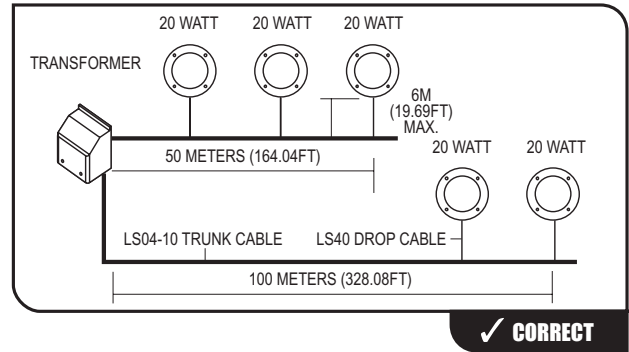
EXAMPLE 2 - USING TRUNK AND DROP CABLE



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 Drop chart below (refer to (4) in Voltage Drop Chart).



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 Drop chart below (refer to (2)). The load on RUN2 is 40 watts and using a doubled cable allows the run to be 60 metres long (196.85ft) (refer to (3) in Voltage Drop Chart).



This example shows the correct way of installing the system using LS604-10 Trunk Cable - The total load on RUN1 is 60 watts over 50 metres (164.04ft) which is below the 54 metres (177.17ft) allowed in the Drop chart below (refer to (5) in Voltage Drop Chart). 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 (85.65ft) (5)	108m (171.30ft)
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 (105.92ft)	92m (211.84ft)
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 (118.12ft)	30m (98.43ft)	60m (196.86ft)

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.