

■ TROUBLESHOOTING & MAINTENANCE

TROUBLESHOOTING

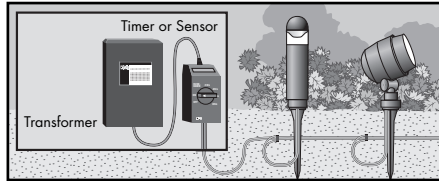
Problem	Possible Solution
Powerpoint is turned on, but the lights are off	<ol style="list-style-type: none"> The connections at the base of the transformer may be loose. Tighten firmly. You may not have pierced the cable well enough with the metal spikes in the connector. Check that the cable insulation has been fully pierced by the spikes. The timer is on (if fitted) and is currently in a programmed 'off' cycle. Remedy this by switching to timer 'on' mode on the timer, or refer to the timer instructions. There is no power to the powerpoint. (Consult an electrician).
Some lights are working, one or more are not	<ol style="list-style-type: none"> If one or more of the lights are not working, first check the connection of the light to the cable (See section 4 'Connecting Your Garden Lights' page 2). If this is firm, check the globes by putting the 'non-working' globes into a working fitting. Replace unserviceable globes.
One or more lights flicker	<ol style="list-style-type: none"> The connection to the light is loose. (See section 4 'Connecting Your Garden Lights' page 2). The globe is loose. Push in firmly. (Watch out that the globe is not hot). (HPM recommends paper or cloth be used to handle the globe).
A timer is fitted with lights programmed to be 'on', but they are not illuminated	<ol style="list-style-type: none"> Check that timer settings are correct. (See timer instruction sheet). Check that the powerpoint is on.

MAINTENANCE TIPS

To keep your garden lights looking spectacular, keep lenses free of dust and deposits by wiping occasionally with a dry cloth, or with soapy water if necessary.

IMPROVEMENT IDEA:

Your HPM garden lights can be automatically switched on or off by installing a timer (HPM Automatic Sunset Timer – RGL10) or sensor (HPM Dusk to Dawn Sensor – DGLS150).



Connected between the transformer and the lights, the Automatic Sunset Timer RGL10 can be set to turn your lights on at sunset and off either at sunrise or after 2, 4, 6, or 8 hours. This can be overridden and operate as a simple ON / OFF switch. Ask for HPM's RGL10 Automatic Sunset Timer or HPM's DGLS150 Dusk to Dawn Sensor which simply turns lights on automatically at dusk, and off at dawn.

Warranty

HPM RGL series Garden Lights are warranted as here and after appears, against faulty material and /or workmanship for a period of five years from date of purchase (excluding the globe). The obligation of the manufacturer, under this warranty, is limited to servicing and replacing defective parts when the unit is returned to HPM Industries, or the distributors in your state, freight pre-paid. To obtain warranty repair, the purchase receipt should be returned with the product. This warranty becomes void on any unit which has been tampered with or damaged by accident, short circuited, loaded beyond rating or damaged otherwise by improper operation. This guarantee is in addition to any guarantees implied by State or Federal Legislation.

HPM Industries Pty Ltd

HPM Industries Pty Ltd reserves the right to change specifications without notice.

CUSTOMER SERVICE

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HPM Industries Pty Ltd
An Australian owned company
www.hpm.com.au
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Cat No's:
RGL1, RGLC1, RGLSA1, RGL2, RGL3,
RGL7, RGLSS7.

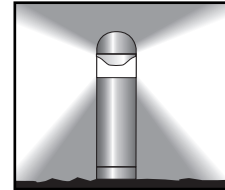


12V GARDEN LIGHT INSTRUCTIONS

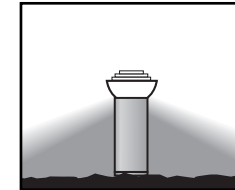
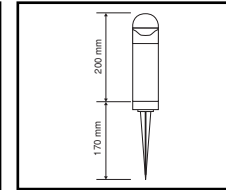
- RGL1 Bollard Walklight – Verdigris finish
- RGLC1 Bollard Walklight – Copper finish
- RGLSA1 Bollard Walklight – Sand finish
- RGL2 Adjustable Spotlight – Verdigris finish
- RGL3 T-Dome Uplight – Verdigris finish
- RGL7 Deco Uplight – Verdigris finish
- RGLSS7 Deco Uplight – Stainless steel finish

■ RANGE, SIZES, LIGHTING PATTERNS

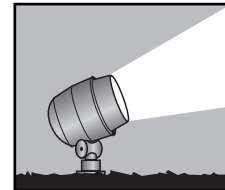
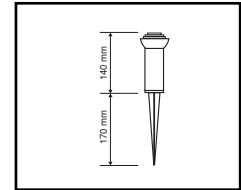
CHOOSE THE STYLES THAT MAKE THE MOST OF YOUR GARDEN



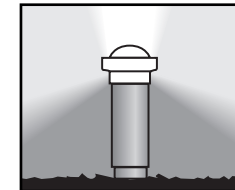
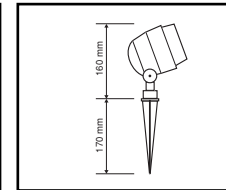
Bollard Walklight Cat RGL1
20W, verdigris finish
Bollard Walklight Cat RGLC1
20W, copper finish
Bollard Walklight Cat RGLSA1
20W, sand finish



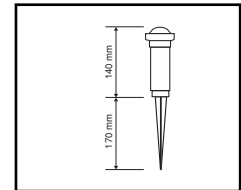
Deco Uplight Cat RGL7
10W, verdigris finish
Deco Uplight Cat RGLSS7
10W, stainless steel finish



Adjustable Spotlight Cat RGL2
20W, verdigris finish



T-Dome Uplight Cat RGL3
10W, verdigris finish



■ INSTALLATION INSTRUCTIONS

1. ASSEMBLING THE GARDEN LIGHTS

Your HPM garden light should come pre-assembled. This box should consist of a light fixture, a 10W or 20W halogen globe (depending on the garden light purchased), and cable connector wired to the light. Your light will also come complete with a ground stake. To attach the ground stake, simply thread into the base of the garden light.

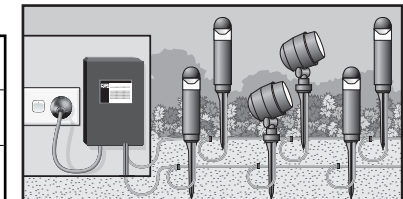
2. CABLE LAYOUT

If your installation includes multiple lights, HPM strongly recommends that you limit individual cable lengths to 20 metres, or use HPM heavier duty cable, otherwise lights may get progressively dimmer towards the end of the cable (voltage drop). See HPM's Cable Selection Guide below.

If your installation requires a total of more than 20 metres of cable, consider running two separate cables from the transformer output as shown below. This can be done providing you don't exceed the load rating of the transformer.

HPM's CABLE SELECTION GUIDE

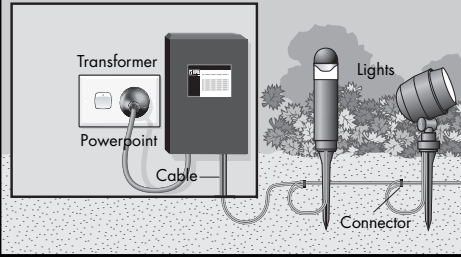
	10m CABLE RUN	20m CABLE RUN	30m CABLE RUN
Light halogen load	RGL8 Standard duty	RGL9 Standard duty	RGLCL21/30 Heavy duty
Heavy halogen load	RGL8 Standard duty	RGLCL21/20 Heavy duty	RGLCL33/30 Extra-heavy duty



■ INSTALLATION INSTRUCTIONS *continued*

3. INSTALLATION

If installing the transformer outdoors, mount in a semi protected area or fit with a HPM weatherproof powerpoint (DWS53F/1WE single outlet, DWS53F/2WE double outlet, or DWS40)



To connect your garden lights, follow the instructions below:

STEP 1 Place your garden lights in the approximate position you want them to be.

STEP 2 Lay out the cable where you want your lights to be located, remembering to allow sufficient cable to connect to the transformer. Try to avoid laying the cable where frequent digging may occur.

STEP 3 – Installation of a 12V Timer (if applicable) If a 12 volt timer (HPM Cat No RGL10) is purchased, it must be positioned between the transformer and the lights. With the power turned off, connect the wire strands, on the end of the timer cable, into the output terminals of the transformer. Secure firmly with a screwdriver.

STEP 4 – Installation of the Transformer

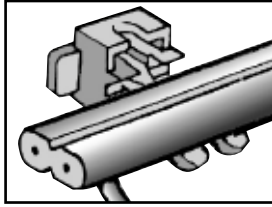
Connect the cable to the transformer terminals (or timer, if applicable) by stripping back a small amount of insulation from each wire strand (approx. 10mm). Be careful not to damage wires. Twist wire strands to prevent loose wire escaping from terminal and to help ensure a tight connection. Place stripped ends into screw terminals on transformer, or timer, and secure firmly with a screwdriver.

STEP 5 First connect the garden light that will be positioned the furthest away from the transformer.

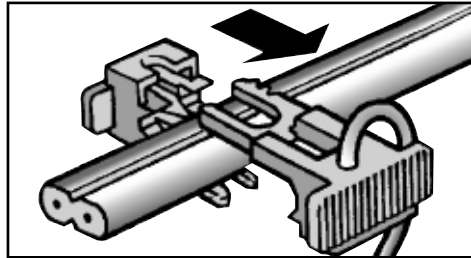
The special connector on each light is designed to make electrical connection by piercing the insulation cable as the two halves of the connector are pushed together. (See connection diagrams).

4. CONNECTING YOUR GARDEN LIGHTS

STEP 1 Lay the cable flat on one half of the connector as shown.



STEP 2 Lay the other half of the connector on top of the cable, upside down, taking care to align the pins into their matching holes on the other half. Push together firmly until they lock. Check that the two halves are pushed tightly together. (This will cause the spikes to deeply pierce into the copper centre of the cable and make a solid electrical connection).



STEP 3 Plug the transformer into the powerpoint and check whether the furthest positioned garden light operates. (If it doesn't light up, refer to 'Troubleshooting' section page 4). If light does light up, switch off the transformer and proceed to connect all the other garden lights using the steps above.

To check each light connection is secure, first turn the transformer on from the powerpoint, then gently wiggle the cable and connector. (This is perfectly safe – the voltage at this point is very low). If the light flickers, the connection is not firm enough and should be re-connected (repeat 'Connecting Your Garden Lights' Steps 1 – 2).

5. SETUP

STEP 1 Switch off the transformer from the powerpoint.

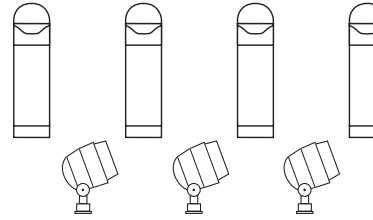
STEP 2 If you wish to cover the cable in the ground, dig a narrow channel, about 100mm deep (just deep enough to hide the cable).

STEP 3 Lay the cable at the bottom of the channel, or fasten the cable to the wall or step using appropriate fixings.

If your cable will be covered in the ground, we recommend, at this point, that you observe the overall lighting effectiveness in the dark before covering the channel.

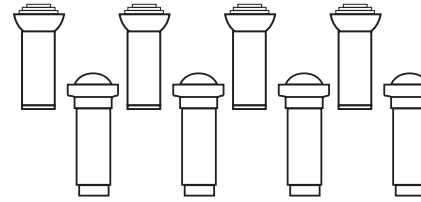
■ CHOOSING A SUITABLE TRANSFORMER

The total wattage of your garden lights must not exceed the rating of the transformer.



$$7 \times 20W = 140 \text{ watts}$$

If, for instance you select 7 lights of 20 watts each ($7 \times 20 = 140$ watts) a transformer rated greater than 140 watts should be used such as RGL11, which is rated 150 watts. If, on the other hand, the total wattages of the lights you choose exceed the rating of the transformer, a larger (or additional) transformer will be needed.



$$8 \times 10W = 80 \text{ watts}$$

If, for instance you select 8 lights of 10 watts each ($8 \times 10 = 80$ watts) a transformer rated greater than 80 watts should be used such as RGLTR105, which is rated 105 watts. If, on the other hand, the total wattages of the lights you choose exceed the rating of the transformer, a larger (or additional) transformer will be needed.

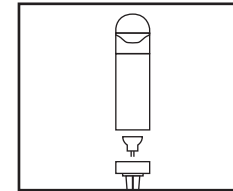
You may decide to mix light styles (walk, down, spot, up, step lights) of different wattages. In this event simply add the wattages together and ensure that the total wattage does not exceed the transformer rating.

■ GLOBE REPLACEMENT

WARNING: Take care when handling globes, they may be hot! Halogen globes can be damaged when handled with bare skin. HPM recommends paper or cloth be used to handle them. Insert the new globe into the lamp (without touching the globe directly with your bare skin).

BOLLARD LIGHT

RGL1: Verdigris finish
RGLC1: Copper finish
RGLSA1: Sand finish
Replacement globe:
DGL15 – 20W halogen



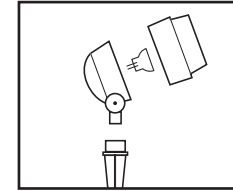
STEP 1 Unscrew the bollard base turning anti-clockwise.

STEP 2 Gently remove and replace globe, by inserting prongs into holes.

STEP 3 Replace bollard base turning clockwise.

ADJUSTABLE SPOTLIGHT

RGL2: Verdigris finish
Replacement globe:
DGL14 – 20W halogen



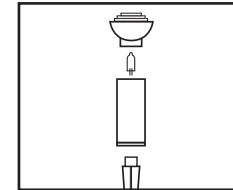
STEP 1 Remove top of the light by turning anti-clockwise.

STEP 2 Gently remove and replace globe, by inserting prongs into holes.

STEP 3 Replace top of the light by turning clockwise.

DECO UPLIGHT

RGL7: Verdigris finish
RGLSS7: stainless steel finish
Replacement globe:
DGL16 – 10W halogen



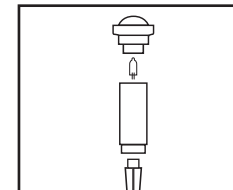
STEP 1 Unscrew the glass lens by turning anti-clockwise.

STEP 2 Gently remove and replace globe, by inserting prongs into holes.

STEP 3 Replace the glass lens by turning clockwise.

T-DOME UPLIGHT

RGL3: Verdigris finish
Replacement globe:
DGL16 – 10W halogen



STEP 1 Unscrew the glass lens by turning anti-clockwise.

STEP 2 Gently remove and replace globe, by inserting prongs into holes.

STEP 3 Replace the glass lens by turning clockwise.

NOTE: While your garden lights are Extra-Low Voltage, HPM recommends that power is switched off before disassembling the lamps.