



# TECHNICAL BULB GUIDE



**TRUSTED BY  
TODAY'S MOTORISTS**

# More than just a bulb in a box

Innovation, OE quality and  
award winning products

specialist bulbs  
**Quality Assured**  
**24V bulbs**  
**Largest range of bulbs**  
Innovators in Performance Halogens  
LED Bulbs  
HID Bulbs  
**Marketing Support**  
UK Technical Support and Customer Services  
**Merchandising and Planogramming**  
Industry-leading Cataloguing  
Ranging  
Up-to-date application guide  
Staff training  
**Next day delivery**  
Award winning products





## Welcome to Ring

Ring is a leading European supplier to the automotive aftermarket, providing exceptional quality bulbs, tyre care products, battery care products, dash cameras, garage and workshop equipment and vehicle conversion components. Ring has over 45 years' experience in the automotive sector, pushing the boundaries in automotive lighting, auto electrics and professional equipment.

Quality and service are at the centre of everything Ring does. We work with businesses to help them reach their goals, and ensure that our products perform exceptionally for the motorists, technicians, fleet managers and professionals using them on a daily basis. Our success has been shown in the 200+ product awards we've won throughout Europe, for products including our high performance halogen bulbs, tyre care, professional battery analysis tools and inspection lighting.

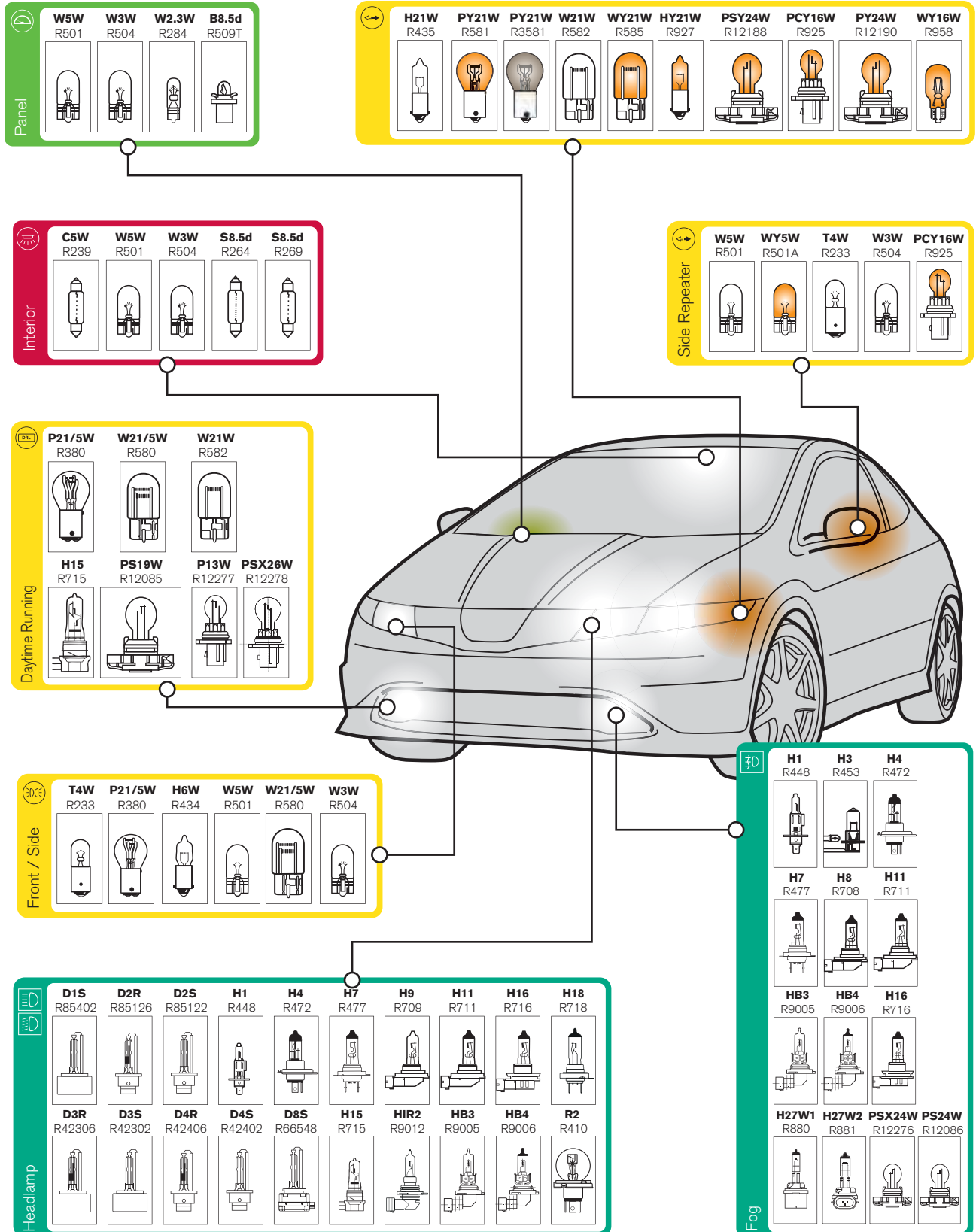
Headquartered in Leeds, UK, we are ideally placed to help meet the needs of our customers. Ring's specialist team of over 165 people across Europe, ensures we are at the forefront of product development, quality assurance and customer support services. From our purpose-built 6000m<sup>2</sup> distribution facility, Ring fulfils 64,000 orders to over 60 countries annually. UK customers benefit from a next day delivery service and with 6500 pallet locations in the warehouse holding 6000 different product lines, Ring is proud of its 97% availability rate, meaning customers get the products they need in a timescale that works for their business.

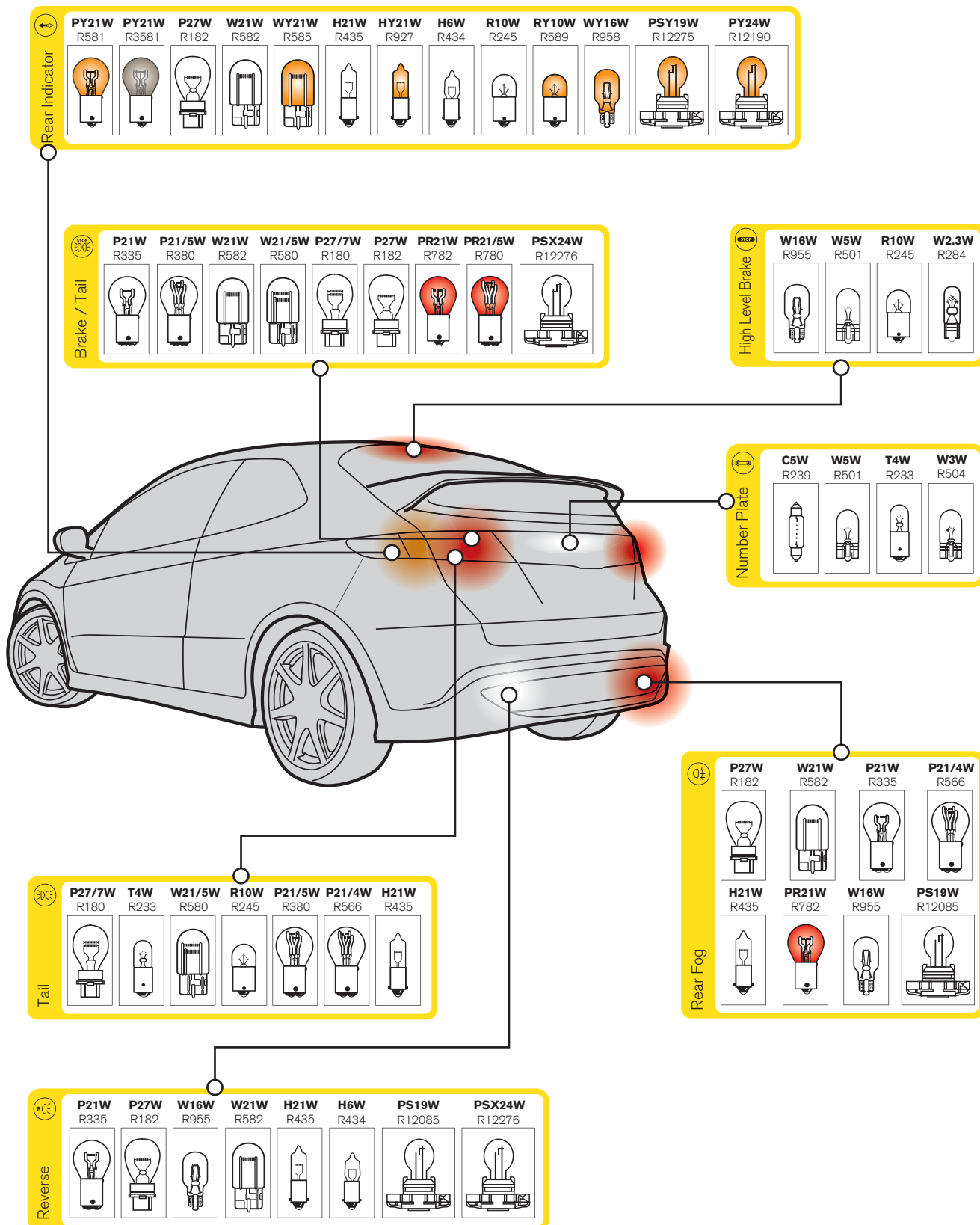
[www.ringautomotive.com](http://www.ringautomotive.com)



# Vehicle Lighting

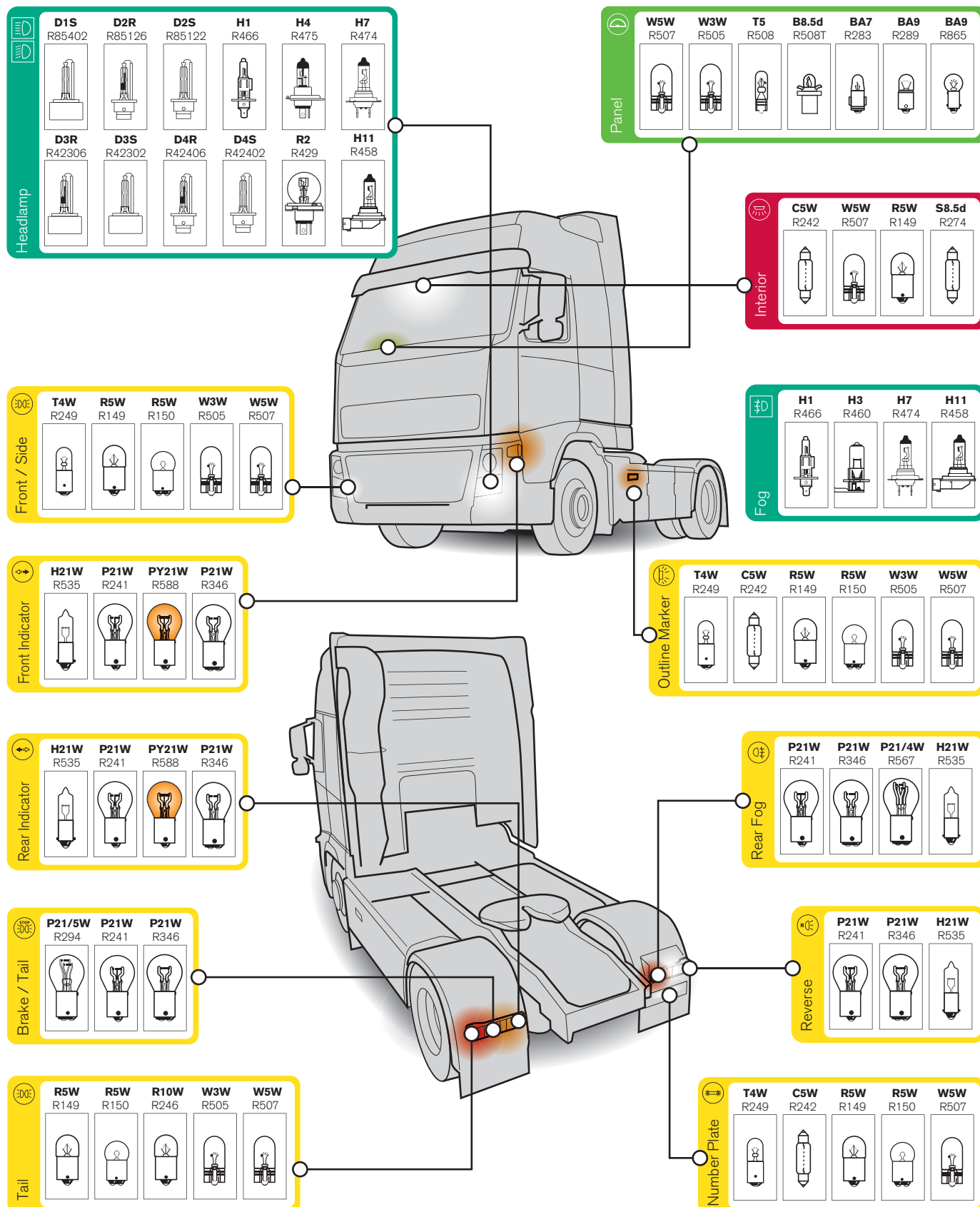
## 12V Passenger Vehicles



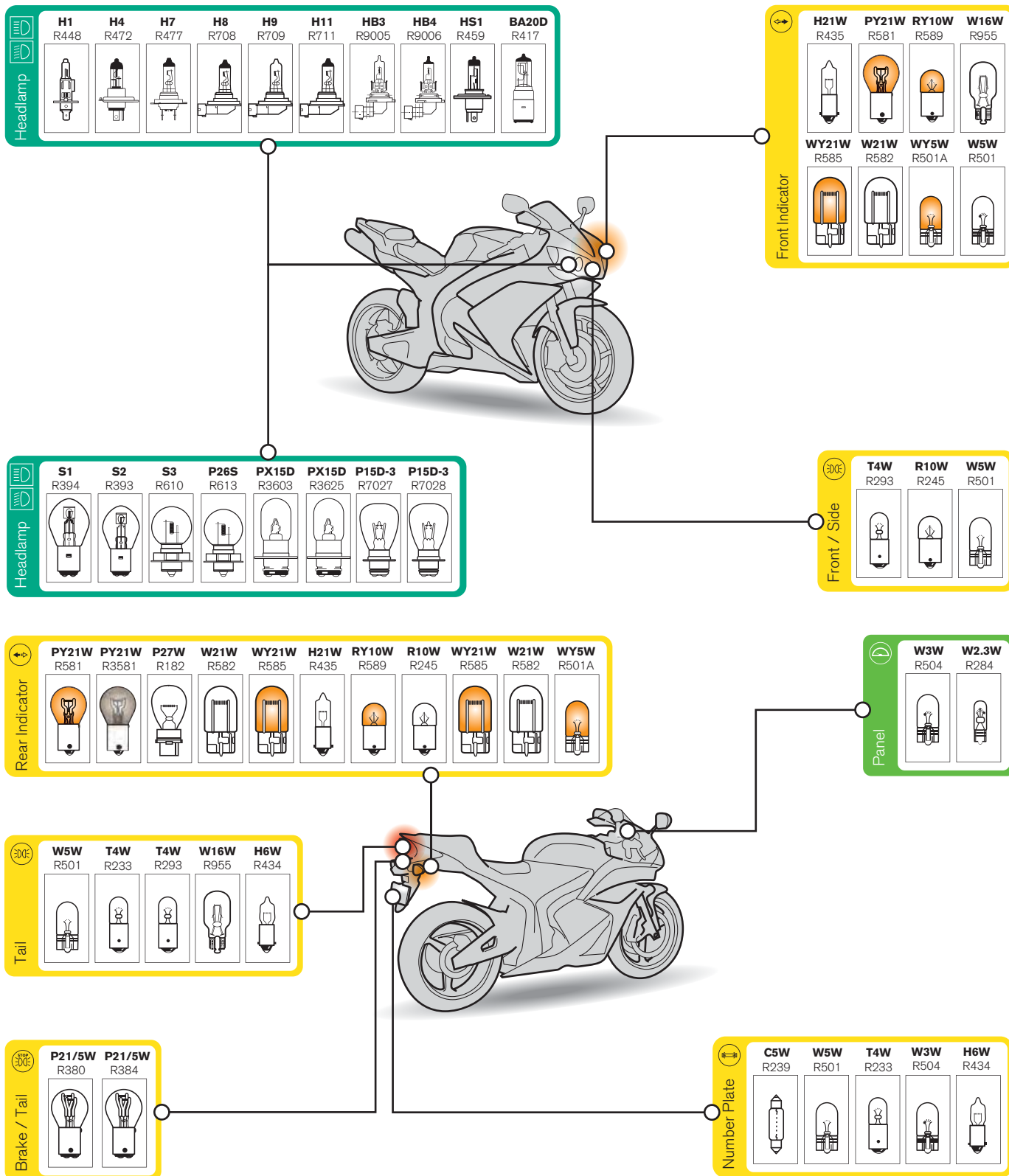


# Vehicle Lighting

## 24V Commercial Vehicles



## 6V & 12V Motorcycles



# Vehicle Lighting

## Which upgrade bulb should I choose?

### BRIGHTER

I want more light on the road ahead

#### Xenon200 Brighter headlamp bulbs



Up to 200% more light on the road ahead. Our brightest performance headlamp bulb.

+200%  
more light



### WHITER

I want a whiter looking headlamp

#### Xenon5000 Whiter Headlamp Bulbs



Up to 5000K Xenon cool white light.

+50%  
more light



### LONGER LIFE

I want a longer lasting headlamp



#### Long Life Headlamp

Lasts up to 3x longer than a standard equivalent bulb. Ideal for high mileage drivers.

#### Xenon150 Brighter Headlamp Bulbs



Up to 150% more light on the road ahead allows the driver to see more.

+150%  
more light



#### Xenon4000 Whiter Headlamp Bulbs



Up to 4000K Xenon cool white light.

+30%  
more light



### OFF ROAD ONLY

I want a high power beam for off road driving

#### RallySport Off-Road Headlamp Bulbs



Intense white light and high power beam (80 – 100W).

OFF  
ROAD



#### SportzBlue Off-Road Headlamp Bulbs



Intense blue-white light and high power beam (80 – 100W).

OFF  
ROAD



\*compared to standard halogen bulb

NOW IN 100%  
RECYCLABLE PACKAGING  
AND 100% PLASTIC FREE

Standard Beam



Xenon200 Beam



Performance Halogens 9

# Xenon200

## Brighter headlight bulbs

### Ring's brightest performance headlamp bulb

- Up to 200% more light on the road ahead allowing drivers to see more
- See and be seen with a longer beam pattern
- Better visibility of road markings and signs
- Up to 3700K colour temperature meaning a whiter look in the headlamp compared to a standard bulb
- No changes to vehicle wiring required



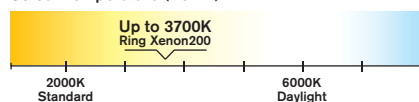
+200%

**Auto EXPRESS**  
BEST BUY  
2022

**Auto EXPRESS**  
PRODUCT AWARDS  
WINNER  
2022



Colour Temperature (Kelvin)



**OEM Technology**

**E** Road Legal

**UV CUT**

**UV CUT**  
SAFETY FOR USE IN VEHICLES

### Twin Pack

| Ref    | Voltage | Wattage | ECE | Cap     | Upgrades | Barcode       |
|--------|---------|---------|-----|---------|----------|---------------|
| RX2072 | 12V     | 60/55W  | H4  | P43t    | R472     | 5055175250076 |
| RX2077 | 12V     | 55W     | H7  | PX26d   | R477     | 5055175250083 |
| RX2011 | 12V     | 55W     | H11 | PGJ19-2 | R711     | 5055175251295 |

### Retail Solution

| Part No | Description                                               | Barcode       |
|---------|-----------------------------------------------------------|---------------|
| BU0200  | Ring Xenon200 counter top display unit c/w 5 x H7, 3 x H4 | 5055175251028 |



BU0200

\*Compared to standard halogen bulb.  
Images shown for illustration purposes only and may differ to actual product.

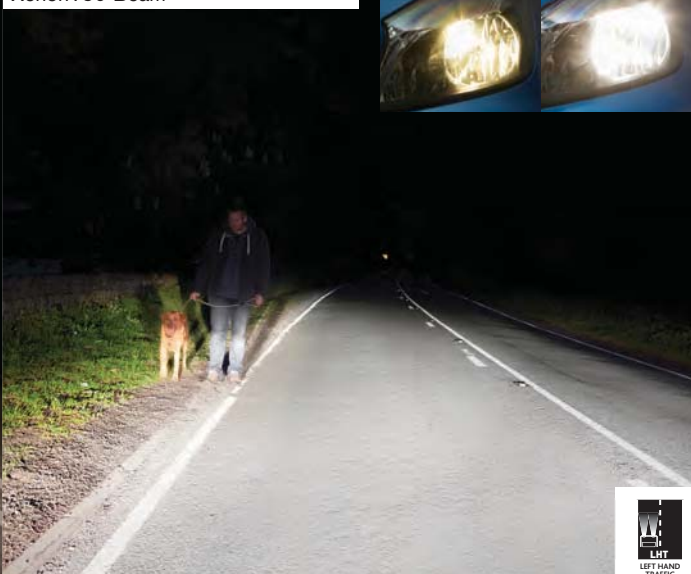
# Vehicle Lighting

Performance Halogens 10



Standard Beam

Xenon150 Beam



## Xenon150 Brighter Headlamp Bulbs

Puts up to 150%\* more light on the road

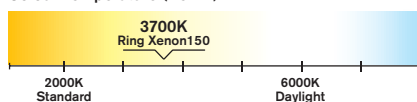
- Up to 150% more light on the road ahead allows the driver to see more
- Better visibility of road markings and signs
- A whiter look in the headlamp compared to a standard bulb
- No changes to vehicle wiring required



+150%



Colour Temperature (Kelvin)



### Twin

| Part No | Voltage | Wattage | ECE  | Cap     | Upgrades | Barcode       |
|---------|---------|---------|------|---------|----------|---------------|
| RX1548  | 12V     | 55W     | H1   | P14.5s  | R448     | 5055175250182 |
| RX1572  | 12V     | 60/55W  | H4   | P43t    | R472     | 5055175250199 |
| RX1577  | 12V     | 55W     | H7   | PX26d   | R477     | 5055175250205 |
| RX1511  | 12V     | 55W     | H11  | PGJ19-2 | R711     | 5055175250212 |
| RX1512  | 12V     | 55W     | HIR2 | PX22D   | R9012    | 5055175251011 |

\*Compared to standard halogen bulb.

NOW IN 100%  
RECYCLABLE PACKAGING  
AND 100% PLASTIC FREE

Standard Beam

Xenon100 Beam

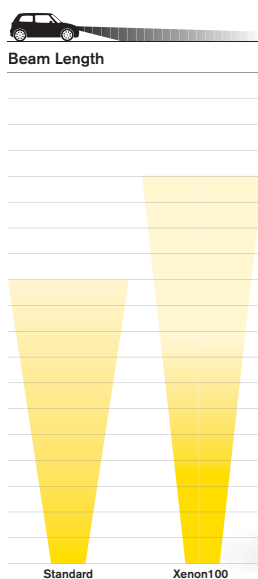


# Xenon100

## Brighter Headlamp Bulbs

Puts up to 100%\* more light on the road

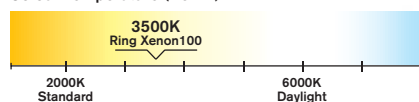
- Xenon gas technology and precise filament for improved performance
- Increased light output allows other road users to be seen more clearly at a distance of 40m on dipped beam
- Provides better reflections from road markings and signs
- No changes to wiring required



+100%



Colour Temperature (Kelvin)



### Twin

| Part No | Voltage | Wattage | ECE | Cap     | Upgrades | Barcode       |
|---------|---------|---------|-----|---------|----------|---------------|
| RX1048  | 12V     | 55W     | H1  | P14.5s  | R448     | 5055175250229 |
| RX1072  | 12V     | 60/55W  | H4  | P43t    | R472     | 5055175250236 |
| RX1077  | 12V     | 55W     | H7  | PX26d   | R477     | 5055175250243 |
| RX1005  | 12V     | 60W     | HB3 | P20d    | R9005    | 5055175250267 |
| RX1006  | 12V     | 51W     | HB4 | P22d    | R9006    | 5055175250274 |
| RX1011  | 12V     | 55W     | H11 | PGJ19-2 | R711     | 5055175250250 |

\*Compared to standard halogen bulb.

# Vehicle Lighting



Standard Beam

Xenon5000 Beam



## Xenon5000 Whiter Headlamp Bulbs

5000K

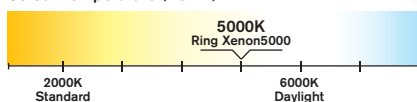
+50%

### The whitest road legal bulb

- Enhance the look of your vehicle
- Creates an LED headlamp look
- White light blends with LED DRL lamps
- Closer to daylight for a more comfortable night time drive
- See road signs and markings earlier with reflective white light
- Crisp white light and high power beam
- Puts up to 50%\* more light on the road for safer and more comfortable night driving



Colour Temperature (Kelvin)



### Twin

| Part No | Voltage | Wattage | ECE | Cap     | Upgrades | Barcode       |
|---------|---------|---------|-----|---------|----------|---------------|
| RX5048  | 12V     | 55W     | H1  | P14.5s  | R448     | 5055175250540 |
| RX5072  | 12V     | 60/55W  | H4  | P43t    | R472     | 5055175250557 |
| RX5077  | 12V     | 55W     | H7  | PX26d   | R477     | 5055175250564 |
| RX5011  | 12V     | 55W     | H11 | PGJ19-2 | R711     | 5055175250571 |

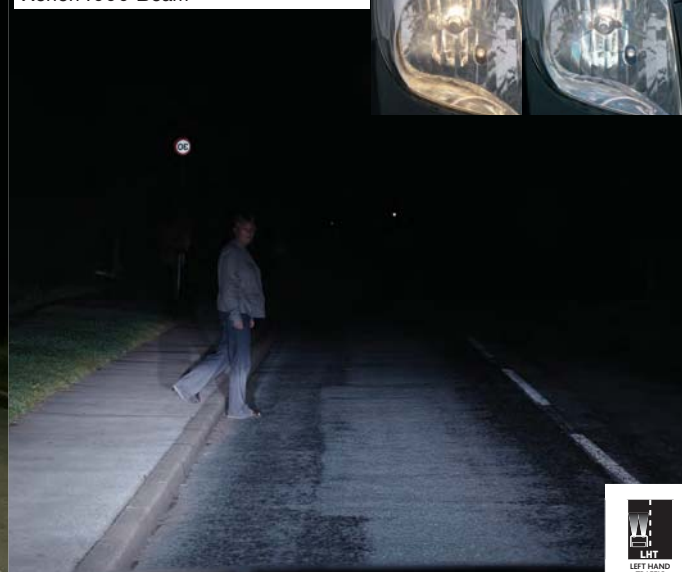
\*Compared to standard halogen bulb.



Standard Beam



Xenon4000 Beam



# Xenon4000

## Whiter Headlamp Bulbs

### Enhance the look of your vehicle

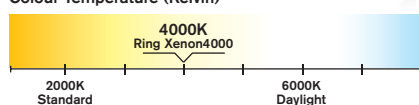
- Crisp white light
- H4 and H7 references have stylish silver tip to blend into headlamp when unlit
- Puts up to +30% more light on the road
- Whiter light gives better reflections from signs and road markings
- Ideal to colour match to LED daytime running lamps
- No changes to vehicle wiring required

4000K

+30%



Colour Temperature (Kelvin)



### Twin

| Part No | Voltage | Wattage | ECE | Cap    | Upgrades | Barcode       |
|---------|---------|---------|-----|--------|----------|---------------|
| RX4048  | 12V     | 55W     | H1  | P14.5S | R448     | 5055175250328 |
| RX4072  | 12V     | 60/55W  | H4  | P43t   | R472     | 5055175250335 |
| RX4077  | 12V     | 55W     | H7  | PX26d  | R477     | 5055175250342 |

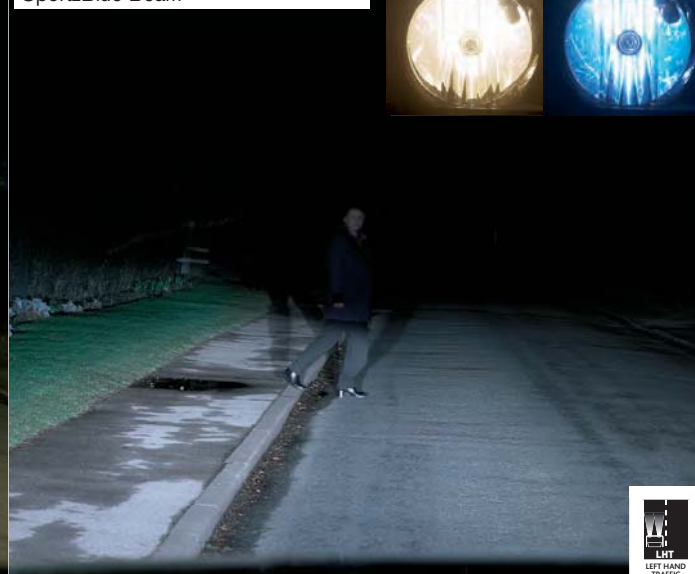
# Vehicle Lighting



Standard Beam



SportzBlue Beam



## SportzBlue

### Off-Road Headlamp Bulbs

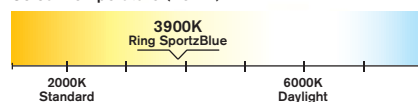
Off-road\* intense white light with blue reflector hue

- Up to 3900K white light with a darker blue hint
- 80-100W produces a high power beam pattern
- Ideal for off-roaders, sports and rally drivers
- Changes to wiring or fuses may be required
- Off road use only

3900K



Colour Temperature (Kelvin)



### Twin

| Part No | Voltage | Wattage | ECE | Cap    | Upgrades | Barcode       |
|---------|---------|---------|-----|--------|----------|---------------|
| RX668   | 12V     | 80W     | H1  | P14.5s | R448     | 5055172250618 |
| RX684   | 12V     | 100/80W | H4  | P43t   | R472     | 5055175250625 |
| RX664   | 12V     | 80W     | H7  | PX26d  | R477     | 5055175250632 |

\*Products are not ECE approved and are for off-road use only.



# RallySport

## Off-Road Headlamp Bulbs

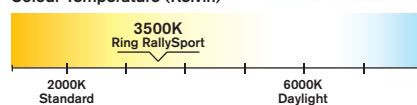
Off-road\* intense white light and high power beam

- 80-160W produces a high power beam pattern
- Off road use only
- Ideal for sport or rally drivers
- Changes to wiring or fuses may be required

3500K



Colour Temperature (Kelvin)



### Twin

| Part No | Voltage | Wattage | ECE | Cap    | Upgrades | Barcode       |
|---------|---------|---------|-----|--------|----------|---------------|
| RX481   | 12V     | 100W    | H1  | P14.5s | R448     | 5055175250588 |
| RX484   | 12V     | 100/80W | H4  | P43t   | R472     | 5055175250595 |
| RX464   | 12V     | 100W    | H7  | PX26d  | R477     | 5055175250601 |

### Single

| Part No | Voltage | Wattage | ECE | Cap    | Upgrades | Barcode       |
|---------|---------|---------|-----|--------|----------|---------------|
| R481    | 12V     | 100W    | H1  | P14.5s | R448     | 5011274048105 |
| R484    | 12V     | 100/80W | H4  | P43t   | R472     | 5011274048402 |
| R464    | 12V     | 100W    | H7  | PX26d  | R477     | 5011274046408 |

\*Products are not ECE approved and are for off-road use only.

# Vehicle Lighting



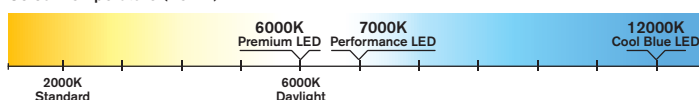
## Whiter Sidelights

- Designed to 'colour match' headlamp upgrade bulbs
- Create a whiter look by upgrading your sidelight bulbs to match the latest performance halogen upgrade bulbs
- Whiter bulbs will enhance the look of your vehicle particularly those with Daytime Running Lights

## Upgrade to a stylish look

- Direct replacement for existing bulbs
- Optional plug and play resistor kit for vehicles with bulb failure warning system (LED501RES / LED382RES)
- Off road or internal use only

Colour Temperature (Kelvin)



## 12V Bulbs - Boxed

| Part Number | Bulb Ref | Bulb Type | Application          | Colour Temp | Lumens | More Info | Barcode       |
|-------------|----------|-----------|----------------------|-------------|--------|-----------|---------------|
| R801        | 501      | W5W       | Sidelight & Interior | 3400K       |        |           | 5011274080105 |
| R833        | 233      | T4W       | Sidelight            | 3400K       |        |           | 5011274083304 |
| R1401       | 501      | W5W       | Sidelight & Interior | 3500K       |        |           | 5055175244945 |

## 12V Bulbs - Blister packed

| Part Number | Bulb Ref | Bulb Type | Application          | Colour Temp | Lumens | More Info | Barcode       |
|-------------|----------|-----------|----------------------|-------------|--------|-----------|---------------|
| RW801       | 501      | W5W       | Sidelight & Interior | 3400K       |        |           | 5011274180126 |
| RW833       | 233      | T4W       | Sidelight            | 3400K       |        |           | 5011274183325 |
| RW1401      | 501      | W5W       | Sidelight & Interior | 3500K       |        |           | 5055175231952 |
| RW882       | 582      | W21W      | Sidelight            | 4000K       |        |           | 5055175244952 |
| RW888       | 580      | W21/5W    | Sidelight            | 4000K       |        |           | 5055175244976 |

## 12V LEDs - Blister packed

| Part Number | Bulb Ref | Bulb Type | Application             | Colour Temp | Lumens | More Info                | Barcode       |
|-------------|----------|-----------|-------------------------|-------------|--------|--------------------------|---------------|
| RW2396LED   | 239      | C5W       | Number Plate & Interior | 6000K       | 35     | 39mm White               | 5055175229553 |
| RW23912LED  | 239      | C5W       | Number Plate & Interior | 12000K      | 35     | 39mm Blue                | 5055175232492 |
| RW5016LED   | 501      | W5W       | Sidelight & Interior    | 6000K       | 40     | White                    | 5055175229546 |
| RW50112LED  | 501      | W5W       | Sidelight & Interior    | 12000K      | 35     | Blue                     | 5055175232485 |
| LED501RES   |          | W5W/W3W   |                         |             |        | LED Resistor kit for W5W | 5055175227627 |

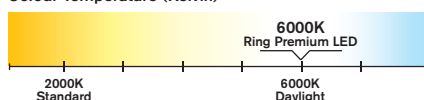




## LED bulbs for a whiter look

- Latest CANbus technology
- Up to 6000K bulbs
- Longer life
- Vibration resistant
- Extra bright
- Off road or internal use only

Colour Temperature (Kelvin)



## 12V Premium LEDs - Display Box

| Part Number | Bulb Ref | Bulb Type | Application             | Colour Temp | Lumens  | More Info         | Barcode       |
|-------------|----------|-----------|-------------------------|-------------|---------|-------------------|---------------|
| RW207LED    | 207/245  | R5W/R10W  | Signalling              | 6000K       | 400     |                   | 5055175237091 |
| RW239CBLED  | 239      | C5W       | Number Plate & Interior | 6000K       | 200     | CANbus Technology | 5055175237060 |
| RW380LED    | 380      | P21/5W    | Signalling              | 6000K       | 510/150 |                   | 5055175237039 |
| RW382LED    | 382      | P21W      | Signalling              | 6000K       | 530     |                   | 5055175237046 |
| RW477FLED   | 477      | H7        | Fog Lamp only           | 6000K       | 600     |                   | 5055175237022 |
| RW501CBLED  | 501      | W5W       | Sidelight & Interior    | 6000K       | 220     | CANbus Technology | 5055175237053 |
| RW711FLED   | 711      | H11       | Fog Lamp only           | 6000K       | 600     |                   | 5055175237015 |

## 24V Premium LEDs - Display Box

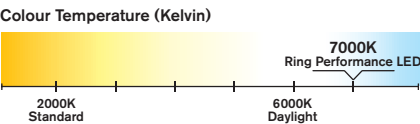
| Part Number | Bulb Ref | Bulb Type | Application             | Colour Temp | Lumens | More Info         | Barcode       |
|-------------|----------|-----------|-------------------------|-------------|--------|-------------------|---------------|
| RB1496LED   | 149      | R5W       | Signalling              | 6000K       | 400    |                   | 5055175237268 |
| RB1506LED   | 150      | R5W       | Signalling              | 6000K       | 400    |                   | 5055175237275 |
| RB2416LED   | 241      | P21W      | Signalling              | 6000K       | 530    |                   | 5055175237282 |
| RB2426LED   | 242      | C5W       | Number Plate & Interior | 6000K       | 200    | CANbus Technology | 5055175237244 |
| RB2496LED   | 249      | T4W       | Signalling              | 6000K       | 200    |                   | 5055175237299 |
| RB5076LED   | 507      | W5W       | Sidelight & Interior    | 6000K       | 220    | CANbus Technology | 5055175237251 |

# Vehicle Lighting



## LED bulbs for a whiter look

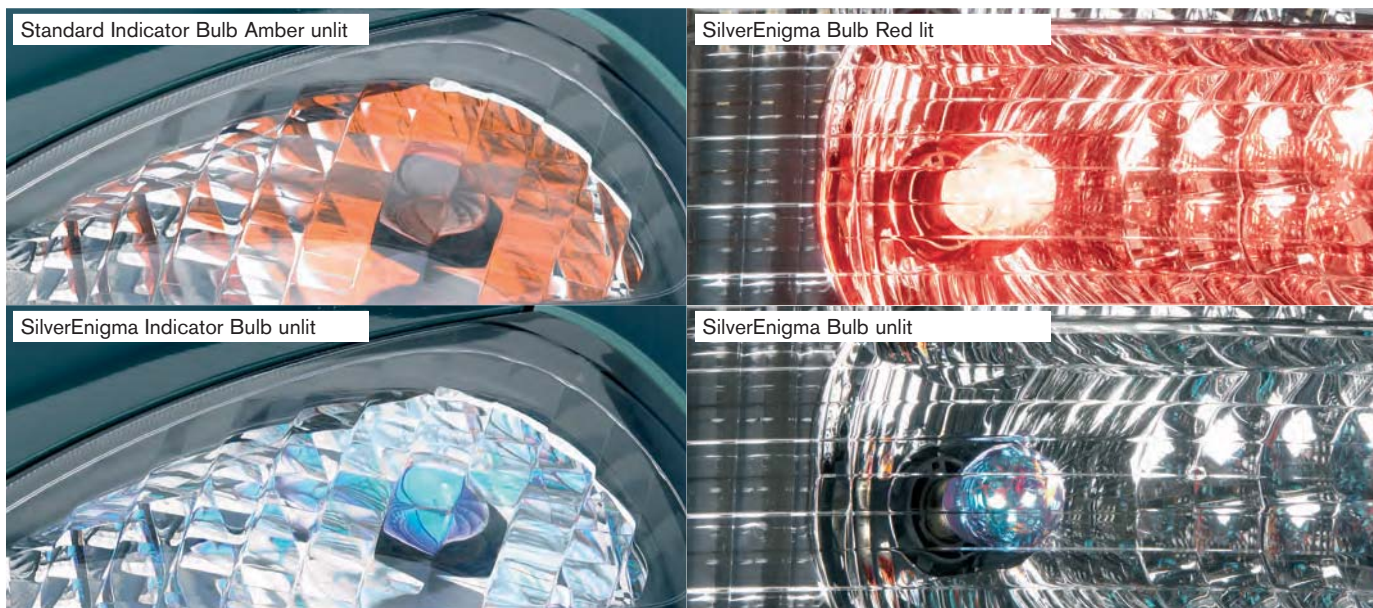
- 3D technology
- Up to 7000K bulbs
- Longer life
- Vibration resistant
- Extra bright
- Off road or internal use only



**3D Technology**  
Many LED designs are '2D'. 2D LEDs have a flat surface forcing the light to be emitted in one direction only. This can be a problem with LEDs, as no matter how many other LEDs are added to the lamp in any position, the light distribution may be uneven. Our 3D LEDs are made with a flexible LED beading which can be used to simulate the shape of a standard bulb thus giving an even light distribution.

## 12V Performance LEDs - Display Box

| Part Number | Bulb Ref | Bulb Type | Application     | Colour Temp | Lumens  | More Info     | Barcode       |
|-------------|----------|-----------|-----------------|-------------|---------|---------------|---------------|
| RW380DLED   | 380      | P21/5W    | Signalling      | 7000K       | 300/100 | 3D Technology | 5055175237077 |
| RW382DLED   | 382      | P21W      | Signalling      | 7000K       | 560     | 3D Technology | 5055175237084 |
| RW501DLED   | 501      | W5W       | Side & Interior | 7000K       | 200     | 3D Technology | 5055175237107 |



## SilverEnigma Styling Bulb

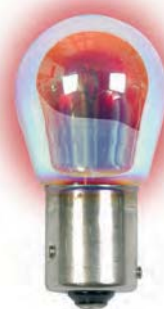
Flashes amber, looks clear when unlit

- Flashes amber and provides a clear integrated look when unlit
- Ring SilverEnigma is interchangeable with conventional bulbs
- Upgrades R581 amber indicator bulb



Illuminates red, looks clear when unlit

- Illuminates red and provides a clear integrated look when unlit
- Vehicle Specific OE replacement bulb
- Upgrades R782 stop light bulb
- Upgrades R780 stop and tail bulb



### Boxed

| Part No | Voltage | Wattage | ECE     | Cap    | Upgrades | Barcode       |
|---------|---------|---------|---------|--------|----------|---------------|
| R3782   | 12V     | 21W     | PR21W   | BAW15s | R782     | 5055175215013 |
| R3780   | 12V     | 21/5W   | PR21/5W | BAW15d | R780     | 5055175215020 |

### Blister packed

| Part No | Voltage | Wattage | ECE   | Cap    | Upgrades | Barcode       |
|---------|---------|---------|-------|--------|----------|---------------|
| RW3581  | 12V     | 21W     | PY21W | BAU15s | R581     | 5011274168414 |

# Vehicle Lighting



## Designed for today's modern headlamp units

- Optimise the efficiency of lighting equipment with Ring Premium headlamp bulbs
- The output and efficiency of vehicle headlamps is not only determined by the shape, size and manufacturing quality of the reflector but also the quality of the bulb
- Smaller headlamp designs require a bulb with a more precise filament position



### Ring Premium Headlamp Bulb Range – Single Blister

| Part Number | Voltage | Wattage | ECE | Cap    | Barcode       |
|-------------|---------|---------|-----|--------|---------------|
| RU448EQ     | 12V     | 55W     | H1  | P14.5s | 5011274184414 |
| RU472EQ     | 12V     | 60/55   | H4  | P43t   | 5055175201016 |
| RU477EQ     | 12V     | 55      | H7  | PX26d  | 5055175201030 |

### Ring Premium Headlamp Bulb Range – Twin Blister

| Part Number | Voltage | Wattage | ECE | Cap    | Barcode       |
|-------------|---------|---------|-----|--------|---------------|
| RW448EQ     | 12V     | 55W     | H1  | P14.5s | 5011274144845 |
| RW472EQ     | 12V     | 60/55W  | H4  | P43t   | 5055175201030 |
| RW477EQ     | 12V     | 55W     | H7  | PX26d  | 5055175201047 |



- Ring Xenon HID bulbs are OE manufactured
- Direct OE replacement for existing discharge bulb
- Long life – 3000 hours
- E Approved / Road legal

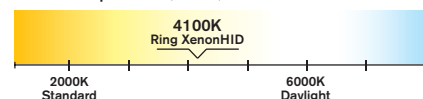
## Ring Xenon HID - Boxed

| Part Number | Voltage | Wattage | ECE | Cap     | Barcode       |
|-------------|---------|---------|-----|---------|---------------|
| R85402      | 85V     | 35W     | D1S | PK32d-2 | 5055175215112 |
| R85126      | 85V     | 35W     | D2R | P32d-3  | 5055175211480 |
| R85122      | 85V     | 35W     | D2S | P32d-2  | 5055175211473 |
| R42306      | 42V     | 35W     | D3R | PK32d-6 | 5055175235882 |
| R42302      | 42V     | 35W     | D3S | PK32d-5 | 5055175230610 |
| R42406      | 42V     | 35W     | D4R | P32d-6  | 5055175235899 |
| R42402      | 42V     | 35W     | D4S | P32d-5  | 5055175230627 |

**4100K**  
Standard colour  
temperature



Colour Temperature (Kelvin)

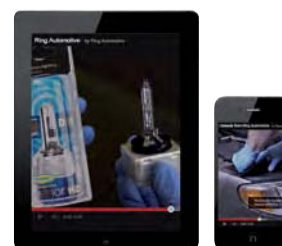


## Ring Xenon HID - Blister Pack

| Part Number | Voltage | Wattage | ECE | Cap     | Barcode       |
|-------------|---------|---------|-----|---------|---------------|
| RU85402     | 85V     | 35W     | D1S | PK32d-2 | 5055175220222 |
| RU85126     | 85V     | 35W     | D2R | P32d-3  | 5055175220215 |
| RU85122     | 85V     | 35W     | D2S | P32d-2  | 5055175220208 |
| RU42302     | 42V     | 35W     | D3S | PK32d-5 | 5055175242903 |
| RU42402     | 42V     | 35W     | D4S | P32d-5  | 5055175242910 |

## Fitting Video

Scan to watch  
the video



All Ring HID bulbs are Lead free.  
All Ring D3 and D4 bulbs are Mercury free.

# Vehicle Lighting

Long Life Bulbs 22



## Lasts up to 3x longer than the standard equivalent bulb

- Ideal for day and night use and high mileage drivers
- Improved resistance to vehicle overvoltage
- Suitable for vehicles with optional 'lights on' function or daytime running systems

## Coping with Overvoltage

On many of today's modern vehicles the measured voltage can be higher than 12V in order to cope with the additional electronic devices and electric motors.

Bulbs for cars are currently manufactured to operate at 12V and tested at 13.2V however, if the constant running voltage is higher than this it can result in a rapid decrease in the life expectancy of the bulb. Ring Automotive's Long Life bulbs provide a better resistance to vehicle overvoltage.



## Blister Pack

| Part Number | Voltage | Wattage | ECE    | Cap           | Barcode       |
|-------------|---------|---------|--------|---------------|---------------|
| RU477LL     | 12V     | 55W     | H7     | PX26d         | 5011274147747 |
| RU472LL     | 12V     | 60/55W  | H4     | P43t          | 5011274147242 |
| RU448LL     | 12V     | 55W     | H1     | P14.5s        | 5011274144852 |
| RU453LL     | 12V     | 55W     | H3     | PK22s         | 5011274045333 |
| RW380LL     | 12V     | 21/5W   | P21/5W | BAY15d        | 5011274138042 |
| RW382LL     | 12V     | 21W     | P21W   | BA15s         | 5011274138240 |
| RW207LL     | 12V     | 5W      | R5W    | BA15s         | 5011274120740 |
| RW245LL     | 12V     | 10W     | R10W   | BA15s         | 5011274124540 |
| RW501LL     | 12V     | 5W      | W5W    | W2.1x9.5d     | 5011274250195 |
| RW239LL     | 12V     | 5W      | C5W    | S8.5d 11x38mm | 5011274123949 |
| RW581LL     | 12V     | 21W     | PY21W  | BAU15s        | 5011274158149 |
| RW233LL     | 12V     | 4W      | T4W    | BA9s          | 5011274123345 |

\*Headlamps only



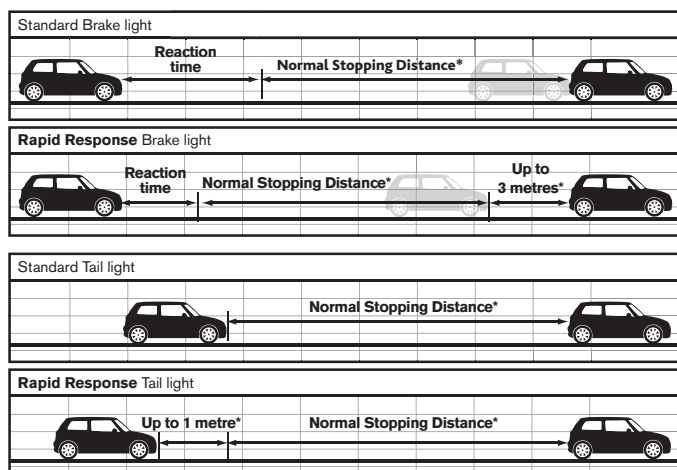
## Gain time, gain distance, avoid rear end collisions

- Faster light-up\* and greater light intensity provides earlier warning to following vehicles
- A shorter, more precise filament produces up to 20% more luminance than a standard bulb
- Up to 3 metres\*\* extra stopping distance



### Twin Blister Pack

| Part No | Voltage | Wattage | ECE    | Cap    | Upgrades | Barcode       |
|---------|---------|---------|--------|--------|----------|---------------|
| RW380RR | 12V     | 21/5W   | P21/5W | BAY15d | R380     | 5055175215303 |
| RW382RR | 12V     | 21W     | P21W   | BA15s  | R382     | 5055175215310 |
| RW207RR | 12V     | 5W      | R5W    | BA15s  | R207     | 5055175215327 |
| RW245RR | 12V     | 10W     | R10W   | BA15s  | R245     | 5055175215334 |



\*Based on travelling speeds of 62mph

\*Faster light applies to brake and tail, and brake, tail and indicator bulbs only.

\*\*Up to 3 metres applies to brake and tail and brake bulbs only.

# Vehicle Lighting



## Retail Blister Packs - Profit makers

Twin packed blister bulbs offer a greater profit making opportunity than single blister, especially as a consumer is less likely to shop around when selecting a replacement bulb which is normally an emergency purchase.

In addition as the footprint of the card is the same it will yield more profit per linear foot than a single pack.

RW=   
Twin Blister Pack

RU=   
Single Blister Pack

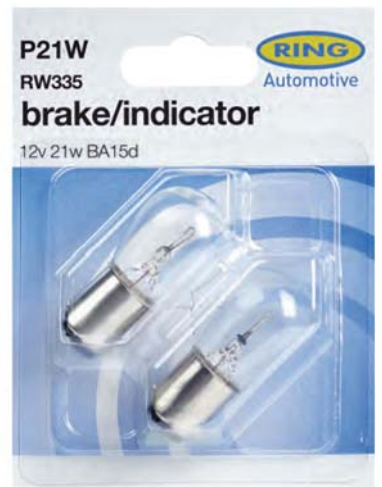
### Single Blister Pack

ECE Ref → **W21/5W**  
Part Number → **RU580**  
Bulb type → **brake & tail**  
Voltage → 12v 21/5w W3x16q



### Twin Blister Pack

P21W  
RW335  
**brake/indicator**  
12v 21w BA15d



ECE Ref → **P21/5W**  
Part Number → **RW380RR**  
Bulb type → **brake & tail**  
Voltage → 12v 21/5w BAY15d



Additional information to aid decision making

Colour coded to highlight range → Provides earlier warning to following vehicles

Hints and tips on changing the bulb



Barcode

## 12V and 24V Bulbs

With a range of over 650 references, Ring offers a one stop shop for autobulbs, from the fastest selling retail headlamp bulbs to specialist bulbs for the Engineering specifier in the commercial vehicle and construction equipment markets

Designed and manufactured to OE standards and E approved, where required, to ECE regulation 37 or 99, every bulb in the range is quality assured through our Quality Assurance department. You can rest assured that all the bulbs have been developed, tested and approved by our engineers.

Innovation is key to our bulb range, developing the latest technology performance bulbs for our customers. Ring are at the forefront of developing OE bulbs and making them available to the aftermarket as soon as a new vehicle application enters the market, ensuring that our customers can offer the same bulbs as the vehicle manufacturers.

Available in boxed packs for trade or in blister packs for self selection retail sale.



### 12V Single Bulb Blister Pack Headlamps

### 12V Twin Blister Pack

| Part No | Voltage | Wattage | ECE    | Cap      | Application | Colour | Pack Qty | Barcode       | Ref   | Pack Qty | Barcode       |
|---------|---------|---------|--------|----------|-------------|--------|----------|---------------|-------|----------|---------------|
| RU12    | 12V     | 60/55W  | (H4)** | P45t     |             |        | 10 x 1   | 5011274101213 |       |          |               |
| RU410   | 12V     | 45/40W  | R2 ASY | P45t     |             |        | 10 x 1   | 5011274141011 |       |          |               |
| RU448   | 12V     | 55W     | H1     | P14.5s   |             |        | 10 x 1   | 5011274144814 |       |          |               |
| RU453   | 12V     | 55W     | H3     | PK22s    |             |        | 10 x 1   | 5011274145316 | RW453 | 10 x 1   | 5055175209739 |
| RU472   | 12V     | 60/55W  | H4     | P43t     |             |        | 10 x 1   | 5011274147211 | RW472 | 10 x 1   | 5011274147273 |
| RU477   | 12V     | 55W     | H7     | PX26d    |             |        | 10 x 1   | 5011274147716 | RW477 | 10 x 1   | 5011274147723 |
| RU479   | 12V     | 55W     | H2     | X511     |             |        | 10 x 1   | 5011274147969 |       |          |               |
| RU480   | 12V     | 100W    | (H2)** | X511     |             |        | 10 x 1   | 5011274148010 |       |          |               |
| RU491   | 12V     | 130W    | (H2)** | X511     |             |        | 10 x 1   | 5011274149161 |       |          |               |
| RU708   | 12V     | 35W     | H8     | PGJ19-1  |             |        | 10 x 1   | 5011274170813 |       |          |               |
| RU709   | 12V     | 65W     | H9     | PGJ19-5  |             |        | 10 x 1   | 5011274057091 |       |          |               |
| RU711   | 12V     | 55W     | H11    | PGJ19-2  |             |        | 10 x 1   | 5011274057114 |       |          |               |
| RU715   | 12V     | 55/15W  | H15    | PGJ23t-1 |             |        | 10 x 1   | 5055175217536 |       |          |               |
| RU716   | 12V     | 19W     | H16    | PGJ19-3  |             |        | 10 x 1   | 5055175243740 |       |          |               |
| RU880   | 12V     | 27W     | H27W/1 | PG13     |             |        | 10 x 1   | 5011274188016 |       |          |               |
| RU881   | 12V     | 27W     | H27W/2 | PGJ13    |             |        | 10 x 1   | 5011274188115 |       |          |               |
| RU9005  | 12V     | 60W     | HB3    | P20d     |             |        | 10 x 1   | 5011274190538 |       |          |               |
| RU9006  | 12V     | 51W     | HB4    | P22d     |             |        | 10 x 1   | 5011274090067 |       |          |               |
| RU9012  | 12V     | 55W     | HIR2   | PX22d    |             |        | 10 x 1   | 5055175243627 |       |          |               |

\*Headlamps only \*\*Off road use only

Vehicle Lighting

Blister Bulbs 26

12V Single Bulb Blister Pack Exterior/Interior

12V Twin Blister Pack

| Part No   | Voltage | Wattage | ECE     | Cap           | Application | Colour      | Pack Qty | Barcode       | Ref    | Pack Qty | Barcode       |
|-----------|---------|---------|---------|---------------|-------------|-------------|----------|---------------|--------|----------|---------------|
| RU180     | 12V     | 27/7W   | P27/7W  | W2.5x16q      |             |             | 10 x 1   | 5011274118013 |        |          |               |
| RU182     | 12V     | 27W     | P27W    | W2.5x16d      |             |             | 10 x 1   | 5011274118211 |        |          |               |
| RU183     | 12V     | 27/7W   | PY27/7W | WX2.5x16q     |             |             | 10 x 1   | 5011274018368 |        |          |               |
| RU207     | 12V     | 5W      | R5W     | BA15s         |             |             | 10 x 1   | 5011274120719 | RW207  | 10 x 1   | 5011274120726 |
| RU209     | 12V     | 5W      | R5W     | BA15d         |             |             | 10 x 1   | 5011274120917 | RW209  | 10 x 1   | 5011274120924 |
| RU233     | 12V     | 4W      | T4W     | BA9s          |             |             | 10 x 1   | 5011274123314 | RW233  | 10 x 1   | 5011274123321 |
| RU237     | 12V     | 7W      |         | S8.5d 10x40mm |             | Frosted     | 10 x 1   | 5011274123710 | RW237  | 10 x 1   | 5011274123727 |
| RU239     | 12V     | 5W      | C5W     | S8.5d 11x38mm |             |             | 10 x 1   | 5011274123918 | RW239  | 10 x 1   | 5011274123925 |
| RU245     | 12V     | 10W     | R10W    | BA15s         |             |             | 10 x 1   | 5011274124519 | RW245  | 10 x 1   | 5011274124526 |
| RU256     | 12V     | 3W      |         | S7d 8x38mm    |             |             | 10 x 1   | 5011274125615 | RW256  | 10 x 1   | 5011274125622 |
| RU264     | 12V     | 10W     |         | S8.5d 11x44mm |             |             | 10 x 1   | 5011274126414 | RW264  | 10 x 1   | 5055175202518 |
| RU265     | 12V     | 10W     |         | S8.5d 15x44mm |             |             | 10 x 1   | 5011274126513 |        |          |               |
| RU269     | 12V     | 10W     |         | S8.5d 11x30mm |             |             | 10 x 1   | 5011274126919 | RW269  | 10 x 1   | 5011274126933 |
| RU958     | 12V     | 16W     | WY16W   | W2.1x9.5d     |             | Amber       | 10 x 1   | 5055175243634 |        |          |               |
| RU270     | 12V     | 18W     |         | S8.5d 15x44mm |             |             | 10 x 1   | 5011274127015 |        |          |               |
| RU272     | 12V     | 10W     |         | S8.5d 11x38mm |             |             | 10 x 1   | 5011274127213 | RW272  | 10 x 1   | 5011274127206 |
| RU273     | 12V     | 21W     |         | S8.5d 15x44mm |             |             | 10 x 1   | 5011274127312 | RW273  | 10 x 1   | 5011274127329 |
| RU280     | 12V     | 1.5W    |         | LES E5/8      |             |             | 10 x 1   | 5011274128012 |        |          |               |
| RU281     | 12V     | 2W      |         | BA7s          |             |             | 10 x 1   | 5011274128111 | RW281  | 10 x 1   | 5011274128128 |
| RU284     | 12V     | 2.3W    | W2.3W   | W2x4.6d       |             |             | 10 x 1   | 5011274128425 | RW284  | 10 x 1   | 5011274128432 |
| RU286     | 12V     | 1.2W    |         | W2x4.6d       |             |             | 10 x 1   | 5011274128616 | RW286  | 10 x 1   | 5011274128623 |
| RU286A    | 12V     | 1.2W    |         | W2x4.6d       |             | Amber       | 10 x 1   | 5011274128517 |        |          |               |
| RU286G    | 12V     | 1.2W    |         | W2x4.6d       |             | Green       | 10 x 1   | 5011274128654 | RW286G | 10 x 1   | 5055175203201 |
| RU286R    | 12V     | 1.2W    |         | W2x4.6d       |             | Red         | 10 x 1   | 5011274128531 |        |          |               |
| RU297     | 12V     | 2.2W    |         | W2.1x9.5d     |             |             | 10 x 1   | 5011274129712 | RW297  | 10 x 1   | 5055175203188 |
| RU32/3    | 12V     | 32/4W   |         | BAY15d        |             |             | 10 x 1   | 5011274132316 |        |          |               |
| RU335     | 12V     | 21W     | P21W    | BA15d         |             |             | 10 x 1   | 5011274133511 | RW335  | 10 x 1   | 5011274133528 |
| RU343     | 12V     | 21W     |         | BA15s         |             | Amber       | 10 x 1   | 5011274134365 |        |          |               |
| RU380     | 12V     | 21/5W   | P21/5W  | BAY15d        |             |             | 10 x 1   | 5011274138011 | RW380  | 10 x 1   | 5011274138028 |
| RU382     | 12V     | 21W     | P21W    | BA15s         |             |             | 10 x 1   | 5011274138219 | RW382  | 10 x 1   | 5011274138226 |
| RU433     | 12V     | 20W     |         | BA9s          |             |             | 10 x 1   | 5011274143312 |        |          |               |
| RU434     | 12V     | 6W      | H6W     | BAX9s         |             |             | 10 x 1   | 5011274143411 | RW434  | 10 x 1   | 5055175202532 |
| RU435     | 12V     | 21W     | H21W    | BAY9s         |             |             | 10 x 1   | 5011274143510 |        |          |               |
| RU501     | 12V     | 5W      | W5W     | W2.1x9.5d     |             |             | 10 x 1   | 5011274150112 | RW501  | 10 x 1   | 5011274150129 |
| RU501A    | 12V     | 5W      | WY5W    | W2.1x9.5d     |             | Amber       | 10 x 1   | 5011274150181 | RW501A | 10 x 1   | 5011274151195 |
| RU504     | 12V     | 3W      | W3W     | W2.1x9.5d     |             |             | 10 x 1   | 5011274150419 | RW504  | 10 x 1   | 5011274150426 |
| RU509T    | 12V     | 1.2W    |         | B8.5D         |             | Black base  | 10 x 1   | 5011274150914 | RW509T | 10 x 1   | 5055175202549 |
| RU509TBBK | 12V     | 1.2W    |         | B8.3D         |             | Black base  | 10 x 1   | 5011274150990 |        |          |               |
| RU509TGR  | 12V     | 2W      |         | BX8.5D        |             | Green base  | 10 x 1   | 5011274150945 |        |          |               |
| RU509TMBE | 12V     | 1.5W    |         | BX8.4D        |             | Beige Base  | 10 x 1   | 5011274150938 |        |          |               |
| RU509TMBK | 12V     | 1.2W    |         | BX8.4D        |             | Black base  | 10 x 1   | 5011274150921 |        |          |               |
| RU509TML  | 12V     | 1.2W    |         | B8.4D         |             | Blue Base   | 10 x 1   | 5011274290528 |        |          |               |
| RU509TMGR | 12V     | 2W      |         | BX8.4D        |             | Green base  | 10 x 1   | 5011274290542 |        |          |               |
| RU509TMOR | 12V     | 1.12W   |         | BX8.4D        |             | Orange base | 10 x 1   | 5011274150983 |        |          |               |
| RU509TOR  | 12V     | 1W      |         | BX8.5D        |             | Orange base | 10 x 1   | 5011274290535 |        |          |               |
| RU509TWGY | 12V     | 1.2W    |         | B8.7D         |             | Grey base   | 10 x 1   | 5011274290559 |        |          |               |

## 12V Single Bulb Blister Pack Exterior/Interior

## 12V Twin Blister Pack

| Part No  | Voltage | Wattage | ECE     | Cap           | Application | Colour     | Pack Qty | Barcode       | Ref   | Pack Qty | Barcode       |
|----------|---------|---------|---------|---------------|-------------|------------|----------|---------------|-------|----------|---------------|
| RU512PCB | 12V     | 2CP     |         | P.C.B 10mm    |             |            | 10 x 1   | 5011274151218 |       |          |               |
| RU512TR  | 12V     | 2CP     |         | B12.3d 10mm   |             |            | 10 x 1   | 5011274151225 |       |          |               |
| RU512WB  | 12V     | 2W      |         | Kw2.1x9.5D    |             | White base | 10 x 1   | 5011274151232 |       |          |               |
| RU566    | 12V     | 21/4W   | P21/4W  | BAZ15d        |             |            | 10 x 1   | 5011274156619 | RW566 | 10 x 1   | 5011274156626 |
| RU580    | 12V     | 21/5W   | W21/5W  | W3x16q        |             |            | 10 x 1   | 5011274158064 | RW580 | 10 x 1   | 5055175202525 |
| RU581    | 12V     | 21W     | PY21W   | BAU15s        |             | Amber      | 10 x 1   | 5011274158118 | RW581 | 10 x 1   | 5011274158132 |
| RU582    | 12V     | 21W     | W21W    | W3x16d        |             |            | 10 x 1   | 5011274158262 |       |          |               |
| RU585    | 12V     | 21W     | WY21W   | W3x16d        |             | Amber      | 10 x 1   | 5011274158514 | RW585 | 10 x 1   | 5011274158521 |
| RU64122  | 12V     | 3W      |         | B10D          |             | Brown base | 10 x 1   | 5011274164126 |       |          |               |
| RU64124  | 12V     | 5W      |         | B10D          |             | Black base | 10 x 1   | 5011274164133 |       |          |               |
| RU643    | 12V     | 2.2W    |         | BA9s          |             |            | 10 x 1   | 5011274164317 |       |          |               |
| RU780    | 12V     | 21/5W   | PR21/5W | BAW15d        |             | Red        | 10 x 1   | 5055175220581 |       |          |               |
| RU782    | 12V     | 21W     | PR21W   | BAW15s        |             | Red        | 10 x 1   | 5055175220598 |       |          |               |
| RU955    | 12V     | 16W     | W16W    | W2.1x9.5d T15 |             |            | 10 x 1   | 5011274195526 |       |          |               |
| RU987    | 12V     | 2.2W    |         | E10/13        |             |            | 10 x 1   | 5011274198718 | RW987 | 10 x 1   | 5011274198725 |
| RU989    | 12V     | 5W      |         | BA9s          |             |            | 10 x 1   | 5011274198916 | RW989 | 10 x 1   | 5011274198923 |

## 24V Blister Pack Headlamp and Auxiliaries

| Part No | Voltage | Wattage | ECE   | Cap             | Application | Colour    | Pack Qty | Barcode       |
|---------|---------|---------|-------|-----------------|-------------|-----------|----------|---------------|
| RW149   | 24V     | 5W      | R5W   | BA15s           |             |           | 10 x 1   | 5011274114946 |
| RW150   | 24V     | 5W      | R5W   | BA15d           |             |           | 10 x 1   | 5011274115012 |
| RW241   | 24V     | 21W     | P21W  | BA15s           |             |           | 10 x 1   | 5011274124113 |
| RW242   | 24V     | 5W      | C5W   | S8.5d 11 x 38mm |             |           | 10 x 1   | 5011274124212 |
| RW246   | 24V     | 10W     | R10W  | BA15s           |             |           | 10 x 1   | 5055175230078 |
| RW249   | 24V     | 4W      | T4W   | BA9s            |             |           | 10 x 1   | 5011274124915 |
| RW346   | 24V     | 21W     | P21W  | BA15d           |             |           | 10 x 1   | 5011274134617 |
| RU466   | 24V     | 70W     | H1    | P14.5s          |             |           | 10 x 1   | 5055175230108 |
| RU474   | 24V     | 70W     | H7    | PX26d           |             |           | 10 x 1   | 5055175230061 |
| RU475   | 24V     | 75/70W  | H4    | P43t            |             |           | 10 x 1   | 5011274323073 |
| RW505   | 24V     | 3W      | W3W   | W2.1x9.5d       |             |           | 10 x 1   | 5055175230085 |
| RW507   | 24V     | 5W      | W5W   | W2.1x9.5d       |             |           | 10 x 1   | 5055175230092 |
| RW508   | 24V     | 1.2W    |       | W2x4.6d         |             |           | 10 x 1   | 5011274150815 |
| RW508T  | 24V     | 1.2W    |       | B8.5d           |             | Grey base | 10 x 1   | 5011274150822 |
| RW588   | 24V     | 21W     | PY21W | BAU15s          |             | Amber     | 10 x 1   | 5055175230115 |

## TruckMaster Bulbs

The Ring TruckMaster Heavy Duty Long Life (HDLL) bulb range has been phased out. If you are looking for an OE replacement we suggest the OSRAM TRUCKSTAR PRO range as the best alternative. For more information contact the Customer Service Team or visit [www.osram.co.uk/truck](http://www.osram.co.uk/truck)



# Vehicle Lighting



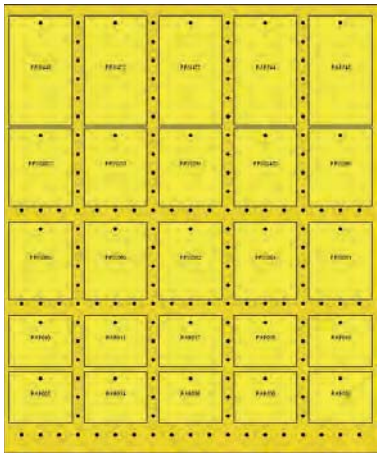
## Essentials Range

A range of fast moving bulbs and consumables for forecourts

- Bulbs are one of the highest profit makers in the auto aftermarket
- Essential distress purchase and expected to be stocked in a forecourt
- Planogram service available



50cm wide x 56cm high



A = 8.5cm x 7cm



B = 8.5cm x 10.5cm

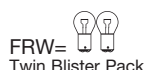


C = 8.5cm x 14.7cm

\*Headlamps only

## Essentials Bulbs

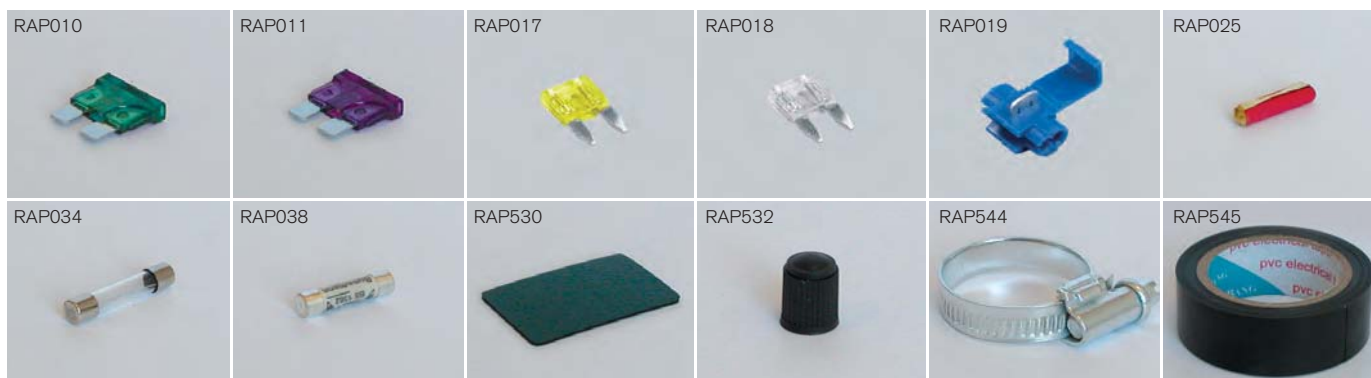
| Part Number | Voltage | Wattage | ECE    | Cap           | Applications | Colour | Pack size | Pack Qty | Barcode       |
|-------------|---------|---------|--------|---------------|--------------|--------|-----------|----------|---------------|
| FRU448      | 12V     | 55W     | H1     | P14.5s        |              |        | C         | 10 x 1   | 5055175210438 |
| FRU472      | 12V     | 60/55W  | H4     | P43t          |              |        | C         | 10 x 1   | 5055175210414 |
| FRU477      | 12V     | 55W     | H7     | PX26d         |              |        | C         | 10 x 1   | 5055175210421 |
| FRW207      | 12V     | 5W      | R5W    | BA15s         |              |        | B         | 10 x 1   | 5055175210476 |
| FRW233      | 12V     | 4W      | T4W    | BA9s          |              |        | B         | 10 x 1   | 5055175210520 |
| FRW239      | 12V     | 5W      | C5W    | S8.5d 11x38mm |              |        | B         | 10 x 1   | 5055175210506 |
| FRW245      | 12V     | 10W     | R10W   | BA15s         |              |        | B         | 10 x 1   | 5055175210490 |
| FRW286      | 12V     | 1.2W    |        | W2x4.6d       |              |        | B         | 10 x 1   | 5055175210513 |
| FRW380      | 12V     | 21/5W   | P21/5W | BAY15d        |              |        | B         | 10 x 1   | 5055175210452 |
| FRW382      | 12V     | 21W     | P21W   | BA15s         |              |        | B         | 10 x 1   | 5055175210445 |
| FRW501      | 12V     | 5W      | W5W    | W2.1x9.5d     |              |        | B         | 10 x 1   | 5055175210469 |
| FRW581      | 12V     | 21W     | PY21W  | BAU15s        |              | Amber  | B         | 10 x 1   | 5055175210483 |



## Essentials Consumables

A range of fast moving automotive consumables including fuses, tape and connectors

| Part Number | Description                                  | Pack size | Pack Qty | Barcode       |
|-------------|----------------------------------------------|-----------|----------|---------------|
| RAP010      | Assorted Blade Fuses 15, 20, 25, 30 Amp      | A         | 10 x 1   | 5011274901011 |
| RAP011      | Assorted Blade Fuses 3, 5, 7.5, 10 Amp       | A         | 10 x 1   | 5011274901110 |
| RAP017      | Assorted Mini Blade Fuses 2, 4, 5, 7.5 Amp   | A         | 10 x 1   | 5011274901714 |
| RAP018      | Assorted Mini Blade Fuses 10, 15, 20, 25 Amp | A         | 10 x 1   | 5055175210537 |
| RAP019      | Cable Connectors                             | A         | 10 x 1   | 5055175210544 |
| RAP025      | Assorted Ceramic Fuses, 5, 8, 16, 25 Amp     | A         | 10 x 1   | 5011274902513 |
| RAP034      | Assorted Glass Fuses 10, 15, 25, 35 Amp      | A         | 10 x 1   | 5011274903411 |
| RAP038      | Assorted Mains 240V Fuses, 3, 5, 13 Amp      | A         | 10 x 1   | 5011274903817 |
| RAP530      | Mirror Fixing Pads                           | A         | 10 x 1   | 5011274953010 |
| RAP532      | Plastic Valve Caps                           | A         | 10 x 1   | 5011274953218 |
| RAP544      | Assorted Hose Clips                          | D         | 10 x 1   | 5011274954413 |
| RAP545      | PVC Insulation Tape                          | D         | 10 x 1   | 5011274954512 |



# Vehicle Lighting



## 12V Auto Bulb Kits

- A compact kit that fits into the glove compartment
  - All bulbs are E approved as required
  - Mandatory in many European countries
  - Range covers all popular vehicle types
  - All bulbs can be replaced
  - Contains bulbs for headlamps and exterior lighting
  - UV cut headlamp bulbs suitable for plastic headlamps
- Don't leave home without one!



## Universal Multi Headlamp 12V Auto Bulb Kit

- Suitable for vehicles fitted with H4, H1 or H7 headlamp bulbs
- 3 headlamp bulbs
- 12 additional bulbs
- 4 blade fuses
- Transferable from vehicle to vehicle



## Mini 12V Auto Bulb Kit

- Compact kit for easy storage
- Contains major bulbs for exterior lighting plus fuses
- Universal kit contains 3 headlamps



\*Headlamps only

## Universal Standard 12V Auto Bulb Kits

| Part Number | Suitable For Vehicles Fitted With:                                   | Headlamp Bulbs | Additional Bulbs | Fuses | Barcode       |
|-------------|----------------------------------------------------------------------|----------------|------------------|-------|---------------|
| BU007       | H4 (R472) Headlamp Bulbs                                             | 1              | 9                | 3     | 5011274000745 |
| BU008       | H1 (R448) Headlamp Bulbs                                             | 1              | 9                | 3     | 5011274000806 |
| BU077       | H7 (R477) Headlamp Bulbs                                             | 1              | 9                | 3     | 5011274007706 |
| BU031       | HB3 (R9005) Headlamp Bulbs                                           | 1              | 10               | 3     | 5011274031114 |
| BU041       | HB4 (R9006) Headlamp Bulbs                                           | 1              | 10               | 3     | 5011274041113 |
| BU042       | HB3 (R9005) & HB4 (R9006) Headlamp Bulbs                             | 2              | 10               | 3     | 5011274042226 |
| BU072       | H4 (R472) Headlamp Bulbs plus wedge base bulbs for Japanese vehicles | 1              | 10               | 3     | 5011274072223 |
| BU073       | H7 (R477) Headlamp Bulbs plus wedge base bulbs for Japanese vehicles | 1              | 10               | 3     | 5011274073336 |
| BU078       | H7 (R477) & H1 (R448) Headlamp Bulbs                                 | 2              | 10               | 3     | 5011274078881 |
| BU079       | H7 (R477) & HB3 (R9005) Headlamp Bulbs                               | 2              | 10               | 3     | 5011274079994 |
| BU080       | H7 (R477) & H11 (R711) Headlamp Bulbs                                | 2              | 6                | 2     | 5055175234861 |
| BU087       | H4 (R472) & H1 (R448) Headlamp Bulbs                                 | 2              | 10               | 3     | 5011274087777 |

## Mini 12V Auto Bulb Kit

|       |                                                  |   |   |   |               |
|-------|--------------------------------------------------|---|---|---|---------------|
| BU050 | H4 (472) Headlamp Bulb                           | 1 | 5 | 2 | 5055175219042 |
| BU051 | H1 (448) Headlamp Bulb                           | 1 | 5 | 2 | 5055175219059 |
| BU052 | H7 (477) Headlamp Bulb                           | 1 | 5 | 2 | 5055175219066 |
| BU053 | H7/H1 (477/448)                                  | 2 | 5 | 2 | 5055175219073 |
| BU054 | H4 (R472) & H1 (R448) & H7 (R477) Headlamp Bulbs | 3 | 5 | 3 | 5055175219080 |

## Universal Multi Headlamp 12V Auto Bulb Kit

|       |                                                  |   |    |   |               |
|-------|--------------------------------------------------|---|----|---|---------------|
| BU027 | H4 (R472) & H1 (R448) & H7 (R477) Headlamp Bulbs | 3 | 12 | 4 | 5055175215631 |
|-------|--------------------------------------------------|---|----|---|---------------|

# Vehicle Lighting



## Biker Bulbs

For over 40 years Ring has been pushing the boundaries of motorcycle lighting. We were the first company to produce a halogen bulb that put up to 100% more light on the road XenonMax. Today it is Xenon150 that sets the standard.

For a motorcyclist, being seen is equally important as seeing. We have designed a full range of lighting solutions to provide the safety your customer needs as well as the styling they are looking for.



## Blister

| Part Number | Voltage | Wattage | ECE    | Cap       | Application                                                                         | Colour | Barcode       | Ref    | Barcode       |
|-------------|---------|---------|--------|-----------|-------------------------------------------------------------------------------------|--------|---------------|--------|---------------|
| RMU3625     | 6V      | 25/25W  |        | PX15d     |    |        | 5055175211572 | R3625  | 5055175213118 |
| RMU392      | 6V      | 25/25W  | S1     | BA20D     |    |        | 5055175211596 | R392   | 5011274053925 |
| RMU393      | 6V      | 35/35W  | S2     | BA20D     |    |        | 5055175211602 | R393   | 5011274039332 |
| RMU3603     | 12V     | 25/25W  |        | PX15d     |    |        | 5055175211565 | R3603  | 5055175213101 |
| RMU394      | 12V     | 25/25W  | S1     | BA20D     |    |        | 5055175211619 | R394   | 5055175213125 |
| RMU395      | 12V     | 35/35W  | S2     | BA20D     |    |        | 5055175211626 | R395   | 5011274039592 |
| RMU418      | 12V     | 23W     |        | BA9s      |    | Amber  | 5055175213583 | R418   | 5055175212555 |
| RMU448      | 12V     | 55W     | H1     | P14.5s    |    |        | 5055175211725 | R448EQ | 5011274041824 |
| RMU459      | 12V     | 35/35W  | HS1    | PX43t     |    |        | 5055175211657 | R459   | 5055175210902 |
| RMU472      | 12V     | 60/55W  | H4     | P43t      |    |        | 5055175211732 | R472   | 5011274047207 |
| RMU477      | 12V     | 55W     | H7     | PX26d     |   |        | 5055175211749 | R477   | 5011274047702 |
| RMU610      | 12V     | 15W     | S3     | P26S      |  |        | 5055175211671 | R610   | 5055175212425 |
| RMU613      | 12V     | 20W     |        | P26S      |  |        | 5055175211688 | R613   | 5055175213156 |
| RMU711      | 12V     | 55W     | H11    | PGJ19-2   |  |        | 5055175213590 | R711   | 5011274071165 |
| RMU7027     | 12V     | 35/35W  |        | P15D-3    |  |        | 5055175211695 | R7027  | 5055175213163 |
| RMU7028     | 12V     | 45/40W  |        | P15D-3    |  |        | 5055175211701 | R7028  | 5055175213170 |
| RMW207S     | 12V     | 5W      | R5W    | BA15s     |  |        | 5055175211794 | 207S   | 5011274021764 |
| RMW233      | 12V     | 4W      | T4W    | BA9s      |  |        | 5055175211800 | R233   | 5011274023362 |
| RMW239      | 12V     | 5W      | C5W    | S8.5d     |  |        | 5055175211817 | R239   | 5011274023966 |
| RMW245S     | 12V     | 10W     | R10W   | BA15s     |  |        | 5055175211824 | R245S  | 5011274024574 |
| RMW380      | 12V     | 21/5W   | P21/5W | BAY15d    |  |        | 5055175211831 | R380   | 5011274038007 |
| RMW382      | 12V     | 21W     | P21W   | BA15s     |  |        | 5055175211848 | R382   | 5055175211848 |
| RMW501      | 12V     | 5W      | W5W    | W2.1x9.5d |  |        | 5055175211855 | R501   | 5011274405160 |
| RMW581      | 12V     | 21W     | PY21W  | BAU15s    |  | Amber  | 5055175211862 | R581   | 5011274058166 |
| RMU293      | 6V      | 4W      | T4W    | BA9s      |  |        | 5055175211558 | R293   | 5011274029363 |
| RMU384      | 6V      | 21/5W   | P21/5W | BAY15d    |  |        | 5055175211589 | R384   | 5011274038465 |
| RMU286      | 12V     | 1.2W    |        | W2x4.6d   |  |        | 5055175211718 | R286   | 5011274028671 |
| RMU504      | 12V     | 3W      | W5W    | W2.1x9.5d |  |        | 5055175211756 | R504   | 5011274050467 |
| RMU589      | 12V     | 10W     | RY10W  | BA15s     |  | Amber  | 5055175211664 | R589   | 5055175213200 |



Panel Bulb Kits

- Full colour selector guide
- All popular references
- Durable, resealable compartment box
- Product locator for easy and accurate replenishment
- Available in:  
RPB121 12V Standard  
RPB243 24V Standard



12V Standard Panel Bulb Kit  
RPB121

Contents

| Part Number | Qty | Part Number | Qty |
|-------------|-----|-------------|-----|
| R509TMOR    | 2   | R509TMBK    | 3   |
| R509TMBE    | 2   | R509TMGR    | 2   |
| R509TMLB    | 3   | R509TOR     | 2   |
| R509T       | 10  | R509TGR     | 3   |
| R509TBBK    | 2   | R509TBWH    | 2   |
| R509TWGR    | 2   | R509TWGY    | 2   |
| R509TDBK    | 2   | R509TEBK    | 2   |
| R509THGY    | 3   | R286        | 10  |
| R286A       | 3   | R286B       | 3   |
| R286G       | 5   | R286R       | 3   |
| R501A       | 5   |             |     |

24V Standard Panel Bulb Kit  
RPB243

Contents

| Part Number | Qty | Part Number | Qty |
|-------------|-----|-------------|-----|
| R508TMRE    | 2   | R508TMGR    | 2   |
| R508TBR     | 4   | R508T       | 10  |
| R508TBGY    | 4   | R1471       | 10  |
| R1791       | 10  | R6929       | 2   |
| R508TWBR    | 2   | R508TCWH    | 2   |
| R508TCTR    | 2   | R508A       | 2   |
| R508B       | 2   | R508G       | 2   |
| R508R       | 2   | R508TUWH    | 2   |
| R508TVWH    | 2   | R86021003   | 2   |
| R86028166   | 2   | R8328       | 2   |
| R86024918   | 2   |             |     |

## Bulb Connectors

- Direct replacement

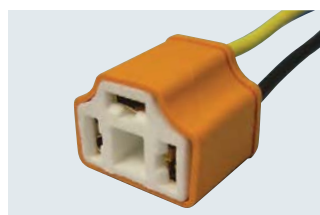
### Ceramic Bulb Holders



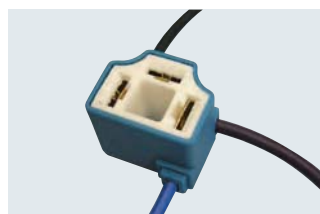
**Part Number** RBH001  
**Bulb Fitment** H1/H3  
 P14.5s/PK22s  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Straight cable exit



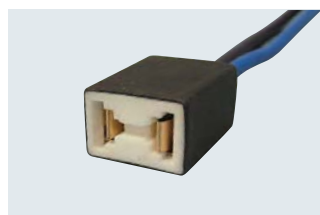
**Part Number** RBH002  
**Bulb Fitment** H1/H3  
 P14.5s/PK22s  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Angled cable exit



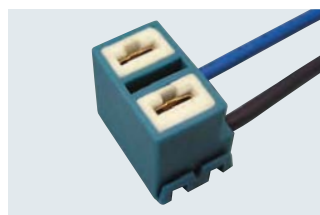
**Part Number** RBH003  
**Bulb Fitment** H4  
 P43t/P45t  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Straight cable exit



**Part Number** RBH004  
**Bulb Fitment** H4  
 P43t/P45t  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Angled cable exit



**Part Number** RBH005  
**Bulb Fitment** H7  
 PX26d  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Straight cable exit



**Part Number** RBH006  
**Bulb Fitment** H7  
 PX26d  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Angled cable exit



**Part Number** RBH007  
**Bulb Fitment** H11  
 PGJ19-2  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Straight cable exit



**Part Number** RBH008  
**Bulb Fitment** 9004 /9007  
 P29t/Px29t  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Straight cable exit



**Part Number** RBH009  
**Bulb Fitment** 9005  
 P20d  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Straight cable exit



**Part Number** RBH010  
**Bulb Fitment** 9006  
 P22d  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Straight cable exit

### Standard Bulb Holders



**Part Number** RBH011  
**Bulb Fitment** BA15D  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Straight cable exit



**Part Number** RBH012  
**Bulb Fitment** BA15S  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Straight cable exit



**Part Number** RBH013  
**Bulb Fitment** BA9S  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Straight cable exit



**Part Number** RBH014  
**Bulb Fitment** BAY15D  
**Cable Rating** 8.2A  
**Cable Length** 130mm  
 Straight cable exit

# Vehicle Lighting

## Single Boxed Stands

Ring provides your customers with a range of solutions to having Autobulbs at the point of installation. Carrying the fast moving references, these wall mounted stands safely contain the stock in the workshop right next to the job in hand.



## BU175

12V Bulb Stand Complete with Stock



| Ref    | Qty | Ref   | Qty |
|--------|-----|-------|-----|
| RB207S | 13  | RB382 | 10  |
| RB239  | 13  | RB566 | 10  |
| RB245S | 13  | RB580 | 10  |
| RB286  | 13  | RB581 | 10  |
| RB501  | 13  | RB582 | 10  |
| RB501A | 13  | R448  | 10  |
| RB955  | 13  | R477  | 8   |
| RB380  | 10  | R472  | 6   |

**Total: 175**

## BU194

12V Bulb Stand Complete with Stock



| Ref   | Qty | Ref    | Qty |
|-------|-----|--------|-----|
| R472  | 6   | R435   | 4   |
| R477  | 16  | RB272  | 5   |
| R448  | 11  | RB955  | 5   |
| RB380 | 11  | RB269  | 5   |
| RB382 | 11  | RB264  | 5   |
| RB581 | 11  | RB233  | 5   |
| RB566 | 4   | RB245S | 5   |
| RB580 | 4   | RB504  | 5   |
| RB582 | 4   | RB501A | 5   |
| RB585 | 4   | RB501  | 14  |
| R434  | 4   | RB239  | 14  |
| RB335 | 4   | RB207S | 14  |
| RB343 | 4   | RB286  | 14  |

**Total: 194**

## BU274

24V Bulb Stand Complete with Stock



| Ref   | Qty | Ref   | Qty |
|-------|-----|-------|-----|
| RB149 | 13  | RB290 | 10  |
| RB150 | 13  | RB294 | 10  |
| RB242 | 13  | RB346 | 10  |
| RB246 | 13  | R535  | 10  |
| RB249 | 13  | R466  | 10  |
| RB505 | 13  | R460  | 10  |
| RB507 | 13  | R474  | 7   |
| RB241 | 10  | R475  | 6   |

**Total: 174**

# Marketing Support

**For mechanics, knowledge equals confidence.**

Therefore we set out to provide as much technical support as a mechanic will require. Our comprehensive bulb literature is constantly updated to ensure mechanics have access to the latest information. We provide work outs and training events to ensure mechanics maximise their sales of bulbs.



## E Marking and Bulb Quality

### Introduction

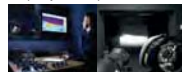
It's a fact the simple Autobulb is a safety critical component of any vehicle on the road today. Often overlooked, it's a key part of providing the right light ahead on a dark road or warning other road users a driver is braking or about to change direction. As it is vital to operate safely the bulbs must be manufactured to International Standards.

### ECE Regulation 37

The Standard in ECE Regulation 37 meets currently shortened to the "D" mark ECE Regulation 37 details most specifications that cover the light output, filament geometry, voltage and wattage and the size and shape of the bulb.



The light output specification ensures the correct level of illumination from the light assembly. Too bright and you could dazzle other road users. Too dim and you may simply not be able to see the way ahead. Filament geometry specification ensures the correct alignment of the light source, the filament, in the light assembly ensuring the light source is correctly focused for optimum light output. Voltage and wattage specification ensures the bulb can safely be fitted to a vehicle's electrical system without overloading the switching or wiring harnesses. Size and shape specification ensures the bulb fits correctly into a light or into an assembly.



### How can I tell if a bulb meets ECE Regulation 37?

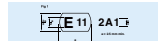
It should be marked with ALL the following information:

1. The trade name or mark of the manufacturer.
2. The rated voltage, typically 12V for passenger cars and 24V for commercial vehicles.
3. The international designation for the lamp e.g. W21W.
4. The rated wattage of the lamp including any dual filaments e.g. 21W or 21/55W. This is not required if the international designation identifies the wattage.
5. The approval mark in accordance with the specification for its size and shape (See Fig 1).

This consists of the following:

1. The designated E number (Reg. 93/11) in a rectangular box followed by a unique 3 digit code. This can only be applied to one lamp type for each manufacturer. This identifies the manufacturer.
2. In the case of a halogen bulb which has to meet the requirements of the UV light output specification it may be marked with a U.

The above approval mark affixed to a filament lamp indicates the lamp has been approved in the United Kingdom (GB) under the approval code A1. The first character of the approval code indicates the approval was granted in accordance with the requirements of ECE Regulation No. 37 as amended by the 02 and 03 series of amendments.



### The Legal Requirements

It is a legal requirement that carry their own performance approval number with bulbs that are not E approved (1988 Road Vehicle Lighting Regulations). In addition, it is also illegal to stock or offer these bulbs for sale in the UK (Placment Lamp for Vehicles (Safety) Regulation 1982). The standard for Gas Discharge light sources is ECE Reg. 98.

# Vehicle Lighting

## Bulb Guide

Diagram No.

Category Description

Typical Usage

Halogen Headlamps

1

Bulb Image

ECE Regulation Diagram

Cap Diagram

Cap Type

ECE No.

Cross Reference Info

P14.5s

H1

| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS | OSRAM |
|---------|-------|-------|--------|-------------|---------|-------|
| © R448  | 12    | 55    | H1     |             | 12258   | 64150 |

## Key to Colours

### Bulb type

- EQ bulb
- Long Life
- Extra Life
- Xenon4000 (4000K +30%)
- Xenon5000 (5000K +50%)
- Xenon100 (+100%)
- Xenon150 (+150%)
- Xenon200 (+200%)
- RallySport\*
- SportzBlue\*
- Ring LED
- Rapid Response
- Heavy Duty
- Ice Blue

### Bulb colour

- Amber
- Silver Amber
- Red
- Silver Red
- Blue
- Green
- Purple
- Multicolour

### Part Number / Packaging Type

- RX Upgrade Twin Pack
- RB Single Boxes Auxiliary
- RU Single Blister
- RW Twin Blister
- R Auxiliary 10 Way
- R Halogen Single Box

### Cap References

- SCC Single Centre Contact
- MCC Miniature Centre Contact
- MES Miniature Edison Screw
- OSP Offset Pin
- SBC Small Bayonet Cap
- ES Edison Screw
- BC Bayonet Cap
- SES Small Edison Screw
- LES Lilliput Edison Screw

\*Products are not ECE approved and are for off-road use only.

# Halogen Headlamps

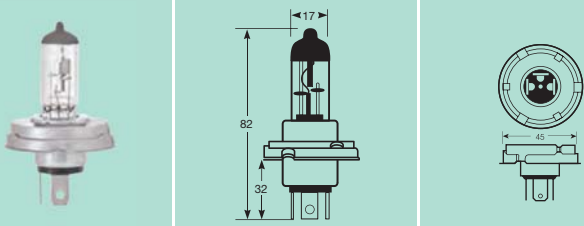


| 1        |       |       |        |             |                    | H1       |  |
|----------|-------|-------|--------|-------------|--------------------|----------|--|
|          |       |       |        |             |                    | P14.5s   |  |
| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS            | OSRAM    |  |
| R465     | 6     | 55    |        |             | 6258               | 64168    |  |
| Ⓢ R448   | 12    | 55    | H1     |             | 12258PR            | 64150    |  |
| Ⓢ R448EQ | 12    | 55    | H1     | EQ Bulb     | 12258PR            | 64150S   |  |
| Ⓢ R448LL | 12    | 55    | H1     | Long life   | 12258LL/12258LLECO | 64150ULT |  |
| Ⓢ RX1048 | 12    | 55    | H1     | Xenon100    |                    | 64150NBS |  |
| Ⓢ RX1548 | 12    | 55    | H1     | Xenon150    |                    | 64150NL  |  |
| Ⓢ RX4048 | 12    | 55    | H1     | Xenon4000   | 12258WHV           | 64150CBN |  |
| Ⓢ RX5048 | 12    | 55    | H1     | Xenon5000   |                    |          |  |
| Ⓢ RX481  | 12    | 100   |        | RallySport  | 12454RA            | 62200SBP |  |
| Ⓢ RX668  | 12    | 80    |        | SportzBlue  | 12425RA            |          |  |
| Ⓢ R466   | 24    | 70    | H1     |             | 13258              | 64155    |  |
| Ⓢ R466HD | 24    | 70    | H1     | Heavy Duty  |                    |          |  |
| R493     | 24    | 100   |        |             |                    |          |  |

| 2       |       |       |        |             |         | H2    |  |
|---------|-------|-------|--------|-------------|---------|-------|--|
|         |       |       |        |             |         | X511  |  |
| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS | OSRAM |  |
| R479    | 12    | 55    |        |             | 12311   | 64173 |  |
| R482    | 24    | 70    |        |             | 13311   | 64175 |  |
| R494    | 24    | 100   |        |             |         |       |  |

| 3        |       |       |        |             |                      | H3       |  |
|----------|-------|-------|--------|-------------|----------------------|----------|--|
|          |       |       |        |             |                      | PK22s    |  |
| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS              | OSRAM    |  |
| R456     | 6     | 15    |        |             |                      |          |  |
| R457     | 6     | 25    |        |             |                      |          |  |
| Ⓢ R455   | 6     | 55    | H3     |             | 6336                 | 64147    |  |
| R445     | 12    | 10    |        |             |                      |          |  |
| R446     | 12    | 20    |        |             |                      |          |  |
| R462     | 12    | 35    |        |             |                      |          |  |
| Ⓢ R453   | 12    | 55    | H3     |             | 12336                | 64151    |  |
| Ⓢ R453LL | 12    | 55    | H3     | Long life   | 12336LL / 12336LLECO |          |  |
| R449     | 24    | 35    |        |             |                      |          |  |
| R444     | 24    | 50    |        |             |                      |          |  |
| Ⓢ R460   | 24    | 70    | H3     |             | 13336                | 64156    |  |
| Ⓢ R460HD | 24    | 70    | H3     | Heavy Duty  | 13336MD              | 64156TSP |  |
| R495     | 24    | 100   |        |             | 13628RA              |          |  |
| R441     | 36    | 45    |        |             |                      |          |  |
| R442     | 48    | 45    |        |             |                      |          |  |
| R443     | 80    | 55    |        |             |                      |          |  |

# Vehicle Lighting

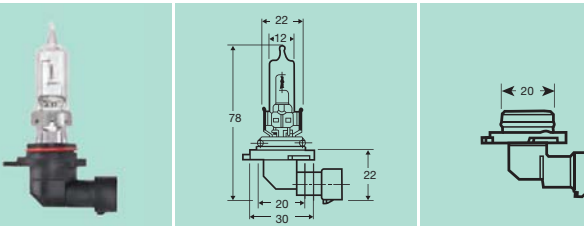
| 4       |       |  |        | <div>H4</div> <div>P45t</div> |         |         |
|---------|-------|-----------------------------------------------------------------------------------|--------|-------------------------------|---------|---------|
| LAMP NO | VOLTS | WATTS                                                                             | ECE NO | DESCRIPTION                   | PHILIPS | OSRAM   |
| R012    | 12    | 60/55                                                                             | R2     |                               | 12475   | 64198SB |
| Ⓞ R904  | 12    | 45/40                                                                             |        |                               | 12475   |         |
| R024    | 24    | 75/70                                                                             |        |                               |         | 64199   |
| R497    | 24    | 100/80                                                                            |        |                               |         |         |

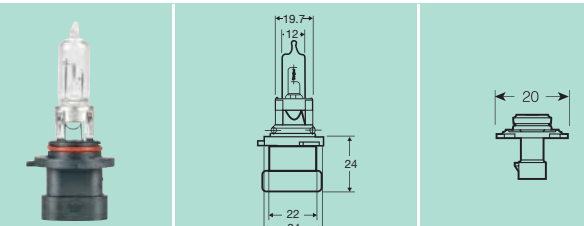
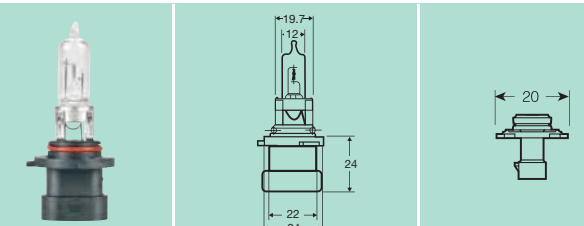
5

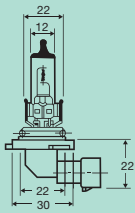
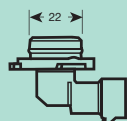
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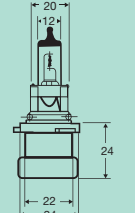
P43t

| LAMP NO  | VOLTS | WATTS  | ECE NO | DESCRIPTION | PHILIPS            | OSRAM               |
|----------|-------|--------|--------|-------------|--------------------|---------------------|
| R910     | 6     | 35/35  | HS1    |             |                    |                     |
| Ⓟ R905   | 6     | 60/55  | H4     |             |                    |                     |
| Ⓟ R459   | 12    | 35/35  | HS1    |             | 12636              | 64185               |
| R911     | 12    | 45/40  |        |             |                    |                     |
| R9003    | 12    | 60/55  | HB2    |             |                    | 9003L               |
| Ⓟ R472   | 12    | 60/55  | H4     |             | 12342PR            | 64193               |
| Ⓟ R472EQ | 12    | 60/55  | H4     | EQ Bulb     | 12342PR            | 94193               |
| Ⓟ R472LL | 12    | 60/55  | H4     | Long life   | 12342LL/12342LLECO | 64193ULT            |
| Ⓟ R472HD | 12    | 60/55  | H4     | Heavy Duty  | 12342HD            |                     |
| Ⓟ RX1072 | 12    | 60/55  | H4     | Xenon100    |                    | 64193NBS / 64193NR1 |
| Ⓟ RX1572 | 12    | 60/55  | H4     | Xenon150    | 12342RV            | 64193NL             |
| Ⓟ RX2072 | 12    | 60/55  | H4     | Xenon200    | 12342RGTS2         | 64193NB200          |
| Ⓟ RX4072 | 12    | 60/55  | H4     | Xenon4000   |                    |                     |
| Ⓟ RX5072 | 12    | 60/55  | H4     | Xenon5000   |                    | 64193NL             |
| RX484    | 12    | 100/80 |        | RallySport  | 12569RA            | 62204SBP            |
| RX684    | 12    | 100/80 |        | SportzBlue  |                    | 64193NR             |
| Ⓟ R475   | 24    | 75/70  | H4     |             | 13342              | 64196               |
| Ⓟ R475HD | 24    | 75/70  | H4     | Heavy Duty  | 13342MD            | 64196TSP            |
| R496     | 24    | 100/80 |        |             | 24569RA            | 62248               |
| R498     | 24    | 130/90 |        |             |                    | 62249               |

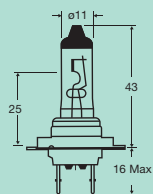
| 6        |       |  |        | <b>HB3</b>  |         |         |
|----------|-------|-------------------------------------------------------------------------------------|--------|-------------|---------|---------|
|          |       |                                                                                     |        | <b>P20d</b> |         |         |
| LAMP NO  | VOLTS | WATTS                                                                               | ECE NO | DESCRIPTION | PHILIPS | OSRAM   |
| © RX1005 | 12    | 60                                                                                  | HB3    | Xenon100    |         | 9005NBU |
| © R9005  | 12    | 60                                                                                  | HB3    |             | 9005PR  | 9005    |

| 7         |       |  |        |  |         | <b>HB3A</b> |  |
|-----------|-------|-------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|---------|-------------|--|
|           |       |                                                                                     |        |                                                                                     |         | <b>P20d</b> |  |
| LAMP NO   | VOLTS | WATTS                                                                               | ECE NO | DESCRIPTION                                                                         | PHILIPS | OSRAM       |  |
| Ⓟ R9005XS | 12    | 60                                                                                  | HB3A   |                                                                                     | -       | 9005XS      |  |

|                                                                                                                                                                                                                                                                                                                                                          |       |       |        |             |         |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|--------|-------------|---------|---------|
| <div>8</div> <div></div> <div></div> <div></div> <div></div> <div><div>HB4</div><div>P22d</div></div> |       |       |        |             |         |         |
| LAMP NO                                                                                                                                                                                                                                                                                                                                                  | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS | OSRAM   |
| © R9006                                                                                                                                                                                                                                                                                                                                                  | 12    | 51    | HB4    |             | 9006PR  | 9006    |
| © RX1006                                                                                                                                                                                                                                                                                                                                                 | 12    | 51    | HB4    | Xenon100    |         | 9006NBU |

|   |                                                                                   |                                                                                   |                                                                                   |    |         |       |       |        |             |         |        |
|---|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---------|-------|-------|--------|-------------|---------|--------|
| 9 |  |  |  |    | HB4A    |       |       |        |             |         |        |
|   |                                                                                   |                                                                                   |                                                                                   |    | P22d    |       |       |        |             |         |        |
|   |                                                                                   |                                                                                   |                                                                                   |    | LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS | OSRAM  |
|   | © R9006XS                                                                         | 12                                                                                |                                                                                   | 51 | HR4A    |       |       |        |             |         | 9006XS |

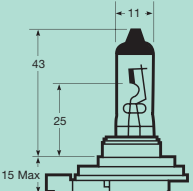
10

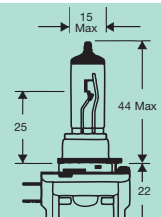
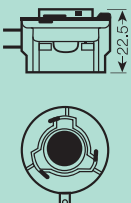




H7

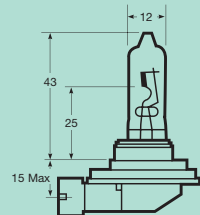
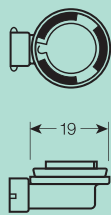
PX26d

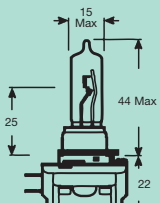
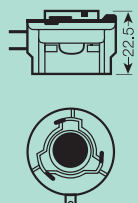
| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS            | OSRAM               |
|----------|-------|-------|--------|-------------|--------------------|---------------------|
| Ⓢ R477   | 12    | 55    | H7     |             | 12972PR            | 64210               |
| Ⓢ R477LL | 12    | 55    | H7     | Long life   | 12972LL/12972LLECO | 64210ULT            |
| Ⓢ R477EL | 12    | 55    | H7     | Extra life  |                    |                     |
| Ⓢ R477EQ | 12    | 55    | H7     | EQ Bulb     | 12972PR            |                     |
| Ⓢ R477HD | 12    | 55    | H7     | Heavy Duty  | 13972ML            |                     |
| Ⓢ RX1077 | 12    | 55    | H7     | Xenon100    |                    | 64210NBS / 64210NR1 |
| Ⓢ RX1577 | 12    | 55    | H7     | Xenon150    | 12972RV            | 64210NL             |
| Ⓢ RX2077 | 12    | 55    | H7     | Xenon200    | 12972RGTS2         | 64210NB200          |
| Ⓢ RX4077 | 12    | 55    | H7     | Xenon4000   | 12972WHV           | 64210CBN            |
| Ⓢ RX5077 | 12    | 55    | H7     | Xenon5000   |                    |                     |
| RX464    | 12    | 100   | H7     | RallySport  | 12035RA            | 62261SBP            |
| RX664    | 12    | 80    |        | SportzBlue  |                    | 62210CBB            |
| Ⓢ R474   | 24    | 70    | H7     |             | 13972              | 64215               |
| Ⓢ R474HD | 24    | 70    | H7     | Heavy Duty  | 13972MD            | 64215TSP            |
| R454     | 24    | 100   |        |             |                    |                     |

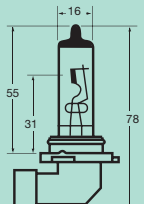
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|---------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|---------|-------|
| 11      |  |  |  |             | H8      |       |
|         |                                                                                     |                                                                                     |                                                                                     |             | PGJ19-1 |       |
| LAMP NO | VOLTS                                                                               | WATTS                                                                               | ECE NO                                                                              | DESCRIPTION | PHILIPS | OSRAM |
| © R708  | 12                                                                                  | 35                                                                                  | H8                                                                                  |             | 12360   | 64212 |

| 12      |  |  |  |             | <b>H8B</b> |       |
|---------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|------------|-------|
|         |                                                                                     |                                                                                     |                                                                                     |             | PGJY19-1   |       |
| LAMP NO | VOLTS                                                                               | WATTS                                                                               | ECE NO                                                                              | DESCRIPTION | PHILIPS    | OSRAM |
| © R920  | 12                                                                                  | 35                                                                                  | H8B                                                                                 |             | -          | 64242 |

# Vehicle Lighting

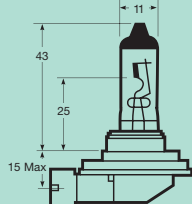
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|---------|-------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|----------------------------------|--|
| LAMP NO | VOLTS | WATTS                                                                             | ECE NO | DESCRIPTION                                                                       |  | PHILIPS                                                                           |  | OSRAM                            |  |
| © R709  | 12    | 65                                                                                | H9     |                                                                                   |  | 12361                                                                             |  | 64213                            |  |

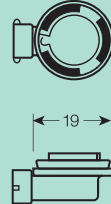
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|---------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|--------------------------------|-------|
| LAMP NO | VOLTS                                                                             | WATTS                                                                             | ECE NO                                                                            | DESCRIPTION | PHILIPS                        | OSRAM |
| ⓪ R919  | 12                                                                                | 65                                                                                | H9B                                                                               |             | -                              | 64243 |

| 15      |  |  |  |             | H10     |       |
|---------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|---------|-------|
|         |                                                                                    |                                                                                    |                                                                                     |             | PY20d   |       |
| LAMP NO | VOLTS                                                                              | WATTS                                                                              | ECE NO                                                                              | DESCRIPTION | PHILIPS | OSRAM |
| Ⓔ R710  | 12                                                                                 | 42                                                                                 | H10                                                                                 |             | 9145    | 9145  |

16



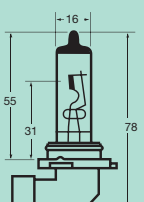
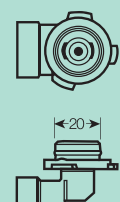


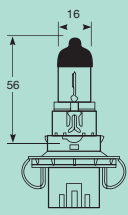


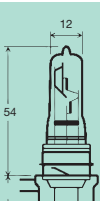
H11

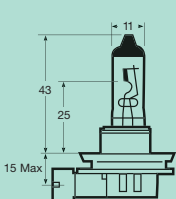
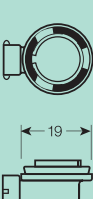
PGJ19-2

| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION  | PHILIPS | OSRAM               |
|----------|-------|-------|--------|--------------|---------|---------------------|
| Ⓔ R711   | 12    | 55    | H11    |              | 12362PR | 64211               |
| Ⓔ RX1011 | 12    | 55    | H11    | ■ Xenon100   |         | 64211NBS / 64211NR1 |
| Ⓔ RX1511 | 12    | 55    | H11    | ■ Xenon150   |         | 64211NL             |
| Ⓔ RX2011 | 12    | 55    | H11    | ■ Xenon200   |         | 64211NB200          |
| Ⓔ RX5011 | 12    | 55    | H11    | ■ Xenon5000  |         |                     |
| Ⓔ R458   | 24    | 70    | H11    |              | 24362MD |                     |
| Ⓔ R458HD | 24    | 70    | H11    | ■ Heavy Duty | 24362MD | 64216TSP            |

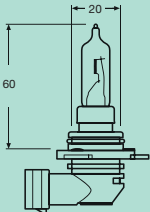
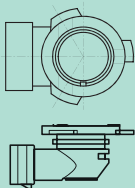
| 17      |  |  |  |             | <h1>H12</h1> |       |
|---------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|--------------|-------|
|         |                                                                                     |                                                                                     |                                                                                     |             | PZ20d        |       |
| LAMP NO | VOLTS                                                                               | WATTS                                                                               | ECE NO                                                                              | DESCRIPTION | PHILIPS      | OSRAM |
| Ⓔ R712  | 12                                                                                  | 53                                                                                  | H12                                                                                 |             |              |       |

| 18      |  |  |  |             | <b>H13</b> |       |
|---------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|------------|-------|
|         |                                                                                   |                                                                                   |                                                                                   |             | P26.4t     |       |
| LAMP NO | VOLTS                                                                             | WATTS                                                                             | ECE NO                                                                            | DESCRIPTION | PHILIPS    | OSRAM |
| © R9008 | 12                                                                                | 60/55                                                                             | H13                                                                               |             | 9008       | 9008  |

|         |       |                                                                                   |        |                                                                                   |         |                                                                                   |  |                                    |  |
|---------|-------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------|--|------------------------------------|--|
| 19      |       |  |        |  |         |  |  | <div>H15</div> <div>PGJ23t-1</div> |  |
| LAMP NO | VOLTS | WATTS                                                                             | ECE NO | DESCRIPTION                                                                       | PHILIPS | OSRAM                                                                             |  |                                    |  |
| © R715  | 12    | 55/15                                                                             | H15    |                                                                                   | 12580   | 64176                                                                             |  |                                    |  |

|         |       |                                                                                     |        |                                                                                     |  |                                                                                     |  |                                   |  |
|---------|-------|-------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|-----------------------------------|--|
| 20      |       |  |        |  |  |  |  | <div>H16</div> <div>PGJ19-3</div> |  |
| LAMP NO | VOLTS | WATTS                                                                               | ECE NO | DESCRIPTION                                                                         |  | PHILIPS                                                                             |  | OSRAM                             |  |
| © R716  | 12    | 19                                                                                  | H16    |                                                                                     |  | 12366                                                                               |  | 64219L                            |  |

|        |                                                                                     |                                                                                     |                                                                                     |                                 |         |        |
|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------|---------|--------|
| 21     |  |  |  | <div>H18</div> <div>PY26d</div> |         |        |
|        | LAMP NO                                                                             | VOLTS                                                                               | WATTS                                                                               |                                 |         | ECE NO |
| © R718 | 12                                                                                  | 65                                                                                  | H18                                                                                 |                                 | PHILIPS | OSRAM  |
|        |                                                                                     |                                                                                     |                                                                                     |                                 | 12643   | 64180L |

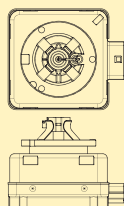
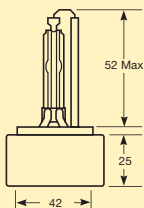
|          |  |                                                                                     |  |                                                                                     |  |                                                                                     |  |             |  |                                  |  |       |  |
|----------|--|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|-------------|--|----------------------------------|--|-------|--|
| 22       |  |  |  |  |  |  |  |             |  | <div>HIR2</div> <div>PX22d</div> |  |       |  |
| LAMP NO  |  | VOLTS                                                                               |  | WATTS                                                                               |  | ECE NO                                                                              |  | DESCRIPTION |  | PHILIPS                          |  | OSRAM |  |
| © R9012  |  | 12                                                                                  |  | 55                                                                                  |  | HIR2                                                                                |  |             |  | 9012                             |  | 9012  |  |
| © RX1512 |  | 12                                                                                  |  | 55                                                                                  |  | HIR2                                                                                |  | ■ Xenon150  |  | 9012XVP                          |  |       |  |

# Vehicle Lighting

## Xenon HID



23

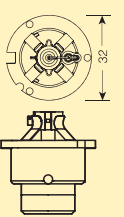
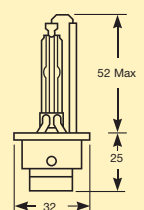


**D1S**

PK32d-2

| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS | OSRAM |
|----------|-------|-------|--------|-------------|---------|-------|
| © R85402 | 85    | 35    | D1S    |             | 85415VI | 66140 |

24

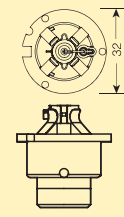
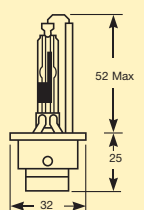


**D2S**

P32d-2

| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS | OSRAM |
|----------|-------|-------|--------|-------------|---------|-------|
| © R85122 | 85    | 35    | D2S    |             | 85122VI | 66240 |

25

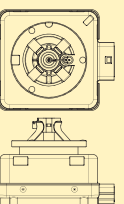
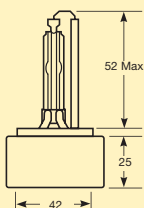


**D2R**

P32d-3

| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS | OSRAM |
|----------|-------|-------|--------|-------------|---------|-------|
| © R85126 | 85    | 35    | D2R    |             | 85126VI | 66250 |

26

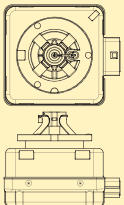
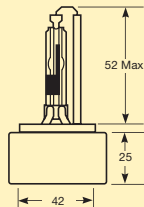


**D3S**

PK32d-5

| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS | OSRAM |
|----------|-------|-------|--------|-------------|---------|-------|
| © R42302 | 42    | 35    | D3S    |             | 42403VI | 66340 |

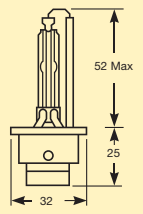
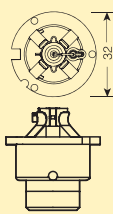
27

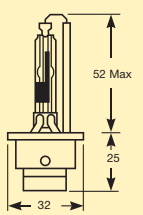
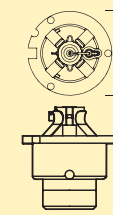


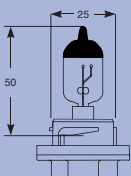
**D3R**

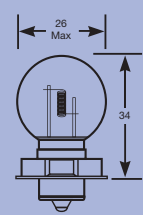
PK32d-6

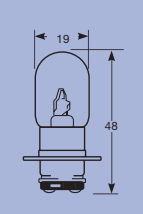
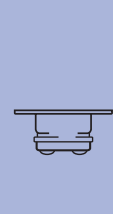
| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS | OSRAM |
|----------|-------|-------|--------|-------------|---------|-------|
| © R42306 | 42    | 35    | D3R    |             | 42306V1 | 66350 |

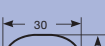
|                                                                                             |                                                                                   |                                                                                   |                      |                                                   |
|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------|---------------------------------------------------|
| <b>28</b>  |  |  |                      | <b>D4S</b>                                        |
| <b>LAMP NO</b><br>Ⓒ R42402                                                                  | <b>VOLTS</b><br>42                                                                | <b>WATTS</b><br>35                                                                | <b>ECE NO</b><br>D4S | <b>DESCRIPTION</b><br>PHILIPS 42402VI OSRAM 66440 |

|                                                                                             |                                                                                   |                                                                                   |                      |                                                 |
|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------|-------------------------------------------------|
| <b>29</b>  |  |  |                      | <b>D4R</b>                                      |
| <b>LAMP NO</b><br>Ⓒ R42406                                                                  | <b>VOLTS</b><br>42                                                                | <b>WATTS</b><br>35                                                                | <b>ECE NO</b><br>D4R | <b>DESCRIPTION</b><br>PHILIPS 42406 OSRAM 66450 |

| Motorcycle Headlamps |                                                                                     |                                                                                     |        |             |  |                                |
|----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------|-------------|--------------------------------------------------------------------------------------|--------------------------------|
| 30                   |  |  |        |             |                                                                                      | <div>HS5</div> <div>P23t</div> |
| LAMP NO              | VOLTS                                                                               | WATTS                                                                               | ECE NO | DESCRIPTION | PHILIPS                                                                              | OSRAM                          |
| Ⓒ R929               | 12                                                                                  | 35/30                                                                               | HS5    |             |                                                                                      |                                |

|                                                                                               |                                                                                     |                                                                                     |                           |                                                |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------|------------------------------------------------|
| <b>31</b>  |  |  |                           | <b>S3</b>                                      |
| <b>LAMP NO</b><br>Ⓒ R609<br>Ⓒ R610<br>R613                                                    | <b>VOLTS</b><br>6<br>12<br>12                                                       | <b>WATTS</b><br>15<br>15<br>20                                                      | <b>ECE NO</b><br>S3<br>S3 | <b>DESCRIPTION</b><br>PHILIPS 12008 OSRAM P26s |

|                                                                                               |                                                                                     |                                                                                     |                              |                                |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------|--------------------------------|
| <b>32</b>  |  |  |                              | <b>PX15D</b>                   |
| <b>LAMP NO</b><br>R3625<br>R3603                                                              | <b>VOLTS</b><br>6<br>12                                                             | <b>WATTS</b><br>25/25<br>25/25                                                      | <b>ECE NO</b><br>DESCRIPTION | <b>PHILIPS</b><br><b>OSRAM</b> |

|    |                                                                                   |                                                                                   |                                                                                   |        |             |         |       |
|----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-------------|---------|-------|
| 33 |  |  |  |        |             |         |       |
|    |                                                                                   |                                                                                   |                                                                                   |        |             | P15D-3  |       |
|    | LAMP NO                                                                           | VOLTS                                                                             | WATTS                                                                             | ECE NO | DESCRIPTION | PHILIPS | OSRAM |
|    | R7027                                                                             | 12                                                                                | 35/35                                                                             |        |             |         |       |
|    | R7028                                                                             | 12                                                                                | 45/40                                                                             |        |             |         |       |

| <b>34</b> |  |  |  |             | <b>S2</b>    |
|-----------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|--------------|
|           |                                                                                   |                                                                                   |                                                                                   |             | <b>BA20D</b> |
| LAMP NO   | VOLTS                                                                             | WATTS                                                                             | ECE NO                                                                            | DESCRIPTION | PHILIPS      |
| © R417    | 12                                                                                | 35/35                                                                             | S2                                                                                |             |              |
|           |                                                                                   |                                                                                   |                                                                                   |             | <b>OSRAM</b> |
|           |                                                                                   |                                                                                   |                                                                                   |             | 64397        |

## Special Headlamps



|         |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |              |
|---------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------|
| 35      |  |  |  |  |  | <b>H27W1</b> |
|         |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       | PG13         |
| LAMP NO | VOLTS                                                                               | WATTS                                                                               | ECE NO                                                                              | DESCRIPTION                                                                          | PHILIPS                                                                               | OSRAM        |
| © R880  | 12                                                                                  | 27                                                                                  | H27W/1                                                                              |                                                                                      | 12059                                                                                 | 880          |

36





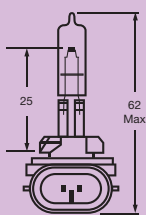
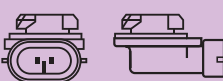


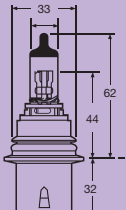
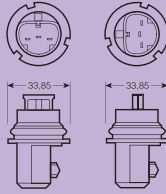
H27W2

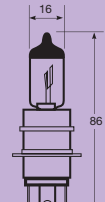
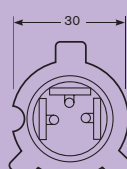
PGJ13

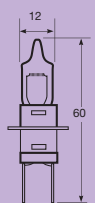
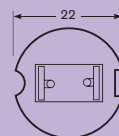
| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS | OSRAM |
|---------|-------|-------|--------|-------------|---------|-------|
| © R881  | 12    | 27    | H27W2  |             | 12060   | 881   |

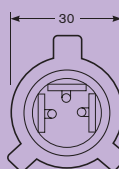
|         |       |       |        |             |         |       |
|---------|-------|-------|--------|-------------|---------|-------|
| 37      |       |       |        |             |         | PG13  |
|         |       |       |        |             |         |       |
| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | PHILIPS | OSRAM |
| R885    | 12    | 50    |        |             |         |       |
| R887    | 12    | 50    |        | Long life   |         |       |

|         |       |                                                                                   |                                                                                   |                                                                                   |         |       |
|---------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------|-------|
| 38      |       |  |  |  |         |       |
|         |       |                                                                                   |                                                                                   |                                                                                   |         | PGJ13 |
| LAMP NO | VOLTS | WATTS                                                                             | ECE NO                                                                            | DESCRIPTION                                                                       | PHILIPS | OSRAM |
| R894    | 12    | 37.5                                                                              |                                                                                   |                                                                                   |         |       |
| R886    | 12    | 50                                                                                |                                                                                   |                                                                                   |         |       |

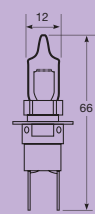
| Import Headlamps |                                                                                   |                                                                                   |                                                                                   |             | P29t/PX29t |       |
|------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|------------|-------|
| 39               |  |  |  |             |            |       |
| LAMP NO          | VOLTS                                                                             | WATTS                                                                             | ECE NO                                                                            | DESCRIPTION | PHILIPS    | OSRAM |
| R9004            | 12                                                                                | 65/45                                                                             | (HB1)                                                                             |             | 9004       | 9004  |
| R9007            | 12                                                                                | 65/55                                                                             | (HB5)                                                                             |             | 9007       | 9007  |

| 40      |  |  |  |             |         |       |
|---------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|---------|-------|
|         |                                                                                     |                                                                                     |                                                                                     |             | P30/22L |       |
| LAMP NO | VOLTS                                                                               | WATTS                                                                               | ECE NO                                                                              | DESCRIPTION | PHILIPS | OSRAM |
| R964    | 12                                                                                  | 45/55                                                                               |                                                                                     |             |         |       |
| R965    | 12                                                                                  | 65/65                                                                               |                                                                                     |             |         |       |

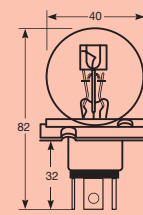
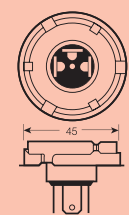
|         |                                                                                     |                                                                                     |                                                                                     |             |            |       |
|---------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|------------|-------|
| 41      |  |  |  |             | <b>H3r</b> |       |
|         |                                                                                     |                                                                                     |                                                                                     |             | PK22sr     |       |
| LAMP NO | VOLTS                                                                               | WATTS                                                                               | ECE NO                                                                              | DESCRIPTION | PHILIPS    | OSRAM |
| R961    | 12                                                                                  | 55                                                                                  |                                                                                     |             |            |       |

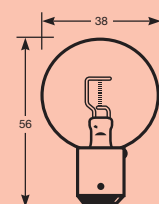
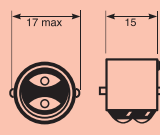
|         |                                                                                     |                                                                                     |                                                                                     |             |         |       |
|---------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|---------|-------|
| 42      |  |  |  |             | MH6R    |       |
|         |                                                                                     |                                                                                     |                                                                                     |             | P30t-40 |       |
| LAMP NO | VOLTS                                                                               | WATTS                                                                               | ECE NO                                                                              | DESCRIPTION | PHILIPS | OSRAM |
| R962    | 12                                                                                  | 55/40                                                                               |                                                                                     |             |         |       |

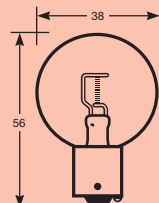
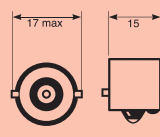
# Vehicle Lighting

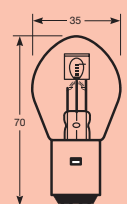
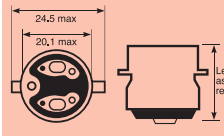
| 43      |  |  |        |             |         | <b>H3c</b> |
|---------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-------------|---------|------------|
|         |                                                                                   |                                                                                   |        |             |         | P22d/5     |
| LAMP NO | VOLTS                                                                             | WATTS                                                                             | ECE NO | DESCRIPTION | PHILIPS | OSRAM      |
| R447    | 12                                                                                | 55                                                                                |        |             |         |            |
| R960    | 12                                                                                | 55 (85)                                                                           |        |             |         |            |

## Asymmetric and Standard Headlamps

| 44      |  |  |  |             |         | <b>R2</b>    |
|---------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|---------|--------------|
|         |                                                                                   |                                                                                   |                                                                                   |             |         | P45t ASY UEC |
| LAMP NO | VOLTS                                                                             | WATTS                                                                             | ECE NO                                                                            | DESCRIPTION | PHILIPS | OSRAM        |
| Ⓢ R423  | 6                                                                                 | 45/40                                                                             | R2                                                                                |             | 6620    | 7950         |
| Ⓢ R410  | 12                                                                                | 45/40                                                                             | R2                                                                                |             | 12620   | 64183        |
| R416    | 12                                                                                | 60/60                                                                             |                                                                                   |             |         |              |
| Ⓢ R429  | 24                                                                                | 55/50                                                                             | R2                                                                                |             | 13620   | 7952         |

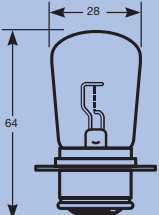
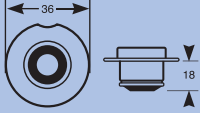
| 45      |  |  |  |             |         | <b>BA15d (SBC)</b> |
|---------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|---------|--------------------|
|         |                                                                                     |                                                                                     |                                                                                     |             |         |                    |
| LAMP NO | VOLTS                                                                               | WATTS                                                                               | ECE NO                                                                              | DESCRIPTION | PHILIPS | OSRAM              |
| R005    | 12                                                                                  | 36                                                                                  |                                                                                     |             | 12221   | 7468               |

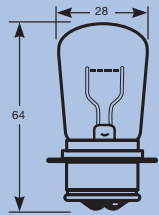
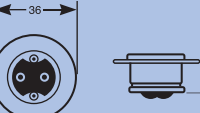
| 46      |  |  |  |             |         | <b>BA15s (SCC)</b> |
|---------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|---------|--------------------|
|         |                                                                                     |                                                                                     |                                                                                     |             |         |                    |
| LAMP NO | VOLTS                                                                               | WATTS                                                                               | ECE NO                                                                              | DESCRIPTION | PHILIPS | OSRAM              |
| R002    | 12                                                                                  | 36                                                                                  |                                                                                     |             | 12222   |                    |
| R621    | 24                                                                                  | 36                                                                                  |                                                                                     |             |         |                    |
| R623    | 24                                                                                  | 48                                                                                  |                                                                                     |             | 13241   | 7668               |

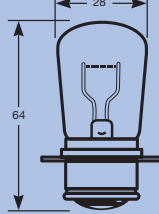
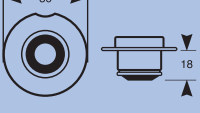
| 47      |  |  |  |             |         | <b>S1</b><br><b>S2</b> |
|---------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|---------|------------------------|
|         |                                                                                     |                                                                                     |                                                                                     |             |         | BA20d (Bosch)          |
| LAMP NO | VOLTS                                                                               | WATTS                                                                               | ECE NO                                                                              | DESCRIPTION | PHILIPS | OSRAM                  |
| Ⓢ R392  | 6                                                                                   | 25/25                                                                               | S1                                                                                  |             | 6718    | 7323                   |
| Ⓢ R393  | 6                                                                                   | 35/35                                                                               | S2                                                                                  |             | 7008    | 7130                   |
| Ⓢ R394  | 12                                                                                  | 25/25                                                                               | S1                                                                                  |             | 12718   | 64326                  |
| Ⓢ R395  | 12                                                                                  | 35/35                                                                               | S2                                                                                  |             | 12728   | 7327                   |
| R396    | 12                                                                                  | 45/40                                                                               |                                                                                     |             | 12748   | 7351                   |
| R398    | 24                                                                                  | 45/40                                                                               |                                                                                     |             |         |                        |

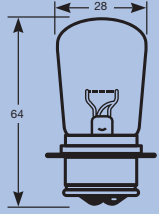
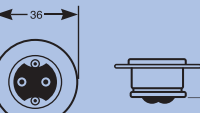
# British Pre-Focus Headlamps

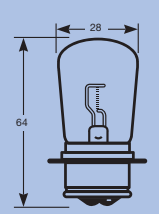


|         |  |                                                                                   |  |                                                                                   |  |                                                                                   |  |             |  |            |  |       |  |
|---------|--|-----------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|-------------|--|------------|--|-------|--|
| 48      |  |  |  |  |  |  |  |             |  | P36s Axial |  |       |  |
| LAMP NO |  | VOLTS                                                                             |  | WATTS                                                                             |  | ECE NO                                                                            |  | DESCRIPTION |  | PHILIPS    |  | OSRAM |  |
| R185    |  | 12                                                                                |  | 48                                                                                |  |                                                                                   |  |             |  |            |  | 7447  |  |

|         |  |                                                                                   |  |                                                                                   |  |                                                                                   |  |             |  |                 |  |       |  |
|---------|--|-----------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|-------------|--|-----------------|--|-------|--|
| 49      |  |  |  |  |  |  |  |             |  | P36d Transverse |  |       |  |
| LAMP NO |  | VOLTS                                                                             |  | WATTS                                                                             |  | ECE NO                                                                            |  | DESCRIPTION |  | PHILIPS         |  | OSRAM |  |
| R330    |  | 24                                                                                |  | 44                                                                                |  |                                                                                   |  |             |  |                 |  |       |  |

|         |  |                                                                                     |  |                                                                                     |  |                                                                                     |  |             |  |                 |  |       |  |
|---------|--|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|-------------|--|-----------------|--|-------|--|
| 50      |  |  |  |  |  |  |  |             |  | P36s Transverse |  |       |  |
| LAMP NO |  | VOLTS                                                                               |  | WATTS                                                                               |  | ECE NO                                                                              |  | DESCRIPTION |  | PHILIPS         |  | OSRAM |  |
| R606    |  | 24                                                                                  |  | 44                                                                                  |  |                                                                                     |  |             |  |                 |  |       |  |

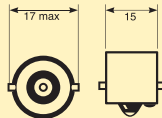
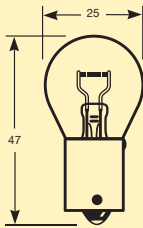
| 51      |  |  |  |             |         |                       |
|---------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|---------|-----------------------|
|         |                                                                                     |                                                                                     |                                                                                     |             |         |                       |
|         |                                                                                     |                                                                                     |                                                                                     |             |         |                       |
| LAMP NO | VOLTS                                                                               | WATTS                                                                               | ECE NO                                                                              | DESCRIPTION | PHILIPS | OSRAM                 |
| R312    | 6                                                                                   | 30/24                                                                               |                                                                                     |             |         | P36d Vertical<br>6721 |

|         |  |                                                                                     |  |                                                                                     |  |                                                                                     |  |             |  |            |  |       |  |
|---------|--|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|-------------|--|------------|--|-------|--|
| 52      |  |  |  |  |  |  |  |             |  | P36d Axial |  |       |  |
| LAMP NO |  | VOLTS                                                                               |  | WATTS                                                                               |  | ECE NO                                                                              |  | DESCRIPTION |  | PHILIPS    |  | OSRAM |  |
| R331    |  | 24                                                                                  |  | 44                                                                                  |  |                                                                                     |  |             |  | 13293      |  |       |  |

## Standard Bulbs



53

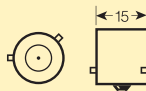
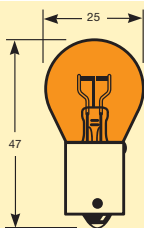


# P21W

BA15s (SCC)

| LAMP NO   | VOLTS | WATTS | ECE NO | DESCRIPTION      | COLOUR | PHILIPS          | OSRAM   |
|-----------|-------|-------|--------|------------------|--------|------------------|---------|
| Ⓞ R317    | 6     | 21    | P21W   |                  |        | 6498             | 7501    |
| R240      | 12    | 15    |        |                  |        | 12401            |         |
| R385      | 12    | 18    |        |                  |        | 12445            |         |
| R343      | 12    | 21    |        |                  | ●      |                  |         |
| R1003     | 12    | 15CP  |        |                  |        |                  |         |
| Ⓞ RW382RR | 12    | 21    | P21W   | ■ Rapid Response |        | 12498VP          |         |
| Ⓞ R382LL  | 12    | 21    | P21W   | ■ Long life      |        | 12498ECO/12498LL | 7506ULT |
| R243      | 24    | 15    |        |                  |        | 13401            | 7529    |
| Ⓞ R241    | 24    | 21    | P21W   |                  |        | 13498            | 7511    |
| Ⓞ R290    | 24    | 21    | P21W   | ■ Heavy Duty     |        | 13498MD          | 9511    |
| R347      | 24    | 21    |        |                  | ●      |                  |         |
| R339      | 24    | 24    |        |                  |        | 13418            |         |
| R345      | 28    | 26    |        |                  |        |                  |         |
| R4598     | 48    | 25    |        |                  |        |                  |         |

54

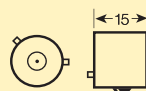
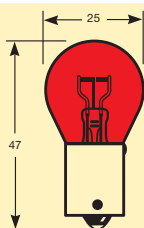


# PY21W

BAU15s (OSP)

| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM   |
|----------|-------|-------|--------|-------------|--------|---------|---------|
| Ⓞ R581   | 12    | 21    | PY21W  | ■ Long life | ●      | 12496   | 7507    |
| Ⓞ R581LL | 12    | 21    | PY21W  |             | ●      | 12496LL | 7507ULT |
| R586     | 12    | 21    |        |             |        |         |         |
| Ⓞ R3581  | 12    | 21    | PY21W  |             | ●      | 12496SV | 7507LDA |
| Ⓞ R588   | 24    | 21    | PY21W  |             | ●      | 13496   | 7510    |

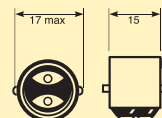
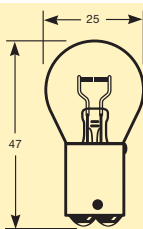
55

**PR21W**

BAW15s

| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR                                                                              | PHILIPS | OSRAM   |
|---------|-------|-------|--------|-------------|-------------------------------------------------------------------------------------|---------|---------|
| © R782  | 12    | 21    | PR21W  |             |  | 12088   | 7508LDR |
| © R3782 | 12    | 21    | PR21W  |             |  |         | 7538LDR |

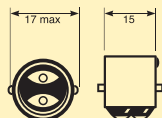
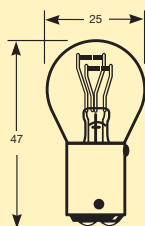
56



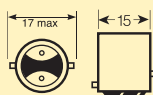
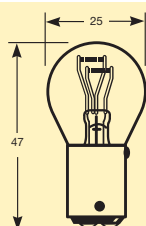
# P21W

BA15d (SBC)

| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION  | COLOUR | PHILIPS | OSRAM |
|---------|-------|-------|--------|--------------|--------|---------|-------|
| Ⓞ R319  | 6     | 21    | P21W   |              |        | 6402    | 6402  |
| Ⓞ R335  | 12    | 21    | P21W   |              |        | 12442   |       |
| R436    | 24    | 12    |        |              |        |         |       |
| Ⓞ R346  | 24    | 21    | P21W   |              |        | 24004   |       |
| Ⓞ R291  | 24    | 21    | P21W   | ■ Heavy Duty |        |         |       |
| R333    | 24    | 24    |        |              |        |         |       |
| R344    | 28    | 26    |        |              |        |         |       |

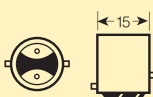
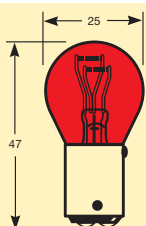


BA15d (SBC)



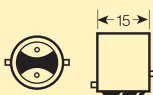
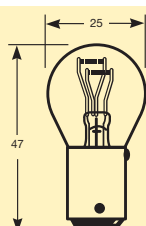
## P21/5W

BAY15d (OSP)



## PR21/5W

BAW15d



## P21/4W

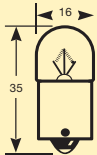
BAZ15d

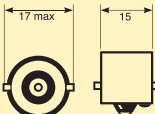
| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
|---------|-------|-------|--------|-------------|--------|---------|-------|
| ⑥ R566  | 12    | 21/4  | P21/4W |             |        | 12594   | 7225  |
| ⑥ R567  | 24    | 21/4  | P21/4W |             |        |         |       |

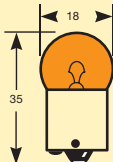
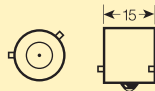
# Vehicle Lighting

61

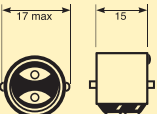
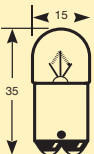






| 62                                                                                 |       |                                                                                    |        |                                                                                     |        |                                    |       |
|------------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|--------|------------------------------------|-------|
|  |       |  |        |  |        | <div>RY10W</div> <div>BAU15s</div> |       |
| LAMP NO                                                                            | VOLTS | WATTS                                                                              | ECE NO | DESCRIPTION                                                                         | COLOUR | PHILIPS                            | OSRAM |
| © R589                                                                             | 12    | 10                                                                                 | RY10W  |                                                                                     | ●      | 12093NA                            | 5009  |

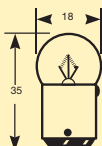
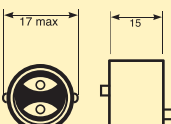
63



R5W

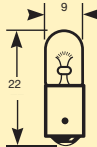
BA15d (SBC)

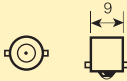
| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION  | COLOUR | PHILIPS | OSRAM |
|---------|-------|-------|--------|--------------|--------|---------|-------|
| Ⓢ R206  | 6     | 5     | R5W    |              |        | 6822    | 5406  |
| Ⓢ R209  | 12    | 5     | R5W    |              |        | 12822   | 5407  |
| R210    | 12    | 10    |        |              |        |         |       |
| Ⓢ R150  | 24    | 5     | R5W    |              |        | 13822   | 5626  |
| Ⓢ R247  | 24    | 5     | R5W    | ■ Heavy Duty |        |         |       |
| R875    | 28    | 7     |        |              |        |         |       |

|                                                                                     |       |                                                                                     |        |                                                                                     |        |              |       |
|-------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|--------|--------------|-------|
| 64                                                                                  |       |                                                                                     |        |                                                                                     |        |              |       |
|  |       |  |        |  |        |              |       |
|                                                                                     |       |                                                                                     |        |                                                                                     |        | BAY15d (OSP) |       |
| LAMP NO                                                                             | VOLTS | WATTS                                                                               | ECE NO | DESCRIPTION                                                                         | COLOUR | PHILIPS      | OSRAM |
| R4192                                                                               | 48    | 10                                                                                  |        |                                                                                     |        |              |       |

65



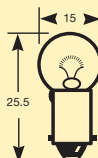
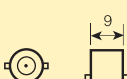




T4W

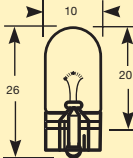
BA9s (MCC)

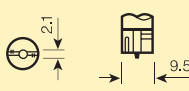
| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION  | COLOUR | PHILIPS | OSRAM  |
|----------|-------|-------|--------|--------------|--------|---------|--------|
| Ⓞ R293   | 6     | 4     | T4W    |              |        | 6929    | 3892   |
| Ⓞ R233   | 12    | 4     | T4W    |              |        | 12929   | 3893   |
| Ⓞ R233LL | 12    | 4     | T4W    | ■ Long life  |        | 12929LL |        |
| Ⓞ R833   | 12    | 4     | T4W    | ■ IceBlue    | ●      |         | 3893CB |
| R143     | 24    | 2.8   |        |              |        |         |        |
| Ⓞ R249   | 24    | 4     | T4W    |              |        | 13929   | 3930   |
| R249G    | 24    | 4     |        |              | ●      |         |        |
| Ⓞ R296   | 24    | 4     | T4W    | ■ Heavy Duty |        | 13929MD |        |
| R1590    | 48    | 5     |        |              |        |         |        |

| 66      |  |  |  |             |        |         | BA9s (MCC) |  |
|---------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|--------|---------|------------|--|
|         |                                                                                    |                                                                                    |                                                                                   |             |        |         |            |  |
| LAMP NO | VOLTS                                                                              | WATTS                                                                              | ECE NO                                                                            | DESCRIPTION | COLOUR | PHILIPS | OSRAM      |  |
| R951    | 6                                                                                  | 5                                                                                  |                                                                                   |             |        |         |            |  |
| R989    | 12                                                                                 | 5                                                                                  |                                                                                   |             |        |         | 3860       |  |
| R992    | 12                                                                                 | 10                                                                                 |                                                                                   |             |        |         |            |  |
| R227    | 24                                                                                 | 5                                                                                  |                                                                                   |             |        |         |            |  |

67



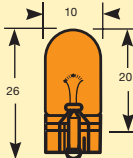
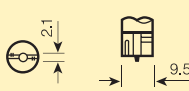




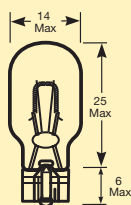
W3W  
W5W

W2.1 x 9.5d

| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION  | COLOUR | PHILIPS          | OSRAM    |
|----------|-------|-------|--------|--------------|--------|------------------|----------|
| R297     | 12    | 2.2   |        |              |        | 12960            | 2820     |
| Ⓔ R504   | 12    | 3     | W3W    |              |        | 12256            | 2821     |
| Ⓔ R501   | 12    | 5     | W5W    |              |        | 12961            | 2825     |
| R506     | 12    | 6     |        |              |        | 12040            | 2886X    |
| Ⓔ R501LL | 12    | 5     | W5W    | ■ Long life  |        | 12961ECO/12961LL | 2825ULT  |
| Ⓔ R501HD | 12    | 5     | W5W    | ■ Heavy Duty |        | 12961            |          |
| Ⓔ R801   | 12    | 5     | W5W    | ■ IceBlue    | ●      |                  | 2825HCBN |
| Ⓔ R1401  | 12    | 5     | W5W    | ■ Xenon4000  |        | 12256BV          | 2825HCBN |
| R298     | 24    | 2.2   |        |              |        | 13960            | 2840     |
| Ⓔ R505   | 24    | 3     | W3W    |              |        | 13256            | 2841     |
| Ⓔ R507   | 24    | 5     | W5W    |              |        | 13961            | 2845     |
| R507B    | 24    | 5     |        |              | ●      |                  |          |

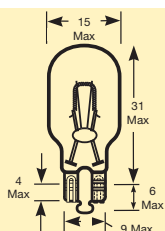
|         |       |                                                                                     |        |                                                                                     |                                                                                     |                                                                                     |       |                                        |  |
|---------|-------|-------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|----------------------------------------|--|
| 68      |       |  |        |  |                                                                                     |  |       | <div>WY5W</div> <div>W2.1 x 9.5d</div> |  |
| LAMP NO | VOLTS | WATTS                                                                               | ECE NO | DESCRIPTION                                                                         | COLOUR                                                                              | PHILIPS                                                                             | OSRAM |                                        |  |
| © R501A | 12    | 5                                                                                   | WY5W   |                                                                                     |  | 12396NA                                                                             | 2827  |                                        |  |

## Bulb References Guide 54



W2.1 x 9.5d

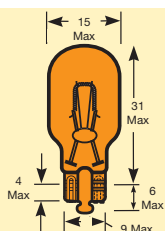
| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
|---------|-------|-------|--------|-------------|--------|---------|-------|
| R922    | 12    | 10    |        |             |        |         |       |
| R923    | 24    | 10    |        |             |        |         |       |



# W16W

W2.1 x 9.5d

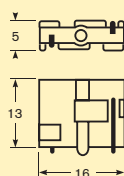
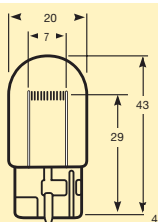
| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
|---------|-------|-------|--------|-------------|--------|---------|-------|
| ① R955  | 12    | 16    | W16W   |             |        | 12067   | 921   |
| R921    | 12    | 21CP  |        |             |        |         |       |



# WY16W

W2.1 x 9.5d

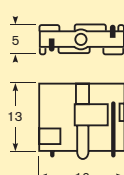
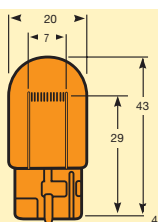
| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
|---------|-------|-------|--------|-------------|--------|---------|-------|
| ⑧ R958  | 12    | 16    | WY16W  |             | ●      |         | 921NA |
| R921A   | 12    | 21CP  |        |             | ●      |         |       |



**W21W**

W3 x 16d

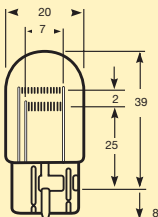
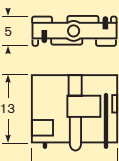
| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
|---------|-------|-------|--------|-------------|--------|---------|-------|
| © R582  | 12    | 21    | W21W   |             |        | 12065   | 7505  |

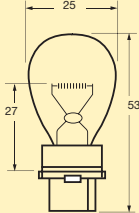


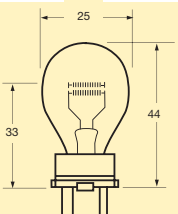
# WY21W

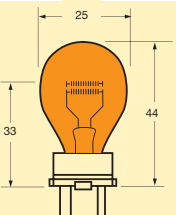
WX3 x 16d

| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR                                                                              | PHILIPS | OSRAM |
|---------|-------|-------|--------|-------------|-------------------------------------------------------------------------------------|---------|-------|
| @ R585  | 12    | 21    | WY91W  |             |  | 12071   | 7504  |

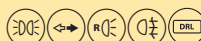
|         |                                                                                   |                                                                                   |                                                                                   |               |        |         |       |
|---------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------|--------|---------|-------|
| 74      |  |  |  | <b>W21/5W</b> |        |         |       |
|         |                                                                                   |                                                                                   |                                                                                   |               |        |         |       |
|         |                                                                                   |                                                                                   |                                                                                   | W3 x 16q      |        |         |       |
| LAMP NO | VOLTS                                                                             | WATTS                                                                             | ECE NO                                                                            | DESCRIPTION   | COLOUR | PHILIPS | OSRAM |
| © R580  | 12                                                                                | 21/5                                                                              | W21/5W                                                                            |               |        | 12066   | 7515  |

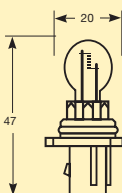
|         |  |                                                                                   |  |                                                                                   |  |                                                                                   |  |                                                                                    |  |                                                                                   |  |
|---------|--|-----------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|
| 75      |  |  |  |  |  |  |  |  |  | P27W                                                                              |  |
|         |  |                                                                                   |  |                                                                                   |  |                                                                                   |  |                                                                                    |  | W2.5 x 16d                                                                        |  |
| LAMP NO |  | VOLTS                                                                             |  | WATTS                                                                             |  | ECE NO                                                                            |  | DESCRIPTION                                                                        |  | COLOUR                                                                            |  |
| © R182  |  | 12                                                                                |  | 27                                                                                |  | P27W                                                                              |  |                                                                                    |  |                                                                                   |  |
| R184    |  | 12                                                                                |  | 27                                                                                |  | -                                                                                 |  |                                                                                    |  |  |  |
|         |  |                                                                                   |  |                                                                                   |  |                                                                                   |  |                                                                                    |  | PHILIPS                                                                           |  |
|         |  |                                                                                   |  |                                                                                   |  |                                                                                   |  |                                                                                    |  | OSRAM                                                                             |  |
|         |  |                                                                                   |  |                                                                                   |  |                                                                                   |  |                                                                                    |  | 3156                                                                              |  |

|         |       |                                                                                     |        |                                                                                     |        |                                                                                     |  |  |       |            |  |
|---------|-------|-------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|--|--|-------|------------|--|
| 76      |       |  |        |  |        |  |  |  |       | P27/7W     |  |
|         |       |                                                                                     |        |                                                                                     |        |                                                                                     |  |  |       | W2.5 x 16q |  |
| LAMP NO | VOLTS | WATTS                                                                               | ECE NO | DESCRIPTION                                                                         | COLOUR | PHILIPS                                                                             |  |  | OSRAM |            |  |
| © R180  | 12    | 27/7                                                                                | P27/7W |                                                                                     |        |                                                                                     |  |  | 3157  |            |  |

|         |  |                                                                                     |  |                                                                                     |  |                                                                                     |  |             |  |                                                                                     |  |
|---------|--|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|--|-------------|--|-------------------------------------------------------------------------------------|--|
| 77      |  |  |  |  |  |  |  |             |  | PY27/7W                                                                             |  |
|         |  |                                                                                     |  |                                                                                     |  |                                                                                     |  |             |  | WX2.5 x 16q                                                                         |  |
| LAMP NO |  | VOLTS                                                                               |  | WATTS                                                                               |  | ECE NO                                                                              |  | DESCRIPTION |  | COLOUR                                                                              |  |
| © R183  |  | 12                                                                                  |  | 27/7                                                                                |  | PY27/7W                                                                             |  |             |  |  |  |
|         |  |                                                                                     |  |                                                                                     |  |                                                                                     |  |             |  | PHILIPS                                                                             |  |
|         |  |                                                                                     |  |                                                                                     |  |                                                                                     |  |             |  | OSRAM                                                                               |  |
|         |  |                                                                                     |  |                                                                                     |  |                                                                                     |  |             |  | 3757AK                                                                              |  |

## Hiper Vision

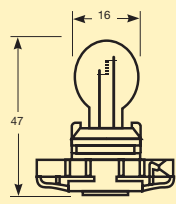


| 78       |       |  |  |             |                                                                                     |  | <div>P13W<br/>PCY16W</div> <div>PG18.5d-1 / PU20d-2</div> |
|----------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------|
| LAMP NO  | VOLTS | WATTS                                                                               | ECE NO                                                                              | DESCRIPTION | COLOUR                                                                              | PHILIPS                                                                              | OSRAM                                                     |
| © R12277 | 12    | 13                                                                                  | P13W                                                                                |             |                                                                                     | 12277                                                                                |                                                           |
| © R925   | 12    | 16                                                                                  | PCY16W                                                                              |             |  |                                                                                      |                                                           |

# Vehicle Lighting

79







PS19W

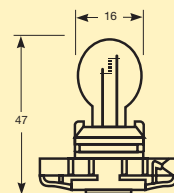
PSY19W

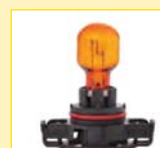
PG20-1 / PG20-2

| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR                                                                            | PHILIPS | OSRAM |
|----------|-------|-------|--------|-------------|-----------------------------------------------------------------------------------|---------|-------|
| © R12085 | 12    | 19    | PS19W  |             |                                                                                   | 12085   | 5201  |
| © R12275 | 12    | 19    | PSY19W |             |  | 12275   |       |

80



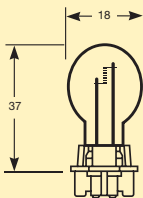


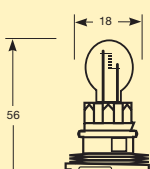


**PS24W**  
**PSY24W**  
**PY24W**  
**PSX24W**

PG20-3 / PGU20-4 / PG20-7

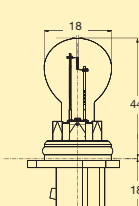
| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS  | OSRAM |
|----------|-------|-------|--------|-------------|--------|----------|-------|
| © R12086 | 12    | 24    | PS24W  |             |        | 12086    | 5202  |
| © R12188 | 12    | 24    | PSY24W |             | ●      | 12188NA  |       |
| © R12190 | 12    | 24    | PY24W  |             | ●      | 12190NA  |       |
| © R12274 | 12    | 24    | PY24W  |             | ●      | 12274SV+ |       |
| © R12276 | 12    | 24    | PSX24W |             |        | 12276    | 2504  |

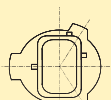
|          |                                                                                     |                                                                                     |              |               |                                                                                     |                               |                |
|----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------|---------------|-------------------------------------------------------------------------------------|-------------------------------|----------------|
| 81       |  |  |              |               |                                                                                     | <b>PW24W</b><br><b>PWY24W</b> |                |
|          |                                                                                     |                                                                                     |              |               |                                                                                     | WP3.3x14.5-4                  |                |
|          | <b>LAMP NO</b>                                                                      | <b>VOLTS</b>                                                                        | <b>WATTS</b> | <b>ECE NO</b> | <b>DESCRIPTION</b>                                                                  | <b>COLOUR</b>                 | <b>PHILIPS</b> |
| © R12182 | 12                                                                                  | 24                                                                                  | PW24W        |               |                                                                                     | 12182HTR                      |                |
| © R12174 | 12                                                                                  | 24                                                                                  | PWY24W       |               |  | R12174                        |                |

|         |       |                                                                                     |        |                                                                                     |        |         |       |  |  |        |  |
|---------|-------|-------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|--------|---------|-------|--|--|--------|--|
| 82      |       |  |        |  |        |         |       |  |  | P24W   |  |
|         |       |                                                                                     |        |                                                                                     |        |         |       |  |  | PU20-3 |  |
| LAMP NO | VOLTS | WATTS                                                                               | ECE NO | DESCRIPTION                                                                         | COLOUR | PHILIPS | OSRAM |  |  |        |  |
| © R928  | 12    | 24                                                                                  | P24W   |                                                                                     |        | 13625   |       |  |  |        |  |

83







**PSX26W**

PG18.5d-3

| LAMP NO  | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
|----------|-------|-------|--------|-------------|--------|---------|-------|
| © R12278 | 12    | 26    | PSX26W |             |        | 12278   |       |
|          |       |       |        |             |        |         |       |

| Festoon  |       |       |       |        |             |        |         |            |
|----------|-------|-------|-------|--------|-------------|--------|---------|------------|
|          |       |       |       |        |             |        |         |            |
| 84       |       |       |       |        |             |        |         | <b>C5W</b> |
|          |       |       |       |        |             |        |         | S8.5d      |
| LAMP NO  | VOLTS | WATTS | SIZE  | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM      |
| Ⓔ R253   | 6     | 5     | 11x38 | C5W    |             |        | 6844    | 6416       |
| Ⓔ R239   | 12    | 5     | 11x38 | C5W    |             |        | 12844   | 6418       |
| Ⓔ R239LL | 12    | 5     | 11x38 | C5W    | ■ Long life |        |         | 6418ULT    |
| R258     | 12    | 5     | 11x42 |        |             |        | 12864   | 6413       |
| R254     | 12    | 6     | 11x38 |        |             |        |         | 6486X      |
| R237     | 12    | 7     | 10x40 |        |             |        | 12144   |            |
| R264     | 12    | 10    | 11x44 |        |             |        | 12866   | 6411       |
| R269     | 12    | 10    | 11x30 |        |             |        | 12860   | 6438       |
| R272     | 12    | 10    | 11x38 |        |             |        | 12854   | 6461       |
| Ⓔ R242   | 24    | 5     | 11x38 | C5W    |             |        | 13844   | 6423       |
| R242G    | 24    | 5     | 11x38 |        |             | ●      |         |            |
| R260     | 24    | 5     | 11x42 |        |             |        | 13864   | 6424       |
| R653     | 24    | 6     | 11x38 |        |             |        | 13844   |            |
| R274     | 24    | 10    | 11x41 |        |             |        | 13866   | 6429       |

| 85      |       |       |       |        |             |        |         | <b>C21W</b> |
|---------|-------|-------|-------|--------|-------------|--------|---------|-------------|
|         |       |       |       |        |             |        |         | S8.5d       |
| LAMP NO | VOLTS | WATTS | SIZE  | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM       |
| R266    | 6     | 15    | 15x44 |        |             |        |         |             |
| R265    | 12    | 10    | 15x44 |        |             |        |         |             |
| R267    | 12    | 15    | 15x44 |        |             |        | 12850   | 6541        |
| R270    | 12    | 18    | 15x44 |        |             |        | 12807   | 6475        |
| Ⓔ R273  | 12    | 21    | 15x44 | C21W   |             |        | 12803   | 6476        |
| R276    | 24    | 18    | 15x44 |        |             |        | 13807   | 8480        |
| R275    | 24    | 21    | 15x44 |        |             |        |         |             |

| 86      |       |       |      |        |             |        |         | <b>S6d / S7d</b> |
|---------|-------|-------|------|--------|-------------|--------|---------|------------------|
|         |       |       |      |        |             |        |         |                  |
| LAMP NO | VOLTS | WATTS | SIZE | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM            |
| R256    | 12    | 3     | 8x38 |        |             |        | 12843   |                  |
| R263    | 12    | 3     | 8x31 |        |             |        |         | 2628             |
| R268    | 12    | 3     | 6x36 |        |             |        | 12848   | 6428             |
| R261    | 12    | 5     | 8x26 |        |             |        |         |                  |
| R271    | 24    | 3     | 7x30 |        |             |        | 13818   | 6430             |
| R908    | 24    | 3     | 8x36 |        |             |        |         | 6421             |

# Vehicle Lighting

| Miniature Halogen                                   |       |       |        |             |        |            |       |
|-----------------------------------------------------|-------|-------|--------|-------------|--------|------------|-------|
| <div> <div> </div> <div> </div> <div> </div> </div> |       |       |        |             |        |            |       |
|                                                     |       |       |        |             |        | BA9s (MCC) |       |
| LAMP NO                                             | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS    | OSRAM |
| R469                                                | 12    | 5     |        |             |        | 12023      | 64111 |
| R470                                                | 12    | 10    |        |             |        | 12024      | 64113 |
| R433                                                | 12    | 20    |        |             |        | 12025      | 64115 |
| R418                                                | 12    | 23    |        |             | ●      |            |       |
| R419                                                | 12    | 23    |        |             |        |            |       |

| <div> <div> </div> <div> </div> <div> </div> </div> |       |       |        |             |        |         |       |
|-----------------------------------------------------|-------|-------|--------|-------------|--------|---------|-------|
|                                                     |       |       |        |             |        | H6W     |       |
|                                                     |       |       |        |             |        | BAX9s   |       |
| LAMP NO                                             | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
| Ⓔ R434                                              | 12    | 6     | H6W    |             |        | 12036   | 64132 |

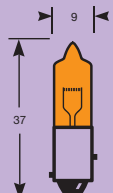
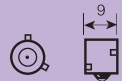
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|-----------------------------------------------------|-------|-------|--------|-------------|--------|---------|-------|
|                                                     |       |       |        |             |        | HY6W    |       |
|                                                     |       |       |        |             |        | BAZ9s   |       |
| LAMP NO                                             | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
| Ⓔ R926                                              | 12    | 6     | HY6W   |             | ●      |         |       |

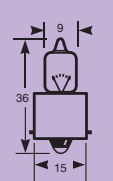
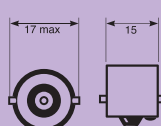
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|-----------------------------------------------------|-------|-------|--------|-------------|--------|-------------|----------|
|                                                     |       |       |        |             |        | (W5W)       |          |
|                                                     |       |       |        |             |        | W2.1 x 9.1d |          |
| LAMP NO                                             | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS     | OSRAM    |
| R516                                                | 12    | 5     |        | ■ IceBlue   | ●      |             | 2825HCBN |

| <div> <div> </div> <div> </div> <div> </div> </div> |       |       |        |             |        |         |       |
|-----------------------------------------------------|-------|-------|--------|-------------|--------|---------|-------|
|                                                     |       |       |        |             |        | H21W    |       |
|                                                     |       |       |        |             |        | BAY9s   |       |
| LAMP NO                                             | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
| Ⓔ R435                                              | 12    | 21    | H21W   |             |        | 12356   | 64136 |
| Ⓔ R535                                              | 24    | 21    | H21W   |             |        | 24356   | 64138 |

| 92      |  |  |  |             |                                                                                   | HY21W   |          |
|---------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------|---------|----------|
|         |                                                                                   |                                                                                   |                                                                                   |             |                                                                                   | BAW9s   |          |
| LAMP NO | VOLTS                                                                             | WATTS                                                                             | ECE NO                                                                            | DESCRIPTION | COLOUR                                                                            | PHILIPS | OSRAM    |
| © R927  | 12                                                                                | 21                                                                                | HY21W                                                                             |             |  | 12146   | 64137ULT |

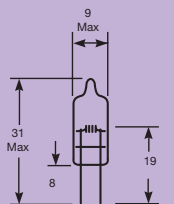
93

BA15s (SCC)

| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
|---------|-------|-------|--------|-------------|--------|---------|-------|
| R467    | 12    | 5     |        |             |        |         |       |
| R468    | 12    | 10    |        |             |        |         |       |
| R740    | 12    | 20    |        |             |        |         |       |
| R906    | 12    | 21    |        |             |        |         |       |
| R796    | 12    | 35    |        |             |        |         |       |
| R795    | 12    | 50    |        |             |        |         |       |
| R741    | 24    | 20    |        |             |        |         |       |

94

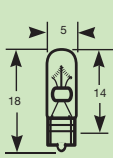



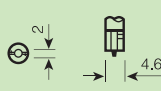

</

## Panel and Indicator

95









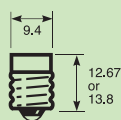
T5

W2.3W

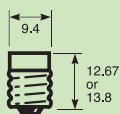
WY2.3W

W2 x 4.6d

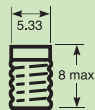
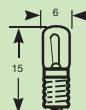
| LAMP NO | VOLTS | WATTS     | ECE NO | DESCRIPTION | COLOUR                                                                              | PHILIPS | OSRAM |
|---------|-------|-----------|--------|-------------|-------------------------------------------------------------------------------------|---------|-------|
| R286    | 12    | 1.2       |        |             |  | 12516   | 2721  |
| R286A   | 12    | 1.2       |        |             |  |         |       |
| R286B   | 12    | 1.2       |        |             |  |         |       |
| R286G   | 12    | 1.2       |        |             |  |         |       |
| R286R   | 12    | 1.2       |        |             |  |         |       |
| © R284  | 12    | 2.3       | W2.3W  |             |                                                                                     | 12061   | 2723  |
| © R284A | 12    | 2.3       | WY2.3W |             |  |         |       |
| R1030   | 14    | 0.9(65mA) |        |             |                                                                                     |         |       |
| R508    | 24    | 1.2       |        |             |  | 13516   | 2741  |
| R508A   | 24    | 1.2       |        |             |  |         |       |
| R508B   | 24    | 1.2       |        |             |  |         |       |
| R508G   | 24    | 1.2       |        |             |  |         |       |
| R508R   | 24    | 1.2       |        |             |  |         |       |



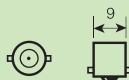
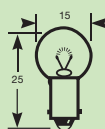
| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
|---------|-------|-------|--------|-------------|--------|---------|-------|
| R950    | 6     | 6     |        |             |        |         |       |
| R862    | 12    | 5     |        |             |        |         |       |
| R993    | 24    | 2.8   |        |             |        | 13875   |       |



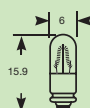
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|---------|-------|-------|--------|-------------|--------|---------|-------|
| R982    | 6     | 1.8   |        |             |        |         |       |
| R990    | 6     | 3     |        |             |        | 6875    | 3965  |
| R987    | 12    | 2.2   |        |             |        | 12875   | 3766  |
| R650    | 24    | 2.8   |        |             |        | 13875   | 3967  |



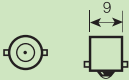
| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
|---------|-------|-------|--------|-------------|--------|---------|-------|
| R280    | 12    | 1.5   |        |             |        | 12926   |       |
| R864/14 | 14    | 0.5   |        |             |        |         |       |
| R695    | 24    | 2.8   |        |             |        |         |       |

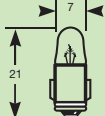
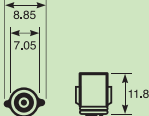


| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
|---------|-------|-------|--------|-------------|--------|---------|-------|
| R651    | 24    | 28    |        |             |        |         |       |



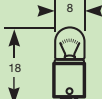
| LAMP NO | VOLTS | WATTS      | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
|---------|-------|------------|--------|-------------|--------|---------|-------|
| R388    | 28    | 1.2 (40mA) |        |             |        |         |       |

| 101     |  |  |  | BA9s MCC    |        |         |       |
|---------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|--------|---------|-------|
|         |                                                                                   |                                                                                   |                                                                                   |             |        |         |       |
| LAMP NO | VOLTS                                                                             | WATTS                                                                             | ECE NO                                                                            | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
| R641    | 6                                                                                 | 3                                                                                 |                                                                                   |             |        | 6910    | 6910  |
| R643    | 12                                                                                | 2.2                                                                               |                                                                                   |             |        | 12910   | 3894  |
| R665    | 24                                                                                | 2.8                                                                               |                                                                                   |             |        | 13910   | 6251  |

| 102     |  |  |  | BA7s Peanut |        |         |       |
|---------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|--------|---------|-------|
|         |                                                                                   |                                                                                   |                                                                                   |             |        |         |       |
| LAMP NO | VOLTS                                                                             | WATTS                                                                             | ECE NO                                                                            | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
| R282    | 6                                                                                 | 1.2                                                                               |                                                                                   |             |        | 6829    | 3798  |
| R281    | 12                                                                                | 2                                                                                 |                                                                                   |             |        | 12829   | 3898  |
| R283    | 24                                                                                | 3                                                                                 |                                                                                   |             |        | 13829   | 3899  |

103







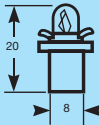
BA9s MCC (Tub.)

| LAMP NO | VOLTS | WATTS | ECE NO | DESCRIPTION | COLOUR | PHILIPS | OSRAM |
|---------|-------|-------|--------|-------------|--------|---------|-------|
| R287    | 6     | 2     |        |             |        |         | 3895  |
| R288    | 12    | 2     |        |             |        | 12913   | 3796  |
| R289    | 24    | 2     |        |             |        | 13913   | 3797  |

| Printed Circuit Board Lamps |       |       |                  |                 |                |          |
|-----------------------------|-------|-------|------------------|-----------------|----------------|----------|
| 104                         |       |       |                  |                 | B8.4D / BX8.4D |          |
| LAMP NO                     | VOLTS | WATTS | BASE COLOUR      | PANEL THICKNESS | PHILIPS        | OSRAM    |
| R509TMGY                    | 12    | 0.5   | Grey BX8.4D      | 1.5mm           |                |          |
| R509TMOR                    | 12    | 1.12  | Orange BX8.4D    | 1.5mm           | 12624          | 2473MFX6 |
| R509TMBK                    | 12    | 1.2   | Black BX8.4D     | 1.5mm           | 12625          | 2351MFX6 |
| R509TMBL                    | 12    | 1.2   | Blue B8.4D       | 2.0mm           | 12623          | 2351MF6  |
| R509TMBE                    | 12    | 1.5   | Beige BX8.4D     | 1.5mm           | 12627          | 2452MFX6 |
| R509TMGR                    | 12    | 2     | Light Green 8.4D | 2.0mm           | 12626          | 2352MFX6 |
| R508TMGR                    | 24    | 1.4   | Light Green 8.4D |                 |                |          |
| R508TMRE                    | 24    | 1.5   | Red BX8.4D       |                 |                |          |

# Vehicle Lighting

105




B8.5D / BX8.5D

| LAMP NO | VOLTS | WATTS | BASE COLOUR       | PANEL THICKNESS | PHILIPS | OSRAM   |
|---------|-------|-------|-------------------|-----------------|---------|---------|
| R509TVI | 12    | 0.4   | Violet BX8.5D     | 1.5mm           | 12640   | 2322MFX |
| R509TOR | 12    | 1     | Orange BX8.5D     | 1.5mm           |         | 2321MFX |
| R509T   | 12    | 1.2   | Black B8.5D       | 2.0mm           | 12598   | 2721MF  |
| R509TBL | 12    | 1.2   | Light Blue BX8.5D | 1.5mm           | 12603   | 2721MFX |
| R509TBE | 12    | 1.5   | Beige B8.5D       | 2.0mm           | 12637   | 2752MF  |
| R509TGR | 12    | 2     | Green B8.5D       | 2.0mm           | 12600   | 2722MF  |
| R508T   | 24    | 1.2   | Grey B8.5D        |                 | 13598   | 2741MF  |
| R508TBR | 24    | 1.2   | Brown BX8.5D      |                 | 24032   | 2741MFX |

106

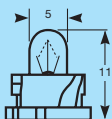
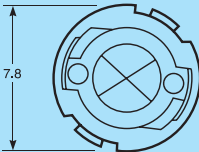


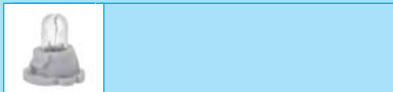



B8.7D

| LAMP NO  | VOLTS | WATTS | BASE COLOUR | PANEL THICKNESS | PHILIPS | OSRAM    |
|----------|-------|-------|-------------|-----------------|---------|----------|
| R509TWGY | 12    | 1.2   | Grey        |                 |         | 2721MF8W |
| R508TWBR | 24    | 1.2   | Brown       |                 |         |          |

107

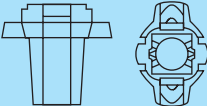


F4.8

| LAMP NO     | VOLTS | WATTS | BASE COLOUR | PANEL THICKNESS | PHILIPS | OSRAM  |
|-------------|-------|-------|-------------|-----------------|---------|--------|
| R509TFBK/12 | 12    | 1.2   | Black       |                 |         |        |
| R509TFGY    | 12    | 1.8   | Grey        |                 |         |        |
| R509TFBK/14 | 14    | 1.4   | Black       |                 |         | 2722MF |

108

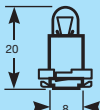
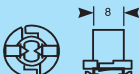


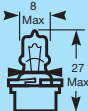
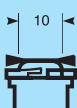


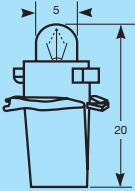


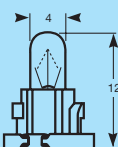
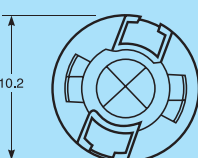
B8.3D

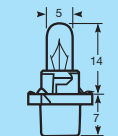
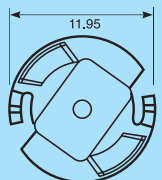
| LAMP NO  | VOLTS | WATTS | BASE COLOUR | PANEL THICKNESS | PHILIPS | OSRAM   |
|----------|-------|-------|-------------|-----------------|---------|---------|
| R509TBBK | 12    | 1.2   | Black       |                 | 12597   | 2721MF8 |
| R509TBWH | 12    | 2     | White       |                 |         | 2722MF8 |
| R508TBGY | 24    | 1.2   | Grey        |                 | 13597   | 2741MF8 |

|           |                                                                                   |                                                                                   |                                                                                   |                                                                                    |         |          |
|-----------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------|----------|
| 109       |  |  |  |  |         | BAX EBSR |
| LAMP NO   | VOLTS                                                                             | WATTS                                                                             | BASE COLOUR                                                                       | PANEL THICKNESS                                                                    | PHILIPS |          |
| R86021001 | 12                                                                                | 1.2                                                                               | Green                                                                             | 2.0mm                                                                              |         |          |
| R86021002 | 12                                                                                | 1.8                                                                               | Blue                                                                              | 2.0mm                                                                              |         |          |
| R6929     | 24                                                                                | 1.2                                                                               | Light Green                                                                       |                                                                                    |         |          |
| R1471     | 24                                                                                | 1.2 (40mA)                                                                        | Brown                                                                             |                                                                                    | 24506   |          |
| R1791     | 24                                                                                | 1.2 (53mA)                                                                        | Yellow                                                                            |                                                                                    | 24029   |          |

|         |  |                                                                                   |  |                                                                                   |  |                                                                                                                               |  |                 |  |         |  |         |  |
|---------|--|-----------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------|--|-----------------|--|---------|--|---------|--|
| 110     |  |  |  |  |  | <br>Panel thickness<br>B = 2mm<br>BX = 1.5mm |  |                 |  | B10d    |  |         |  |
| LAMP NO |  | VOLTS                                                                             |  | WATTS                                                                             |  | BASE COLOUR                                                                                                                   |  | PANEL THICKNESS |  | PHILIPS |  | OSRAM   |  |
| R64122  |  | 12                                                                                |  | 3                                                                                 |  | Brown                                                                                                                         |  |                 |  | 12614   |  | 64122MF |  |
| R64124  |  | 12                                                                                |  | 5                                                                                 |  | Black                                                                                                                         |  |                 |  | 12615   |  | 64122MF |  |

|          |                                                                                     |                                                                                     |                                                                                     |                 |         |       |
|----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------|---------|-------|
| 111      |  |  |  |                 |         |       |
| LAMP NO  | VOLTS                                                                               | WATTS                                                                               | BASE COLOUR                                                                         | PANEL THICKNESS | PHILIPS | OSRAM |
| R509TEBK | 12                                                                                  | 1.2                                                                                 | Black                                                                               | 1.5mm           |         |       |

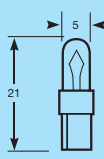
|          |                                                                                     |                                                                                     |                                                                                     |                 |         |
|----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------|---------|
| 112      |  |  |  |                 |         |
| LAMP NO  | VOLTS                                                                               | WATTS                                                                               | BASE COLOUR                                                                         | PANEL THICKNESS | PHILIPS |
| R509TDBK | 12                                                                                  | 1.2                                                                                 | Black                                                                               |                 |         |
|          |                                                                                     |                                                                                     |                                                                                     |                 | OSRAM   |
|          |                                                                                     |                                                                                     |                                                                                     |                 | T-1/4NW |

|          |                                                                                     |                                                                                     |                                                                                     |                 |         |       |
|----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------|---------|-------|
| 113      |  |  |  |                 |         |       |
| LAMP NO  | VOLTS                                                                               | WATTS                                                                               | BASE COLOUR                                                                         | PANEL THICKNESS | PHILIPS | OSRAM |
| R509THGY | 14                                                                                  | 1.2 (90mA)                                                                          | Grey                                                                                |                 |         |       |

# Vehicle Lighting

114

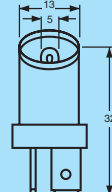


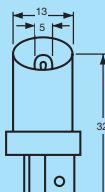


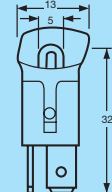


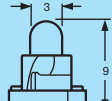
KW2 x 4.6D

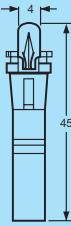
| LAMP NO      | VOLTS | WATTS | BASE COLOUR | PANEL THICKNESS | PHILIPS | OSRAM |
|--------------|-------|-------|-------------|-----------------|---------|-------|
| R509TCGY     | 12    | 0.5   | Grey        |                 |         |       |
| R509TCTR     | 12    | 1.2   | Transparent |                 |         |       |
| R509TCWH     | 12    | 1.2   | White       |                 |         |       |
| R509TCGY/1.8 | 12    | 1.8   | Grey        |                 |         |       |
| R508TCTR     | 24    | 1.2   | Transparent |                 |         |       |
| R508TCWH     | 24    | 1.2   | White       |                 |         |       |
| R508TD       | 24    | 1     | White       |                 |         |       |

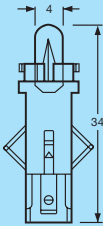
|     |                                                                                   |                                                                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
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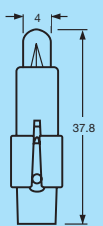
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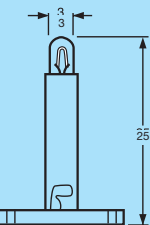
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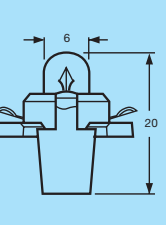
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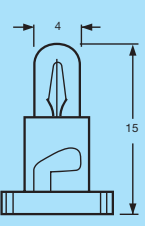
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| <b>119</b><br> |  |                     |                             |                        |                                      |
| <b>LAMP NO</b><br>R509TKBK                                                                      | <b>VOLTS</b><br>12                                                                | <b>WATTS</b><br>1.2 | <b>BASE COLOUR</b><br>Black | <b>PANEL THICKNESS</b> | <b>PHILIPS</b><br>OSRAM<br>B8.5 5/40 |

|                                                                                                 |                                                                                   |                     |                             |                        |                                         |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------|-----------------------------|------------------------|-----------------------------------------|
| <b>120</b><br> |  |                     |                             |                        |                                         |
| <b>LAMP NO</b><br>R509TLBK                                                                      | <b>VOLTS</b><br>12                                                                | <b>WATTS</b><br>1.2 | <b>BASE COLOUR</b><br>Black | <b>PANEL THICKNESS</b> | <b>PHILIPS</b><br>OSRAM<br>BG8.5 - 5.5D |

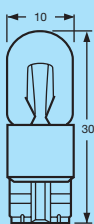
|                                                                                                  |                                                                                    |                     |                             |                        |                                     |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------|-----------------------------|------------------------|-------------------------------------|
| <b>121</b><br> |  |                     |                             |                        |                                     |
| <b>LAMP NO</b><br>R509TPBK                                                                       | <b>VOLTS</b><br>12                                                                 | <b>WATTS</b><br>1.2 | <b>BASE COLOUR</b><br>Black | <b>PANEL THICKNESS</b> | <b>PHILIPS</b><br>OSRAM<br>SG8-5.5D |

|                                                                                                   |                                                                                     |                            |                             |                        |                               |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------|-----------------------------|------------------------|-------------------------------|
| <b>122</b><br> |  |                            |                             |                        |                               |
| <b>LAMP NO</b><br>R509TQWH                                                                        | <b>VOLTS</b><br>14                                                                  | <b>WATTS</b><br>1.2 (65mA) | <b>BASE COLOUR</b><br>White | <b>PANEL THICKNESS</b> | <b>PHILIPS</b><br>OSRAM<br>T3 |

|                                                                                                   |                                                                                     |                     |                             |                        |                                 |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------|-----------------------------|------------------------|---------------------------------|
| <b>123</b><br> |  |                     |                             |                        |                                 |
| <b>LAMP NO</b><br>R509TSBK                                                                        | <b>VOLTS</b><br>14                                                                  | <b>WATTS</b><br>1CP | <b>BASE COLOUR</b><br>Black | <b>PANEL THICKNESS</b> | <b>PHILIPS</b><br>OSRAM<br>B11D |

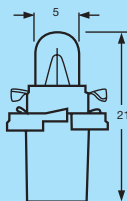
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|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------|-----------------------------|------------------------|-------------------------------|
| <b>124</b><br> |  |                     |                             |                        |                               |
| <b>LAMP NO</b><br>R509TYBK                                                                        | <b>VOLTS</b><br>14                                                                  | <b>WATTS</b><br>1.4 | <b>BASE COLOUR</b><br>Black | <b>PANEL THICKNESS</b> | <b>PHILIPS</b><br>OSRAM<br>T5 |

## Bulb References Guide 66



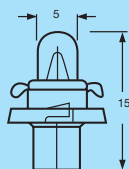
KW2.1 x 9.5D

|        |    |   |       |
|--------|----|---|-------|
| R512WB | 12 | 2 | White |
|--------|----|---|-------|



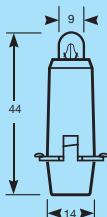
EBS-N10

|           |    |     |        |        |       |
|-----------|----|-----|--------|--------|-------|
| R86021003 | 24 | 1.2 | Yellow | EBS-N  | 24606 |
| R86024918 | 24 | 1.2 | Grey   | BAX10D |       |
| R8328     | 24 | 1.4 | Beige  |        |       |
| R86028166 | 24 | 2.4 | Yellow |        |       |



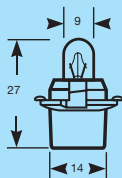
EBS-P/PM

|           |      |     |       |  |
|-----------|------|-----|-------|--|
| R88005996 | 12.6 | 1.5 | White |  |
|-----------|------|-----|-------|--|



PCB

|         |    |     |       |
|---------|----|-----|-------|
| R512PCB | 12 | 2CP | White |
|---------|----|-----|-------|



B12.3D

| LAMP NO | VOLTS | WATTS | BASE COLOUR | PANEL THICKNESS | FILES | CORAM |
|---------|-------|-------|-------------|-----------------|-------|-------|
| R512TR  | 12    | 2CP   | White       |                 |       |       |



W2.1.x9.5d

131

(C5W)

S8.5d 11x38mm

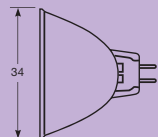
| LAMP NO      | VOLTS | DESCRIPTION  | COLOUR TEMP | LUMENS | PHILIPS | OSRAM |
|--------------|-------|--------------|-------------|--------|---------|-------|
| 1 RW239CBLED | 12    | Premium LED  | 6000K       | 200    |         |       |
| 2 R2396LED   | 12    | Standard LED | 6000K       | 35     |         |       |
| 2 R23912LED  | 12    | Standard LED | 12000K      | 35     |         |       |
| 1 R2426LED   | 24    | Premium LED  | 6000K       | 200    |         |       |

| LAMP NO | VOLTS | WATTS | GLASS | DESCRIPTION | PHILIPS | OSRAM |
|---------|-------|-------|-------|-------------|---------|-------|
| R804    | 12    | 12    | Pearl |             |         |       |
| R816    | 24    | 12    | Pearl |             |         |       |
| R821    | 24    | 20    | Pearl |             |         |       |
| R1184P  | 24    | 22    | Pearl |             |         |       |

# Vehicle Lighting

## Halogen Interior Bulbs

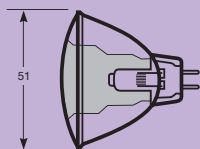
134



MR11

| LAMP NO  | VOLTS | WATTS | ANGLE | DESCRIPTION | PHILIPS | OSRAM |
|----------|-------|-------|-------|-------------|---------|-------|
| 121030XB | 12    | 10    | 30°   |             |         |       |
| A122030  | 12    | 20    | 30°   |             |         |       |
| A123530  | 12    | 35    | 30°   |             |         |       |

135

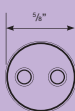


MR16/Dichroic

| LAMP NO | VOLTS | WATTS | ANGLE | DESCRIPTION | PHILIPS | OSRAM |
|---------|-------|-------|-------|-------------|---------|-------|
| A241012 | 24    | 10    | 12°   |             |         |       |
| A242038 | 24    | 20    | 38°   |             |         |       |
| A243538 | 24    | 35    | 38°   |             |         |       |

## Fluorescent Tubes

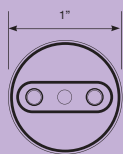
136



T5

| LAMP NO | WATTS | SIZE   | DESCRIPTION       | DESIGN LIFE | PHILIPS | OSRAM |
|---------|-------|--------|-------------------|-------------|---------|-------|
| A3003   | 4     | 6"     | White             | 10000hrs    |         |       |
| A1060   | 80    | 4.75ft | Cool White Deluxe | 24000hrs    |         |       |

137



T8

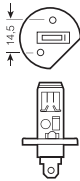
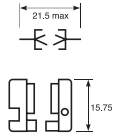
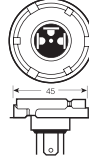
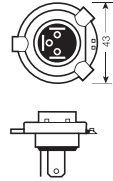
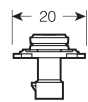
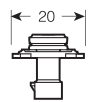
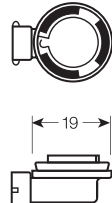
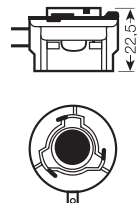
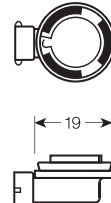
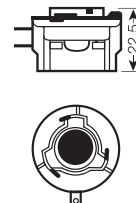
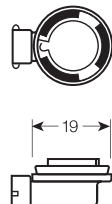
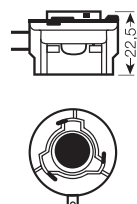
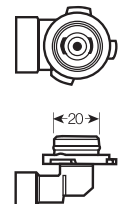
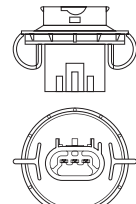
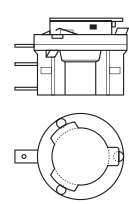
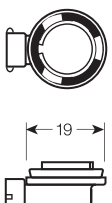
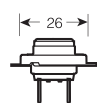
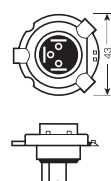
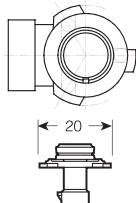
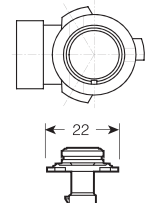
| LAMP NO | WATTS | SIZE | DESCRIPTION       | DESIGN LIFE | PHILIPS | OSRAM |
|---------|-------|------|-------------------|-------------|---------|-------|
| A1003-R | 15    | 18"  | White             | 15000hrs    |         |       |
| A1047   | 15/33 | 18"  | Cool White        | 20000hrs    |         |       |
| 61014B  | 30    | 3ft  | White             | 12000hrs    |         |       |
| A1021   | 36    | 4ft  | Cool White Deluxe | 15000hrs    |         |       |

## Inspection/Hand Lamp Bulbs

|                                                                                                  |        |       |        |                     |         |
|--------------------------------------------------------------------------------------------------|--------|-------|--------|---------------------|---------|
| <div>138</div>  |        |       |        |                     |         |
| LAMP NO                                                                                          | VOLTS  | WATTS | ECE NO | DESCRIPTION         | PHILIPS |
| RIL200                                                                                           | 12/230 | 11    |        | Compact Fluorescent | OSRAM   |

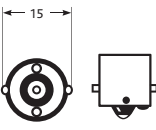
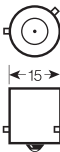
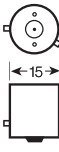
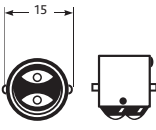
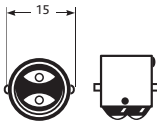
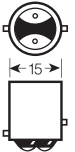
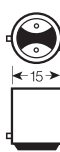
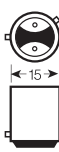
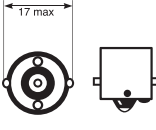
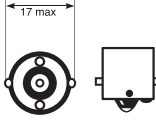
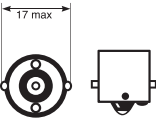
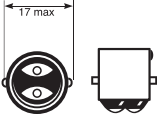
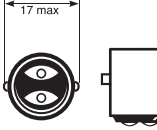
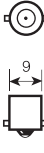
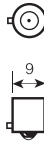
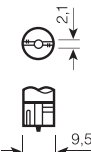
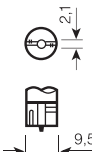
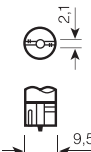
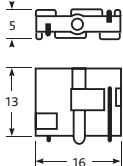
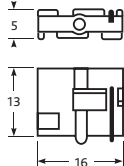
Fluorescent

# Vehicle Lighting

|                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|    |    |    |   |    |
| H1P14.5s                                                                            | H2X511                                                                              | H3PK22s                                                                             | H4P45t                                                                               | H4P43t                                                                                |
|    |    |    |   |    |
| ECECap                                                                              | HB3AP20d                                                                            | HB4P22d                                                                             | HB4AP22d                                                                             | H7PX22d                                                                               |
|  |  |  |  |  |
| H8PGJ19-1                                                                           | H8BPGJY19-1                                                                         | H9PGJ19-5                                                                           | H9BPGJY19-5                                                                          | H10PY20d                                                                              |
|  |  |  |  |  |
| H11PGJ19-2                                                                          | H11BPGJY19-2                                                                        | H12PZ20d                                                                            | H13P26.4t                                                                            | H15PGJ23t-1                                                                           |
|  |  |  |  |  |
| H16PGJ19-3                                                                          | H18PY26d                                                                            | H19PU43t-3                                                                          | HIR1PX20d                                                                            | HIR2PX22d                                                                             |

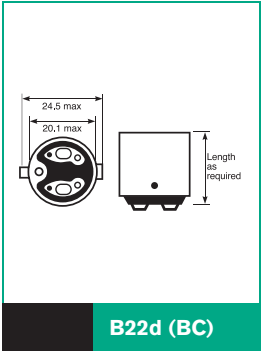
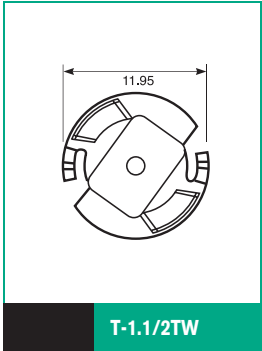
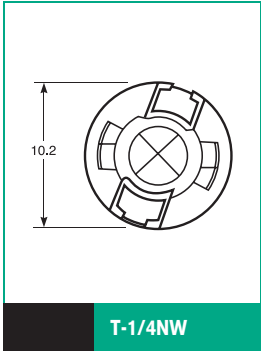
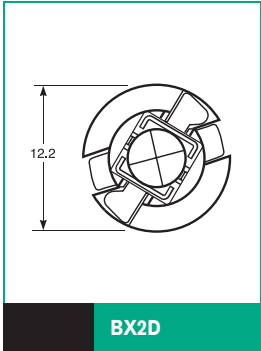
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|----------------------------|---------------------------|--------------------------|-------------------------------|-----------------------------------|
|                            |                           |                          |                               |                                   |
| <b>D1S</b> <b>PK32d-2</b>  | <b>D1R</b> <b>PK32d-3</b> | <b>D2S</b> <b>P32d-2</b> | <b>D2R</b> <b>P32d-3</b>      | <b>D3S</b> <b>PK32d-5</b>         |
|                            |                           |                          |                               |                                   |
| <b>D3R</b> <b>PK32d-6</b>  | <b>D4S</b> <b>P32d-5</b>  | <b>D4R</b> <b>P32d-6</b> | <b>D5S</b>                    | <b>D8S</b> <b>PK32d-1</b>         |
|                            |                           |                          |                               |                                   |
| <b>S2</b> <b>BA20D</b>     | <b>S3</b> <b>P26s</b>     | <b>PX15D</b>             | <b>P15D-3</b>                 | <b>P15D-25-3</b>                  |
|                            |                           |                          |                               |                                   |
| <b>H27W1</b> <b>PG13</b>   | <b>H27W2</b> <b>PGJ13</b> | <b>P36t</b>              | <b>HB1</b> <b>P29t</b>        | <b>HB5</b> <b>PX29t</b>           |
|                            |                           |                          |                               |                                   |
| <b>MH6R</b> <b>P30t-40</b> | <b>P30/22L</b>            | <b>H3r</b> <b>PK22sr</b> | <b>R2</b> <b>P45t ASY UEC</b> | <b>S1 S2</b> <b>BA20d (Bosch)</b> |

# Vehicle Lighting

|                                                                                                                |                                                                                                             |                                                                                                             |                                                                                                             |                                                                                                               |
|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
|  <p>P36d</p>                  |  <p>P36d Axial</p>         |  <p>P36d Tranverse</p>     |  <p>P36s Axial</p>        |  <p>P36s Tranverse</p>     |
|  <p>P21W BA15s (SCC)</p>      |  <p>PY21W BAU15s (OSP)</p> |  <p>PR21W BAW15s</p>       |  <p>P21W BA15d (SBC)</p>  |  <p>BA15d (SBC)</p>        |
|  <p>P21/5W BAY15d (OSP)</p> |  <p>PR21/5W BAW15d</p>   |  <p>P21/4W BAZ15d</p>    |  <p>R5W BA15s (SCC)</p> |  <p>R10W BA15s (SCC)</p> |
|  <p>RY10W BAU15s (SCC)</p>  |  <p>R5W BA15d (SBC)</p>  |  <p>BAY15d (OSP)</p>     |  <p>T4W BA9s (MCC)</p> |  <p>BA9s (MCC)</p>       |
|  <p>W3W W2.1 x 9.5d</p>     |  <p>W5W W2.1 x 9.5d</p>  |  <p>W16W W2.1 x 9.5d</p> |  <p>W21W W3 x 16d</p>   |  <p>WY21W W3 x 16d</p>   |

|                               |                               |                                 |                               |                                 |
|-------------------------------|-------------------------------|---------------------------------|-------------------------------|---------------------------------|
|                               |                               |                                 |                               |                                 |
| <b>W21/5W</b> <b>W3 x 16q</b> | <b>P27W</b> <b>WY2.5x 16d</b> | <b>P27/7W</b> <b>W2.5 x 16q</b> | <b>PSX26W</b>                 | <b>C5W</b> <b>S8.5d</b>         |
|                               |                               |                                 |                               |                                 |
| <b>C21W</b> <b>S8.5d</b>      | <b>S6d / S7d</b>              | <b>BA9s (MCC)</b>               | <b>H6W</b> <b>BAX9s (MCC)</b> | <b>H21W</b> <b>BAY9s (MCC)</b>  |
|                               |                               |                                 |                               |                                 |
| <b>BA15d (SBC)</b>            | <b>BA15s (SCC)</b>            | <b>G4</b>                       | <b>W2.3W</b> <b>W2 x 4.6d</b> | <b>WY2.3W</b> <b>WX2 x 4.6d</b> |
|                               |                               |                                 |                               |                                 |
| <b>E10/13/13 MES</b>          | <b>E10/13 MES</b>             | <b>E5/8 LESBX8.5D</b>           | <b>BA7s Peanut</b>            | <b>B8.4D / BX8.4D</b>           |
|                               |                               |                                 |                               |                                 |
| <b>B8.5D / BX8.5D</b>         | <b>F4.8</b>                   | <b>B8.3D</b>                    | <b>BAX EBSR</b>               | <b>B10d</b>                     |

# Vehicle Lighting



## Cap References

- SCC Single Centre Contact
- MCC Miniature Centre Contact
- MES Miniature Edison Screw
- OSP Offset Pin
- SBC Small Bayonet Cap
- ES Edison Screw
- BC Bayonet Cap
- SES Small Edison Screw
- LES Lilliput Edison Screw

| ECE  | PART NO. | VOLTS | WATTS  | CAP         | SIZE      | DIAGRAM | DESCRIPTION                                          |
|------|----------|-------|--------|-------------|-----------|---------|------------------------------------------------------|
| C5W  | R239     | 12    | 5      | S8.5d       | 11 x 38mm | 84      | Festoon                                              |
| C5W  | R239LL   | 12    | 5      | S8.5d       | 11 x 38mm | 84      | Long Life Festoon                                    |
| C5W  | R242     | 24    | 5      | S8.5d       | 11 x 38mm | 84      | Festoon                                              |
| C5W  | R253     | 6     | 5      | S8.5d       | 11 x 38mm | 84      | Festoon                                              |
| C21W | R273     | 12    | 21     | S8.5d       | 15 x 44mm | 85      | Festoon                                              |
| D1S  | R85402   | 85    | 35     | PK32d-2     | 9mm       | 23      | Gas Discharge Headlamp                               |
| D2S  | R85122   | 85    | 35     | P32d-2      | 9mm       | 24      | Gas Discharge Headlamp                               |
| D3R  | R42306   | 42    | 35     | PK32d-6     | 9mm       | 27      | Gas Discharge Headlamp                               |
| D3S  | R42302   | 42    | 35     | PK32d-5     | 9mm       | 26      | Gas Discharge Headlamp                               |
| D4R  | R42406   | 42    | 35     | P32d-6      | 9mm       | 29      | Gas Discharge Headlamp                               |
| D4S  | R42402   | 42    | 35     | P32d-5      | 9mm       | 28      | Gas Discharge Headlamp                               |
| H1   | RX1048   | 12    | 55     | P14.5s      | 10mm      | 1       | Ring Xenon100 Halogen Headlamp                       |
| H1   | RX1548   | 12    | 55     | P14.5s      | 10mm      | 1       | Ring Xenon150 Halogen Headlamp                       |
| H1   | RX4048   | 12    | 55     | P14.5S      | 10mm      | 1       | Ring Xenon4000 Halogen Headlamp                      |
| H1   | RX5048   | 12    | 55     | P14.5A      | 10mm      | 1       | Ring Xenon5000 Halogen Headlamp                      |
| H1   | RX481    | 12    | 100    | P14.5S      | 10mm      | 1       | Ring Rally Sport Halogen Headlamp                    |
| H1   | RX668    | 12    | 80     | P14.5S      | 10mm      | 1       | Ring Sportz Blue Halogen Headlamp                    |
| H1   | R448     | 12    | 55     | P14.5s      | 10mm      | 1       | Halogen Headlamp                                     |
| H1   | R448LL   | 12    | 55     | P14.5s      | 10mm      | 1       | Long Life Halogen Headlamp                           |
| H1   | R465     | 6     | 55     | P14.5s      | 10mm      | 1       | Halogen Headlamp                                     |
| H1   | R466     | 24    | 70     | P14.5s      | 10mm      | 1       | Halogen Headlamp                                     |
| H1   | R466HD   | 24    | 70     | P14.5s      | 10mm      | 1       | Heavy Duty Halogen Headlamp                          |
| (H1) | R481     | 12    | 100    | P14.5s      | 10mm      | 1       | Ring Rally Sport High Wattage Halogen Headlamp       |
| (H1) | R493     | 24    | 100    | P14.5s      | 10mm      | 1       | High Wattage Halogen Headlamp                        |
| H1A  | R448EQ   | 12    | 55     | P14.5s      | 10mm      | 1       | EQ Halogen Headlamp                                  |
| (H2) | R482     | 24    | 70     | X511        | 9mm       | 2       | High Wattage Halogen Accessory Lamp                  |
| (H2) | R479     | 12    | 55     | X511        | 9mm       | 2       | Halogen Accessory Lamp                               |
| (H2) | R494     | 24    | 100    | X511        | 9mm       | 2       | Ring Rally Sport High Wattage Halogen Accessory Lamp |
| H3   | R453     | 12    | 55     | PK22s       | 11.5mm    | 3       | Halogen Accessory Lamp                               |
| H3   | R453LL   | 12    | 55     | PK22s       | 11.5mm    | 3       | Long Life Halogen Accessory Lamp                     |
| H3   | R455     | 6     | 55     | PK22s       | 11.5mm    | 3       | Halogen Accessory Lamp                               |
| H3   | R460     | 24    | 70     | PK22s       | 11.5mm    | 3       | Halogen Accessory Lamp                               |
| H3   | R460HD   | 24    | 70     | PK22s       | 11.5mm    | 3       | Heavy Duty Halogen Accessory Lamp                    |
| (H3) | R441     | 36    | 45     | PK22s       | 11.5mm    | 3       | Halogen Accessory Lamp                               |
| (H3) | R442     | 48    | 45     | PK22s       | 11.5mm    | 3       | Halogen Accessory Lamp                               |
| (H3) | R443     | 80    | 55     | PK22s       | 11.5mm    | 3       | Halogen Accessory Lamp                               |
| (H3) | R444     | 24    | 50     | PK22s       | 11.5mm    | 3       | Halogen Accessory Lamp                               |
| (H3) | R445     | 12    | 10     | PK22s       | 11.5mm    | 3       | Halogen Accessory Lamp                               |
| (H3) | R446     | 12    | 20     | PK22s       | 11.5mm    | 3       | Halogen Accessory Lamp                               |
| (H3) | R449     | 24    | 35     | PK22s       | 11.5mm    | 3       | Halogen Accessory Lamp                               |
| (H3) | R456     | 6     | 15     | PK22s       | 11.5mm    | 3       | Halogen Accessory Lamp                               |
| (H3) | R457     | 6     | 25     | PK22s       | 11.5mm    | 3       | Halogen Accessory Lamp                               |
| (H3) | R462     | 12    | 35     | PK22s       | 11.5mm    | 3       | Halogen Accessory Lamp                               |
| (H3) | R495     | 24    | 100    | PK22s       | 11.5mm    | 3       | Ring Rally Sport High Wattage Halogen Accessory Lamp |
| H3C  | R447     | 12    | 55     | PK22s       | 11.5mm    | 43      | Halogen Accessory Lamp                               |
| H3C  | R960     | 12    | 55(85) | P22d/5      | 12mm      | 43      | Halogen Headlamp Import - 556                        |
| H3r  | R961     | 12    | 55     | PK22sr      | 12mm      | 41      | Halogen Headlamp Import - 453                        |
| H4   | R012     | 12    | 60/55  | P45t H4 UEC | 17mm      | 4       | Halogen Headlamp                                     |
| H4   | RX1072   | 12    | 60/55  | P43T        | 17mm      | 5       | Ring Xenon100 Halogen Headlamp                       |
| H4   | RX1572   | 12    | 60/55  | P43T        | 17mm      | 5       | Ring Xenon150 Halogen Headlamp                       |
| H4   | RX2072   | 12    | 60/55  | P43t        | 17mm      | 5       | Ring Xenon200 Halogen Headlamp                       |
| H4   | RX4072   | 12    | 60/55  | P43T        | 17mm      | 5       | Ring Xenon4000 Halogen Headlamp                      |
| H4   | RX5072   | 12    | 60/55  | P43T        | 17mm      | 5       | Ring Xenon5000 Halogen Headlamp                      |
| H4   | RX484    | 12    | 100/80 | P43T        | 17mm      | 5       | Ring Rally Sport Halogen Headlamp                    |
| H4   | RX684    | 12    | 100/80 | P43T        | 17mm      | 5       | Ring Sportz Blue Halogen Headlamp                    |
| H4   | R496     | 24    | 100/80 | P43t        | 17mm      | 5       | Ring Rally Sport High Wattage Halogen Headlamp       |
| H4   | R498     | 24    | 130/90 | P43t        | 17mm      | 5       | Ring Rally Sport High Wattage Halogen Headlamp       |
| H4   | R905     | 6     | 60/55  | P43t H4     | 17mm      | 5       | Halogen Headlamp                                     |
| H4   | R472     | 12    | 60/55  | P43t        | 17mm      | 5       | Halogen Headlamp                                     |
| H4   | R472EQ   | 12    | 60/55  | P43t        | 17mm      | 5       | EQ Halogen Headlamp                                  |
| H4   | R472HD   | 12    | 60/55  | P43t        | 17mm      | 5       | Heavy Duty Halogen Headlamp                          |
| H4   | R472LL   | 12    | 60/55  | P43t        | 17mm      | 5       | Long Life Halogen Headlamp                           |
| H4   | R475     | 24    | 75/70  | P43t        | 17mm      | 5       | Halogen Headlamp                                     |
| H4   | R475HD   | 24    | 75/70  | P43t        | 17mm      | 5       | Heavy Duty Halogen Headlamp                          |
| (H4) | R024     | 24    | 75/70  | P45t H4 UEC | 17mm      | 4       | Halogen Headlamp                                     |
| (H4) | R497     | 24    | 100/80 | P45t        | 17mm      | 4       | Ring Rally Sport High Wattage Halogen Headlamp       |
| (H4) | R911     | 12    | 45/40  | P43t        | 17mm      | 5       | Halogen Headlamp                                     |
| H6W  | R434     | 12    | 6      | BAX9s       | 9mm       | 88      | Miniature Halogen                                    |
| HY6W | R926     | 12    | 6      | BAZ9s       | 9mm       | 89      | Miniature Halogen - Amber                            |
| H7   | RX1077   | 12    | 55     | PX26D       | 11.6mm    | 10      | Ring Xenon100 Halogen Headlamp                       |
| H7   | RX1577   | 12    | 55     | PX26D       | 11.6mm    | 10      | Ring Xenon150 Halogen Headlamp                       |
| H7   | RX2077   | 12    | 55     | PX26d       | 11.6mm    | 10      | Ring Xenon200 Halogen Headlamp                       |
| H7   | RX4077   | 12    | 55     | PX26D       | 11.6mm    | 10      | Ring Xenon4000 Halogen Headlamp                      |
| H7   | RX5077   | 12    | 55     | PX26D       | 11.6mm    | 10      | Ring Xenon5000 Halogen Headlamp                      |
| H7   | RX464**  | 12    | 100    | PX26D       | 11.6mm    | 10      | Ring Rally Sport Halogen Headlamp                    |
| H7   | RX664**  | 12    | 80     | PX26D       | 11.6mm    | 10      | Ring Sportz Blue Halogen Headlamp                    |

# Vehicle Lighting

| ECE     | PART NO. | VOLTS | WATTS | CAP          | SIZE   | DIAGRAM | DESCRIPTION                                        |
|---------|----------|-------|-------|--------------|--------|---------|----------------------------------------------------|
| H7      | R474     | 24    | 70    | PX26d        | 11.6mm | 10      | Halogen Headlamp                                   |
| H7      | R474HD   | 24    | 70    | PX26d        | 11.6mm | 10      | Heavy Duty Halogen Headlamp                        |
| H7      | R477     | 12    | 55    | PX26d        | 11.6mm | 10      | Halogen Headlamp                                   |
| H7      | R477EL   | 12    | 55    | PX26d        | 11.6mm | 10      | Extra LifeHalogen Headlamp                         |
| H7      | R477EQ   | 12    | 55    | PX26d        | 11.6mm | 10      | EQ Halogen Headlamp                                |
| H7      | R477LL   | 12    | 55    | PX26d        | 11.6mm | 10      | Long Life Halogen Headlamp                         |
| (H7)    | R454     | 24    | 100   | PX26d        | 11.6mm | 10      | High Wattage Halogen Headlamp                      |
| H8      | R708     | 12    | 35    | PGJ19-1      | 11.6mm | 11      | Halogen Headlamp                                   |
| H8B     | R920     | 12    | 35    | PGJY19-1     | 15mm   | 12      | Halogen Headlamp                                   |
| H9      | R709     | 12    | 65    | PGJ19-5      | 11.6mm | 13      | Halogen Headlamp                                   |
| H9B     | R919     | 12    | 65    | PGJY19-5     | 15mm   | 14      | Halogen Headlamp                                   |
| H10     | R710     | 12    | 42    | PY20d        | 16mm   | 15      | Halogen Headlamp                                   |
| H11     | R458HD   | 24    | 70    | PGJ19-2      | 11.6mm | 16      | Heavy Duty Halogen Headlamp                        |
| H11     | RX1011   | 12    | 55    | PGJ19-2      | 11.6mm | 16      | Ring Xenon100 Halogen Headlamp                     |
| H11     | RX1511   | 12    | 55    | PGJ19-2      | 11.6mm | 16      | Ring Xenon150 Halogen Headlamp                     |
| H11     | RX2011   | 12    | 55    | PGJ19-2      | 11.6mm | 16      | Ring Xenon200 Halogen Headlamp                     |
| H11     | RX5011   | 12    | 55    | PGJ19-2      | 11.6mm | 16      | Ring Xenon5000 Halogen Headlamp                    |
| H11     | R458     | 24    | 70    | PGJ19-2      | 11.6mm | 16      | Halogen Headlamp                                   |
| H11     | R711     | 12    | 55    | PGJ19-2      | 11.6mm | 16      | Halogen Headlamp                                   |
| H12     | R712     | 12    | 53    | PZ20d        | 16mm   | 17      | Halogen Headlamp                                   |
| H13     | R9008    | 12    | 60/55 | P26.4t       | 16mm   | 18      | Halogen Headlamp                                   |
| H15     | R715     | 12    | 55/15 | PGJ26t-1     | 22mm   | 19      | Halogen Headlamp                                   |
| H16     | R716     | 12    | 19    | PGJ19-3      | 11.6mm | 21      | Halogen Headlamp                                   |
| H18     | R718     | 12    | 55    | PY26d        | 15mm   | 21      | Halogen Headlamp                                   |
| (HB1)   | R9004    | 12    | 65/45 | P29t         | 14.7mm | 39      | Halogen Headlamp                                   |
| HB2     | R9003    | 12    | 60/55 | P43t         | 17mm   | 5       | Halogen Headlamp                                   |
| HB3     | R9005    | 12    | 60    | P20d         | 12mm   | 6       | Halogen Headlamp                                   |
| HB3     | RX1005   | 12    | 60    | P20D         | 12mm   | 6       | Ring Xenon100 Halogen Headlamp                     |
| HB3A    | R9005XS  | 12    | 60    | P20d         | 12mm   | 7       | Halogen Headlamp                                   |
| HB4     | RX1006   | 12    | 51    | P22D         | 12mm   | 8       | Ring Xenon100 Halogen Headlamp                     |
| HB4     | R9006    | 12    | 51    | P22d         | 12mm   | 8       | Halogen Headlamp                                   |
| HB4A    | R9006XS  | 12    | 51    | P22d         | 12mm   | 9       | Halogen Headlamp                                   |
| (HB5)   | R9007    | 12    | 65/55 | PX29t        | 33.8mm | 39      | Halogen Headlamp                                   |
| HIR2    | R9012    | 12    | 55    | PX22d        | 20mm   | 22      | Halogen Headlamp                                   |
| HIR2    | R1512    | 12    | 55    | PX22d        | 20mm   | 22      | Ring Xenon150 Halogen Headlamp                     |
| HIR2    | RX1512   | 12    | 55    | PX22D        | 20mm   | 22      | Ring Xenon150 Halogen Headlamp                     |
| HS1     | R459     | 12    | 35/35 | PX43t        | 17mm   | 5       | Halogen Headlamp                                   |
| HS1     | R910     | 6     | 35/35 | PX43t        | 17mm   | 5       | Halogen Headlamp                                   |
| HS5     | R929     | 12    | 35/30 | P23t         | 25mm   | 30      | Motorcycle Headlamp                                |
| H21W    | R435     | 12    | 21    | BAY9s        | 9mm    | 91      | Miniature Halogen Brake/Indicator/Reverse/Rear Fog |
| H21W    | R535     | 24    | 21    | BAY9s        | 9mm    | 91      | Miniature Halogen Brake/Indicator/Reverse/Rear Fog |
| H27W/1  | R880     | 12    | 27    | PG13         | 9mm    | 35      | Halogen Headlamp                                   |
| H27W/2  | R881     | 12    | 27    | PGJ13        | 9mm    | 36      | Halogen Headlamp                                   |
| HY21W   | R927     | 12    | 21    | BAW9s        | 9mm    | 92      | Miniature Halogen - Amber                          |
| P13W    | R12277   | 12    | 13    | PG18.5d-1    | 20mm   | 78      | HiPervision Day Time Running                       |
| P21/4W  | R566     | 12    | 21/4  | BAZ15d       | 25mm   | 60      | Fog/Tail                                           |
| P21/4W  | R567     | 24    | 21/4  | BAZ15d       | 25mm   | 60      | Fog/Tail                                           |
| P21/5W  | R294     | 24    | 21/5  | BAY15d (OSP) | 25mm   | 58      | Brake/Tail                                         |
| P21/5W  | R380     | 12    | 21/5  | BAY15d (OSP) | 25mm   | 58      | Brake/Tail                                         |
| P21/5W  | RW380RR  | 12    | 21/5  | BAY15d (OSP) | 25mm   | 58      | Rapid Response Brake/Indicator/Reverse/Rear Fog    |
| P21/5W  | R380LL   | 12    | 21/5  | BAY15d (OSP) | 25mm   | 58      | Long Life Brake/Tail                               |
| P21/5W  | R384     | 6     | 21/5  | BAY15d (OSP) | 25mm   | 58      | Brake/Tail                                         |
| P21W    | R241     | 24    | 21    | BA15s (SCC)  | 25mm   | 53      | Brake/Indicator/Reverse/Rear Fog                   |
| P21W    | R290     | 24    | 21    | BA15s (SCC)  | 25mm   | 53      | Heavy Duty Brake/Indicator/Reverse/Rear Fog        |
| P21W    | R291     | 24    | 21    | BA15d (SBC)  | 25mm   | 56      | Heavy Duty Brake/Indicator/Reverse/Rear Fog        |
| P21W    | R317     | 6     | 21    | BA15s (SCC)  | 25mm   | 53      | Brake/Indicator/Reverse/Rear Fog                   |
| P21W    | R319     | 6     | 21    | BA15d (SBC)  | 25mm   | 56      | Brake/Indicator/Reverse/Rear Fog                   |
| P21W    | R335     | 12    | 21    | BA15d (SBC)  | 25mm   | 56      | Brake/Indicator/Reverse/Rear Fog                   |
| P21W    | R346     | 24    | 21    | BA15d (SBC)  | 25mm   | 56      | Brake/Indicator/Reverse/Rear Fog                   |
| P21W    | RW382RR  | 12    | 21    | BA15s (SCC)  | 25mm   | 53      | Rapid Response Brake/Tail                          |
| P21W    | R382LL   | 12    | 21    | BA15s (SCC)  | 25mm   | 53      | Long Life Brake/Indicator/Reverse/Rear Fog         |
| P24W    | R928     | 12    | 24    | PU20-3       | 18mm   | 82      | HiPervision Brake/Indicator/Reverse/Rear Fog       |
| P27/7W  | R180     | 12    | 27/7  | W2.5 x 16q   | 25.5mm | 76      | Brake & Tail                                       |
| P27W    | R182     | 12    | 27    | W2.5 x 16d   | 25.5mm | 75      | Brake/Indicator/Reverse/Rear Fog                   |
| PC16WY  | R925     | 12    | 16    | PU20d-2      | 20mm   | 78      | Hipervision Indicator - Amber                      |
| PR21/5W | R3780    | 12    | 21/5  | BAW15d       | 25mm   | 59      | Brake/Tail - Silver Red                            |
| PR21/5W | R780     | 12    | 21/5  | BAW15d       | 25mm   | 59      | Brake & Tail - Red                                 |
| PR21W   | R3782    | 12    | 21    | BAW15s       | 25mm   | 55      | Brake-Silver Red                                   |
| PR21W   | R782     | 12    | 21    | BAW15s       | 25mm   | 55      | Brake - Red                                        |
| PS19W   | R12085   | 12    | 19    | PG20-1       | 16mm   | 79      | HiPervision Brake/Indicator/Reverse/Rear Fog       |
| PS24W   | R12086   | 12    | 24    | PG20-3       | 16mm   | 80      | HiPervision Brake/Indicator/Reverse/Rear Fog       |
| PSX24W  | R12276   | 12    | 24    | PG20-7       | 16mm   | 80      | HiPervision Brake/Indicator/Reverse/Rear Fog       |
| PSX26W  | R12278   | 12    | 26    | PG18.5d-3    | 18mm   | 83      | HiPervision Brake/Indicator/Reverse/Rear Fog       |
| PSY19W  | R12275   | 12    | 19    | PG20-2       | 16mm   | 79      | HiPervision Indicator - Amber                      |
| PSY24W  | R12188   | 12    | 24    | PG20-4       | 16mm   | 80      | HiPervision Indicator - Amber                      |
| PW24W   | R12182   | 12    | 24    | WP3.3x14.5-3 |        | 81      | HiPervision Brake/Indicator/Reverse/Rear Fog       |

| ECE     | PART NO. | VOLTS | WATTS | CAP          | SIZE    | DIAGRAM | DESCRIPTION                          |
|---------|----------|-------|-------|--------------|---------|---------|--------------------------------------|
| PY21W   | R3581    | 12    | 21    | BAU15s (OSP) | 25mm    | 54      | Indicator - Silver Amber             |
| PY21W   | R581     | 12    | 21    | BAU15s (OSP) | 25mm    | 54      | Indicator - Amber                    |
| PY21W   | R581LL   | 12    | 21    | BAU15s (OSP) | 25mm    | 54      | Long Life Indicator - Amber          |
| PY21W   | R588     | 24    | 21    | BAU15s (OSP) | 25mm    | 54      | Indicator - Amber                    |
| PY24W   | R12190   | 12    | 24    | PGU20-4      | 16mm    | 80      | HiPervision Indicator - Amber        |
| PY24W   | R12274   | 12    | 24    | PGU20-4      | 16mm    | 80      | HiPervision Indicator - Silver Amber |
| PY27/7W | R183     | 12    | 27/7  | WX2.5 x 16q  | 25.5mm  | 77      | HiPervision Indicator - Amber        |
| R2      | R410     | 12    | 45/40 | P45t         | 40mm    | 44      | Headlamp                             |
| R2      | R423     | 6     | 45/40 | P45t         | 40mm    | 44      | Headlamp                             |
| R2      | R429     | 24    | 55/50 | P45t         | 40mm    | 44      | Headlamp                             |
| R2      | R904     | 12    | 45/40 | P45t         | 17mm    | 4       | Halogen Headlamp                     |
| R5W     | R149     | 24    | 5     | BA15s (SCC)  | 16mm    | 61      | Side & Tail                          |
| R5W     | R150     | 24    | 5     | BA15d (SBC)  | 18mm    | 63      | Side & Tail                          |
| R5W     | R205     | 6     | 5     | BA15s (SCC)  | 16mm    | 61      | Side & Tail                          |
| R5W     | R206     | 6     | 5     | BA15d (SBC)  | 18mm    | 63      | Side & Tail                          |
| R5W     | RW207RR  | 12    | 5     | BA15s (SCC)  | 16mm    | 61      | Rapid Response Side & Tail           |
| R5W     | R207LL   | 12    | 5     | BA15s (SCC)  | 16mm    | 61      | Long Life Side & Tail                |
| R5W     | R209     | 12    | 5     | BA15d (SBC)  | 16mm    | 63      | Side & Tail                          |
| R5W     | R247     | 24    | 5     | BA15d (SBC)  | 16mm    | 63      | Heavy Duty Side & Tail               |
| R5W     | R248     | 24    | 5     | BA15s (SCC)  | 16mm    | 61      | Heavy Duty Side & Tail               |
| R10W    | R244     | 6     | 10    | BA15s (SCC)  | 16mm    | 61      | Side & Tail                          |
| R10W    | R245     | 12    | 10    | BA15s (SCC)  | 16mm    | 61      | Side & Tail                          |
| R10W    | R245LL   | 12    | 10    | BA15s (SCC)  | 16mm    | 61      | Long Life Side & Tail                |
| R10W    | RW245RR  | 12    | 10    | BA15s (SCC)  | 16mm    | 61      | Rapid Response Side & Tail           |
| R10W    | R246     | 24    | 10    | BA15s (SCC)  | 16mm    | 61      | Side & Tail                          |
| R10W    | R295     | 24    | 10    | BA15s (SCC)  | 16mm    | 61      | Heavy Duty Side & Tail               |
| RY10W   | R589     | 12    | 10    | BA15s (SCC)  | 18mm    | 62      | Indicator - Amber                    |
| S1      | R392     | 6     | 25/25 | BA20d Bosch  | 35mm    | 47      | Headlamp                             |
| S1      | R394     | 12    | 25/25 | BA20d Bosch  | 35mm    | 47      | Headlamp                             |
| S2      | R393     | 6     | 35/35 | BA20d Bosch  | 35mm    | 47      | Headlamp                             |
| S2      | R395     | 12    | 35/35 | BA20d Bosch  | 35mm    | 47      | Headlamp                             |
| S2      | R417     | 12    | 35/35 | BA20d Bosch  | 14mm    | 34      | Halogen Headlamp                     |
| S3      | R609     | 6     | 15    | P26s         | 25mm    | 31      | Headlamp                             |
| S3      | R610     | 12    | 15    | P26s         | 25mm    | 31      | Headlamp                             |
| T4W     | R833     | 12    | 4     | BA9s (MCC)   | Tub.9mm | 65      | Ring IceBlue Side & Tail             |
| T4W     | R233     | 12    | 4     | BA9s (MCC)   | 9mm     | 65      | Side & Tail                          |
| T4W     | R233LL   | 12    | 4     | BA9s (MCC)   | 9mm     | 65      | Long Life Side & Tail                |
| T4W     | R249     | 24    | 4     | BA9s (MCC)   | 9mm     | 65      | Side & Tail                          |
| T4W     | R293     | 6     | 4     | BA9s (MCC)   | 9mm     | 65      | Side & Tail                          |
| T4W     | R296     | 24    | 4     | BA9s (MCC)   | 9mm     | 65      | Heavy Duty Side & Tail               |
| W16W    | R955     | 12    | 16    | W2.1 x 9.5d  | 16mm    | 70      | Brake/Indicator/Reverse/Rear Fog     |
| W2.3W   | R284     | 12    | 2.3   | W2 x 4.6d    | 5mm     | 95      | Panel                                |
| W21/5W  | R580     | 12    | 21/5  | W3 x 16q     | 20.5mm  | 74      | Brake/Tail                           |
| W21W    | R582     | 12    | 21    | W3 x 16d     | 20.5mm  | 72      | Brake/Indicator/Reverse/Rear Fog     |
| W3W     | R504     | 12    | 3     | W2.1 x 9.5d  | 10mm    | 67      | Side & Tail/Panel/Interior           |
| W3W     | R505     | 24    | 3     | W2.1 x 9.5d  | 10mm    | 67      | Side & Tail/Panel/Interior           |
| W5W     | R1401    | 12    | 5     | W2.1 x 9.5d  | 10mm    | 67      | Ring Xenon4000 Side & Tail           |
| W5W     | R501HD   | 12    | 5     | W2.1 x 9.5d  | 10mm    | 67      | Heavy Duty Side & Tail               |
| W5W     | R501     | 12    | 5     | W2.1 x 9.5d  | 10mm    | 67      | Side & Tail/Panel/Interior           |
| W5W     | R501LL   | 12    | 5     | W2.1 x 9.5d  | 10mm    | 67      | Long Life Side & Tail                |
| W5W     | R507     | 24    | 5     | W2.1 x 9.5d  | 10mm    | 67      | Side & Tail/Panel/Interior           |
| W5W     | R801     | 12    | 5     | W2.1 x 9.5d  | 10mm    | 67      | Ring IceBlue Side & Tail/ Interior   |
| (W5W)   | R516     | 12    | 5     | W2.1 x 9.5d  | 10mm    | 90      | Miniature Halogen - Blue             |
| WY16W   | R958     | 12    | 16    | W2.1 x 9.5d  | 16mm    | 71      | Indicator - Amber                    |
| WY2.3W  | R284A    | 12    | 2.3   | W2 x 4.6d    | 5mm     | 95      | Indicator - Amber                    |
| WY21W   | R585     | 12    | 21    | W3 x 16d     | 20.5mm  | 73      | Indicator - Amber                    |
| WY5W    | R501A    | 12    | 5     | W2.1 x 9.5d  | 10mm    | 67      | Indicator - Amber                    |

# Vehicle Lighting

| Part No. | Volts | Watts      | ECE     | Cap          | Size      | Diagram | Description                                  |
|----------|-------|------------|---------|--------------|-----------|---------|----------------------------------------------|
| R002     | 12    | 36         |         | BA15s SCC    | 38mm      | 46      | Headlamp                                     |
| R005     | 12    | 36         |         | BA15d SBC    | 38mm      | 45      | Headlamp                                     |
| R012     | 12    | 60/55      | H4      | P45t H4 UEC  | 17mm      | 4       | Halogen Headlamp                             |
| R024     | 24    | 75/70      | (H4)    | P45t H4 UEC  | 17mm      | 4       | Halogen Headlamp                             |
| R1003    | 12    | 15CP       |         | BA15s (SCC)  | 25mm      | 53      | Caravan & Interior                           |
| R1030    | 14    | 0.9 (65mA) |         | W2 x 4.6d    | 5mm       | 95      | Panel                                        |
| R1184P   | 24    | 22         |         | B22d LBC     | 38mm      | 133     | Bus Interior- Pearl                          |
| R12085   | 12    | 19         | PS19W   | PG20-1       | 16mm      | 79      | HiPervision Brake/Indicator/Reverse/Rear Fog |
| R12086   | 12    | 24         | PS24W   | PG20-3       | 16mm      | 80      | HiPervision Brake/Indicator/Reverse/Rear Fog |
| R12182   | 12    | 24         | PW24W   | WP3.3x14.5-3 |           | 81      | HiPervision Brake/Indicator/Reverse/Rear Fog |
| R12188   | 12    | 24         | PSY24W  | PG20-4       | 16mm      | 80      | HiPervision Indicator - Amber                |
| R12190   | 12    | 24         | PY24W   | PGU20-4      | 16mm      | 80      | HiPervision Indicator - Amber                |
| R12274   | 12    | 24         | PY24W   | PGU20-4      | 16mm      | 80      | HiPervision Indicator - Silver Amber         |
| R12275   | 12    | 19         | PSY19W  | PG20-2       | 16mm      | 79      | HiPervision Indicator - Amber                |
| R12276   | 12    | 24         | PSX24W  | PG20-7       | 16mm      | 80      | HiPervision Brake/Indicator/Reverse/Rear Fog |
| R12277   | 12    | 13         | P13W    | PG18.5d-1    | 20mm      | 78      | HiPervision Day Time Running                 |
| R12278   | 12    | 26         | PSX26W  | PG18.5d-3    | 18mm      | 83      | HiPervision Brake/Indicator/Reverse/Rear Fog |
| R1401    | 12    | 5          | W5W     | W2.1 x 9.5d  | 10mm      | 67      | Ring Xenon4000 Side & Tail                   |
| R143     | 24    | 2.8        |         | BA9s (MCC)   |           | 65      | Panel/Interior                               |
| R1471    | 24    | 1.2 (40mA) |         | BAX EBSR     | 5mm       | 109     | Panel - Brown Base                           |
| R149     | 24    | 5          | R5W     | BA15s (SCC)  | 16mm      | 61      | Side & Tail                                  |
| R150     | 24    | 5          | R5W     | BA15d (SBC)  | 18mm      | 63      | Side & Tail                                  |
| R1512    | 12    | 55         | HIR2    | PX22D        | 20mm      | 22      | Ring Xenon150 Halogen Headlamp               |
| R1590    | 48    | 5          |         | BA9s (MCC)   | Tub.9mm   | 65      | Side & Tail                                  |
| R1791    | 24    | 1.2 (53mA) |         | BAX EBSR     | 5mm       | 109     | Panel - Yellow Base                          |
| R1791LED | 24    | 1.2        |         | BAX EBSR     | 5mm       | 134     | Panel - Yellow Base                          |
| R180     | 12    | 27/7       | P27/7W  | W2.5 x 16q   | 25.5mm    | 76      | Brake & Tail                                 |
| R182     | 12    | 27         | P27W    | W2.5 x 16d   | 25.5mm    | 75      | Brake/Indicator/Reverse/Rear Fog             |
| R183     | 12    | 27/7       | PY27/7W | WX2.5 x 16q  | 25.5mm    | 77      | HiPervision Indicator - Amber                |
| R184     | 12    | 27         |         | W2.5x16d     | 25.5mm    | 75      | Indicator - Amber                            |
| R185     | 12    | 48         |         | P36s         | 28mm      | 48      | Headlamp                                     |
| R205     | 6     | 5          | R5W     | BA15s (SCC)  | 16mm      | 61      | Side & Tail                                  |
| R206     | 6     | 5          | R5W     | BA15d (SBC)  | 18mm      | 63      | Side & Tail                                  |
| R207LL   | 12    | 5          | R5W     | BA15s (SCC)  | 16mm      | 61      | Long Life Side & Tail                        |
| R209     | 12    | 5          | R5W     | BA15d (SBC)  | 16mm      | 63      | Side & Tail                                  |
| R210     | 12    | 10         |         | BA15d (SBC)  | 16mm      | 63      | Side & Tail                                  |
| R227     | 24    | 5          |         | BA9s (MCC)   | 15mm      | 66      | Side & Tail                                  |
| R233     | 12    | 4          | T4W     | BA9s (MCC)   | 9mm       | 65      | Side & Tail                                  |
| R233LL   | 12    | 4          | T4W     | BA9s (MCC)   | 9mm       | 65      | Long Life Side & Tail                        |
| R237     | 12    | 7          |         | S8.5d        | 10 x 40mm | 84      | Festoon                                      |
| R239     | 12    | 5          | C5W     | S8.5d        | 11 x 38mm | 84      | Festoon                                      |
| R239LL   | 12    | 5          | C5W     | S8.5d        | 11 x 38mm | 84      | Long Life Festoon                            |
| R240     | 12    | 15         |         | BA15s (SCC)  | 25mm      | 53      | Side & Tail                                  |
| R2401LED | 24    | 20mA       |         | Bi-Pin       | 3mm       | 133     | Panel - LED Black Base                       |
| R241     | 24    | 21         | P21W    | BA15s (SCC)  | 25mm      | 53      | Brake/Indicator/Reverse/Rear Fog             |
| R242     | 24    | 5          | C5W     | S8.5d        | 11 x 38mm | 84      | Festoon                                      |
| R242G    | 24    | 5          |         | S8.5d        | 11 x 38mm | 84      | Festoon - Green                              |
| R243     | 24    | 15         |         | BA15s (SCC)  | 25mm      | 53      | Side & Tail                                  |
| R244     | 6     | 10         | R10W    | BA15s (SCC)  | 16mm      | 61      | Side & Tail                                  |
| R245     | 12    | 10         | R10W    | BA15s (SCC)  | 16mm      | 61      | Side & Tail                                  |
| R245LL   | 12    | 10         | R10W    | BA15s (SCC)  | 16mm      | 61      | Long Life Side & Tail                        |
| R246     | 24    | 10         | R10W    | BA15s (SCC)  | 16mm      | 61      | Side & Tail                                  |
| R247     | 24    | 5          | R5W     | BA15d (SBC)  | 16mm      | 63      | Heavy Duty Side & Tail                       |
| R248     | 24    | 5          | R5W     | BA15s (SCC)  | 16mm      | 61      | Heavy Duty Side & Tail                       |
| R249     | 24    | 4          | T4W     | BA9s (MCC)   | 9mm       | 65      | Side & Tail                                  |
| R249G    | 24    | 4          |         | BA9s (MCC)   | 9mm       | 65      | Interior - Green                             |
| R253     | 6     | 5          | C5W     | S8.5d        | 11 x 38mm | 84      | Festoon                                      |
| R254     | 12    | 6          |         | S8.5d        | 11 x 38mm | 84      | Festoon                                      |
| R256     | 12    | 3          |         | S7d          | 8 x 38mm  | 86      | Festoon                                      |
| R258     | 12    | 5          |         | S8.5d        | 11 x 42mm | 84      | Festoon                                      |
| R260     | 24    | 5          |         | S8.5d        | 11 x 42mm | 84      | Festoon                                      |
| R261     | 12    | 5          |         | S7d          | 8 x 26mm  | 86      | Festoon                                      |
| R263     | 12    | 3          |         | S7d          | 8 x 31mm  | 86      | Festoon                                      |
| R264     | 12    | 10         |         | S8.5d        | 11 x 44mm | 84      | Festoon                                      |

| PART NO. | VOLTS | WATTS      | ECE     | CAP           | SIZE      | DIAGRAM | DESCRIPTION                                 |
|----------|-------|------------|---------|---------------|-----------|---------|---------------------------------------------|
| R265     | 12    | 10         |         | S8.5d         | 15 x 44mm | 85      | Festoon                                     |
| R266     | 6     | 15         |         | S8.5d         | 15 x 44mm | 85      | Festoon                                     |
| R267     | 12    | 15         |         | S8.5d         | 15 x 44mm | 85      | Festoon                                     |
| R268     | 12    | 3          |         | S6d           | 6 x 36mm  | 86      | Festoon                                     |
| R269     | 12    | 10         |         | S8.5d         | 11 x 30mm | 84      | Festoon                                     |
| R270     | 12    | 18         |         | S8.5d         | 15 x 44mm | 85      | Festoon                                     |
| R271     | 24    | 3          |         | S6d           | 7 x 30mm  | 86      | Festoon                                     |
| R272     | 12    | 10         |         | S8.5d         | 11 x 38mm | 84      | Festoon                                     |
| R273     | 12    | 21         | C21W    | S8.5d         | 15 x 44mm | 85      | Festoon                                     |
| R274     | 24    | 10         |         | S8.5d         | 11 x 41mm | 84      | Festoon                                     |
| R275     | 24    | 21         |         | S8.5d         | 15 x 44mm | 85      | Festoon                                     |
| R276     | 24    | 18         |         | S8.5d         | 15 x 44mm | 85      | Festoon                                     |
| R280     | 12    | 1.5        |         | E5/8          | 7mm       | 98      | Panel                                       |
| R281     | 12    | 2          |         | BA7s          | 7mm       | 102     | Panel                                       |
| R282     | 6     | 1.2        |         | BA7s          | 7mm       | 102     | Panel                                       |
| R283     | 24    | 3          |         | BA7s          | 7mm       | 102     | Panel                                       |
| R284     | 12    | 2.3        | W2.3W   | W2 x 4.6d     | 5mm       | 95      | Panel                                       |
| R284A    | 12    | 2.3        | WY2.3W  | W2 x 4.6d     | 5mm       | 95      | Indicator - Amber                           |
| R286     | 12    | 1.2        |         | W2 x 4.6d     | 5mm       | 95      | Panel                                       |
| R286A    | 12    | 1.2        |         | W2 x 4.6d     | 5mm       | 95      | Panel - Amber                               |
| R286B    | 12    | 1.2        |         | W2 x 4.6d     | 5mm       | 95      | Panel - Blue                                |
| R286G    | 12    | 1.2        |         | W2 x 4.6d     | 5mm       | 95      | Panel - Green                               |
| R286R    | 12    | 1.2        |         | W2 x 4.6d     | 5mm       | 95      | Panel - Red                                 |
| R287     | 6     | 2          |         | BA9s MCC      | 9mm       | 103     | Panel                                       |
| R288     | 12    | 2          |         | BA9s MCC      | 9mm       | 103     | Panel                                       |
| R289     | 24    | 2          |         | BA9s MCC      | 9mm       | 103     | Panel                                       |
| R290     | 24    | 21         | P21W    | BA15s (SCC)   | 25mm      | 53      | Heavy Duty Brake/Indicator/Reverse/Rear Fog |
| R291     | 24    | 21         | P21W    | BA15d (SBC)   | 25mm      | 56      | Heavy Duty Brake/Indicator/Reverse/Rear Fog |
| R293     | 6     | 4          | T4W     | BA9s (MCC)    | 9mm       | 65      | Side & Tail                                 |
| R294     | 24    | 21/5       | P21/5W  | BAY15d (OSP)  | 25mm      | 58      | Brake/Tail                                  |
| R295     | 24    | 10         | R10W    | BA15s (SCC)   | 16mm      | 61      | Heavy Duty Side & Tail                      |
| R296     | 24    | 4          | T4W     | BA9s (MCC)    | 9mm       | 65      | Heavy Duty Side & Tail                      |
| R297     | 12    | 2.2        |         | W2.1 x 9.5d   | 10mm      | 67      | Panel                                       |
| R298     | 24    | 2.2        |         | W2.1 x 9.5d   | 10mm      | 67      | Panel                                       |
| R312     | 6     | 30/24      |         | P36d          | 28mm      | 51      | Headlamp                                    |
| R317     | 6     | 21         | P21W    | BA15s (SCC)   | 25mm      | 53      | Brake/Indicator/Reverse/Rear Fog            |
| R319     | 6     | 21         | P21W    | BA15d (SBC)   | 25mm      | 56      | Brake/Indicator/Reverse/Rear Fog            |
| R32/3    | 12    | 32/4 CP    |         | BAY15d (OSP)  | 25mm      | 58      | Daylight Running                            |
| R330     | 24    | 44         |         | P36d          | 28mm      | 49      | Headlamp                                    |
| R331     | 24    | 44         |         | P36d          | 28mm      | 52      | Headlamp                                    |
| R333     | 24    | 24         |         | BA15d (SBC)   | 25mm      | 56      | Brake/Indicator/Reverse/Rear Fog            |
| R334     | 24    | 24/6       |         | BAY15d (OSP)  | 25mm      | 58      | Brake/Tail                                  |
| R335     | 12    | 21         | P21W    | BA15d (SBC)   | 25mm      | 56      | Brake/Indicator/Reverse/Rear Fog            |
| R339     | 24    | 24         |         | BA15s (SCC)   | 25mm      | 53      | Brake/Indicator/Reverse/Rear Fog            |
| R343     | 12    | 21         |         | BA15s (SCC)   | 25mm      | 53      | Indicator - Amber                           |
| R344     | 28    | 26         |         | BA15d (SBC)   | 25mm      | 56      | Brake/Indicator/Reverse/Rear Fog            |
| R345     | 28    | 26         |         | BA15s (SCC)   | 25mm      | 53      | Brake/Indicator/Reverse/Rear Fog            |
| R346     | 24    | 21         | P21W    | BA15d (SBC)   | 25mm      | 56      | Brake/Indicator/Reverse/Rear Fog            |
| R347     | 24    | 21         |         | BA15s (SCC)   | 25mm      | 53      | Indicator - Amber                           |
| R3581    | 12    | 21         | PY21W   | BAU15s (OSP)  | 25mm      | 54      | Indicator - Silver Amber                    |
| R3603    | 12    | 25/25      |         | PX15D         | 19mm      | 32      | Motorcycle Headlamp                         |
| R3625    | 6     | 25/25      |         | PX15D         | 19mm      | 32      | Motorcycle Headlamp                         |
| R3780    | 12    | 21/5       | PR21/5W | BAW15d        | 25mm      | 59      | Brake/Tail - Silver Red                     |
| R3782    | 12    | 21         | PR21W   | BAW15s        | 25mm      | 55      | Brake-Silver Red                            |
| R380     | 12    | 21/5       | P21/5W  | BAY15d (OSP)  | 25mm      | 58      | Brake/Tail                                  |
| R380LL   | 12    | 21/5       | P21/5W  | BAY15d (OSP)  | 25mm      | 58      | Long Life Brake/Tail                        |
| R381     | 12    | 21/5       |         | BA15d (SBC)   | 25mm      | 57      | Brake/Tail                                  |
| R382LL   | 12    | 21         | P21W    | BA15s (SCC)   | 25mm      | 53      | Long Life Brake/Indicator/Reverse/Rear Fog  |
| R383     | 6     | 21/5       |         | BA15d (SBC)   | 25mm      | 57      | Brake/Tail                                  |
| R384     | 6     | 21/5       | P21/5W  | BAY15d (OSP)  | 25mm      | 58      | Brake/Tail                                  |
| R385     | 12    | 18         |         | BA15s (SCC)   | 25mm      | 53      | Side & Tail                                 |
| R388     | 28    | 1.2 (40mA) |         | Midget groove | 6mm       | 100     | Panel                                       |
| R392     | 6     | 25/25      | S1      | BA20d Bosch   | 35mm      | 47      | Headlamp                                    |
| R393     | 6     | 35/35      | S2      | BA20d Bosch   | 35mm      | 47      | Headlamp                                    |

# Vehicle Lighting

| PART NO. | VOLTS | WATTS | ECE   | CAP          | SIZE   | DIAGRAM | DESCRIPTION                                        |
|----------|-------|-------|-------|--------------|--------|---------|----------------------------------------------------|
| R394     | 12    | 25/25 | S1    | BA20d Bosch  | 35mm   | 47      | Headlamp                                           |
| R395     | 12    | 35/35 | S2    | BA20d Bosch  | 35mm   | 47      | Headlamp                                           |
| R396     | 12    | 45/40 |       | BA20d Bosch  | 35mm   | 47      | Headlamp                                           |
| R398     | 24    | 45/40 |       | BA20d Bosch  | 35mm   | 47      | Headlamp                                           |
| R410     | 12    | 45/40 | R2    | P45t         | 40mm   | 44      | Headlamp                                           |
| R416     | 12    | 60/60 |       | P45t ASY UEC | 40mm   | 44      | Headlamp                                           |
| R417     | 12    | 35/35 | S2    | BA20d Bosch  | 14mm   | 34      | Halogen Headlamp                                   |
| R418     | 12    | 23    |       | BA9s (MCC)   | 9mm    | 87      | Miniature Halogen - Amber                          |
| R4187    | 48    | 10    |       | BA15s (SCC)  | 16mm   | 61      | Side & Tail                                        |
| R419     | 12    | 23    |       | BA9s (MCC)   | 9mm    | 87      | Miniature Halogen Brake/Indicator/Reverse/Rear Fog |
| R4192    | 48    | 10    |       | BAY15d (OSP) | 18mm   | 64      | Side & Tail                                        |
| R423     | 6     | 45/40 | R2    | P45t         | 40mm   | 44      | Headlamp                                           |
| R42302   | 42    | 35    | D3S   | PK32d-5      | 9mm    | 26      | Gas Discharge Headlamp                             |
| R42306   | 42    | 35    | D3R   | PK32d-6      | 9mm    | 27      | Gas Discharge Headlamp                             |
| R42402   | 42    | 35    | D4S   | P32d-5       | 9mm    | 28      | Gas Discharge Headlamp                             |
| R42406   | 42    | 35    | D4R   | P32d-6       | 9mm    | 29      | Gas Discharge Headlamp                             |
| R429     | 24    | 55/50 | R2    | P45t         | 40mm   | 44      | Headlamp                                           |
| R433     | 12    | 20    |       | BA9s (MCC)   | 9mm    | 87      | Miniature Halogen Brake/Indicator/Reverse/Rear Fog |
| R434     | 12    | 6     | H6W   | BAX9s        | 9mm    | 88      | Miniature Halogen                                  |
| R435     | 12    | 21    | H21W  | BAY9s        | 9mm    | 91      | Miniature Halogen Brake/Indicator/Reverse/Rear Fog |
| R436     | 24    | 12    |       | BA15d (SBC)  | 25mm   | 56      | Bus Interior                                       |
| R441     | 36    | 45    | (H3)  | PK22s        | 11.5mm | 3       | Halogen Accessory Lamp                             |
| R442     | 48    | 45    | (H3)  | PK22s        | 11.5mm | 3       | Halogen Accessory Lamp                             |
| R443     | 80    | 55    | (H3)  | PK22s        | 11.5mm | 3       | Halogen Accessory Lamp                             |
| R444     | 24    | 50    | (H3)  | PK22s        | 11.5mm | 3       | Halogen Accessory Lamp                             |
| R4048    | 12    | 55    | H1    | P14.5s       | 10mm   | 1       | Ring Xenon4000 Halogen Headlamp                    |
| R445     | 12    | 10    | (H3)  | PK22s        | 11.5mm | 3       | Halogen Accessory Lamp                             |
| R446     | 12    | 20    | PK22s | (H3)         | 11.5mm | 3       | Halogen Accessory Lamp                             |
| R447     | 12    | 55    | H3C   | PK22s        | 11.5mm | 43      | Halogen Accessory Lamp                             |
| R448     | 12    | 55    | H1    | P14.5s       | 10mm   | 1       | Halogen Headlamp                                   |
| R448EQ   | 12    | 55    | H1A   | P14.5s       | 10mm   | 1       | EQ Halogen Headlamp                                |
| R448LL   | 12    | 55    | H1    | P14.5s       | 10mm   | 1       | Long Life Halogen Headlamp                         |
| R449     | 24    | 35    | (H3)  | PK22s        | 11.5mm | 3       | Halogen Accessory Lamp                             |
| R453     | 12    | 55    | H3    | PK22s        | 11.5mm | 3       | Halogen Accessory Lamp                             |
| R453LL   | 12    | 55    | H3    | PK22s        | 11.5mm | 3       | Long Life Halogen Accessory Lamp                   |
| R454     | 24    | 100   | (H7)  | PX26d        | 11.6mm | 10      | High Wattage Halogen Headlamp                      |
| R455     | 6     | 55    | H3    | PK22s        | 11.5mm | 3       | Halogen Accessory Lamp                             |
| R456     | 6     | 15    | (H3)  | PK22s        | 11.5mm | 3       | Halogen Accessory Lamp                             |
| R457     | 6     | 25    | (H3)  | PK22s        | 11.5mm | 3       | Halogen Accessory Lamp                             |
| R458     | 24    | 70    | H11   | PGJ19-2      | 11.6mm | 16      | Halogen Headlamp                                   |
| R458HD   | 24    | 70    | H11   | PGJ19-2      | 11.6mm | 16      | Heavy Duty Halogen Headlamp                        |
| R459     | 12    | 35/35 | HS1   | PX43t        | 17mm   | 5       | Halogen Headlamp                                   |
| R4598    | 48    | 25    |       | BA15s (SCC)  | 25mm   | 53      | Brake/Indicator/Reverse/Rear Fog                   |
| R460     | 24    | 70    | H3    | PK22s        | 11.5mm | 3       | Halogen Accessory Lamp                             |
| R460HD   | 24    | 70    | H3    | PK22s        | 11.5mm | 3       | Heavy Duty Halogen Accessory Lamp                  |
| R462     | 12    | 35    | (H3)  | PK22s        | 11.5mm | 3       | Halogen Accessory Lamp                             |
| R465     | 6     | 55    | H1    | P14.5s       | 10mm   | 1       | Halogen Headlamp                                   |
| R466     | 24    | 70    | H1    | P14.5s       | 10mm   | 1       | Halogen Headlamp                                   |
| R466HD   | 24    | 70    | H1    | P14.5s       | 10mm   | 1       | Heavy Duty Halogen Headlamp                        |
| R467     | 12    | 5     |       | BA15s (SCC)  | 9mm    | 93      | Miniature Halogen Caravan & Interior               |
| R468     | 12    | 10    |       | BA15s (SCC)  | 9mm    | 93      | Miniature Halogen Caravan & Interior               |
| R469     | 12    | 5     |       | BA9s (MCC)   | 9mm    | 87      | Miniature Halogen Caravan & Interior               |
| R470     | 12    | 10    |       | BA9s (MCC)   | 9mm    | 87      | Miniature Halogen Caravan & Interior               |
| R472     | 12    | 60/55 | H4    | P43t         | 17mm   | 5       | Halogen Headlamp                                   |
| R472EQ   | 12    | 60/55 | H4    | P43t         | 17mm   | 5       | EQ Halogen Headlamp                                |
| R472HD   | 12    | 60/55 | H4    | P43t         | 17mm   | 5       | Heavy Duty Halogen Headlamp                        |
| R472LL   | 12    | 60/55 | H4    | P43t         | 17mm   | 5       | Long Life Halogen Headlamp                         |
| R474     | 24    | 70    | H7    | PX26d        | 11.6mm | 10      | Halogen Headlamp                                   |
| R474HD   | 24    | 70    | H7    | PX26d        | 11.6mm | 10      | Heavy Duty Halogen Headlamp                        |
| R475     | 24    | 75/70 | H4    | P43t         | 17mm   | 5       | Halogen Headlamp                                   |
| R475HD   | 24    | 75/70 | H4    | P43t         | 17mm   | 5       | Heavy Duty Halogen Headlamp                        |
| R477     | 12    | 55    | H7    | PX26d        | 11.6mm | 10      | Halogen Headlamp                                   |
| R477EL   | 12    | 55    | H7    | PX26d        | 11.6mm | 10      | Extra Life Halogen Headlamp                        |
| R477EQ   | 12    | 55    | H7    | PX26d        | 11.6mm | 10      | EQ Halogen Headlamp                                |

| PART NO.     | VOLTS | WATTS      | ECE  | CAP          | SIZE   | DIAGRAM | DESCRIPTION                                          |
|--------------|-------|------------|------|--------------|--------|---------|------------------------------------------------------|
| R477LL       | 12    | 55         | H7   | PX26d        | 11.6mm | 10      | Long Life Halogen Headlamp                           |
| R479         | 12    | 55         | (H2) | X511         | 9mm    | 2       | Halogen Accessory Lamp                               |
| R481         | 12    | 100        | (H1) | P14.5s       | 10mm   | 1       | Ring Rally Sport High Wattage Halogen Headlamp       |
| R482         | 24    | 70         | (H2) | X511         | 9mm    | 2       | High Wattage Halogen Accessory Lamp                  |
| R4896        | 48    | 25/10      |      | BAY15d (OSP) | 25mm   | 58      | Brake & Tail                                         |
| R493         | 24    | 100        | (H1) | P14.5s       | 10mm   | 1       | High Wattage Halogen Headlamp                        |
| R494         | 24    | 100        | (H2) | X511         | 9mm    | 2       | Ring Rally Sport High Wattage Halogen Accessory Lamp |
| R495         | 24    | 100        | (H3) | PK22s        | 11.5mm | 3       | Ring Rally Sport High Wattage Halogen Accessory Lamp |
| R496         | 24    | 100/80     | H4   | P43t         | 17mm   | 5       | Ring Rally Sport High Wattage Halogen Headlamp       |
| R497         | 24    | 100/80     | H4   | P45t         | 17mm   | 4       | Ring Rally Sport High Wattage Halogen Headlamp       |
| R498         | 24    | 130/90     | H4   | P43t         | 17mm   | 5       | Ring Rally Sport High Wattage Halogen Headlamp       |
| R501         | 12    | 5          | W5W  | W2.1 x 9.5d  | 10mm   | 67      | Side & Tail/Panel/Interior                           |
| R501A        | 12    | 5          | WY5W | W2.1 x 9.5d  | 10mm   | 67      | Indicator - Amber                                    |
| R501HD       | 12    | 5          | W5W  | W2.1 x 9.5d  | 10mm   | 67      | Heavy Duty Side & Tail                               |
| R501LL       | 12    | 5          | W5W  | W2.1 x 9.5d  | 10mm   | 67      | Long Life Side & Tail                                |
| R504         | 12    | 3          | W3W  | W2.1 x 9.5d  | 10mm   | 67      | Side & Tail/Panel/Interior                           |
| R505         | 24    | 3          | W3W  | W2.1 x 9.5d  | 10mm   | 67      | Side & Tail/Panel/Interior                           |
| R506         | 12    | 6          |      | W2.1 x 9.5d  | 10mm   | 67      | Side & Tail / Interior                               |
| R507         | 24    | 5          | W5W  | W2.1 x 9.5d  | 10mm   | 67      | Side & Tail/Panel/Interior                           |
| R507B        | 24    | 5          |      | W2.1 x 9.5d  | 10mm   | 67      | Panel/Interior - Blue                                |
| R508         | 24    | 1.2        |      | W2 x 4.6d    | 5mm    | 95      | Panel                                                |
| R508A        | 24    | 1.2        |      | W2 x 4.6d    | 5mm    | 95      | Panel - Amber Base                                   |
| R508B        | 24    | 1.2        |      | W2 x 4.6d    | 5mm    | 95      | Panel - Blue Base                                    |
| R508G        | 24    | 1.2        |      | W2 x 4.6d    | 5mm    | 95      | Panel - Green Base                                   |
| R508R        | 24    | 1.2        |      | W2 x 4.6d    | 5mm    | 95      | Panel - Red Base                                     |
| R508T        | 24    | 1.2        |      | B8.5D        | 5mm    | 105     | Panel - Grey Base                                    |
| R508TBGY     | 24    | 1.2        |      | B8.3D        | 5mm    | 108     | Panel - Grey Base                                    |
| R508TBR      | 24    | 1.2        |      | BX8.5D       | 5mm    | 105     | Panel - Brown Base                                   |
| R508TCTR     | 24    | 1.2        |      | KW2 x 4.6D   | 5mm    | 114     | Panel - Transparent Base                             |
| R508TCWH     | 24    | 1.2        |      | KW2 x 4.6D   | 5mm    | 114     | Panel - White Base                                   |
| R508TD       | 24    | 1          |      | KW2 x 4.6D   | 5mm    | 114     | Panel - White Base                                   |
| R508TLED     | 24    | 1.2        |      | BX8.5D       | 5mm    | 132     | LED Panel - Grey Base                                |
| R508TMGR     | 24    | 1.4        |      | B8.4D        | 5mm    | 104     | Panel - Light Green Base                             |
| R508TMRE     | 24    | 1.5        |      | BX8.4D       | 5mm    | 104     | Panel - Red Base                                     |
| R508TUWH     | 24    | 2.4        |      | B9           | 5mm    | 116     | Panel - White Base                                   |
| R508TVWH     | 24    | 1.4        |      | B29          | 5mm    | 117     | Panel - White Base                                   |
| R508TWBR     | 24    | 1.2        |      | B8.7D        | 5mm    | 106     | Panel - Brown Base                                   |
| R509T        | 12    | 1.2        |      | B8.5D        | 5mm    | 105     | Panel - Black Base                                   |
| R509TBBK     | 12    | 1.2        |      | B8.3D        | 5mm    | 108     | Panel - Black Base                                   |
| R509TBE      | 12    | 1.5        |      | B8.5D        | 5mm    | 105     | Panel - Beige Base                                   |
| R509TBL      | 12    | 1.2        |      | BX8.5D       | 5mm    | 105     | Panel - L Blue Base                                  |
| R509TBWH     | 12    | 2          |      | B8.3D        | 5mm    | 108     | Panel - White Base                                   |
| R509TCGY     | 12    | 0.5        |      | KW2 x 4.6D   | 5mm    | 114     | Panel - Grey Base                                    |
| R509TCGY/1.8 | 12    | 1.8        |      | KW2 x 4.6D   | 5mm    | 114     | Panel - Grey Base                                    |
| R509TCTR     | 12    | 1.2        |      | KW2 x 4.6D   | 5mm    | 114     | Panel - Transparent Base                             |
| R509TCWH     | 12    | 1.2        |      | KW2 x 4.6D   | 5mm    | 114     | Panel - White Base                                   |
| R509TDBK     | 12    | 1.2        |      | T-1/4NW      | 5mm    | 112     | Panel - Black Base                                   |
| R509TEBK     | 12    | 1.2        |      | BX2D         | 5mm    | 111     | Panel - Black Base                                   |
| R509TFBK/12  | 12    | 1.2        |      | F4.8         | 5mm    | 107     | Panel - Black Base                                   |
| R509TFBK/14  | 14    | 1.4        |      | F4.8         | 5mm    | 107     | Panel - Black Base                                   |
| R509TFGY     | 12    | 1.8        |      | F4.8         | 5mm    | 107     | Panel - Grey Base                                    |
| R509TGR      | 12    | 2          |      | B8.5D        | 5mm    | 105     | Panel - Green Base                                   |
| R509THGY     | 14    | 1.2 (60mA) |      | T-1.1/2TW    | 5mm    | 113     | Panel - Grey Base                                    |
| R509TJBR     | 14    | 1.2 (65mA) |      | T3           | 3mm    | 118     | Panel - Brown Base                                   |
| R509TKBK     | 12    | 1.2        |      | B8.5 S/40    | 5mm    | 119     | Panel - Black Base                                   |
| R509TLBK     | 12    | 1.2        |      | BG8.5-5.5D   | 5mm    | 120     | Panel - Black Base                                   |
| R509TMBE     | 12    | 1.5        |      | BX8.4D       | 5mm    | 104     | Panel - Beige Base                                   |
| R509TMBK     | 12    | 1.2        |      | BX8.4D       | 5mm    | 104     | Panel - Black Base                                   |
| R509TMLB     | 12    | 1.2        |      | B8.4D        | 5mm    | 104     | Panel - Blue Base                                    |
| R509TMGR     | 12    | 2          |      | BX8.4D       | 5mm    | 104     | Panel - Green Base                                   |
| R509TMGY     | 12    | 0.5        |      | BX8.4D       | 5mm    | 104     | Panel - Grey Base                                    |
| R509TMOR     | 12    | 1.12       |      | BX8.4D       | 5mm    | 104     | Panel - Orange Base                                  |
| R509TOR      | 12    | 1          |      | BX8.5D       | 5mm    | 105     | Panel - Orange Base                                  |
| R509TPBK     | 12    | 1.2        |      | SG8-5.5D     | 5mm    | 121     | Panel - Black Base                                   |

# Vehicle Lighting

| PART NO. | VOLTS | WATTS      | ECE     | CAP             | SIZE      | DIAGRAM | DESCRIPTION                                        |
|----------|-------|------------|---------|-----------------|-----------|---------|----------------------------------------------------|
| R509TQWH | 14    | 1.2 (65mA) |         | T3              | 3mm       | 122     | Panel - White Base                                 |
| R509TSBK | 14    | 1CP        |         | B11D            | 7mm       | 123     | Panel - Black Base                                 |
| R509TVI  | 12    | 0.4        |         | BX8.5D          | 7mm       | 105     | Panel -Violet Base                                 |
| R509TWGY | 12    | 1.2        |         | B8.7D           | 5mm       | 106     | Panel - Grey Base                                  |
| R509TYBK | 14    | 1.4        |         | T5              | 5mm       | 124     | Panel - Black Base                                 |
| R512PCB  | 12    | 2CP        |         | P.C.B.          | 9mm       | 128     | Panel - White Base                                 |
| R512TR   | 12    | 2CP        |         | B12.3D          | 9mm       | 129     | Panel - White Base                                 |
| R512WB   | 12    | 2          |         | KW 2.1 x 9.5D   | 10mm      | 125     | Panel - White Base                                 |
| R513BWH  | 24    | 1.5        |         | BA9d            | 13mm      | 115     | Panel - White Base                                 |
| R516     | 12    | 5          | (W5W)   | W2.1x9.5d       | 10mm      | 90      | Miniature Halogen - Blue                           |
| R535     | 24    | 21         | H21W    | BAY9s           | 9mm       | 91      | Miniature Halogen Brake/Indicator/Reverse/Rear Fog |
| R566     | 12    | 21/4       | P21/4W  | BAZ15d          | 25mm      | 60      | Fog/Tail                                           |
| R567     | 24    | 21/4       | P21/4W  | BAZ15d          | 25mm      | 60      | Fog/Tail                                           |
| R569     | 12    | 5          |         | G4              | 9mm       | 94      | Miniature Halogen Halogen Accessory Lamp           |
| R570     | 12    | 10         |         | G4              | 9mm       | 94      | Miniature Halogen Halogen Accessory Lamp           |
| R571     | 24    | 20         |         | G4              | 9mm       | 94      | Miniature Halogen Halogen Accessory Lamp           |
| R573     | 12    | 20         |         | G4              | 9mm       | 94      | Miniature Halogen Halogen Accessory Lamp           |
| R574     | 24    | 10         |         | G4              | 9mm       | 94      | Miniature Halogen Halogen Accessory Lamp           |
| R580     | 12    | 21/5       | W21/5W  | W3 x 16q        | 20.5mm    | 74      | Brake/Tail                                         |
| R581     | 12    | 21         | PY21W   | BAU15s (OSP)    | 25mm      | 54      | Indicator - Amber                                  |
| R581LL   | 12    | 21         | PY21W   | BAU15s (OSP)    | 25mm      | 54      | Long Life Indicator - Amber                        |
| R582     | 12    | 21         | W21W    | W3 x 16d        | 20.5mm    | 72      | Brake/Indicator/Reverse/Rear Fog                   |
| R585     | 12    | 21         | WY21W   | W3 x 16d        | 20.5mm    | 73      | Indicator - Amber                                  |
| R586     | 12    | 21         |         | BAU15s (OSP)    | 25mm      | 54      | Brake/Indicator/Reverse/Rear Fog                   |
| R588     | 24    | 21         | PY21W   | BAU15s (OSP)    | 25mm      | 54      | Indicator - Amber                                  |
| R589     | 12    | 10         | RY10W   | BA15s (SCC)     | 18mm)     | 62      | Indicator - Amber                                  |
| R606     | 24    | 44         |         | P36s            | 28mm      | 50      | Headlamp                                           |
| R609     | 6     | 15         | S3      | P26s            | 25mm      | 31      | Headlamp                                           |
| R610     | 12    | 15         | S3      | P26s            | 25mm      | 31      | Headlamp                                           |
| R613     | 12    | 20         |         | P26s            | 25mm      | 31      | Headlamp                                           |
| R621     | 24    | 36         |         | BA15s SCC       | 38mm      | 46      | Headlamp                                           |
| R623     | 24    | 48         |         | BA15s SCC       | 38mm      | 46      | Headlamp                                           |
| R641     | 6     | 3          |         | BA9s MCC        | 11mm      | 101     | Panel                                              |
| R64122   | 12    | 3          |         | B10D            | 8.8mm     | 110     | Halogen Panel - Brown Base                         |
| R64124   | 12    | 5          |         | B10D            | 8.8mm     | 110     | Halogen Panel - Black Base                         |
| R643     | 12    | 2.2        |         | BA9s MCC        | 11mm      | 101     | Panel                                              |
| R650     | 24    | 2.8        |         | E10/13 MES      | 11mm      | 97      | Panel                                              |
| R651     | 24    | 2.8        |         | BA9s MCC        | 15mm      | 99      | Panel                                              |
| R653     | 24    | 6          |         | S8.5d           | 11 x 38mm | 84      | Festoon                                            |
| R6929    | 24    | 1.2        |         | BAX EBSR        | 5mm       | 109     | Panel - Light Green Base                           |
| R695     | 24    | 2.8        |         | E10/13 MES Tub. | 9mm       | 98      | Panel                                              |
| R7027    | 12    | 35/35      |         | P15D-3          | 30mm      | 33      | Motorcycle Headlamp                                |
| R7028    | 12    | 45/40      |         | P15D-3          | 30mm      | 33      | Motorcycle Headlamp                                |
| R708     | 12    | 35         | H8      | PGJ19-1         | 11.6mm    | 11      | Halogen Headlamp                                   |
| R709     | 12    | 65         | H9      | PGJ19-5         | 11.6mm    | 13      | Halogen Headlamp                                   |
| R710     | 12    | 42         | H10     | PY20d           | 16mm      | 15      | Halogen Headlamp                                   |
| R711     | 12    | 55         | H11     | PGJ19-2         | 11.6mm    | 16      | Halogen Headlamp                                   |
| R712     | 12    | 53         | H12     | PZ20d           | 16mm      | 17      | Halogen Headlamp                                   |
| R715     | 12    | 55/15      | H15     | PGJ26t-1        | 22mm      | 19      | Halogen Headlamp                                   |
| R716     | 12    | 19         | H16     | PGJ19-3         | 11.6mm    | 20      | Halogen Headlamp                                   |
| R718     | 12    | 55         | H18     | PY26d           | 15mm      | 21      | Halogen Headlamp                                   |
| R740     | 12    | 20         |         | BA15s (SCC)     | 9mm       | 93      | Miniature Halogen Interior                         |
| R741     | 24    | 20         |         | BA15s (SCC)     | 9mm       | 93      | Miniature Halogen Interior                         |
| R780     | 12    | 21/5       | PR21/5W | BAW15d          | 25mm      | 59      | Brake & Tail - Red                                 |
| R782     | 12    | 21         | PR21W   | BAW15s          | 25mm      | 55      | Brake - Red                                        |
| R795     | 12    | 50         |         | BA15s (SCC)     | 9mm       | 93      | Miniature Halogen Interior                         |
| R796     | 12    | 35         |         | BA15s (SCC)     | 9mm       | 93      | Miniature Halogen Interior                         |
| R801     | 12    | 5          | W5W     | W2.1 x 9.5d     | 10mm      | 67      | Ring IceBlue Side & Tail/ Interior                 |
| R804     | 12    | 12         |         | B22d LBC        | 38mm      | 133     | Bus Interior                                       |
| R805     | 12    | 12         |         | BA15d SBC       | 38mm      | 132     | Bus Interior                                       |
| R810     | 12    | 24         |         | BA15d SBC       | 38mm      | 132     | Bus Interior                                       |
| R816     | 24    | 12         |         | B22d LBC        | 38mm      | 133     | Bus Interior                                       |
| R817     | 24    | 12         |         | BA15d SBC       | 38mm      | 132     | Bus Interior                                       |
| R821     | 24    | 20         |         | B22d LBC        | 38mm      | 133     | Bus Interior                                       |

| PART NO.  | VOLTS | WATTS  | ECE    | CAP            | SIZE     | DIAGRAM | DESCRIPTION                                  |
|-----------|-------|--------|--------|----------------|----------|---------|----------------------------------------------|
| R822      | 24    | 20     |        | BA15d SBC      | 38mm     | 132     | Bus Interior                                 |
| R8328     | 24    | 1.2    |        | EBSN10         | 5mm      | 126     | Panel - Beige Base                           |
| R833      | 12    | 4      | T4W    | BA9s (MCC)     | Tub.9mm  | 65      | Ring IceBlue Side & Tail                     |
| R85122    | 85    | 35     | D2S    | P32d-2         | 9mm      | 24      | Gas Discharge Headlamp                       |
| R85402    | 85    | 35     | D1S    | PK32d-2        | 9mm      | 23      | Gas Discharge Headlamp                       |
| R86021001 | 12    | 1.2    |        | BAX EBSR       | 5mm      | 109     | Panel - Green Base                           |
| R86021002 | 12    | 1.8    |        | BAX EBSR       | 5mm      | 109     | Panel - Blue Base                            |
| R86021003 | 24    | 1.2    |        | EBS-N          | 5mm      | 126     | Panel - Yellow Base                          |
| R86024918 | 24    | 1.2    |        | BAX10D         | 5mm      | 126     | Panel - Grey Base                            |
| R86028166 | 24    | 2.4    |        | BAX10D         | 5mm      | 126     | Panel - Yellow Base                          |
| R862      | 12    | 5      |        | E10/13 MES     | 15mm     | 96      | Panel                                        |
| R864/14   | 14    | 0.5    |        | E5/8 LES       | Tub.7mm  | 98      | Panel                                        |
| R865      | 24    | 2.8    |        | BA9s MCC       | 11mm     | 101     | Panel                                        |
| R874      | 28    | 7      |        | BA15s (SCC)    | 16mm     | 61      | Side & Tail                                  |
| R875      | 28    | 7      |        | BA15d (SBC)    | 16mm     | 63      | Side & Tail                                  |
| R880      | 12    | 27     | H27W/1 | PG13           | 9mm      | 35      | Halogen Headlamp                             |
| R88005996 | 12.6  | 1.5    |        | PCB EBS - P/Pm | 5mm      | 127     | Panel - White Base                           |
| R881      | 12    | 27     | H27W/2 | PGJ13          | 9mm      | 36      | Halogen Headlamp                             |
| R885      | 12    | 50     |        | PG13           | 9mm      | 37      | Halogen Headlamp                             |
| R886      | 12    | 50     |        | PGJ13          | 9mm      | 38      | Halogen Headlamp                             |
| R887      | 12    | 50     |        | PG13           | 9mm      | 37      | Long Life Halogen Headlamp                   |
| R894      | 12    | 37.5   |        | PGJ13          | 9mm      | 38      | Halogen Headlamp                             |
| R9003     | 12    | 60/55  | HB2    | P43t           | 17mm     | 5       | Halogen Headlamp                             |
| R9004     | 12    | 65/45  | (HB1)  | P29t           | 14.7mm   | 39      | Halogen Headlamp                             |
| R9005     | 12    | 60     | HB3    | P20d           | 12mm     | 6       | Halogen Headlamp                             |
| R9005XS   | 12    | 60     | HB3A   | P20d           | 12mm     | 7       | Halogen Headlamp                             |
| R9006     | 12    | 51     | HB4    | P22d           | 12mm     | 8       | Halogen Headlamp                             |
| R9006XS   | 12    | 51     | HB4A   | P22d           | 12mm     | 9       | Halogen Headlamp                             |
| R9007     | 12    | 65/55  | (HB5)  | PX29t          | 33.8mm   | 39      | Halogen Headlamp                             |
| R9008     | 12    | 60/55  | H13    | P26.4t         | 16mm     | 18      | Halogen Headlamp                             |
| R9012     | 12    | 55     | HIR2   | PX22d          | 20mm     | 22      | Halogen Headlamp                             |
| R904      | 12    | 45/40  | R2     | P45t           | 17mm     | 4       | Halogen Headlamp                             |
| R905      | 6     | 60/55  | H4     | P43t H4        | 17mm     | 5       | Halogen Headlamp                             |
| R906      | 12    | 21     |        | BA15s (SCC)    | 25mm     | 93      | Miniature Halogen                            |
| R908      | 24    | 3      |        | S7d            | 8 x 36mm | 86      | Festoon                                      |
| R909      | 12    | 21     |        | BA15s (SCC)    | 16mm     | 61      | Side & Tail                                  |
| R910      | 6     | 35/35  | HS1    | PX43t          | 17mm     | 5       | Halogen Headlamp                             |
| R911      | 12    | 45/40  | H4     | P43t           | 17mm     | 5       | Halogen Headlamp                             |
| R919      | 12    | 65     | H9B    | PGJY19-5       | 15mm     | 14      | Halogen Headlamp                             |
| R920      | 12    | 35     | H8B    | PGJY19-1       | 15mm     | 12      | Halogen Headlamp                             |
| R921      | 12    | 21CP   |        | W2.1 x 9.5d    | 16mm     | 70      | Brake (High Level Brake Light)               |
| R921A     | 12    | 21CP   |        | W2.1 x 9.5d    | 16mm     | 71      | Indicator - Amber                            |
| R922      | 12    | 10     |        | W2.1 x 9.5d    | 14mm     | 69      | Inspection Lamp Bulb                         |
| R923      | 24    | 10     |        | W2.1 x 9.5d    | 14mm     | 69      | Side & Tail/Panel/Interior                   |
| R925      | 12    | 16     | PC16WY | PU20d-2        | 20mm     | 78      | HiPervision Indicator - Amber                |
| R926      | 12    | 6      | HY6W   | BAZ9s          | 9mm      | 89      | Miniature Halogen - Amber                    |
| R927      | 12    | 21     | HY21W  | BAW9s          | 9mm      | 92      | Miniature Halogen - Amber                    |
| R928      | 12    | 24     | P24W   | PU20-3         | 18mm     | 82      | HiPervision Brake/Indicator/Reverse/Rear Fog |
| R929      | 12    | 35/30  | HS5    | P23t           | 25mm     | 30      | Motorcycle Headlamp                          |
| R950      | 6     | 6      |        | E10/13 MES     | 15mm     | 96      | Panel                                        |
| R951      | 6     | 5      |        | BA9s (MCC)     | 15mm     | 66      | Side & Tail                                  |
| R955      | 12    | 16     | W16W   | W2.1 x 9.5d    | 16mm     | 70      | Brake/Indicator/Reverse/Rear Fog             |
| R958      | 12    | 16     | WY16W  | W2.1 x 9.5d    | 16mm     | 71      | Indicator - Amber                            |
| R960      | 12    | 55(85) | H3C    | P22d/5         | 12mm     | 43      | Halogen Headlamp Import - 556                |
| R961      | 12    | 55     | H3r    | PK22sr         | 12mm     | 41      | Halogen Headlamp Import - 453                |
| R962      | 12    | 55/40  |        | P30t-40        | 14mm     | 42      | Halogen Headlamp Import - 488                |
| R964      | 12    | 45/55  |        | P30/22L        | 16mm     | 40      | Halogen Headlamp Import - 471                |
| R965      | 12    | 65/65  |        | P30/22L        | 16mm     | 40      | Halogen Headlamp Import - 472                |
| R982      | 6     | 1.8    |        | E10/13 MES     | 11mm     | 97      | Panel                                        |
| R987      | 12    | 2.2    |        | E10/13 MES     | 11mm     | 97      | Panel                                        |
| R989      | 12    | 5      |        | BA9s (MCC)     | 15mm     | 66      | Panel/Side & Tail                            |
| R990      | 6     | 3      |        | E10/13 MES     | 11mm     | 97      | Panel                                        |
| R992      | 12    | 10     |        | BA9s (MCC)     | 15mm     | 66      | Side & Tail                                  |
| R993      | 24    | 2.8    |        | E10/13 MES     | 15mm     | 96      | Panel                                        |

# Vehicle Lighting

| PART NO. | VOLTS  | WATTS  | ECE  | CAP           | SIZE   | DIAGRAM | DESCRIPTION                            |
|----------|--------|--------|------|---------------|--------|---------|----------------------------------------|
| RIL200   | 12/230 | 11     |      | -             | -      | 138     | Compact Fluorescent                    |
| RX481    | 12     | 100    | H1   | P14.5S        | 10mm   | 1       | Ring Rally Sport Halogen Headlamp      |
| RX464    | 12     | 100    | H7   | PX26D         | 11.6mm | 10      | Ring Rally Sport Halogen Headlamp      |
| RX484    | 12     | 100/80 | H4   | P43T          | 17mm   | 5       | Ring Rally Sport Halogen Headlamp      |
| RX664    | 12     | 80     | H7   | PX26D         | 11.6mm | 10      | Ring Sportz Blue Halogen Headlamp      |
| RX668    | 12     | 80     | H1   | P14.5S        | 10mm   | 1       | Ring Sportz Blue Halogen Headlamp      |
| RX684    | 12     | 100/80 | H4   | P43T          | 17mm   | 5       | Ring Sportz Blue Halogen Headlamp      |
| RX1005   | 12     | 60     | HB3  | P20D          | 12mm   | 6       | Ring Xenon100 Halogen Headlamp         |
| RX1006   | 12     | 51     | HB4  | P22D          | 12mm   | 8       | Ring Xenon100 Halogen Headlamp         |
| RX1011   | 12     | 55     | H11  | PGJ19-2       | 11.6mm | 16      | Ring Xenon100 Halogen Headlamp         |
| RX1048   | 12     | 55     | H1   | P14.5s        | 10mm   | 1       | Ring Xenon100 Halogen Headlamp         |
| RX1072   | 12     | 60/55  | H4   | P43T          | 17mm   | 5       | Ring Xenon100 Halogen Headlamp         |
| RX1077   | 12     | 55     | H7   | PX26D         | 11.6mm | 10      | Ring Xenon100 Halogen Headlamp         |
| RX1511   | 12     | 55     | H11  | PGJ19-2       | 11.6mm | 16      | Ring Xenon150 Halogen Headlamp         |
| RX1512   | 12     | 55     | HIR2 | PX22D         | 20mm   | 22      | Ring Xenon150 Halogen Headlamp         |
| RX1548   | 12     | 55     | H1   | P14.5s        | 10mm   | 1       | Ring Xenon150 Halogen Headlamp         |
| RX1572   | 12     | 60/55  | H4   | P43T          | 17mm   | 5       | Ring Xenon150 Halogen Headlamp         |
| RX1577   | 12     | 55     | H7   | PX26D         | 11.6mm | 10      | Ring Xenon150 Halogen Headlamp         |
| RX2011   | 12     | 55     | H11  | PGJ19-2       | 11.6mm | 16      | Ring Xenon200 Halogen Headlamp         |
| RX2072   | 12     | 55     | H7   | PX26d         | 11.6mm | 10      | Ring Xenon200 Halogen Headlamp         |
| RX2077   | 12     | 60/55  | H4   | P43t          | 17mm   | 5       | Ring Xenon200 Halogen Headlamp         |
| RX4048   | 12     | 55     | H1   | P14.5S        | 10mm   | 1       | Ring Xenon4000 Halogen Headlamp        |
| RX4072   | 12     | 60/55  | H4   | P43T          | 17mm   | 5       | Ring Xenon4000 Halogen Headlamp        |
| RX4077   | 12     | 55     | H7   | PX26D         | 11.6mm | 10      | Ring Xenon4000 Halogen Headlamp        |
| RX5011   | 12     | 55     | H11  | PGJ19-2       | 11.6mm | 16      | Ring Xenon5000 Halogen Headlamp        |
| RX5048   | 12     | 55     | H1   | P14.5A        | 10mm   | 1       | Ring Xenon5000 Halogen Headlamp        |
| RX5072   | 12     | 60/55  | H4   | P43T          | 17mm   | 5       | Ring Xenon5000 Halogen Headlamp        |
| RX5077   | 12     | 55     | H7   | PX26D         | 11.6mm | 10      | Ring Xenon5000 Halogen Headlamp        |
| 121030XB | 12     | 10     |      | MR11          | 34mm   | 134     | Halogen Interior - 30° Angle           |
| 61014B   |        | 30     |      | T8            | 3ft    | 137     | 3ft White Fluorescent Tube             |
| A1003-R  |        | 15     |      | T8            | 18"    | 137     | 18" White Fluorescent Tube             |
| A1021    |        | 36     |      | T8            | 4ft    | 137     | 4ft Cool White Deluxe Fluorescent Tube |
| A1047    |        | 15/33  |      | T8            | 18"    | 137     | 18" Cool White Fluorescent Tube        |
| A122030  | 12     | 20     |      | MR11          | 34mm   | 134     | Halogen Interior - 30° Angle           |
| A123530  | 12     | 35     |      | MR11          | 34mm   | 134     | Halogen Interior - 30° Angle           |
| A241012  | 24     | 10     |      | MR16/Dichroic | 51mm   | 135     | Halogen Interior - 12° Angle           |
| A242038  | 24     | 20     |      | MR16/Dichroic | 51mm   | 135     | Halogen Interior - 38° Angle           |
| A243538  | 24     | 35     |      | MR16/Dichroic | 51mm   | 135     | Halogen Interior - 38° Angle           |
| A3003    |        | 4      |      | T5            | 6"     | 136     | 6 inch White Fluorescent Tube          |

| Ring     | Philips |
|----------|---------|
| R465     | 6258    |
| R455     | 6336    |
| R319     | 6402    |
| R317     | 6498    |
| R384     | 6499    |
| R383     | 6503    |
| R423     | 6620    |
| R392     | 6718    |
| R244     | 6814    |
| R205     | 6821    |
| R206     | 6822    |
| R282     | 6829    |
| R253     | 6844    |
| R990     | 6875    |
| R641     | 6910    |
| R293     | 6929    |
| R393     | 7008    |
| R9004    | 9004    |
| R9007    | 9007    |
| R9008    | 9008    |
| R9012    | 9012    |
| R710     | 9145    |
| R610     | 12008   |
| R469     | 12023   |
| R470     | 12024   |
| R433     | 12025   |
| R434     | 12036   |
| R506     | 12040   |
| R880     | 12059   |
| R881     | 12060   |
| R284     | 12061   |
| R582     | 12065   |
| R580     | 12066   |
| R955     | 12067   |
| R585     | 12071   |
| R12085   | 12085   |
| R12086   | 12086   |
| R782     | 12088   |
| R237     | 12144   |
| R927     | 12146   |
| R005     | 12221   |
| R002     | 12222   |
| R504     | 12256   |
| R12276   | 12276   |
| R12277   | 12277   |
| R12278   | 12278   |
| R479     | 12311   |
| R453     | 12336   |
| R435     | 12356   |
| R708     | 12360   |
| R709     | 12361   |
| R716     | 12366   |
| R240     | 12401   |
| R335     | 12442   |
| R385     | 12445   |
| R012     | 12475   |
| R904     | 12475   |
| R780     | 12495   |
| R581     | 12496   |
| R380     | 12499   |
| R381     | 12503   |
| R286     | 12516   |
| R715     | 12580   |
| R566     | 12594   |
| R509TBBK | 12597   |
| R509T    | 12598   |
| R509TGR  | 12600   |

| Ring     | Philips |
|----------|---------|
| R509TBL  | 12603   |
| R509TWGR | 12604   |
| R64122   | 12614   |
| R64124   | 12615   |
| R410     | 12620   |
| R509TMBL | 12623   |
| R509TMOR | 12624   |
| R509TMBK | 12625   |
| R509TMGR | 12626   |
| R509TMBE | 12627   |
| R459     | 12636   |
| R509TBE  | 12637   |
| R509TVI  | 12640   |
| R394     | 12718   |
| R395     | 12728   |
| R396     | 12748   |
| R273     | 12803   |
| R270     | 12807   |
| R245     | 12814   |
| R209     | 12822   |
| R281     | 12829   |
| R256     | 12843   |
| R239     | 12844   |
| R268     | 12848   |
| R267     | 12850   |
| R272     | 12854   |
| R269     | 12860   |
| R258     | 12864   |
| R264     | 12866   |
| R987     | 12875   |
| R643     | 12910   |
| R288     | 12913   |
| R280     | 12926   |
| R233     | 12929   |
| R297     | 12960   |
| R501     | 12961   |
| R501HD   | 12961   |
| R623     | 13241   |
| R505     | 13256   |
| R466     | 13258   |
| R331     | 13293   |
| R482     | 13311   |
| R460     | 13336   |
| R475     | 13342   |
| R243     | 13401   |
| R588     | 13496   |
| R241     | 13498   |
| R294     | 13499   |
| R508     | 13516   |
| R508TBY  | 13597   |
| R508T    | 13598   |
| R429     | 13620   |
| R276     | 13807   |
| R246     | 13814   |
| R271     | 13818   |
| R149     | 13821   |
| R150     | 13822   |
| R283     | 13829   |
| R242     | 13844   |
| R653     | 13844   |
| R260     | 13864   |
| R274     | 13866   |
| R650     | 13875   |
| R993     | 13875   |
| R865     | 13910   |
| R289     | 13913   |
| R249     | 13929   |

| Ring      | Philips              |
|-----------|----------------------|
| R298      | 13960                |
| R507      | 13961                |
| R474      | 13972                |
| R346      | 24004                |
| R1791     | 24029                |
| R508TBR   | 24032                |
| R535      | 24356                |
| R1471     | 24506                |
| R86021003 | 24606                |
| R589      | 12093NA              |
| R12182    | 12182HTR             |
| R12188    | 12188NA              |
| R12190    | 12190NA              |
| R1401     | 12256BV              |
| R448LL    | 12258LL / 12258LLECO |
| R448      | 12258PR              |
| R448EQ    | 12258PR              |
| R4048     | 12258WHV             |
| R12274    | 12274SV+             |
| R12275    | 12275NA              |
| R453LL    | 12336LL / 12336LLECO |
| R472HD    | 12342HD              |
| R472LL    | 12342LL / 12342LLECO |
| R472      | 12342PR              |
| R472EQ    | 12342PR              |
| R711      | 12362PR              |
| R501A     | 12396NA              |
| R481      | 12454RA              |
| R581LL    | 12496LL              |
| R3581     | 12496SV              |
| R382LL    | 12498LL / 12498LLECO |
| R380LL    | 12499LL / 12499LLECO |
| R245LL    | 12814LLECO           |
| R207LL    | 12821LL / 12821LLECO |
| R233LL    | 12929LL              |
| R501LL    | 12961LL / 12961LLECO |
| R477LL    | 12972LL / 12972LLECO |
| R477      | 12972PR              |
| R477EL    | 12972PR              |
| R477EQ    | 12972PR              |
| R460HD    | 13336MD              |
| R475HD    | 13342MD              |
| R290      | 13498MD              |
| R495      | 13628RA              |
| R295      | 13814MD              |
| R248      | 13821MD              |
| R296      | 13929MD              |
| R474HD    | 13972MD              |
| R458HD    | 24362MD              |
| R458      | 24362MD              |
| R496      | 24569RA              |
| R42306    | 42306VI              |
| R42402    | 42402VI              |
| R42302    | 42403VI              |
| R42406    | 42406VI              |
| R85122    | 85122VI              |
| R85402    | 85415VI              |
| R9005     | 9005PR               |
| R9006     | 9006PR               |

# Vehicle Lighting

| Ring   | Osram |
|--------|-------|
| R880   | 880   |
| R881   | 881   |
| R955   | 921   |
| R32/3  | 1157  |
| R12276 | 2504  |
| R263   | 2628  |
| R286   | 2721  |
| R284   | 2723  |
| R508   | 2741  |
| R297   | 2820  |
| R504   | 2821  |
| R501   | 2825  |
| R501A  | 2827  |
| R298   | 2840  |
| R505   | 2841  |
| R507   | 2845  |
| R182   | 3156  |
| R180   | 3157  |
| R987   | 3766  |
| R288   | 3796  |
| R289   | 3797  |
| R282   | 3798  |
| R989   | 3860  |
| R293   | 3892  |
| R233   | 3893  |
| R643   | 3894  |
| R287   | 3895  |
| R281   | 3898  |
| R283   | 3899  |
| R249   | 3930  |
| R990   | 3965  |
| R650   | 3967  |
| R244   | 5001  |
| R205   | 5006  |
| R245   | 5008  |
| R589   | 5009  |
| R12085 | 5201  |
| R12086 | 5202  |
| R206   | 5406  |
| R209   | 5407  |
| R150   | 5626  |
| R149   | 5627  |
| R246   | 5637  |
| R295   | 5637  |
| R865   | 6251  |
| R319   | 6402  |
| R264   | 6411  |
| R258   | 6413  |
| R253   | 6416  |
| R239   | 6418  |
| R908   | 6421  |
| R242   | 6423  |
| R260   | 6424  |
| R268   | 6428  |
| R274   | 6429  |
| R271   | 6430  |
| R269   | 6438  |
| R272   | 6461  |
| R270   | 6475  |
| R273   | 6476  |
| R267   | 6541  |
| R312   | 6721  |
| R641   | 6910  |
| R393   | 7130  |
| R566   | 7225  |
| R381   | 7240  |
| R392   | 7323  |
| R395   | 7327  |
| R396   | 7351  |
| R185   | 7447  |
| R005   | 7468  |
| R317   | 7501  |
| R585   | 7504  |
| R582   | 7505  |
| R581   | 7507  |
| R588   | 7510  |
| R241   | 7511  |
| R580   | 7515  |
| R384   | 7517  |
| R380   | 7528  |
| R243   | 7529  |
| R294   | 7537  |
| R383   | 7540  |
| R623   | 7668  |

| Ring        | Osram    |
|-------------|----------|
| R423        | 7950     |
| R429        | 7952     |
| R276        | 8480     |
| R9004       | 9004     |
| R9005       | 9005     |
| R9006       | 9006     |
| R9007       | 9007     |
| R9008       | 9008     |
| R9012       | 9012     |
| R710        | 9145     |
| R290        | 9511     |
| R496        | 62248    |
| R498        | 62249    |
| R469        | 64111    |
| R470        | 64113    |
| R433        | 64115    |
| R434        | 64132    |
| R435        | 64136    |
| R535        | 64138    |
| R455        | 64147    |
| R448        | 64150    |
| R453        | 64151    |
| R466        | 64155    |
| R460        | 64156    |
| R465        | 64168    |
| R479        | 64173    |
| R482        | 64175    |
| R715        | 64176    |
| R410        | 64183    |
| R459        | 64185    |
| R472        | 64193    |
| R475        | 64196    |
| R024        | 64199    |
| R477        | 64210    |
| R477EL      | 64210    |
| R711        | 64211    |
| R708        | 64212    |
| R709        | 64213    |
| R474        | 64215    |
| R920        | 64242    |
| R919        | 64243    |
| R394        | 64326    |
| R417        | 64327    |
| R85402      | 66140    |
| R85122      | 66240    |
| R42302      | 66340    |
| R42306      | 66350    |
| R42402      | 66440    |
| R42406      | 66450    |
| R66548      | 66548    |
| R472EQ      | 94193    |
| R509TOR     | 2321MFX  |
| R509TVI     | 2322MFX  |
| R509TML     | 2351MF6  |
| R509TMBK    | 2351MFX6 |
| R509TMGR    | 2352MFX6 |
| R509TMBE    | 2452MFX6 |
| R509TMOR    | 2473MFX6 |
| R509T       | 2721MF   |
| R509TBBK    | 2721MF8  |
| R509TWGR    | 2721MF8W |
| R509TBL     | 2721MFX  |
| R509TGR     | 2722MF   |
| R509TFBK/14 | 2722MF   |
| R509TBWH    | 2722MF8  |
| R509TWGY    | 2722MF8W |
| R508T       | 2741MF   |
| R508TBY     | 2741MF8  |
| R508TBR     | 2741MFX  |
| R509TBE     | 2752MF   |
| R801        | 2825CBI  |
| R1401       | 2825HCBI |
| R516        | 2825HCBI |
| R501LL      | 2825ULT  |
| R506        | 2886X    |
| R183        | 3757AK   |
| R833        | 3893CB   |
| R207LL      | 5007ULT  |
| R245LL      | 5008ULT  |
| R481        | 62200SBP |
| R64122      | 64122MF  |
| R64124      | 64124MF  |
| R927        | 64137ULT |
| R4048       | 64150CBI |

| Ring    | Osram    |
|---------|----------|
| R448EQ  | 64150S   |
| R448LL  | 64150ULT |
| R460HD  | 64156TSP |
| R718    | 64180L   |
| R239LL  | 6418ULT  |
| R472LL  | 64193ULT |
| R475HD  | 64196TSP |
| R012    | 64198SB  |
| R477LL  | 64210ULT |
| R474HD  | 64215TSP |
| R458HD  | 64216TSP |
| R716    | 64219L   |
| R254    | 6486X    |
| R382LL  | 7506ULT  |
| R3581   | 7507LDA  |
| R581LL  | 7507ULT  |
| R782    | 7508LDR  |
| R380LL  | 7528ULT  |
| R780    | 7538LDR  |
| R3782   | 7538LDR  |
| R3780   | 7538LDR  |
| R9003   | 9003L    |
| R9005XS | 9005XS   |
| R9006XS | 9006XS   |
| R958    | 921NA    |

| Ring   | Lucas          | Elta      |
|--------|----------------|-----------|
| R002   | LLB002         | -         |
| R005   | LLB005         | -         |
| R012   | LLB012         | EB0012SB  |
| R024   | LLB024         | EB0024SB  |
| R12085 | LLB188         | EB0188SB  |
| R12188 | LLB187A        | EB0187SB  |
| R12190 | LLB186A        | EB0186SB  |
| R12275 | LLB192         | EB0192SB  |
| R12276 | LLB189         | EB0189SB  |
| R12277 | LLB184         | EB0184SB  |
| R1471  | LLB508TB       | EB0523TB  |
| R149   | LLB149         | EB0149TB  |
| R150   | LLB150         | EB0150TB  |
| R1791  | LLB508TY       | EB0532TB  |
| R180   | LLB180         | EB0180TB  |
| R182   | LLB182         | EB0182TB  |
| R183   | LLB180A        | EB01821TB |
| R184   | LLB182A        | EB0185TB  |
| R185   | LLB185         | EB0323SB  |
| R205   | LLB205         | EB0205TB  |
| R206   | LLB206         | EB0206TB  |
| R209   | LLB209         | EB0209TB  |
| R210   | LLB210         | EB0210TB  |
| R227   | LLB227         | EB0227TB  |
| R233   | LLB233         | EB0233TB  |
| R233LL | LLB233LL       | EB0231TB  |
| R239   | LLB239         | EB0239TB  |
| R239LL | LLB239LL       | EB0240TC  |
| R240   | LLB211         | EB0211TB  |
| R241   | LLB241         | EB0241TB  |
| R242   | LLB242         | EB0242TB  |
| R242G  | LLB243GT       | EB0243TB  |
| R243   | LLB212         | EB0212TB  |
| R244   | LLB244         | EB0244SB  |
| R245   | LLB245S        | EB0245TB  |
| R245LL | LLB245LL       | EB0237TC  |
| R246   | LLB246         | EB0246TB  |
| R248   | LLB248         | EB0248TB  |
| R249   | LLB249         | EB0249TB  |
| R253   | LLB253         | EB0253TB  |
| R254   | LLB254         | EB0254TB  |
| R256   | LLB256         | EB0256TB  |
| R258   | LLB258         | EB0258TB  |
| R260   | LLB260         | EB0260TB  |
| R261   | LLB261         | EB0261TB  |
| R263   | LLB263         | EB0263TB  |
| R264   | LLB264         | EB0264TB  |
| R265   | LLB265         | EB0265TB  |
| R266   | LLB1060        | EB1060SB  |
| R267   | LLB267         | EB0267TB  |
| R268   | LLB268         | EB0268TB  |
| R269   | LLB269         | EB0269TB  |
| R270   | LLB270         | EB0270TB  |
| R271   | LLB257         | EB0266TB  |
| R272   | LLB272         | EB0272TB  |
| R273   | LLB273         | EB0273TB  |
| R274   | LLB274         | EB0274TB  |
| R275   | LLB275         | EB0275TB  |
| R276   | LLB275A/LLB276 | EB0276TB  |
| R280   | LLB280         | EB0280TB  |
| R281   | LLB281         | EB0281TB  |
| R282   | LLB282         | EB0282TB  |
| R283   | LLB283         | EB0283TB  |
| R284   | LLB284         | EB0284TB  |
| R286   | LLB286         | EB0286TB  |
| R286A  | LLB286A        | EB0300TB  |
| R286B  | LLB286B        | EB0301TB  |
| R286G  | LLB286G        | EB0302TB  |
| R286R  | LLB286R        | EB0310TB  |
| R287   | LLB287         | EB0287TB  |
| R288   | LLB288         | EB0288TB  |
| R289   | LLB289         | EB0289TB  |
| R290   | LLB290         | EB0290TB  |
| R291   | LLB291         | EB0291TB  |
| R293   | LLB293         | EB0293TB  |
| R294   | LLB294         | EB0294TB  |
| R295   | LLB295         | EB0295TB  |
| R297   | LLB297         | EB0297TB  |
| R317   | LLB317         | EB0317TB  |
| R319   | LLB319         | EB0319TB  |
| R32/3  | LLB380D        | EB0379TB  |

| Ring   | Lucas       | Elta     |
|--------|-------------|----------|
| R330   | LLB330      | EB0330TB |
| R331   | LLB331      | EB0330SB |
| R333   | LLB333      | EB0333TB |
| R334   | LLB334      | EB0334TB |
| R335   | LLB335      | EB0335TB |
| R339   | LLB339      | EB0339TB |
| R343   | LLB343      | EB0343TB |
| R344   | LLB344      | EB0344TB |
| R345   | LLB345      | EB0345TB |
| R346   | LLB346      | EB0346TB |
| R347   | LLB241AMBER | EB0234TB |
| R3603  | LLB1006     | EB1006SB |
| R3625  | LLB1010     | EB1008TB |
| R380   | LLB380      | EB0380TB |
| R380LL | LLB380LL    | EB0386TC |
| R381   | LLB381      | EB0381TB |
| R382LL | LLB382LL    | EB0382TB |
| R383   | LLB383      | EB0383SB |
| R384   | LLB1074     | EB0384TB |
| R385   | LLB213      | EB0393SB |
| R392   | LLB392      | EB0412SB |
| R393   | LLB393      | EB0411SB |
| R394   | LLB394      | EB0394TB |
| R395   | LLB395      | EB0395SB |
| R396   | LLB396      | EB0396SB |
| R398   | LLB398      | EB0398SB |
| R410   | LLB410      | EB0410SB |
| R416   | LLB416      | EB0416SB |
| R417   | LLB1052     | EB0417SB |
| R418   | LLB1064     | -        |
| R4187  | LLB4187     | -        |
| R4192  | LLB4192     | -        |
| R423   | LLB423      | EB0423SB |
| R42302 | LLBD3S      | EB0103SB |
| R42306 | LLBD3R      | EB0003SB |
| R42402 | LLBD4S      | EB0104SB |
| R42406 | LLBD4R      | EB0004SB |
| R429   | LLB429      | EB0429SB |
| R433   | LLB433      | EB0433TB |
| R434   | LLB434      | EB0434TB |
| R435   | LLB436      | EB0436TB |
| R436   | LLB348      | EB0436SB |
| R442   | LLB442      | EB0442SB |
| R444   | LLB444      | EB0444SB |
| R446   | LLB0456     | EB1456SB |
| R447   | LLB0452     | EB1453SB |
| R448   | LLB448      | EB0448SB |
| R448EQ | LLB448P     | EB0402SB |
| R448LL | LLB448LLP   | EB0400SC |
| R449   | LLB449      | -        |
| R453   | LLB453      | EB0453SB |
| R454   | LLB785      | EB0785SB |
| R455   | LLB455      | EB0455SB |
| R456   | LLB456      | -        |
| R457   | LLB457      | -        |
| R459   | LLB472A     | EB0408SB |
| R4598  | LLB4598     | EB4598TB |
| R460   | LLB460      | EB0460SB |
| R460HD | LLB460HD    | EB0461SB |
| R462   | LLB0457     | EB0457SB |
| R465   | LLB465      | EB0465SB |
| R466   | LLB466      | EB0466SB |
| R467   | LLB467      | EB0467TB |
| R468   | LLB468      | EB0468TB |
| R470   | LLB433A     | EB0390TB |
| R472   | LLB472      | EB0472SB |
| R472HD | LLB472HD    | EB0409SB |
| R472LL | LLB472LLP   | EB0417SC |
| R474   | LLB475      | EB0775SB |
| R475   | LLB775      | EB0475SB |
| R475HD | LLB775HD    | EB0419SB |
| R477   | LLB477      | EB0477SB |
| R477EL | LLB477      | -        |
| R477LL | LLB477LLP   | EB0424SC |
| R479   | LLB479      | EB0479SB |
| R481   | LLB481      | EB0481SB |
| R482   | LLB480      | EB0480SB |
| R4896  | LLB4896     | EB4896TB |
| R493   | LLB491      | EB0491SB |
| R494   | LLB492      | EB0492SB |
| R495   | LLB495      | EB0495SB |

| Ring         | Lucas       | Elta      |
|--------------|-------------|-----------|
| R496         | LLB475R     | EB0496SB  |
| R497         | LLB497      | EB0497SB  |
| R498         | LLB475R     | EB0422SB  |
| R501         | LLB501      | EB501TB   |
| R501A        | LLB501A     | EB0498TB  |
| R501LL       | LLB501LL    | EB0502TC  |
| R504         | LLB504      | EB0504TB  |
| R505         | LLB505      | EB0505TB  |
| R507         | LLB507      | EB0507TB  |
| R508         | LLB508      | EB0508TB  |
| R508A        | LLB508A     | EB0514TB  |
| R508B        | LLB508B     | EB0515TB  |
| R508G        | LLB508G     | EB0520TB  |
| R508R        | LLB508R     | EB0520TB  |
| R508T        | LLB508TAC   | EB0522TB  |
| R508TBYG     | LLB508TGY   | EB0529TB  |
| R508TBR      | LLB508TBR   | EB0527TB  |
| R508TCWH     | LLB508P     | EB0508SC  |
| R508TMGR     | LLB508TGN   | EB0528SB  |
| R508TUWH     | LLB508B9    | -         |
| R508TWR      | LLB508TBN   | EB0526SB  |
| R509T        | LLB286TAC   | EB0311TB  |
| R509TBBK     | LLB286TVW   | EB0371SC  |
| R509TBWH     | LLB286TV    | EB0372SB  |
| R509TCGY/1.8 | LLB286PA    | EB0305TB  |
| R509TCGYFR   | LLB286PB    | EB0307TB  |
| R509TCWH     | LLB286AP    | EB0308TB  |
| R509TDBK     | LLB286TFB1  | LLB0354TB |
| R509TEBK     | LLB286TB1   | EB0350TB  |
| R509TFBK/12  | LLB286TFB   | EB0353TB  |
| R509TFBK/14  | LLB1587     | -         |
| R509TFGY     | LLB286TFG   | EB0355TB  |
| R509TGR      | LLB286TLG   | EB0365TB  |
| R509TKBK     | LLB286MFSL  | EB0304TB  |
| R509TMBE     | LLB286THB   | EB0359SB  |
| R509TMBK     | LLB286THBL  | EB0361SC  |
| R509TML      | LLB286THB   | EB0359SC  |
| R509TMGR     | LLB286THLG  | EB0363SC  |
| R509TMGY     | LLB286PA    | EB0314TB  |
| R509TMOR     | LLB286THO   | EB0364SC  |
| R509TOR      | LLB286TO    | EB0369SC  |
| R509TPBK     | LLB286MFHZ  | EB0303TB  |
| R509TWGR     | LLB286TV    | EB0397TB  |
| R509TWGY     | LLB286TG    | EB0357SC  |
| R512PCB      | LLB512      | EB0512SC  |
| R512TR       | LLB512TF10  | EB0533SC  |
| R512WB       | LLB512WP    | EB0535SC  |
| R535         | LLB435      | EB0435SB  |
| R566         | LLB566      | EB0566SC  |
| R567         | LLB567      | EB0567TB  |
| R569         | LLB433B     | EB0569SB  |
| R580         | LLB580      | EB0580SC  |
| R581         | LLB581      | EB0581TB  |
| R581LL       | LLB581LLPX2 | EB0536TC  |
| R582         | LLB582      | EB0582SC  |
| R585         | LLB582A     | EB0537SC  |
| R586         | LLB583      | EB0583SB  |
| R588         | LLB558      | EB0588SB  |
| R589         | LLB245A     | EB0236SB  |
| R609         | LLB295      | EB0295SB  |
| R610         | LLB298      | EB0298SB  |
| R621         | LLB621      | EB0621SB  |
| R641         | LLB641      | EB0641TB  |
| R64122       | LLB700A     | EB0701SC  |
| R64124       | LLB700      | EB0700SB  |
| R643         | LLB643      | EB0643SC  |
| R650         | LLB650      | EB0650TB  |
| R651         | LLB651      | EB0651TB  |
| R653         | LLB653      | EB0653TB  |
| R695         | LLB695      | EB0695TB  |
| R7027        | LLB1011     | EB1011SB  |
| R7028        | LLB1012     | EB1012SB  |
| R708         | LLB708      | EB0708SB  |
| R709         | LLB709      | EB0709SB  |
| R710         | LLB710      | EB0710SB  |
| R711         | LLB711      | EB0711SB  |
| R712         | LLB712      | EB0712SB  |
| R715         | LLB715      | EB0715SB  |
| R716         | LLB716      | EB0716SB  |
| R740         | LLB470      | EB0470SB  |
| R741         | LLB469      | EB0469SB  |

# Vehicle Lighting

| Ring      | Lucas          | Elta     |
|-----------|----------------|----------|
| R780      | LLB383         | EB0383SB |
| R782      | LLB385         | EB0385SB |
| R795      | LLB795/LLB1050 | EB0795SB |
| R796      | LLB796         | -        |
| R801      | LLX501BL       | -        |
| R804      | LLB804         | -        |
| R805      | LLB805         | EB0805SB |
| R810      | LLB810         | EB0810SB |
| R816      | LLB816         | EB0816SB |
| R817      | LLB817         | EB0817SB |
| R821      | LLB821         | -        |
| R822      | LLB822         | EB0822SB |
| R8328     | LLB508EBSN10   | EB0517SB |
| R85122    | LLBD2S         | EB0102SB |
| R85402    | LLBD1S         | EB0101SB |
| R86021002 | LLB286TBL      | EB0351SB |
| R86021003 | LLB508EBSN1    | EB0559TB |
| R862      | LLB1024        | EB0862TB |
| R865      | LLB865         | EB0865TB |
| R874      | LLB874         | EB0865TB |
| R875      | LLB875         | EB0875TB |
| R880      | LLB880         | EB0880SB |
| R881      | LLB881         | EB0881SB |
| R886      | LLB886         | EB0886SB |
| R9004     | LLB9004        | EB9004SB |
| R9005     | LLB9005        | EB9005SB |
| R9005XS   | LLB9005XS      | EB9101SB |
| R9006     | LLB9006        | EB9006SB |
| R9006XS   | LLB9006XS      | EB9103SB |
| R9007     | LLB9007        | EB9007SB |
| R9008     | LLB9008        | EB9008SB |
| R9012     | LLB190         | EB0190SB |
| R921      | LLB921         | EB0921TB |
| R921A     | LLB221A        | EB0924TB |
| R925      | LLB183a        | EB0183SB |
| R951      | LLB951         | EB0951TB |
| R955      | LLB955         | EB0955TB |
| R961      | LLB0453        | -        |
| R962      | LLB0488        | -        |
| R964      | LLB0471        | -        |
| R965      | LLB0472        | -        |
| R987      | LLB987         | EB0987TB |
| R989      | LLB989         | EB0989TB |
| R990      | LLB990 (2W)    | EB0990TB |
| R993      | LLB993         | EB0650TB |

## Notes



## Commitment to Quality

**With nearly forty years' experience in the manufacture and distribution of automotive lighting, Ring's commitment to quality is second to none.**

Through major investments in test equipment and fully qualified staff, Ring has created a Quality Assurance Department that is at the forefront of Automotive Lighting. Ring recognises quality is of the utmost importance in helping to ensure customer satisfaction and with this in mind Ring's Quality Assurance Department carries out stringent quality control procedures on a continuous basis.

It has achieved the highest standards in Quality Assurance and has been independently assessed by BSI. The department has been awarded ISO:9001 for the manufacture and assembly of automotive lighting. This is regularly and independently verified by BSI and the standard has now been achieved over a period of many years. This independent Quality Assessment is vital when it comes to Ring's original equipment programme where the best in the world OEM's continue to place business with Ring Automotive. The Quality Assurance Department monitors and assesses all the bulbs in the Ring Auto Bulb range. Using the sampling techniques laid down by BS6001 bulbs are checked to the relevant ECE and BS standards.

The Quality Assurance Department carries out a much bigger role than simply testing our existing products.

The department's extensive facilities are used in the continuous process of product development, comparing the performance of existing products to those utilising the very latest technologies. It works closely with our manufacturing partners in developing those new technologies.

It is also able to monitor and assess the general quality of the market place issuing regular updates on other bulbs available. Working in close cooperation with our customers it can issue technical reports on request.



BS EN ISO 9001:2015  
FM 504682





## Light Tunnel Laboratory

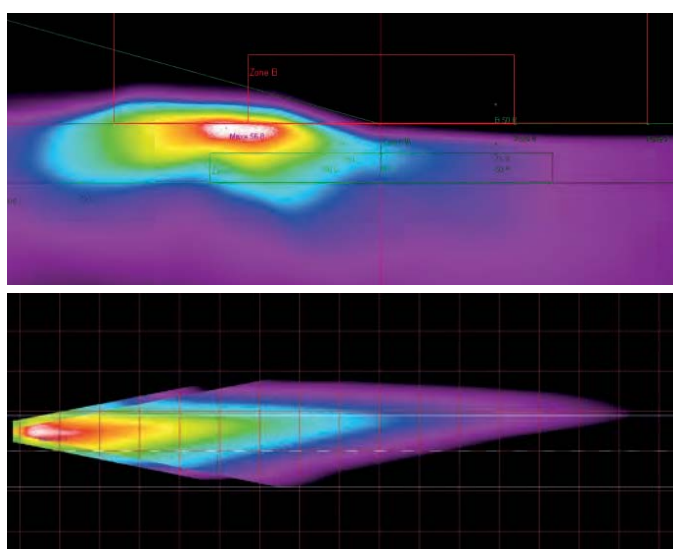
Designed and developed by Ring, the lighting laboratory is a unique installation that allows product testing and performance verification beyond that laid down by international standards.

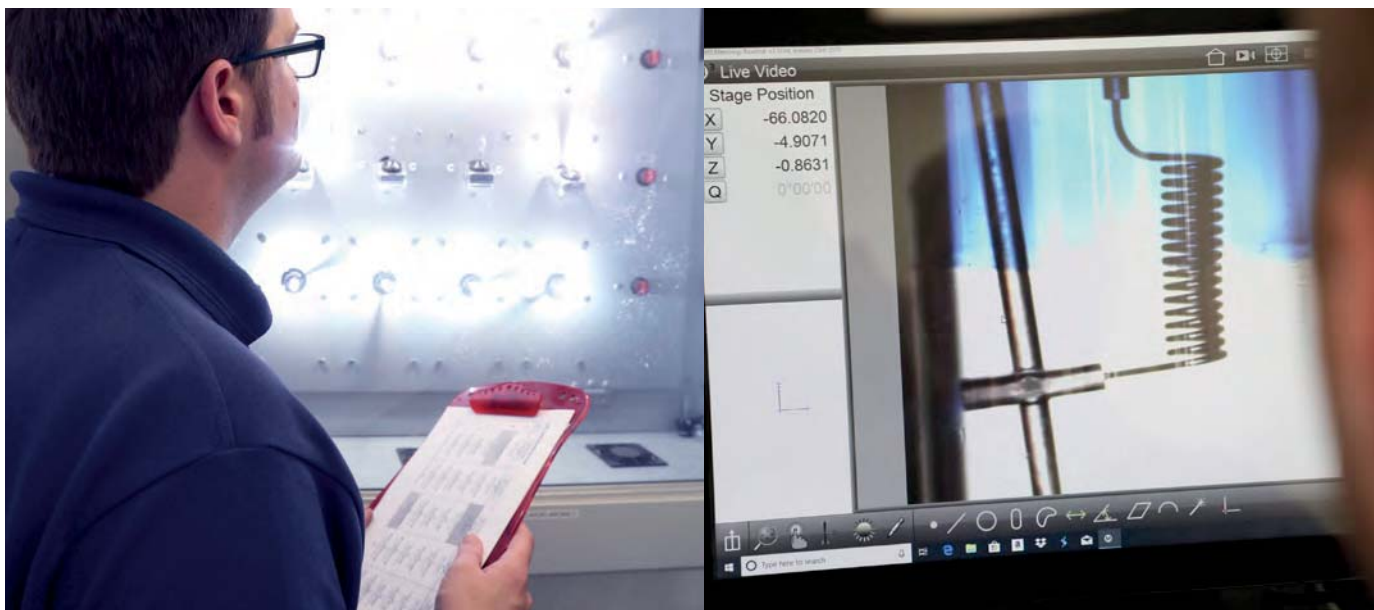
The state-of-the-art laboratory is equipped with the latest ProMetric CCD light imaging photometer. Where a traditional goniophotometer can only measure the light intensity and colour from the lamp at one point at a time, the new ProMetric photometer can measure 8 million points simultaneously. Localised light and colour difference can easily be detected by looking at the individual measurements taken from any point. These measurements can then be displayed as a conventional image or via a colour isolux image.

These images clearly illustrate the performance of both the light unit and the light source and can be used to access the relative

performance of products. Our extensive database now contains many thousands of results which can be used to improve both our understanding of our products performance but also other products sold in the market.

The data is used to further enhance and improve our products. The specially designed software allows data to be shown as overhead images to produce a bird's eye view of the product's enhanced performance on the road ahead. The performance of products can be checked against the international standards using the reference data points from European headlamp standards.





## Quality Control

### Luminosity and Colour

Using an Integrated Photometer, luminosity or the light output, is measured. This calibrated sphere compares the light output of the sample against a calibrated bulb from the National Physics laboratory. The light output is then checked and verified against the relevant standard. Bulbs are checked for colour compliance by comparing the output to chromaticity values defined in the standards.

### Life Testing

Bulbs are tested for their static life using a computer controlled life test rack.

This accelerates the life of a bulb using increased voltage between 110.0-116.6% as specified by BSI or I.E.C standards.

This life test is not a continuous test, but a cycle test that switches the bulbs off and on, to put the maximum load on the bulbs. In the case of twin filament headlamp bulbs the test alternates between the main and dipped beam filaments.

### Lamp Dimensions and Filament Positions

Lamp dimensions and filament positions are verified on a shadowgraph magnification projector.

With the increasing use of complex surface reflectors on both front and rear lighting it is becoming more important that the filament is located at the correct position. Failure to do this will result in a very poor beam pattern as the source of light is not at the focal point of the lamp.

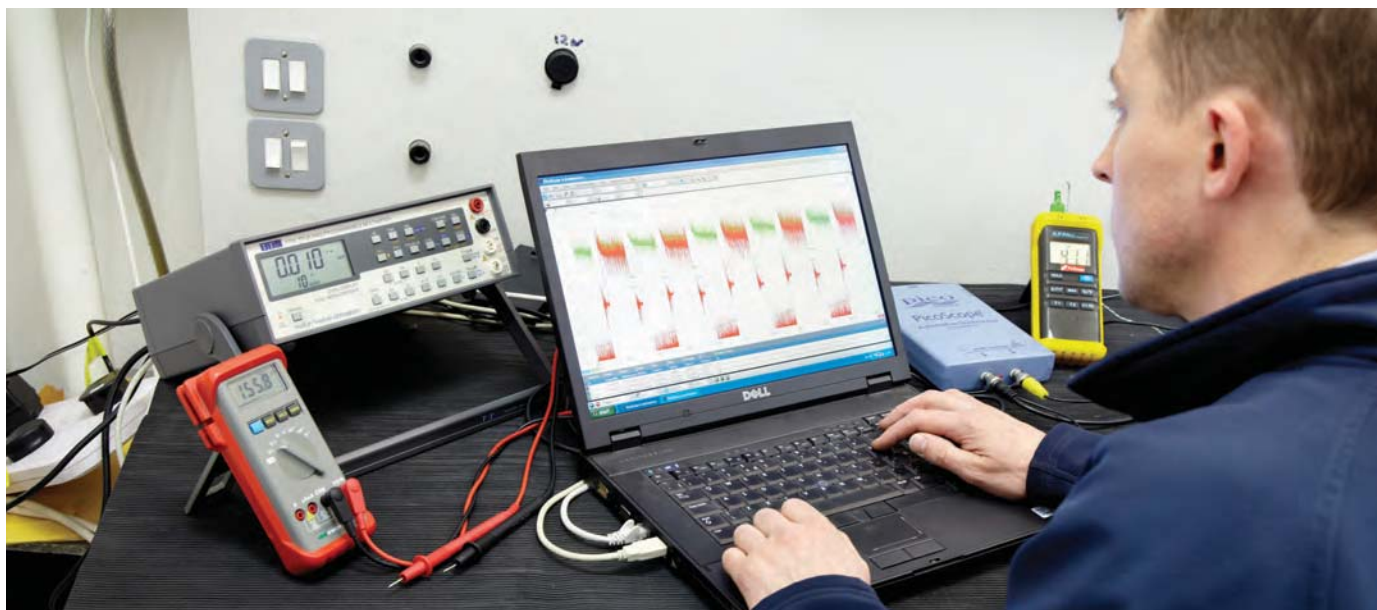
### Vibration Testing

Whilst there is no international requirement for vibration testing within ECE specifications, Ring carries out vibration testing in its laboratories.

The amplitude and the frequency of the vibration can be adjusted to create a variety of adverse conditions. This test is the nearest we can get to simulating what happens on the road and is particularly relevant to the arduous conditions found in the commercial vehicle market. Ring is able to benchmark its products and those available in the market place.

### Other procedures carried out:

- Envelope to lamp holder test – the bulb is torque tested against calibrated weights to ensure the cap is secure.
- Cap dimensional test – the bulb cap is checked against calibrated gauges to ensure the correct fit to a lamp holder.
- Envelope test – the glass envelope is checked against calibrated gauges to ensure the correct size.



## Product Development and Testing

**Ring's Quality Assurance Department carries out a much bigger role than simply testing automotive bulbs.**

The department's extensive facilities are used in the continuous process of product development, comparing the performance of existing products to those utilising the very latest technologies. It works closely with our engineers in developing those new technologies.

The facilities to capture data and log actual performance together with extensive test equipment provides valuable

assistance in creating new products in the auto electrical and power management product categories.

As new vehicles embrace new technologies such as 'Stop/Start' battery systems Ring already has in place a range of battery chargers to meet the market demand.



# Vehicle Lighting

Notes



# Brighter Roads Ahead



- **Up to 200% more light\*** on the road ahead allowing drivers to see more
- See and be seen with a **longer beam pattern**
- **Better visibility** of road markings and signs
- **Up to 3700K** colour temperature meaning a whiter look in the headlamp compared to a standard bulb
- **No changes** to vehicle wiring required
- Available ECE types: **H4 / H7 / H11**

\*compared to standard halogen bulb



## Xenon200

A new dawn for brighter headlight bulbs



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