This article was first published in the MR2 Club magazine 'Track Record, Edition 1, July 2008

Better mr2 headlamps

Updating your mr2 headlamps can be done fairly cheaply, and can be an important modification for safer nighttime driving.

On early MR2's, the OEM headlights had **sealed beams**.

Although sealed beam lens/globe assemblies are very long lasting their brightness deteriorates over time, so that any cars that still have these original units fitted will now be very inferior when compared to the headlights fitted to late model cars.

I believe that from about 1992 onwards Toyota fitted semi-sealed lens/reflector assemblies as standard, giving the option of fitting high performance globes.

However some of these units are now about 20 years old and I wonder how these compare with the modern designs now available. Updating the lens/reflectors on these cars also could mean better headlamps as well.

A simple and cheap Halogen upgrade.

Anyway, if you still have the old sealed beams fitted, for a relatively low cost your headlamps can be greatly improved simply by fitting modern high quality semi-sealed lens/reflectors, in combination with high performance halogen globes.

This modification is quite easy, with only a screwdriver needed for the job. You only need to pop up the headlights and remove the 30 amp RTR fuse from the frunk fuse panel, then after removing the black plastic trim there are only 4 screws to undo each side to allow you to swap over the lens assembly, and the wiring plugs straight in to the new globe.

The new setup will also be quite legal providing the aim is adjusted properly after fitting, and detailed instructions on how to do this are easy to Google up.

Lens/reflectors

A '90 model SW20 sealed beam unit

There is a range of rectangular lens/reflector assemblies on the market in the stock MR2 size, but make your choice carefully because there is a vast difference in quality between the most expensive top name brands and cheap lens/reflector assemblies from places like ebay, some of which have plastic lenses that can discolor and melt. Like most things, you get what you pay for.

In Australia, something to be aware of with modern headlamps is that on low beam there is a sharp cutoff of the beam to eliminate blinding oncoming drivers, and the beam rises on the left side to help see cyclists, pedestrians, and road signs etc.

However in left hand drive countries the beam rises on the opposite side, and anyone tempted to buy stuff from overseas via the Internet should be aware of this, so it's probably best to purchase lenses in Australia to be sure of complying with ADR rules.

Globes

I'd recommend fitting globes with the same power rating as the original **55/60 watt** sealed beams, because even with the same power, your new lights will be much brighter than before.

Also, since the original sealed beam connectors will also fit the new H4 globes, no modifications to the stock wiring will be needed. When fitting a globe use a clean piece of cloth, and don't touch the glass surface with your exposed fingers or you could shorten its life.

Higher powered globes (100 watt)

For those tempted to go one better and fit even higher powered Halogen globes there could be problems.

If you were to fit 100 watt globes, apart from them having a much shorter life you would be asking the system to carry double the current it was designed for with the possibility of cooking the wiring.

As well as that, unless dedicated headlamp relays had also been retro fitted, the dipper switch contacts could easily become pitted and burn, which often happens anyway even with stock rated globes. (Check out my other article on this)

You'll find a large range of H4 globes to choose from, with different performance claims. You can easily Google up the manufacturers claimed specs and make your own choice, except that I would recommend you definitely stay away from the **el cheapo** blue colored ones. They are more likely to attract unwanted police attention anyway.

My own installation

My car is a 1990 Aus delivered SW20 and to replace the original sealed beams I fitted Hella semi sealed units, as shown in the next pics.

These have high quality lead crystal lenses — Hella part number 1043, Headlamp insert Q.H. 200x142 mm.

As you can see, the reflectors also have optional parking light sockets, but obviously these are not needed with the MR2 popup headlights.

To these I originally fitted Phillips Vision Plus 55/60watt H4 globes.

I had chosen this combination because I had seen very good reviews, and this was confirmed on the night that I took it for the first test drive after fitting them.

The new lights made a huge difference, and I was staggered at how much brighter and whiter they were compared to my old sealed beams, even though compared to the original sealed beams the new globes were the same power rating!!

On low beam there was a very sharp cutoff in front of the car, with the beam rising slightly to the left similar to most late model cars meaning less glare for oncoming drivers, and on high beam I could easily see a much greater distance ahead than before.

This lighting update to my 1990 model MR2 has greatly improved safety when driving at night, and for a total cost of about $200 for the lens set and globes I believe it was money well spent.

Ian Morrison

2013 Update:

Advances in technology means that even better globes are now available than when I originally did this installation almost five years ago, and I have recently updated to Phillips X-treme Vision +100% +35M globes.

With these, even though they still retain the same 50/65 W power rating they are even brighter again compared to the original conversion, and they also have extended distance on the high beam.

This makes the case even stronger to update to modern headlamp lens/reflectors to allow you to use these globes.