



Installing twin 12v batteries in parallel

Peter Berry had followed the advent of the 12v battery conversion for the MGB generally from the early days of the concept and latterly the twin 12v battery conversion kit and felt the latter would be a useful upgrade for his MG V8. But in September 2020 he was caught out unexpectedly when his existing twin 6v batteries in series packed up during a journey half way up the country in his MG V8 on a long weekend break. The car had started successfully four times that day but on the fifth occasion, there was nothing – just a click! The attending AA man told Peter he had 3 volts in one battery and 4 volts in the other. No wonder they gave up normal duties between them. The story had a happy ending and was covered in the V8 Newsletter in August 2024. On that occasion the purchase of two new 6v batteries was the only quick solution to continue the holiday, so the 12v upgrade was delayed once again. Victor Smith experienced similar problems last year on his way to the V8 Tour at Penrith which promptly 'killed' his alternator at the same time. Here Peter Berry describes how he carried out the twin 12v batteries upgrade himself.

[Link to the V8 Newsletter August 2024](#)

Carrying out the twin 12v batteries upgrade

Manor Garage, at Grove on the outskirts of Wantage just west of Abingdon, supplies a wiring kit for the twin 12v batteries upgrade. They also offer a supply and fit installation. Victor took his MGBGT V8 down to Manor Garage for their full 'turn-key' conversion, supplying and fitting the kit and the twin 12v Bosch batteries upgrade for him. This conversion was covered in the V8 Newsletter in August 2025. However I felt I could do the work myself, so I contacted Richard Chapman at Manor Garage and he was very happy to supply the two Bosch S4 001 12-volt batteries, the revised wiring cable harness and the terminals all complete with instructions. They all arrived very well packaged and very promptly. Being modern batteries, incorporating modern technology, these batteries come as sealed items, so there is no chance of battery acid leakage during transit or indeed during installation. How difficult could it be? Well, there was only one way to find out, although there were a few unexpected hiccups along the way. Overall though, the job went very well and should be easily completed by most owners on a DIY basis. You will, however, need a trolley jack and a pair of axle stands.

[Link to the V8 Newsletter in August 2025](#) < link to be made

The first problem was quickly encountered when checking over all supplied parts. The kit came with a large eyelet connector, which was to be crimped and soldered to the existing positive lead within the left-hand battery box (when viewed from within the car, looking towards the rear – which is where the majority of the work is carried out from.) Although I possess a couple of soldering irons, neither were going to be up to the job of soldering the 25mm² copper cable into this eyelet lug. So, I

hunted around on the internet and eventually came up with a so-called 're-usable welding cable lug' (sic) which had the correct sized hole for attaching to the battery terminal connector (also supplied) and a sturdy twin-screw connector for securing the cable wire to the lug. This is a link to the cable lug, purchased through eBay. You will need the 25mm² item.

<https://www.ebay.co.uk/itm/363517312597?var=632739341720>

It's fair to say that with the connection made, the resulting cable was only just long enough to reach the positive terminal connector on the battery – which is located towards the rear of the car. This was probably my own fault when I cut and removed the original 'top-hat' connectors around 35 years ago. (Why did BL ever fit these things?) With a central self-tapping screw winding down into the soft lead battery terminal, the connection would invariably be over-tightened and would soon work loose, causing all manner of problems!

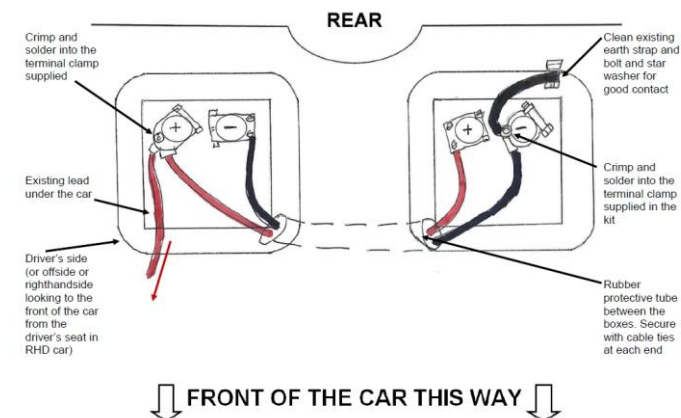
After removal of the twin 6v batteries, using my **Sealey Battery Carrier** (referred to in the V8 Column in July 2025 – an absolute must) the next job was to remove the original connecting cable, complete with armour protected link cable, which connected the two batteries together in series. This is held to the underside of the transmission tunnel with a single 'P' clip and a 7/16" AF bolt. To work on this required jacking the car up, securing it on axle stands and wriggling underneath to the centre of the car. With a torch and a long extension from my socket set, I reached up and over the prop-shaft to locate one of the very few bolts which has probably never been removed since my car left the factory 52 years ago. To my complete surprise, the bolt loosened very quickly and was soon out. No further access is required to this area to complete the job – unless you are going to clean up and paint the battery 'cages' from under the car.

[Link to the V8 Column July 2025](#)

Next comes installation of the new (supplied) cable harness, which is set up for the 'in parallel' installation of the twin 12v batteries. The harness comes complete with all positive and negative terminal connectors and a protective rubber tube with cable ties at either end, which passes through the bodywork openings.

Twin 12v batteries in parallel conversion

Wired "positive to positive" and "negative to negative". Secure the batteries with the existing "J" bolts and washer spacers. Ensure the batteries are positioned to avoid shorting out on the body of the car.



[Link to a copy of the diagram above](#)

Although the appropriate battery connector will just about fit through the body apertures for these cables, it's a tight fit, with much angling of the connector required to get it through the hole. With the stiff cable attached to it, the awkward position and the fact that unless you have taken both seats out of the car (I didn't!) you will be doing all of this with an arched back and some fairly unusual upper body angles. On balance, I decided to remove the connector, pass the cable through the bodywork and reconnect the connector on the other side. Once again, this is easier said than done, as all the small copper cable strands must (should) be fed into the connector before the crimping screws are tightened down again. (I think I may have missed around half a dozen, which were neatly cut away with a Stanley knife, flush with the terminal end.)

The remainder of the job is quite straight forward and didn't present any other surprises along the way. The installation of the batteries with my Sealey battery carrier is next, holding the cables out of the way with the other hand. A second pair of hands can be quite useful at this stage, as your back will be protesting a little by now. Connect up the 'J' clamps once again, (I use stainless steel items to prevent corrosion next to the batteries) and this is where a great deal of patience (and three hands) is vital, to prevent the 'J' clamps from falling out of their locating holes while the nuts are being tightened down. I have in the past used a cable-tie and a bungy strap (hooked over the back seat and around the rear of the load area cover) to hold the bridging-plate 'up' when tightening the 'J' clamp nuts. It's debateable, however, whether this is more trouble than it's worth! I've yet to find a better solution – although perhaps that second pair of hands is the best answer, when they're available.

Maintaining battery condition

My car has a battery conditioner connected, with the leads connected directly to the batteries and the connection point exiting from beneath the back seat. Richard Chapman of Manor Garage advised that these can be connected to either of the positive and negative terminals to condition both batteries simultaneously. Others prefer to use the cigar lighter as the connection point (which works very well) but this has given way to a clock in my car.

So, there we are; the **DIY approach to the twin 12v battery conversion**. It's not difficult, just a little time consuming (I split the work over two days) and the necessity for a hot bath afterwards! Now is the time of the year to complete this work. If you run your car through the winter, you do not want to do this job then, when the batteries have unexpectedly given up at an inopportune time and in the 'wrong' place. Think ahead and plan in advance is my considered advice.

Obviously this twin 12v battery upgrade can be applied to the 1800 MGB and the MGC, so plenty of applications on this one.

Footnotes

It's worth mentioning that I came across the following piece of advice written on the "**mgb-stuff**" website in defence of the armoured link-cable casing, which runs over the top of the prop-shaft. It seems that the armoured casing was installed to prevent chafing of the cable against the prop-shaft during full suspension travel. The piece states: "If this is not done, compression of the suspension can cause the prop-shaft to wear through the cable insulation with predictable results ..."

<https://www.mgb-stuff.org.uk/linkcable.htm>

Although this seems extreme, the design development team at MG back in the early 1960s must have identified a potential risk during testing. If you're in the habit of driving your MGB (or MGC) very enthusiastically, or competitively (especially over rough surfaces with plenty of suspension travel) then I would advise the reinstallation of the armour casing. That said, the author of the 'mgb-stuff' website goes on to say: "Sometime later something made me remove the cable and check it and the insulation had worn part way through. I put it through a length of plastic waste pipe that was supported by the holes in the sides of the battery boxes but even that subsequently showed the underside as having been rubbed by the prop-shaft." Arguably the underside of the plastic waste pipe referred to here will be a lot lower than the original 'P' clip with armoured cable but as with all things, it's a case of caveat emptor – or buyer beware.

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