

E31 Battery Replacement Procedure

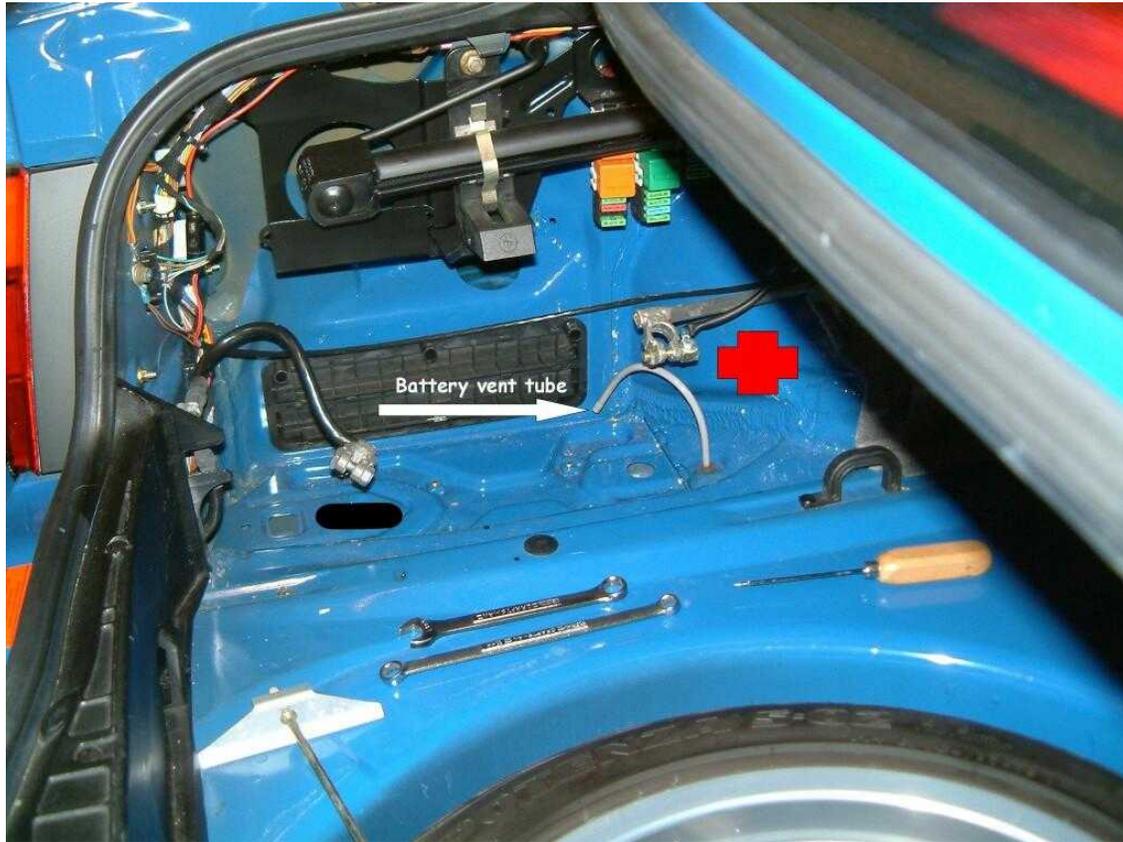
After over four years of service, the BMW batteries I installed shortly after bringing my car home from the federalizer finally signaled they were ready to pack it in by failing to turn over the 5.6L beast. Rated at only 600 CCA each, I always thought a little more battery capacity might be a good thing given the monster engine and the E31's appetite for current. Luckily, I have an Interstate Battery store / distributor warehouse located not too far from me. A quick perusal of their application guide indicated their MTP-93 batteries were just the ticket for upgrading the batteries in my car.

The MTP-93 is a Group 49 sized battery, and is rated at 850 CCA, nearly a 42% increase over the batteries being replaced. Plenty of power to fire up the cammed CSI, and plenty of reserve capacity.

The batteries are accessible on each side of the trunk. In this first picture, you see the driver side battery before removal. Note that the battery tray is welded in at the factory, and that at least on my car, there is only one attaching point for the battery mounting bracket - that has a nut welded to the bottom of the tray. Clearly, the factory intended use of the smaller Group 48 sized battery. But as indicated in the picture, the battery tray does have a mounting hole available to accommodate mounting a Group 49 size battery; it just doesn't have a mounting nut welded in.



The next image shows the driver side battery tray area with the battery removed. The vent tube is clearly visible.



With the driver's side battery removed, it was then time to remove the passenger side battery. It's a bit more PITA because the CD changer is mounted in front of it. Once the trim panel is carefully lifted up and over the CD changer, the CD changer mounting is clearly visible. The CD changer is secured by a single bolt, and then a slight tug towards the rear of the car slides the CD changed off the mounting bracket. Following is a photo of the CD changer following removal from its mounting bracket:



Next, you must remove the mounting bracket. It is secured by four 10mm nuts, two at the top, and two at the bottom. Once the nuts are removed, you can lay the bracket down flat in the trunk. The Euro CSI has the AHK control unit mounted on the back side of the CD mounting bracket, and it is visible in the following photo:



With the bracket removed and out of the way, the remaining battery can then be removed. At this point, all power has been disconnected from the car which will cause all stored fault codes to be erased from memory. The problem now facing me was how to mount the larger batteries using the factory mounting brackets. As noted above, this was a problem because the battery trays do not have a 10mm nut welded to the bottom side to accept the mounting post. How can the post be secured? After stumbling around for awhile, and even considering taking the big Mega-Tron Pluses back for the normal sized ones, the solution came to me and is pictured below. A thin 10mm wrench had to be modified to slide under the bracket to hold the nut in place while the bracket mounting post was secured. The modified wrench:



Actually holding the 10mm nut in place with my "special" tool also required some thought. I finally realized the nut could be held to the wrench by using some masking tape on the bottom of the nut that also wrapped onto the wrench.



With the mounting bracket problem solved, installing the batteries was easy. Due to the design of the larger Group 49 batteries, it was necessary to extend the vent tube from the battery and connect it to the existing vent tube. The batteries were snugged down, the cables reattached, and the installed Group 49 battery appears as follows:



With the new batteries, the car easily fired right up and the car's electrical system had received its excellent Christmas present. The larger batteries are worth considering when yours are ready for replacement.

Submitted by: Steve Castle 12/26/05