

SAVVA technical Tip 150 – 12 volt generators

This is an old discussion point, however, a couple of enthusiasts have mentioned they would like to change their vehicles from 6 to 12 volts. The question asked is - is it a simple task and can it be done by the average DIY enthusiast.?

It isn't a difficult job but you have to be an auto-electrician, mechanic, and a machinist to complete the job. To start with you have to change all your light bulbs. You may also have to change the bulb holders as modern 12 volt bulbs don't always fit into the early 6 volt holders. Most 6 volt generators have a cut-out to control the charging rate, this will have to be replaced with a 12 volt regulator. Fit a 12 volt coil and make sure it doesn't need a resistor. Should you have headlight, hooter, or any other relays they must also be changed. Another problem will be your fuel gauge. These gauges are nothing more than voltmeters so you will have to replace it or fit a resistance in line to bring the 12 volts down to 6 volts. Your hooter should survive but don't "blow" it continuously or you will have an ex-hooter.

We suggest you find all the bits and pieces before starting the job. Items like original 12volt relays are in very short supply but one can always fit modern ones – as long as they are not visible!!!

One of the biggest problems (headaches) you could face is the drive pulley. Your current 6 volt generator will be fitted with a broad fan belt and to find a 12 volt generator with a pulley to take a broad belt could be problematic. Most US built cars went to 12 volt in 1955 and 1956 still using broad belts and in about 1957 they went to narrow belts. So ideally a generator from the 1955/56 would solve your problem. A few years ago these were freely available but are very scarce now.

With a bit of luck your old pulley may fit onto the shaft of the 12 volt generator. If not, the services of a good engineering shop will be required.

Incidentally, fitting a narrow belt to a broad pulley is looking for trouble – see picture. I was told by this vehicles owner he couldn't find a broad pulley for the generator so he just fitted a narrow belt and hoped it wouldn't give trouble. We've got news for him!

Last but not least, why not fit an alternator and get it over with! we'll discuss this next time.

