

Simple homemade 12 volt ozone generator

<http://www.buzzle.com/articles/homemade-ozone-generator-build-your-own-ozone-generator.html>

Ozone (O₃) is present in the stratospheric layer of the Earth's atmosphere. It is a colorless gas and is corrosive in nature. The ozone layer protects the Earth from the harmful ultraviolet rays of the sun. The ultraviolet rays can cause skin cancer, various eye diseases, etc. But the ozone in the Earth's atmosphere also gives rise to various health complications like respiratory disorders. Studies have suggested, "Every 1% depletion of the ozone layer, increases the exposure of the Earth to ultraviolet rays by 2%". Therefore, a lot of countries have come together and agreed to the Montreal Protocol. This protocol talks about reducing the usage or making of chemicals, which cause harm to the ozone layer.

There are various methods, which can be used to build your own homemade ozone generator. Here, let us take a look at one of these methods.

The parts required to build your own ozone generator are

- Transformer with its power ranging from 3000v to 7500v. (it can be found at the neon sign dealer.)
- 2 glass jars (one small, one large. The small jar should fit well in the large jar. Glass from photo frames can also be used.)
- Copper, brass, aluminum scrap foil or used razor blades
- Window screen or aluminum screen
- Wooden board, to mount the transformer
- Wire or cord
- Plug
- Glue gun of high temperature
- Alligator clips

The steps to make your home made ozone generator can be listed as under

Step 1

Put the copper, brass or aluminum scrap that you have in the small glass jar. Care should be taken, that the base of the jar is completely covered with the foil. Similarly, foil the large jar as well.

Step 2

Place the small jar inside the big jar. Stick the two jars with glue. In case you do not have glue; be careful when you choose the jars, the small jar should fit into the large large properly. The large jar is used as an insulating agent.

Step 3

Attach the clips to the end of the transformer lead. This should be followed by attaching the next lead to the aluminum foil inside the jar. The other lead should be attached to the foil outside the jar. Take care that these two leads do not come in contact with each other.

Step 4

Mount the set up on the wooden board, so that the entire device is insulated. If a wooden board is not available, any other insulator can also be used. The transformer can now be plugged in safely.

There are certain indicators, which can be of help, to know whether the homemade ozone [generator](#) is working as expected. The indicators are:

- When you plug the generator, there is a possibility of crackling noise from the generator. If there is indeed a crackling noise, then it means that the device is working properly.
- If the generator is placed in a dark room, a purple or a blue emission is seen from the jar. Then the ozone can be smelt immediately.
- In case a yellow glow is emitted, it's an indicator that the glass is broken. In that case you will have to replace the glass jar. For doing so unplug the transformer first and then replace the glass jar.

Ozone can also be used as a deodorizer. It is beneficial to humans, animals and plants alike. It can be used to kill bacteria in the house. But over exposure to ozone can be dangerous. The ozone generator should not be used in humid areas, as its reaction with metals leads, in these areas, can lead to metal corrosion.

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