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FAQ'S – INFINITUM DESULPHATOR 12V/24V

1. Reconditioned batteries don't hold their charge. Why is a restored battery with your desulfator different?
All lead acid batteries will sulfate as they age. In the past batteries have been reconditioned by putting more acid in them and/or by forcing a charge into the battery with powerful chargers. These batteries are still badly sulfated and so will not be able to hold their charge. However, with our battery optimizers the condition of the plates is nearly as good as they were when new.

2. If desulfated batteries are so good why have they not been done before?
Yes, Why Not ! Seriously desulfators have been around for some time now. Our desulfators are a breakthrough in it's own right as they are more efficient.

3. Can all batteries be revived?
Any lead acid battery can be revived by desulfation. This includes gel based batteries and even marine, golf cart and fork lift batteries. These batteries weigh in excess of 800 kgs. Of course physically damaged and shorted batteries cannot be revived. Batteries that have lost their paste will not be strong enough.

4. Can maintenance-free or dry batteries be revived?
Yes. Over the years, calcium has been added to lead plates to improve grid strength and conductivity, and reduce gassing and its self-discharge rate. With this, the low-maintenance or maintenance-free battery was introduced. However, the alloy plate is still consists of more than 99% lead. Whether the battery is calcium-calcium, calcium-silver, lead-calcium, or lead-antimony, it is still essentially a lead acid battery.

5. Will it harm my car ECU or alternator?
No. Our Desulfators have gone through EMC (Electromagnetic Compatibility) testing and have been proven to be completely safe for use, even in luxury or high tech cars where sensitive electronics are used. Neither the electronics nor the Desulfator unit will experience damage.

6. Is battery reconditioning - recycling?
We would like to look at it as the first phase in the recycling of lead acid batteries. By extending the life of lead acid batteries we are maximising on the use of scarce resources.

Desulfator Efficacy

1. How long does it take for a battery to be fully desulfated?
For a regularly used car you can have your car battery fully desulfated within a 2 week period. When used together with a battery charger, it can take 1 to 2 days.Do note that the duration of desulfation varies due to the age and degree that a battery is sulfated. I recommend you to purchase our Digital Battery Analyzer, so that you are able to objectively gauge the status of your batteries before moving on to a new set for desulfation.

2. Does the Battery Desulfator work when my vehicle is not in use?
Our Battery Desulfators have been designed to work when there is an active charge entering the batteries or when the battery or battery bank has a voltage above 12V (for the 12V model). This is intentional so as not to drain the batteries. To optimize your battery even though you rarely use your vehicle, you can bundle any of our chargers with our Desulfators. Together, they will keep you batteries charged and optimized at the same time.

3. Will your desulphator work on 200Ah and multiple 200Ah batteries?
Our desulfators work regardless of the Ah (Amp Hour).

4. Will I be able to use your desulphator if my battery charger power source voltage is 240V AC at 50hz?
Your power source to charge your batteries can be ignored. The desulfator works as long as there's voltage at the battery. The mains will only be used to power the chargers.

5. After two weeks of operation, there is no improvement in specific gravity for any of the cells. When can I expect this unit to start dissolving sulfur from the battery plates and increase specific gravity towards 1.265? It reads at 1.22 to 1.24.
Specific gravity refers to the state-of charge of the battery.The higher the specific gravity, the more charged the battery is. Specific gravity

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actually measures the concentration of the acid, so depending on when measurements are made, specific gravity's will give differing values.

All that said, there will be deterioration of active material on the positive plates of the battery over time. This is normal. The greater the deterioration, the lower the SG of the battery when in its fully charged state. An older battery clean of sulfate crystals will always show a lower SG than that of a new one.

Instead of measuring specific gravity, it's actually more accurate to measure the CCA (Cold Cranking Amps) of the battery. After all, you don't need to know how charged your battery is. You want to know how well it'll crank your vehicle. Specific gravity is actually a poor indicator of the battery's performance as it changes depending of the state of charge of the battery, and it doesn't actually tell you how much more lifespan you have left in your battery.

Also, max specific gravity depends on the battery itself. For example, certain batteries only have a max specific gravity of 1.255 - 1.260. Maintenance-Free batteries can go up to 1.280.

6. If I were to fully charge a 3-year old battery which suffers from unequal specific gravities between cells, then empty each cell of the original electrolyte and replace it with fresh electrolyte, would I increase the battery capacity?
Uneven SG between cells just mean that some cells are more charged than others. Never pour out the electrolyte. The battery is a balanced CLOSED environment, and the only thing you ever add to it is distilled water.

To get the cells equalized, you can either connect the battery to a charger and desulfator and leave it for a few days, or simply overcharge (at a higher voltage) for an hour or so (you'll see lots of gassing in the electrolyte).

7. Do you have any advice for improving the efficacy of the device? Is it possible that the car's computers/electronics absorb some of the unit's pulse output? Perhaps disconnecting the battery from the car while at rest would help?
Leave the desulfator connected to the battery at all times. That's when it works best. The car's electronics will not disrupt the efficacy of the Desuflator.

8. My 12V Desulfator does not start to work until the voltage reaches 12.95 volts instead of 12.5volts, is it faulty?
Operation-wise, there's hardly any difference between 12.95 or 12.50 or 13.50V. The key point here is that the desulfator works when "the engine is on" and turns itself before the battery gets discharged. The electronics that make up the desulfator are analogue based, and there will be a slight tolerance between units. In this case, it's less than 4%. It's not a failure or defect, and will work fine. So they are not faulty.

9. Can all batteries be recovered or desulfated?
Batteries failures are usually due to several factors:
• Natural wear & tear: old age, separators between plates decay, plate connectors corrode, etc.
• Abuse - filling tap water instead of distilled water into the batteries.
• Lack of Maintenance - not filling water into the batteries, loose connectors.
• Aging - batteries that are too aged will lose active material.
• Crystallization of Lead Sulfate - 84% of batteries fail due to this (Battery Council International).
As the names suggests, desulfators can only recover sulfated batteries that are not too aged.

Multiple Battery Desulfation

1. Can I unplug and move it from battery array to another battery array to keep multiple batteries alive?
Yes, but to keep all your batteries in their optimum condition, its best to keep them installed permanently.

2. **How many batteries can this be connected to in parallel?**
There are many various combinations as long as they add up to the voltage of the Desulfator you purchase. These are possible battery serial connection configurations:

- 12 X 2V battery to one 24V Desulfator or 6 X 2V to a 12V Desulfator
- 4 X 6V battery to one 24V Desulfator or 2 X 6V to a 12V Desulfator
- 2 X 12V battery to one 24V Desulfator

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Installing the 24V Battery Desulfator
In a 12 unit 2V battery configuration, connect the 24V Desulfator in parallel by connecting the positive lug of the Desuflator to the positive terminal of the first battery, then connect the negative lug to the negative terminal of the 12th battery in that serial connection.

3. I have a solar battery bank consisting of 24 batteries all connected together in parallel, (+ to + to + all the way down, and - to - to - all the way down) and connected to a charge controller connected to the solar array. How can I optimize the life span of a solar battery bank setup?
Essentially, one 12V Desulfator should desulfate only one 12V battery for optimum efficiency. Since they are setup in parallel, I suggest you get one unit for each of your 12V batteries. However, you can still connect the Desulfatorsin parallel to your battery banks, it will still work. But what you will find is that the closer the batteries are to the Desuflator the better the efficiency. This is true, regardless of the brand you use.

4. I'm looking for a desulfator for my solar battery system. I have eight 6V batteries wired in series/parallel so that together, I have 12V at 1600 amp/hours. Will one sulfator work on a battery bank this large?
Yes it will. You will need to hook one 12V desulfator to two 6V batteries in series. So you'll have 4 units of 12V desulfators over the 8 batteries

FOR FURTHER INFORMATION
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