



Frequently Asked Questions about OptiMate

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Which OptiMate do I need?

- Your choice of OptiMate should be focussed by the main intended use you have in mind. For example if you will mainly use your OptiMate for motorcycle battery maintenance, but would like to be able to occasionally charge a car battery, an OptiMate 1, 2, 3 or 4 will be fine. Your choice then is just to balance the additional features vs cost. Just bear in mind that if you ever needed to charge a car battery from flat with a low power OptiMate it may take a while. They are all perfect for long-term maintenance though. Likewise if your main use is for a car and you would occasionally like to charge a motorcycle battery, OptiMate 5 or 6 would be best. For faster charging of large batteries look at OptiMate 7; for Professional use like regular commissioning of new batteries see the OptiMate Pro chargers. For 6V or 24V charging choose the specific models.

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Can my OptiMate be left connected to my vehicle for long periods of time unattended?

- Yes. This is exactly what Optimate is designed to do. OptiMate's gentle charging algorithm will never overcharge or undercharge your battery.

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Can my OptiMate be used with AGM / MF / Gel / EFB / Sealed / Batteries?

- Yes.

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Can my OptiMate be used with Lithium / Lithium-Iron / LiFePO4 Batteries?

- We only recommend OptiMate Lithium chargers for Lithium batteries. These batteries are very different to lead-acid construction and have very different characteristics. OptiMate Lithium chargers have many special functions and features designed solely for Lithium batteries. Using an OptiMate Lithium charger will extend the life of your Lithium battery enormously. In certain circumstances, using a traditional lead-acid charger will cause damage to a Lithium battery hence we cannot recommend it.

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What is OptiMate CANbus?

- OptiMate 4 Dual Program has a function to connect to batteries of BMW motorcycles which have CANbus (or LINbus) wiring which in practice is most made since 2008. These bikes have 12V DIN sockets which are

controlled by the bike's Battery Management System. The system is designed so as to turn off the socket 15 minutes after the ignition is turned off, ironically in order to protect the battery Voltage, as the socket was initially only envisaged as a power outlet. To use the socket to charge the bike's battery it is necessary to communicate with the Battery Management System to keep the socket awake – otherwise charging will stop after 15 minutes. When set in the "CANbus" Program, OptiMate 4 can be used to charge these bikes via the socket for as long as you like. NB this only applies to BMW motorcycles. The word "CANbus" refers to the wiring communication network used on a great many vehicles – OptiMate 4's "CANbus" program is only for BMW Motorcycles.

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Can my OptiMate damage my battery or vehicle?

- Absolutely not! Although most OptiMates have a high Voltage recovery mode, this is disabled when the OptiMate is connected to a vehicle. The turbo recovery function is disabled when OptiMate senses vehicle wiring - by charging the battery off-vehicle the full recovery function is enabled.

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What does the OptiMate's red Test light tell you?

- OptiMate's Red Test LED is to tell you there is a battery problem. It is warning you that the battery is unable to retain its full Voltage after the main recovery & charging stages have been completed. This can be due to various causes: e.g. one or more of the battery's six cells having suffered an internal short-circuit. This is like a "hole in a bucket" allowing the delivered charge to run out of the battery again quite quickly. Another common cause is a power drain from the vehicle's wiring. To verify this, remove the battery from the vehicle and reconnect OptiMate.

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OptiMate was displaying the green Test LED, but now it is showing the red LED – why is this?

- When OptiMate has verified that your battery is fully charged, it will pause for 30 minutes to conduct a charge retention test. If your battery passes this test, the green LED lights to indicate "battery charged & tested OK". However, OptiMate is not satisfied with just one check. Each hour that you leave it connected, it will re-perform the same test continually to ensure the information (green or red LED) it presents to you is always up to date. Should the battery fail any one of these continual tests, green gives way to a red LED but your battery will continue to receive a charge. A brief drain (e.g. alarm siren) will cause a red indication to display until the next test cycle. In addition to just pass or fail (red or green) indications some OptiMates now feature five possible test results to give a greater insight into your battery condition.

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OptiMate has "red-lighted" my battery but it seems fully charged – surely my OptiMate has a problem?

- Your OptiMate is fine. OptiMate charges your battery and then tests it to see if it will hold its charge OK. If OptiMate senses that the battery Voltage drops, it will "red-light" your battery to warn you that the battery may have a problem. Even while the red LED is showing your battery is still being charged, so for a while, your battery may still seem OK because of the benefit of this ongoing supporting charge. However the underlying battery problem is sure to reveal itself more clearly when you disconnect the OptiMate! The red LED will also indicate if OptiMate is connected to a battery on the vehicle and it detects a current load, like an alarm siren or the lights being turned on. OptiMate will also detect any persistent drain in the vehicle's wiring (above that of an alarm) – to check this, disconnect your battery from the vehicle, restart OptiMate and see if it still goes to red. If it doesn't, then your battery is fine but there may be a problem with the vehicle's electrics - you should ask your dealer to check the wiring.

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OptiMate has tried to recover my battery but has not succeeded – what should I do?

- Miracles being rather more difficult than the mere impossible, there will be some sulphated batteries that even OptiMate cannot cure, and the red LED will indicate this after up to 2 hours of it's special recovery mode, followed by a second "last ditch" attempt in bulk charging mode. If the battery is still on the vehicle,

remove it, take it to the workbench, reconnect & restart the OptiMate for a second recovery attempt. If the red LED lights again after 2 hours your battery is almost certainly unserviceable so take it to a dealer equipped with a BatteryMate professional load tester-charger for a final assessment before recycling.

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**OptiMate will not charge my battery – no indicator lights other than the “power on” LED are showing.
What is wrong?**

- OptiMate will only start to charge when it detects that it is connected to a battery with at least 0.5 - 2 Volts (depending on model) in it. Either the battery connection lead is not making a good connection to the battery; or the in-line fuse in the connection lead has blown; or the battery has less than 0.5 - 2 Volts. If your battery is so badly discharged, or damaged, to the point where it has less than 0.5 - 2 Volts, it is probably irrecoverable. Take your battery to your local dealer and ask him to test it on a “BatteryMate” tester/charger. He will be able to tell you the battery’s condition within a matter of seconds – a BatteryMate can also recover very deep-discharged batteries, if at all possible.

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OptiMate is connected to my bike and the battery is not fully charged any more – why is this?

- OptiMate is designed to be left connected to your battery indefinitely but it must be left connected to mains power and turned on! All OptiMates from OptiMate IIIsp onwards have virtually no reverse drain so cannot drain your battery, but they are designed to be left connected to mains power and operational when it is connected to a battery. If the power fails and later comes back on, all OptiMates will automatically restart, recharging and re-testing your battery.

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