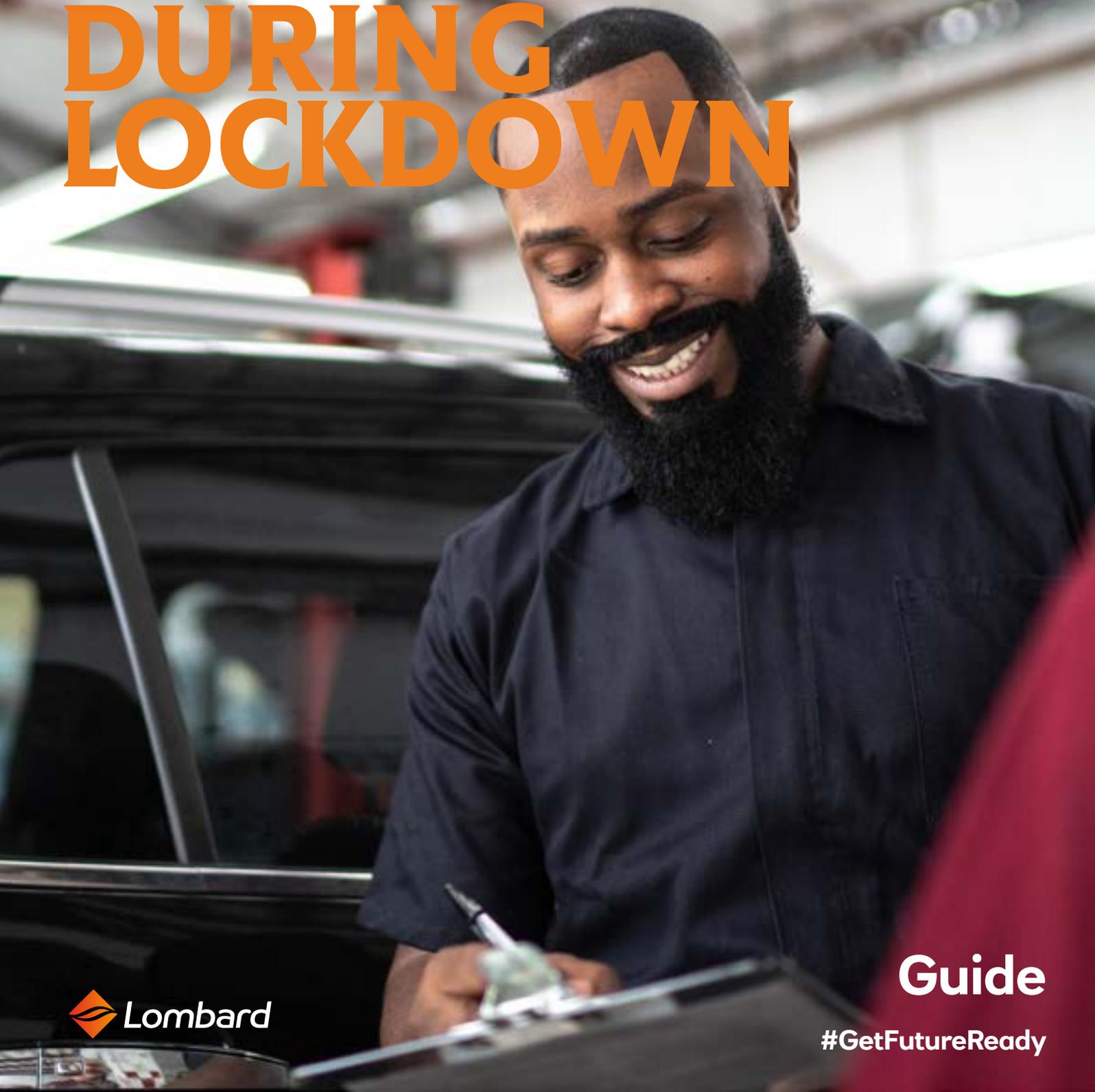


# MAINTAINING YOUR VEHICLE'S HEALTH DURING LOCKDOWN



# MAINTAINING YOUR ICE VEHICLE'S HEALTH DURING LOCKDOWN

If your vehicle is parked up for a long period of time, as it will be for most people across the UK during the pandemic lockdown, what is the best way to look after your vehicle? If left stationary for long periods of time, internal combustion engine (ICE) vehicles can suffer some issues. Below we highlight some top tips for drivers to try and minimise any potential risk to your vehicle's health during periods of non-use.

## **Important:**

Do not break the Government's lockdown rules to look after your car, please carry out any maintenance in line with regulations in line with regulations.

## **ICE health top tips:**

- **Battery strength** - Without being used regularly, car batteries can lose charge meaning they may not have enough power to start the engine. The risk of weakened battery health is higher if your essential journeys are especially short. Our advice is to use your car for essential journeys to keep your battery healthy. Simply starting a car occasionally and leaving it running for only a few minutes isn't likely to help, in fact this may end up draining a weak battery. If you can drive the vehicle for 15-20 minutes within Government regulations this will, in most cases, be sufficient to top up the battery charge.
- **Check your tyres** - It's crucial to check both the condition and the pressure of your tyres before any journey. Check the pressure in each of your tyres before you drive. It's quite possible that tyre pressures

could have gone down if your car hasn't been used. You can check them yourself at home with a tyre pressure gauge or at your nearest filling station. If your tyres have lost pressure, you'll need to inflate to them to the recommended levels outlined in your vehicle handbook, which will list the required pressures based on the sort of loads you expect to be carrying. You can use your own tyre pump or use those available at petrol and service stations.

- **Check your levels** - Whilst it's unlikely you will have used your car very much, you should still check things like engine oil, coolant, and whether all your lights are working properly. This should be done before you begin driving again on a regular basis. It's important to check your levels to reduce the chances of an unnecessary breakdown.
- **Give your windows a wash** - It's likely that your car has a layer of dust and pollen on the front windscreen. It's best to give your windscreen a quick wash if left stationary for long periods as using windscreen wipers on a dry screen could scratch the glass and damage your wiper blades.
- **First drive** - When you're ready to go out in your car for the first time in a long while, it's a good idea to let it run for a minute or so to ensure the oil has a chance to circulate properly - as it will have drained out of some areas over time. When you're driving, your car shouldn't feel any different in the way it drives, except that the brakes might be noisy at first. This is normal - the discs can rust easily when left, but this quickly clears as you start using the brakes. The best advice is to apply them gently at the start of your journey.
- **Diesel Particulate Filters (DPF)** - During normal use, DPF's clean themselves in a regenerative process that takes place when the engine is running at above 2500rpm for a prolonged period. During the lockdown, it will be difficult to reach, let alone maintain, the speeds necessary for this to take place, and your DPF could get clogged up with soot if you're using it for repeated short journeys. The best course of action is to go for a longer journey where you can maintain higher speed for a prolonged period when the lockdown rules allow this.
- **MOT** - Due to the coronavirus outbreak, the Government has granted drivers with an MOT due from 30 March an automatic six-month extension. So if, for example, yours was due on 2 April it will now run out on 2 October 2020 but you'll still have to keep your car in a roadworthy condition.

# MAINTAINING YOUR BEV'S HEALTH DURING LOCKDOWN

If your vehicle is parked up for a long period of time, as it will be for most people across the UK during the pandemic lockdown, what is the best way to look after your vehicle? If left stationary for long periods of time, battery electric vehicles (BEVs) can suffer some issues. During this time, BEV owners need to monitor the state of both the main traction battery pack and the 12-volt accessory battery need to be kept in good condition to ensure the vehicle will start. Below we highlight some top tips for drivers to try and minimise any potential risk to your vehicle's health during periods of non-use.

## Important:

Do not break the Government's lockdown rules to look after your car, please carry out any maintenance in line with regulations in line with regulations.

## BEV health top tips:

- The key to keep your battery healthy when parked for long periods of time, is keeping it in an optimum charge range (usually between 50%-80% of charge). Lithium-ion batteries do not cope well with extreme states of charge be it 0% or 100% for extended periods of time so leaving it in a middle range of charge is recommended.
- Striking the balance can be challenging. If you keep your BEV plugged in and have your battery constantly at 100% charge, this can degrade the battery (the electrolyte will degrade against the cathode). However,

if you leave your BEV unplugged, this can lead to battery discharge due to the electronics in the vehicle draining the battery e.g. Jaguar I-Pace range loss 2-3%\* overnight.

- For vehicles that don't indicate the percentage of charge, you can estimate how long your vehicle will need to be charged to reach the optimal charge percentage using the following calculation:

Charging time (hours) = Energy required/Charge Power

(Target % Charge – Current % Charge/100 x Battery Capacity)/  
Charging power (kW)

90kWh battery pack and the current level is 30% and the owner wishes to top it up to 80 % and they have a 7kW home charger and the vehicle has a 22kw onboard charger. You must use the lesser of these two values in the calculation due to it limiting the maximum charging power received by the battery.

$(80\%-30\%/100 * 90\text{kWh})/7 \text{ kW} = 5.1$  which is 5 HOURS 8 MINS

- We would recommend a periodic top-up of this charge once a week.
- Some BEVs have Apps which allow you to check the battery levels on your smart phone, some can also allow you to adjust the charge limits so set the limits to a medial range. For other vehicles this configuration can be found on the console.
- Ultimately, you should follow manufacturer guidelines on whether you should keep your car plugged in constantly or not.

\* Green Car Reports 21/03/2019



## State of Charge (SOC) recommendation:

- 80%-100%** Avoid storing in this SOC range
- 50%-80%** Leave stored in this SOC range
- 20%-50%** Consider charging car
- 0%-20%** Avoid storing in this SOC range

You should seek independent advice to determine if this product is suitable for you. Security, in the form of guarantees or indemnities, may be required. Product fees may apply. Finance subject to status and is only available for business purposes. Lombard Vehicle Solutions (LVS) is provided by ALD Automotive Ltd (ALD), trading as Lombard Vehicle Solutions, Oakwood Drive, Emersons Green, Bristol, BS16 7LB. LVS is a product solution provided for Lombard by ALD and there is a financial connection between Lombard and ALD as a result. The arrangement ensures that Lombard customers as well as those of National Westminster Bank Plc and The Royal Bank of Scotland plc have access to a wider range of products to meet their vehicle asset finance needs. Customers whose agreements are regulated by the Financial Conduct Authority should be aware that Lombard is acting as a credit broker and not a lender, and that Lombard will receive a payment from ALD should you wish to proceed with an agreement. You can ask Lombard or ALD for more information about this.

Let's talk

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