



TiCad®

AKKU GUIDE

This guide will tell you everything you need to know about storing, caring for and handling your TiCad battery.





THE TiCad BATTERY GUIDE

Everything about handling, care and service life of your battery

The golf season is drawing to a close and the cooler months are just around the corner. We would like to take this opportunity to provide you with some helpful tips and tricks on how to handle and store your TiCad battery correctly.

TiCad rechargeable batteries are the power source of the high-quality TiCad electric trolleys. Thanks to their low weight, practical dimensions and secure attachment to the golf trolley, they are easy and intuitive to use. You will find helpful tips on handling and storage, care and safety in this guide.



LIFETIME

RECHARGEABLE BATTERIES ARE CONSUMABLE PRODUCTS

The service life of a rechargeable battery depends on various factors, such as the type and duration of use, storage and care. Like any lithium-ion battery, a TiCad battery ages naturally. This wear manifests itself in a continuous loss of capacity. Lithium-ion batteries show their end of life through significant drops in voltage and performance. The voltage of older or very frequently used batteries can drop more quickly after charging, even without a load.

WHAT IS THE CAPACITY OF MY BATTERY?

The nominal capacity of the battery can be found on the back of the TiCad battery under "Energie". The current usable energy of the battery can be determined as part of a chargeable battery check at TiCad - for example as part of the TiCad winter check. A fully charged, new lithium-ion battery has a capacity of 100%. We recommend replacing the battery when it reaches a capacity of 70% when fully charged.



WHAT ARE THE ADVANTAGES OF THE BATTERY MANAGEMENT SYSTEM?

TiCad batteries are equipped with an intelligent, electronic battery management system. This protects, for example, against overcharging during charging or deep discharging while the battery is in use.



CARE

DURING THE GOLF SEASON

During the golf season, ideally charge the battery the day before your round of golf. Give the battery a break of one to two hours before starting your game. Even batteries that are only partially charged can be recharged without hesitation, as lithium-ion batteries have no memory effect. Interruptions to the charging process do not harm the batteries either.

However, from a charge of more than approx. 90%, the battery can no longer be fully charged without first being at least partially discharged again. Interruptions to the charging process shortly before the end of the charging process (rapid flashing of the charger) can result in the battery not being charged any further in this charging cycle.

HOW DO I EXTEND THE SERVICE LIFE OF MY BATTERY?

Avoid storing the battery in a fully charged state for more than 3-5 days. This damages the cell chemistry and reduces the service life.

Avoid deep discharging under all circumstances. This will irreparably damage the battery!

If the battery or golf trolley has switched off automatically during a round of golf, the battery has been discharged to such an extent that it can quickly reach a deeply discharged state if stored for a longer period of time. Please do not attempt to restart the trolley several times after it has switched off automatically. This will put additional strain on the battery. Charge the battery for 1 to 2 hours after a break of around one hour following automatic switch-off.

NOTE ON USE AT LOW TEMPERATURES

The performance of your battery is continuously reduced at low temperatures. This can significantly reduce the range. Therefore, avoid using the battery in frosty temperatures. The battery is fully efficient from an outside temperature of approx. 10°C. Temperatures below 0°C can damage the battery and its life expectancy!





CARE

DURING THE WINTER BREAK

During the colder months of the year, it is particularly important to take proper care of your golf equipment so that you can hit the ground running again next year. We will give you some helpful tips on how to store and care for your battery below.

For longer storage of the battery, we recommend charging to approx. 40-50% and a storage temperature of 15-20°C. This allows storage for up to 6 months. Our 10-pin batteries can be stored for up to 3 months in exceptional cases.

You will reach the charge level for winter storage if you do not charge the fully charged battery after the last 18-hole round. After a 27- or 36-hole round, please charge the battery for approx. 1 to 2 hours. Please charge 10-pole batteries for an additional 1 to 2 hours after 3 months to restore the 40-50% charge.

We recommend regularly checking the charge level of the battery with the Battery Checker, especially during the winter.



HOW DO I FIND OUT THE CHARGE LEVEL OF MY TICAD BATTERY?

The brand new TiCad Battery Checker allows you to measure the current charge level of your electric trolley's battery. From now on, you can enjoy your round of golf in an even more relaxed and comfortable way. Simply connect the TiCad battery to the Battery Checker. The current charge level of the battery will now be displayed in percent or, after pressing the button, in volts.





HANDLING

CORRECT HANDLING OF LITHIUM-ION BATTERIES

The TiCad battery is an important component of your electric trolley. Its service life can be optimized with correct handling and appropriate care. Please note the following information in this regard:

- Only charge the battery using the original charger. The typical charging time is 4 to 6 hours.
- Do not charge the battery unattended.
- When charging is complete, disconnect the charger from the battery and from the mains.
- Do not charge the battery if it is very hot from play, sunlight or the ambient temperature. Allow it to cool down before use.
- Protect the battery from extreme heat and prolonged exposure to sunlight.
- Protect the battery from freezing temperatures.
- Avoid deep discharging.
- Only operate the battery on the electric trolley provided.
- Do NOT store the battery fully charged.
- Optimum storage conditions are 40-50% charge capacity and a cool environment.
- Do not leave the battery connected to the trolley. Always disconnect the plug from the trolley.
- Avoid leaving the battery in a very hot vehicle.
- Do not carry the battery by the cable.



SAFETY

SAFE HANDLING OF LITHIUM-ION BATTERIES

TiCad rechargeable batteries are developed and manufactured according to the state of the art. Lithium-ion batteries are generally flammable under certain conditions. For example, pre-damaged batteries can start to burn on their own. These fires can also occur several days or weeks after the damaging event.

These fires can then also lead to secondary damage in the home, car, etc. It is usually difficult to extinguish batteries. Call the fire department for help. If possible, take the battery outside. **Your own attempts to extinguish the fire are generally only successful if the battery is submerged in a large container of water.** Potentially damaged batteries must not be shipped. Please contact us [IN ADVANCE](#).

Please avoid the following scenarios as far as possible. Among other things, these are possible causes of damage to the battery.

- Water damage due to submersion or intensive exposure to water (e.g. during cleaning)
- Dropping or falling (usually with damage to the housing)
- Permanent strong heating by the environment
- Cable damage caused by carrying on the cable, crushing, severe kinking, pinching or abrasion
- Damaged plugs due to driving over, pinching, improper use when connecting and disconnecting
- Short circuits due to manipulation, cable or plug damage
- Transportation or shipping in unsuitable containers or packaging
- Attempted repairs and other improper handling



WHO CAN I CONTACT IF I HAVE FURTHER QUESTIONS?

If you have any questions or require further information, please do not hesitate to contact our TiCad team by e-mail at info@ticad.de or by telephone on 06047 987 90-0.



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