

Alkaline Cell Leakage in the Wolf ATEX LED Torches TR-40, TR-40+, TR-45



The Wolf ATEX LED range of torches use a 4 x Alkaline AA cell battery system to power the high power LED; power to the LED is controlled by use of a resistive circuit.

Frequently Asked Questions:

The cells have leaked in my Wolf ATEX LED torch, why has this happened?

The cells have leaked because at least one of the cells is exhausted and has no power remaining. The cells should be removed to avoid damage to the torch caused by leakage.

Is the leakage due solely to the AA cells?

It is partly due to the cells, but is partly how the cells are used. To power the LED and achieve an acceptable duration there are 4 x AA cells in series. Having four cells in series makes the system more susceptible to cell 'reversal' when the battery power is very low, this can cause leakage. LEDs will still give some light output when the battery power is very low therefore there is a greater risk that leakage occurs in a 4 cell torch because the user may incorrectly assume that if light is still produced then the cells are still usable.

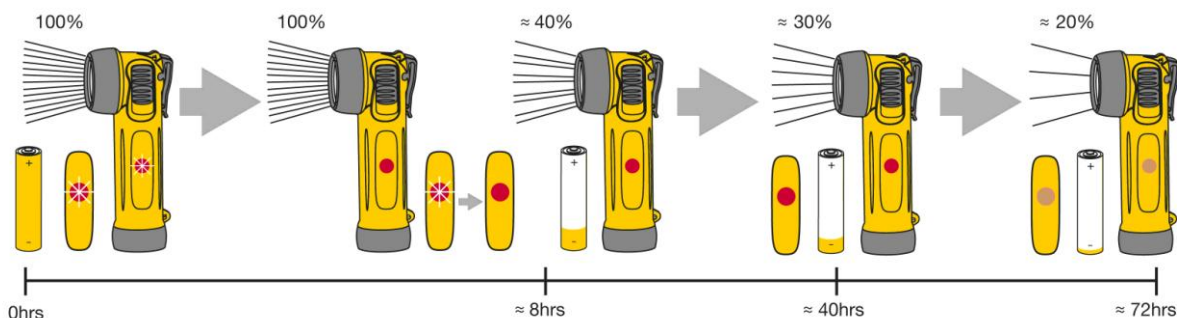
Would certain makes of battery be less likely to leak?

Users of ATEX products must always consult the user instructions to ensure the correct type and brand of cell is being used. Wolf recommends the use of high quality cells, from the better quality brands such as Duracell/Procell, Energizer, Philips, GP, Varta.

When should I change the cells in my torch to reduce the risk of leakage?

- If a torch is being put into storage or will not be used for some months then the cells should be removed.
- Where a torch is used infrequently for short periods it is recommended that the batteries are typically replaced every 6-12 months.
- The TR-40+ torch is equipped with a battery power indicator. Using this red LED indicator on the side of the torch – going from flashing to continuous - as the definer for when cells should be changed will help minimise battery leakage but also ensure that light output from the torch is always maximised. The cells would typically need to be replaced after every 7-8 hours of use, see illustration below.

TR-40+



Please note, the Wolf ATEX LED Torch instructions list the following points:

- Do not open torch in Ex Area.
- If replacing TP-288 (Heatsink LED assembly) the switch must be in the off position to prevent damage to the switch contact.
- Do not mix cells, **immediately remove used cells to avoid leakage.**
- Do not use rechargeable cells.
- Damaged equipment should be repaired before further use.
- When in use ensure lens ring and end cap are screwed up tightly at all times.

Caution! When handling leaking cells, potassium hydroxide is present, this is a caustic agent that can cause respiratory, eye and skin irritation.