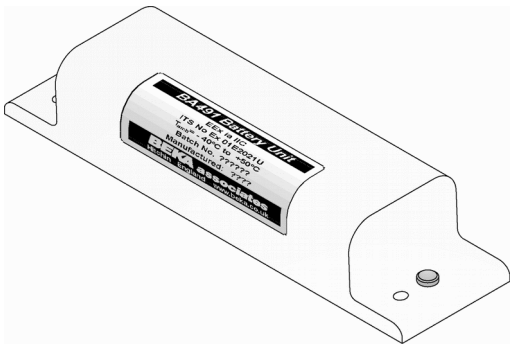
Instruction sheet for replacement BA491 intrinsically safe battery

No longer available after 31st December 2023



BA491 intrinsically safe battery
The BA491 is an intrinsically safe ATEX component approved replacement battery for use in BEKA associates intrinsically safe and safe area products.

At 20ºC the BA491 battery only loses about one percent of its charge each year allowing replacement batteries to be stored on-site. Because of this long shelf life and the very small current consumed by BEKA battery operated products, BA491 batteries should be conditioned before being installed.

Battery conditioning
When not being used an insulating oxide layer forms on the internal battery electrodes that prevents self-discharge and results in the very long battery shelf life. The very small current consumed by BEKA products may not be sufficient to quickly break down this oxide layer which will result in the instrument not functioning immediately when the replacement battery is fitted. Replacement BA491 batteries should therefore be conditioned by drawing a relatively large current from them for a few tens of seconds before fitting into an instrument.

The amount of current drawn is not critical, plugging a 27Ω resistor into the battery output terminals for about thirty seconds will break down the oxide layer and condition the BA491 battery - see Fig 1. A 27ohm resistor is attached to these instructions.

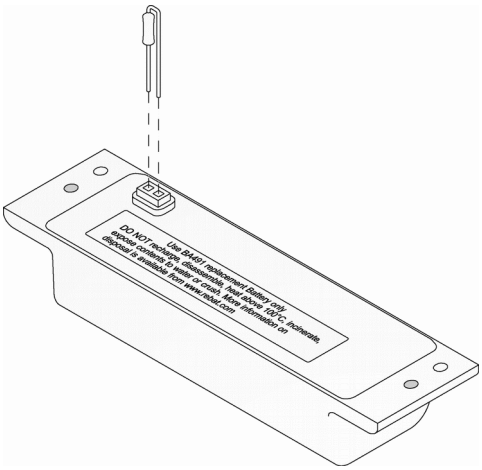


Fig 1 Condition BA491 battery by plugging 27Ω resistor into output terminals for about 30 seconds.

Disposal of used batteries
The BEKA BA491 battery contains Lithium Thionyl Chloride cells that should not be included with standard industrial waste or incinerated.

More information about disposal is available from The British Battery Manufacturers Association website www.rebat.com

BEKA associates Ltd, Old Charlton Road, Hitchin, Herts. SG5 2DA

www.beka.co.uk Tel: +44 (0) 1462 438301

Issue 2 February 2023