

Battery Connecting Cable BAK_U

For connecting any 12V gel or AGM battery (typically referred to as a “motorcycle battery”) as an auxiliary external battery to the HFE59B and devices of the NFA Series.

Notes on selecting the battery

A combination of HF59B and NFA should never be powered together by just ONE external battery because the effect of such a so-called “current loop” is not predictable.

Resist the temptation of using a power bank or other lithium-based rechargeable battery solutions! Despite its compact design (even taking into account its higher price). We’ve spent a lot of effort and money in thoroughly testing a variety of lithium-based rechargeable batteries, only to return to the well-tried gel or fleece / AGM battery mentioned above. Main problem Powerbank: these produce Dirty Power to an extreme extent and the capacity reaches only a fraction of its specification. Main problem RC-model battery: These are typically delivered without integrated protective circuit and thus are easily deeply discharged in long-term logs. If you find something more suitable than the solution suggested by us, we are happy to publish it for the benefit of all.

Exemplary calculations for run times of external batteries of different capacities

Nominal capacity external battery	(Ah)	6	12	24
In reality often only ¾ of the specs is reached		4,5	9,0	18,0
= mAh	(mAh)	4500	9000	18000
Capacity internal battery NFA	(mAh)	2600	2600	2600
Capacity internal battery HF59	(mAh)	620	620	620

Maximum log time (taking into account that typically only ¾ of the specified capacity is reached in real life)

	hours	40	109	178	317
NFA1000 in Log mode					
HF59B _{Max} + UBB27	(20,000µW/m²)	6	47	87	169
HF59B _{Max} + UBB27 + HV10	(2,000µW/m²)	4	37	69	133
HF59B _{Med} + UBB27	(200.0µW/m²)	5	38	71	138
HF59B _{Min} + UBB27	(20.00µW/m²)	5	38	71	138
HF59B _{Max} +UBB27+HV10+FF10bb	(2,000µW/m²)	2	20	38	74

Conclusions:

The HFE59B plus external 5Ah battery has roughly the same running time as an NFA with internal battery.

The HFE59B requires about the 3 to 4-fold external battery capacity versus the NFA in order to reach roughly the same running time.

General rule: RATHER CHOOSE AN OVERSIZED BATTERY than be disappointed by lost data.

Search terms for battery and charger: „AGM battery 12V“ and „charger 12V motorcycle battery“.