



# A DEVICE THAT CAN OPERATE FOR UP TO 1 YEAR WITHOUT CHARGING

The device is capable of meeting not just all standard functions but also more demanding requirements for GPS monitoring. Continuous sending of GPS positions is very demanding on energy levels and influences the endurance of the battery. The TICK GPS tracker enables the user to choose between 7 operational modes, these modes influencing the operation time of the device without the need to recharge. Choose the optimum operational mode for your monitoring and extend the length of time that the battery (of the device) will operate without the need to recharge.

## Operating modes

### ABM – Activated by Motion

The device switches on GPS at the instant when motion is detected. If the device is not in motion, GPS switches off.

- When moving, locations are registered every 10 sec and sent to the mobile applications once a minute.

Time GPS is switched on	Endurance (hours)	Endurance (days)
GPS is idle (the device is not in motion)	6240	260
1 hour motion/23 hours idle	912	38
4 hours motion/20 hours idle	264	11
6 hours motion/18 hours idle	180	7,5
8 hours motion/16 hours idle	132	5,5
12 hours motion/12 hours idle	84	3,5
Constantly in motion	36	1,5

Usages: monitoring vehicles, people, parcels, etc.

### Guarding fast response

GPS position reading is not active and is only triggered when the tracker detects vibrations. The tracker is continuously logged into the GSM network and if it detects movement a notification is sent within 10 seconds. The tracker is ready to immediately receive messages to switch to a different mode e.g. Pursuit.

Endurance (hours)	Endurance (days)
480*	20*

Usages: The mode is suitable for guarding objects that you are nearby to - you can intervene immediately. Examples might include a bicycle outside a pub, tools in a car by a hotel or tools on a construction site during working hours.

### Guarding power saver

GPS position reading is not active and is only triggered when the tracker detects vibrations. If the tracker detects movement it logs into the GSM network and a notification is sent within 90 seconds. The tracker is ready to receive messages to switch to a different mode e.g. Pursuit at the time when the monitored asset moves.

Endurance (hours)	Endurance (days)
6240*	260*

Usages: The mode is suitable for long-term guarding of objects e.g. for guarding cottages, quadbikes in a garage, bikes in a bikeshed, garden furniture, caravans, motorcycles. The battery life is longer when using this guarding mode.

\* N.B. This applies in conditions where the tracker is permanently idle / without vibrations.

## Pursuit

GPS locations are sent continuously every 5 sec regardless of whether the monitored object is moving or standing. After 60 minutes the device automatically switches to ABM mode so that the battery is not completely run down. Mode changes (from ABM to Pursuit) can be set repeatedly.

Motion status	Endurance (hours)
It does not matter if vehicle is moving or standing	8 – 30 (depending on the availability of the GSM signal)

Usages: monitoring moving vehicles. Gives instant information of route and turns off the route.

## Standby

The tracker automatically does not monitor locations, seize detection or accelerometer, but is ready to **immediately** accept a signal for switching into a different mode (ABM, Pursuit, Asleep, Periodic wake up) for starting the monitoring process.

Motion status	Endurance (days)
It does not matter if vehicle is moving or standing	32

Usages: monitoring children, monitoring bikes (one-off enquiry - where the monitored Asset is).

## Asleep

The tracker automatically does not monitor locations, seize detection or the accelerometer, but is able **after a preset** interval to accept signals for switching to a different mode (ABM, Pursuit, etc.).

Pre-set interval for changing mode	Endurance (hours)	Endurance (days)
30 minutes	1848	77
60 minutes	3072	128
12 hours	7896	329
24 hours	8520	355

Usages: monitoring bikes, containers, etc. Suitable for lengthened battery life.

## Periodic wake up

The tracker wakes up after a pre-set interval, takes GPS location, sends this information and then goes back to sleep.

Period for sending location (device wake up)	Endurance (hours)	Endurance (days)
Every 60 minutes	1392	58
Every 2 hours	2400	100
Every 24 hours	8160	340

Usages: monitoring containers, wagons. An advantage is the significantly lengthened operating time.

## Power OFF

This is the recommended mode to use when storing the device. All tracker functions are completely switched off. It is possible to wake up the device and set the required mode during charging of the device.

These values are valid for the hardware version NCL21E-3 and for firmware versions 543 and higher.  
Find our your version on:  
[www.namsystem.com/tick-activation](http://www.namsystem.com/tick-activation)

## Overview of operational modes:

Mode	ABM – Activated by Motion	Guarding fast response	Guarding power saver	Pursuit
Active GSM	✓ In motion/ ✗ idle	✓	during alarm	✓
Active GPRS	✓ In motion/ ✗ idle	during alarm	during alarm	✓
Active GPS	✓ In motion/ ✗ idle	during alarm	during alarm	✓
Seize detection	✓	✓	✓	✓
Montion sensor active	✓	✓	✓	✓
Device endurance	1,5 – 260 days	20 days	260 days	8 – 30 hours

Mode	Standby	Asleep	Periodic wake up	Power OFF
Active GSM	✓	Acc. to interval	Acc. to interval	✗
Active GPRS	✗	✗	Acc. to interval	✗
Active GPS	✗	✗	Acc. to interval	✗
Seize detection	✗	✗	✗	✗
Montion sensor active	✗	✗	✗	✗
Device endurance	32 days	77 - 355 days	58 – 340 days	–

During charging on a (switched on) charging mat, the tracker is always constantly logged on to GSM. This means it is possible to switch to another operational mode at any time.