

# A DEVICE THAT CAN OPERATE FOR UP TO 2 YEARS 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 5 operational modes, these modes influencing the maximum 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.

- Locations are registered every 10 sec and sent to the web/mobile applications once a minute.

Time GPS is switched on	Endurance (hours)	Endurance(days)
GPS is idle (the device is not in motion)	408	16,7
1 hour motion/23 hours idle	297	12,0
4 hours motion/20 hours idle	164	6,5
6 hours motion/18 hours idle	126	5,1
8 hours motion/16 hours idle	103	4,2
12 hours motion/12 hours idle	75	3,2
Constantly in motion	42	1,7

Usages: monitoring vehicles, people, parcels, etc.

### Pursuit

GPS locations are sent continuously every 5 sec. regardless of whether the vehicle is moving or standing. After 60 minutes the device automatically switches to ABM mode. 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 – 20 (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	17,6

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)
10 minutes	374	15,6
20 minutes	629	26,2
30 minutes	815	33,9
60 minutes	1154	48,1
90 minutes	1339	55,8
24 hours	1818	75,8

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 20 minutes	302	12,6
Every 60 minutes	681	28,0
Every 12 hours	1599	67,0
Every 24 hours	1704	71,0

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 hardware versions NCL21-2, NCL21E-2 and for firmware versions up to 536 inclusive.

Find out your version on:

[www.namsystem.com/tick-activation](http://www.namsystem.com/tick-activation)

## Overview of operational modes:

Mode	Activated by Motion (ABM)	Pursuit	Standby	Asleep	Periodic wake up	Power OFF
Active GSM	✓	✓	✓	Acc. to interval	Acc. to interval	✗
Active GPRS	✓ In motion/idle ✗	✓	✗	✗	Acc. to interval	✗
Active GPS	✓	✓	✗	✗	Acc. to interval	✗
Seize detection	✓	✓	✗	✗	✗	✗
Motion sensor active	✓	✓	✗	✗	✗	✗
Device endurance	1,7 – 16,7 days	8 – 20 hours	17,6 days	15,6 – 75,8 days	12,6 – 71 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.