



# WASTE MANAGEMENT AND CITY E-CLEANING

## INTRO

Waste generation is expected to increase by 73% from 2020 to 2050, stated in The World Bank's article '[Solid Waste Management](#)'. Nowadays, it's getting harder to maintain public areas clean because of the lack of proper management of the utility fleet. It's crucial to maintain it in good condition to prevent breakdowns, unauthorised usage, improper behaviour of drivers, etc. These issues can be effectively addressed by using Teltonika trackers.

## CHALLENGE

With the world [population growth](#) and increasing tendency to [produce more waste](#), it's getting even more challenging to control various aspects of city cleaning and waste management. To be more precise, the root of the challenge is in the proper and timely maintenance of the electric machinery fleet, which plays a crucial role in coping with the above-mentioned challenges.

That's not surprising - poor fleet maintenance is a costly mistake that can lead to significant interruptions in vehicle operation, costly repairs, work stoppages, and ultimately, ineffective city waste management. This poor maintenance can also lead to environmental degradation and resident dissatisfaction. The costs of inadequate fleet maintenance are simply too high for municipal entities to ignore.

Fortunately, Teltonika GPS trackers and accessories are here to make it easier to maintain waste and cleaning fleets, so that they are capable and ready to work at any time. How? Let's find out...



## TFT100 CAN IMPROVE ELECTRIC UTILITY FLEET EFFICIENCY & REDUCE REPAIR COSTS

### SOLUTION

To address various use cases of municipal fleet management, we highly recommend utilising the GPS tracker Teltonika [TFT100](#). This small and robust Teltonika tracking device has high-voltage support for e-mobility and heavy machinery and could be easily adapted to different means of electric transport, such as garbage trucks and lorries, city cleaning vehicles and other assets of municipal fleets.

The GPS tracker supports a variety of vehicle protocols, which makes the choice of e-vehicles almost limitless. The water and dust-resistant [IP67-rated](#) casing allows it to be used even in harsh environmental conditions.

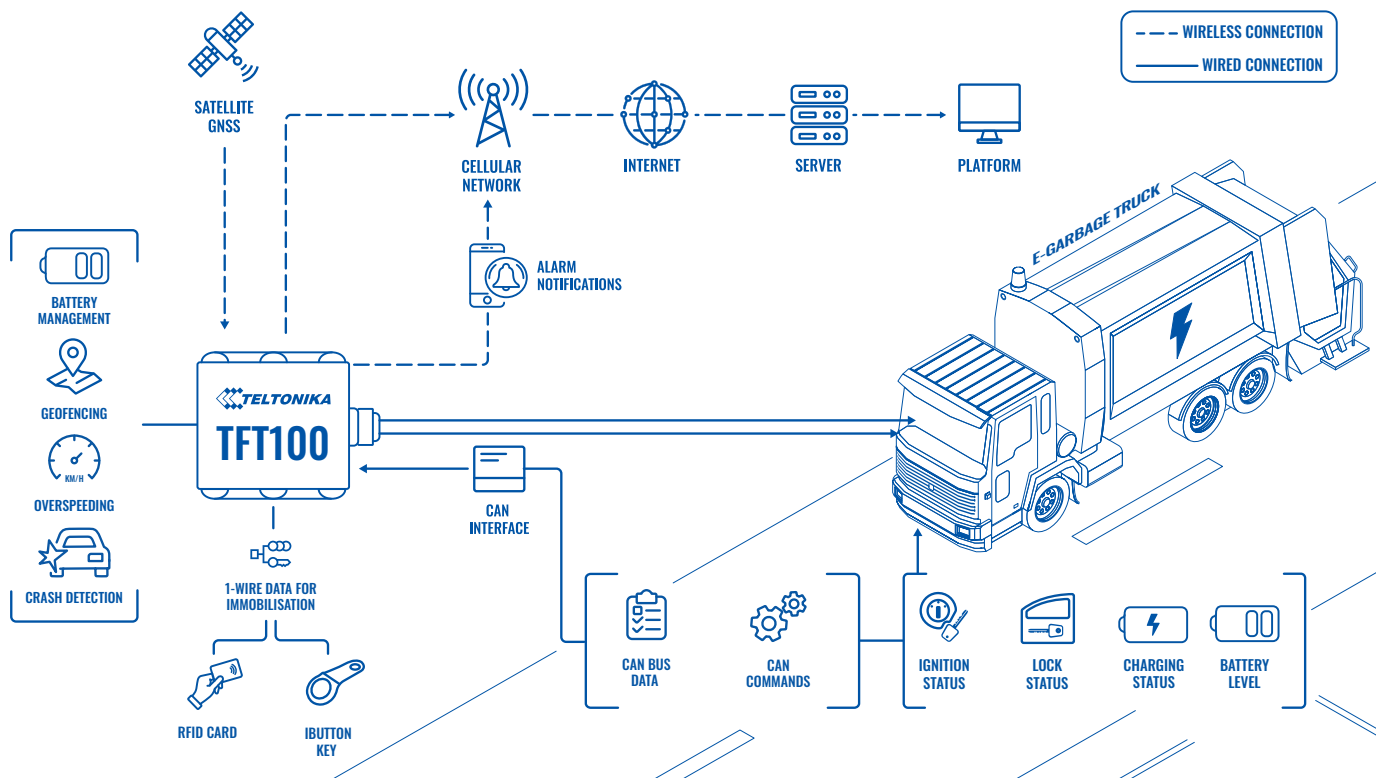
**How it works** - manual CAN feature, integrated into the TFT100, allows reading RAW CAN data - for instance, ignition and lock status, battery level, charging status, etc. - from transports ECU without requiring to develop custom CAN protocol support. That said, fleet managers can keep track of battery status remotely and notify a driver when it's required to return to the base to recharge the electric vehicle. This ensures that the fleet of utility equipment is always fully operational and ready for action.

Manual CAN command functionality can enable vehicle immobilisation securing it from burglars. Besides, the 1-Wire feature makes it possible to have only authorised personnel use the special vehicle after they have authenticated themselves with a [1-Wire RFID reader](#) or [iButton key](#).

The practical Geofence scenario allows fleet managers to define a geographical zone and assign a driver to collect rubbish in specific areas, ensuring that the work is carried out properly in the designated areas. Even more, the overspeeding feature allows a driver to be alerted when the utility vehicle exceeds a pre-set maximum speed, preventing irresponsible driving that could lead to a traffic accident, injuries, penalties, service delays, etc.

To sum up, this puts municipalities in control of key aspects of the fleet of special equipment, ensuring a better work process, discipline, proper time and asset management, significantly saving organisation resources and improving reputation.

## TOPOLOGY



## BENEFITS

- **Increased waste management efficiency** - the TFT100's robust, water- and dustproof IP67-rated casing ensures smooth fleet monitoring even in harsh environments or weather conditions.
- **Suitable for any electric waste management fleet** - the model extensive GPS tracking functionality and CAN bus scanning extend its capabilities to a wide range of projects.
- **Outstanding integration diversity** - different CAN protocols can read specific data from different brands of electric vehicles via the TFT100 CAN interface, making the choice of vehicle manufacturer virtually unlimited.
- **Effective external control** - the ability to remotely monitor and manage a fleet of special vehicles using various functions and scenarios, such as immobilisation, eco-driving, configured DOUT after a call, etc., saving time and organisation resources.
- **Improved operational efficiency** - the ability to detect and prevent a wide range of unwanted scenarios to improve special electric machinery fleet efficiency and reduce repair costs.

## WHY TELTONIKA?

Teltonika Telematics, one of the leading players in the IoT market, has earned worldwide recognition for the high quality and reliability of its GPS trackers, accessories, and solutions. We have proven to be a trustworthy and reliable business partner in the telematics industry for over 24 years.

We offer innovative and efficient products for applying telematics to your business, creating entirely new opportunities. The company's R&D team, together with top-rated customer support, are doing everything possible to ensure that Teltonika GPS tracking devices can meet the diverse needs of today's businesses. The result of recent engineering thought the TFT100 tracker is already benefiting our customers around the world.

## FEATURED PRODUCT

TFT100

## RELATED ACCESSORIES

1-WIRE RFID READER, IBUTTON

