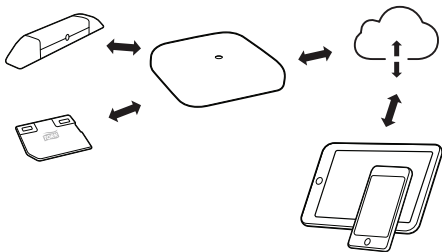


Tork EasyCube™

User Manual



1 Introduction - Tork EasyCube™

Tork EasyCube™ is an Internet of Things (IoT) solution for data driven cleaning management. Tork dispensers and bins are equipped with sensors that communicate their status to a cloud based system. Also, the system includes visitor registration units that count people passing into a washroom area or a cubicle. Combining these information sources gives many opportunities to improve both quality and increase efficiency.

The information is automatically transferred via the web application to a facility manager or a building service team to stay in control and take actions. The web application includes digital cleaning rounds and follow-up, tailored to managers and their teams - empowering users to work smarter.

Original instruction.

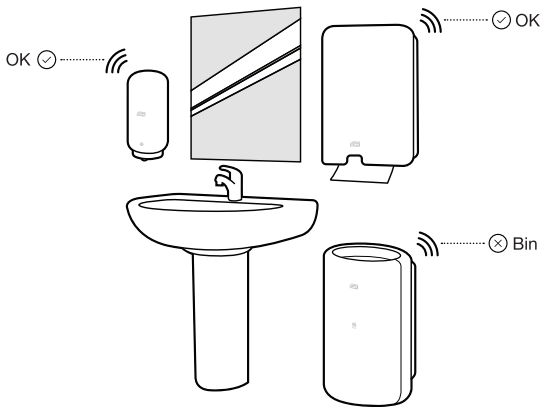


Figure 1. Each dispenser is wirelessly connected to an information system that can be utilized by both a Facility Manager as well as cleaning staff, in order to facilitate more efficient work planning.

2 Get an instant overview

At any point in time the system will provide a quick overview of the status of the installed dispensers through a web based dashboard. Instantly the user of the web application, for example a facility manager, will be able to spot if dispensers are about to become empty.

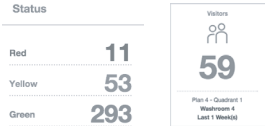


Figure 2. Status Red indicates very soon out-of-paper and Yellow that refilling can be done. Status Green needs no attention. Add a dashboard measurement of a critical location to track its usage.

2.1 Before you get started

To be able to get started with Tork EasyCube there are some activities that need to be performed.

Initially the customer together with Essity will determine which rooms will be included and the required number of gateways (see chapter 3.6 for further explanation) to support these locations. The number of gateways required for a location depends upon the distribution of the connected rooms within the building and also the construction material of the building walls.

The installation is done by professional installers. The installation instruction is available in the Tork EasyCube Install tool.

3 Technical components and Wireless Communication for Tork EasyCube

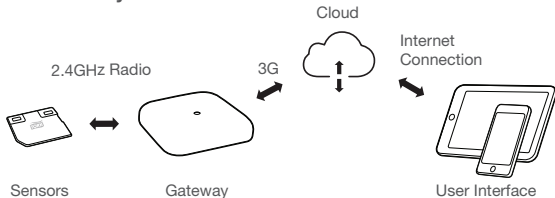


Figure 3. The different components for Tork EasyCube

The sensors send data to the gateway with a default defined time interval. The gateway is configured for Tork dispensers with defined status levels, e.g. Almost Empty, Time for Refill and Full. If a change in status occurs, the gateway forwards the information to the Tork EasyCube. It is in the application server in the cloud where all data is processed and aggregated to useful information. The customer is provided access to the Tork EasyCube web application for management and analysis of collected information.

All configurations and settings to the system are done during installation.

3.1 Sensors

There are a couple of different sensors that generates data points for Tork EasyCube. The data from sensors are interpreted into useful and actionable insights for users.

- Level Sensor and Sensor Communication Unit measure refill levels in Tork dispensers
- Bin sensors measure the level of waste in Tork bins
- Dispensers with embedded sensors measures foam soap level
- Visitor Registration Unit counts visitors in a predefined room

All sensors communicate with the Gateway via radio on the 2.4GHz frequency band. The sensors are capable of two directional communications. Each unit transmits usage data as well as operational conditions (such as battery level). It can also be instructed to fall asleep in situations when equipment is in transit or not used for a longer period.

Note that installed Sensor Communication Units for the full dispenser assortment continue to be available for existing customer installations. For new installations the Level Sensor and the Sensor Communication Unit are provided for the dispenser systems according to the list in this user manual.

3.1.1 Level Sensor

The Level Sensor is added to a special slot in the dispenser. The refill levels reported by the sensors are visualized in Tork EasyCube by colors.

- Green: indicates that the dispenser still has enough paper remaining.
- Yellow: indicates that it's possible to refill the dispenser.
- Red: indicates that the dispenser is almost empty.

Wipe off with a dry cloth each 6 month or when needed to remove dust. Article number: 682930



Figure 4.
Level Sensor

The Level Sensor is used for the following dispensers	Article number
Tork Elevation Xpress Hand Towel Dispenser	552020 552028
Tork Image Design Xpress Hand Towel Dispenser	463002
Tork Xpress Medium/Large Recessed Cabinet Towel Adapter	309695 309696
Tork Image Design Mini Jumbo Bath Tissue Roll Dispenser	465500
Tork Elevation Matic Hand Towel Roll Dispenser	5510282 5510202
Tork Elevation Matic Hand Towel Roll Dispenser – with Intuition Sensor	5511202 5511282

3.1.1.1 Battery information for the Level Sensor

Each Level Sensor is operated by an Essity approved battery, CR2450. The bracket where the sensor is placed looks different for different dispensers, the illustration shows one example. The battery change procedure is the same for all the dispensers.

To change battery:



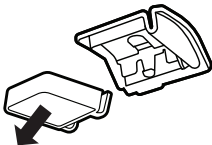
Caution: Risk of explosion if the battery is replaced by an incorrect type.

1



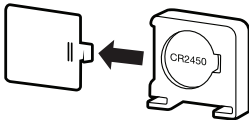
Push the flexible hook to release the sensor

2



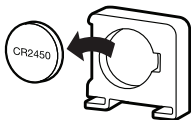
Take out the level sensor from the bracket in the dispenser

3



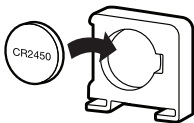
Open the cover

4



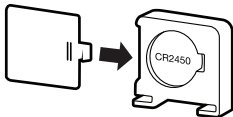
Remove the battery

5



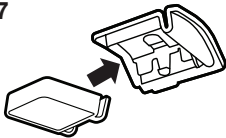
Replace with a new Essity approved battery

6



Close the cover again

7



Put the sensor into the bracket in the dispenser again.

Recycle used batteries according to regulations.

3.1.2 Tork EasyCube Sensor Communication Unit

The sensor communication unit is added to a special slot in the dispenser. The refill levels reported by the sensors are visualized in the Tork EasyCube by colors.

- Green: indicates that the dispenser still have enough paper remaining.
- Yellow: indicates that it is possible to refill the dispenser.
- Red: indicates that the dispenser is almost empty.

Each sensor is operated by an embedded battery. Wipe off with a dry cloth each 6 months or when needed to remove dust. Article number: 682870



Figure 5. Sensor

Works for	Article number
Tork Image Design Matic Hand Towel Roll Dispenser	461002
Tork Image Design Matic Hand Towel Roll Dispenser, Recessed	461022
Tork Image Design Matic Hand Towel Roll Dispenser, in-Wall Recessed	461023
Tork Elevation PeakServe Hand Towel Dispenser	552520 552528
Tork Elevation Twin Mini Jumbo Bath Tissue Dispenser	5555200 5555290
Tork Coreless Elevation High Capacity Bath Tissue Dispenser	473200 473208

3.1.3 Dispensers with embedded sensors

Tork dispensers such as Tork Foam Soap Dispenser with Intuition sensor™ do not need an additional sensor. Instead, there is an additional radio component in the cassette which forwards information to the gateway via 2.4 GHz radio.

The system runs on the same battery as the dispenser, no additional battery is needed.
Article numbers: 682830, 682840, 466200

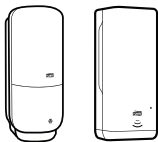


Figure 6. The battery operated, touch free Tork Foam Soap Dispensers

3.1.4 Tork EasyCube Visitor Registration Unit

The Visitor Registration Unit counts the number of people going in and out of a room. The number of visitors can be used as a guideline for when washrooms need to be cleaned.

The sensor has a flexible measurement direction, just open the two end pieces and rotate the center unit 90° to change direction. Place one sender and one receiver at the door frame to the entry of the room. The sensor has a range of up to 1.7 meters / 5.5 feet. A configurable response time makes the sensor useful in many different environments and applications.

Each sensor is operated by an embedded battery.

Article number: 682850

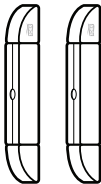


Figure 7. Visitor registration unit

3.2 Tork EasyCube Gateway

The Gateway collects the data from the sensors and sends information to the Tork EasyCube system. The gateway acts as a communication hub for all the sensors that have been paired with it. The unit collects and processes incoming sensor data.

The gateway needs to be connected to a power outlet all the time.

The gateway is installed away from water and as high up as possible for best performance.

The gateway has a built-in 2G/3G modem used to connect to Internet. No access to local physical networks is needed. Communication between sensors and the gateway is based on Essity proprietary protocol. Article number: 682920

In order to cover larger areas, several gateways may be needed. As each gateway has communication capabilities with the server, they can be installed over a large area with no requirements of in-between communication.

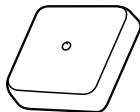


Figure 8. Gateway

4 Technical specification

Radio	Frequency	2.405 GHz
	Radio Standard	IEEE 802.15.4
Gateway	Power adapter	Input: 100-240V AC, Output: 5V DC, 1.2A
	Internet connection	2G / 3G
	Dimensions	188 x 188 x 33mm / 7.4 x 7.4 x 1.3 inches
Level Sensor	Sensors	Range measurement
	Battery	3V, 610mAh, CR2450
	Dimensions	42 x 40 x 12mm / 1.6 x 1.6 x 0.5 inches
Sensor Communication Unit	Sensors	Light
	Battery	3V, 500mAh, CR3032
	Dimensions	62 x 50 x 6mm / 2.4 x 2.0 x 0.2 inches
Visitor Registration Unit	Sensors	Infrared (IR)
	Battery	3.6V, 2.1Ah, 2/3A
	Dimensions	158 x 23 x 23mm / 6.2 x 0.9 x 0.9 inches
Tork Foam Soap Dispenser with Intuition sensor™, S4	Sensors	Infrared (IR)
	Battery	4pcs of R14
	Dimensions	278 x 113 x 130mm/10.9 x 4.5 x 5.12 inches
Tork Bin, B1	Sensors	Infrared (IR)
	Battery	3.6V, 1.1Ah, 1/2AA
	Dimensions	40 x 100 x 55mm/ 1.6 x 4.0 x 2,1 inches

Lithium metal content <1g

Warnings

- **Only use the power supply provided with Tork EasyCube™.**
- **Do not expose the battery for high temperatures, disassemble it, damage it mechanically or put the battery into the fire, it might then cause explosion or fire.**
- **Only use the SIM card provided by Essity.**
- **If any of the contents of the Tork EasyCube™ appear to be damaged or broken, contact Essity Customer Service at 1 866 722 8675, for North America. For Europe please contact your Essity representative.**

Important:

Save this user manual for future reference.

If any changes to the installation are necessary, please contact Essity for support. No changes or modification of this equipment is allowed. Tork EasyCube™ must be returned to Essity after the end of its service life.

Computer, server device or smartphone etc are not included.

The Tork EasyCube web application can be accessed from modern web browsers.

Devices shown are not actual size.

FCC:

Changes or modifications to the equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, the user is encouraged to contact SCA for support.

FCC ID: 2ABK3-682870 (article number 682870)

FCC ID: 2ABK3-682850 (article number 682850)

FCC ID: 2ABK3-682920 (article number 682920), contains FCC ID: QIPEHS6

FCC ID: 2ABK3-682830 (article numbers 682830, 682840)

FCC ID: 2ABK3-466200 (article number 466200)

FCC ID: 2ABK3-682930 (article number 682930)

IC:

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Industry Canada ICES-003 Compliance Label:
CAN ICES-3 (A)/NMB-3(A)

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage;
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Industrie Canada ICES-003 Étiquette de conformité:
CAN ICES-3 (A) / NMB-3 (A).

IC: 10866A-682870 (article number 682870)

IC: 10866A-682850 (article number 682850)

IC: 10866A-682920 (article number 682920), contains IC:
7830A-EHS6

IC: 10866A-682830 (article numbers 682830, 682840)

IC: 10866A-466200 (article number 466200)

IC: 10866A-682930 (article number 682930)



The WEEE Directive set collection, recycling and recovery targets for all types of electrical goods. The RoHS Directive set restrictions upon European manufacturers as to the material content of new electronic equipment placed on the market.



The Battery directive regulates the manufacture and disposal of batteries in the European Union with the aim of improving the environmental performance of batteries and accumulators.



CE marking is a mandatory conformity marking for certain products sold within the European Economic Area (EEA). The CE marking is also found on products sold outside the EEA that are manufactured in, or designed to be sold in, the EEA. The CE marking is the manufacturer's declaration that the product meets the requirements of the applicable EC directives.



The ETL Listed Mark is proof that the product has been independently tested and meets the applicable published standard.



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Sensors, Gateway and Visitor Registration unit are
made in Sweden
Foam soap dispenser (stainless) is made in Poland
Foam soap dispenser (plastic) is made in China