

# LK CubicSecure

## Installation Manual



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## DESIGN

LK CubicSecure is a water safety system that protects against leakage by continuously measuring water consumption, water pressure and temperature. The unit emits alarms for both micro-leaks and larger leaks. When the water safety system detects a leak, it automatically shuts off the water flow. The water circuit breaker can be installed in villas, terraced houses and apartments (1).

## SYSTEM DESCRIPTION

LK CubicSecure is a small unit that is easy to install in confined spaces. The unit is easily installed on incoming water pipes for a house or apartment. The water safety system is equipped with a switch for manual shut-off in the event of power failure or emergency.



### NOTE!

Two water safety systems can be paired in order to avoid scalding in apartments. Pairing provides a synchronised automatic shut-off between the hot and cold water pipes.

With the MyLK app and Wifi connectivity, you can remotely control the unit to shut the water off or on, acknowledge alarms and monitor your water consumption, for example.



*MyLK app*



*QR code for MyLK app.*

## CONTENTS OF THE PACKAGE

- CubicSecure 1 piece, LK RSK - 188 26 67
  - Mains Adapter 1 piece
  - Plane Adapter 2 pieces. LK RSK-1870678.
- Accessories that simplify installation of LK pipes.

## ENVIRONMENT

LK Systems is affiliated with El-Kretsen for collecting and recycling electronics and batteries. Used batteries should be sorted as batteries or small batteries and deposited for battery recycling. When the system has reached the end of its life, it should be sorted as electronics or other electronics and deposited with a recycling centre.

## COMMISSIONING, OPERATION AND MAINTENANCE

See *EN.40.C.12.01\_LK CubicSecure User Manual* for more information.



## PREPARATIONS BEFORE INSTALLATION

### INSTRUCTION!

The water safety system must be installed by a plumber according to the Safe Water Installation industry regulations (<https://sakervatten.se/#>)

### LK CubicSecure and Water Filters

- When installing LK CubicSecure in systems with a water filter, CubicSecure must be installed AFTER the water filter. This ensures that LK CubicSecure does not interrupt the water flow when the water filter performs backwashing and that the LK CubicSecure function operates optimally.



- If LK CubicSecure is installed before a backwashing water filter and the water flow is interrupted, the backwashing cycle will not be completed, which affects both the water filter and the water quality.

- If you have a private well, there is usually a pump, a pressure switch, and a pressure tank. A common setting on the pressure switch (cut-in and cut-out) is 2 and 4 bar.

- LK CubicSecure requires a pressure between 3–7 bar for optimal operation, which means that the pressure switch cut-in and cut-out settings may need to be adjusted accordingly.

- It is also important to consider that the pressure drop can be up to 0.5 bar when water passes through a water filter, depending on the type of filter installed.

### NOTE!

- The water circuit breaker must be installed in a location that is easily accessible for service and maintenance.



- Safety systems such as residential sprinklers and emergency cooling of solid fuel boilers or similar must be connected before the water safety system. If they are installed afterwards, they risk being left without a water supply.

- When placing LK CubicSecure where pipes run above the unit, these pipes must be insulated to prevent moisture/condensation in the unit.

- Install the water safety system after supplying safety systems that require water. LK CubicSecure must be connected after the water filter. The system prevents water damage that can occur after the location of the LK CubicSecure.



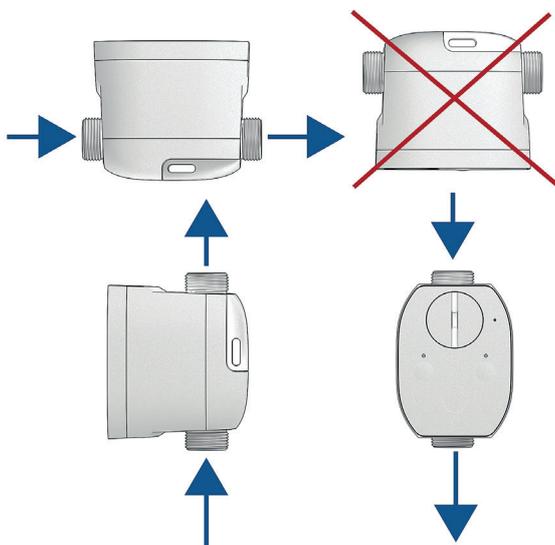
### TIP!

The water safety system is equipped with a G20 EuroCone external thread which is to be installed with an LK PressPex press connection coupling or LK Pushfit AX connection coupling. When using a flat gasket, LK Plain Adapter is supplied (RKS-187 06 78) with the product.



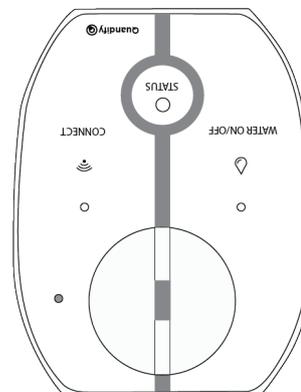
### RISK!

When installing metal pipes in the distributor cabinet, the pipe must be provided with an electrical protective equalization (earthing) which must be installed by a qualified electrician unless the earth screw is already in the cabinet.



### TIP!

The LK CubicSecure has an arrow on the underside. The unit must be installed so that the arrow points in the direction of the water flow. This means that the text on the front of the unit will appear upside down if the unit is installed vertically with incoming water from below. This does not indicate incorrect installation—the unit is correctly mounted



Correct installation of LK CubicSecure. The arrows indicate the direction of the water flow.



## INSTALLATION OF LK CUBICSECURE

1. Install the water safety system on the incoming water pipe directly after the water meter isolation valve and any check valve. The connections on LK CubicSecure are equipped with G20 external EuroCone connections (chamfered). Supplement with the enclosed flat adapter when connecting using a coupling for flat sealing.
2. Tighten the couplings without damaging the plastic casing on the water safety system.

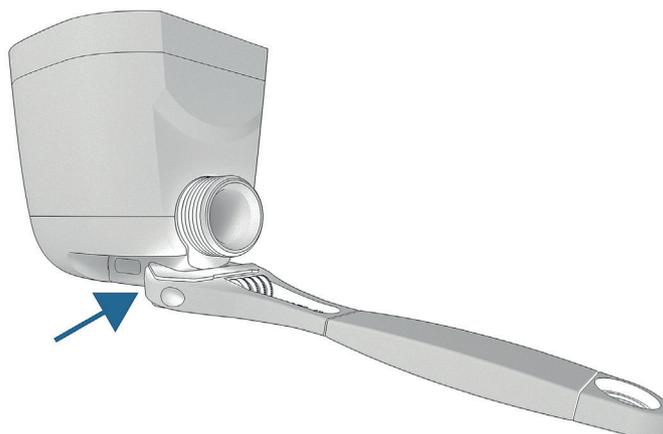


*The water safety system and the incoming water pipe.*



### TIP!

The water safety system is equipped with a counterhold on the underside. Use an adjustable wrench on the counterhold. It is also possible to use a screwdriver in the slot to create a counterhold.



*The counterhold on the underside of the water safety system.*



*LK Cubic Secure installed in the cabinet.*



## TECHNICAL DATA

Area of use	Villa, terraced house, apartment
Water temperature	0,1-70 °C
Pressure	PN10
Maximum pressure during tests	16 bar
KVS	4,6 m³/h
Environment	Indoors, dry, frost-free
Climate/Environment	5 °C ... 30 °C
Storage	-25 °C ... 55 °C, dry environment
Wireless frequency	2.4 GHz
Nominal flow rate (Q3)	4,000 l/h
Start, flow	5 l/h
Micro-leakage detected*	>0.3 bar pressure loss.
Mid-zised leakage detected*	>5 l/h for at least 45 minutes
Leakage detected, large*	>1500 l/h for at least 90 seconds
Weight	720 grams
Dimensions	87 mm height: 75 mm width, length 110 mm
*Factory setting	

## COMMENT

Completely interference-free operation cannot always be guaranteed with the technology available today, which allows free use of the frequency band. Every installation should therefore be tested individually. LK CubicSecure always works independently. The water safety system will still work if the unit loses contact with the Internet. The unit is still in operation and emits an alarm when a leak is detected. The contact with the MyLK app is temporarily interrupted, and it then does not receive notifications or alarms until contact is established with the Internet

## GUARANTEE

LK Systems AB is responsible for faults in products that appear within two years from the delivery of the product to the buyer. If LK is responsible for the fault in the product, LK has the right to replace the product with either a new or repaired product. The liability period for replacement or repair of a product or spare part does not exceed the liability period for the original product. The seller is not responsible for faults resulting from accidents, incorrect installation, incorrect installation, incorrect care, abuse or other irregular use. LK Systems AB is not responsible for any loss or damage caused by a non-functioning product. Its responsibility is strictly limited to the replacement of the product.

## CE APPROVAL

LK CubicSecure water safety system is tested and approved by a third party.



EU Declaration of Conformity, Radio Equipment

Hereby, LK Systems declares that the radio equipment type CubicSecure - LTCS01 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available on:

<https://www.lksystems.se/sv/dokumentation/teknisk-dokumentation/>

