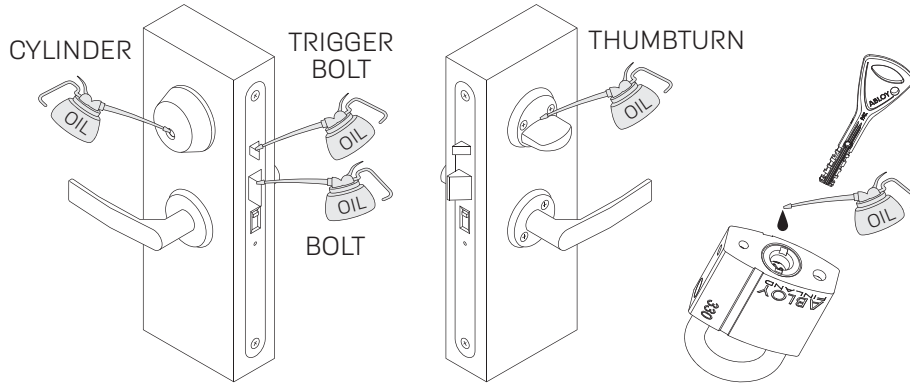


LUBRICATION INSTRUCTIONS FOR END USER

Mechanical cylinders and lock cases

For proper function and long life time, **ABLOY®** mechanical locks need to be maintained regularly. Drop of lubricant inside of the keyway once a year is enough to ensure proper and comfortable function of a lock in normal environmental conditions. In harsh conditions, it is recommended to observe if the lubrication is needed more often. To ensure proper lubrication, insert the key and rotate it clock- and counter-clockwise a few times after application of lubricant.



ABLOY® recommends the following lubricants:

- **ABLOY®** Lock Oil
- Rivolta TRS
- Mineral oils (e.g. sewing machine oil and gun oil)

Do not use oils containing graphite or biolubricants. They will jam the cylinder and the operation of the lock.

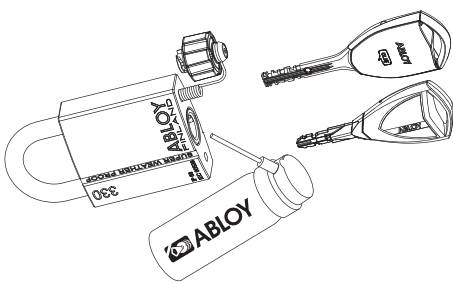
Electromechanical cylinders

ABLOY® PROTEC² CLIQ and ABLOY® PULSE

Use only **ABLOY®** lock oil or Rivolta TRS oil with cylinders. Most of the commonly used lock oils contain harmful ingredients for cylinder units and are thus not allowed to be used.

To ensure proper function and long life time, **ABLOY®** electromechanical cylinders require in normal conditions maintenance once a year, in harsh conditions maintenance is needed at least bi-annually. One short spray of lock oil to mechanical part in the back of keyway is enough to lubricate, electronics in the front of key way don't need lubrication. To ensure proper lubrication, use key to open lock a few times.

Please note that wrong lock oil or too much oil in electronics may cause issues in function of lock.

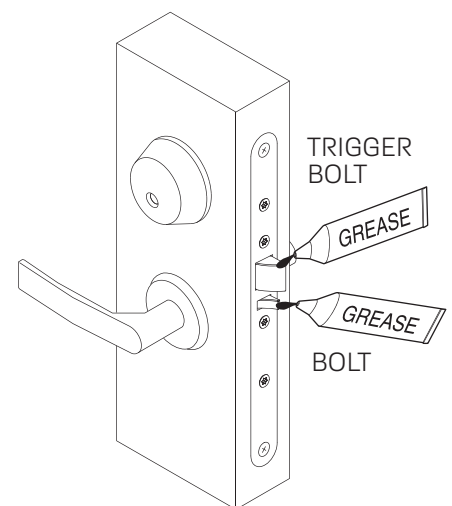


When installing **ABLOY® PULSE** cylinders for the first time, you should lightly spray lock oil into the keyway. If **ABLOY® PROTEC² CLIQ** cylinders have not been put into use within a year of delivery, their keyway must also be sprayed with lock oil.

Electromechanical lock cases

Lubricate the lock case bolt and trigger bolt with vaseline type grease, e.g. ISOFLEX TOPAS NB52.

Do not put any lubrication inside the lock case.


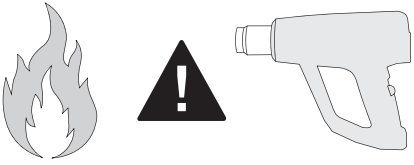


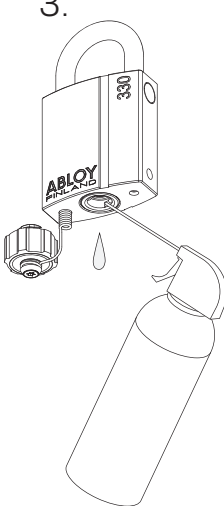

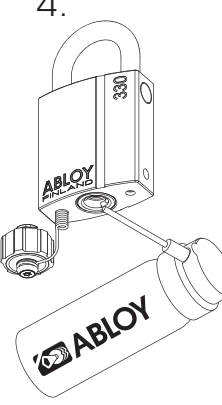

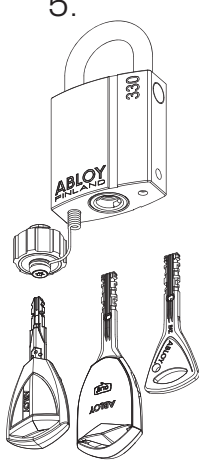

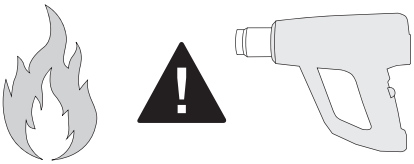
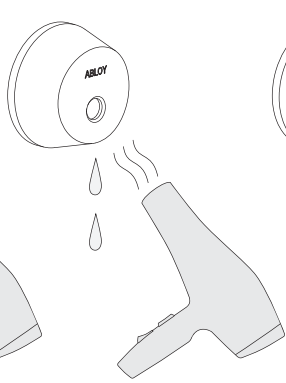



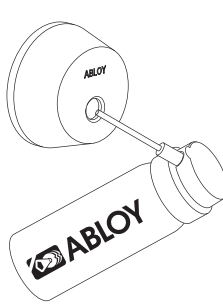

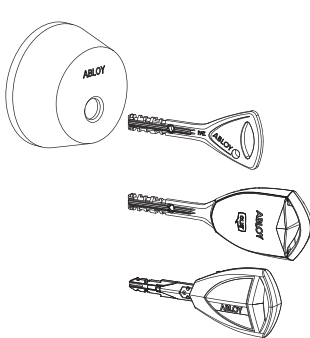


Harsh conditions

Manufacturer recommends more frequent maintenance cycle if one or several of following characteristics exist in installation environment:

- Wide scale of changes in temperature
- Immediate proximity to the sea
- High humidity or exposure of the lock to direct rain
- Highly corrosive environments
- Lots of dust in the air constantly or occasionally.

DEFROST AND TREATMENT OF A FROZEN LOCK

<div><div>1.</div></div> <div></div>	<div><div>2.</div></div> <div></div>	<div><div>3.</div></div> <div></div> <div><div>4.</div></div> <div></div>	<div><div>5.</div></div>
<div><div>1.</div></div> <div></div>	<div><div>2.</div></div> <div></div>	<div><div>3.</div></div> <div></div> <div><div>4.</div></div> <div></div>	<div><div>5.</div></div>
<ol style="list-style-type: none">1. If the lock is completely covered in ice or there is ice inside the lock, melt the ice with an external heat source, e.g. a hair dryer or similar. The use of open flame and heat gun is not recommended.2. Once the ice has melted, you can gently use compressed air to remove excess moisture from the mechanical and ABLOY® CLIQ cylinders. <u>Do not use compressed air on the ABLOY® PULSE cylinder.</u>3. Once the ice has melted, you can gently use compressed air to remove excess moisture.4. Spray ABLOY® Lock Oil to eliminate moisture.5. Test the operation of the lock several times to ensure that the oil spreads evenly to the discs. <p><u>Please note that the lock should not be heated to a blazing temperature!</u></p> <p><u>If the lock is in a place where it has direct exposure to water, it would be good to consider protection for it to prevent possible freezing / getting wet.</u></p>			