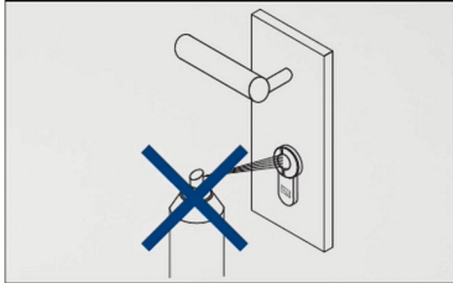


10 Cleaning and maintenance

10.1 Test cylinder and clean key



NOTICE!

Damage caused by incorrect cleaning.

The cylinder does not need to be cleaned and it must not be lubricated. Applying oil to the cylinder can damage the built-in electronics beyond repair.

- Do not apply oil or grease to cylinders.
- Do not treat cylinders with graphite.
- Do not allow the cylinder to come into contact with paint or thinner.

Interval	Maintenance work
When required	Clean key with damp cloth.
Monthly	Check that the system cylinders and doors function correctly.
	Check the battery charge status in the locking system cylinders and replace batteries if they are low. <ul style="list-style-type: none"> ■ ↗ <i>Chapter 10.3.1 "Replace the battery in an active key" on page 156</i>

10.2 Clean and maintain the reader



NOTICE!

Damage caused by incorrect cleaning.

Incorrect cleaning can result in material damage on the reader.

- Do not use acid- or solvent-based cleaning agent to clean the reader.
- Do not clean the reader with direct hose water (e.g. garden hose or high-pressure cleaner).

Interval	Maintenance work
When required	Clean the reader with a damp cloth.
Monthly	Check the reader for correct function.
In case of stubborn dirt	Have the reader cleaned by a specialist in building technology.

10.3 Replace batteries

Damage and malfunctions caused by incorrectly inserted batteries



NOTICE!

Damage caused by batteries being replaced incorrectly.

Incorrectly or improperly inserted batteries may cause malfunctions or damage to the components.

- Never invert the battery terminals.
- Change battery/batteries and replace with approved batteries of the same type.
- Do not touch the battery contacts when replacing the batteries. Wear clean gloves.
- Do not use force to press batteries into the battery compartment.
- Only use Winkhaus original parts to replace batteries in cylinders.



If a cylinder with low battery charge level is read out with the Masterkey, this is shown in the app.

Example: Low cylinder battery charge status

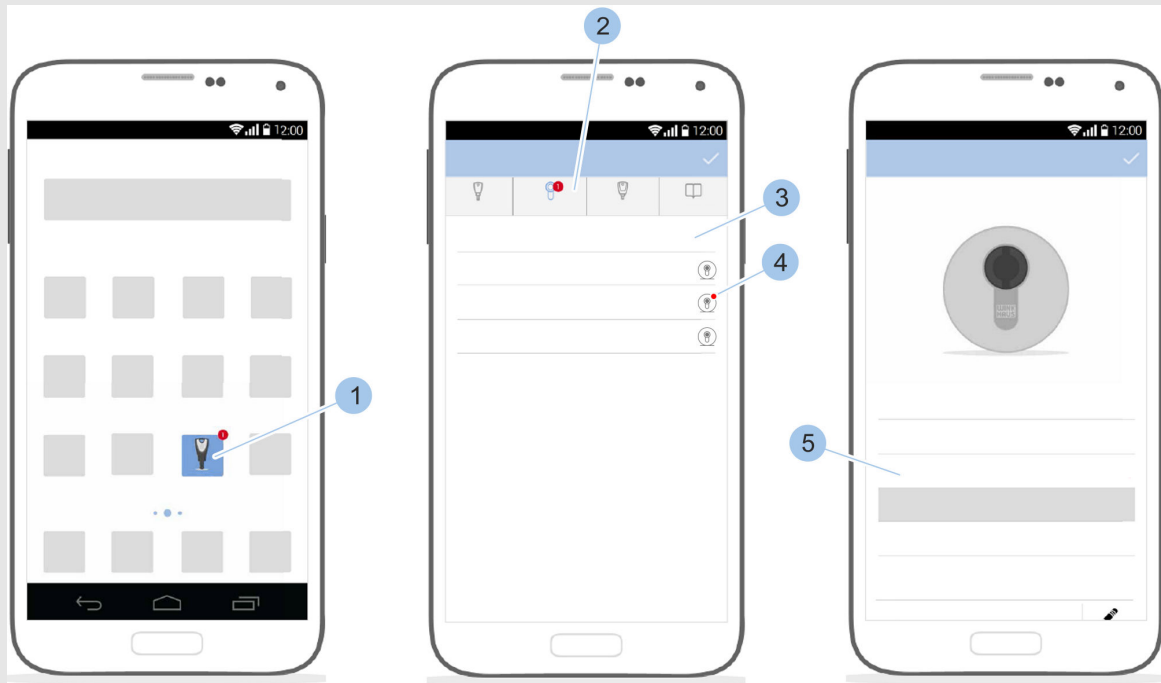


Fig. 124: Open message

Precondition:

- Masterkey has been linked to the cylinder.
 - ↪ Chapter 7.1 "Initialise Masterkey" on page 77

1. ➤ Launch app.

⇒ A message is displayed in the app overview (1) and in the main menu (2).

2. ➤ Open menu (2).

3. ➤ Touch the cylinder (3).

⇒ The battery charge status (4) *low* is highlighted in red.

4. ➤ Replace battery.

↪ Chapter 10.3.2 "Replacing the batteries in cylinder types 01, 04 MK and 05" on page 156- ↪ Chapter 10.3.6 "Replacing batteries in padlock 85" on page 165

10.3.1 Replace the battery in an active key

Replace the battery

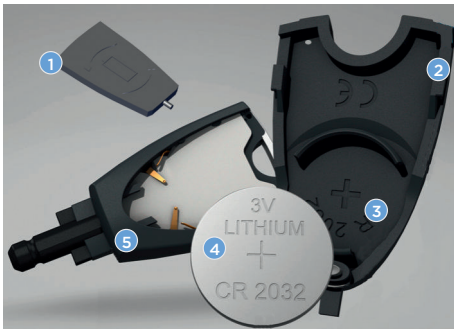


Fig. 125: Replace the battery

Precondition:

- New 3 V CR 2032-1HFE lithium cell is at hand.

1. ➤ Press down the lock pin with the tip of the tool (1) and keep it pressed and slide off the battery compartment cover (2).

2. ➤ Remove the used battery from the battery holder (3).

3. ➤



ENVIRONMENT!

Environmental damage is caused when you dispose of batteries incorrectly.

Dispose of used batteries (4) in the correct manner.

4. ➤ Insert new approved battery (4) into the battery holder (3) with the positive terminal facing downwards.

5. ➤ Slide the battery compartment cover (2) containing the newly inserted battery (4) onto the key (5). The lock pin clicks into place automatically.

⇒ The key battery has now been replaced.

10.3.2 Replacing the batteries in cylinder types 01, 04 MK and 05

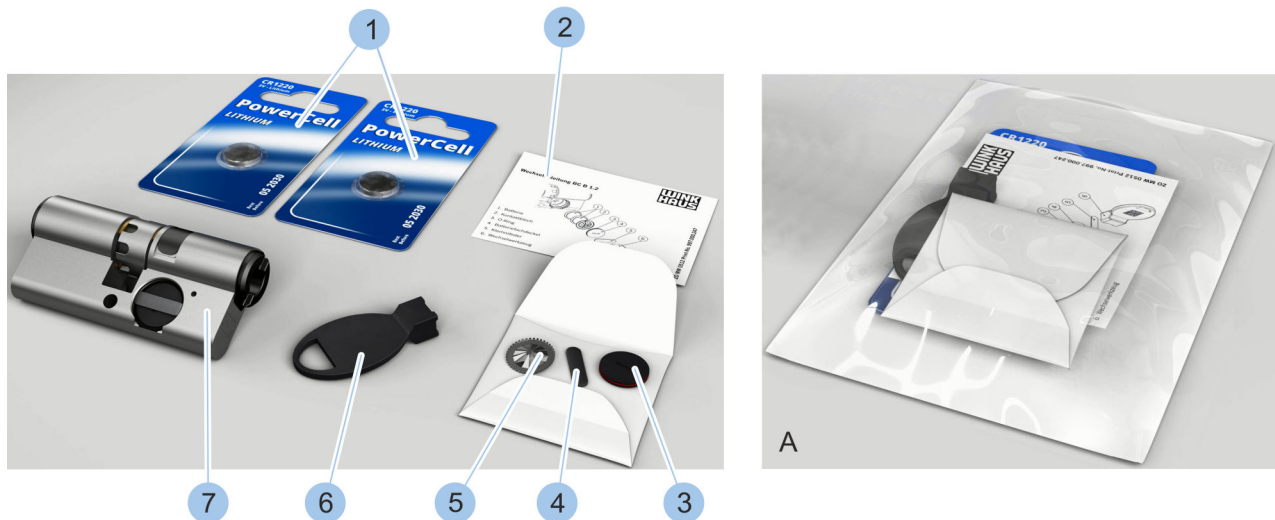


Fig. 126: Battery replacement set

- | | |
|---------------------------------------|------------------------------------------------------|
| 1 Batteries | 6 Replacement tool |
| 2 Replacement instructions | 7 Cylinder (not part of the battery replacement set) |
| 3 Battery compartment lid with O-ring | A Battery replacement set in packaging |
| 4 Retaining spring | |
| 5 Contact strip | |

The battery replacement set is supplied in a package (A) and contains the components in the photo (1 – 6).

Remove battery from the battery compartment

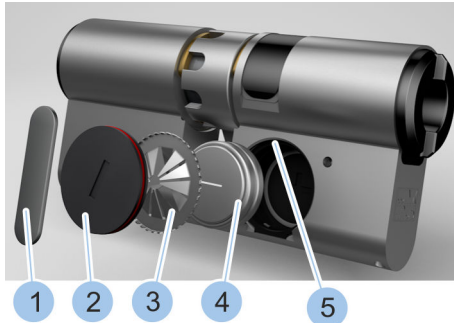


Fig. 127: Remove batteries

Precondition:

- Cylinder has been removed.
 - ↪ Chapter 4.1 "Dismount old cylinder" on page 48

1. ➤ Use replacement tool in the battery replacement set to twist retaining spring (1) out of the groove (5) in the battery compartment.
2. ➤ Remove retaining spring (1).
3. ➤ Remove battery compartment lid (2).
4. ➤ Remove contact strip (3).
5. ➤ Remove used batteries (4).

6. ➤



ENVIRONMENT!

Environmental damage is caused when you dispose of batteries incorrectly.

Dispose of retaining spring (1), battery compartment lid (2), contact strip (3) and batteries (4) in the correct manner.

Insert new batteries

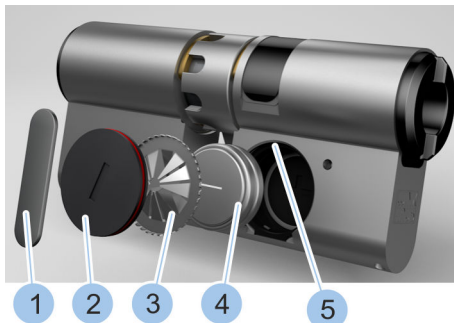


Fig. 128: Insert batteries

7. ➤ Insert two new batteries (4) from the battery replacement set with their positive terminal pointing downwards.
8. ➤ Insert new contact strip (3) into the battery compartment with toothed ring pointing outwards.
9. ➤ Insert battery compartment lid (2) into the battery compartment.
10. ➤ Insert retaining spring (1) into the battery compartment groove (5).
11. ➤ Place replacement tool onto the retaining spring (1).
12. ➤ Use the replacement tool to turn retaining spring (1) 90° in the groove (5).
 - ⇒ The batteries have now been replaced and secured in the battery compartment.
13. ➤ Fit cylinder.
 - ↪ Chapter 4.6 "Install cylinder type 01, type 02 and type 05" on page 57
14. ➤ Synchronise the time of the cylinder with the Masterkey.
 - ↪ Chapter 7.4.3 "Identify cylinder" on page 89

10.3.3 Replace batteries in cylinder type O2

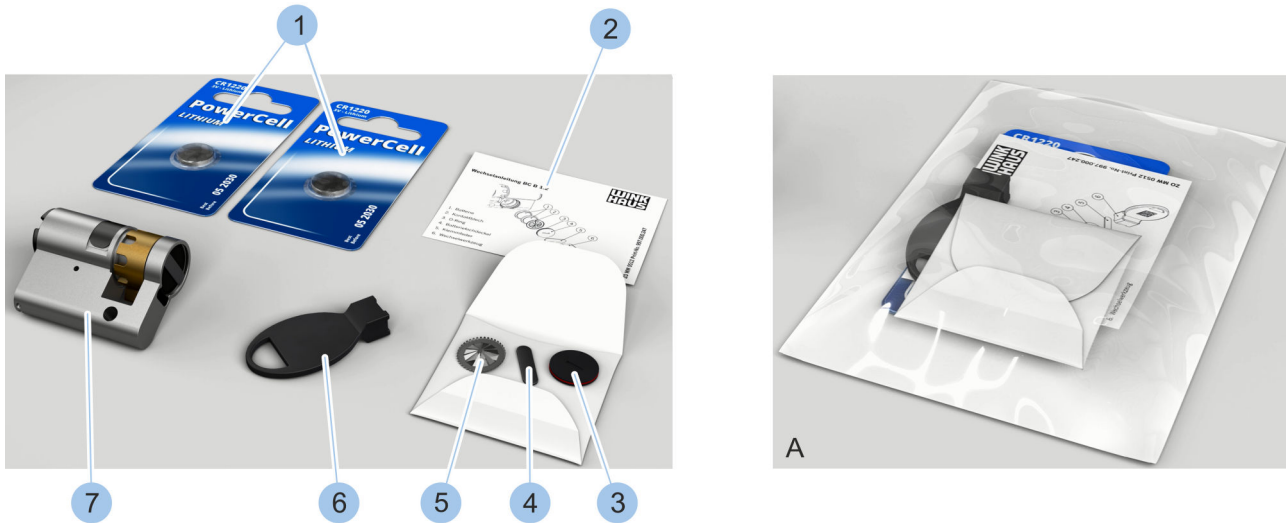


Fig. 129: Battery replacement set (type O2)

- | | |
|---------------------------------------|------------------------------------------------------|
| 1 Batteries | 6 Replacement tool |
| 2 Replacement instructions | 7 Cylinder (not part of the battery replacement set) |
| 3 Battery compartment lid with O-ring | A Battery replacement set in packaging |
| 4 Retaining spring | |
| 5 Contact strip | |

The battery replacement set is supplied in a package (A) and contains the components in the photo (1 - 6).

Precondition:

- Cylinder has been removed.
 - ↪ Chapter 4.1 "Dismount old cylinder" on page 48

Remove battery from the battery compartment

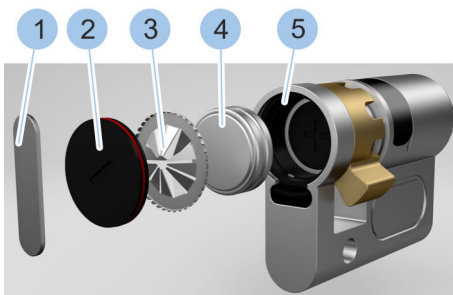


Fig. 130: Remove batteries

1. ➤ Use replacement tool in the battery replacement set to twist retaining spring (1) out of the groove (5) in the battery compartment.
2. ➤ Remove retaining spring (1).
3. ➤ Remove battery compartment lid (2).
4. ➤ Remove contact strip (3).
5. ➤ Remove used batteries (4).
6. ➤



ENVIRONMENT!

Environmental damage is caused when you dispose of batteries incorrectly.

Dispose of retaining spring (1), battery compartment lid (2), contact strip (3) and batteries (4) in the correct manner.

Insert new batteries

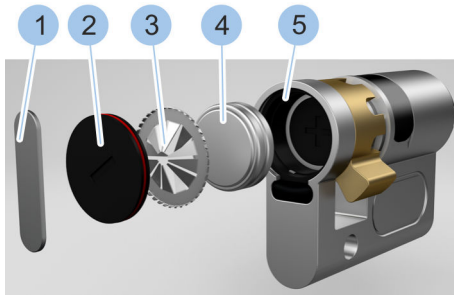


Fig. 131: Insert batteries

7. ➤ Insert two new batteries (4) from the battery replacement set with their positive terminal pointing downwards.
8. ➤ Insert new contact strip (3) into the battery compartment with toothed ring pointing outwards.
9. ➤ Insert battery compartment lid (2) into the battery compartment.
10. ➤ Insert retaining spring (1) into the battery compartment groove.
11. ➤ Place replacement tool onto the retaining spring (1).
12. ➤ Use the replacement tool to turn retaining spring (1) 90° in the groove (5).
 - ⇒ The batteries (4) have now been replaced and secured in the battery compartment.
13. ➤ Fit cylinder.
 - ↪ Chapter 4.6 "Install cylinder type 01, type 02 and type 05" on page 57
14. ➤ Synchronise the time of the cylinder with the Masterkey.
 - ↪ Chapter 7.4.3 "Identify cylinder" on page 89

10.3.4 Replace batteries in cylinder type 04

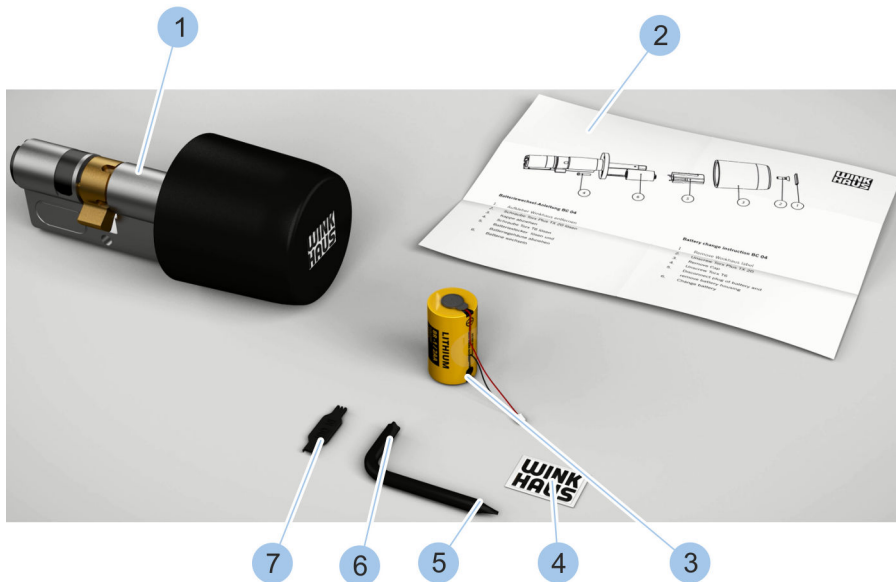


Fig. 132: Battery replacement set (type 04)

- | | | | |
|---|--------------------------------------------------------------|---|------------------|
| 1 | Cylinder (type 04) (not part of the battery replacement set) | 3 | Battery |
| 2 | Replacement instructions | 4 | Label |
| | | 5 | Screwdriver (T6) |

- 6 Screwdriver (TX 20)
- 7 Battery plug replacement tool

A Battery replacement set in packaging

The battery replacement set is supplied in a package (A) and contains the components in the photo (2 - 7).

Precondition:

- Cylinder has been removed.
 - ↪ Chapter 4.1 "Dismount old cylinder" on page 48

Remove knob

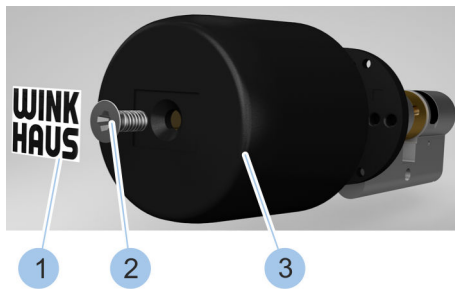
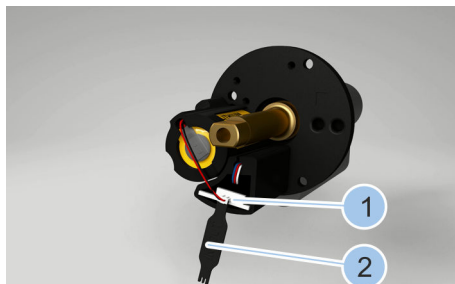


Fig. 133: Remove knob

1. ➤ Remove sticker (1) with slot screwdriver.
2. ➤ Unfasten screw (2) with enclosed screwdriver (TX 20).
3. ➤ Detach (3) thumb-turn.

Disconnect battery plug



4. ➤ Disconnect battery plug (1) with battery plug replacement tool (2).
5. ➤ Unfasten screw (3) with enclosed screwdriver (T6).

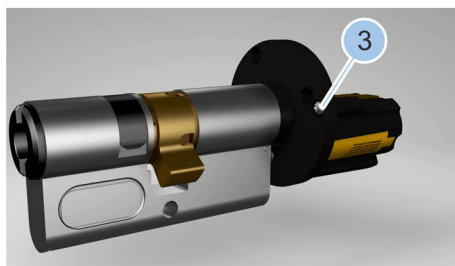


Fig. 134: Undo screw and battery plug

Remove battery

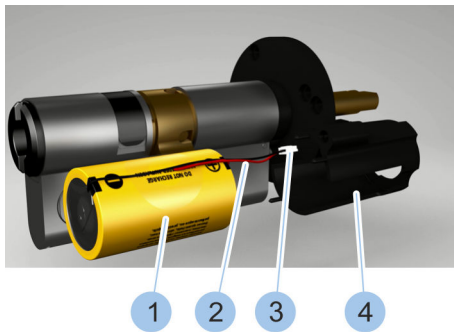


Fig. 135: Remove battery

6. ➤ Remove battery housing (4).
7. ➤ Take the used battery (1), including cable (2) and battery plug (3), from the battery housing (4).

8. ➤



ENVIRONMENT!

Environmental damage is caused when you dispose of batteries incorrectly.

Dispose of stickers and batteries in the correct manner.

Insert battery into battery housing

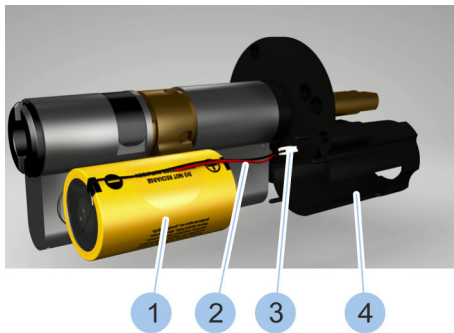
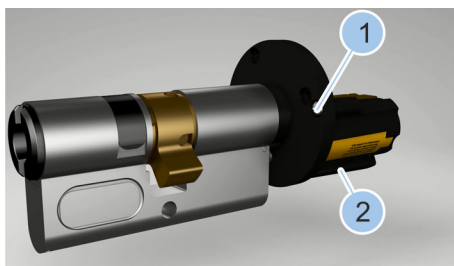


Fig. 136: Insert battery

9. ➤ Feed cable (2) and battery plug (3) through the battery housing (4).
10. ➤ Insert new battery (1) from the battery replacement set into the battery housing (4).

Fit battery housing



11. ➤ Place battery housing (2) in position.
12. ➤ Fasten screw (1) with enclosed screwdriver (T6).
13. ➤ Use replacement tool (4) to insert battery plug (3).

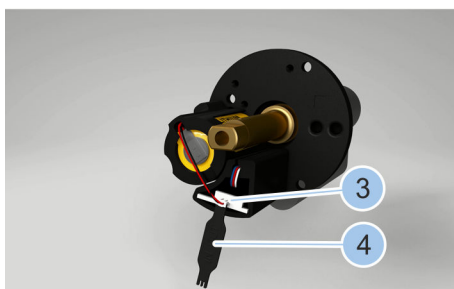


Fig. 137: Insert screw and battery plug

Attach knob

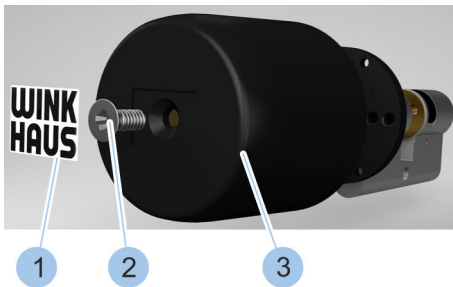


Fig. 138: Attach knob

14. ▶ Attach knob (3).
15. ▶ Fasten screw (2) with enclosed screwdriver (TX20).
16. ▶ Affix new sticker (1).
⇒ The battery has been changed.
17. ▶ Fit cylinder.
↳ Chapter 4.7 "Install cylinder type 04 and type 04 MK" on page 60
18. ▶ Synchronise the time of the cylinder with the Masterkey.
↳ Chapter 7.4.3 "Identify cylinder" on page 89

10.3.5 Replacing the batteries in cylinder types 21 and 22

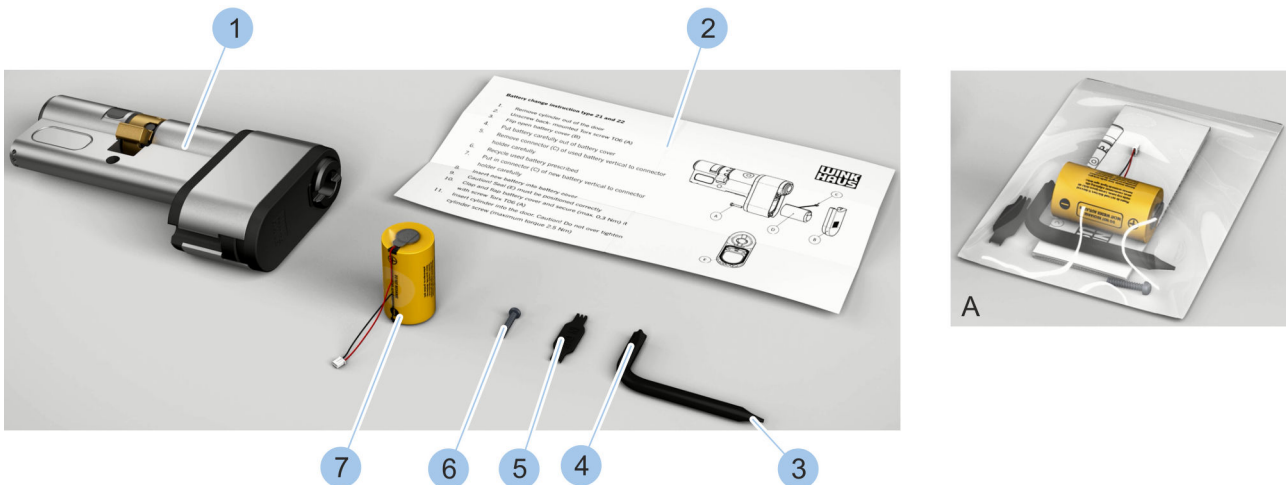


Fig. 139: Battery replacement set (type 21)

- | | | | |
|---|--------------------------------------------------------------|---|--------------------------------------|
| 1 | Cylinder (type 21) (not part of the battery replacement set) | 5 | Battery plug replacement tool |
| 2 | Replacement instructions | 6 | Screw |
| 3 | Screwdriver (T6) | 7 | Battery |
| 4 | Screwdriver (TX 20) | A | Battery replacement set in packaging |

The battery replacement set is supplied in a package (A) and contains the components in the photo (2 - 7).

Precondition:

- Cylinder has been removed.
 - ↪ Chapter 4.1 "Dismount old cylinder" on page 48

Open battery compartment

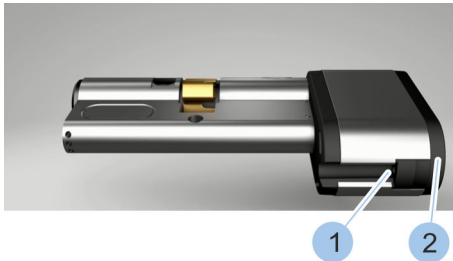


Fig. 140: Open battery compartment

1. ➤ Unfasten screw (1) with enclosed screwdriver (T6).
2. ➤ Open lid (2) of the battery compartment.

Remove battery

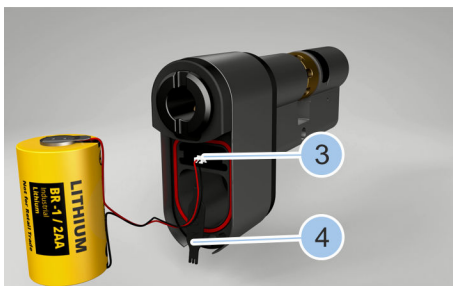


3. ➤ Take the used battery (2), including cable (1), out of battery compartment.
4. ➤ Use replacement tool (4) to remove battery plug (3).
5. ➤



ENVIRONMENT!

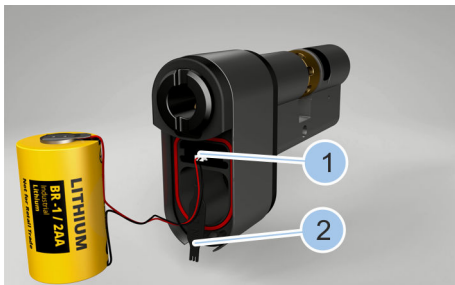
Environmental damage is caused when you dispose of batteries incorrectly.



Dispose of battery in the correct manner.

Fig. 141: Remove battery

Insert battery



6. Use replacement tool (2) to insert battery plug (1).

7. Insert new battery (4) from the battery set, including cable (3), into the battery compartment.

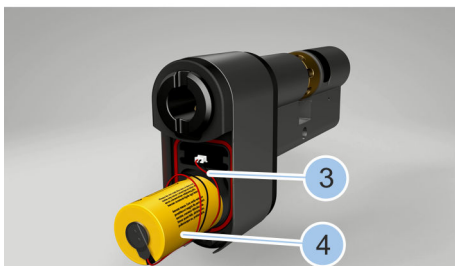


Fig. 142: Insert battery

Close battery compartment

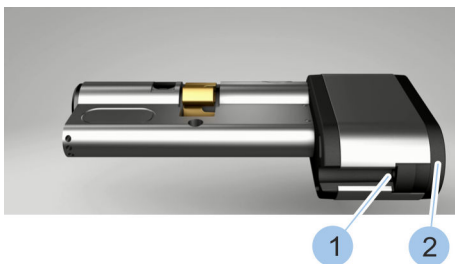


Fig. 143: Close battery compartment

8. Close lid (2) on the battery compartment.

9. Fasten screw (1) with enclosed screwdriver (T6).

⇒ The battery has now been replaced and secured in the battery compartment.

10. Fit cylinder.

↳ Chapter 4.8 "Install cylinder type 21 and type 22" on page 62

11. Synchronise the time of the cylinder with the Masterkey.

↳ Chapter 7.4.3 "Identify cylinder" on page 89

10.3.6 Replacing batteries in padlock 85

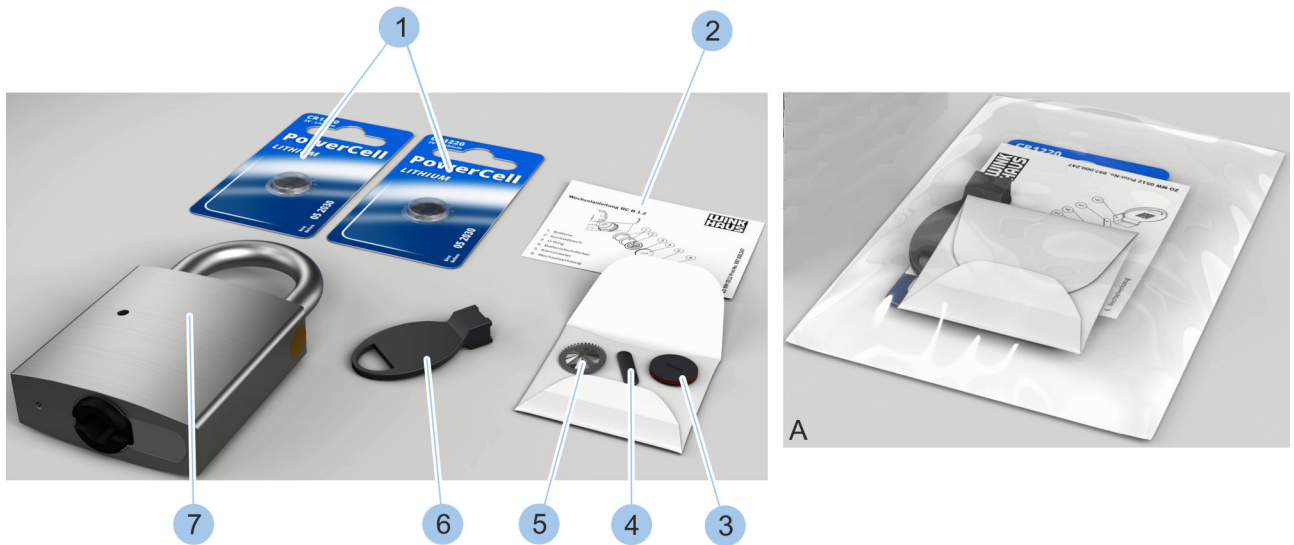


Fig. 144: Battery replacement set for type 85

- | | |
|---------------------------------------|-----------------------------------------------------|
| 1 Batteries | 6 Replacement tool |
| 2 Replacement instructions | 7 Padlock (not part of the battery replacement set) |
| 3 Battery compartment lid with O-ring | A Battery replacement set in packaging |
| 4 Retaining spring | |
| 5 Contact strip | |

The battery replacement set is supplied in a package (A) and contains the components in the photo (1 - 6).

Activate key

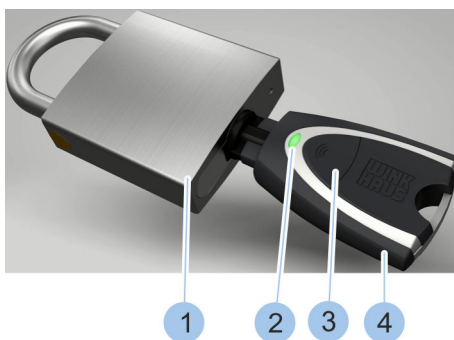


Fig. 145: Activate key

1. ➔ Insert active key (4) into the padlock (1) cylinder.
2. ➔ Activate active key (4) by pressing on the button (3).
 - ⇒ The LED display (2) on the active key lights up green and the cylinder can be locked.

Undo fixing screw

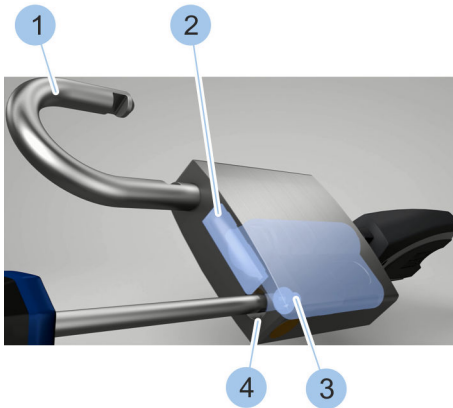


Fig. 146: Undo fixing screw

3. → Unlock cylinder.
⇒ The cross bar (2) releases the shackle (1) and the lock opens.
4. → Swing shackle (1) to the side.
5. → Undo fixing screw (3) and remove from the shackle hole (4).

Pull out cylinder

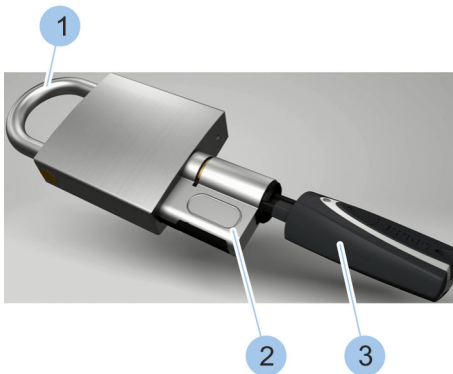


Fig. 147: Pull out cylinder

6. → Close shackle (1).
7. → Carefully remove cylinder (2) with inserted key (3).

Remove battery from the battery compartment

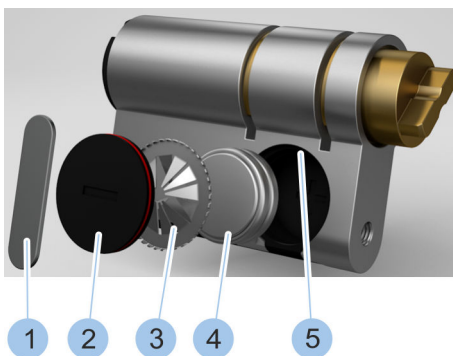


Fig. 148: Replace batteries

8. → Use replacement tool in the battery replacement set to twist retaining spring (1) out of the groove (5) in the battery compartment.
9. → Remove retaining spring (1).
10. → Remove battery compartment lid (2).
11. → Remove contact strip (3).
12. → Remove used batteries (4).
13. →



ENVIRONMENT!

Environmental damage is caused when you dispose of batteries incorrectly.

Dispose of retaining spring (1), battery compartment lid (2), contact strip (3) and used batteries (4) in the correct manner.

Insert new batteries

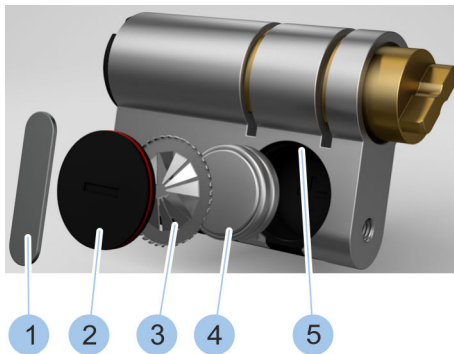


Fig. 149: Replace batteries

- 14. ▶ Insert two new batteries (4) from the battery replacement set with their positive terminal pointing downwards.
- 15. ▶ Insert new contact strip (3) into the battery compartment with toothed ring pointing outwards.
- 16. ▶ Insert battery compartment lid (2) into the battery compartment.
- 17. ▶ Insert retaining spring (1) into the battery compartment groove (5).
- 18. ▶ Place replacement tool onto the retaining spring (1).
- 19. ▶ Use the replacement tool to turn retaining spring (1) 90° in the groove (5).
 - ⇒ The batteries (4) have now been replaced and secured in the battery compartment.

Insert cylinder

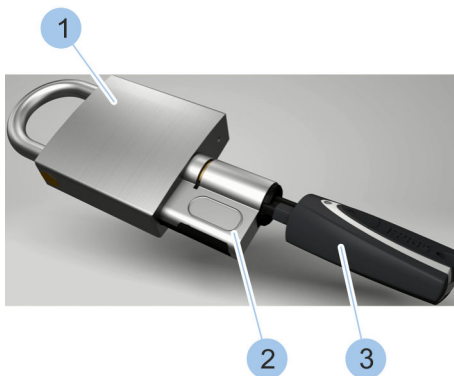


Fig. 150: Insert cylinder

- 20. ▶ Push cylinder (2) with inserted key (3) into the padlock (1).
- 21. ▶ Activate active key (3) by pressing on the button.
 - ⇒ The LED display on the active key lights up green and the cylinder can be locked.

Insert fixing screw

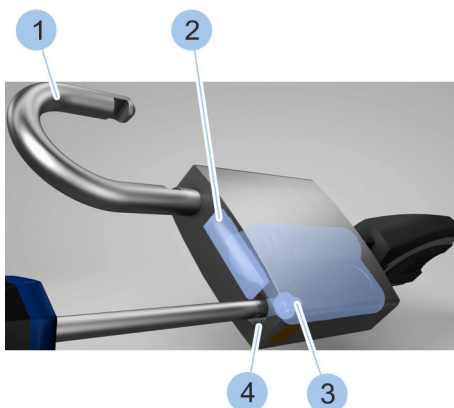


Fig. 151: Tighten fixing screw into position

- 22. ▶ Unlock cylinder.
 - ⇒ The cross bar (2) releases the shackle (1) and the lock opens.
- 23. ▶ Swing shackle (1) to the side.
- 24. ▶ Insert fixing screw (3) into the shackle hole (4) and screw firmly into place.

Lock padlock

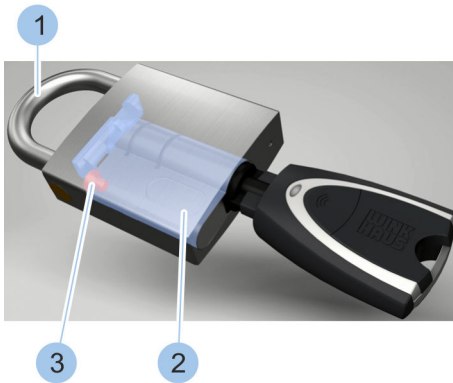


Fig. 152: Lock padlock

25. Close shackle (1).

⇒ The fixing screw (3) secures the cylinder (2) into place in the padlock.

26. Synchronise the time of the cylinder with the Masterkey.

↳ *Chapter 7.4.3 "Identify cylinder" on page 89*