



## CR2032 battery replacement

- Proper replacement of CR2032 battery for battery sockets of Kontron Motherboards
- Common battery information
- Typical sockets used on Kontron motherboards

## Revision History

Revision	Change description	Date
<b>V1.0</b>	Initial version	06.06.2023

## Table of Contents

REVISION HISTORY	2
TABLE OF CONTENTS	2
1 COMMON BATTERY SAFETY INFORMATION	3
2 BATTERY INFORMATION ON KONTRON FTP SERVER	3
3 IMPORTANT INFORMATION	4
4 OVERVIEW BATTERY SOCKET TYPES	5
5 SOCKET 1 – SMD TYPE	6
6 SOCKET 2 – SMD TYPE	7
7 SOCKET 3 – THT TYPE	8
8 SOCKET 4 – THT TYPE VERTICAL	9
ABOUT KONTRON	10

## 1 Common Battery Safety Information

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### **CAUTION**

Battery contains organic electrolyte. In case of electrolyte leakage from the battery, actions described below are required.

- **Eye contact:** Flush the eyes with plenty of clean water for at least 15 minutes immediately, without rubbing. Get immediate medical treatment. If appropriate procedures are not taken, this may cause eye injury.
- **Skin contact:** Wash the contact areas off immediately with plenty of water and soap. If appropriate procedures are not taken, this may cause sores on the skin.
- **Inhalation:** Remove to fresh air immediately. Get medical treatment immediately.

#### Disposal Considerations



- Do not incinerate or dispose of lithium batteries in general waste collection. They may explode or rupture violently.
- Collect batteries for disposal carefully to prevent short-circuiting, compacting, or destroying the battery case.
- Review and comply with all relevant local, state, and country regulations dealing with the disposal of these materials.
- You are legally responsible for hazards created while your battery is being disposed.

If your product is equipped with a lithium battery, take the following precautions when replacing the battery.

### **CAUTION**

**Danger of explosion if the battery is replaced incorrectly.**

Replace only with same or equivalent battery type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

## 2 Battery information on Kontron FTP Server

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On Kontron FTP server, there are plenty of related documents available for motherboard CR2032 coin cell battery (Datasheet, Safety datasheet, Approvals ...)

<https://ftp.kontron.com/main.html?download&weblink=3cb83a90a99c51160d2aa1f1f34cc340&subfolder&subfolder=Products/Motherboards/Motherboard-Battery-Information>

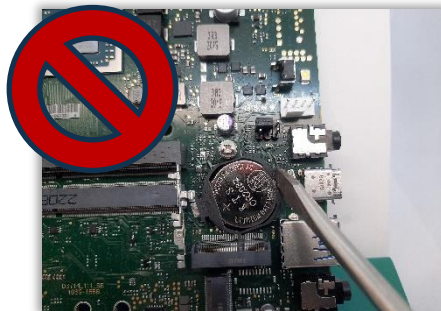
### 3 Important Information

**WARNING**

Never use metal tweezers to grab the battery. This will shortcut both terminals, which can damage the battery! You can use plastic tweezers or other appropriate tools.

**WARNING**

Never use a screw driver to remove the battery from the socket!



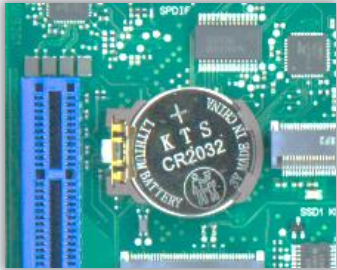

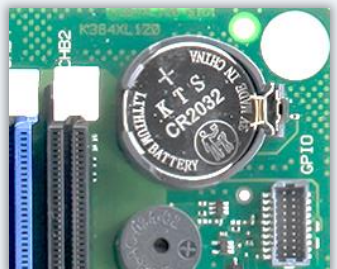

This could damage the solder pads, metal brackets or plastic noses. These leads to malfunction of the battery contact -> RTC reset or BIOS battery voltage error message.

**NOTICE**

During battery replacement actions, the system must not be powered by any power supply. Please disconnect the power supply from the system.

Depending on the motherboard and the power supply there is a standby voltage active, even the board is powered down.

## 4 Overview Battery socket types

Battery socket type	Typically used on...	Link to chapter
	D363x, D37x3, K393x (mITX)	<a href="#">Socket 1 – SMD Type</a>
	D37x4, K3921 (mSTX)	<a href="#">Socket 2 – SMD Type</a>
	D364x, K384x, K385x ( $\mu$ ATX + ATX)	<a href="#">Socket 3 – THT Type</a>
	K383x (mITX)	<a href="#">Socket 4 – THT Type Vertical</a>



## 5 Socket 1 – SMD Type

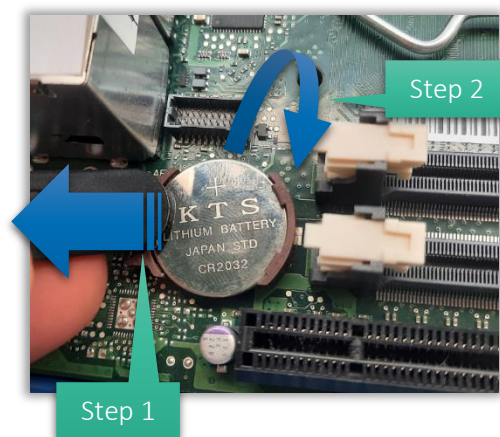
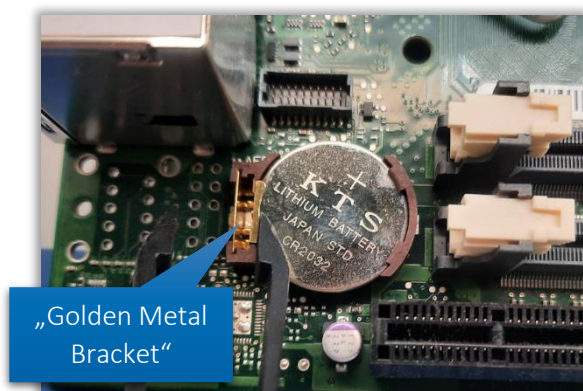
### NOTICE

Do not perform extensive forces while battery replacement to SMD type battery sockets. SMD solder pads are less resilient than THT solder joints.

### Remove the battery

**Step 1:** Gently push the golden bracket sideways. Use the back of a plastic tweezer or your fingertip.

**Step 2:** Gently pull the battery up from the side with your finger or a suitable (non-metal) tool.

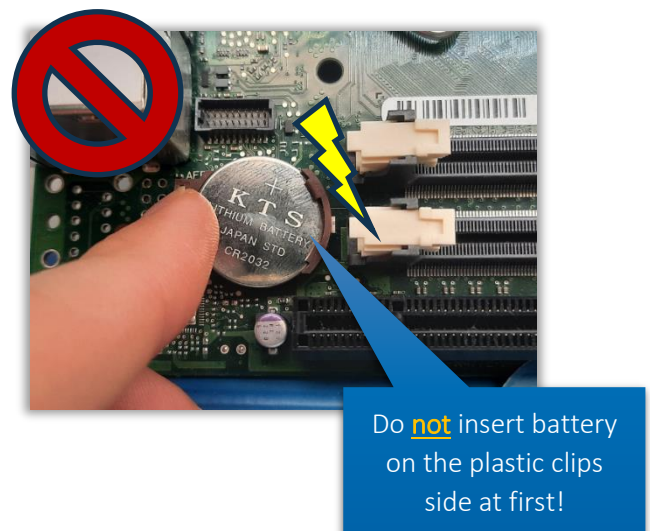
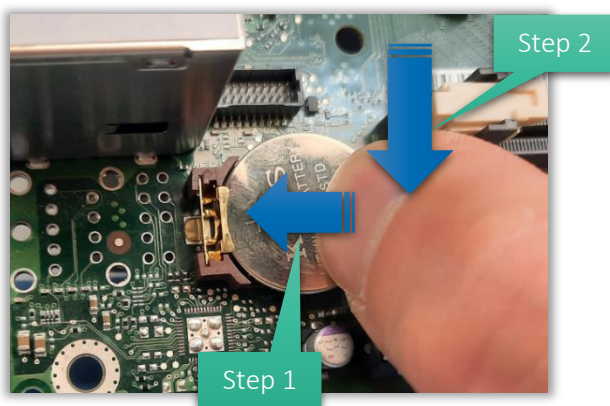


**Note:** The bracket is very sensitive. Ensure not to bend the metal part. Otherwise contact issues can occur.

### Insert new battery

**Step 1:** Place the battery on the golden metal bracket side first.

**Step 2:** Gently push it downwards to the plastic clips.



## 6 Socket 2 – SMD Type

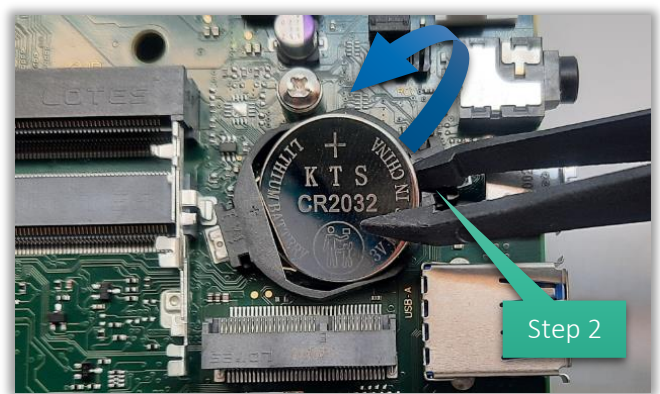
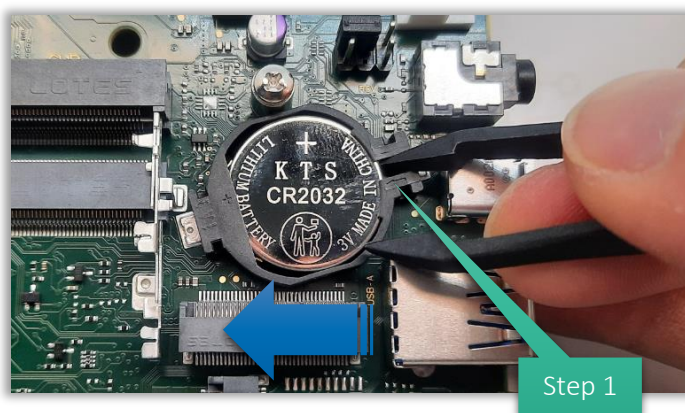
**NOTICE**

Do not perform extensive forces while battery replacement to SMD type battery sockets. SMD solder pads are less resilient than THT solder joints.

### Remove the battery

**Step 1:** Gently push the battery towards the positive pole (see arrow mark on battery socket negative pole)

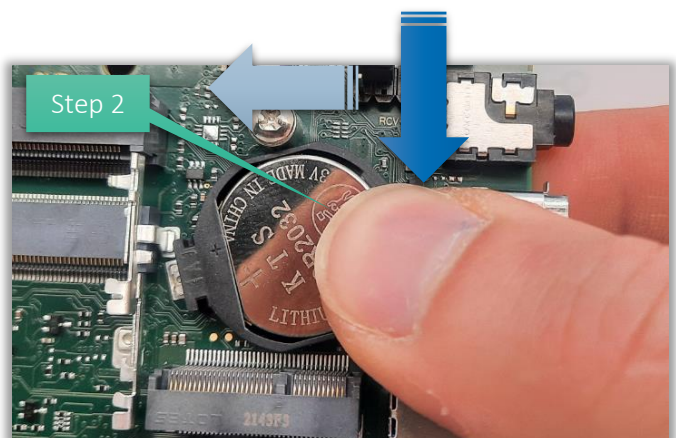
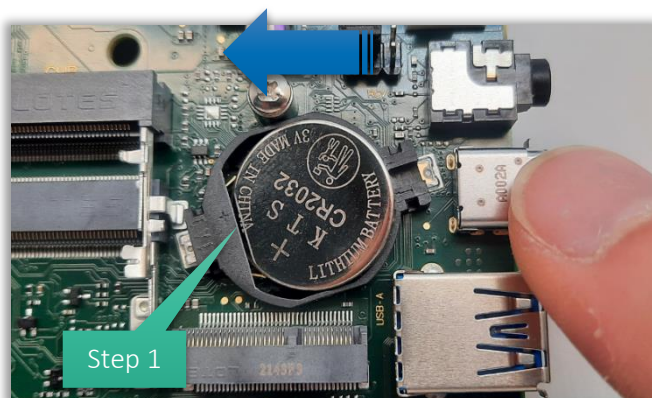
**Step 2:** Lift the battery up, while it is pushed to unlock it from the plastic nose on negative pole.



### Insert new battery

**Step 1:** Place the battery on the positive pole first

**Step 2:** Gently push the battery towards the positive pole and press it down on negative side



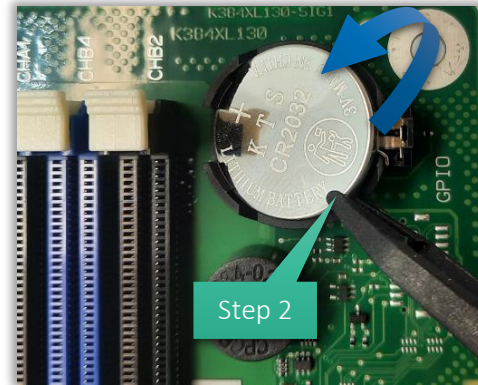
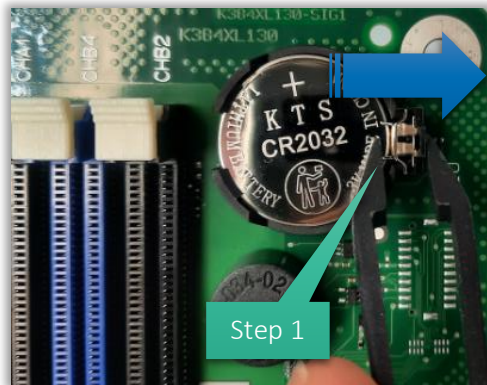


## 7 Socket 3 – THT Type

### Remove the battery

**Step 1:** Gently push the metal bracket sideward (away from battery).

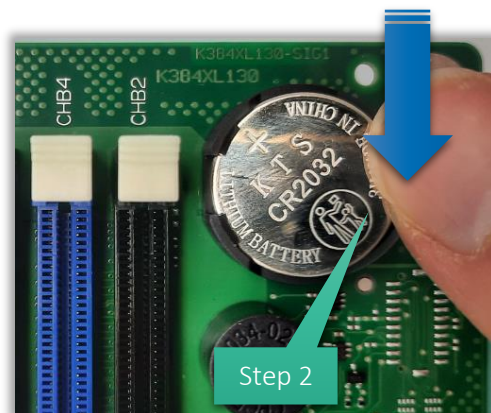
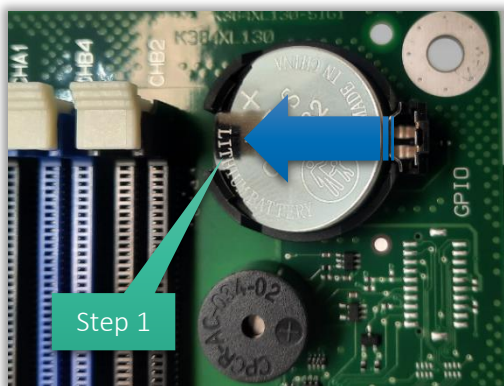
**Step 2:** Lift the battery up, while the bracket is pushed. Take care about the battery, due to the spring contact on the bottom of the battery it will “jump” out.



### Insert new battery

**Step 1:** Place the battery plastic nose first

**Step 2:** Gently push the battery down on the bracket side until you hear a “click” noise.



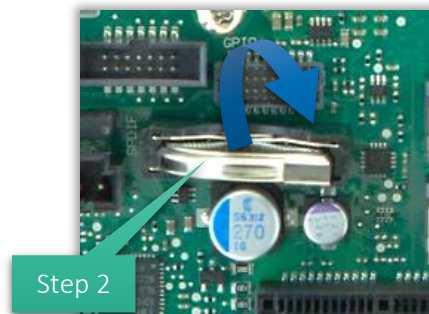
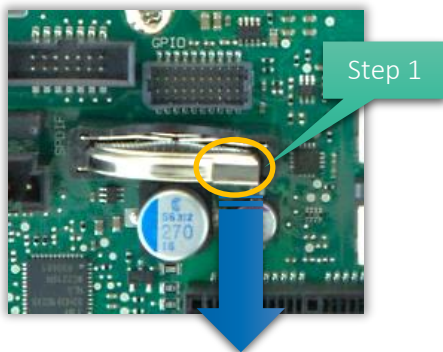


## 8 Socket 4 – THT Type Vertical

### Remove the battery

**Step 1:** Gently push the metal bracket sideward (away from battery).

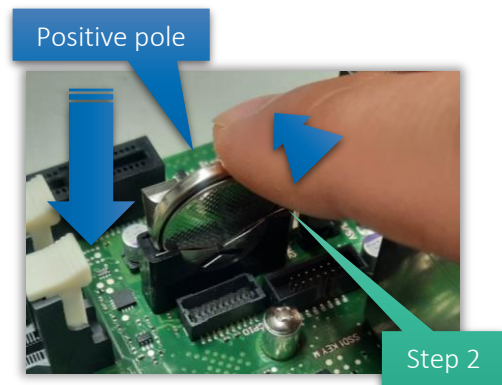
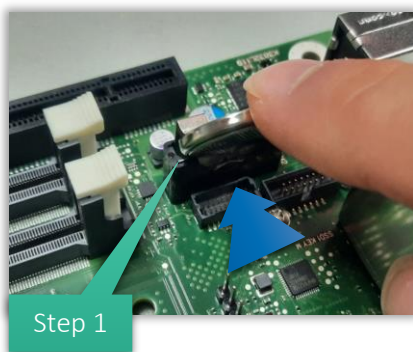
**Step 2:** Remove the battery with your fingers or suitable (non-metal) tools.



### Insert new battery

**Step 1:** Slide in the new battery into the holder. Ensure correct polarity (PLUS towards the metal clamp).

**Step 2:** Gently push the battery downwards until the metal clamp locks the battery.





## About Kontron

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Kontron is a global leader in IoT/Embedded Computing Technology (ECT). Kontron offers individual solutions in the areas of Internet of Things (IoT) and Industry 4.0 through a combined portfolio of hardware, software and services. With its standard and customized products based on highly reliable state-of-the-art technologies, Kontron provides secure and innovative applications for a wide variety of industries. As a result, customers benefit from accelerated time-to-market, lower total cost of ownership, extended product lifecycles and the best fully integrated applications.

For more information, please visit: [www.kontron.com](http://www.kontron.com)

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