

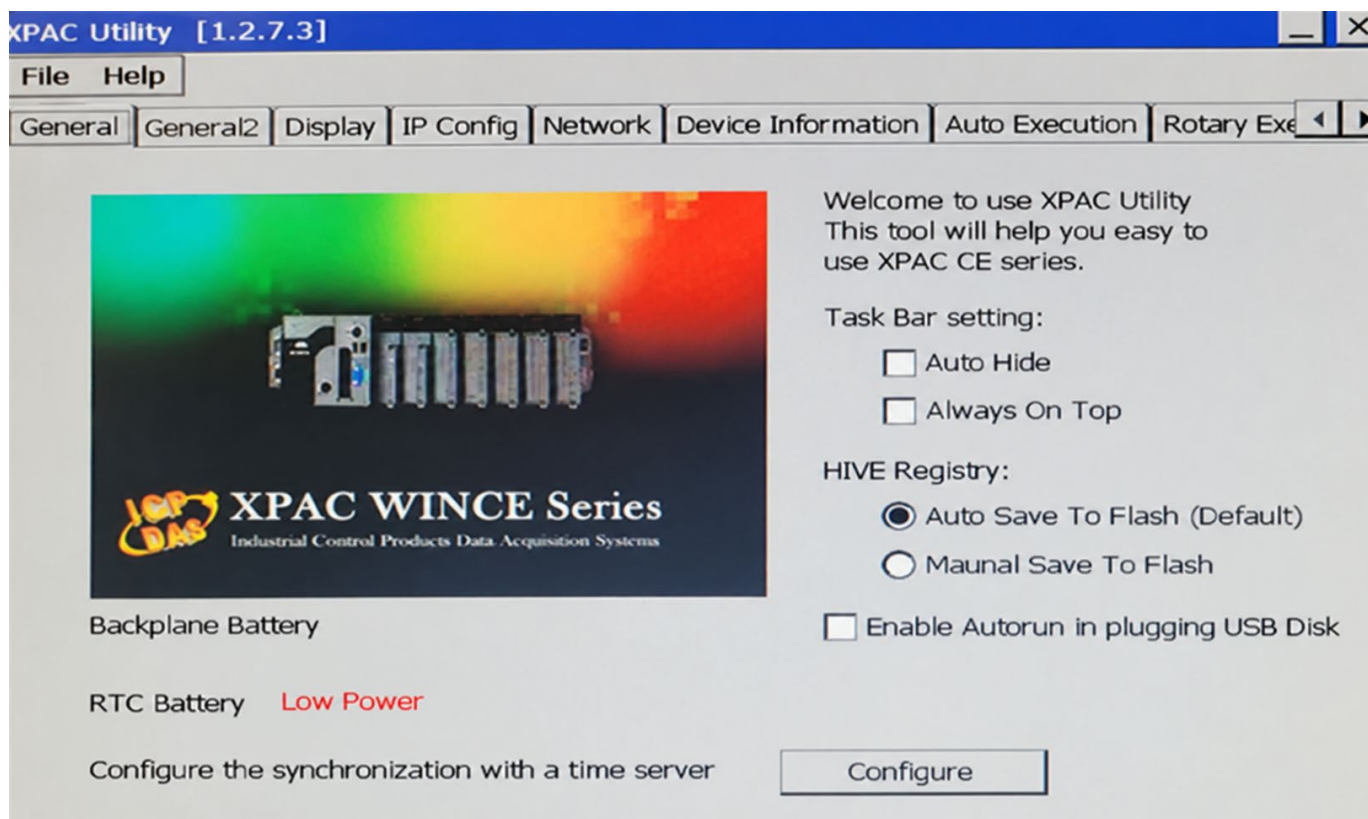
Classification	Win-GRAF English FAQ-022						
Author	Lynn Tang	Version	N/A	Date	2026, 09	Page	1 / 6

How to Replace the RTC Battery?

This FAQ explains the warning messages displayed when the RTC battery of a PAC has insufficient power, the applicable RTC battery models, and the battery replacement procedure.

Applicable Battery Models: Original RTC Battery: BR2032; Replacement Battery: CR2032

Why does XPAC Utility display “RTC battery is low”?



The RTC (Real-Time Clock) requires a battery for power. PAC product series, including XP-8xxx, XP-9xxx, WP-8xxx, WP-5xxx, and XP-9xxx-IoT, use a BR2032 battery as the RTC power source.

Note: When XPAC Utility displays “RTC battery Low Power,” it indicates that the RTC battery power is low and is unrelated to Retain Memory. Retain Memory uses MRAM to retain data and does not require a battery.

Which battery should be used for replacement?

The original battery is BR2032. Since BR2032 may be more difficult to obtain, CR2032 can be used as a replacement battery. The main differences between the two are battery chemistry, operating temperature range, discharge characteristics, and self-discharge rate.

Classification	Win-GRAF English FAQ-022						
Author	Lynn Tang	Version	N/A	Date	2026, 09	Page	2 / 6

BR2032 vs. CR2032 Comparison

Property	CR2032	BR2032
Cathode Material	Lithium manganese dioxide (Li/MnO ₂)	Lithium carbon monofluoride (Li/(CF) _n)
Operating Temperature	Approx. -20°C to 60°C	Approx. -30°C to 80°C (Up to 125°C for industrial-grade batteries)
Discharge Curve	Voltage gradually decreases as the battery is discharged.	Voltage remains at approximately 2.8 V for most of the battery life and drops rapidly only when the battery approaches the end of its life.
Self-Discharge Rate	Low (approx. 1–2% per year); Shelf life: 8–10 years	Very low (<1% per year); Shelf life: up to 10–15 years

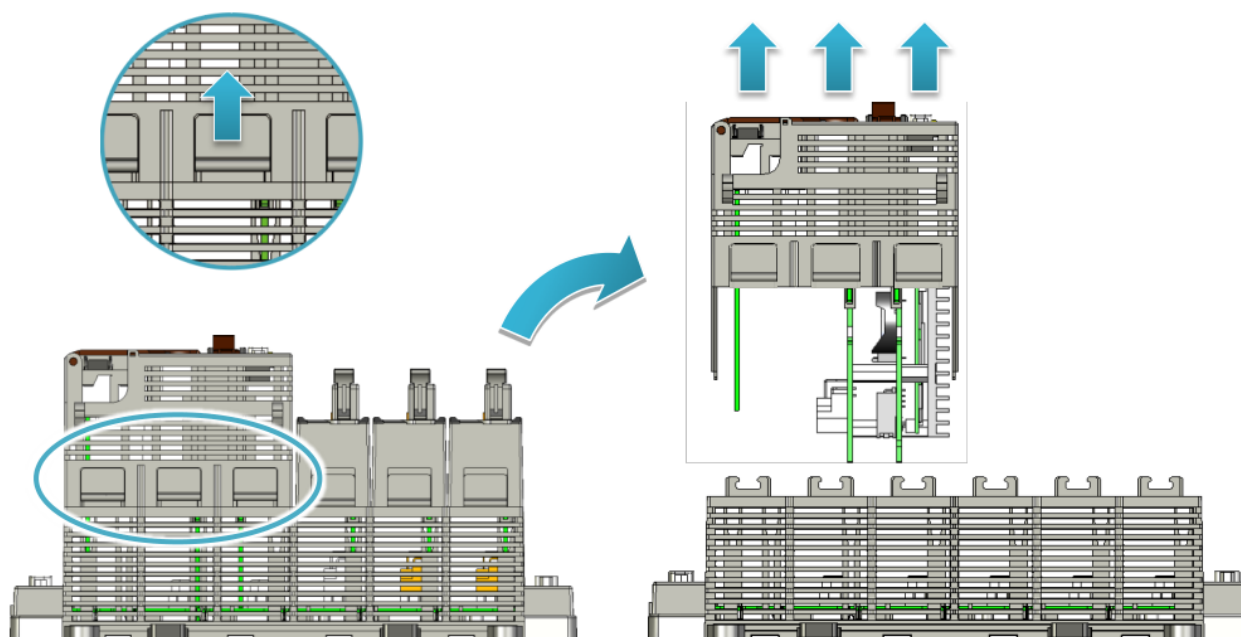
* Data referenced from the ICP DAS database. Actual battery selection should be based on ICP DAS application requirements. The data may vary depending on manufacturer specifications, storage conditions, and usage.

How to Replace the RTC Battery?

Follow the steps below to replace the battery. The relevant instructions are adapted from page 190 of the XP-8000-CE6 User Manual.

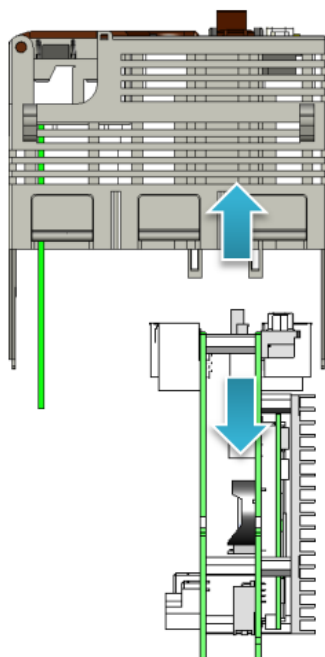
Battery Replacement Procedure

Step 1: Pull up the locking tabs on both sides and remove the CPU unit from the main unit.

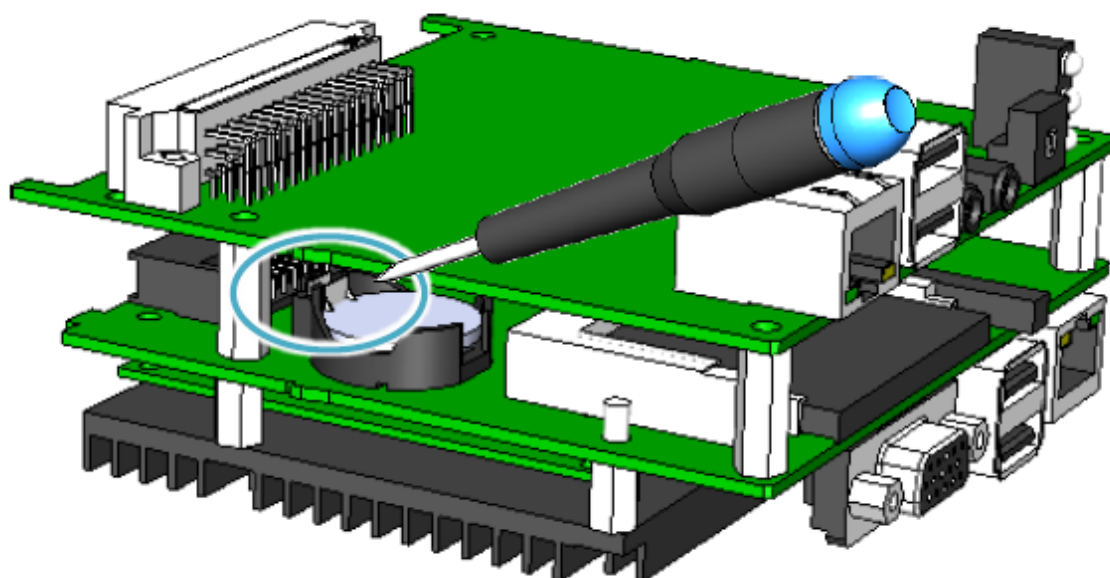


Classification	Win-GRAF English FAQ-022						
Author	Lynn Tang	Version	N/A	Date	2026, 09	Page	3 / 6

Step 2: Remove the CPU board from the CPU unit.



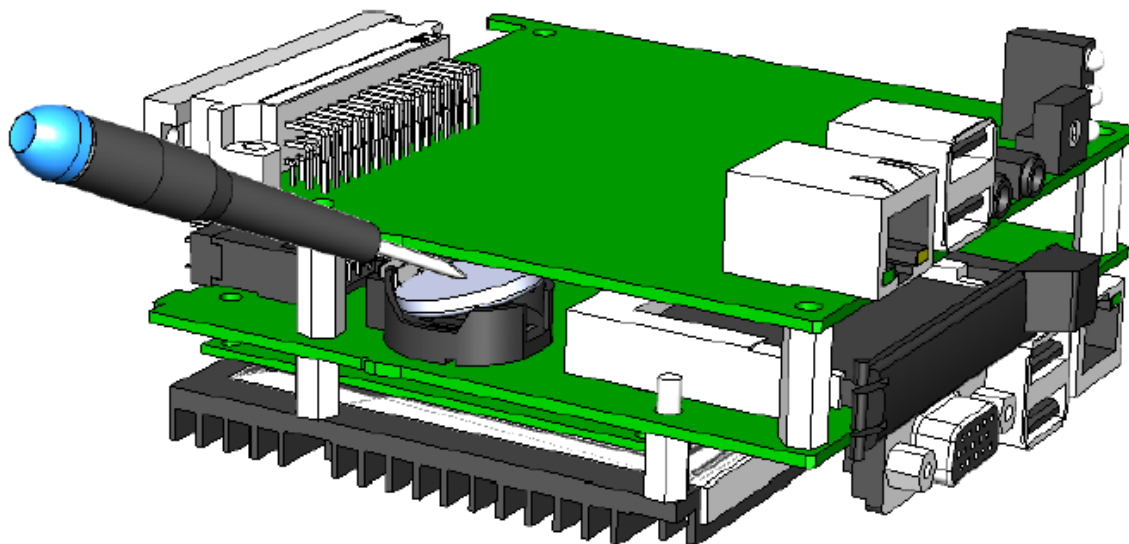
Step 3: Use a screwdriver to press down the battery release latch and remove the battery from the battery holder.



Classification	Win-GRAF English FAQ-022						
Author	Lynn Tang	Version	N/A	Date	2026, 09	Page	4 / 6

Step 4: Insert a BR2032 or CR2032 battery into the battery holder.

If necessary, use a screwdriver to gently press the battery into place.



Step 5: Reinstall the CPU board into the CPU unit, and then reinstall the CPU unit onto the main unit.

Important Information

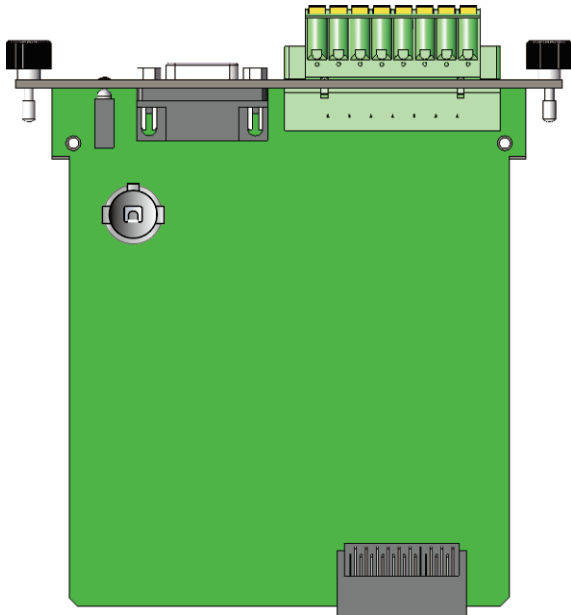
- The warning displayed by XPAC Utility refers to the RTC battery, not Retain Memory.
- For the applicable Windows-based 5000/8000/9000 PAC product series, the original RTC battery is BR2032.
- For the applicable products mentioned above, CR2032 can be used as a replacement battery when BR2032 is not readily available.
- Both BR2032 and CR2032 are 3 V coin-cell batteries, but they differ in battery chemistry, operating characteristics, and discharge behavior.
- For the battery replacement procedure, refer to the illustrations in this FAQ and the XP-8000-CE6 User Manual.

***Reference: XP-8000-CE6 User Manual, page 190, "G. How to Replace the Battery."**

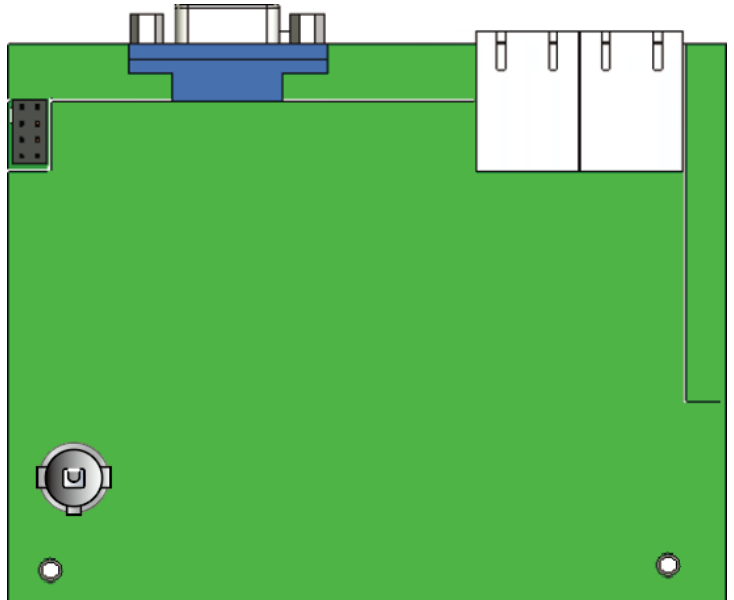
Classification	Win-GRAF English FAQ-022						
Author	Lynn Tang	Version	N/A	Date	2026, 09	Page	5 / 6

PAC Battery Locations by Model

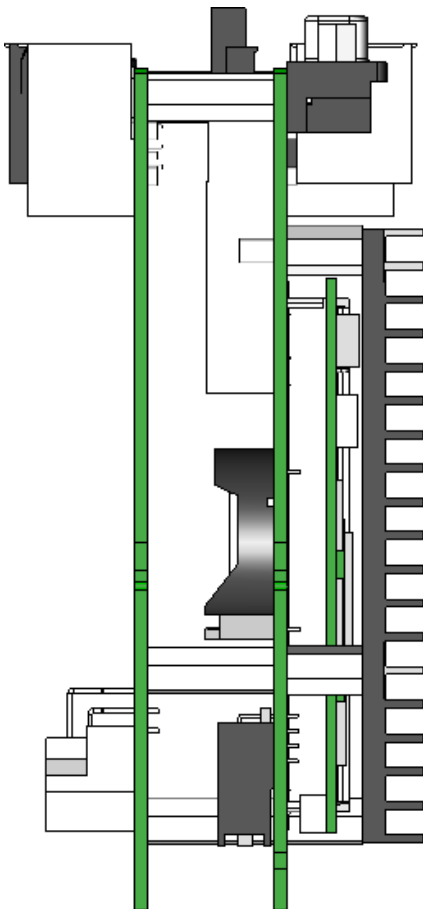
WP-9x28-CE7



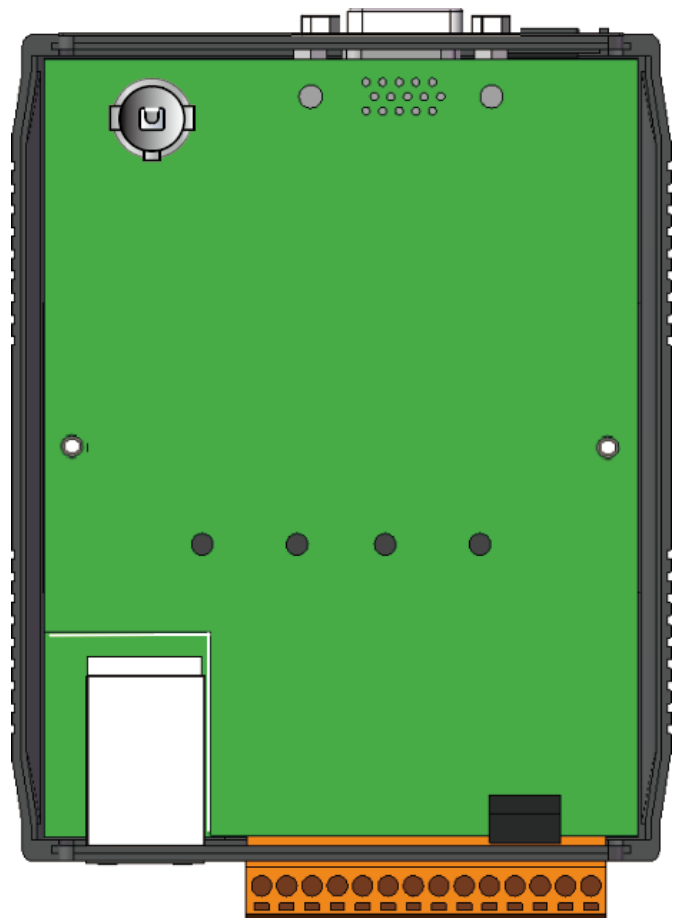
WP-8x28-CE7



XP-8x38-CE6



WP-5x38-CE7



Classification	Win-GRAF English FAQ-022						
Author	Lynn Tang	Version	N/A	Date	2026, 09	Page	6 / 6

PAC Hardware User Manuals

- WP-9000-CE7: https://www.icpdas.com/web/product/download/pac/wince/wp-9x21-ce7/document/manual/wp-9000-ce7_user%20manual_en.pdf
- WP-8000-CE7: https://www.icpdas.com/web/product/download/pac/wince/wp-8x21-ce7/document/manual/wp-8000-ce7_user%20manual_en.pdf
- XP-8000-CE6: https://www.icpdas.com/web/product/download/pac/wince/xp-8x31-ce6/document/manual/xp-8000-ce6_user%20manual_en.pdf
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