

MOTHERBOARD BATTERY REPLACEMENT PROCEDURE



Always follow proper anti-static precautions when handling internal components on RADAR. iZ recommends performing tasks in a controlled anti-static environment using an anti-static bracelet connected to the ground of the power switch (or any non-painted grounded RADAR chassis metal) when any contact will be made with the inside of RADAR.

SYMPTOMS

Symptoms of motherboard battery on RADAR that should be replaced:

The motherboard battery is responsible for powering the real-time clock circuitry that is responsible for the storage of the CMOS settings in the motherboard's BIOS setup. If the battery no longer supplies power your RADAR may exhibit the following symptoms:

- Incorrect system date and time
- When booting up the RADAR the video monitor displays "System boot failure"
- When booting up the RADAR the video monitor "NTLDR is Missing"
- When booting up the RADAR the video monitor "CMOS Checksum Error"
- RADAR does not output time code and other problems related to the Sync Processor board

TOOLS REQUIRED

You will need the following tools to replace the motherboard battery

- Phillips screwdriver
- Small flathead jewel screwdriver
- Replacement motherboard battery - CR2032 coin type 3V lithium battery



REPLACEMENT SCHEDULE FOR MOTHERBOARD BATTERY

The shelf life of a CR2032 battery is about 10 years. When the battery is in an AT computer motherboard (EPOX and Gigabyte) and the power is on, or when the battery is in an ATX motherboard (DFI) and the power supply is merely plugged in, there is no current drawn from the battery and so its expected life for this situation is 10 years.

In an AT motherboard that is off or ATX motherboard that is unplugged, current is drawn from the battery. The expected life for this situation is 3 years. In a realistic situation, the AT motherboard is on and the ATX motherboard is plugged in for part of that time, so a realistic life expectancy for the battery would be more than 3 years.

iZ recommends that the first replacement date for the motherboard battery should be 2 years from build date of unit. After the first replacement, the on-going replacement should be every 3 years after that. The invoice date or the date code in the RADAR serial number should be used as an accurate record for indicating the build date.

PROCEDURE

The following steps outline the procedure for replacing the motherboard battery:

- 1 Identify the type of motherboard inside the RADAR. RADAR uses:
 - Gigabyte GA-6VA7 (AT form factor, gold in colour) (Shipping October 2000- October 2002) See Figure 1.
 - EPOX EP-3VWB (AT form factor, green in colour) (Shipping November 2002 to April 2004) See Figure 2.
 - DFI CA64-TC (ATX form factor, gold in colour) (Shipping May 2004 to current) See Figure 3.

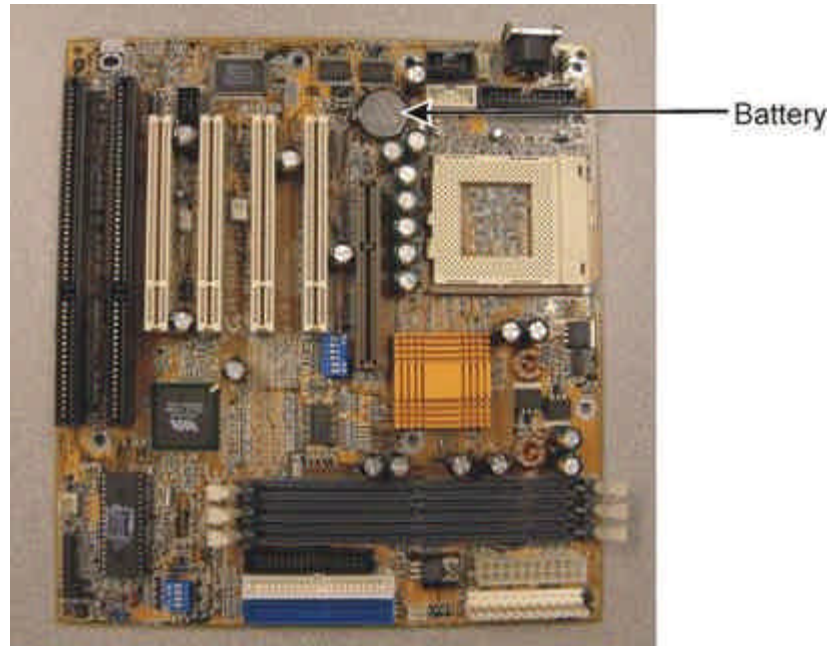


Figure 1: Gigabyte GA-6VA7 Motherboard

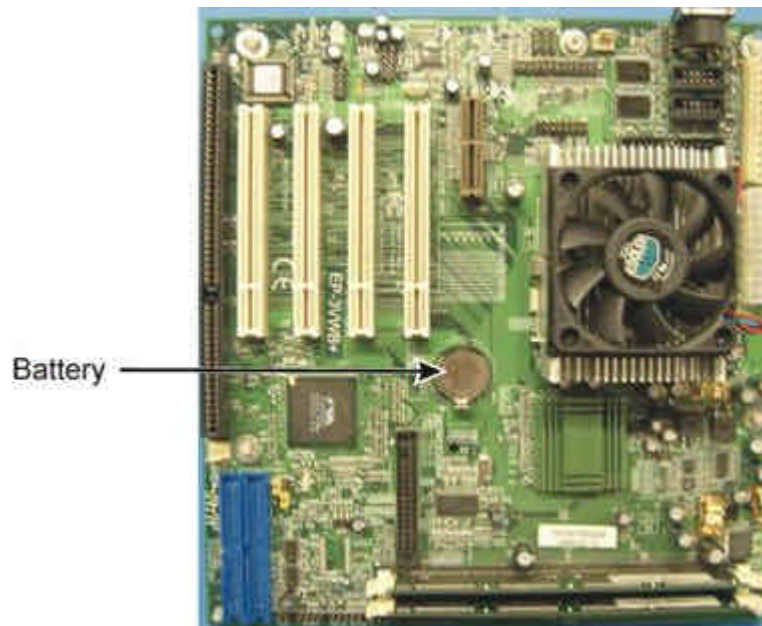


Figure 2: EPOX EP-3VWB Motherboard

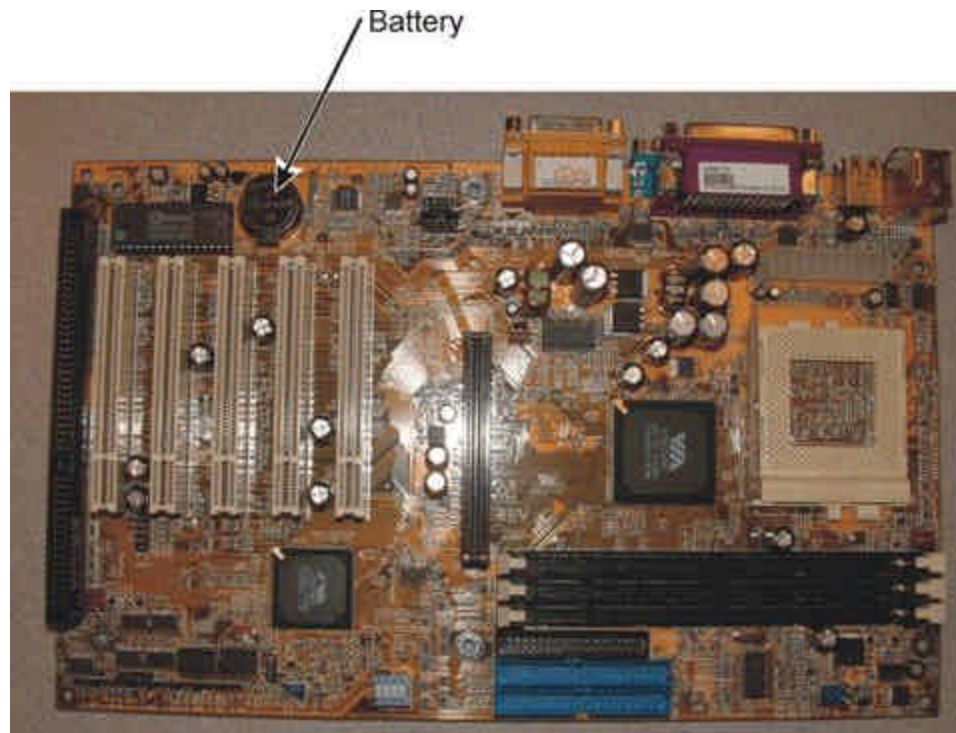


Figure 3: DFI CA64-TC Motherboard

- 2** Using a Phillips screwdriver, remove the six screws from the top of the lid of RADAR and loosen the six screws from the side of the lid on RADAR and remove the RADAR lid. Locate the motherboard battery for the specific motherboard as shown in above Figures 1 - 3.
- 3** For the EPOX motherboard proceed to step 9
- 4** For the Gigabyte motherboard the SIC 0, SIC 1, and AGP Video card will need to be removed to access the battery. For the DFI motherboard the SIC 0, SIC 1, and Adrenaline card will need to be removed to access the battery.

- 5 For both the Gigabyte and DFI motherboard, remove the small rectangular (vertical) card (SIC1) that the lid screws into by grasping it on either side and pulling towards the front of the machine. See Figure 4.



Figure 4: Removing the SIC 1

- 6 Now remove the large "L" Shaped (horizontal) card (SIC0) by grasping it on either side and lifting straight up.
- 7 For the Gigabyte motherboard remove the video card bracket screw from the backplane of RADAR and remove the video card by lifting the card straight up.
- 8 For the DFI motherboard, remove the SCSI terminator from the rear of the Adrenaline card, remove the Adrenaline card bracket screw from the backplane of RADAR and remove the Adrenaline card by lifting the card straight up.
- 9 Using a small flathead jewel screwdriver locate the motherboard battery release tab (see Figure 5) and push the tab away from the battery (see Figure 6) and the battery will pop out.

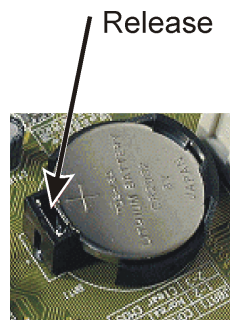


Figure 5: Release Tab for motherboard battery

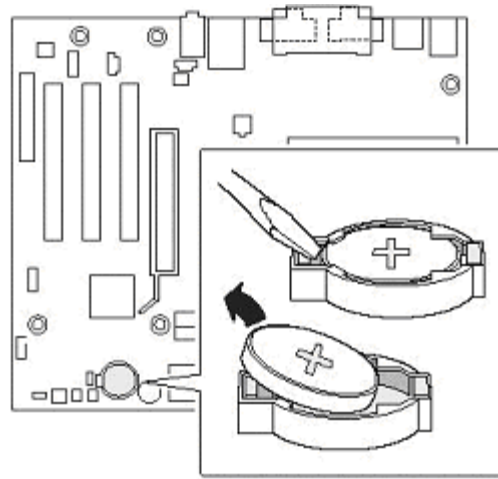


Figure 6: Removal of motherboard battery

- 10** Insert the replacement battery in the battery slot with the positive side up, and push down to insure secure placement
- 11** For the EPOX motherboard, replace the RADAR lid and proceed to RADAR Motherboards CMOS Setup document.
- 12** For the Gigabyte motherboard, replace the AGP video card, and replace the video card bracket screw to the RADAR backplane.
- 13** For the DFI motherboard, replace the Adrenaline card, replace the Adrenaline card bracket screw to the RADAR backplane, and replace the SCSI terminator from the rear of the Adrenaline card.
- 14** For the Gigabyte and DFI motherboards, replace the large horizontal "L" Shaped card (SIC0)
 - a. Line up the slots on the (SIC0) with the cards below.
 - b. Press down until all cards are properly seated
- 15** Now replace the small rectangular (vertical) card (SIC1)
 - c. Line up the slots on the (SIC1) with the Sync and Digital I/O Cards
 - d. Press inward until all cards are properly seated
- 16** Replace the RADAR lid and proceed to RADAR Motherboards CMOS Setup document.