



S4M Real Time Clock Option Board

Installation Instructions

This kit includes the parts and documentation necessary to install the Real Time Clock (RTC) option board in the S4M™ printers. Read these instructions thoroughly before attempting to install this kit.



Caution • Turn Off (O) the printer and disconnect it from the power source before performing the following procedure.

Prepare for Installation

Parts List

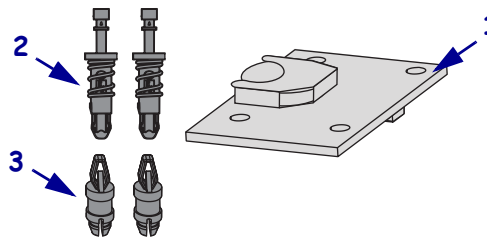
Before proceeding, verify that your kit contains the items for your printer listed below.

Table 1 • Kit Parts List

✓	Item	Qty	Part Number	Description
	REF	1	20009M	Real Time Clock Kit
	1	1	<i>20009</i>	RTC Option Board
	2	2	<i>29647</i>	Heat Sink Standoff w/Spring
	3	2	<i>29648</i>	Plastic Spacer

Bold = Part available for purchase.
Italic = Part not available for purchase, listed and shown for reference only.

Figure 1 • Kit Contents



Reference Material

The following manuals and CDs may be helpful references while performing this procedure.

- S4M User Guide
- S4M User Guide CD
- S4M Maintenance Manual
- S4M Maintenance Manual CD

Tools Required



Tools • You need these tools to complete this procedure:

- Phillips Screwdriver Set
- Needle Nose Pliers
- Wire Cutters
- Anti-Static Wriststrap and Mat
- Safety Goggles

Remove and Install the Electronics Cover

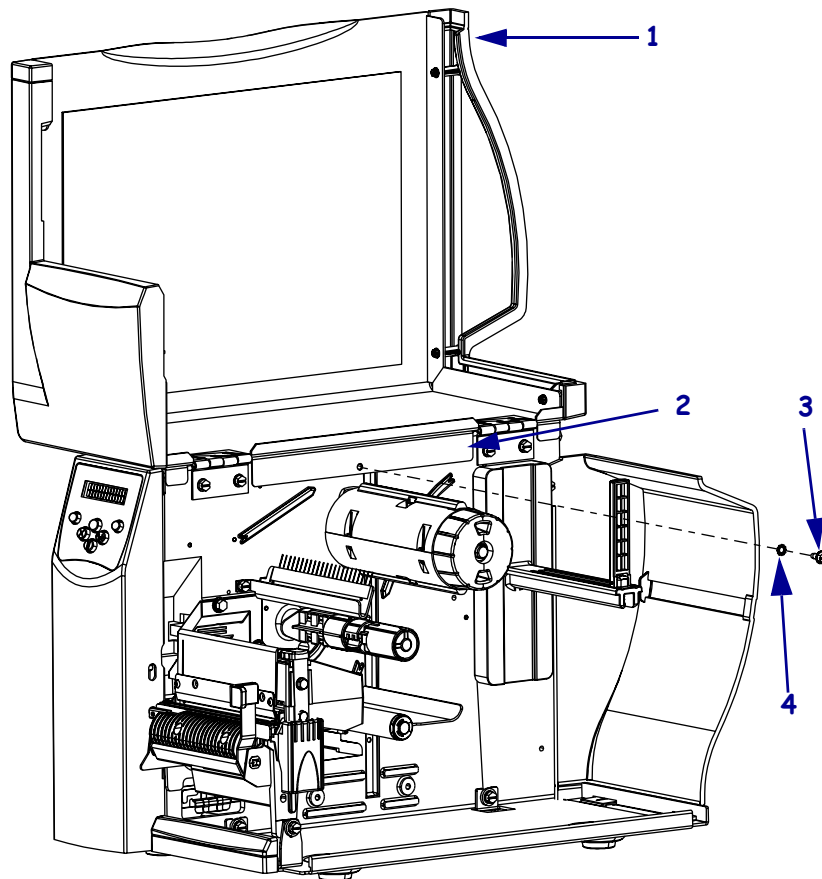
Installing for the first time or replacing the RTC board requires the partial disassembly of the printer. Read these instructions thoroughly before starting.



Note • Retain all parts removed during disassembly, unless otherwise directed.

1. Turn Off (O) the printer and disconnect the AC power cord and all data cables.
2. Open the media door and remove the media and ribbon.
3. See [Figure 2](#). Remove the electronics cover mounting screw and then close the media door.

Figure 2 • Remove the Mounting Screw



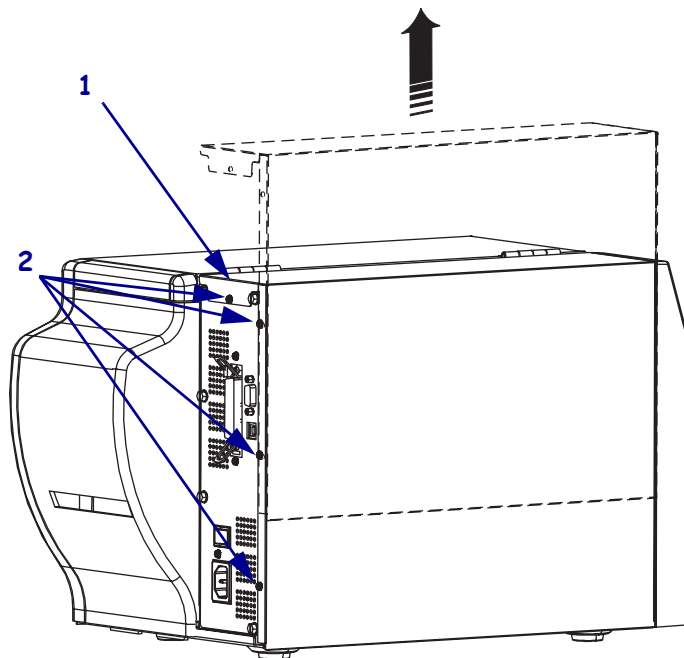
1	Media Door
2	Electronics Cover Upper Flange
3	Electronics Cover Mounting Screw
4	Lock Washer

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Remove and Install the Electronics Cover

4. See [Figure 3](#). Remove the four remaining mounting screws securing the electronics cover.
5. Remove the electronics cover by lifting straight up.

Figure 3 • Electronics Cover Removal



1	Electronics Cover
2	Mounting Screws

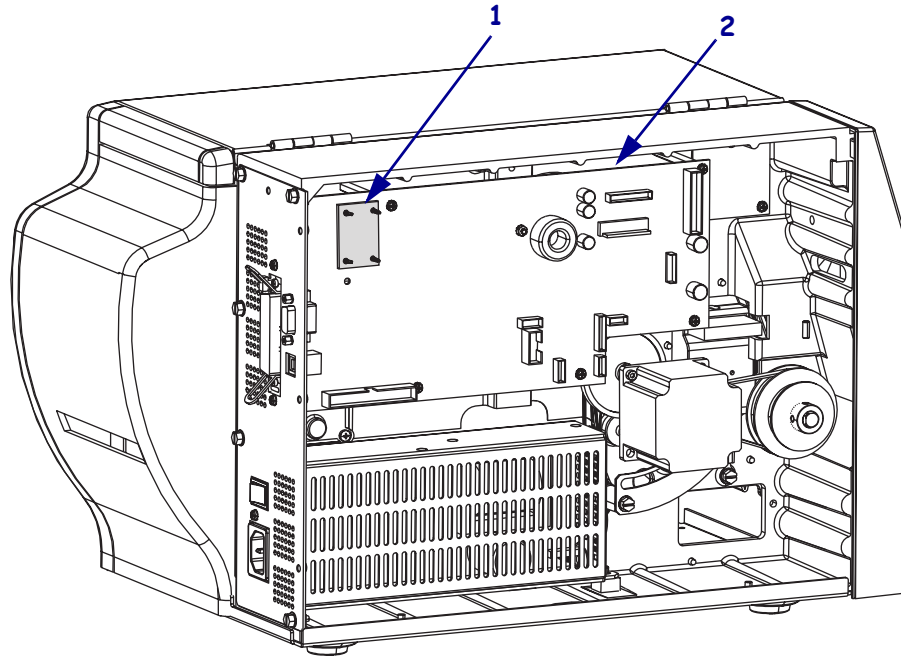
6. Are you replacing a defective RTC option board?

If...	Then...
Yes	Go to Remove the RTC Option Board on page 5 .
No	Go to Install the RTC Option Board on page 7 .

Remove the RTC Option Board

1. See [Figure 4](#). Locate the RTC option board.

Figure 4 • Locate the RTC Option Board



1	RTC Option Board
2	Main Logic Board (MLB)

2. Are you installing the RTC option board for the first time?

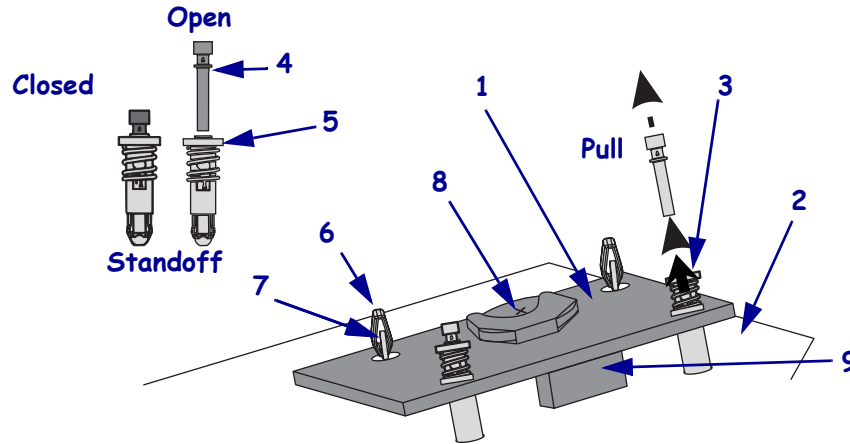
If...	Then...
Yes	Go to <i>Install the RTC Option Board</i> on page 7.
No	Continue to step 3 .



3. **Caution** • Wear protective eyewear when installing or removing E-rings, C-clips, snap rings, springs, and mounting buttons. These are under tension and could fly off.

See [Figure 5](#). To remove the standoffs, use a needle nose pliers to pull out the pins in each of the standoffs and then pull the body of each to remove them from the MLB and the RTC board.

Figure 5 • Remove and Install the Spacers and Standoffs



1	RTC Option Board
2	MLB
3	Standoff
4	Pin
5	Body
6	Spacer
7	Locking Tab
8	Battery
9	J1 on RTC Board

4. Squeeze the spacer locking tab with the needle nose pliers while lifting the board slightly, and then do the same to the other spacer to remove the RTC option board.
5. Continue to [step 3](#) of *Install the RTC Option Board* on page 7.

Install the RTC Option Board

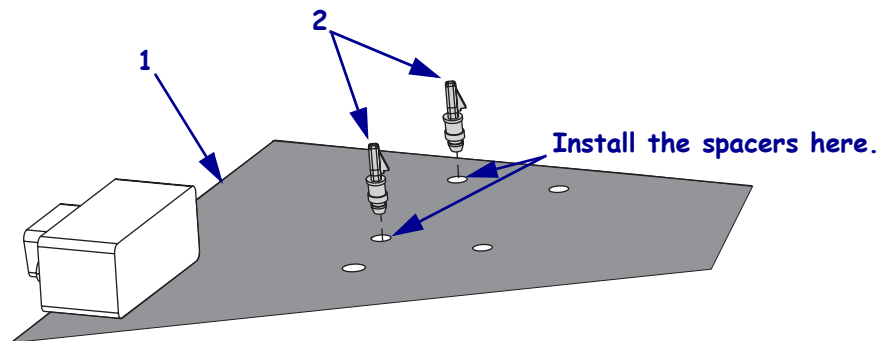


- Caution** • Observe proper electrostatic safety precautions when handling static-sensitive components such as circuit boards and printheads.

Connect yourself to an antistatic device.

- See [Figure 6](#). **First time installation only:** Install the plastic spacers into the left two holes in the MLB.

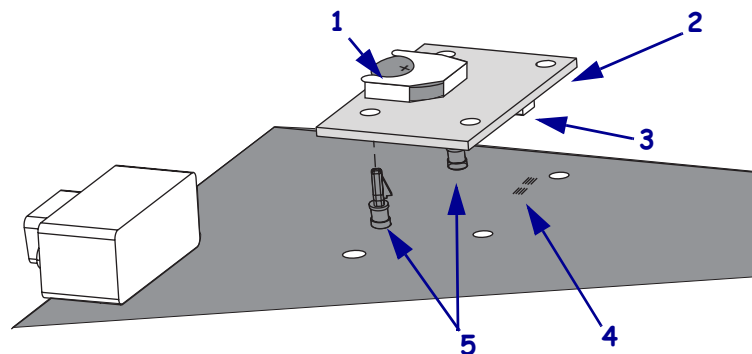
Figure 6 • Install the Spacers



1	MLB
2	Spacer (2)

- See [Figure 5](#) and [Figure 7](#). Install the RTC option board on to the spacers, J1 of the RTC board facing J5 on the MLB; push down until they lock.

Figure 7 • Install the RTC Option Board



1	Battery
2	RTC Option Board
3	J1 RTC Board
4	J5 MLB
5	Spacer (2)

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Reinstall the Electronics Cover

4. See [Figure 5 on page 6](#). Ensure the pin is pulled out of the standoff and then insert the standoff, spring up, through one of the holes on the right side of the RTC board and into the MLB until it snaps in place.
5. Push the pin in as far as possible to lock the standoff.
6. Repeat [step 4](#) and [step 5](#) for the other standoff.

Reinstall the Electronics Cover

1. See [Figure 3 on page 4](#). Install the electronics cover by aligning it and sliding down, ensuring the lower tabs are inside the base and the upper flange is between the main frame and the media door
2. Install the four mounting screws on the back of the printer.
3. See [Figure 2 on page 3](#). Open the media door and install the mounting screw and lock washer to secure the electronics cover.
4. Reconnect AC power cord and data cables.
5. Press and hold **CANCEL** while turning On (I) the printer.

- See Figure 8. Check the configuration label to verify the RTC board was recognized. If it is not recognized, the circled display will not be visible.

Figure 8 • Configuration Label

PRINTER CONFIGURATION	
Zebra Technologies	
ZTC S4M-200dpi ZPL	
10.0.....	DARKNESS
2 IPS.....	PRINT SPEED
+000.....	TEAR OFF
TEAR OFF.....	REMOVAL
WEB.....	SENSOR TYPE
THERMAL-TRANS.....	RIBBON
0832 DOTS.....	WIDTH
1228.....	LABEL LENGTH
AUTO.....	MAXIMUM LENGTH
GAP/NOTCH.....	MEDIA TYPE
NOT CONNECTED.....	USB COMM.
BIDIRECTIONAL.....	PARALLEL COMM.
RS232.....	SERIAL COMM.
9600.....	BAUD
8 BITS.....	DATA BITS
NONE.....	PARITY
XON/XOFF.....	HOST HANDSHAKE
NONE.....	PROTOCOL
000.....	NETWORK ID
NORMAL MODE.....	HEXDUMP
<~> 7EH.....	CONTROL PREFIX
<^> 5EH.....	FORMAT PREFIX
<,> 2CH.....	DELIMITER CHAR
ZPL II.....	ZPL MODE
CALIBRATION.....	MEDIA POWER UP
CALIBRATION.....	HEAD CLOSE
DEFAULT.....	BACKFEED
+000.....	LABEL TOP
+0000.....	LEFT POSITION
DISABLED.....	REPRINT MODE
029.....	LABEL LEVEL
079.....	PAPER OUT
087.....	RIBBON OUT
036.....	PAPER GAIN
026.....	RIBBON GAIN
+10.....	LCD ADJUST
DPSWFXM.....	MODES ENABLED
.....	MODES DISABLED
832 8/MM FULL.....	RESOLUTION
V50.13.1Z <-.....	FIRMWARE
V22 --- 1.....	HARDWARE ID
CUSTOMIZED.....	CONFIGURATION
3284k.....R:	RAM
2048k.....E:	ONBOARD FLASH
NONE.....	FORMAT CONVERT
FW VERSION.....	IDLE DISPLAY
08/17/05.....	RTC DATE
15:07.....	RTC TIME
NONE.....	ZEBRA NET II
NO.....	RFID READY
3642 IN.....	NONRESET CNTR
3642 IN.....	RESET CNTR1
3642 IN.....	RESET CNTR2
9251 CM.....	NONRESET CNTR
9251 CM.....	RESET CNTR1
9251 CM.....	RESET CNTR2
.....	

RTC date and time visible.

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Set the RTC

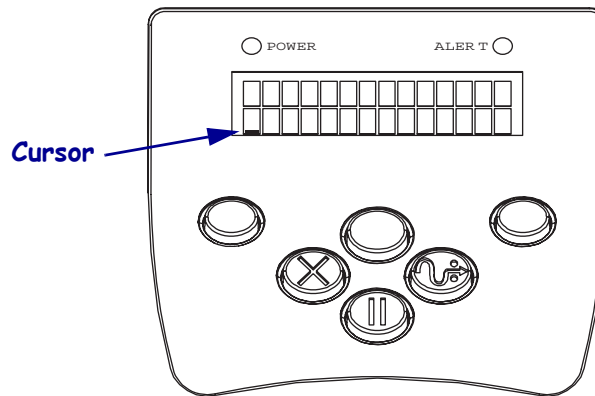
1. See [Figure 9](#). Press **MENU**, then **▶**.



Note • To enter the password, press **▲** to increase the value, **▼** to decrease the value, **◀** to move the cursor to the left, and **▶** to move the cursor to the right. The factory default password is **1234**.

2. Press **ENTER**; **PASSWORD** is displayed. The cursor is under the first number.
3. Press **▲** or **▼** to change the number to the first one of your password and then press **▶** to move the cursor under the next number and change it. Continue until all numbers are changed to the correct password and then press **ENTER**.

Figure 9 • Control Panel



4. Press **▶** until **RTC DATE** is displayed, and then enter the correct date using the same procedure as you did to enter the password.

```
RTC DATE
06/04/04  ⌄
```

5. After the date is correct, press **▶** one more time to display the **RTC TIME**.
6. Change it to the correct time, and then press **ENTER**.
7. Press **MENU**, **SAVE CHANGES** will be displayed; press **ENTER**. **SAVING CHANGES** appears until **PRINTER READY** is displayed.

```
SAVE CHANGES  ⌄   SAVING
YES              ⌄   CHANGES
                   ⌄
```

```
PRINTER READY
U60. 13. 22. XX
```