COVIDIEN

Installation Instructions

Newport™

e360 Ventilator

SBC Internal Battery Cable Assembly Installation Instructions



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http://www.medtronic.com/covidien/support/product-manuals

While the information set forth herein is believed to be accurate, it is not a substitute for the exercise of professional judgment.

The ventilator and software should be operated and serviced only by trained professionals.

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Newport™ e360 Ventilator
SBC Internal Battery Cable Assembly Instructions

Overview

This kit consists of an SBC internal battery replacement cable (CBL2132A) and installation instructions. It is intended for use with CBL2132A to replace the current internal battery on the SBC2100P or SBC2108P board.

Safety Symbol Definitions

This section contains safety information for users, who should always exercise appropriate caution while assembling and disassembling the ventilator.

Table 1. Safety Symbol Definitions

Symbol	Definition
	**WARNING** **Warnings alert users to potential serious outcomes (death, injury, or adverse events) to the patient, user, or environment.**
	**Caution** **Cautions alert users to exercise appropriate care for safe and effective use of the product.**
	**Note** Notes provide additional guidelines or information.

Warnings and Cautions



WARNING:
Disconnect the electrical power and the air and oxygen gas sources before servicing the Newport™ e360 Ventilator.

WARNING:
All service and repairs of the Newport™ e360 Ventilator should be performed by an authorized Covidien factory-trained service technician.

WARNING:
Hazardous voltages are present inside the Newport™ e360 Ventilator. Disconnect electrical power before attempting any disassembly. Failure to do so could result in injury to service personnel or equipment.

Technical Assistance

For assistance, please contact the Covidien Technical Service Department:

Direct: 1 800 255 6774
Select option 4, then option 2

Email: venttechsupport@covidien.com

Covidien
2824 Airwest Blvd.
Plainfield, IN 46168 USA

Tools and Equipment

The FSK2132A kit includes the following items:

Part number	Description
CBL2132A	Cable, SBC Replacement Battery
PT00063585	Instructions for installing CBL2132A

The following tools and equipment are needed:

- USB keyboard/PS2 keyboard
- Large Phillips screwdriver
- Medium Phillips screwdriver
- ESD protection wrist strap and protective work surface

Remove the Top Cover (CVR2101M)

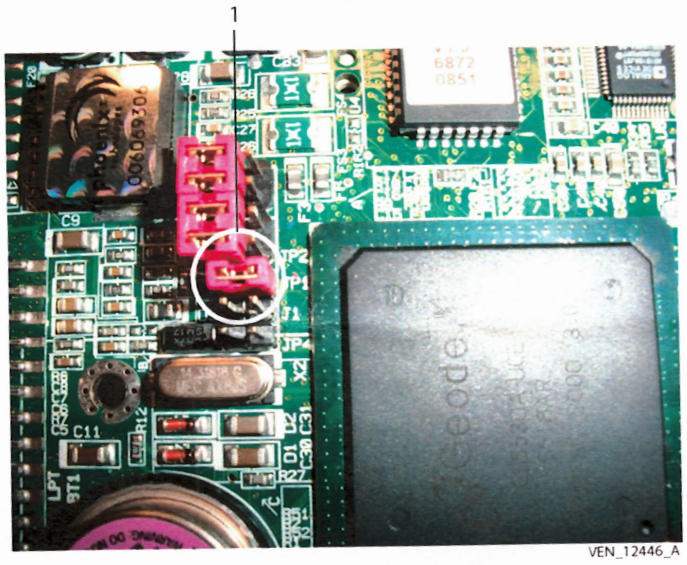
1. If the ventilator is equipped with an external monitor, remove and set aside.

2. If the ventilator is equipped with a patient circuit extension arm and bracket, remove and set aside.
3. Remove the six Phillips-head screws that secure the top cover.
4. From the rear of the ventilator, grab the handles on the side of the top cover, pull out, and slide the cover toward yourself to remove from the chassis of the ventilator.
5. Disconnect the positive (+) and negative (-) terminals on the internal battery.

Install the SBC Replacement Battery Cable (CBL2132A)

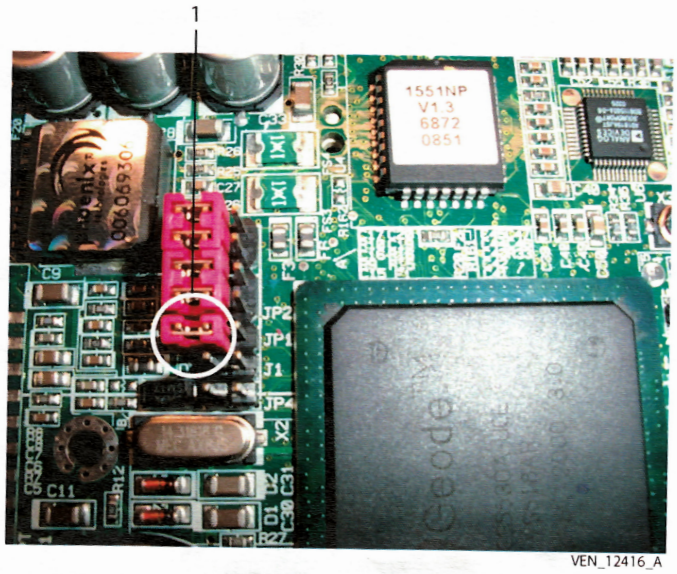
1. Locate JP1 on the SBC and move the jumper from pins 2 and 3 (*Figure 1.*) to pins 1 and 2 (*Figure 2.*).

Figure 1. Pins 2 and 3



1 JP1 pins 2 and 3

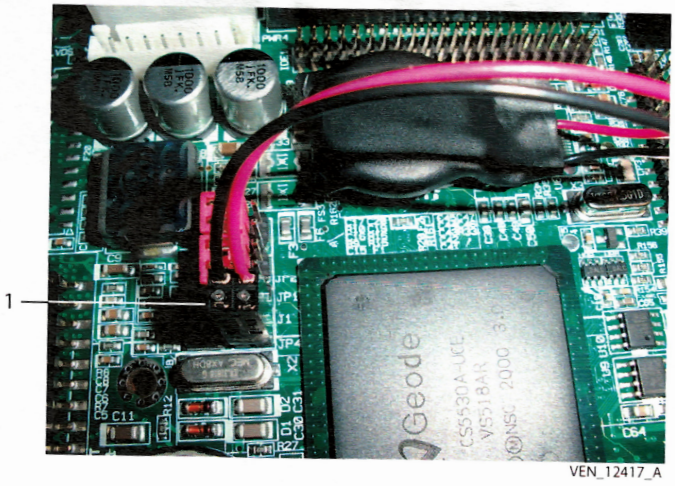
Figure 2. Pins 1 and 2



1 JP1 pins 1 and 2

2. Obtain the SBC battery replacement cable (CBL2132A) and connect it to J1 of the SBC board (*Figure 3.*).

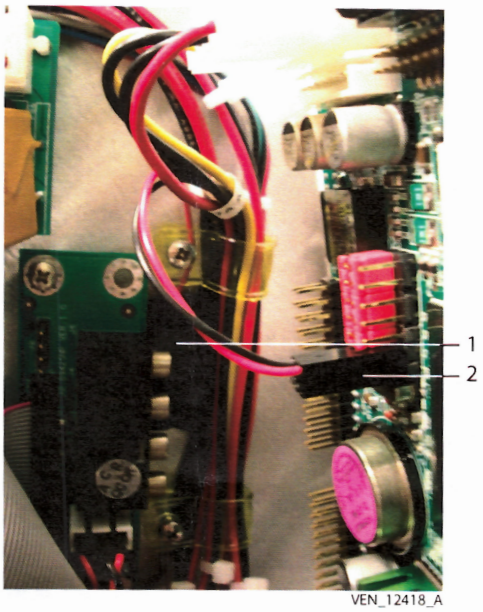
Figure 3. SBC Battery Replacement Cable



1 J1 with CBL2132A connected

3. Remove the screw securing the cable clamp and route the battery end of CBL2132A under the cable clamp (*Figure 4.*).

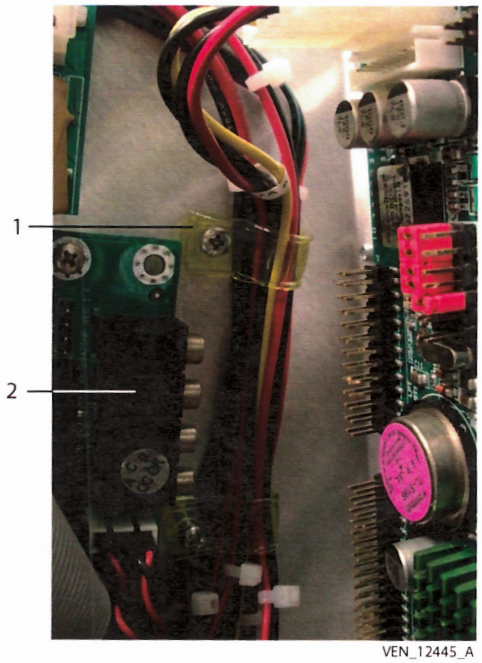
Figure 4. Proper CBL2132A Routing



1	CBL2132A routed and positioned behind the audio board	2	CBL2132A connected to J1 on the SBC board

a. Carefully align the battery portion of CBL2132A to have it sit firmly against the back plate and behind the audio board (*Figure 5.*).

Figure 5. Audio Board



1	Cable clamp and screw	2	Audio board

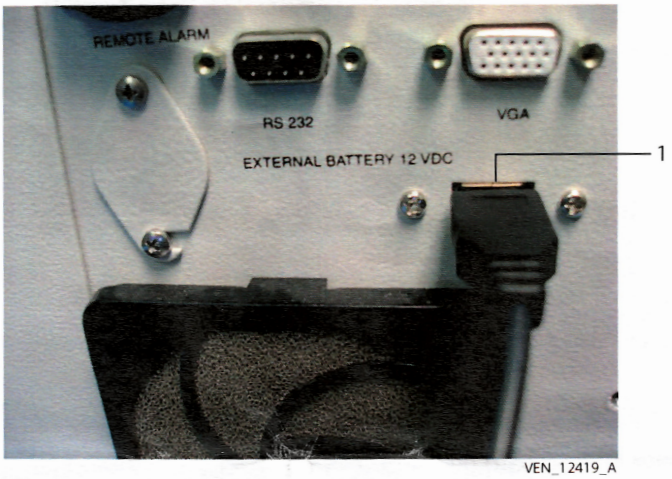
b. Secure the cable clamp with the screw removed in step 3.

c. Verify CBL2132A is securely connected to J1 on the SBC board.

Operational Verification

1. Obtain a USB keyboard and connect the keyboard onto the USB port in back of the ventilator, as shown on *Figure 6*.

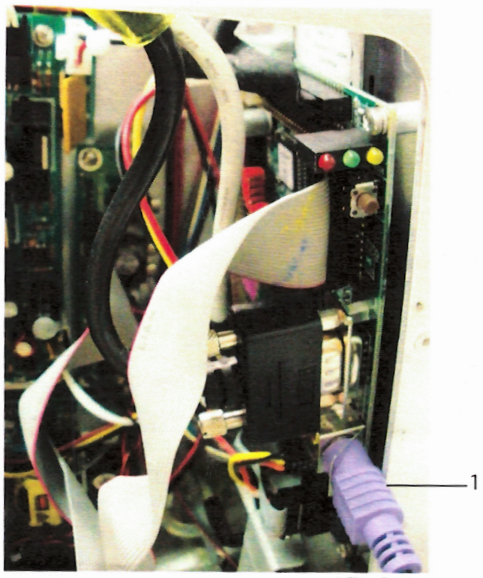
Figure 6. USB Keyboard Port



1 USB keyboard port located on back of the ventilator

Note:
Users with non-e360T model ventilators can choose to use a (PS/2) keyboard and connect it to the PS/2 port, as shown in *Figure 7*.

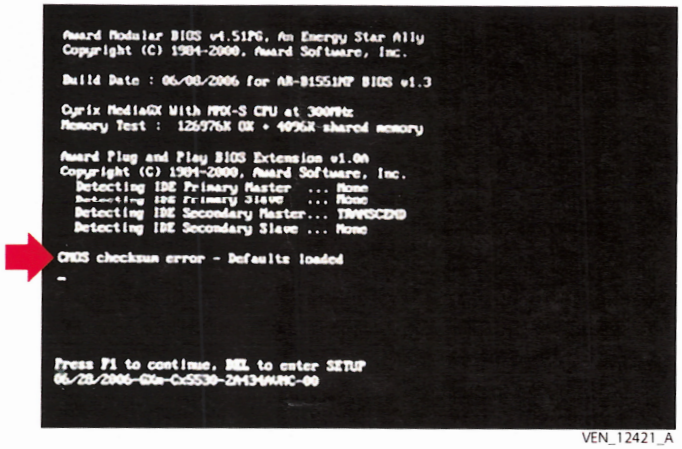
Figure 7. Keyboard Connected to PS/2 Port



1 PS/2 keyboard, located on SBC2100P

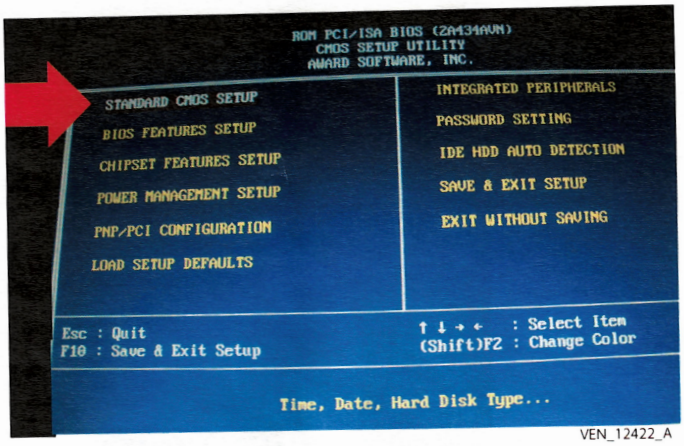
2. Reconnect both the battery terminals and AC power cord, and then turn on the ventilator.
3. After the ventilator displays the DOS screen with the message "CMOS Checksum error–Defaults loaded", press the DELETE key on the keyboard (*Figure 8.*).

Figure 8. Checksum Error Message



4. The following screen will have STANDARD CMOS SETUP highlighted (*Figure 9.*). Press the ENTER key.
   a. If STANDARD CMOS SETUP is not highlighted, use the up/down and left/right arrow keys on the keyboard to move the cursor.

Figure 9. Standard CMOS Setup



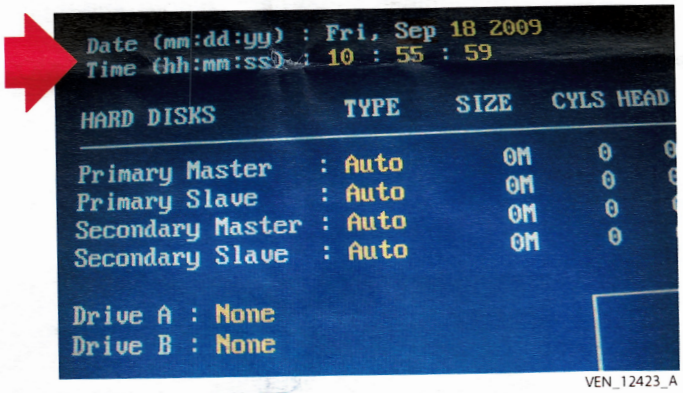
VEN_12422_A

5. The following screen will display the DATE and TIME.

   a. Use the Page Up and Page Down keys to adjust the month, day, and year. Use the left and right arrow keys to move the cursor to the next field (ex. Month > Day).

   b. Perform the same steps to adjust the hour and minutes (*Figure 10.*).

Figure 10. Date and Time

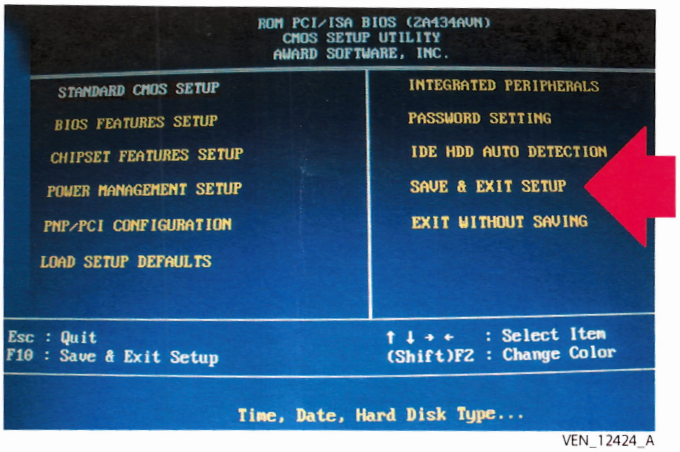


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6. Press the ESC key to exit.

7. Use the arrow keys to move the cursor to highlight SAVE & EXIT SETUP and press ENTER (*Figure 11.*).

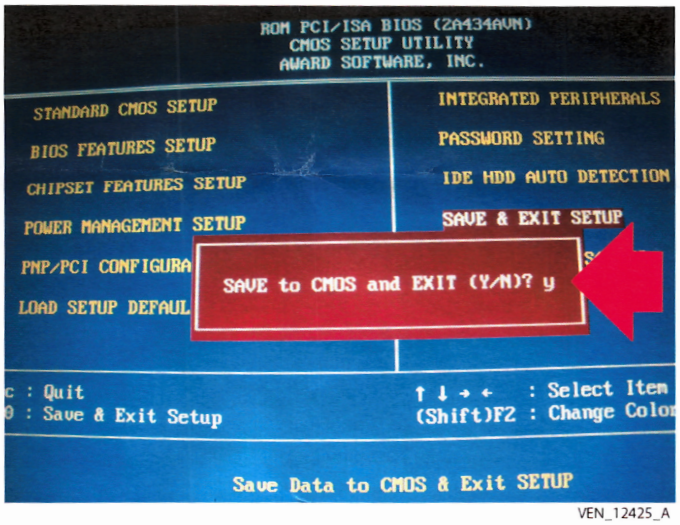
Figure 11. Save and Exit Setup



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8. The system will prompt a confirmation. Press 'Y' and ENTER to confirm and save (*Figure 12.*). The ventilator will automatically reboot.

Figure 12. Save and Exit Confirmation

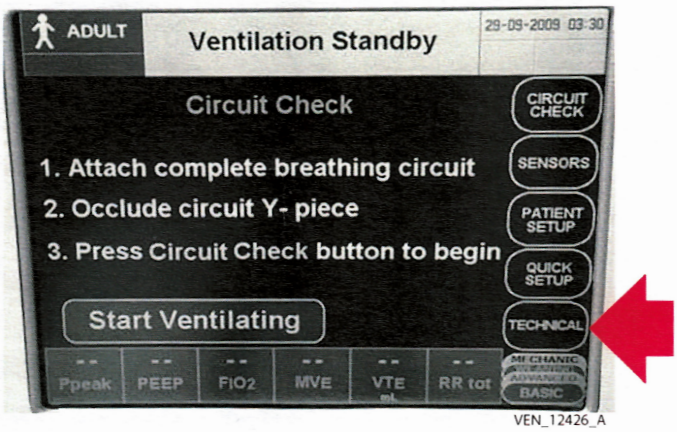


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9. Disconnect the USB keyboard from the ventilator.

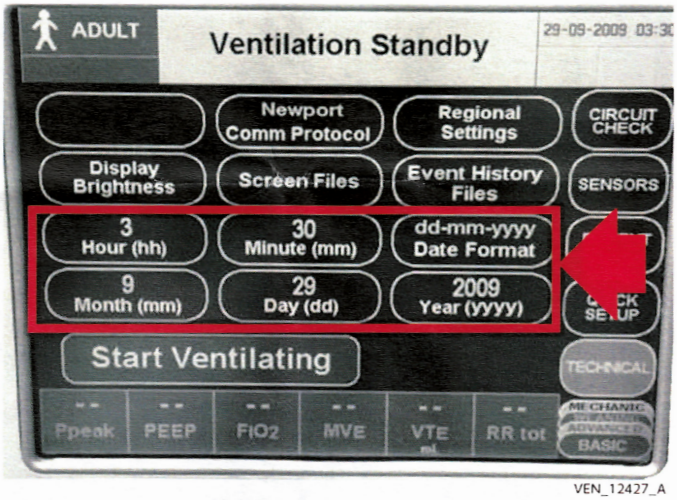
10. Verify that the ventilator reboots completely, displaying the Ventilation Standby screen. Touch the Technical button (*Figure 13.*).

Figure 13. Technical Button



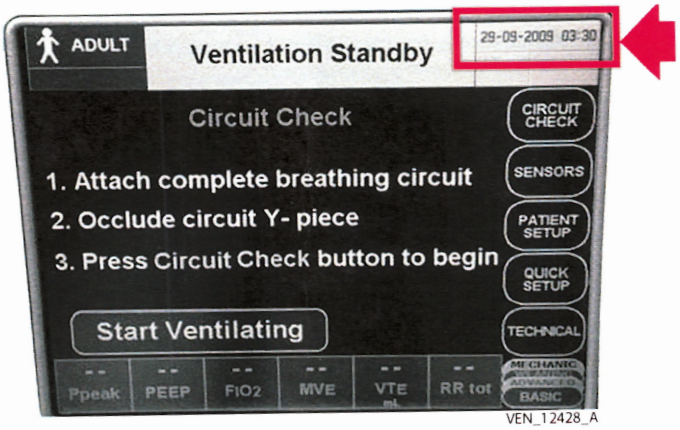
11. From the Technical screen, change the date and time to a random date and time. Make note of the date/time chosen and save the changes. Turn off the ventilator (*Figure 14.*).

Figure 14. Date and Time Adjustment



12. Turn on the ventilator and verify the date and time set in the above step is displayed (*Figure 15.*). There should be no "CMOS Checksum Error" message displayed.

Figure 15. Date and Time



13. Reset ventilator to the current date and time and turn off the ventilator.

PM Completion

1. Reinstall the top cover and accessories removed in step 1.
2. Complete the level I PM as outlined in the Newport™ e360 Ventilator service manual.

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