



4-3 Emergency recovery from power outage

 **DANGER:** Before removing the cover, top deck, or other component for troubleshooting, always turn off the POWER switch of the instrument, unplug the power cord from the wall outlet, and wait at least three minutes to avoid the risk of electrical shock.

 **WARNING:** ① Do not open the door while the rotor is rotating.
② Do not touch the rotor while rotating.

 **CAUTION:** Do not operate or run the instrument in any way other than what is described in this manual. If there is any problem with the instrument, call an authorized Thermo Field Service Engineer.

(1) Rotor rotating


If the power fails, a partial vacuum will remain in the chamber, temperature control will be maintained, and the rotor will safely coast to a stop. If power is restored while rotor speed is above 300 rpm, the rotor will accelerate to set speed and the run will continue. If rotor speed is below 300 rpm, when power is restored, the rotor will continue to decelerate to a stop and the run will not resume until start is pressed.

(2) Control panel display

When power is restored, all set parameters are restored by means of a battery backup. Then instrument then displays an alarm message indicating that there was power outage.

(3) Removing the rotor during a power outage

① Make sure that the rotor has stopped.

 **WARNING:** Listen carefully for sound from within the rotor chamber and make sure that the rotor is not turning.
Never unlock the chamber door, while the rotor is rotating.

The rotor chamber is in a vacuum with low air resistance. The rotor may rotate for more than 30 minutes before stopping. Allow enough time before opening the door.

- ② Unplug the power cord.
- ③ Remove the two screws that fasten the bottom side of the front cabinet cover, pull down the bottom of the cover while pulling it towards you, and remove the cover. The top side of the front cabinet cover is attached on hooks.
- ④ Remove the two top deck-fastening screws from the front bottom of the top deck and lift it.

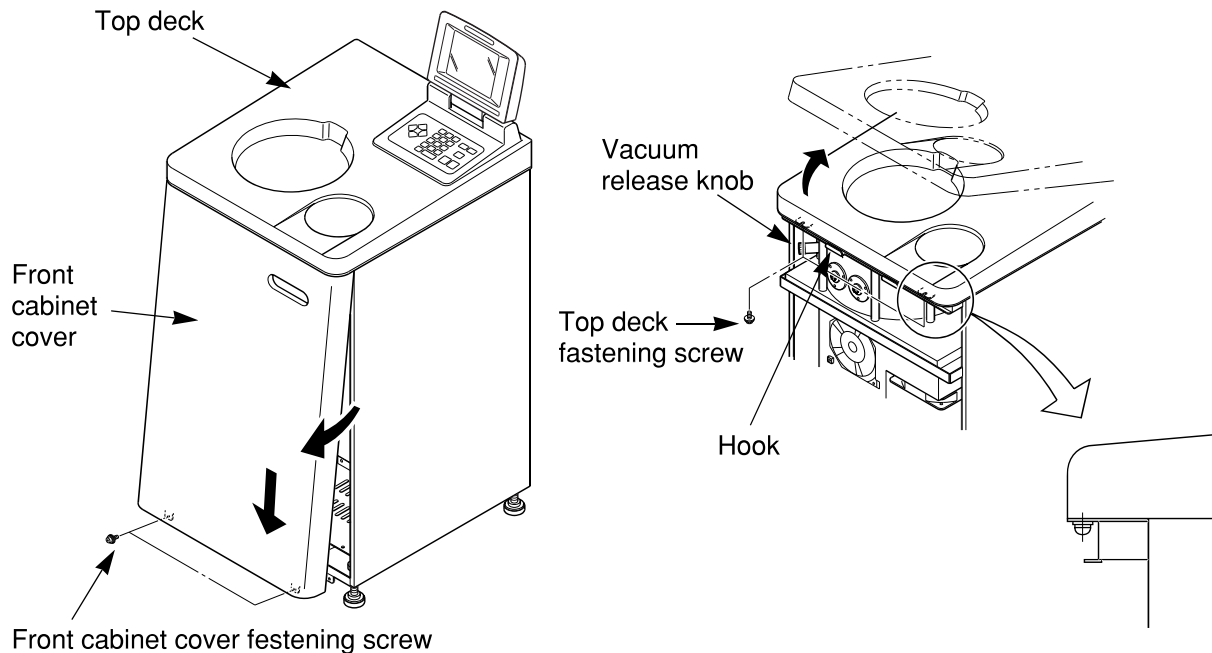


Fig. 4-3-1 Removing the top deck

- ⑤ Remove the vacuum release knob at the left of the vacuum chamber (by turning its tip counterclockwise) to allow air to enter the rotor chamber. When the rotor chamber reaches atmospheric pressure, return the vacuum release knob to its previous position.
- ⑥ Push down the release pin of the door lock in the right corner of the vacuum chamber, and open the door. Make sure that the rotor is not rotating.

⚠ WARNING: Do not touch the rotor while rotating.

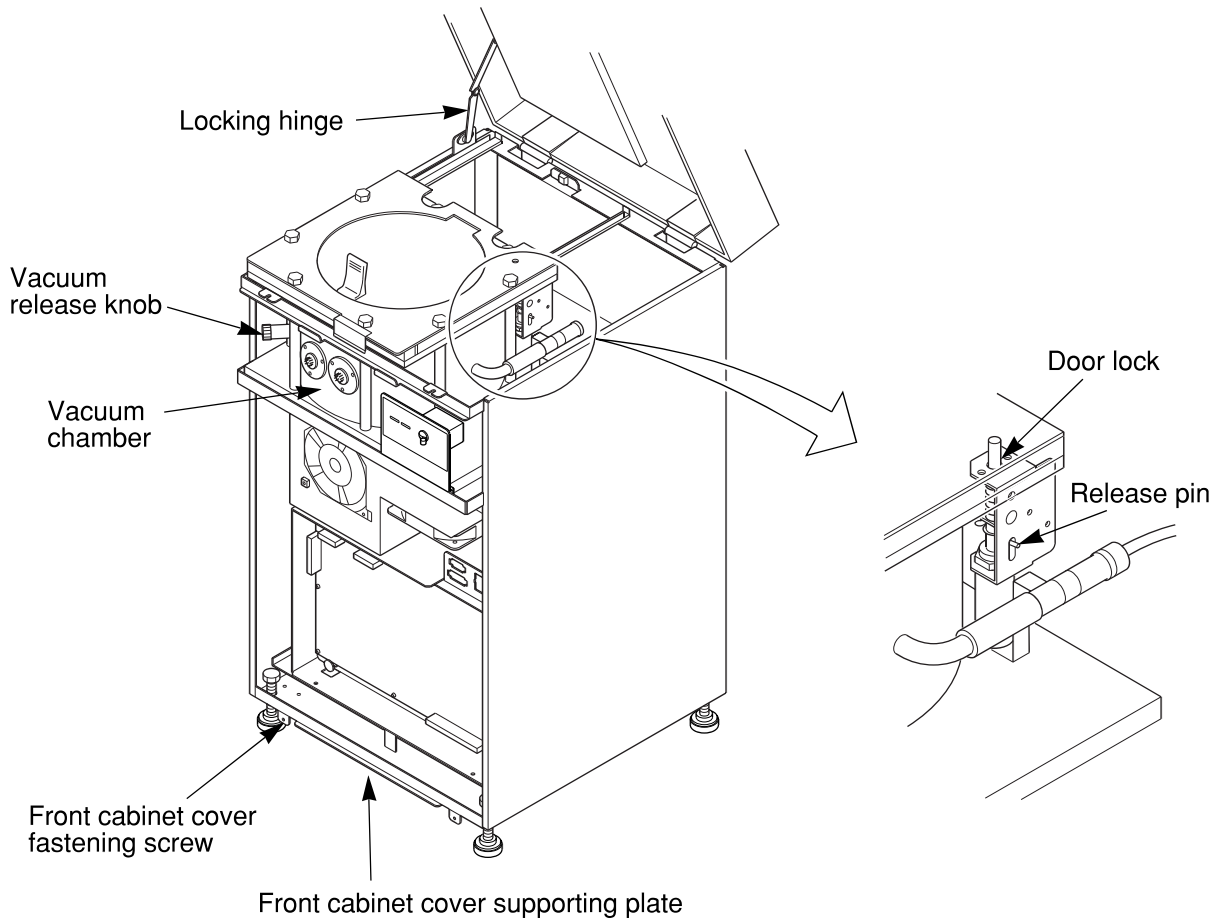


Fig. 4-3-2 Door lock and vacuum release knob

- ⑦ After taking out the rotor, fold the top deck locking hinge, close the top deck, and fasten its components together with their screws.

Having inserted the hook into the square hole in the top surface of the front cabinet cover, place the bottom side of the front cover on the plate that supports the front cover in reverse order of removal, and fasten them with the fastening screws.

- ⑧ Plug the power cord.

⚠ CAUTION: If the micro-ultracentrifuge will not be used for a long time, keep it unplugged.