

7.2 Before you call for service

WARNING

- ! ELECTRIC SHOCK!** Before working on the power circuit on the primary side of the main power switch (breaker), shut OFF primary power supply and check the line is dead. Also, take measures to prevent accidental charging.

Working with primary power supply ON runs the risk of electric shock.

- ! Shut OFF power from the main power switch (leakage breaker) BEFORE detaching the electric parts compartment panels or the mechanical parts compartment panels.**

This section explains troubles undetected in chamber self-checks and cases of misoperation which are easily mistaken as trouble. If the trouble cannot be remedied after taking the prescribed action, contact the place of purchase or ESPEC CORP.

Table 7.2 Before you call for service

Trouble	Cause	Remedial action
The instrumentation panel does not light up after pressing the Power key.	Primary power supply is OFF.	Activate the primary power supply.
	The main power switch is in the OFF position.	Set the main power switch is in the ON position.
	Electric parts compartment panel is open.	Close the door.
	There is a reverse or open phase in the primary power supply connection.	Reconnect the primary power supply correctly. See "4.3 Power Supply Work".
	Fuse F1 is blown.	Replace fuse F1. See "7.3 User Practical Servicing". If the new fuse blows, call for service.
The display goes out all of sudden or the displayed information is strange.	System trouble or internal board trouble	Switch the main power switch OFF and ON. If the same trouble reoccurs, call for service.
Low/High temperature chamber door is hard to close.	Something is caught in the door.	Remove the obstruction.
	Frost has formed and hardened on the door packing.	Defrost chamber.
Low temperature chamber door is hard to open.	Frost has formed and hardened on the door packing.	Defrost chamber.

Cont.

Trouble	Cause	Remedial action
Door does not open.	Test area is moving or defrosting has just ended (test area moves slightly).	Press handle inward until door locks. Wait until test area moves or defrosting ends, then reopen door.
Strange noise are heard.	The air circulator is frosted over.	Call for service.
	The air circulator is burned.	
Strange odors are detected.	Lingering odors inside the chamber	Clean inside test area and low/high temperature chambers. See "6.3" Maintenance.
	Specimens are generating odors.	There is nothing wrong with the equipment. Proceed as planned.
The chamber is wet on the outside.	The room is highly humid.	There is nothing wrong with the equipment. Proceed as planned.
The door is wet around the edges.	The room is highly humid.	There is nothing wrong with the equipment. Proceed as planned.
Temperature is unstable.	Poor contact by test area packing	Call for service.
	The door is open.	Shut the door.
	The rubber plug fell off the cable port.	Fit the plug into the port.
	Room temperature changes more than 5°C/hr.	Stabilize room temperature and resume testing.
	High heat load equipment is being turned ON/OFF.	Reduce the heat load.
	Specimens are blocking air flow.	Reduce the amount of specimens.
Temperature gradually rises higher than the target temperature.	Specimens are generating heat.	Reduce the amount of heat generated by specimens.
	Frost has formed on the cooler.	Defrost the chamber. See "7.3 User Practical Servicing".
Cannot change settings or operating status.	Keys are locked on Protection screen.	Unlock keys. See Reference edition of User's Manual.
Temperature rises (lowers) too slowly.	Specimens are generating heat.	Reduce the amount of specimens.
	Ambient temperature is too low (high).	Raise (Lower) ambient temperature.
Poor temperature uniformity	Air flow inside the chamber is poor.	Improve air flow.
	Specimens are generating heat.	Reduce the amount of specimens.
	Frost has formed on the cooler.	Defrost the chamber. See "7.3 User Practical Servicing".
The chamber is wet on the outside after testing ends.	Testing was stopped during low temperature exposure.	Defrost chamber before ending test.
	The room is highly humid.	There is nothing wrong with the equipment. Proceed as planned.

Cont.

Trouble	Cause	Remedial action
Primary power shuts OFF during tests.	Electric parts compartment panel is not fully shut.	Close panel securely.
	High temperature chamber temperature switch (TS1) tripped.	Let the chamber sit a moment, then reset the main power switch to ON. If the chamber stops again, call for service.
	Low temperature chamber temperature switch (TS2) tripped.	
Too much overshoot (within 10°C)	The amount of specimens is too small.	There is nothing wrong with the equipment. Lower the preheat temperature or increase the amount of specimens to raise the heat load.
	Preheat temperature is too high.	

7.3 User Practical Servicing

Replacing Fuses

When a fuse blows, replace it with one of the included fuses.

Note If a new fuse blows soon after being installed, contact the place of purchase or ESPEC CORP.

- Procedure**
1. Set the main power switch in the OFF position.
 2. Remove the screws that lock down the electric parts compartment panel and detach the panel.
 3. Replace the blown fuse with a new one.

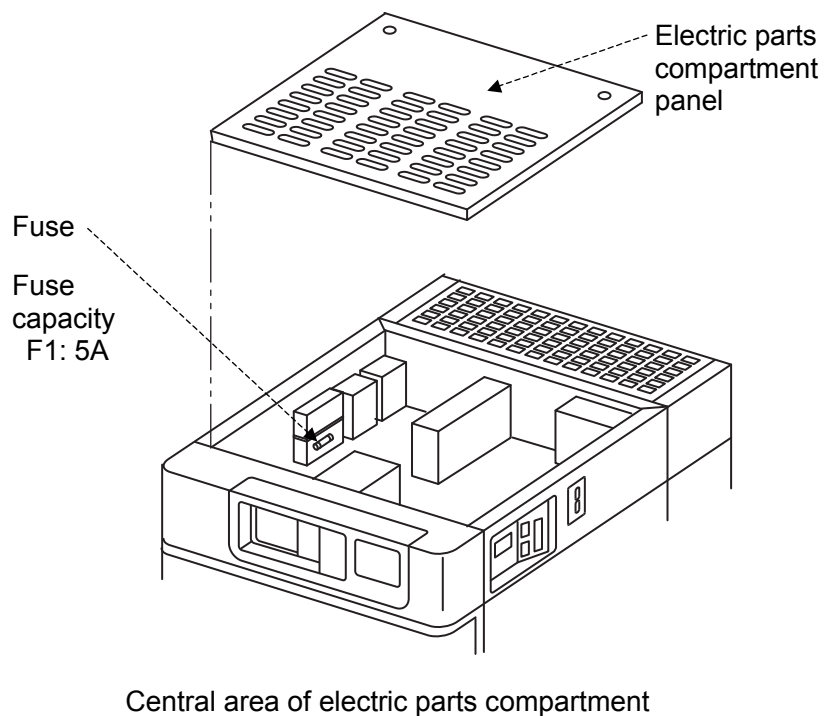


Fig. 7.1 Replacing fuses

4. Reattach the electric parts compartment panel.

Defrosting

Defrost the cold accumulator and evaporator if any of the following occur.

- If temperature gets out-of-control during low temperature exposure and gradually begins to rise
- If low exposure temperature is not restored or restored slowly
- If the "GO!DEFROST " appears on the display and a continuous buzzer sounds

■ How to manually defrost the chamber

- Procedure**
1. Check the main power switch is in the ON position.
 2. Press the **POWER** key on the operating panel to activate power to the instrumentation.
 3. An opening screen will appear. Touch it anywhere to get the main menu.
 4. Press the **OPER./STOP** key on the operating panel or the operating status box in the upper left-hand corner of the display.
 5. Press the **M DEFROST** button under Operation Mode.
 6. When the message appears to confirm your choice, press the **Yes** button. Defrosting will start.
 7. When the defrost cycle ends, the chamber will stop.

