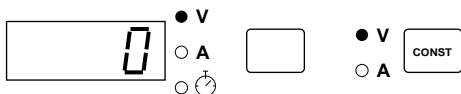


# POWER/PAC 200

## QUICK REFERENCE GUIDE

### SETUP PROCEDURE

1. Connect the electrophoresis cell(s) to the power supply.
2. Turn on the power.
  - a. Press the **Power** switch, located on the side of the unit.
  - b. Observe the following front panel conditions:



3. Press the Const key to select constant voltage (V) or constant current (mA)
4. Use the and keys to enter a value.
5. Change the default limit, if desired.
  - a. Press the **Parameter** key to select the limit parameter.
    - Constant voltage: Default current limit is 2.00 A.
    - Constant current: Default voltage limit is 200 V.
  - b. Use the and keys to enter a value.
6. (Optional) Program a timed run.
  - a. Press the **Parameter** key to select the Time parameter .
  - b. Use the and keys to enter the run time in minutes.
7. (Optional) Power failure detection is available only with a timed run. To activate Power Failure detection (PFd), first program a timed run (as discussed in step 6), and then simultaneously push and momentarily hold both the and keys.
8. Press the key to start the run.
 

The following options are available during the run:

  - To view the run conditions, press the Parameter key.
  - To change a parameter's value, press the Parameter key to display that parameter. Then use the and keys to enter a new value.



# TROUBLESHOOTING

The following is a partial listing of error messages. For a complete listing, refer to the Instruction Manual.

## E 1 No Load Detected

- The electrophoresis cell(s) are not plugged in.
- The cell was unplugged during a run
- The current load dropped below the accepted rating of 5 mA.



Check all electrical connections to the electrophoresis cell and whether the cell contains the appropriate buffer volume. Then,

- Press the  key to resume the run or,
- To clear the error code, press any key (other than ).

## E 2 Short Circuit

The current load exceeded 2.5 A.

Check for and correct any short circuit or excessive load problem. Excessive load due to a high buffer concentration will require the buffer be remade. Then,



- Press the  key to resume the run or,
- To clear the error code, press any key (other than ).

## E 5 Power Failure During a Timed Run

Power Failure detect (PFd) was activated; the run was completed after the power failure.

### Caution:

If a timed run with PFd activation is terminated by turning the main power switch off, the power supply will resume operation under the previous run parameters when the main power switch is turned back on.



To clear the error code, press any key (other than  ). The  key is disabled until the error code is cleared.

### Reminder:

Time is reset to zero after each timed run. Enter a time value prior to each timed run. PFd is disabled after each run. If PFd is required, activate it prior to starting the run.

## E 6 Power Failure During a Timed Run

Power Failure detect (PFd) was *not* activated; run was terminated either due to power failure or because the previous run was stopped by turning off the power supply or unplugging the unit.



To clear the error code, press any key (other than  ). The  key is disabled until the error code is cleared.

### Reminder:

Time is reset to zero after each timed run. Enter a time value prior to each timed run. If PFd is required, activate it prior to starting the run.

## E 7 Power Failure During an Untimed Run

Run was terminated either due to power failure, or because the previous run was stopped by turning off the power supply or unplugging the unit.

To clear the error code, press any key (other than  ). The  key is disabled until the error code is cleared from the display.



### Reminder:

PFd can only be activated prior to a TIMED run.

## E 9 Change in Load Resistance



- Electrophoresis cells were added or removed during a run
- Buffer leaking in a connected cell
- Loose connection in a connected cell.

Check and correct any potential resistance problems. Then,

- Press the  key to resume the run or,
- To clear the error code, press any key (other than ).

## E10 Unacceptable Value(s) Entered

- No value entered
- Voltage below 5 V
- Current below 0.01 A.

- To clear the error code, press any key (other than  ) and enter acceptable values.
- When acceptable values are entered, press the  key to resume the run.

## E11 Ground Leak Detected

- Check and correct the cell for an improper connection to earth ground.
- Restart the power supply by turning the power switch off and then on.