



INSTRUMENT STANDARD OPERATING PROCEDURE MANUAL

College of Medicine



SAFETY AND LABORATORY COOMMITTEE, C.O.M, K.F.U.

Prepared by

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Document History

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| SOP | First Draft on SOP for the operation of Apx -200 Series Analytical and Precision Balances | 22.4.2021 | |
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1. OBJECTIVE

- □ The document describes the operation of Apx -200 Series Analytical and Precision Balances.
- □ Offer precision weighing capacities from 60-6000 grams.
- □ Automatically counting the number of parts each have the same weight (10,20,50,or 100 pieces is a reference sample quantity.
- Versatile features allow to weighing in percentage in propriate to a reference weight

2. SCOPE

3. **RESPONSIBILITIES**

- □ It is the responsibility of designated personnel in Research lab to train staff and students on this procedure and to ensure adherence to this procedure under supervision.
- □ It is the responsibility of designated personnel (staff or Student) to follow the instructions of this procedure under supervision.
- □ Routine in R & D laboratories of the pharmaceutical and biotechnical industry.

4. REFERENCES

□ Apx -200 Series Analytical and Precision Balances operating instructions manual.

5. **DEFINITIONS**

- □ Cover pan.
- □ Pan support
- □ Weighting pan Floor pan
- \square Max weighing capacity 200g, readability 0.1 mg, linearity _\+0.2 mg,
- □ Weighing pan dimension 76mm
- Draft Shield disk.
- □ Leveling bubble.
- □ Leveling foot.
- \square AC adapter connection.
- □ RS-232C interface
- \square 2 Anti theft locking device attaching lug.
- □ Control display (power on\off, print\menu key \arrow key and zero key.).

6. SAFETY PRECAUTIONS

- □ Be sure that the voltage rating printed on the AC adapter is identical to the local voltage.
- \Box Do not use the balance in a hazardous location
- □ Turn off the power completely by disconnecting the AC adapter from the balance.
- □ Do not contact the AC adapter with liquid.
- \Box Do not open the balance housing (No user serviceable parts).
- □ Never Lift balance and transport the balance by the draft it cause damage to internal mechanisms (only from its its base).

7. PROCEDURE FOR OPERATING THE Apx -200 Series Analytical and Precision Balances

7.1. Turning on the instrument:

- \Box Switch on the instrument (mains switch on)
- □ Allow the balance to warm up. To room temperature (minimum of 30 minutes).

7.2. Software Operation.

7.3. Steps of the Procedure

- □ Place a container on the weighing pan (to register the weight of the container).
- \Box Press the Zero key.
- □ Control Display shows (zeroed the balance).
- □ Balance read out 0.0000 grams after successful taring.
- □ When the readout is stable the balance display the unit of measurement using abbreviations:
- □ g :grams, GN:grains, OZ :ounces, ozt:Troy ounces, ct:carats, tl:taels, dwt:pennyweights: ,ib:pounds,pcs:pieces.
- □ Automatic external Adjusment and calibrate the balance when there is no weight, the balance is tared and the internal signal is stable.

7.4. Turning off the Instrument

- $\hfill\square$ Unload the containers .
- \Box Turn off the electric main power source.
- □ Turn off the power completely by disconnecting the AC adapter from the balance.

7.5. Warning Write any the warning in BOLD and RED FONT.

Note: __Calibration the balacne after disconnect from power, leveled or moved to new location.