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# INSTRUMENT STANDARD OPERATING PROCEDURE MANUAL

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College of Medicine



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

**Prepared by**

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**Document History**

Document Section	Details of Amendments	Date	Modified by (Initials)
SOP	First Draft on SOP for the operation of Analytical and Precision Balance- HR -200 A&D	23/11/2020	

## 1. OBJECTIVE

- ☐ The following document describes the procedure for the operation of the Analytical and Precision Balance.
- ☐ Offer precision weighing capacities from 60-6000 grams.
- ☐ Versatile features allow to weighing in percentage in proportionate to a reference weight.
- ☐

## 2. SCOPE

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## 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

- HR -200 A&D. Analytical and Precision Balances operating instructions manual.

## 5. DEFINITIONS

- ☐ Cover pan.
- ☐ Pan support
- ☐ Weighting pan Floor pan
- ☐ Max weighing capacity 200g, readability 0.1 mg, linearity  $\pm 0.2$  mg,
- ☐ Weighing pan dimension 76mm
- ☐ Draft Shield disk.
- ☐ Leveling bubble.
- ☐ Leveling foot.
- ☐ AC adapter connection.
- ☐ RS-232C interface
- ☐ 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.
- ☐ 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.
- ☐ 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 base).

## 7. PROCEDURE FOR OPERATING Analytical and Precision Balance- HR -200 A&D

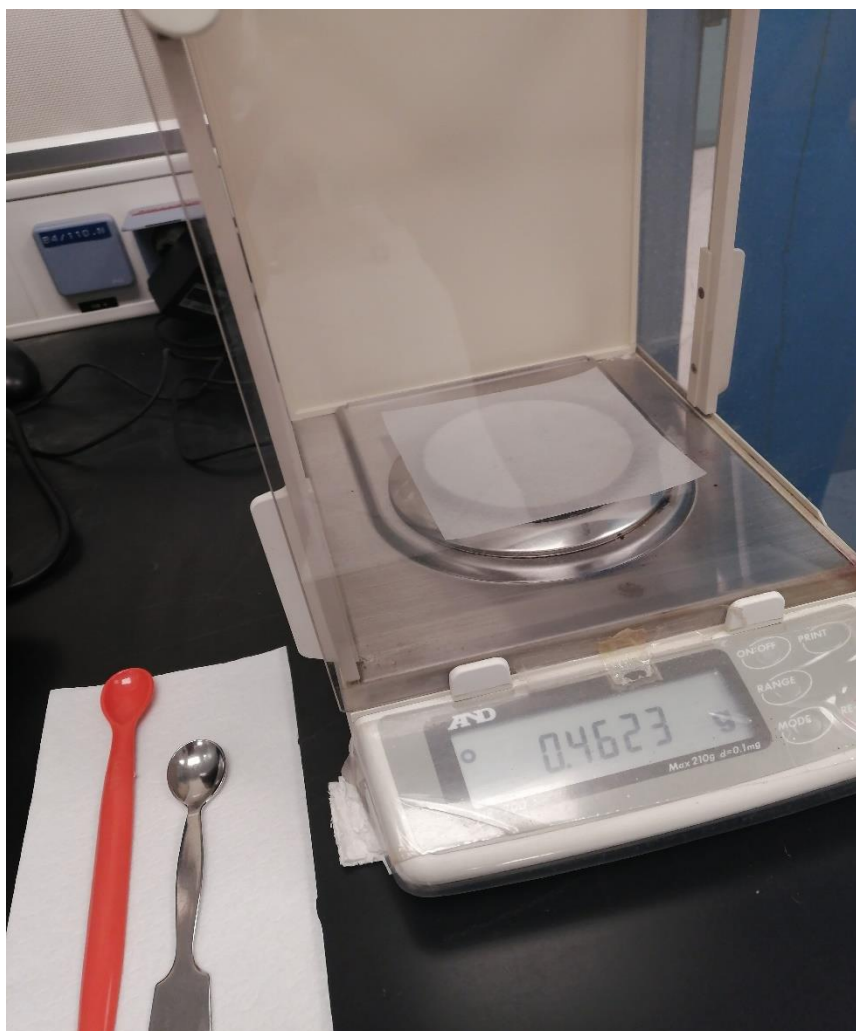
### 7.1. Turning on the instrument:

- ☐ 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).
- ☐ 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 Adjustment 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

- ☐ Unload the containers .
- ☐ 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.**

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