intelligent®
Weighing Technology

AHS SERIES
ELECTRONIC HANGING SCALE

NTEP APPROVED

OPERATION MANUAL

PLEASE READ THIS MANUAL CAREFULLY BEFORE
ATTEMPTING TO OPERATE THE SCALE

Nov 2018 REV 1

Specifications subject to change without prior notice

CONTENTS

1.   OPERATING PRECAUTIONS

1.1 THIS IS NOT A TOY, PLEASE KEEP OUT OF REACH OF CHILDREN.

1.2 THIS IS A PRECISION WEIGHING INSTRUMENT, HANDLE WITH CARE, PROTECT FROM SHOCK.

1.3 REMOVE ALL LOADS FROM THE HOOK WHEN THE SCALE IS NOT IN USE.

1.4 KEEP AWAY FROM DIRECT SUNLIGHT, MOISTURE, HEAT AND VIBRATION.

1.5 REMOVE ALL BATTERIES FROM BATTERY PACK BEFORE LONG TERM STORAGE.

1.6 AVOID USING THIS SCALE IN AN ENVIRONMENT WHERE STRONG WIND MAY CAUSE CONTENTS OF THE SCALE CONTAINER TO FALL OUT.

1.7 DANGER! DO NOT OVERLOAD THIS SCALE.

1.8 BE CAREFUL WHEN ADDING ITEMS OR GOODS TO THE SCALE.

1.9 PLEASE HANDLE AND OPERATE THE HOOK WITH UTMOST CARE.

2. KEYBOARD LAYOUT AND DESCRIPTION

(Standard version)
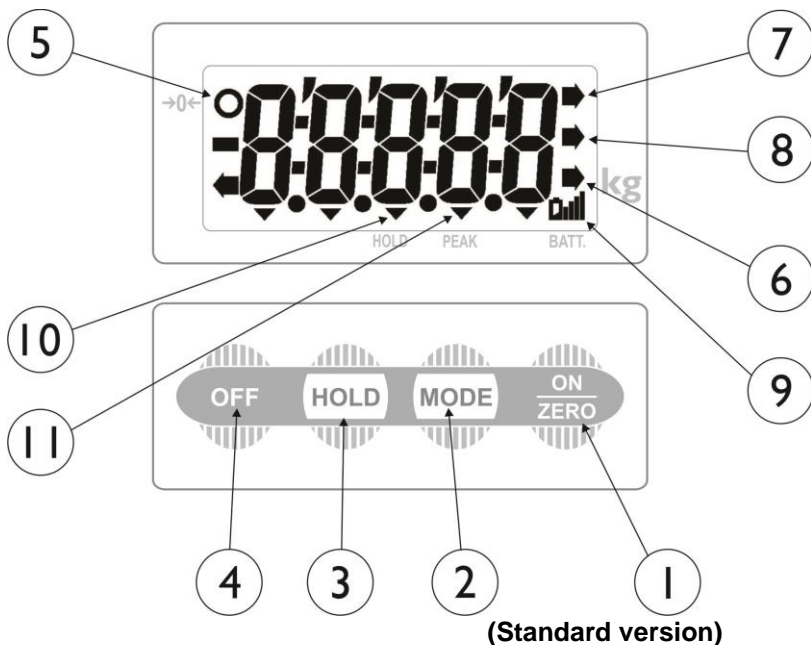
1.   ON/ZERO KEY
Press this key to turn the scale on, reset the weight to zero, or to tare off a container weight

2.   MODE KEY
Press this key to switch between metric only or lb, oz weighing unit and with or without backlight.

NOTE:
To comply with the law of certain countries, the avoirdupois weight units may be disabled. Function only able for selecting the backlight (if installed) status

3. HOLD KEY
Press this key to hold the displayed weight

4. OFF KEY
Press this key to turn scale off

5. ZERO INDICATOR
This indicator appears to indicate a zero weight status

6. METRIC UNIT INDICATOR
This indicator appears to indicate the weighing unit currently engaged is in metric unit (kg or g)

7. POUND UNIT INDICATOR
This indicator appears to indicate the weight unit currently engaged is in imperial system.(Pound)

8. OUNCE UNIT INDICATOR
This indicator appears to indicate the weight unit currently engaged is in ounce only unit.

9. BATTERY LEVEL INDICATOR
Battery level indicator appears when the scale is operated on battery power and the number of bars indicates battery level.

10. HOLD INDICATOR
This indicator appears to indicate the hold function is engaged, holding the weight reading unchanged.

11. PEAK HOLD INDICATOR
This indicator appears to indicate the peak hold function is engaged, showing maximum weight reading from the time the scale was powered, or since the peak hold function was reset.
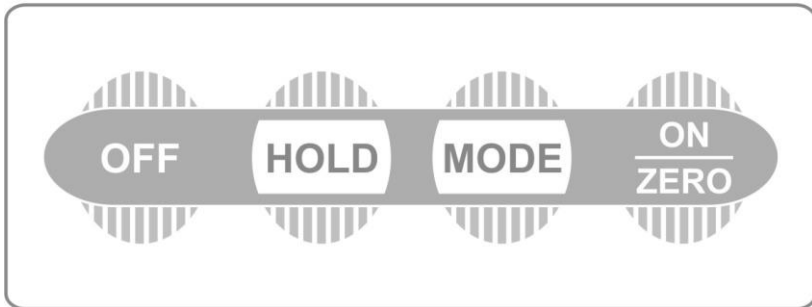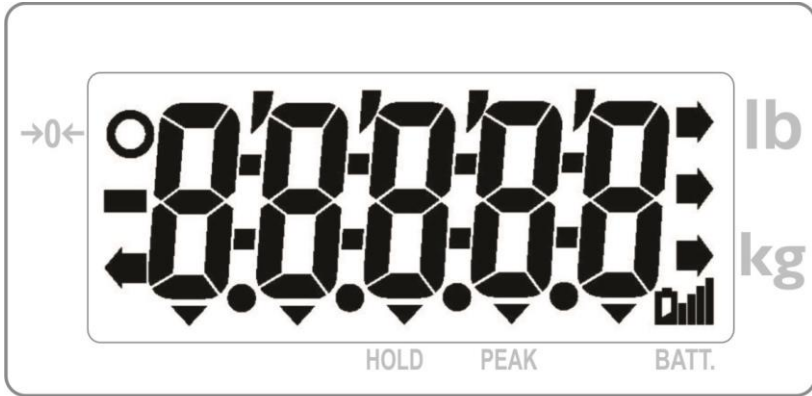
(USA version)

3. INSTRUCTIONS FOR USE

3.1 POWER FOR THE SCALE
The HS hanging scale can be powered either by 4 x C batteries (not supplied) or a power adaptor with output of 9V DC 100mA (optional accessories).

3.2 FIXING THE SCALE
The scale must be suspended from a suitable structure, e.g. a wire rope, from a firm support that will withstand at least 5 times of the scale rated capacity for maximum operating safety.

3.3 PLACING CONTAINER OR PAN SUPPORT (OPTIONAL ACCESSORIES)
Before turning the scale on, place the container or pan support to the hook first.

3.4 APPLYING A LOAD
Always place the load on the scale gently; sudden shock or excessive force may cause damage to the weight sensor inside.
It is a good practice to remove all loads from the hook immediately after weighing. This will help to prolong the lifespan of the weight sensor.

3.5 HOW TO SWITCH BETWEEN METRIC AND LB WEIGHT UNIT AND BACKLIGHT STATUS
Turn scale on, press **MODE** to switch between metric (kg or g) and avoirdupois (lb, lb/oz) unit, with or without backlight (optional accessories).

When backlight function is employed, backlight will automatically go off 2 seconds after zero weight is detected and will automatically return when a load is applied again.

NOTE: To comply with the law of certain countries, the avoirdupois weight units may be disabled.

3.6 HOLDING THE WEIGHT DISPLAYED
To hold the weight displayed, press **HOLD** after displayed weight is

stable. To disable the holding function, press **HOLD** again.

3.7 CHANGING BATTERIES
When the low battery sign appears, unload the scale and turn it off. Replace the batteries and place the new batteries according to polarity marked inside the chamber.

3.8 TARE OFF A CONTAINER WEIGHT
If a container or a pan support is placed to the hook after scale is switched on, press **ON/ZERO** to tare off the weight and display will return to zero again. However, the rated capacity of the scale must not be exceeded.

4. INTERNAL FUNCTIONS AND INITIAL SETUP

SETTING PROCEDURES AND KEY FUNCTIONS

- Press and hold the **MODE** key and press the **ON/ZERO** key. Release the **MODE** key, then the display shows F1.
- Use **MODE** key to scroll through the internal setting menu and the **HOLD** key to enter the setting.
- Use **HOLD** key in the sub-setting to scroll through available options. Press **MODE** key to confirm.
- Press **ON/ZERO** key in the Function menu to save changes. Changes are saved after a beep sound is produced.

FUNCTION MENU OF INTERNAL SETTINGS

FUNCTION	FUNCTION DESCRIPTION
F0	Initial Zero range
F1	For Qualified Technical Personnel Only
F2	LCD segment check and software version information
F3	For Qualified Technical Personnel Only
F4	Auto Power Off Function
F5	RS-232 Baud Rate
F6	Digital Motion Filter
F7	Serial Output Mode
F9	Auto Tare Function
F12	HOLD Function

Initial Zero Range (F0)
Under this function, user can set initial zero range. The scale is equipped with 5 selections:
Zero0 -> Zero1 -> Zero2 -> Zero3 -> Zero4

Display Segment Check (F2)
Under this function, display will first show software version, then all LCD segments including backlight (if equipped) will be lit up. Contact your dealer if any display element is missing.

Auto Power Off (F4)
Enable/disable auto power off function after 10,30, or 60 minutes of inactivity.
0_off -> 10_off -> 30_off

Baud Rate (F5)
The scale is equipped with 3 RS232C output baud rate:
Br 4800 -> Br 9600 -> Br 19200

Digital Motion Filter (F6)
Under this function, user can enable digital motion filtering function if the weighing environment is unstable. The scale is equipped with 3 filter speeds:
Filt 0 -> Filt 1 -> Filt 2

Serial Output Mode (F7)
Under this function, user can select between different serial transmission modes.

OFF -> Conti -> AUTO

OFF	Transmission off
Conti	Continuous transmission
AUTO	Transmission when weight is stable

Auto Tare (F9)
The scale is equipped with auto tare function which tares off the initial weight automatically when this function is engaged. The tare weight is automatically cleared when everything is removed from the weighing plate.

tr_on -> tr_of

HOLD Function(F12)
Under this function, user can enable HOLD function. The scale is equipped with 3 hold functions:

nor (Normal) -> AUto (Auto) -> PEAY (Peak)

Normal hold	Manually press **HOLD** key to enable/disable hold function.
Auto hold	Automatically hold the display weight upon stable weight. Press **HOLD** key again to disable it.
Peak hold	Maximum weight reading from the time the scale was powered, or since the peak hold function was reset. Press **HOLD** key to reset peak reading to zero.

5. AUTO CALIBRATION PROCEDURES

1. Turn scale off.
2. Press and hold HOLD, then turn scale on.
3. Scale displays CAL.0
4. Scale will self calibrate zero point before proceeding to the first point calibration.
5. After zero point calibration is done, scale displays LOAD XX.XXX
   (The standard weight displayed is in lb unit)
6. Load calibration load as request.
7. Wait until scale displays LOAD XX.XXX(second point).
8. Load calibration load as request or press ON/ZERO to abandon second point calibration, wait until scale displays DONE.
9. Calibration completed and scale is ready for operation.

6. TROUBLESHOOTING

SYMPTOM: **SCALE DOES NOT TURN ON**
CHECK: ARE BATTERIES INSERTED CORRECTLY?
ARE BATTERIES FUNCTIONING PROPERLY?
CHECK THE OUTPUT VOLTAGE IS DC 9V/100MA
IS THE MAIN ADAPTOR PLUGGED PROPERLY INTO THE SCALE POWER INLET?
ACTION: RELOAD BATTERIES OR INSERT MAIN ADAPTER TO BOTH SCALE AND POWER OUTLET AGAIN.

SYMPTOM: **SCALE TURNS ON BUT ZERO WEIGHT DOES NOT APPEAR**
CHECK: IS THERE ANY LOAD APPLIED TO THE HOOK?
IS THE HOOK STABLE?
WEIGHT OF THE CONTAINER IS TOO HEAVY?
ACTION: TURN SCALE OFF, REMOVE THE CONTAINER AND TURN SCALE ON AGAIN.

SYMPTOM: **RATED CAPACITY CANNOT BE REACHED**
CHECK: IS THE WEIGHT OF THE CONTAINER TARED OFF BY "ZERO" KEY?
ACTION: TURN SCALE OFF, REMOVE THE CONTAINER AND TURN SCALE ON AGAIN.

SYMPTOM: **SCALE DOES NOT WEIGH CORRECTLY**
CHECK: THE RIGHT WEIGHT UNIT IS "EMPLOYED" AND THAT THE SCALE IS CALIBRATED CORRECTLY?
ACTION: CONTACT YOUR DEALER.

SYMPTOM: **SCALE TURNS OFF AUTOMATICALLY**
CHECK: IS THE AUTO OFF FUNCTION EMPLOYED?
ACTION: DISABLE THE AUTO OFF FUNCTION.

SYMPTOM: **WEIGHT DISPLAY REMAINS UNCHANGED**
CHECK: IS THE HOLD FUNCTION EMPLOYED?
ACTION: PRESS HOLD AGAIN.

7. DAILY CARE AND MAINTENANCE

7.1   CLEAN THE SCALE WITH A SOFT, DAMP CLOTH, IF
        NECESSARY WITH A MILD DETERGENT.

7.2   DO NOT USE ANY HARSH, ABRASIVE MATERIAL,
        ACETONE, VOLATILE SOLVENT, THINNER OR ALCOHOL
        FOR CLEANING.

7.3   VERIFY THE ACCURACY OF THE SCALE PERIODICALLY.
        RECALIBRATION OF THE SCALE MAY BE NECESSARY.

7.4   IN SOME COUNTRIES, THE CALIBRATION IS ONLY
        ALLOWED TO BE COMPLETED BY A QUALIFIED/
        AUTHORIZED AGENT. CONTACT YOUR DEALER FOR
        MORE INFORMATION.