HARDY HIBSD BENCH SCALES
Operations Manual

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Basic Error Codes - Refer to Technical Manual For Details

Error Message	Description	Solution
-----	Maximum weight exceeded	Unload or reduce weight.
Err 5	Keyboard error	Check the keyboard for stuck or damaged keys.
Err 6	A/D value out of range	Make sure platform is empty and check that the pan is installed properly. Check the load cell connectors.
Err 8	Calibration weight error	Verify test weights and recalibrate. Check load cell connections.
Err 9	Unstable Reading	Check for any air variation, vibration, RF noise and binding. Check the load cell and connectors.
Err 12	Accumulation error	Maximum accumulation reached. 9999999
Err 14	Lack of sample	Counting error. Verify correct count of product. Reset counting settings.
Err19	Initialize zero error	Calibrate the scale.

CONTENT

10. BASIC USER SETTINGS

10.1 Backlight

Hold the **ZERO** key for 3 seconds. The display will show ”setbl “. Press **ZERO** to enter backlight settings. Press **TARE** to change backlight mode (BL ON: always on, BL AU: auto backlight, backlight will turn on when keys or pressed or weight is applied. BLOFF: backlight always off). Press **ZERO** to accept or press **G/N** key to escape.

10.2 Auto Power Off

Hold the **ZERO** key for 3 seconds. The display will show ”setbl“, Press the **TARE** key to display "setof". Press **ZERO** to enter the auto power off setting. Press **TARE** to change the auto power off time (Off, 3, 5, 15 or 30 minutes). Press **ZERO** to accept or press the **G/N** key to escape.

11. CALIBRATION

Press the **PRINT** key during self-checking on power up to enter the password screen. In sequence, press **M+**, **G/N** and **TARE**. Press **TARE** until the display shows "p 3 cal" then press **ZERO**. Press **TARE** to select cal. Press **ZERO** to confirm. Press **TARE** to enter calibration.

Remove all the weight from the platform and wait until STABLE is shown. Press **ZERO** to confirm. The display will show the high calibration value. Adjust with the arrow keys as necessary and press **ZERO** to confirm. Place the calibrated high weight on the platform. When STABLE is shown, press **ZERO** to confirm. The display will then reboot and return to normal weighing mode.

1. INTRODUCTION

The HIBSD series of bench scales provides an accurate, fast and versatile scale with general purpose weighing and checkweighing functions.

Applications may include but are not limited to checkweighing, counting, accumulation and animal weighing features.

2. KEY DESCRIPTIONS

The keypad keys contain both text and navigation arrows for movement within internal menu structures.

Zero

Set the zero point for all subsequent weighing. Display shows zero.

The key also has a secondary function of "Enter" when setting parameters or other functions.

Tare

Tares the scale. Stores the current weight in memory as a tare value, subtracts the tare value from the weight and shows the results.

The key also has a secondary function incrementing the active digit when setting a value for parameters or other functions.

Pressing **Zero** and **Tare** key together in normal weighing mode will turn on/off the animal weighing function.

MR

Memory recall key. Shows the total accumulated weight in memory.

The key also has a secondary function of moving active digits right. Hold **MR** key to enter parts counting mode.

7. ANIMAL WEIGHING

Animal weighing must be turned on in the parameter menu. Pressing **Zero** and **Tare** key together in normal weighing mode will turn on/off the animal weighing function.

Place the animal on the platform. Each second, the weight will be locked onto the display, even if the animal is moving.

8. KEYBOARD LOCK

You can use the keyboard lock when this function is enabled (see detail setting process in the technical manual), If the keyboard hasn't been used for 10 minutes, the keyboard will lock. If the keyboard is locked, any press of a key will display "K-LCK".

To escape lock mode and return to work mode, holdthe **PRINT** , **MR** , **ZERO** keys for 2 seconds.The display will show "ULCK" and return to normal mode.

9. BATTERY OPERATION

The weighing indicator can be operated from the battery if desired. The battery life is approximately 70 hours. When the battery needs charging, a battery symbol on the weight display will turn on. The battery should be charged when the symbol is on. The scale will still operate for about 1 hour after which it will automatically switch off to protect the battery. To charge the battery, plug the unit into the power supply. The battery should be charged for 12 hours to reach full capacity. When the scale is plugged into the power supply, the internal battery will be charged. If the LED is green, the battery has a full charge. If it is red, the battery is nearly discharged.

Remove the weight, allowing the scale to return to zero and put a second weight on. Press the **M+** key, the display will show "ACC   2" and then the new total.

Continue until all weights have been added.

5.3 memory recall

To view the totals in memory press **MR** key.

5.4 memory clear

To clear the memory, press **M+** and **MR** together

5.5 automatic accumulation

Press Print key during self-checking to enter setting mode, press Tare key until display show P2COM, press **ZERO** key to enter, press **TARE** key to select "mode", press **ZERO** key to accept, display will show current RS-232 mode, press TARE key to select Auto. After you set, AUTO indicator on.

Press weight on platform, after stable, you will hear beep on twice, you can add or remote weight now, scale will beep on again after stable, at last, remove all weight on platform, the last weight value will store in memory

6. PARTS COUNTING

Hold the **MR** key 2 seconds to enter parts counting mode. The display will show "P 10". Press **TARE** to toggle through the sample quantities (10/20/50/100/200). Put the sample quantity on the platform. Press **ZERO** to accept. The display will show "-----" until it stabilizes then it will show the quantity. The unit is now in counting mode. It will display quantities and "PCS" will be displayed.

Press the **MR** key to return to normal weighing mode.

M+

Accumulation key. Stores the weight in memory.

In accumulation mode, this key used to move active digits left.

Press **M+** and **MR** key for MC (memory clear)

Print

To print the results to a PC or printer using the RS-232 interface.

Pressing **Print** during self-checking will enter setting mode.

G/N

weighing unit shift.

Secondary function (ESC) , is to return to normal operation when the scale is in a parameter setting mode.

Hold **G/N** key for weighing unit shift.

Press **G/N** and **Print** key together for setting check Weighing limit.

3. BASIC OPERATION

3.1 Zeroing The Display

You can press the **ZERO** key at any time to set the zero point from which all other weighing and counting is measured, within 4% of power up zero. This will usually only be necessary when the platform is empty. When the zero point is obtained the display will show the indicator for zero.

The scale has an automatic rezeroing function to account for minor drifting or accumulation of material on the platform. However, you may need to press the **ZERO** key to rezero the scale if small amounts of weight are shown when the platform is empty.

3.2 Taring

Zero the scale by pressing the **ZERO** key if necessary. The zero indicator will be on.

Place a container on the platform, a value for its weight will be displayed.

Press the **TARE** key to tare the scale. The weight that was displayed is stored as the tare value and that value is subtracted from the display, leaving zero on the display. The "NET" indicator will be on. As product is added only the weight of the product will be shown. The scale could be tared a second time if another type of product was to be added to the first one. Only the weight that is added after taring will be displayed.

When the container is removed a negative value will be shown. If the scale was tared just before removing the container this value is the gross weight of the container plus all product that was removed. The zero indicator will also be on because the platform is back to the same condition it was when the **ZERO** key was last pressed.

3.3 Weighing a sample

To determine the weight of a sample first tare the empty container then place the sample in the container. the display will show the weight and the units of weight currently in use.

4. CHECKWEIGHING

4.1 About Checkweighing

Checkweighing is a function of the scale to notify an operator when the weight on the scale meets or exceeds values stored in memory. The memory holds values for a high limit and a low limit. It is best to determine if you want the beep to sound for good checkweights or NG checkweights, but not both.

Check mode OK:

When within the range, the OK LED will illuminate. You can select whether the beeper will sound or not.

Check mode NG:

When outside the range, the LED will display for High or Low. You can select whether the beeper will sound or not.

4.2 Set limits

Press **G/N** and **PRINT** key together, it will display "set h", use **TARE** key to select "SET H" or "SET L", press **ZERO** key to enter. Use **M+** and **MR** key to move and select the digit to change. Use **TARE** to change value. Use the **Print** key to clear the value. After you enter the value, press **ZERO** key to accept or press **G/N** key to escape.

4.3 Checkweighing Audible Alerts

Press **G/N** and **print** together. The unit will display "set h". Press **TARE** to select "beep". Press **ZERO** to accept. Press **TARE** to toggle between a beep for "ok" or "ng" (check mode NG), or "no" (no beep). Press **ZERO** key to accept or press **G/N** to escape.

4.4 NOTE

Checkweighing function is only available when weight is more than 20 divisions. To disable the Check-Weighing function enter zero into both limits by pressing the **PRINT** key when the current limits are shown then pressing **ZERO** to store the zero values.

5. ACCUMULATION

5.1 The scale can be set to accumulate and store a weight manually by pressing the **M+** key. Only press **M+** when STABLE is displayed See the PARAMETERS Section of the Technical Manual for details of selecting other methods by using the "P2 com" parameter.

5.2 Accumulation

The weight displayed will be stored in memory when the weight is stable and the **M+** key is pressed.

The unit will display "ACC   1" and then it will display the total accumulated weight for 2 seconds before returning to normal weighing mode.