

TDC-S

# High Resolution Digital Crane Scale



Technical Manual








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Please read this manual carefully before using.

Version: V1.0B-1





# 1. Scale Configuration

- ✓ Press  twice to enter Password mode. **P0000** shows.
- ✓ Short press  or press  and  to change digit. Press  and  to right scroll digit. Input password **P0258**.
- ✓ Press  to confirm password, and enter Scale Configuration. **SCALE** shows.
- ⓘ Parameters in Scale Configuration are closely related to scale's metrology performance. It is NOT recommended to change any parameters unless you are authorized from your local representative.














## Display Resolution

- ✓ Press  to enter Display Resolution. **E-----** shows.
- ✓ Short press  or press  and  to change resolution value.
- ↪ Display Resolution can be set to: **0001, 0002, 0005, 001, 002, 005, 01, 02, 05, 1, 2, 5, 10, 20, 50**.
- ☰ Designed to meet the OIML R76's directive, the scale has the best (default) performance at 2000 to 3000 division.

















## Auto-Zero Range

- ✓ Press  to enter Auto-Zero Range. **A-----** shows.
- ✓ Short press  or press  and  to change range.
- ↪ Auto-Zero Range can be set to: **0**(disabled), **2**( $\pm 2\%$ FS), **3**( $\pm 3\%$ FS), **4**( $\pm 4\%$ FS), **10**( $\pm 10\%$ FS), **20**( $\pm 20\%$ FS), **100**( $\pm 100\%$ FS). It is set to  $\pm 20\%$ FS by default.
- ☰ Upon boot-up, scale automatically zeros.

















## Manual-Zero Range

- ✓ Press  to enter Manual-Zero Range.  shows.
- ✓ Short press  or press  and  to change range.
- ↪ Manual-Zero Range can be set to:  (disabled),  ( $\pm 2\%FS$ ),  ( $\pm 3\%FS$ ),  ( $\pm 4\%FS$ ),  ( $\pm 10\%FS$ ),  ( $\pm 20\%FS$ ),  ( $\pm 100\%FS$ ). It is set to  $\pm 4\%FS$  by default.
-  Zero is allowed only when weight is within Manual-Zero range.





## Zero-Tracking Range

- ✓ Press  to enter Zero-Tracking Range.  shows.
- ✓ Short press  or press  and  to change range.
- ↪ Zero-Tracking Range can be set to:  (disabled),  ( $\pm 0.5e$ ),  ( $\pm 1.0e$ ),  ( $\pm 1.5e$ ),  ( $\pm 2.0e$ ),  ( $\pm 2.5e$ ),  ( $\pm 3.0e$ ),  ( $\pm 3.5e$ ),  ( $\pm 4.0e$ ),  ( $\pm 4.5e$ ),  ( $\pm 5.0e$ ). It is set to  $\pm 0.5e$  by default.
-  Enabling Zero-Tracking will enhance scale temperature and drift performance.





## Zero Range

- ✓ Press  to enter Zero Range.  shows.
- ✓ Short press  or press  and  to change range.
- ↪ Zero Range can be set to:  (disabled),  ( $\pm 0.5e$ ),  ( $\pm 1.0e$ ),  ( $\pm 1.5e$ ),  ( $\pm 2.0e$ ),  ( $\pm 2.5e$ ),  ( $\pm 3.0e$ ),  ( $\pm 3.5e$ ),  ( $\pm 4.0e$ ),  ( $\pm 4.5e$ ),  ( $\pm 5.0e$ ). It is set to  $\pm 5.0e$  by default.
-  Zero Range defines the range that scale must fall into before other operation becomes active. When load is removed from scale, left weight must be lighter than the value set.





## Zero-Saving

- ✓ Press  to enter Zero-Saving. **5:---** shows.
- ✓ Short press  or press  and  to change Zero-Saving status.
- ↪ Zero-Saving can be set to: **on**(enabled), **off**(disabled). It is set to disabled by default.
- ☐ When Zero-saving is enabled, Auto Zero is disabled automatically. Scale calculates weight based on the last Zeroing action.

## Anti-Motion Level











- ✓ Press  to enter Anti-Motion Level. **5t6** - shows.
- ✓ Short press  or press  and  to change level.
- ↪ Anti-Motion Level can be set to: **0**(disabled), **1**(weakest), **2**(weak), **3**(normal), **4**(strong), **5**(strongest). It is set to weakest by default.
- ☐ At the cost of measuring time, Anti-Motion intelligently settles down weight reading when scale is in motion. The weaker Anti-Motion is, the faster weight reading displays, but the longer it takes to get stable weight reading.

## Dynamic Weighing











- ✓ Press  to enter Dynamic Weighing. **dy---** shows.
- ✓ Short press  or press  and  to change Dynamic Weighing status.
- ↪ Dynamic Weighing can be set to: **on**(enabled), **off**(disabled). It is set to disabled by default.
- ☐ In some special application where scale's accuracy is not so important as scale's stability for weight reading and data

printing, Dynamic Weighing can be enabled to settle down the weight reading faster.








## Gravity Acceleration

- ✓ Press  to enter Gravity Acceleration.  shows.
- ✓ Short press  or press  and  to change digit. Press  and  to right scroll digit. Press  to input decimal point. Input Gravity Acceleration value.
- ↪ Gravity Acceleration can be set from to:  to  . It is set to 9.794 by default.
- ☰ Adjust Gravity Acceleration, only when you use the scale in a place where acceleration of gravity is greatly different from the place where the scale is calibrated.





## User Unit

- ✓ Press  to enter User Unit.  shows.
- ✓ Short press  or press  and  to change digit. Press  and  to right scroll digit. Press  to input decimal point. Input User Unit value.
- ↪ User Unit can be set from to:  to  . It is set to 1.000 by default.
- ☰ User Unit is a named unit which is usually used in user's region, but not included in scale by default, like kg, lb, etc. It is a ratio to System Unit. For example, if User Unit is set to 1.234 and System Unit is kg, then after switching to User Unit, scale calculates weight (1000kg), and displays the calculated value (1234usr).








## 2. Calibration

- ✓ Press  twice to enter Password mode. **P0000** shows.
  - ✓ Short press  or press  and  to change digit. Press  and  to right scroll digit. Input password **P8416**.
  - ✓ Press  to confirm password, and enter Calibration. **CR** shows.
- i** It is NOT recommended to enter Calibration unless you are authorized from your local representative.





### Calibration Unit




- ✓ Press  to enter Calibration Unit. **Un --** shows.
  - ✓ Short press  or press  and  to change Calibration Unit.
- ↪ Calibration Unit can be set to: **kg**(kg), **lb**(lb). It is set to kg by default.

### Calibration Gravity Acceleration


- ✓ Press  to enter Calibration Gravity Acceleration. **G----** shows.
  - ✓ Short press  or press  and  to change digit. Press  and  to right scroll digit. Press  to input decimal point. Input Calibration Gravity Acceleration value.
- ↪ Calibration Gravity Acceleration can be set from to: **0000** to **9999**. It is set to 9.794 by default.

### Max. Cap.




- ✓ Press  to enter Max. Cap.. **00000** shows.
- ✓ Short press  or press  and  to change digit.

Press  and  to right scroll digit. Press  to input decimal point. Input Max. Cap. value.










 Max. Cap. can be set from to: **000000** to **999999**.

 Do NOT attempt to set Max. Cap. greater than scale's actual capacity. Overloading causes severe harm to scale, and is very dangerous.







### Zero Detection

- Press  to enter Zero Detection. **LoRd0** shows.
- Keep scale no load. Press  to display weight code **12345**.
- Wait until weight code is stable. Press  to start weight detection. Scale automatically enters Load1 Detection.




### Load1 Detection



- LoRd1** shows.
- Load standard weight, press . **000000** shows.
- Short press  or press  and  to change digit. Press  and  to right scroll digit. Press  to input decimal point. Input weight value.
- Keep load stable. Press  to display weight code **23456**.
- Wait until weight code is stable. Press  to start weight detection. Scale automatically enters Load2 Detection.

### Load2 Detection













- LoRd2** shows.
- If one weight calibration is enough, press  or  to exit Calibration.
- Load standard weight, press . **000000** shows.
- Short press  or press  and  to change digit.



Press  and  to right scroll digit. Press  to input decimal point. Input weight value.

- ✓ Keep load stable. Press  to display weight code **34567**.
- ✓ Wait until weight code is stable. Press  to start weight detection. Scale automatically enters Load3 Detection.

### Load3 Detection

- ✓ **Load3** shows.
-  If two weights calibration is enough, press  or  to exit Calibration.
- ✓ Load standard weight, press  . **00000** shows.
- ✓ Short press  or press  and  to change digit. Press  and  to right scroll digit. Press  to input decimal point. Input weight value.
- ✓ Keep load stable. Press  to display weight code **45678**.
- ✓ Wait until weight code is stable. Press  to start weight detection. Scale automatically exits Calibration.