



USA Measurements

"We Outmeasure the Competition"

US-M6+ Smart Weighing Indicator



User Manual v1.00

Instructions

Thank you for choosing USA Measurements “We Out Measure the Competition”. USA Measurements is an American Scale brand providing scales for the weighing industry. We are located out of Las Vegas, NV and we ship worldwide. USA Measurements provides R&D for developing software, hardware, and weighing products.

Please read this manual carefully and if you have any questions, please reach out to any local scale company or USA Measurements directly for help.

Please note there might be differences with software due to updates.

All software changes will be noted in advance.

If any changes in our Manual, we will notify all customers.



Warning!

DO NOT OPEN INDICATOR BOX.



Linux

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| HOLI Scale All rights received. | |
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CHAPTER 1 M6+ FUNCTIONS AND SPECIFICATIONS

1. Main Functions:

- a. Data Transfer: *Wired or Wireless. From weighing scale to indicator data transfer methods are optional. The wire would be offered by scale and connector will be offered with this indicator. The wireless is using RFID to identify each scale.*
- b. 8" IPS Touch screen with True Color display.
- c. Menu could be clicked by fingers or Mouse (optional).
- d. Build-in Multiple Channels. *Default is 2 channels and maximum 16 channels.*
- e. Multiple working methods are optional.
- f. Records stored and could be inquired by "License Number", "Date", and more filters.
- g. Records could be export to USB drive / Smart Phone Application at any time with CVS format. *If LTE/5G communication is installed, data could be upload to cloud.*
- h. 1 Channel Static Weighing, 2 Channels Dynamic Weighing, 2 Channels Static Weighing, More Channels Static Weighing are build-in supported.

2. Specifications:

- a. Enclosure Material: ABS
- b. Units of Measurement: kg, ton, lb., kilo lb.
- c. Power Supply and Consumption:
AC Adopter 110 ~ 240V 50/60Hz. Rechargeable Battery 6V/4000mA
- d. Working Humidity: < 90% RH
- e. Working Temperature: -10°C to 60°C / 14°F to 140°F
- f. Driving Number of Load cells: Up to 24 x 350 Ω or 12 x 700 Ω
- g. A/D Converter: 24bit – 4.8kHz
- h. Conversions per second: 200/s
- i. Division: 1, 2, 5, 10, 15, 20, 25, 50
- j. Communication Interface: RS232, USB, Bluetooth, WIFI (Optional), LET/5G (Optional)
- k. Baud rate: 4800, 9600 bit/s
- l. Printer: Build-In Thermal Printer
- m. Mini Weighing Capability: 20e

3. Sample Picture:



4. Printing Tickets:

```
WEIGHING REPORT
-----
Department:HOLISCALE
Serial No.:00023
Date:05-05-2021
Time:16:25
Truck:ABCDEFGHI012
Operator:001
Driver:
Location:CHANGZHOU JIANGSU CHINA
-----
Speed:      0.8km/h
-----
Total weight: 5582kg
-----
No.1   Axle
Axle Weight: 2101kg
-----
No.2   Axle
Axle Weight: 1709kg
-----
No.3   Axle
Axle Weight: 1772kg
-----
```

Printing ticket sample for **Auto-Dynamic** Weighing

Department: Manual input. Blank information will not be printed.

Serial No: Generated by indicator.

Date and Time: Set in the system.

Truck: Vehicle License Number. Manual input.

Operator: For signature purpose.

Driver: For Signature purpose.

Location: Manual input. Blank information will not be printed.

Speed: System auto detect.

Total Weight: Auto Add up by system.

No.1 Axle: Two scales weights added.

WEIGHING REPORT

Department:HOLISCALE
Serial No.:00027
Date:05-05-2021
Time:16:27
Truck:ABCDEFGHI012
Operator:001
Driver:
Location:CHANGZHOU JIANGSU CHINA

Speed: 0.7km/h

Total weight: 5498kg

No.1 Axle Type: 1
Axle Weight: 2015kg

No.2 Axle Type: 5
Axle Weight: 3483kg

Printing ticket sample for **Manual-Dynamic**
Weighing

Department: Manual input. Blank information will not be printed.

Serial No: Generated by indicator.

Date and Time: Set in the system.

Truck: Vehicle License Number. Manual input.

Operator: For signature purpose.

Driver: For Signature purpose.

Location: Manual input. Blank information will not be printed.

Speed: System auto detect.

Total Weight: Auto calculated by system. *No.1*

Axle Type: Two scales weights allocated by system according to different Axle Type.

Axle Type: Manual Input.

WEIGHING REPORT

Department:HOLISCALE
Serial No.:00024
Date:05-05-2021
Time:16:25
Truck:ABCDEFGHI012
Operator:001
Driver:

Total weight: 5923kg

No. 1 Axle
Axle Weight: 1974kg
(CH A): 975kg
(CH B): 999kg

No. 2 Axle
Axle Weight: 1975kg
(CH A): 975kg
(CH B): 1000kg

No. 3 Axle
Axle Weight: 1974kg
(CH A): 975kg
(CH B): 999kg

Printing ticket sample for **Static** Weighing

Department: Manual input. Blank information will not be printed.

Serial No: Generated by indicator.

Date and Time: Set in the system.

Truck: Vehicle License Number. Manual input.

Operator: For signature purpose.

Driver: For Signature purpose.

Location: Disabled.

Total Weight: Auto added by system. *No.1*

Axle Type: Two scales weights added by system.

CH A: Scale weight on Channel A.

CH B: Scale weight on Channel B.

CHAPTER 2 SCALE SET-UP

1. Prepare:

a. Wired

Single Scale (Typical: Weighbridge): Connect your scale to the indicator Channel A OR Channel B.

Double Scale (Typical: Axle Scale): Connect your scale to the indicator Channel A AND Channel B.



Multiple Scale (Typical: Wheel Scale):

Connect your scale to the indicator Channel 1# and Channel 2# for the 1st axle, Channel 3# and Channel 4# for the 2nd axle, ... Channel 15# and Channel 16# for the 8th axle.

Combined Scale (Typical: Multi Decks Combined Weighbridge):

Connect 1st Deck to Channel 1#, 2nd Deck to Channel 2#, 3rd Dec to Channel 3#.

b. Wireless



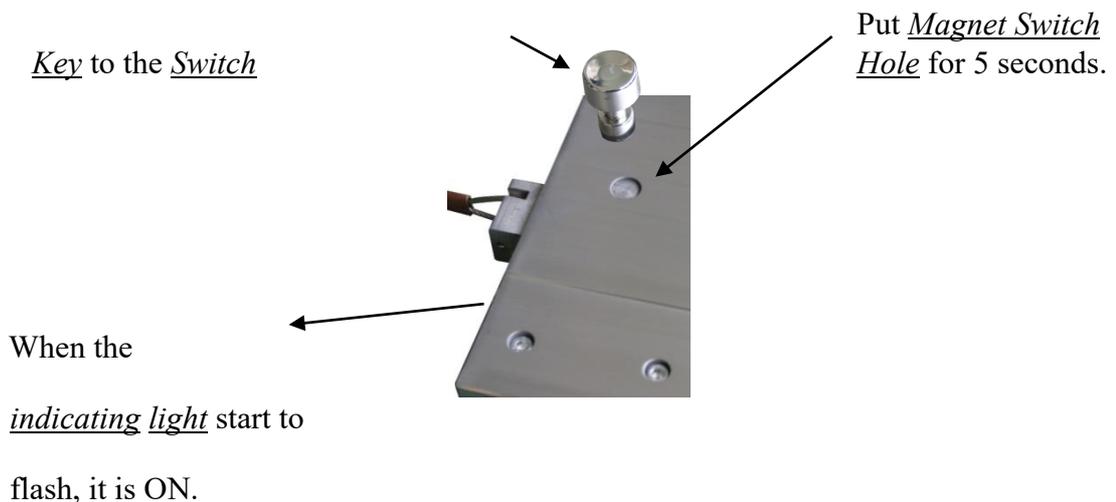
No cables required wireless version.

2. Portable Scales

- a. For portable scales, set-up for the portable scale will be as follows:
- b. Choose a flat area to place the portable scales. Make sure the scales are leveling on the ground without any movement.
- c. Be sure to clear the ground of any gravel or rocks to provide the best surface set-up.
- d. Always have the scales pointing towards the vehicle and vehicles should always enter centered over the scales.
- e. The distance between the pads will be dependent on the type of vehicles being weighed.
- f. For wireless scales, make sure the antenna is pointing to the indicator.

3. Switch on

- a. For Wired scales, switch on indicator.
- b. For Wireless scales, switch on scales first. Scales will start to look for indicator connection immediately.



- c. Please switch on the indicator within 1 minutes after scales are on to setup the connection. If the connection cannot be established, the scales will

automatically switch off. When indicator is switched off after work, the wireless scales will automatically switch off.

CHAPTER 3 SYSTEM OPERATION

1. User Interface

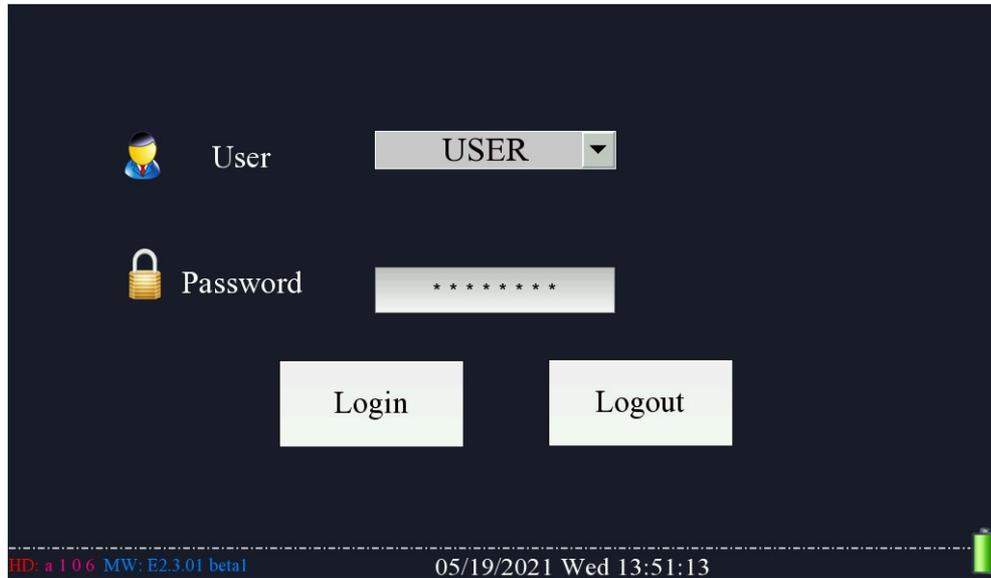
a. Switch On

Press the “Power” button on indicator first to start power supply. Please note the indicator should be charged or connected to the AC power supply.



The indicator will start self-checking process, and this will take up to 10 seconds.

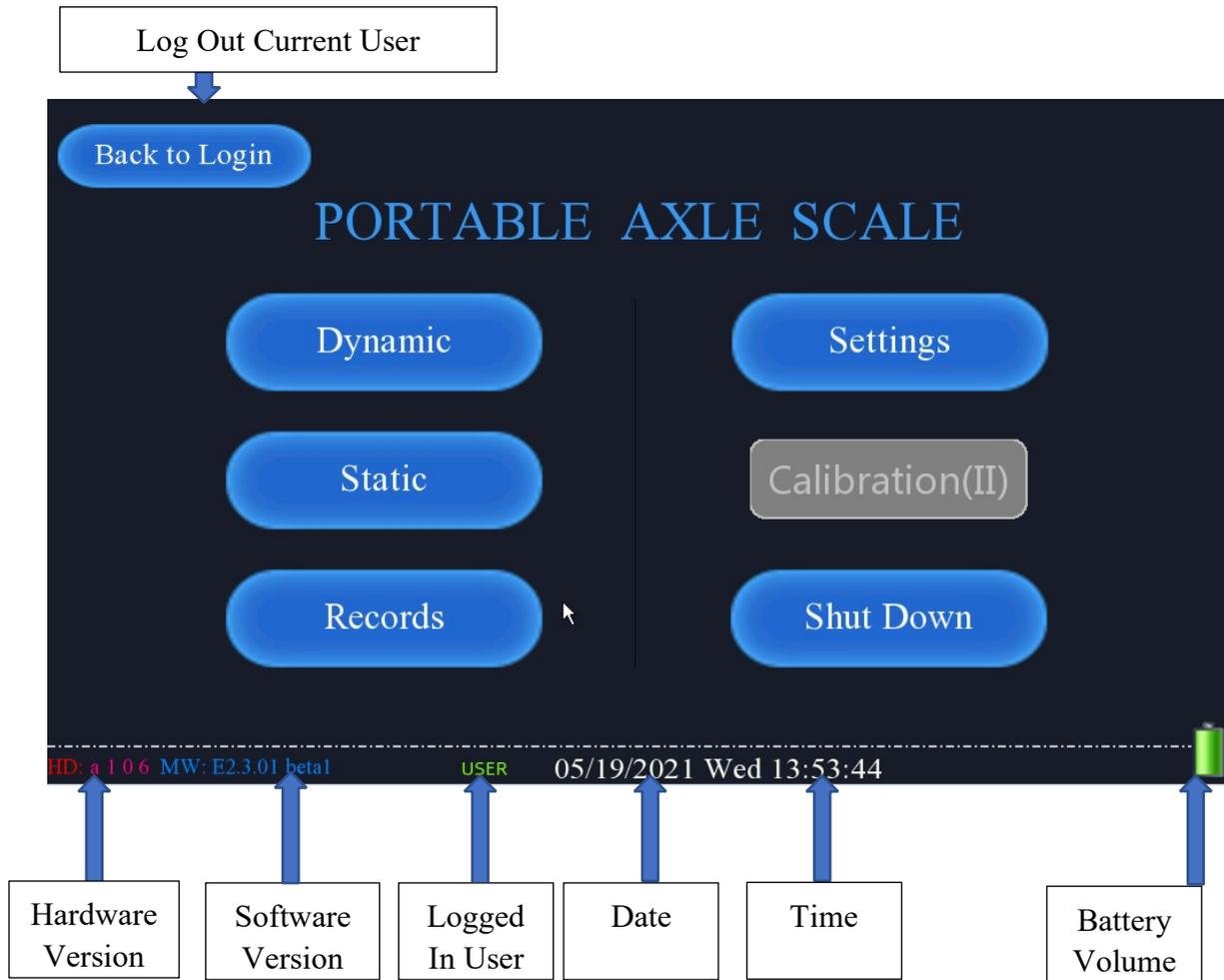
b. Login

A screenshot of a login interface on a dark background. At the top left is a user icon (a person with a yellow head) next to the text "User". To its right is a dropdown menu showing "USER" with a downward arrow. Below this is a padlock icon next to the text "Password". To its right is a password input field containing eight asterisks. At the bottom are two buttons: "Login" on the left and "Logout" on the right. At the very bottom of the screen, there is a status bar with red text "HD: a 1 0 6 MW: E2.3.01 beta1" on the left, white text "05/19/2021 Wed 13:51:13" in the center, and a green battery icon on the right.

The default password for “User” is “111111”. If this is incorrect, please check with your distributor. Please cation for password case when input.

Please note that only trained administrator is authorized to login as “Admin” to operate the system.

c. Interface



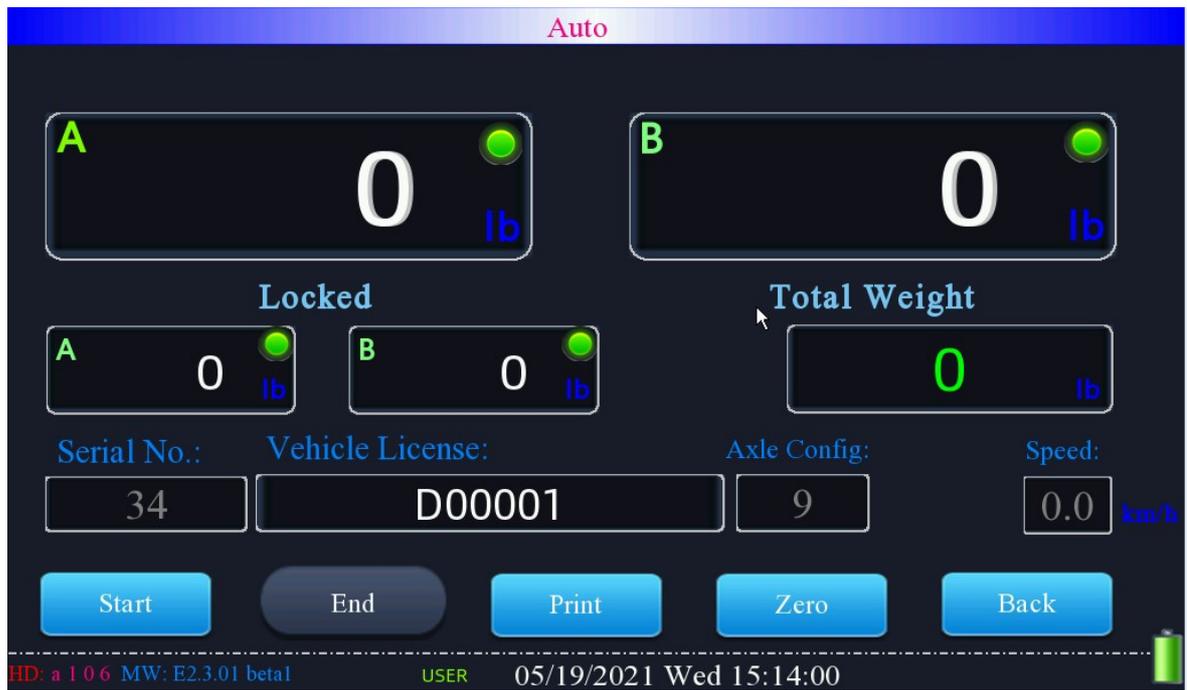
Please note for Wireless Edition, there will be “Signal” strength of Channel A and Channel B showing in below position.



2. In-Motion Weighing

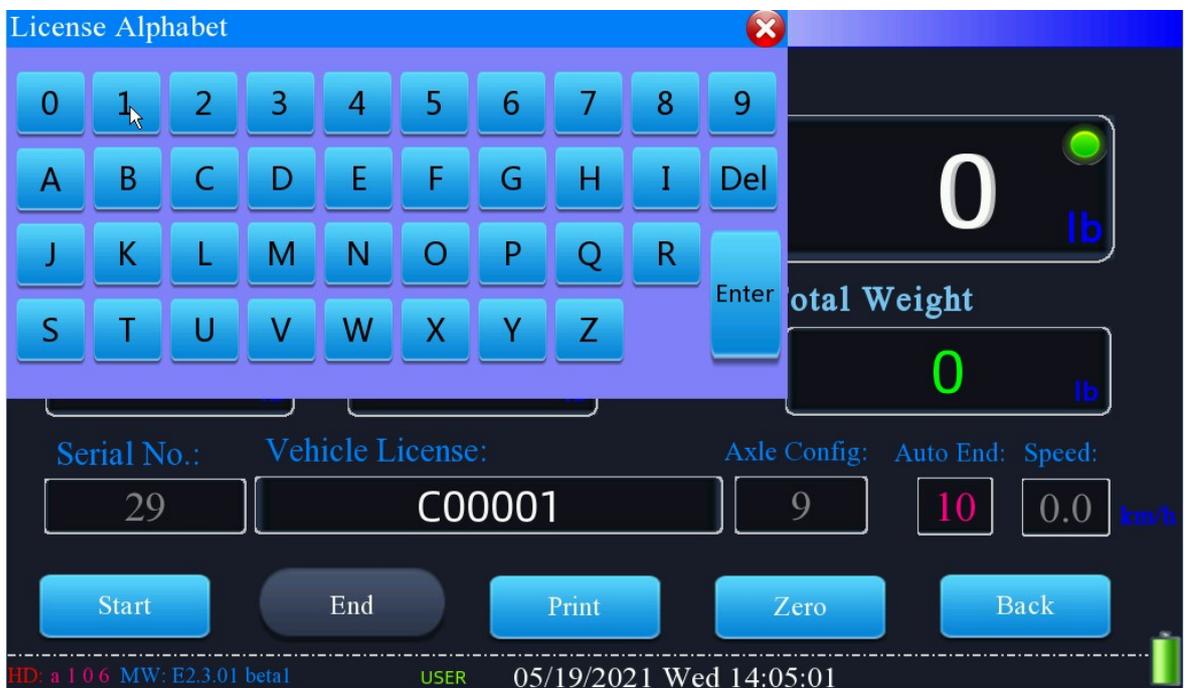
Click on “Dynamic” to enter In-Motion Weighing mode. There are two modes for In-Motion Weighing: Auto and Manual. In-Motion weighing mode can be selected in “Settings (I)”. In-Motion Weighing Modes are only accepted weighing data from Channel A and Channel B ports on Indicator.

a. Automatic (Unattended) Mode



Operation Step:

1). Enter Vehicle License Number by Click on the text box of “Vehicle License”. Or leave it blank as the system will automatically start and waiting for trucks.

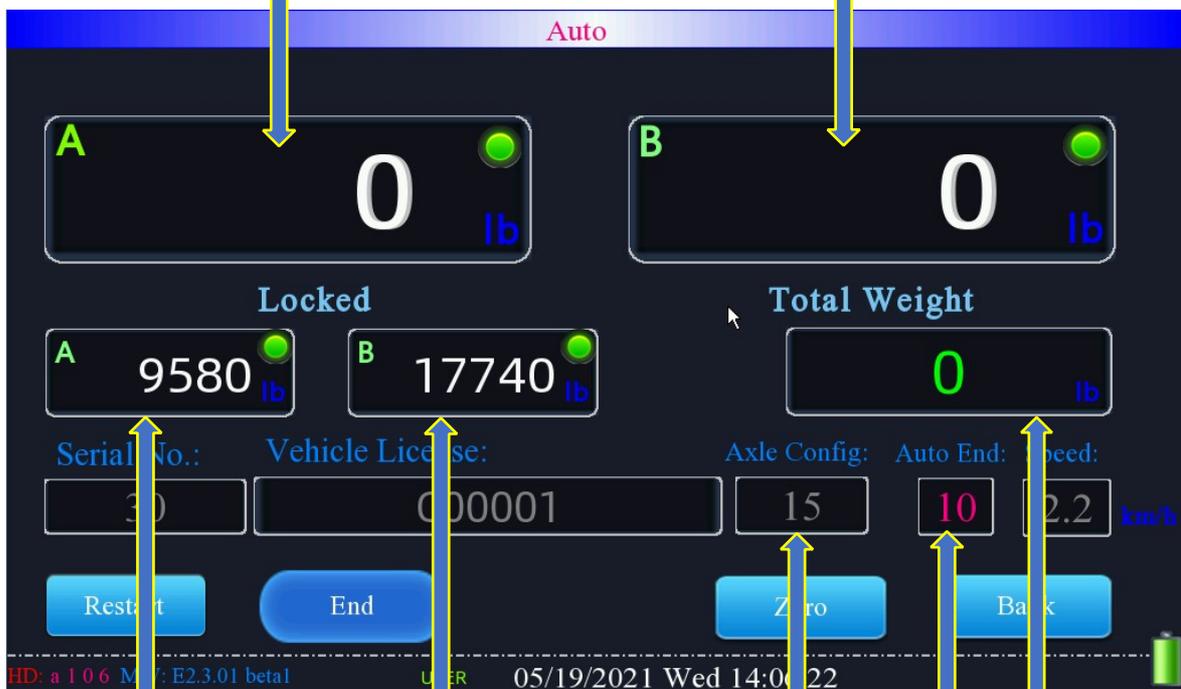


A soft keyboard will appear to enter the Vehicle License Number. It accepts maximum 10 digits. Use **Del** to delete one alphabet typed and click on **Enter** confirm typing.

2). The truck could go through the scale platforms because the system is automatically start and ready to weigh.

3). During weighing process, the windows will display the real time weighing data.

Real Time Weight Windows. It could be increased due to the wheel moving forward and system will capture the suitable data when wheel is on center of scale.



Captured Weights. This is weight on each scale of previous axle.

Axle Type will be determined by system.

Auto End Timer. This is the countdown timer to **End** weighing process. It is designed as unmanned. It is the same as press “END” button manually. The time could be set in settings and default setting is 20 seconds.

Total Weight Window. Final total weight will be calculated by system allocation according to different **Axle Type**, it could be different as all data sum up.

Restart

“Restart” button will make the system **DROP** all weighing data captured and start a completely **NEW** weighing session. The new weighing session will still use previous Vehicle License Number.

End

The “End” button will make the system complete current weighing session and continue to data calculation, report, and record process. When “Auto End” timer counts to 0, the system will automatically complete current weighing session and having the same process with “End” button is manually clicked.

Zero

“Zero” button will force the “**Real Time Weight Windows**” value to be

0. *Please note* this is usually used when scale platform is empty but there is residual data in “**Real Time Weight Windows**”.

Please note pressing this button will set a temporary “Zero” point in current weighing session and this could seriously affect the weighing accuracy in current session. When exit this application and start a new “**Auto In-Motion**” weighing session, the stored “Zero” point will be loaded.

Back “Back” will make the system stop everything and back to the main menu. In this case, the uncompleted weighing session data will NOT be stored.

4). After the whole truck has passed through the scale platform, the system will complete the weighing session automatically in certain time (default is 20 seconds). Or the weighing session is completed by manually clicking on “**End**”. The system will start data analysis. In this mode, the **Axle Type** will be automatically determined by the system. But the system will still give a chance for manual selecting:



When axle numbers match more **Axle Type**, a window will pop up an showing all types of axles. A recommended type has been filled in, but operator could select different axle type according to reality case.

Please select Axle Type within 6 seconds.
The default config is 127 .



The operator would select the suitable **Axle Type**, or the system will use the determined **Axle Type** in 10 seconds. Usually, the system determined **Axle Type** is correct but could be incorrect in some special purpose vehicle.

Print

5). If “**Auto Print**” is selected in “**Settings**”, the system will auto print ticket after current weighing session has been completed and data stored.

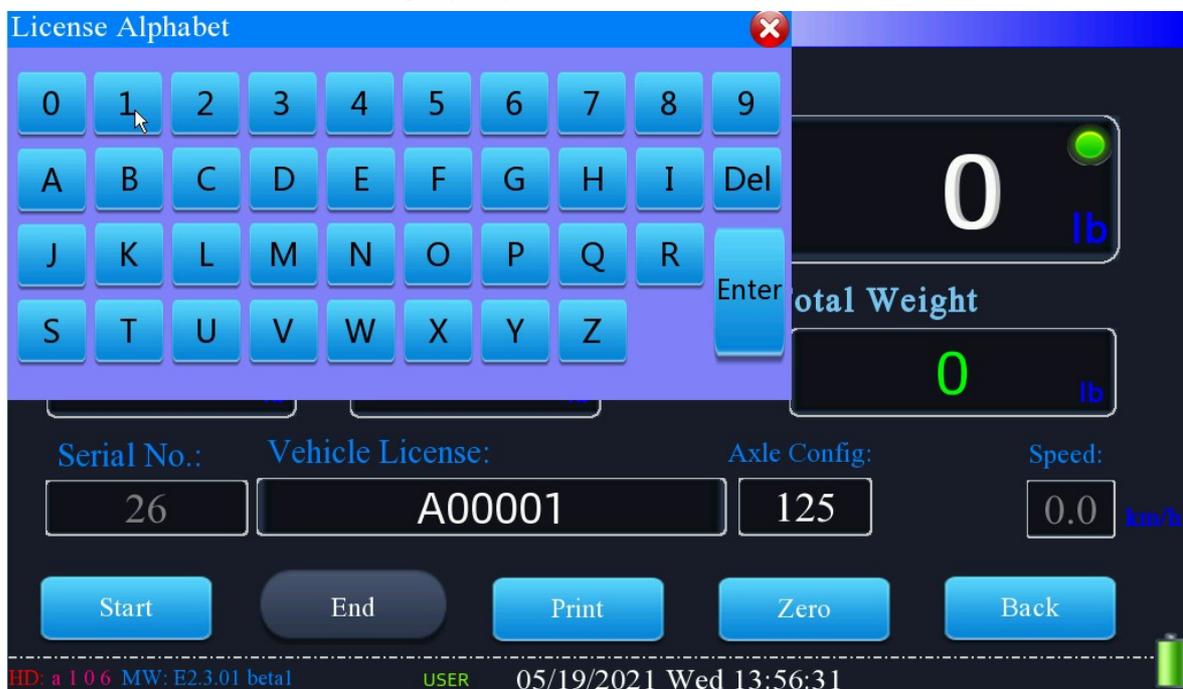
If

the “Auto Print” is not selected, the “Print” button will appear so that ticket could be manually printed. When ticket printing is not must and next vehicle comes to the scale platform, this button will disappear, and previous weighing data could only be found and printed from “Records”.

b. Manual Mode Operation

Step:

1). Enter Vehicle License Number by Click on the text box of “Vehicle License”. If operator does not input Vehicle License Number, previous filled information will be used and will affect the “Records Inquiry” by vehicle license number.

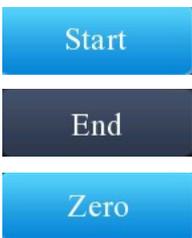


A soft keyboard will appear to enter the Vehicle License Number. It accepts maximum 10 digits. Use **Del** to delete one alphabet typed and click on **Enter** to confirm typing.

2). Select Axle Type by clicking on the text box of “Axle Config”. This is must input according to reality vehicle situation. Different axle type selecting would make the final total weights different because different vehicle will allocation different weights.



3). After everything is ready, click on “Start” to start weighing process.



Press “Start” button to start a new weighing session.

The “End” button will make the system stop current weighing session and drop all weighing data. Standby for a new weighing session again. The “Zero” button will force the “**Real Time Weight Windows**” value to be “0”. *Please note* this is usually used when scale platform is empty but

there is residual data on “Real Time Weight Windows”.

Please note pressing this button will set a temporary “Zero” point in current weighing session and this could seriously affect the weighing accuracy in current session. When exit this application and start a new “Manual In-Motion” weighing session, the stored “Zero” point will be loaded.



“Print” button will print the latest record.



“Back” will make the system stop back to the main menu. In this case, the uncompleted weighing session data will NOT be stored.

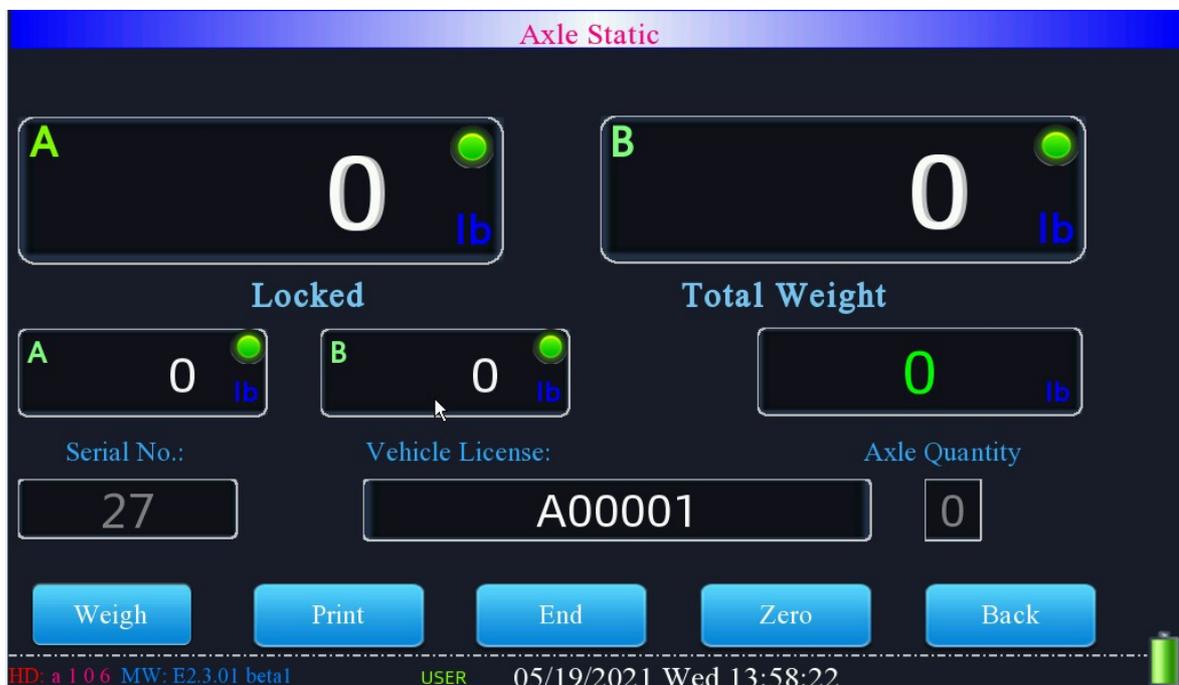
4). After the whole vehicle passed through the scale platform and all axles’ weights are captured, the system will auto end current weighing session. If “Auto Print” is selected in “Settings”, the system will auto print ticket after current weighing session has been completed and data stored. If the “Auto Print” is not selected, the system will auto end. At



this moment, when click on “Print”, the system will print weighing data in current weighing session.

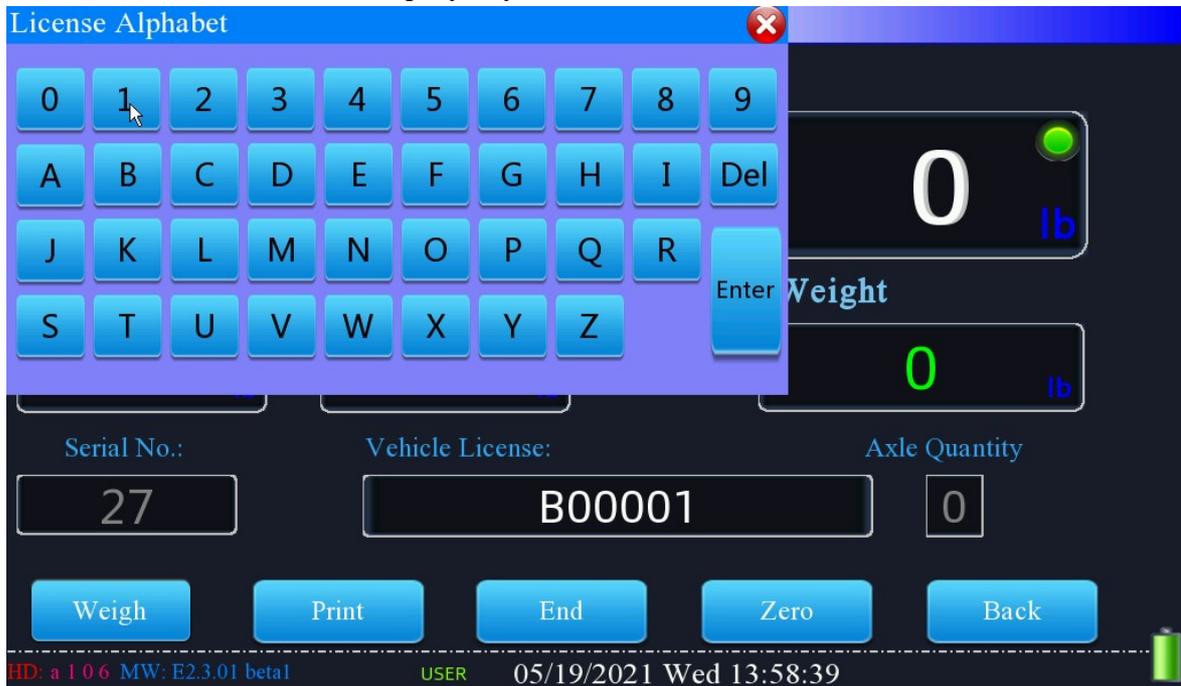
3. Static Weighing Mode

Click on “Static” to enter Static Weighing mode. This mode only accepts two scale platform data input from Channel A and Channel B.



Operation Step:

1). Enter Vehicle License Number by Click on the text box of “Vehicle License”. If operator does not input Vehicle License Number, previous filled information will be used and will affect the “Records Inquiry” by vehicle license number.

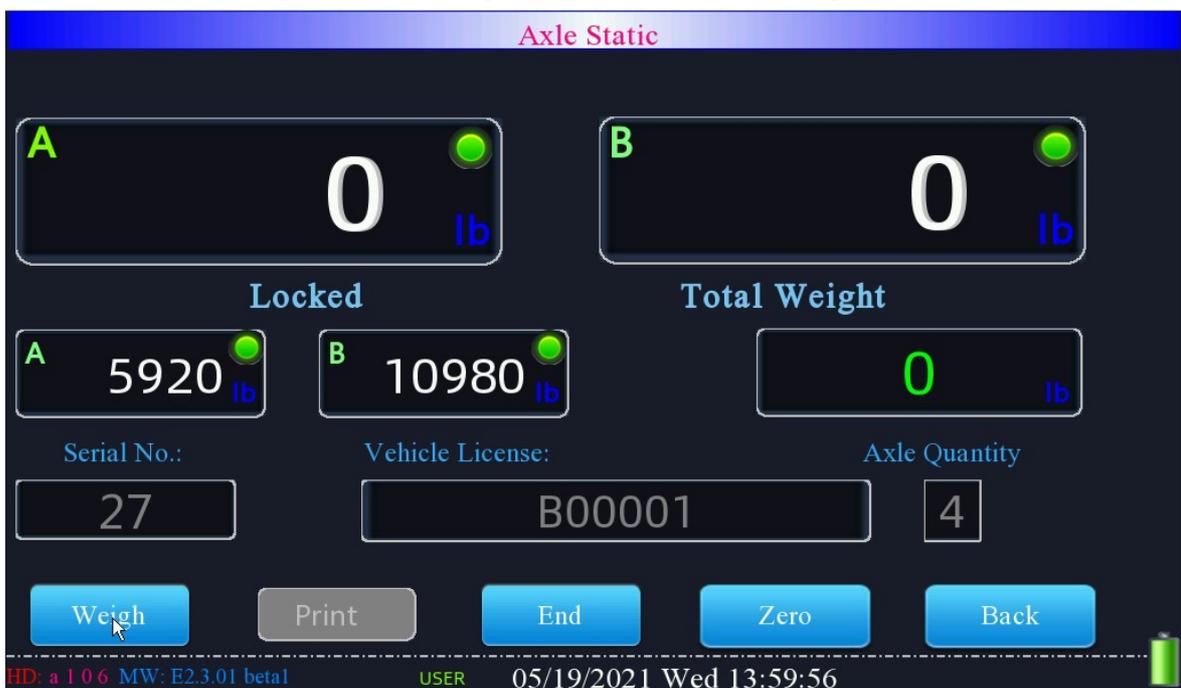


2). The vehicle will go onto the scale platform and stop the first axle on the scale platforms. When vehicle goes onto the scale platform, the system will determine the stability of the weighing data.

3). Make sure the wheels are completely standing on the scale platform center.

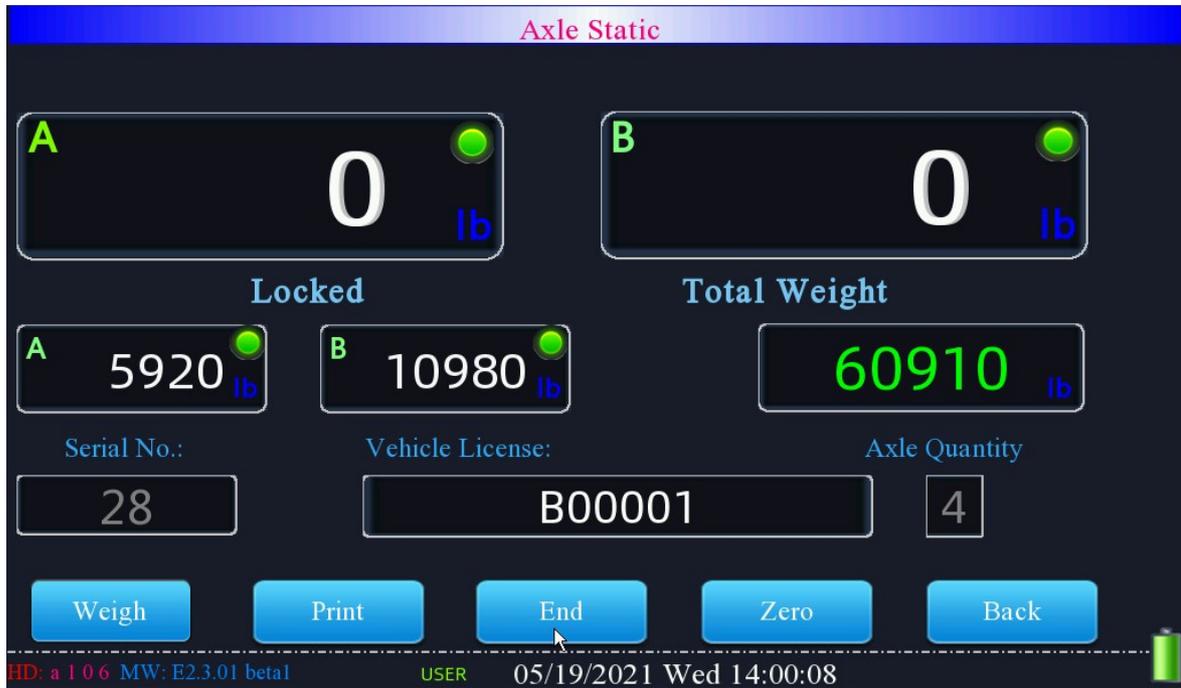


“Weigh” button to capture current real time weight.



“Weigh” button only available when the weighing data is stable. Click on

4). When current weight is captured, weighing data is in “Lock Windows”. Then the vehicle would move forward to weight the next axle. Repeat this until all axle weights are captured.



5). End current weighing session by click on “End” button. The “Axle Quantity” would display how many axle weights are captured. And total weight will be showed.

4. Records

Click on “Records” to enter data inquiry mode. All weighing records are stored in the database.

Move the bar right to find more axle weight records.

Scroll down the bar to find more records. The latest one will be on top.

| Serial | Date | Time | Vehicle License | Total Weight | Speed | Axle Config | Axle Type:1 | Axle Type:2 | Unit |
|--------|------------|-------|-----------------|--------------|-------|-------------|-------------|-------------|------|
| 33 | 05-19-2021 | 14:37 | C00001 | 65840 | 5.2 | 15 | 21960 | 43880 | lb |
| 32 | 05-19-2021 | 14:37 | C00001 | 68960 | 5.0 | 15 | 24970 | 43990 | lb |
| 31 | 05-19-2021 | 14:06 | C00001 | 53060 | 4.0 | 15 | 13980 | 39080 | lb |
| 30 | 05-19-2021 | 14:06 | C00001 | 77840 | 2.2 | 15 | 26270 | 51570 | lb |
| 29 | 05-19-2021 | 14:03 | B00001 | 17310 | 0.0 | 9 | 0 | 0 | lb |
| 27 | 05-19-2021 | 13:57 | A00001 | 72080 | 2.7 | 125 | 16860 | 20800 | lb |
| 26 | 05-15-2021 | 13:41 | ABCDEFGH | 4050 | 2.0 | 125 | 1200 | 1000 | lb |
| 24 | 05-15-2021 | 11:07 | ABCDEFGH | 11500 | 2.7 | 125 | 3068 | 3573 | lb |
| 23 | 05-15-2021 | 08:42 | ABCDEFGH | 4480 | 5.4 | 125 | 1265 | 1155 | lb |
| 22 | 05-15-2021 | 08:42 | ABCDEFGH | 9200 | 5.2 | 1257 | 1936 | 1627 | lb |
| 21 | 04-23-2021 | 18:15 | ABCDEFGH | 0 | 0.0 | 0 | 0 | 0 | lb |

Vehicle License:

Date:

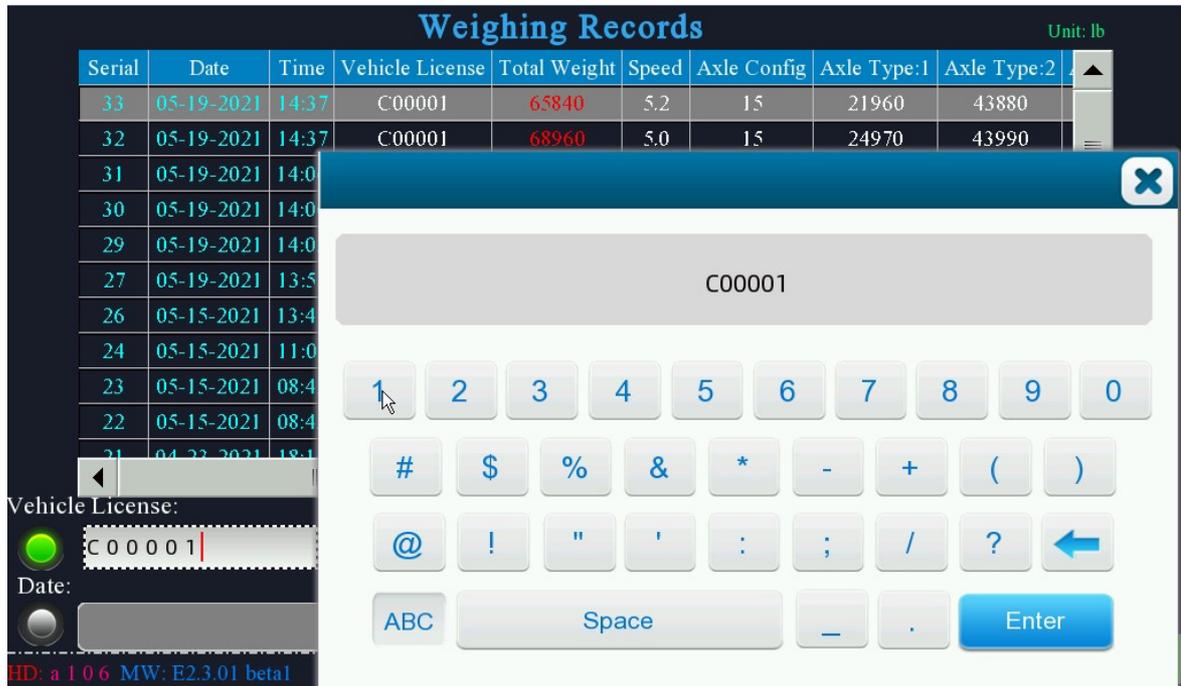
HD: a 1 0 6 MW: E2.3.01 beta1 USER 05/19/2021 Wed 14:3 08

All weighing data could export to USB driver by connect a USB Disk through USB port on Indicator. Data will be exported in CVS format.

For data safety purpose, please don't forget to reject the USB disk after exported data.

Caution: “Erase All” will erase all weighing data records and **NO WAY** to recover.

a. Inquiry by Vehicle License Number



Click on “Vehicle License” and input the Vehicle License number. Then click on “Inquiry” to look for the weighing data belongs to this vehicle number.



When finishing inquiry, click on  to return back to all weighing records.

“*Department*” There are 3 lines to enter the using department information including company name, company address, contact number, etc. The information will be printed in the weighing ticket.

Please note: Each line accepts maximum 128 alphabets.

“*Operator*” Enter the name of operator.

“*Manual*” It is set the system to Manual In-Motion Weighing

“*Auto*” It is set the system to Auto In-Motion (Unmanned) Weighing (see next page)

“*Speed*” It is selecting the speed unit - “km/h” or “mph”.

“*Print Mode*” Selecting whether ticket will be printed after weighing process completed

“*Auto*” Means the ticket will be printed automatically after weighing.

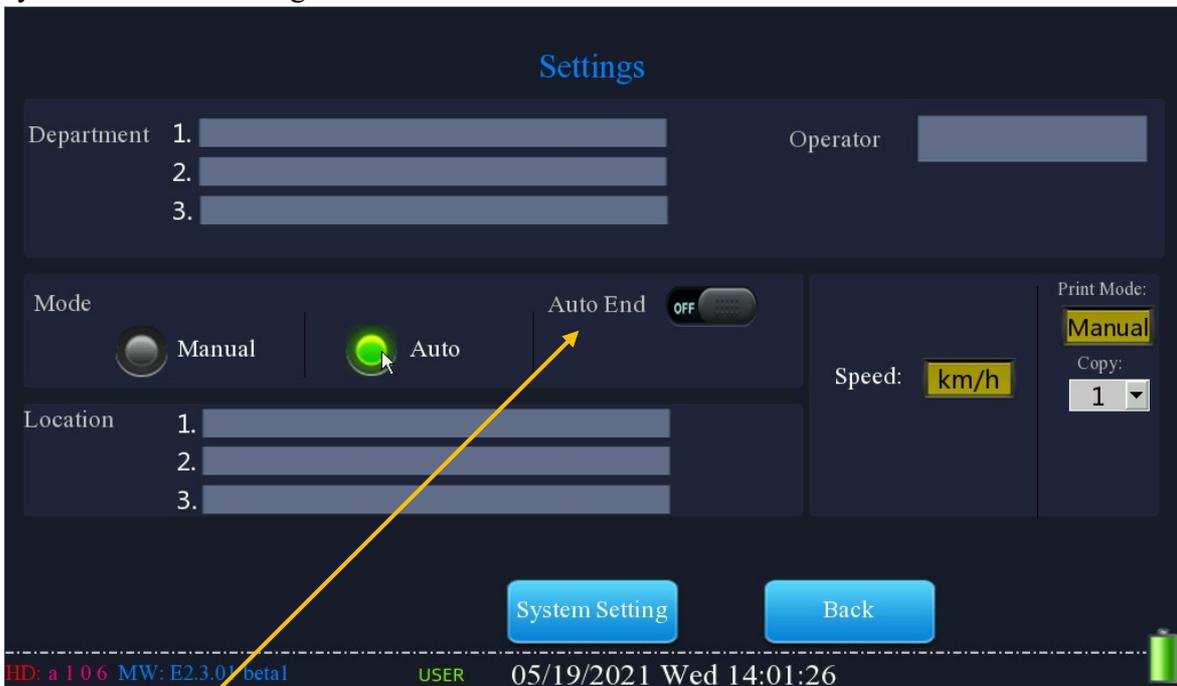
“*Manual*” Means the ticket will NOT be printed.

“*Copy*” It is to select tickets quantity each time prints.

“*Location*” There are 3 lines to enter the location of the weighing process. The information will be printed in the weighing ticket.

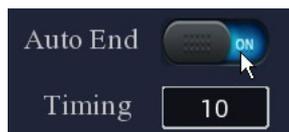
Please note: Each line accepts maximum 128 alphabets.

When “Auto” weighing mode is selected, there is an extra option of whether the unmanned system will be working.



It is the “Auto End” option.

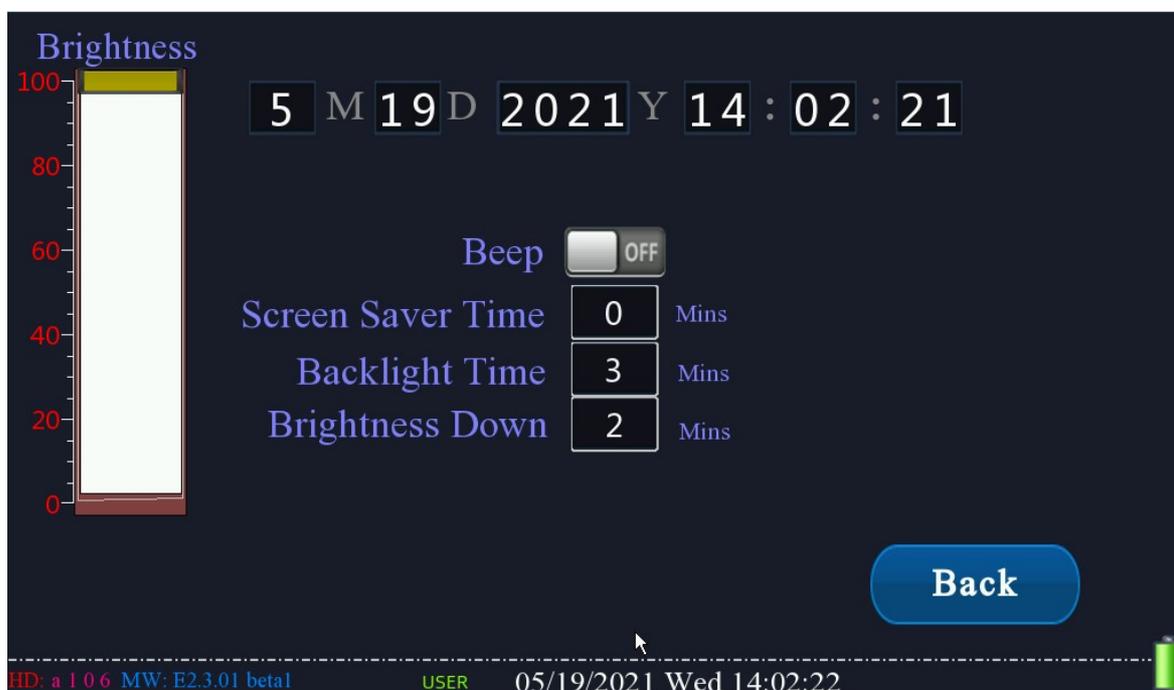
When this is ON, is 10 seconds. In countdown timer



the countdown timing can be changed. Default “Dynamic Weighing” the will be available.



In “System Setting”, brightness of the screen, date, time screen saver time, can be adjusted.



CHAPTER 4 MAINTENANCE

1. Charging

When the battery volume is less than 5%, we suggest charging the battery. The battery volume is shown on the digital indicator.

2. Storage

- a). This instrument is a precision instrument and please make sure the package is protecting the whole indicator when transportation.
- b). Please keep this instrument stored at a low humidity (<80%) and low temperature (<40°C) place.

3. Tips

- a. The touch screen is soft. Please use USB mouse, stylus pen, or your finger on the touch screen.
- b. In dynamic weighing, please make sure the vehicle speed is less than 10km/h and passing keep on average speed. Do not accelerate or decelerate the vehicle when driving over the scale.
- c. For your best accuracy have the vehicle start driving at a place 2 times longer than the overall length of the scale. Ensure the vehicle speed is stable when driving over the scales.
- d. **Do NOT open the indicator panel without authorization. This will void your Warranty immediately.**
- e. Consult with local scale distributor when experiencing any error codes or issues with accuracy. The in-motion scales are a very technical scale that should always be serviced by an expert.

4. Warranty

- a. The warranty period for this product is 2 years starting from the date of delivery.
- b. The firmware can be updated free of charge when a new version is launched. Please check with your scale distributor for new version and update.