Kegscales KS-1

V1.0

Introduction:

The Kegscales KS-1 have been designed to be placed under a keg to measure the kegs change in weight while the keg is dispensed. This can be used to determine how much beer is left in a keg, or how much CO2 is remaining in a bottle.

This information is wirelessly transmitted using Bluetooth Low Energy (BLE) beacons. All the user needs to do is turn the scales on and place the keg to be monitored on the scales. The weight can then be wirelessly monitored using the Keg scales app, available for both Apple and Android devices.

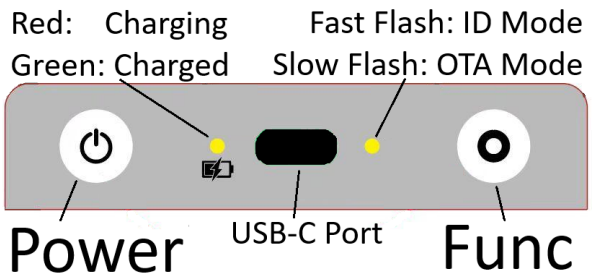
Download on the App Store

GET IN ON Google Play

Important notes

- The Kegscales will transmit the weight information every 30 Seconds.
- The Kegscales measures weight change in 4g increments.
- The Kegscales have a temperature probe which can be used to monitor the temperature of the fridge the beer is stored in.

The Buttons:



Power Button:

Hold this down to turn the device on or off.

Function Button:

Press while device is on to enter 'ID' mode, where data is sent more regularly.

Pressing again while in 'ID' mode will cancel the ID mode.

Kegscale Functions

2. **Power On the Device**:
    - Press and hold the **Power Button** to turn on the device.
    - A power on tune will play and the scales will automatically enter Identification mode for 30 seconds
    - Once the ID mode has timed out, the device will broadcast every 30 seconds.
3. **Power Off the Device**:
    - Press and hold the **Power Button** to turn off the device.
    - The device will play a power-down tune and power off.
4. **Start Identification Mode (Function Button Short Press)**:
    - Press the **Function Button** to toggle Identification mode.
    - when Identification mode is enabled, the device will play the “Identification on” tune and start broadcasting Eddystone packets every 1 second.
    - LED will blink every second to indicate the device is in Identification mode.
    - Short press the **Function Button** again to cancel Identification mode. A short “Identification off” tune will play to indicate the scales have stopped broadcasting frequently.
5. **“beep”**
    - Short pressing the power button while the device is asleep will wake the scales up, sound a short beep, send a single packet, and put the device back to sleep.

      This is a good way to check if your scales are still powered on without having to put the device into ID mode.

ADVANCED FUNCTIONS:

6. **Clear Tare (Function Button Long Press) [ADVANCED FUNCTION]**:

   The user should not need to perform this function as the tare is calculated in the app. Adjusting the tare here will result in any existing tared values in the linked app to become incorrect.
    - Press and hold both the **Function Button**.
    - The device will beep twice to indicate it is entering calibration mode. The LED will also turn on.
    - Let go of the device. When the weight is stable, the device will clear the tare value and emit a **double beep** to confirm. The LED will turn off.

7. **Calibration Mode (Both Buttons Long Press) [ADVANCED FUNCTION]**:

   The user should never need to do the following as the scales come calibrated from the factory. Performing the following operation will affect the weight accuracy. You will need a 20Kg known weight to perform the calibration. Adjusting the calibration here will result in any existing tared values in the linked app to become incorrect.

   - Press and hold the **Function Button** for 10-15 seconds,
   - the device will enter **Calibration Mode** and emit a **triple beep**. The LED will blink quickly
     1. Remove all weight from the scales and place on a solid surface
   - Short press the Function Button again
     1. The scales will wait for the weight to stabilise and then beep three times
   - Place 20KG weight on scales
   - Short press the **Function button** again
     1. The scales will wait for the weight to stabilise and then beep three times
   - Calibration is now complete.

OTA Update Mode

To update the firmware on the device please do the following

- Power off the device by holding the power button until you hear the power off chime
- Power the device back on WHILE HOLDING the **Function Button.**
- release the buttons
- The device will beep 4 times, signifying it has entered OTA mode.
  - Please use your phone, or a computer to connect the Wireless Access Point labelled 'Kegscales KS-1'
  - (you may need to tell your phone/PC to "connect to this network anyway", Ignore any captive portal screen that may come up at this point.)
  - Open a browser (Google Chrome, Safari, Firefox, etc) and enter any "http://" address eg: http://keg.sc
  - You will be redirected to the firmware update page
  - Select the binary image that was previously downloaded using the 'Browse' button
  - Select 'Upload'
  - The scales will perform the update and reboot when completed.
  - If you have an error during the upload process, refresh the browser window to retry the upload.

Usage:

The Kegscales are intended to be used with a companion app which can be found through the google play store, or the apple app store. Please scan the QR codes below for links

1. Please download the corresponding app and follow the instructions from in the app.

Charging:

We recommend charging your Kegscales when you change your keg. To charge the device, connect a USB-A to USB-C cable. The Kegscales will turn on when the device is connected to a valid charging source. The LED Charging indicator will turn RED. When charging is complete, the charging indicator will turn GREEN. The Kegscales will only charge when connected to a standard USB-A port. It does not support USB-PD or charging from a USB-C source. Expected charge time from empty battery to full is about 6-7 hours.

The Kegscales can be permanently connected to a compatible USB power cable

Specifications:

Specifications are subject to change without notice and are intended as a guide only.

1. Kegscale KS-1 Dimensions:
    a. Diameter: 215mm
    b. Height: 26mm
    c. Weight: 465g (615g)
2. Box:
    a. Dimensions : 265 mm x 250 mm x 32 mm
    b. Weight: 615 g
3. Weight
    a. Resolution: 4 g
    b. Accuracy: +/- 4g
4. BLE transmit rate:
    a. Normal Operation: 30 seconds
    b. ID Mode: 0.5 - 1 seconds
5. Battery Specifications
    a. 4 x 146501500 mAh Li-ion 3.7V
    b. Expected Battery life (depending on usage) 1-2 months
6. Temperature:
    a. Sensor Accuracy: +/- 1C