## Imperial Stone Feet (iPhone/iPad/iPod touch application)

## Operation manual <br> Ver 1.1 (2019/ 2/ 4)

At the beginning: Please touch the numeric location "where you want to input or change" in the sheet. Numeric is entered. And calculation result is automatically displayed when you fill desired value.
No explanation is necessary for basic calculations, I think. This manual includes only the minimum functional description.

Attention: This application is intended to modify numeric easily. Conversely, numeric may be changed by unintentionally touch. Please check by yourself carefully any value, if you use it to practical purpose.
I make no warranty and can't respond to claims of any kind of damage.

* It is Imperial units and United States customary units calculator application. In this manual, only 'Imperial units' is used to mention these units.


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(All figures in this manual is iPhone 3.5inch, iOS9.x)

## Calculation Sheet

2 addition sheets (below), 2 multiplication sheets, and 1 total sheet are attached.(See P.8)

## Length


+

$+$ OydOft00.00in


Selector: The thin color small square is a selector. You can choose by the touch (up or down) from the defined content. When numeric exists on the sheet, it becomes thick border and touch operation doesn't work.

Numeric part: The thin color large squares are for numerical input or calculation result display. Input guide numeric is dimmed before entering numeric in the input section. Touch directly the most significant digit of the numeric. The digit changes by the following action. Adjust each digit to necessary numerical values by repeatedly similar touch actions. (See P.4)

Keyboard appears if you press the left side button. (Before numeric input. See P.5)
Button becomes 'lock' when numeric exist. You can lock the numeric by it.
3 sets display format are selectable by this button. Series of Imperial units, metric unit with prefix and Imperial single unit.

Label part: Dark color behind has the below mentioned functions.
Sheet Change: Touch and move right or move left.
Select calculation (addition, multiplication sheets only):
Touch and move down or move up.
Copy/Paste a sheet: Touch and select from balloon.
(Selector is available in the case it works.)
Sheet text is stored in pasteboard. You can paste it into another application like E-mail. When pasting, all numerical is fit to setting of the field. But locked field is skipped.

Where it is not the input section, a touch changes it to the input section.

Clear this sheet numerical (excluding memory) or selected one numerical/memory.

## Numerical Input

The touch operation differs whether in blank or on numeric.

## 10 <br> 5yd2ft10.000in

On numeric, value of below table is added to or subtracted from the touched digit.
When moving up or down, continuous operation is allowed, to adjust the value. Only the touched digit is affected and other digits are kept.

In blank, right table functions are attached.



* mark functions don't work on series format of Imperial units.


## Copy/Paste a numeric

(1) Touch blank in front of the numeric you want to copy. It becomes thin color.
(2) Touch destination numeric field. The value (1) is copied. Or touch again same (1). The value is stored in pasteboard.
(3) At no input situation on the input field, by a touch blank in front of numeric guide, the value in pasteboard is pasted.

The memory button is possible to use instead of numeric field.
Each sheet calculation is done when that can be calculated.

## Keyboard



## System Settings

## Rounding

| $\cdot$ | 0 | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\cdot$ $/ 4$ $/ 8$ $/ 16$ 132 $/ 64$  <br> $\\|$       |  |  |  |  |  |  |

- Number is decimal part length.'.' allows below fraction setting.

Length/Area

| MYFI | MYI | MFI | MY | MF | YI | FI | Length and area units used in series format of Imperial units. (First letter of units.) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| SI |  |  | Survey |  | Army |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Volume |  |  |  |  |  |  |  |
| GQF |  | GPO | G | G | GO |  | PO |
| UK | Wet | Dry | Oil | Bee. | FDA | CA | AU |

Length and area type of conversion between Imperial and metric units. International, US survey or US army (International+differ ‘Cable’).


Metric prefix

- c,d,dah Exp

Volume units used in series format of Imperial units. (First letter of units.)
Volume type of conversion between Imperial and metric units. UK, US fluid, US dry, US Oil*1, US Beer*1, US FDA, Canada*2 or Australia*3. *1...US fluid+differ 'bbl', *2...US fluid+differ 'cup/tea spoon/table spoon' *3...UK+differ 'cup/tea spoon/table spoon'
-Mass units used in series format of Imperial units. (First letter of units.)
Mass type of Imperial units. UK(long) or US(short).


Metric prefix of 3 N exponent, in addition metric prefix of $-2,-1,1,2$ exponent, or exponential display.

Reset: Use it only when you want to initialize this application.
Reload: Return to the situation this application starts.

## Notes

* Imperial units in numeric are shown with abbreviated form. These are shortened for display convenience and don't always match with their accustomed from.
* The number of digits is deleted to the level which the numeric including unit hasn't difficulty to display and operate in each format.
* 'ha' of area is described by $\mathrm{h}+$ are(modified from $\mathrm{m}^{2}$ ) in metric with prefix format.

* Ratio sheet (attached to Addition sheet) bottom 2 numerics are the same value.
You can use these for unit conversion. Or addition with 0 can be used as a conversion.
* Metric prefix is adjusted to most suitable form after conversion or in the result. So input side adjustment is necessary for conversion of value with prefix.


## Attached calculations in this Application

This application is specialized to Imperial or US customary units calculation. By scrolling right and left, you can switch the sheet to other sheet.

| 1. Addition/Proportion* | 2. Multiplication* |  |  |  |  | 3. Total calculation (2items) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Length | Mass |  | Length |  |  | L*L*L - V |  | L* $\mathrm{L} \rightarrow \mathrm{A}$ |  |
| 20 10.32in | 1- | $5 \mathrm{st} \mathrm{6.001b}$ | 10 | 1ft 0.32in |  | 10 | 2ft 0.00in | 1- | 2 yd 4.00 in |
| $20+1$ ft11.00in |  | 2st 4.00lb |  | $\times$ |  |  |  |  | 3yd 6.00 in |
| 2) 1ft11.00in | 20 | 2st 4.00lb | E |  | 2.00 | 20 | 2 ft 0.00 in | 20 | $3 y d 6.00 \mathrm{in}$ |
| コ) $+\stackrel{+}{210.00 m m}$ | 1- | 3.00 kg | I | * | 3.00 | 20 | 2ft 0.00in | 10 | + ${ }^{+}$yd 0.12in |
| + |  | 3.00 kg |  | $\times$ |  |  | 2t 0.00 in |  | Iyd 0.12in |
| 2- 3.20ch | - | 1.26kg | 而 |  | 5.00 | a | 128.00 | 1- | Oyd32.00in |
| d |  | ॥ |  | $\downarrow$ |  |  | $\times$ |  | $\downarrow$ |
| 2. 71yd1ft 8.0in | 20 | 3.38 lb t | 20 | 10 yd | 9.6in | 2) | pt 2.29foz | 20 | 7yd ${ }^{2} 747.8 \mathrm{in}^{2}$ |

```
Volume
```

a) 1pt 0.00foz

ב. $3,200.00 \mathrm{~mm}^{3}$
B) 8.00yd
a. $1,200.00 \mathrm{in}^{3}$ $+$
1341gl1qt0pt
*By scrolling up and down, you can switch to other calculation in the sheet.

## Modification history

## Modifications - Ver1.1

- Delete twitter button because iOS11 or after doesn't support it.
- iPhoneX/XR/XS display.
- Adjustment of operator label location.
- Bug fix of wrong keyboard label case.
- Bug fix of the wrong case addition/proportion sheet switching.
- Bug fix of pico unavailable touch modification.

