Custom Unit: Smart+

The custom unit is a user configurable unit of measure which is associated with the scale weight or piece count. The custom unit feature can be used as a softkey or recalled from the database.

Demo of custom unit as a softkey:

In this demo we will convert a weight value to a volume, we will convert kilograms to liters, we could just as easily convert from pounds to quarts. In order to use the custom unit we have to know the conversion factor, for our demo we will use whole milk. A typical density for whole milk is 1.03 kg / liter. With this conversion factor we will use the Smart+ to convert weight in grams to liters, where one liter will weigh 1.03 kg.
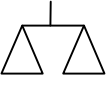
1.03 kg net = 1 liter
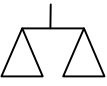
Let's set up a softkey for Custom Unit by changing softkey 6 from Big Display to Custom Unit (CU).

Supervisor Setup:
Application / Softkeys /Softkey 6 / Edit / Custom Unit / OK / End / Save / Yes

N	0.000 kg		0.000 kg
T	0.000 kg		
G	0.000 kg		

⚖	Smpl 10	Smpl n	APW	Unit	CU
▲	▲	▲	▲	▲	▲

Now let's setup the custom unit for whole milk.

N	0.000 kg				
T	0.000 kg				**0.000** kg
G	0.000 kg				

⎪△△⎪	**Smpl 10**	**Smpl n**	**APW**	**Unit**	**CU**
▲	▲	▲	▲	▲	▲

Touch the CU key
The Custom Unit screen will open.

N	0.000 kg				
T	0.000 kg				
G	0.000 kg				**1**
Factor = 1					

SetUnit	**Factor**	**Format**	**Recall**	**Save**	**ESC**
▲	▲	▲	▲	▲	▲

Set the Unit to Liter
Touch the "SetUnit" key, and key in the unit name of "Liter". Use the right hand keypad to key numbers, lower case and upper case characters. Close with OK key.

					ABC

Unit = Liter					
	Erase	**<**	**>**	**OK**	**Cancel**
▲	▲	▲	▲	▲	▲

At the top right corner of the display is the text "ABC", this indicates that the keypad is set for Upper Case characters. By touching the "Shift" key, which is the arrow key at the top left position of the keypad, you can rotate the character function from upper case, **ABC**, lower case, **abc**, and numeric, **123**.

Shift Key →	↑	🖺	i
	1 -,/&	**2** abc	**3** def
	4 ghi	**5** jkl	**6** mno
	7 pqrs	**8** tuv	**9** wxy
	. +…	**0** [__]	**C**

Touch the "Factor" key.

Current Factor = **1**					
SetFact	**Build**			**OK**	**Cancel**
▲	▲	▲	▲	▲	▲
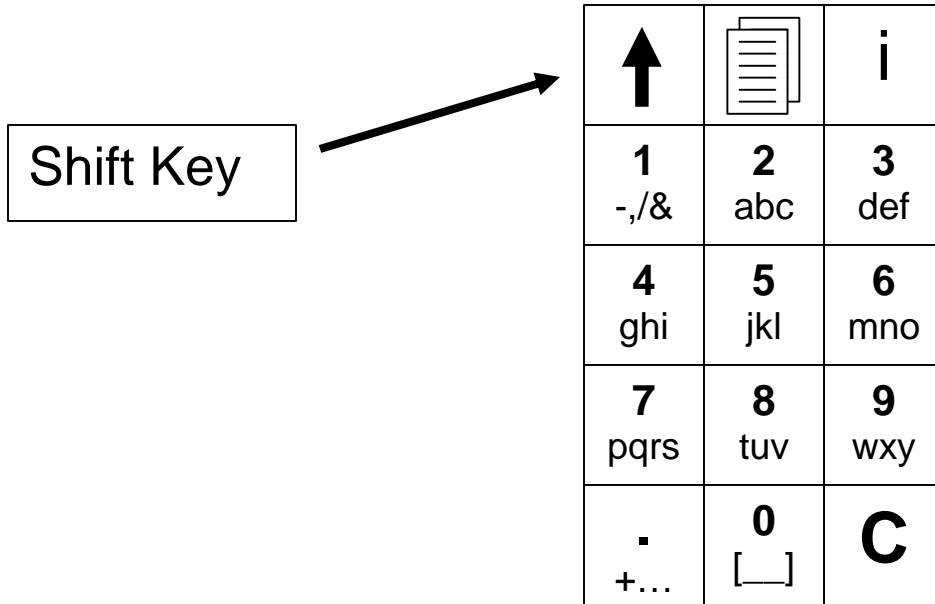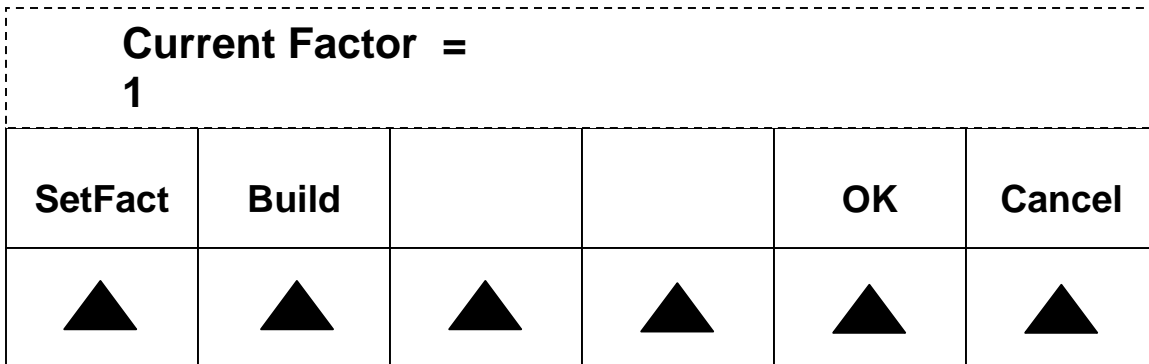
Touch the "SetFact" key, and key in the factor required for our conversion, to convert from weight to custom units.

1.03 Kg = 1 Liter, therefore

1 kg = 0.970874 liters.

	Factor: 1 kg = 0.970874 Liters				
	Erase	**<**	**>**	**OK**	**Cancel**
▲	▲	▲	▲	▲	▲

Close with the "OK" key. The current value is now displayed.

Current Factor = **0.970874**					
SetFact	**Build**			**OK**	**Cancel**
▲	▲	▲	▲	▲	▲

Close with the "OK" key.

N 0.000 kg T 0.000 kg G 0.000 kg **Factor = 0.980874**				0	
SetUnit	**Factor**	**Format**	**Recall**	**Save**	**ESC**
▲	▲	▲	▲	▲	▲

Touch the "Format" key to set the precision of the custom unit.

Format =					
1					
1	**0.1**	**(0.01)**	**0.001**	**OK**	**Cancel**
▲	▲	▲	▲	▲	▲

For demo touch the "0.01" key to set our precision at 0.01 liters. Close with the "OK" key. The display now shows the weight value in our custom unit of liters.

N 0.000 kg					0.00
T 0.000 kg G 0.000 kg **Factor = 0.970874**					**Liter**
SetUnit	**Factor**	**Format**	**Recall**	**Save**	**ESC**
▲	▲	▲	▲	▲	▲

If we want to save this custom unit for future recall, we can do so.

New					
▲			**Delete**	**Save**	**Cancel**
▲	▲	▲	▲	▲	▲

Touch the "Save" key

| **Factorname** | | | | | |
=					
	Erase	**<**	**>**	**OK**	**Cancel**
▲	▲	▲	▲	▲	▲

Key in the factor name, "Whole Milk", using the right hand key pad, then touch the "OK" key.

Now the custom unit is saved. To recall the customer unit, touch the "Recall" key.

N 0.000 kg T 0.000 kg G 0.000 kg **Factor = 0.970874**				0.00 **Liter**	
SetUnit	**Factor**	**Format**	**Recall**	**Save**	**ESC**
▲	▲	▲	▲	▲	▲

Use the Up / Down arrows to high the desired custom unit, then touch the "Recall" key, the scale will display the weight in the custom unit.
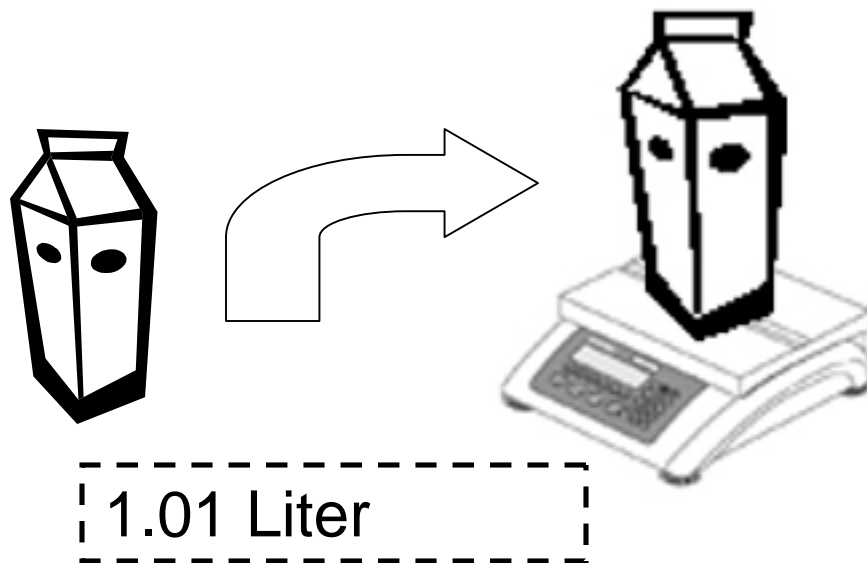
1% Milk **2% Milk** **Whole Milk**					
▲	▼			**Recall**	**Cancel**
▲	▲	▲	▲	▲	▲

Keep in mind with this demo, that you will have to tare the weight of an empty container in order to get the net volume of liters.

Here are three methods of taring the empty container weight, in weight units, not custom units.

- Place an empty container on the scale, then touch the "Tare" key. Then remove the empty container.
- Setup a PreTare softykey in setup. Then touch the "PT" key and then key in a known tare weight value.
- Use a short entry mode for known tare, example: 0.04 kg. Key in 0.04 then touch the "Tare" key. Use a leading zero for tare weights less than one (1).

After the tare is completed, load the scale with filled container to measure the net weight in custom units.

1.01 Liter

End of demo.