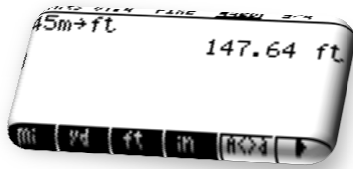


Units add-in



Introduction

“Units” is a conversion add-in for Casio fx-9860. It knows about 200 different units of measurement.

It can convert: Length, Area, Volume, Weight, Temperature, Pressure, Power, Energy, Data storage, Bandwidth, Time, Frequency, Speed, Acceleration, Force and Volume Flow Rate.

Often we want to convert between SI units, like “meter” or “kilogram”, and Imperial units or US customary units, like “psi” or “gallon” and the fx-9860 doesn’t have that science tool. So I’ve decided to write this program to help me out.

For more information’s on calculations about units of measurement, please see:

http://en.wikipedia.org/wiki/Units_of_measurement

All units’ names are printed in English although I’m planning on a translation scheme.

Worked Examples

Simple conversions



Convert 45 meter to feet: (45m -> ft)

[AC]

[4][5][ALPHA][M][->][SHIFT][ALPHA][F][T][EXE] or

[4][5][F1][F1][->][F6][F6][F3][EXE]



Convert 12.5 liter to gallon: (12.5L -> gal)

[AC]

[1][2][.][5][F5][ALPHA][L][->][F5][SHIFT][ALPHA][g][a][l][EXE]

or [1][2][.][5][F3][F6][F1][->][F6][F6][F2][EXE]

Showing unit’s name



To obtain the unit’s name, simply press OPTN at any sub-menu

[AC] [F1] [OPTN]

Pressing [OPTN] at the main menu shows building date.

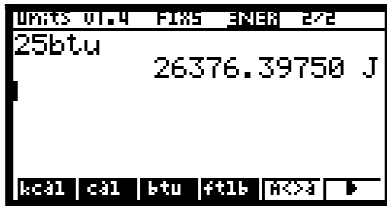
Reducing to SI



Converting 25 lb to standard international units (Kg)

[AC][2][5] [SHIFT][ALPHA][l][b][EXE]

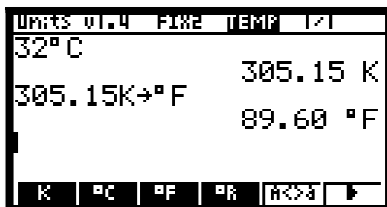
Changing default precision



Converting 25 btu to Joules with 5 decimal digits

[AC][SHIFT][SETUP][5][25][F6][F4][F6][F3][EXE]

Pasting the result to next conversion



Converting 32°C to SI and then to Fahrenheit

[AC][3][2][,][F5][ALPHA][C][EXE]

[SHIFT][ANS][->][F6][F1][F3][EXE]

Calculations

Addition

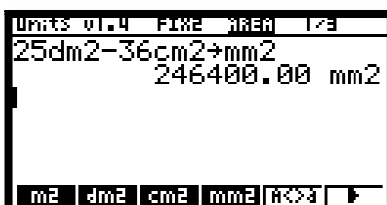


NOTE: Only one operation is allowed per line

32 cm + 123.25 mm reduced to SI units (meter)

[AC][2][5][F1][F3][+][1][2][3][.][2][5][F4][EXE]

Subtraction



NOTE: Only one operation is allowed per line

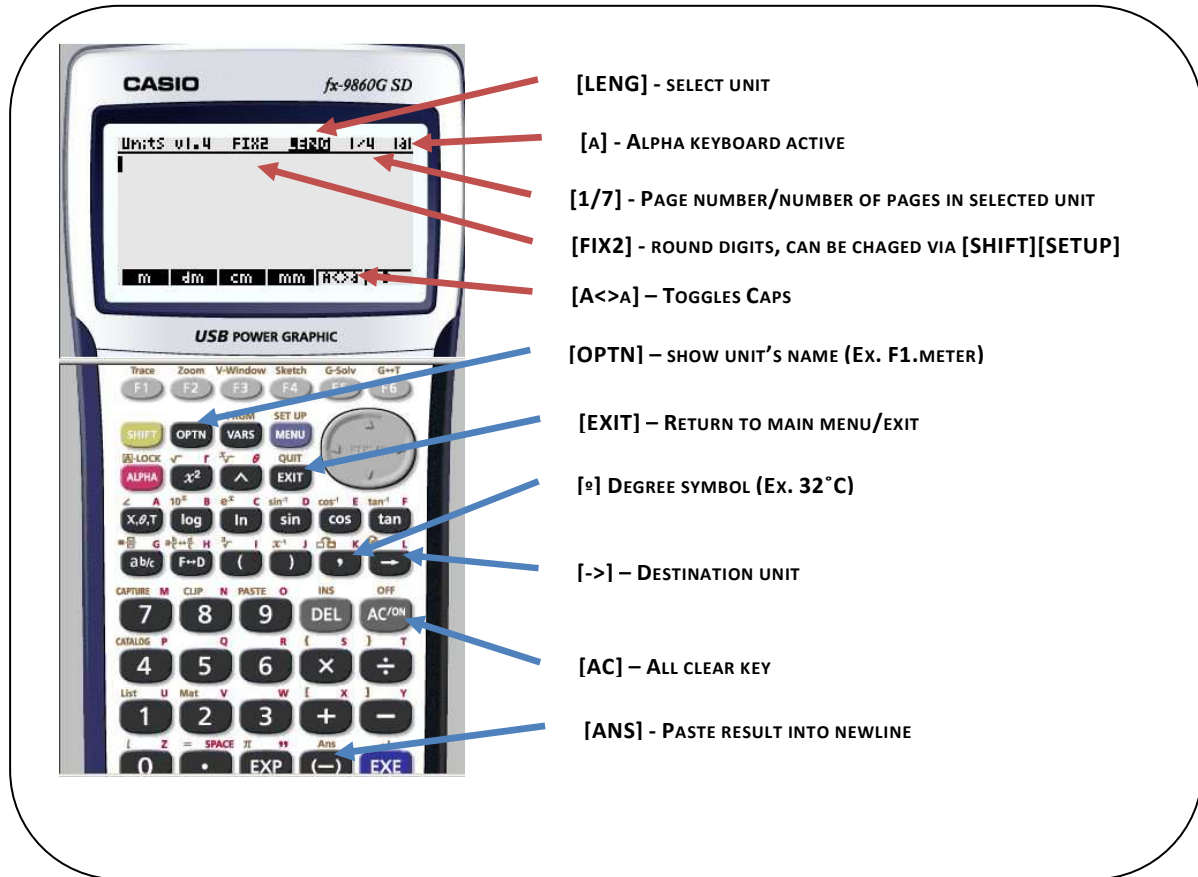
25dm² – 36 cm² converter to mm²

[AC][2][5][F2][F2][-][3][6][F3][->][F4]

Multiplication / Division

TODO

Screen and Keys



TODO

- More calculations and operands (multiplication, division, inversion)
- More units like: ASTRO, ANGLE, BINARY, PAPER, etc...
- Custom MENU to implement users custom units
- Translations into Portuguese, Spanish, etc...

Bugs and suggestions

Please feel free to send bugs, suggestions or simply comments to:

César Bento Freire <cfreire@cfreire.com.pt>
Leiria :: Portugal

Database/Translation

DISPLAY	QT	English	Português	Français	Español
LENG	16	Length	Comprimento	Longueur	Longitud
AREA	12	Area	Área	Superficie	Área
VOLM	28	Volume	Volume	Volume	Volumen
WGHT	8	Weight	Peso	Poids	Peso
TEMP	4	Temperature	Temperatura	Température	Temperatura
PRES	8	Pressure	Pressão	Pression	Presión
POWR	8	Power	Potencia	Puissance	Potencia
ENER	8	Energy	Energia	Énergie	Energía
DATA	16	Data storage	Armaz. dados	Mesures infor.	Almac. datos
BAND	24	Bandwidth	Largura banda	Bande passante	Ancho banda
TIME	8	Time	Tempo	Temps	Tiempo
FREQ	8	Frequency	Frequência	Fréquence	Frecuencia
SPED	8	Speed	Velocidade	Vitesse	Velocidad
ACCL	4	Acceleration	Aceleração	Accélération	Aceleración
FORC	4	Force	Força	Force	Fuerza
FLOW	16	Flow Rate	Caudal	Débit volumique	Caudal

Leiria, 10 de Setembro de 2007
César Freire