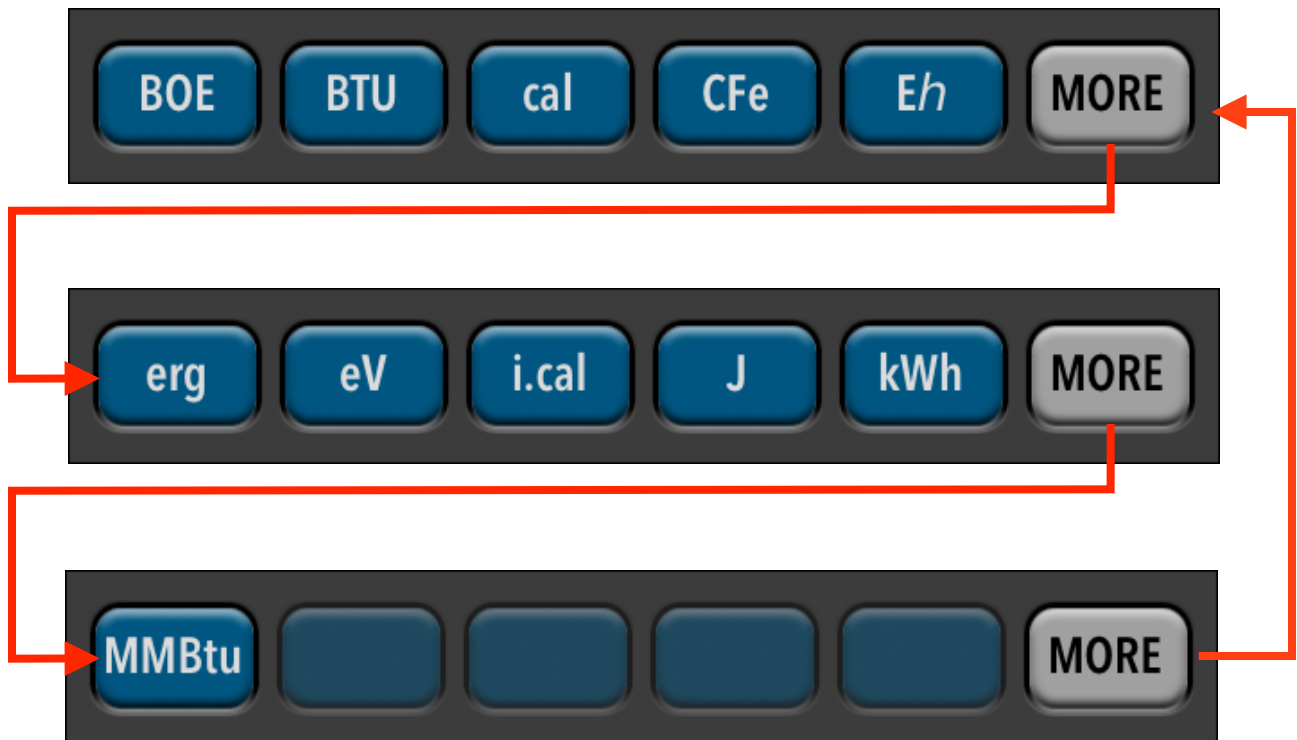






Unit Conversions Menu (UNITS)

The RLM-19BII has a powerful Unit Conversions menu to quickly convert a unit value into all the available units within a category.



The UNITS menu starts showing all the categories of available units; Area, Energy, Force, Length, Mass, Power, Pressure, Speed, Temperature and Volume; select a category and the units within it will be shown in a conversion menu. For example, touching **ENER** (Energy) category gives the following units menu:



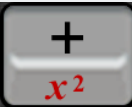


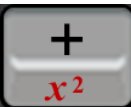

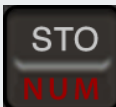
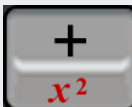


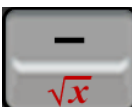




Units arithmetics can be performed using   or   functions (see the example below).

Example: Unit Conversion and Arithmetics

Add 11.36 feet plus 5.75 inches plus 2 meters plus 25 centimeters and minus 0.1 chains, what is the total length expressed in yards?

Solution: First select the length category touching  button, then, follow the next sequence:

Keystrokes	Description
11.36 	Type 11.36 and touch the “ft”. ft = 11.36
5.75   	Add 5.75 inches to the conversion.
2   	Add 2 meters to the conversion.
25   	Add 25 centimeters to the conversion.
0.1   	Subtract 0.1 chains from the conversion.
	Recalls and display the total conversion value in yards. yd = 4.21

Default Units Database

The Unit Conversion tool comes with 205 factory defined units grouped in 10 categories. All of them are shown in the following tables.

Area (m ²)		
Symbol	Description	Factor
ac	Acres	4.0468726099E+03
ch²	Square Chains	4.0468726099E+02
cin	Circular Inches	5.0670747910E-04
cm²	Square Centimeters	1.0000000000E-04
CM	Circular Mils	5.0670747910E-10
dm²	Square Decimeters	1.0000000000E-02
ft²	Square Feets	9.2903040000E-02
fth²	Square Fathoms	3.3445228000E+00
fu²	Square Furlongs	4.0468726000E+04
ha	Hectares	1.0000000000E+04
in²	Square Inches	6.4516000000E-04
km²	Square Kilometers	1.0000000000E+06
m²	Square Meters	1.0000000000E+00
MCM	Mil Circular Mils	5.0670747910E-07
mi²	Square Miles	2.5899881103E+06
nmi²	Square Nautical Miles	3.4299040000E+06
mm²	Square Millimeters	1.0000000000E-06

Area (m ²)		
Symbol	Description	Factor
rd²	Square Rods	2.5292953812E+01
su.ft²	Square Survey Feets	9.2903412000E-02
su.in²	Square Survey Inches	6.4516258333E-04
su.mi²	Square Survey Miles	2.5899984703E+06
su.yd²	Square Survey Yards	8.3613070452E-01
yd²	Square Yards	8.3612736000E-01

Energy (kg·m ² /s ²)		
Symbol	Description	Fn
BOE	Oil Barrel	6.1193239452E+09
BTU	British Thermal Units	1.0550558526E+03
cal	Calories	4.1867400000E+00
CFe	Cubic feet of Std. Natural Gas	1.0909277516E+06
E_h	Hartrees	4.3597441700E-18
erg	C.G.S. Ergs	1.0000000000E-07
eV	Electronvolts	1.6021764620E-19
i.cal	International Calories	4.1868000000E+00
J	Joules	1.0000000000E+00
kWh	Kilowatt-hours	3.6000000000E+06
MMBtu	Millions Btus	1.0550558526E+09

Force (kg·m/s²)		
Symbol	Description	Fn
dyne	C.G.S. Dynes	1.0000000000E-05
GRf	Grain Force	6.3546023075E-04
kgf	Kilogram Force	9.8066500000E+00
kp	Kiloponds	9.8066500000E+00
N	Newtons	1.0000000000E+00
lbf	Pound Force	4.4482216153E+00
ozf	Ounce Force	2.7801385095E-01
ozl	Ouncedals	8.6409346485E-03
pdl	Poundals	1.3825495438E-01
Tonf	Short Ton Force	8.8964432305E+03

Length (m)		
Symbol	Description	Factor
au	Astronomical Unit	1.4959787069E+11
ch	Chains	2.0116840234E+01
cm	Centimeters	1.0000000000E-02
Fath	Fathoms	1.8288036576E+00
ft	Feet	3.0480000000E-01
fu	Furlongs	2.0116800000E+02
g.mi	Geographic Miles	1.8553176000E+03
hu	Hubbles	9.4605284050E+24

Length (m)		
Symbol	Description	Factor
in	Inches	2.5400000000E-02
km	Kilometers	1.0000000000E+03
ld	Earth to Moon Distance	3.8440100000E+08
ldy	Light-Day	2.5902068371E+13
lhr	Light-Hour	1.0792528488E+12
lmin	Light-Minute	1.7987547480E+10
lsec	Light-Second	2.9979245800E+08
lyr	Light-Year	9.4605284049E+15
m	Meters	1.0000000000E+00
mi	Miles	1.6093440000E+03
mm	Milimeters	1.0000000000E-03
nmi	Nautic Miles	1.8520000000E+03
pcs	Parsecs	3.0856781858E+16
rd	Rods	5.0292100584E+00
st.mi	Statue Mile	1.6093472187E+03
su.ft	Survey Feet	3.0480060960E-01
su.fu	Survey Furlongs	2.0116840234E+02
su.in	Survey Inches	2.5400050800E-02
su.lg	Survey Leagues	4.8280416561E+03
su.yd	Survey Yards	9.1440182880E-01

Length (m)		
Symbol	Description	Factor
swt	Siriusweit	1.5428390929E+17
yd	Yards	9.1440000000E-01

Mass (kg)		
Symbol	Description	Factor
dr	Drams	1.7718451953E-03
GR	Grains	6.4798910000E-05
gr	Grams	1.0000000000E-03
kg	Kilograms	1.0000000000E+00
lb	Pounds	4.5359237000E-01
ICWT	Long Hundredweights	5.0802345440E+01
ITon	Long Tons	1.0160469088E+03
me	Electron Mass	9.1093826000E-31
mg	Miligrams	1.0000000000E-06
mp	Proton Mass	1.6726217100E-27
mμ	Neutron Mass	1.6749272800E-27
oz	Ounces	2.8349523125E-02
sCWT	Short Hundredweights	4.5359237000E+01
slug	C.G.S. Slugs	1.4593902937E+01
st	Stones	6.3502931800E+00
sTon	Short Tons	9.0718474000E+02

Mass (kg)		
Symbol	Description	Factor
T	Metric Tons	1.0000000000E+03
t.dr	Troy Drams	3.8879346000E-03
t.lb	Troy Pounds	3.7324172160E-01
t.oz	Troy Ounces	3.1103475000E-02

Power (kg·m²/s³)		
Symbol	Description	Factor
aW	ab Watts	1.0000000000E-07
CV	Cheveau Vapour Metric	7.3549875000E+02
HP	Horsepower	7.4569987158E+02
stW	Stat Watts	1.0000000000E-07
W	Watts	1.0000000000E+00
W.a	Air Watts	9.9827425305E-01

Pressure (kg/m·s²)		
Symbol	Description	Factor
at	Technical Atmosphere	9.8066500000E+04
atm	Standard atmosphere	1.0132501000E+05
ba	C.G.S. Baryes	1.0000000000E-01
bar	Million dynes per square centimeter	1.0000000000E+05

Pressure (kg/m·s²)		
Symbol	Description	Factor
cmHg	Centimeter of mercury	1.3332239000E+03
ç	Gram-force per square centimeter	9.8066500000E+01
fsw	Foot of sea water	3.0480000000E+03
ftHg	Foot of mercury	4.0636660000E+04
inHg	Inch of mercury conventional	3.3863890000E+03
kgf/cm²	Kilogram-force per square centimeter	9.8066500000E+04
kgf/m²	Kilogram-force per square meter	9.8066500000E+00
kgf/mm²	Kilogram-force per square millimeter	9.8066500000E+06
kp/cm²	Kilopond per square centimeter	9.8066500000E+04
kp/m²	Kilopond per square meter	9.8066500000E+00
kp/mm²	Kilopond per square millimeter	9.8066500000E+06
ksf	Kilopond per square foot	4.7880258980E+04
ksi	Kilopond per square inch	6.8947572932E+06
mHg	Meter of mercury conventional	1.3332240000E+05
mbar	Millibar unit	1.0000000000E+02
mmHg	Millimeter of mercury	1.3332238158E+02
msw	Meters of sea water	1.0000000000E+04
N/m²	Newton per square meter	1.0000000000E+00
N/mm²	Newton per square millimeter	1.0000000000E+06

Pressure (kg/m·s²)		
Symbol	Description	Factor
ozf/in²	Ounce-force per square inch	4.3092233082E+02
Pa	S.I. Pascal pressure unit	1.0000000000E+00
pdl/ft²	Poundal per square foot	1.4881639436E+00
psf	Pound-force per square foot	4.7880258980E+01
psi	Pound-force per square inch (PSI)	6.8947572932E+03
pz	Meter-ton-second system unit	1.0000000000E+03
Torr	Equivalent to 1mm-Hg at sea level	1.3332236842E+02

Speed (m/s)		
Symbol	Description	Factor
c₀	Speed of light in vacuum	2.9979245800E+08
cm/d	Centimeter per day	1.1574074074E-07
cm/h	Centimeter per hour	2.7777777778E-06
cm/m	Centimeter per minute	1.6666666667E-04
cm/s	Centimeter per second	1.0000000000E-02
ft/d	Feet per day	3.5277777778E-06
ft/h	Feet per hour	8.4666666667E-05
ft/m	Feet per minute	5.0800000000E-03
ft/s	Feet per second	3.0480000000E-01
in/d	Inch per day	2.9398148148E-07
in/h	Inch per hour	7.0555555556E-06

Speed (m/s)		
Symbol	Description	Factor
in/m	Inch per minute	4.23333333333E-04
ips	Inch per second	2.5400000000E-02
km/s	Kilometer per second	1.0000000000E+03
kn(UK)	Knots UK nautical miles per hour	5.1477000000E-01
knot	Nautical mile per hour	5.1444444444E-01
kph	Kilometer per hour	2.77777777778E-01
m/d	meter per day	1.1574074074E-05
m/h	meter per hour	2.77777777778E-04
m/m	meter per minute	1.6666666667E-02
m/s	meter per second	1.0000000000E+00
mach	Speed of sound in air	3.4029000000E+02
mi/d	Mile per day	1.8626666667E-02
mi/m	Mile per minute	2.6822400000E+01
mi/s	Mile per second	1.6093440000E+03
mph	Miles per hour	4.4704000000E-01
NM/d	Nautical mile per day	2.1435185185E-02
NM/m	Nautical mile per minute	3.0866666667E+01
NM/s	Nautical mile per second	1.8520000000E+03
yd/d	Yard per day	1.05833333333E-05
yd/h	Yard per hour	2.5400000000E-04

Speed (m/s)		
Symbol	Description	Factor
yd/m	Yard per minute	1.5240000000E-02
yd/s	Yard per second	9.1440000000E-01

Volume (m³)		
Symbol	Description	Factor
ac.ft	Acre Feet	1.2334892385E+03
ac.in	Acre-Inch	1.0279015313E+02
BB	Bulk Barrels	1.4158423296E-01
bbl	Oil Barrels	1.5898729493E-01
Bd.Ft	Board-Feet	2.3597372160E-03
Bu	Bushels	3.5239070167E-02
cm³	Cubic Centimeters	1.0000000000E-06
cup	Cups	2.3658823650E-04
d.Gal	Dry Gallons	4.4048837500E-03
FEU	40ft Containers	7.2491127276E+01
fl.Oz	Fluid Ounce	2.9573529563E-05
ft³	Cubic Feets	2.8316846592E-02
gal	US. Gallons	3.7854117840E-03
ibbl	Imperial Barrels	1.6365931200E-01
iBu	Imperial Bushels	3.6368736000E-02
iGal	Imperial Gallons	4.5460920000E-03

Volume (m ³)		
Symbol	Description	Factor
in³	Cubic Inches	1.6387064000E-05
Lt	Liters	1.0000000000E-03
m³	Cubic Meters	1.0000000000E+00
ml	Milliliters	1.0000000000E-06
Peck	Pecks	8.8097675417E-03
pint	Pints	4.7317647300E-04
quart	Quarts	9.4635294600E-04
Tbsp	Tablespoons	1.4786764781E-05
TEU	20ft Containers	3.6245563638E+01
Tsp	Teaspoons	4.9289215938E-06
yds³	Cubic Yards	7.6455486122E-01

Temperature (°K)					
Symbol	Description	Fn	Cn	Fd	Cd
°C	Celsius Degrees	1.000000E+00	273.15	1	1
°F	Fahrenheit Degrees	5.000000E+00	2298.35	9	9
°K	Kelvin Degrees	1.000000E+00	0.00	1	1
°R	Rankine Degrees	1.000000E+02	0.00	180	1
°Re	Reamur Degrees	1.250000E+02	273.15	100	1
W.a	Air Watts	9.982743E-01	0.00	1	1