



hp calculators

HP 17bII+ Introduction and Basics

Shift Key

Power

Main Menu

Annunciators

Fixing the Decimal Point

Arithmetic Modes

The +/- Key

Scientific Format



hp calculators

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Congratulations! You have selected a great financial calculator in the HP 17bII+. The compactness of the keyboard belies the powerful computing instrument that you hold in your hand.

SHIFT KEY:

Part of this is due to the expansion of the keyboard with the use of the shift key in color (SK) that you see near the lower lefthand corner of the keyboard. If you press this key prior to your hitting any other key on the keyboard that has a function in color at the base of it, you will activate that function. If you press a key without first hitting the shift key, you activate the function shown in white on the face of the key or, for two keys, below the key. So, one key can actually activate two or three different functions.

POWER:

Turn your calculator on by pressing 'ON' at the lower lefthand corner of the keyboard. Once the power is on, hitting that key again will clear your calculator (see the section on clearing functions for more). Turn off the calculator by pressing 'SK' and then the lower lefthand key with 'OFF' in color at the base of it.

MAIN MENU:

Turn your calculator back on, however, and look at another reason for the compactness of the keyboard. Your calculator uses menus that will lead you in to successive calculating options. The main menu shows the following:

- The "FIN" ("financial") menu you see at the far left of the display allows you access to the financial functions of the calculator.
- The "BUS" ("business") menu to the right of "FIN" is for calculation of percentages.
- The "SUM" menu allows you to tabulate lists of numbers and statistics.
- The "TIME" menu you can check out for time, date, and dabbling in date arithmetic.
- The "SOLVE" menu you will use to create and solve equations.
- The "CURRX" menu converts from one currency to another.

Access to any of these menus is granted by just pressing the key below the chosen menu label. To get out of a menu, hit "EXIT" and you will reverse the direction of the steps you have taken into a particular menu. If you want to jump back to the main menu in one operation, press 'SK' (shift key) and "MAIN." Actually, you are pressing 'EXIT' too but activate 'MAIN,' in color at the base of the key, as you may remember from our discussion above, because you first hit the shift key.

ANNUNCIATORS:

Your display will also make announcements, with something called an "annunciator." Every time you hit the shift key, it announces this by displaying a small horizontal arrow that curves up at its right end. Another example is when your battery is low, a small battery symbol will appear to tip you off.

FIXING THE DECIMAL POINT:

But you are here to calculate, aren't you! So, let's talk about the numbers that you can put into your display. You have a choice of how many places you want to show to the right of the decimal point. In the second row of your calculator you see the display button, the one with "DSP" in white on the face of the key. You know, of course, that means you don't need the shift key to use this function. Press it and you'll see your options of "FIX" and "ALL." The latter means you want to show all 11 places to the right of the decimal. You can show a maximum of 12 digits in the display including the whole number to the decimal point's left. Select a lesser number

hp calculators

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down to and including zero by pressing "FIX," the number of places you want, and then hitting 'INPUT.' Whatever you show in your display, however, the calculator will carry 12 places internally.

By the way, aren't those instructions helpful that appeared in the display as you set your decimal point? It is a recurring feature of the HP 17bII+ that is intended to make its use as uncomplicated as possible.

If you are curious about that period and comma that appeared alongside the 'FIX' and 'ALL' options, these are the two options you have for setting a decimal point. In the U.S., a period is used for the decimal point and a comma for separating digits of whole numbers. In some other countries the two are switched and the comma becomes the decimal point and the period the digit separator.

ARITHMETIC MODES:

Algebraic:

Speaking of numbers, let's put some in your calculator and perform our arithmetic operations. You can use either of two modes to do this. The traditional one is the Algebraic mode (ALG), where, for example, to add '5' and '10' you press '5,' then the arithmetic operator, '+,' and then '10.' To get the answer of '15,' you then press the equals sign, '='.

Algebraic Keystrokes to Add '5' and '10'

```
5
+
10
= Answer: 15.00
```

Reverse Polish Notation:

An alternative method is the Reverse Polish Notation mode (RPN) that switches a mathematical system developed by a Polish logician who placed the arithmetic operator before the numbers to one in which the operator follows the numbers. That's where the term, "Reverse Polish Notation," comes from. So, our calculation of '15' above uses the following keystrokes in the RPN mode: '5,' 'ENTER,' '10,' and '+.' For involved calculations this system can save keystrokes over the Algebraic one. To select the mode of your choice, press 'SK' and 'MODES.'

RPN Keystrokes to Add '5' and '10'

```
5
ENTER
10
+ Answer: 15.00
```

THE +/- KEY:

If you want to change the sign on that '15,' hit '+/-' . It should now show a negative sign. If you want to bring it back to a positive number, press '+/-' and the negative sign should disappear.

hp calculators

HP 17bII+ Introduction and Basics

SCIENTIFIC FORMAT:

Set your calculator to two places to the right of the decimal and try this calculation: multiply 40,000,000. by 20,000,000.

Algebraic Keystrokes

```
40000000
x
20000000
=      Answer: 8.00E14
```

RPN Keystrokes

```
40000000
ENTER
20000000
x      Answer: 8.00E14
```

In either case you wind up with "8.00E14." There are too many places to fit into your display (remember a maximum of 12), so your calculator automatically switched to what is known as the "scientific format." The 'E' stands for exponent and the '14' following signifies that the answer is "8" times 10 to the 14th power, or "800,000,000,000,000."