

| P.FN3     | Programming functions 3 |      |         |         |      |       |
|-----------|-------------------------|------|---------|---------|------|-------|
| g-shift   | EDIT                    | CASE | RCL.SKP |         |      | PFN.R |
| f-shift   | SKIP                    | BACK | XEQ.SKP | RTN.SKP | LOOP | TEST  |
| unshifted | LBL                     | GT0  | XEQ     | RTN     | END  | P.FN  |
| Page 1    | F1                      | F2   | F3      | F4      | F5   | F6    |

Prev menu [https://47calc.com/doc/R47/Menus/R47v0\\_Menu\\_P-FN2\\_page\\_1.pdf](https://47calc.com/doc/R47/Menus/R47v0_Menu_P-FN2_page_1.pdf)

Next menu [https://47calc.com/doc/R47/Menus/R47v0\\_Menu\\_Pareto\\_page\\_1.pdf](https://47calc.com/doc/R47/Menus/R47v0_Menu_Pareto_page_1.pdf)

| Level      | Label   | Type          | FullName                | Extended description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Category    | Flag | Catalog | Default |
|------------|---------|---------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------|---------|---------|
| Menu<br>p1 | P.FN3   | MENU          | Programming functions 3 | Programming functions 3 ; this is a normal menu, buttons are not user assignable (P.FN is)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Programming |      | P.FN3   |         |
| F1         | LBL     | Command (PEM) | Label                   | Create global or local label ; create global label by pressing key α (f[XEQ]) and entering the name, which will be displayed as '<label>' ; local labels only exist within the scope of the program ; they are numeric : 01-99, single letter : a-l or {A}-{E}, {F}, {G}-{L} ; or created as local named labels, by pressing button : ([TamLabel.1]F3), then button α ([TamLocalLabel.1]F3) or key α (f[XEQ]) and entering the name, which will be displayed as '<label>' ; maximum label length is : 7 characters ; TAM : LBL __ TamLabel menu ; Info : LBL + TAM [XEQ] to enter global LBL '._ TamAlpha menu ; LBL + button : on [TamLabel.1]F3 to enter LBL :__ TamLocalLabel menu to create local labels a-l, D-F or local named labels (additionally pressing button α on [TamLocalLabel.1]F3 or TAM [XEQ] to enter LBL :._ TamAlpha menu) ; note that a label may be used multiple times in a program ; local labels are searched forwards from the GTO or XEQ command, before global labels, which are searched from the start of program memory | Programming |      | LBL     |         |
| F2         | GTO     | Command (PEM) | Go to                   | Go to global or local label ; GTO. to go to (local) label or step ; GTO.. to move the program pointer to the end of program memory ; GTO↑ to go to the start of the (previous) program or jump to the start of program memory ; GTO↓ to go to the next program or jump to the end of program memory ; TAM : GTO __ TamLabel menu ; Info : GTO + TAM [XEQ] to enter global GTO '._ TamAlpha menu ; GTO + button : on [TamLabel.1]F3 to enter GTO :__ TamLocalLabel menu for easy access to local labels a-l, D-F or local named labels (additionally pressing button α on [TamLocalLabel.1]F3 or TAM [XEQ] to enter GTO :._ TamAlpha menu)                                                                                                                                                                                                                                                                                                                                                                                                               | Programming |      | GTO     |         |
| F3         | XEQ     | Command (PEM) | Execute                 | Execute function or program with global or local label (normal spaces can be used instead of special spaces in labels) ; TAM : XEQ __ TamLabel menu ; Info : XEQ + TAM [XEQ] to enter global XEQ '._ TamAlpha menu ; XEQ + button : on [TamLabel.1]F3 to enter XEQ :__ TamLocalLabel menu for easy access to local labels a-l, D-F or local named labels (additionally pressing button α on [TamLocalLabel.1]F3 or TAM [XEQ] to enter XEQ :._ TamAlpha menu)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Programming |      | XEQ     |         |
| F4         | RTN     | Command (PEM) | Return                  | Return from subroutine to calling program                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Programming |      | RTN     |         |
| F5         | END     | Command (PEM) | End                     | End statement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Programming |      | END     |         |
| F6         | P.FN    | MENU          | Programming functions   | User menu to quickly access selected menus and functions for programming ; all buttons are user assignable ('riveted' look) ; initially populated for basic programming options ; reset using PFNR ; Shortcut : PEM long [EXIT]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Programming |      | P.FN    |         |
| fF1        | SKIP    | Command (PEM) | Skip                    | Skip n program steps ; TAM : SKIP ____ TamNonReg menu ; Ref : <a href="https://47calc.com/doc/R47/Reference/R47v0_Skipping_program_steps.pdf">https://47calc.com/doc/R47/Reference/R47v0_Skipping_program_steps.pdf</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Programming |      | SKIP    |         |
| fF2        | BACK    | Command (PEM) | Back                    | Jumps back n steps in program ; TAM : BACK __ TamNonReg menu                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Programming |      | BACK    |         |
| fF3        | XEQ.SKP | Command (PEM) | Execute and skip        | Execute function or program with global or local label (normal spaces can be used instead of special spaces in labels) and skip the next instruction (intended use is after a test function, which if true, calls XEQ.SKP and jumps over the next program step, which means that step is executed only if the test function returns false) ; Ref : <a href="https://47calc.com/doc/R47/Reference/R47v0_Skipping_program_steps.pdf">https://47calc.com/doc/R47/Reference/R47v0_Skipping_program_steps.pdf</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Programming |      | XEQ.SKP |         |
| fF4        | RTN.SKP | Command (PEM) | Return and skip         | Return from subroutine to calling program and skip the instruction following the calling XEQ (intended use is to allow a subroutine to function as a built in test function, which if true, returns using RTN and using RTN.SKP otherwise) ; Ref : <a href="https://47calc.com/doc/R47/Reference/R47v0_Skipping_program_steps.pdf">https://47calc.com/doc/R47/Reference/R47v0_Skipping_program_steps.pdf</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Programming |      | RTN.SKP |         |
| fF5        | LOOP    | MENU          | Looping                 | Looping (programming) functions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Programming |      | LOOP    |         |
| fF6        | TEST    | MENU          | Testing                 | Testing functions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Programming |      | TEST    |         |

| Level | Label   | Type          | FullName        | Extended description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Category       | Flag | Catalog | Default |
|-------|---------|---------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------|---------|---------|
| gF1   | EDIT    | Command       | Edit item       | Edit item in X (any data type, except Config) in Normal Mode ; edit text strings, numbers or function parameters in the current step in Program Entry Mode; when editing angles using EDIT, key .d removes the angle tag (Normal Mode and PEM) ; when editing short integers, key .d removes the base (Normal Mode and PEM) ; Shortcut : longerpress [+]; alpha longer [+]; PEM long [+]; EIM longer [+]; Info : editing of long integers is limited to two input lines (about 99 digits depending on display settings) ; also note that for new models and simulator, the full set of features is supported (Complex numbers not yet implemented), but for DM42 hardware, numbers cannot be edited | User interface |      | EDIT    |         |
| gF2   | CASE    | Command (PEM) | Case            | Case statement, skips number of steps given by chosen variable (normally followed by number of GTO statements) ; TAM : CASE __ Tam menu                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Programming    |      | CASE    |         |
| gF3   | RCL.SKP | Command (PEM) | Recall and skip | Recall value from register or variable and skip the next instruction (intended use is after a test function, which if true, calls RCL.SKP and jumps over the next program step, which means that step is executed only if the test function returns false) ; Ref : <a href="https://47calc.com/doc/R47/Reference/R47v0_Skipping_program_steps.pdf">https://47calc.com/doc/R47/Reference/R47v0_Skipping_program_steps.pdf</a>                                                                                                                                                                                                                                                                        | Programming    |      | RCL.SKP |         |
| gF4   |         |               |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |      |         |         |
| gF5   |         |               |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |      |         |         |
| gF6   | PFN.R   | Command       | P.FN menu reset | Reset all P.FN user assignments (and open menu) ; TI : P.FN menu reset to default                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Cleanup        |      |         |         |

| p1  | P.FN3   | Link                                                                                                                                  |
|-----|---------|---------------------------------------------------------------------------------------------------------------------------------------|
| F1  | LBL     |                                                                                                                                       |
| F2  | GTO     |                                                                                                                                       |
| F3  | XEQ     |                                                                                                                                       |
| F4  | RTN     |                                                                                                                                       |
| F5  | END     |                                                                                                                                       |
| F6  | P.FN    | <a href="https://47calc.com/doc/R47/Menus/R47v0_Menu_P-FN_page_1.pdf">https://47calc.com/doc/R47/Menus/R47v0_Menu_P-FN_page_1.pdf</a> |
| fF1 | SKIP    |                                                                                                                                       |
| fF2 | BACK    |                                                                                                                                       |
| fF3 | XEQ.SKP |                                                                                                                                       |
| fF4 | RTN.SKP |                                                                                                                                       |
| fF5 | LOOP    | <a href="https://47calc.com/doc/R47/Menus/R47v0_Menu_LOOP_page_1.pdf">https://47calc.com/doc/R47/Menus/R47v0_Menu_LOOP_page_1.pdf</a> |
| fF6 | TEST    | <a href="https://47calc.com/doc/R47/Menus/R47v0_Menu_TEST_page_1.pdf">https://47calc.com/doc/R47/Menus/R47v0_Menu_TEST_page_1.pdf</a> |
| gF1 | EDIT    |                                                                                                                                       |
| gF2 | CASE    |                                                                                                                                       |
| gF3 | RCL.SKP |                                                                                                                                       |
| gF4 |         |                                                                                                                                       |
| gF5 |         |                                                                                                                                       |
| gF6 | PFN.R   |                                                                                                                                       |