

Programmable Models

| | | fx-50F PLUS fx-50FH | fx-3650P | fx-3950P | fx-4500PA |
|----------------------------|---|-------------------------------------|-------------------------------------|--|---------------------------|
| Specifications | Number of functions | 406 | 279 | 279 | 242 |
| | Power supply (Main) | Two-way power (Solar + LR44 × 1) | Two-way power (Solar + LR44 × 1) | LR44 × 1 | CR2032 × 1 |
| | Power supply (Backup) | — | — | — | CR2032 × 1 |
| | Approximate battery life Main (hours) | 3 years (LR44) ^{*1} | 3 years (LR44) ^{*1} | 9,000 ^{**2} / 3 years ^{**3} | 5,000 ^{**2} |
| | Approximate battery life Backup (years) | — | — | — | 2 |
| | Dimensions H×W×D (mm) | 12.2 × 80 × 161 | 11.8 × 80 × 159 | 11.8 × 80 × 159 | 9.9 × 73 × 141.5 |
| | Approximate weight (g) | 105 | 100 | 100 | 85 |
| | Case style | Slide-on hard | Snap-on hard | Snap-on hard | Wallet |
| | Dot matrix display | 5 × 7 dots × 16 digits | 5 × 6 dots × 12 digits | 5 × 6 dots × 12 digits | 5 × 7 dots × 12 digits |
| | Display capacity (characters) | 16 | 12 | 12 | 12 |
| | Mantissa + exponent digits | 10 + 2 | 10 + 2 | 10 + 2 | 10 + 2 |
| | Icon menus | — | — | — | — |
| | Internal operation digits | 15 | 12 | 12 | 12 |
| | Nested parentheses levels | 24 | 24 | 24 | 24 |
| Programming Functions | Program logic | ● (BASIC-like) | ● | ● | ● |
| | Memory (bytes) | 680 | 360 | 360 | 1,103 |
| | Program areas | 4 | 4 | 4 | Up to memory |
| | Storage memory area (Flash memory) | — | — | — | — |
| | Built-in formulas | 23 | — | — | — |
| Utilities | Natural textbook display / NATURAL-V.P.A.M. | — | — | — | — |
| | Key rollover function | ● | ● | ● | ● |
| | Replay function | ● | ● | ● | ● |
| | Multi-replay functions | ● | ● | ● | — |
| | Replay copy | — | — | — | — |
| | Backspace | ● | ● | ● | ● |
| | CALC function | — | — | — | ● |
| | SOLVE function | — | — | — | — |
| | Answer function | ● | ● | ● | ● |
| | Variables | 7 | 7 | 7 | 26 – 163 |
| | Onboard function manual | — | — | — | — |
| | Syntax help | — | — | — | — |
| Auto power off | ● | ● | ● | ● | |
| Special Features | Base- <i>n</i> calculations (Binary/Octal/Hexadecimal) | ● | ● | ● | ● |
| | Logical operations | ● | ● | ● | ● |
| | Engineering symbol calculations | — | — | — | ● |
| | Engineering notation (ENG/ENG) | ● | ● | ● | ● |
| | Scientific constants | 40 | — | — | — |
| Metric conversions | — | — | — | — | |
| CAS | Computer Algebra System | — | — | — | — |
| Basic Functions | Trigonometric, inverse trigonometric (sin/cos/tan/sin ⁻¹ /cos ⁻¹ /tan ⁻¹) | ● | ● | ● | ● |
| | Hyperbolic, inverse hyperbolic (sinh/cosh/tanh/sinh ⁻¹ /cosh ⁻¹ /tanh ⁻¹) | ● | ● | ● | ● |
| | Exponential, logarithmic (log, ln, 10 ⁻¹ , e ^x) | ● | ● | ● | ● |
| | Base specified logarithmic | ● | — | — | — |
| | Power and radical root (x ² /x [√]) | ● | ● | ● | ● |
| | Fraction | ● | ● | ● | ● |
| | Percentage calculation (%) | ● | ● | ● | ● |
| | Rounding | ● | ● | ● | ● |
| | Simplification | — | — | — | — |
| | Integer division | — | — | — | — |
| | GCD/LCM | — | — | — | — |
| | Sexagesimal ↔ decimal | ● | ● | ● | ● |
| | Display format (FIX, SCI) | ● | ● | ● | ● |
| | Angle unit (Deg, Rad, Grad) | ● | ● | ● | ● |
| | Angle unit conversion (Deg, Rad, Grad) | ● | ● | ● | — |
| | Factorization into prime factors | — | — | — | — |
| Ratio calculation | — | — | — | — | |
| Calculus | Differentiation calculation | — | ● | ● | — |
| | Integration calculation | — | ● | ● | ● |
| Algebra | Simultaneous equation | — | — | — | — |
| | Polynomial equation | — | — | — | — |
| | Inequality calculation | — | — | — | — |
| | Table function | — | — | — | — |
| | Matrix calculations | — | — | — | — |
| Complex number calculation | ● | ● | ● | — | |
| Geometry | Geometry Application | — | — | — | — |
| | Coordinate conversion (Pol, Rec) | ● | ● | ● | — |
| | Vector calculations | — | — | — | — |
| Probability | Combination, permutation (ⁿ C _r , ⁿ P _r) | ● | ● | ● | ● |
| Statistics | Random numbers | ● | ● | ● | ● |
| | Random integers | — | — | — | — |
| | List-based STAT data editor | ● | ● | ● | — |
| | Standard deviation | ● | ● | ● | ● |
| | Regression analysis | ● | ● | ● | ● |
| | Linear regression | ● | ● | ● | ● |
| | <i>a</i> ^b Exponential regression | — | — | — | — |
| Advanced statistics | — | — | — | — | |
| Other regressions | Log, Exp, Pwr, Inv, Quad | Log, Exp, Pwr, Inv, Quad | Log, Exp, Pwr, Inv, Quad | — | |
| Finance | Financial function | — | — | — | — |
| Spreadsheet | Spreadsheet | — | — | — | — |
| Others | eActivity | — | — | — | — |
| | Data communication | — | — | — | — |
| | Others | — | — | — | — |

*1 1 hour use per day **2 Continuous display of flashing cursor **3 When left with power turned off