

**SPECIFICATION  
FOR  
CALCULATORS, ELECTRONIC**

(THIS SPECIFICATION IS RELEASED FOR PROCUREMENT PURPOSES UNTIL REVISED OR RESCINDED.)

**SCOPE**

THIS SPECIFICATION COVERS DESK TOP ELECTRONIC CALCULATORS OF THE DISPLAY AND COMBINATION DISPLAY/PRINTER TYPES, AND A LIMITED NUMBER OF PORTABLE CALCULATORS.

THIS SPECIFICATION IS NOT MEANT TO INCLUDE ALL VARIETIES OF ELECTRONIC CALCULATORS WHICH MAY BE COMMERCIALY AVAILABLE, BUT IS INTENDED TO COVER ONLY THOSE GENERALLY USED BY STATE AGENCIES AND PUBLIC SCHOOLS.

**I. CLASSIFICATION**

ELECTRONIC CALCULATORS COVERED BY THIS SPECIFICATION ARE CLASSIFIED AS FOLLOWS:

TYPE I. VISUAL DISPLAY

<u>CLASS</u>	<u>DESCRIPTION</u>
A	SOLAR CELL - ONE MEMORY - 12 DIGITS

TYPE II. COMBINATION DISPLAY/PRINTER

<u>CLASS</u>	<u>DESCRIPTION</u>
A	12 DIGITS, ONE MEMORY (MIN), COMPLETE PRINT PUNCTUATION (12 DIGITS, 2 1/4" TAPE)
B	12 DIGITS, TWO MEMORIES (MIN), COMPLETE PRINT PUNCTUATION (12 DIGITS, 2 1/4" TAPE)
C	14 DIGITS, TWO (MIN) MEMORIES, 12 DIGIT (MIN) PRINT PUNCTUATION , 2 1/4" TAPE
D	14 DIGITS, TWO (MIN) MEMORIES, 14 DIGIT(MIN) PRINT PUNCTUATION , 2 3/4" TAPE

## II. APPLICABLE STANDARDS

THE FOLLOWING DOCUMENT OF ISSUE IN EFFECT ON THE DATE OF THE INVITATION FOR BIDS SHALL FORM A PART OF THIS SPECIFICATION:

ELECTRICAL APPLIANCE AND UTILIZATION EQUIPMENT LIST  
UNDERWRITERS' LABORATORIES, INC. (UL)  
207 EAST OHIO STREET  
CHICAGO, IL 60611

## III. REQUIREMENTS

### A. ELECTRICAL

#### 1. OPERATING POWER

ALL MACHINES SHALL BE OPERABLE FROM 120 VAC, 60 HZ SOURCE, EXCEPT SOLAR CELL TYPE. FOR MACHINES PRIMARILY DESIGNED FOR BATTERY OPERATION, AN APPROPRIATE AC POWER ADAPTER/CHARGER FOR INDEFINITELY OPERATING THE UNIT ON 120 VAC, 60 HZ MUST BE INCLUDED.

#### 2. ELECTRICAL CORD AND PLUG

IN THE CASE OF SINGLE-INSULATED MACHINES DESIGNED TO ACCEPT 120 VAC POWER INPUT, EACH CALCULATOR SHALL BE FURNISHED WITHA THREE-WIRE CORD WITH GROUNDING PLUG (3-PRONG). ALL EXPOSED METAL MUST BE GROUNDED.

FOR DOUBLE-INSULATED UNITS DESIGNED TO ACCEPT 120 VAC POWER INPUT, EACH CALCULATOR MAY BE FURNISHED WITH A TWO-WIRE POWER CORD AND PLUG.

IN THE CASE OF CALCULATORS DESIGNED PRINCIPALLY FOR BATTERY OPERATION, A TWO-WIRE CORD FROM THE AC ADAPTER/CHARGER IS ACCEPTABLE PROVIDED THAT THE ADAPTER/CHARGER PLUGS DIRECTLY INTO A STANDARD WALL OUTLET.

#### 3. UNDERWRITER'S LABORATORIES, INC.

EACH CALCULATOR DESIGNED TO DIRECTLY ACCEPT 120 VAC INPUT POWER SHALL HAVE THE UL LABEL ATTACHED, OR ACCEPTABLE PROOF THAT THE UNIT IS UL LISTED SHALL BE FURNISHED.

FOR MACHINES DESIGNED PRINCIPALLY FOR BATTERY OPERATION, THE AC ADAPTER/CHARGER SHALL BE UL LISTED.

DOUBLE INSULATED CALCULATORS SHALL BE SO CERTIFIED BY UL.

### B. GENERAL REQUIREMENTS

THE FOLLOWING REQUIREMENTS ARE MANDATORY FOR ALL CALCULATORS PURCHASED UNDER THIS SPECIFICATION:

1. CALCULATOR SHALL ADD, SUBTRACT, MULTIPLY, AND DIVIDE.
2. CAPACITY TO CLEAR SINGLE KEY STROKES WITH A BACK SPACE KEY, AND A CAPACITY TO CLEAR ALL KEY STROKES WITH A CLEAR ENTRY KEY.
3. NEGATIVE SIGN SHALL BE PROVIDED.
4. TEN-DIGIT KEYBOARD (EXTRA DOUBLE 0 OR TRIPLE 0 KEYS ACCEPTABLE) SHALL BE PROVIDED FOR NUMERICAL ENTRIES.
5. VISIBLE OR AUDIBLE WARNING SHALL BE GIVEN WHEN CAPACITY IS EXCEEDED OR RESULTS ARE INCORRECT DUE TO ILLEGAL OPERATION SUCH AS DIVISION BY ZERO.
6. THE PRINTER MECHANISM SHALL USE A 2 COLOR RIBBON. INK ROLLER TYPES ARE NOT ACCEPTABLE.

**C. ADDITIONAL OPERATIONAL REQUIREMENTS**

1. **TYPE I, CLASS A** SOLAR CELL - DISPLAY ONLY - 12 DIGITS - ONE MEMORY
  - A. CONSTANT FOR MULTIPLICATION AND DIVISION
  - B. FIXED DECIMAL ANSWERS, WHICH SHALL INCLUDE 0, 2 AND 3 FIXED DECIMAL POSITIONS
  - C. FLOATING DECIMAL ANSWERS
  - D. MINIMUM DISPLAY CAPACITY: 12 DIGITS
  - E. MINIMUM NUMBER OF MEMORIES: 1 (ONE REQUIRED)
  - F. OUTPUT: DISPLAY ONLY
  - G. PHYSICAL TYPE: DESK TOP/PORTABLE
  - H. ROUND OFF
  - I. ITEM COUNT KEY
  
2. **TYPE II, CLASS A** - DISPLAY WITH PRINTER - 12 DIGITS - ONE MEMORY, COMPLETE PRINT PUNCTUATION (12 DIGITS, 2 1/4" TAPE)
  - A. BUFFERD KEYBOARD
  - B. CONSTANT FOR MULTIPLICATION AND DIVISION
  - C. FIXED DECIMAL ANSWERS, WHICH SHALL INCLUDE 0, 2, AND 3 OR 4 FIXED DECIMAL POSITIONS.
  - D. FLOATING DECIMAL AND ADD MODE ENTRIES
  - E. ITEM COUNTER
  - F. MEMORY LIGHT
  - G. MEMORY CLEAR OR MEMORY TOTAL
  - H. MEMORY RECALL OR MEMORY SUB-TOTAL
  - I. MEMORY +
  - J. MEMORY -
  - K. MINIMUM CAPACITY: 12 DIGITS
  - L. MINIMUM NUMBER OF MEMORIES: 1
  - M. NON-ADD KEY
  - N. NON-PRINT KEY OR SWITCH
  - O. OUTPUT: DISPLAY WITH PRINTER

- P. PERCENT KEY
- Q. PHYSICAL TYPE: DESK TOP
- R. PUNCTUATION
- S. REPEAT ADDITION AND SUBTRACTION
- T. ROUND OFF
- U. STANDARD SIZE KEYBOARD
- V. TWO-COLOR PRINT, WITH RED PRINT CREDIT BALANCE, COMPLETE PRINT PUNCTUATION (12 DIGITS, 2 1/4" TAPE)
- W. MINIMUM PRINT SPEED 3.5 LINES PER SECOND

3. **TYPE II, CLASS B** - DISPLAY WITH PRINTER - 12 DIGITS - TWO MEMORIES (MIN), COMPLETE PRINT PUNCTUATION (12 DIGITS (MIN), 2 1/4" TAPE)

- A. BUFFERED KEYBOARD
- B. CONSTANT FOR MULTIPLICATION AND DIVISION
- C. FIXED DECIMAL ANSWERS, WHICH SHALL INCLUDE 0, 2, AND 3 OR 4 FIXED DECIMAL POSITIONS.
- D. FLOATING DECIMAL AND ADD MODE ENTRIES
- E. ITEM COUNTER
- F. MEMORY LIGHT - ONE FOR EACH MEMORY
- G. MEMORY CLEAR OR MEMORY TOTAL
- H. MEMORY RECALL OR MEMORY SUB-TOTAL
- I. MEMORY +
- J. MEMORY -
- K. MINIMUM CAPACITY: 12 DIGITS
- L. MINIMUM NUMBER OF MEMORIES: 2
- M. NON-ADD KEY
- N. NON-PRINT KEY OR SWITCH
- O. OUTPUT: DISPLAY WITH PRINTER
- P. PERCENT KEY
- Q. PHYSICAL TYPE: DESK TOP
- R. PUNCTUATION
- S. REPEAT ADDITION AND SUBTRACTION
- T. ROUND OFF
- U. STANDARD SIZE KEYBOARD
- V. TWO-COLOR PRINT, WITH RED CREDIT BALANCE, COMPLETE PRINT PUNCTUATION (12 DIGITS, 2 1/4" TAPE)
- W. MINIMUM PRINT SPEED OF 3.5 LINES PER SECOND

4. **TYPE II, CLASS C** - DISPLAY WITH PRINTER, 14 DIGITS - TWO (MIN) MEMORIES, 12 DIGIT (MIN) PRINT PUNCTUATION , 2 1/4" TAPE

- A. AUTOMATIC DIRECT ACCUMULATION
- B. BUFFERED KEYBOARD
- C. CONSTANT FOR MULTIPLICATION AND DIVISION
- D. FIXED DECIMAL ANSWERS, WHICH SHALL INCLUDE 0, 2, AND 3 OR 4 FIXED POSITIONS
- E. FLOATING DECIMAL AND ADD MODE ENTRIES
- F. ITEM COUNTER
- G. MEMORY LIGHTS: ONE FOR EACH MEMORY
- H. MEMORY CLEAR OR MEMORY TOTAL
- I. MEMORY RECALL OR MEMORY SUB-TOTAL

- J. MEMORY +
- K. MEMORY -
- L. MINIMUM CAPACITY: 14 DIGITS
- M. MINIMUM NUMBER OF MEMORIES: 2
- N. NON-ADD KEY
- O. NON-PRINT KEY OR SWITCH
- P. OUTPUT: DISPLAY WITH PRINTER
- Q. PERCENT KEY
- R. PHYSICAL TYPE: DESK TOP
- S. PUNCTUATION
- T. REPEAT ADDITION AND SUBTRACTION
- U. ROUND OFF
- V. STANDARD SIZE KEYBOARD
- W. TWO-COLOR PRINT, WITH RED PRINT CREDIT BALANCE, 12 DIGIT PRINT PUNCTUATION (MIN), 2 1/4" TAPE
- X. MINIMUM PRINT SPEED OF 4.5 LINES PER SECOND

5 . **TYPE II, CLASS D** - DISPLAY WITH PRINTER, 14 DIGITS - TWO (MIN) MEMORIES, 14 DIGIT (MIN) PRINT PUNCTUATION, 2 3/4" TAPE

- A. AUTOMATIC DIRECT ACCUMULATION
- B. BUFFERED KEYBOARD
- C. CONSTANT FOR MULTIPLICATION AND DIVISION
- D. FIXED DECIMAL ANSWERS, WHICH SHALL INCLUDE 0, 2, AND 3 OR 4 FIXED POSITIONS
- E. FLOATING DECIMAL AND ADD MODE ENTRIES
- F. ITEM COUNTER
- G. MEMORY LIGHTS: ONE FOR EACH MEMORY
- H. MEMORY CLEAR OR MEMORY TOTAL
- I. MEMORY RECALL OR MEMORY SUB-TOTAL
- J. MEMORY +
- K. MEMORY -
- L. MINIMUM CAPACITY: 14 DIGITS
- M. MINIMUM NUMBER OF MEMORIES: 2
- N. NON-ADD KEY
- O. NON-PRINT KEY OR SWITCH
- P. OUTPUT: DISPLAY WITH PRINTER
- Q. PERCENT KEY
- R. PHYSICAL TYPE: DESK TOP
- S. PUNCTUATION
- T. REPEAT ADDITION AND SUBTRACTION
- U. ROUND OFF
- V. STANDARD SIZE KEYBOARD
- W. TWO-COLOR PRINT, WITH RED PRINT CREDIT BALANCE, 14 DIGIT (MIN)PRINT PUNCTUATION (, 2 3/4" TAPE
- X. MINIMUM PRINT SPEED OF 4.5 LINES PER SECOND

**D. DEFINITIONS**

THE FOLLOWING DEFINITIONS SHALL APPLY TO ALL CALCULATORS PURCHASED UNDER THIS SPECIFICATION.

**ADD MODE:** NUMBERS ARE AUTOMATICALLY ENTERED WITH TWO DECIMAL PLACES WITHOUT THE NEED TO MANUALLY ENTER THE DECIMAL POINT.

**AUTOMATIC DIRECT ACCUMULATION:** ACCUMULATION INTO A MEMORY REGISTER WITHOUT OPERATOR HAVING TO DEPRESS MEMORY ENTER KEY. DEPRESSING "X" KEY ACCUMULATES FIRST FACTORS INTO ONE MEMORY REGISTER, AND DEPRESSING "=" KEY ACCUMULATES PRODUCTS AND TOTALS OF SUCCESSIVE CALCULATIONS INTO ANOTHER MEMORY REGISTER.

**BUFFERED KEYBOARD:** MACHINE ACCEPTS KEY INPUT OF NEW NUMBERS AND FUNCTION COMMANDS WHILE SIMULTANEOUSLY EXECUTING PREVIOUSLY ENTERED CALCULATIONS. ALL COMPUTATIONS, INCLUDING THOSE USING A CONSTANT, SHALL BE PERFORMED CORRECTLY REGARDLESS OF THE OPERATOR'S ENTRY SPEED.

**CAPACITY:** FOR DISPLAY ONLY TYPES, CAPACITY SHALL BE THE TOTAL NUMBER OF DIGITS IN THE DISPLAY. FOR PRINTERS, CAPACITY SHALL BE THE MAXIMUM NUMBER OF DIGITS THAT CAN BE PRINTED AS AN ANSWER. IN THE CASE OF COMBINATION DISPLAY/PRINTER UNITS, CAPACITY IS HEREBY DEFINED TO BE THE SMALLER NUMBER OF THE DISPLAY OR PRINTER CAPACITIES. THE SUM OF THE NUMBER OF MANTISSA AND EXPONENT DIGITS WILL BE CONSIDERED CAPACITY IN SCIENTIFIC NOTATION UNITS.

**CHANGE SIGN:** CHANGES THE SIGN OF A NUMBER FROM POSITIVE TO NEGATIVE AND VICE VERSA.

**CLEAR:** A FUNCTION KEY TO DELETE AN ENTRY OR CERTAIN REGISTER CONTENTS FROM THE CALCULATOR.

**CLEAR MEMORY:** IS A SPECIAL CASE, WHICH CLEARS THE MEMORY CONTENTS ONLY.

**CONSTANT FOR MULTIPLICATION AND DIVISION:** ALLOWS MULTIPLYING OR DIVIDING A SERIES OF NUMBERS BY ONE NUMBER WITHOUT RE-ENTRY OF THE NUMBER.

**DESK TOP UNIT:** PHYSICAL SIZE OF CALCULATOR SHALL BE 2000 CUBIC CENTIMETERS (LENGTH X WIDTH X MAXIMUM HEIGHT) MINIMUM, EXCEPT SOLAR CELL CALCULATORS, AND UNIT SHALL BE FOR 120 VAC 60 HZ INPUT POWER ONLY. NOTE THAT ANY MACHINE WHICH IS CAPABLE OF BATTERY OPERATION SHALL NOT BE CONSIDERED A DESK TOP UNIT.

**DIGIT:** ONE OF THE TEN ARABIC NUMERALS (0-9) BY WHICH ALL NUMBERS ARE EXPRESSED. NOTE THAT MINUS SIGN, COMMA, OR OTHER NON-NUMERIC SYMBOL SHALL NOT BE CONSIDERED A DIGIT.

**FLOATING ENTRIES:** THE DECIMAL POINT IS NOT PRESET OR RESTRICTED, AND NUMBERS MAY BE ENTERED AS THEY ARE WRITTEN WITH THE DECIMAL MANUALLY ENTERED AT THE DESIRED POINT.

**FIXED DECIMAL ANSWERS:** THE DECIMAL POINT IN ANSWER IS POSITIONED TO A PRESET DESIRED NUMBER OF DIGITS.

**FLOATING ANSWERS:** CALCULATOR AUTOMATICALLY ALIGNS DECIMAL IN ANSWERS IN ACCORDANCE WITH THE DECIMAL PLACES IN THE INVOLVED ENTRIES.

**HAND HELD UNIT:** PHYSICAL SIZE OF CALCULATOR SHALL BE LESS THAN 425 CUBIC CENTIMETERS (LENGTH X WIDTH X MAXIMUM HEIGHT) AND UNIT SHALL BE CAPABLE OF BATTERY OPERATION.

**ITEM COUNTER:** COUNTS AND PRINTS OR DISPLAYS, EITHER AUTOMATICALLY OR ON DEMAND, THE NUMBER OF ENTRIES PRECEDING A FINAL RESULT.

**MEMORY LIGHT:** A LIGHT THAT INDICATES WHEN THE MEMORY IS IN USE. A SEPARATE LIGHT IS REQUIRED FOR EACH MEMORY.

**MEMORY RECALL:** A KEY OR FUNCTION THAT ALLOWS THE MEMORY CONTENTS TO BE DISPLAYED OR PRINTED FOR OPERATOR CHECKING.

**MEMORY REGISTER** (ALSO REFERRED TO SIMPLY AS "MEMORY" IN THIS SPECIFICATION): A REGISTER, INDEPENDENT OF THE "WORKING", OR GRAND TOTAL MEMORY REGISTERS, IN WHICH THE CONTENTS CAN BE ADDED TO, OR SUBTRACTED FROM. THE CONTENTS OF THE REGISTER SHALL REMAIN AVAILABLE FOR ALTERATION OR RECALL UNTIL THE REGISTER IS MANUALLY CLEARED OR THE CALCULATOR IS TURNED OFF. "SUBTOTAL", IF APPLICABLE, SHALL RECALL THE MEMORY CONTENTS WITHOUT CLEARING THE REGISTER. "TOTAL", IF APPLICABLE, MAY CLEAR THE REGISTER IN CONJUNCTION WITH RECALLING ITS CONTENTS. WHERE MORE THAN ONE MEMORY IS REQUIRED, THE SECOND MEMORY SHALL BE ACCESSED BY THE TOUCH OF A KEY AND SHALL FUNCTION IN THE SAME MANNER AS THE FIRST MEMORY.

**NEGATIVE SIGN:** A HORIZONTAL LINE, PRINTED OR DISPLAYED, THAT DENOTES A NEGATIVE NUMBER.

**NON-PRINT:** A KEY OR SWITCH THAT DE-ENERGIZES THE PRINTER IN COMBINATION UNITS SO THAT ENTRIES AND RESULTS ARE DISPLAYED ONLY.

**PERCENT KEY:** SHALL PROVIDE ADD-ON AND DISCOUNT CAPABILITIES EITHER AUTOMATICALLY OR ON SUBSEQUENT DEPRESSION OF NO MORE THAN TWO ADDITIONAL KEYS. WHEN THE PERCENT FIGURE IS ENTERED AS A WHOLE NUMBER, THE PERCENT KEY SHOULD AUTOMATICALLY ADJUST THE DECIMAL SETTING IN THE RESULT. A "SIMPLE" PERCENT KEY CALCULATES % OF A NUMBER, BUT LACKS ADD-ON OR DISCOUNT CAPABILITY.

**PORTABLE UNIT:** THE CALCULATOR SHALL HAVE A PHYSICAL SIZE OF 1,500 CUBIC CENTIMETERS AND SHALL BE CAPABLE OF BATTERY OPERATION. WEIGHT SHALL BE 2.5 KILOGRAMS, MAXIMUM, INCLUDING BATTERY PACK.

**PUNCTUATION:** GROUPS OF THREE DIGITS TO THE LEFT OF THE DECIMAL IN THE DISPLAY AND/OR PRINTOUT ARE SEPARATED BY A COMMA OR A SPACE. SUCH GROUPING SHALL OCCUR UP TO AND INCLUDING THE FULL DIGIT CAPACITY OF THE CALCULATOR. PUNCTUATION SHALL BE ILLUMINATED ON DISPLAY TYPE MACHINES. FOR COMBINATION DISPLAY/PRINTER UNITS, TAPE OUTPUT MUST BE PUNCTUATED AS SPECIFIED IN **SECTION C**.

**REPEAT ADDITION AND SUBTRACTION:** ABILITY OF THE CALCULATOR TO REPEAT ADDITION OR SUBTRACTION OF A NUMBER BY SIMPLE DEPRESSION OF THE PLUS OR MINUS KEY WITHOUT RE-ENTRY.

**ROUND OFF:** THE LAST DIGIT DISPLAYED OR PRINTED IN AN ANSWER IS INCREASED BY ONE IF THE FOLLOWING DIGIT WOULD HAVE BEEN A "5" OR GREATER.

**SCIENTIFIC NOTATION:** THE NUMBER IS ENTERED OR AN ANSWER IS DISPLAYED IN TERMS OF A POWER OF 10.

**STANDARD SIZE KEYBOARD:** A STANDARD SIZE KEYBOARD SHALL BE NO LESS THAN 3.5 CENTIMETERS IN WIDTH, MEASURED FROM #1 KEY TO #3 KEY, CENTER TO CENTER.

**TWO-KEY ROLLOVER:** ALLOWS THE DEPRESSION OF A SECOND NUMERICAL KEY BEFORE THE RELEASE OF A PRECEDING KEY, WITH BOTH NUMBERS BEING CORRECTLY ENTERED INTO THE MACHINE. MECHANICAL KEY LOCKOUT IS AN ACCEPTABLE ALTERNATIVE TO TWO-KEY ROLLOVER.

#### **IV. WARRANTY**

THE CONTRACTOR WARRANTS TO THE OWNER THAT ALL EQUIPMENT FURNISHED UNDER THIS SPECIFICATION WILL BE NEW, OF GOOD MATERIAL AND WORKMANSHIP, AND AGREES TO REPLACE PROMPTLY ANY PART OR PARTS WHICH BY REASON OF DEFECTIVE MATERIAL OR WORKMANSHIP SHALL FAIL UNDER NORMAL USE, FREE OF NEGLIGENCE OR ACCIDENT FOR A MINIMUM PERIOD OF 12 MONTHS FROM DATE OF ACCEPTANCE.

FOR MACHINE QUALIFYING AS DESK TOP TYPE UNDER THE DEFINITION CONTAINED HEREIN, REPAIR, AND RETURN SHALL BE FREE OF ANY CHARGE TO THE OWNER OR HIS REPRESENTATIVE. THE OWNER WILL PACK AND SHIP PREPAID TO A DESIGNATED REPAIR STATION IN THE CONTINENTAL UNITED STATES PORTABLE UNITS (AS DEFINED HEREIN), BUT REPAIR AND RETURN SHALL BE FREE OF ANY CHARGE TO THE OWNER OR HIS REPRESENTATIVE DURING THE WARRANTY PERIOD.

#### **V. SERVICE, PARTS AND MANUALS**

EACH CALCULATOR FURNISHED UNDER THIS SPECIFICATION SHALL HAVE A DECAL OR OTHER SUITABLE LABEL WHICH STATES WHOM THE OWNER SHOULD CONTACT FOR SERVICE DURING THE WARRANTY PERIOD. THE DECAL SHALL INCLUDE THE NAME, ADDRESS, AND PHONE NUMBER OF THE SERVICE POINT, DATE OF DELIVERY, AND DATE OF WARRANTY EXPIRATION.

ONE OWNER'S MANUAL SHALL BE INCLUDED WITH EACH CALCULATOR FURNISHED UNDER THIS SPECIFICATION.

WARRANTY SERVICE SHALL BE PROVIDED TO THE OWNER WITHIN 24 HOURS (NEXT BUSINESS DAY) FROM NOTIFICATION ON ANY DESK TOP TYPE CALCULATOR. FOR DESK TOP TYPE CALCULATORS, LOANER EQUIPMENT SHALL BE PROVIDED, AT NO COST TO THE OWNER, FOR USE DURING REPAIR PERIODS THAT EXCEED TWO BUSINESS DAYS DURING THE WARRANTY TERM. REPAIR PERIODS EXCEEDING TWO BUSINESS DAYS MUST BE ANTICIPATED BY THE CONTRACTOR AND EQUIPMENT FURNISHED WITHIN THAT TIME FRAME. A REPAIR PERIOD SHALL NOT EXCEED 30 DAYS. LOANER EQUIPMENT SHALL POSSESS ALL FUNCTIONAL CAPABILITIES PRESENT IN EQUIPMENT BEING SERVICED BUT NEED NOT BE OF THE SAME MAKE OR MODEL.

**VI. ACCEPTANCE EVALUATION AND QUALITY ASSURANCE**

ALL EQUIPMENT PROPOSED MUST COMPLY WITH THE RELEVANT REQUIREMENTS OF THIS SPECIFICATION IN ORDER TO QUALIFY FOR AWARD CONSIDERATION.

**VII. DELIVERY**

THE VENDOR SHALL BE RESPONSIBLE FOR THE SAFE DELIVERY OF THE CALCULATOR.

CALCULATORS SHALL BE FURNISHED WITH INDIVIDUAL SHIPPING CARTONS SUITABLE FOR RESHIPMENT

**VIII. ORDERING DATA (FOR PURCHASE AND CONTRACT USE ONLY)**

PURCHASERS SHOULD EXERCISE ANY DESIRED OPTION HEREIN AND SHOULD SPECIFY THE FOLLOWING:

1. TITLE, NUMBER, AND DATE OF THIS SPECIFICATION.
2. TYPE AND CLASS OF CALCULATOR DESIRED (SEE CLASSIFICATION).

\*\*\*\*\***END OF DOCUMENT**\*\*\*\*\*