



TITLE: NUMBERING SYSTEM – INSULATED WIRE (Cut, Strip and Tin)

1.0 PURPOSE

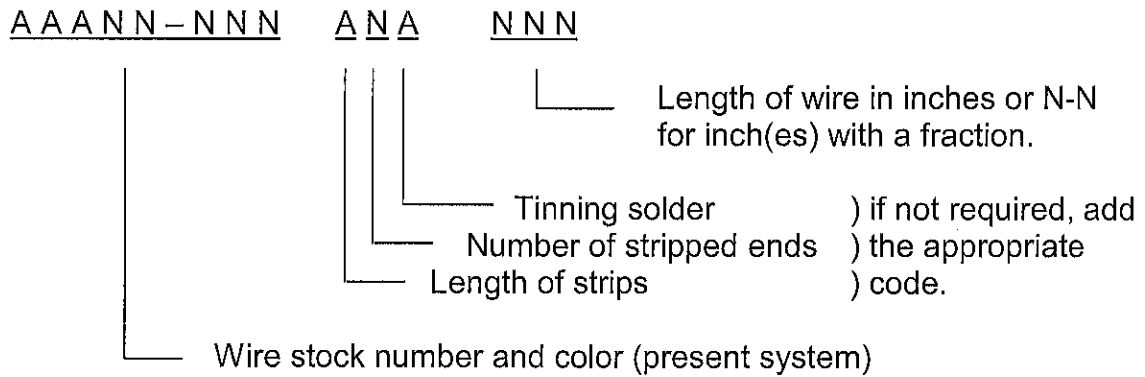
To standardize, define and establish a method for issuance and control of insulated hook-up wire that must be cut to length, the insulation stripped, and the wire tinned for soldering.

2.0 DEPARTMENTS AFFECTED

All departments.

3.0 METHOD

3.1 When it is necessary to specify a complete part number for insulated wire that is cut, stripped and tinned on a high volume production product, the following alpha/numeric system should be used.



The maximum number of characters (including dashes) is fifteen (15). No dashes should be used between two alphas or between an alpha and a numeric. Dashes may appear between numerics only.

3.2 Material - The part number or basic stock number as presently in use will apply. This number completely specifies the material regarding type of material, applicable military specification, size, insulation color, etc.

| | | | | | | | | | | | | | | |
|--------------|-------------|----------------|---|---|------|--|--|------------------|--|--|--|--|--|--|
| Rev | - | - | - | - | - | | | | | | | | | |
| Sheet | 1 | 2 | 3 | 4 | 5 | | | | | | | | | |
| Revised Date | Dept Number | Originator | | | Date | | | Rel Date 4/20/99 | | | | | | |
| | 571 | Dept Approval | | | Date | | | Sheet 1 of 5 | | | | | | |
| | | Final Approval | | | Date | | | Doc No MEP-0087 | | | | | | |

- 3.3 Length of Cut Insulation - The length of cut will be specified by an alpha code per the following table. The length is a nominal dimension without tolerance; a rule of thumb, however, should be $\pm 10\%$.

| CODE DESIGNATION | NOMINAL LENGTH (Inches) |
|------------------|-----------------------------------|
| A | 1/8 |
| B | 3/16 |
| C (Std) | 1/4 |
| D | 5/16 |
| E | 3/8 |
| N | Not required |
| M | 1/8 First Cut & 1/4 Second Cut |
| P | 1/8 First Cut & 3/8 Second Cut |
| R | 1/4 First Cut & 1/8 Second Cut |

The standard will be Code C (0.250).

- 3.4 Ends Stripped - The number of ends stripped will be specified by a corresponding numeric code:

| CODE DESIGNATION | ENDS STRIPPED |
|------------------|---|
| 0 | Not Required |
| 1 | One |
| 2 (Std) | Both |
| 3 | Partial strip both ends (Do not remove insulation) |
| 4 | Fully strip first end; partial strip second end |

The standard will be Code 2 (both ends).

- 3.5 Tin - The stripped end(s) are to be tinned flush to ten insulation with solder per the code designations shown below. Use the least active liquid flux (R, RMA or RA) that provides satisfactory wetting of the stripped wire. Tinned ends are to be cleaned of residual flux using isopropyl alcohol, stock number S1019A.

| CODE DESIGNATION | SOLDER |
|------------------|--|
| Z (std) | SN63B5 (63/37) per QQ-S-571, Ref. SF452 |
| Y | SN95SB5S per QQ-S-571, Ref. SF397 |
| N | Not required |
| X | SN63B5 (63/37) per QQ-S-571, Ref. SF452 (1 end only) |
| W | SN95SB5S per QQ-S-571, Ref. SF397 (1 end only) |
| V | SN96 per QQ-S-571 |
| U | SN96 per QQ-S-571 (1 end only) |

The standard will be Code Z (SN63B5).

3.6 Wire Length

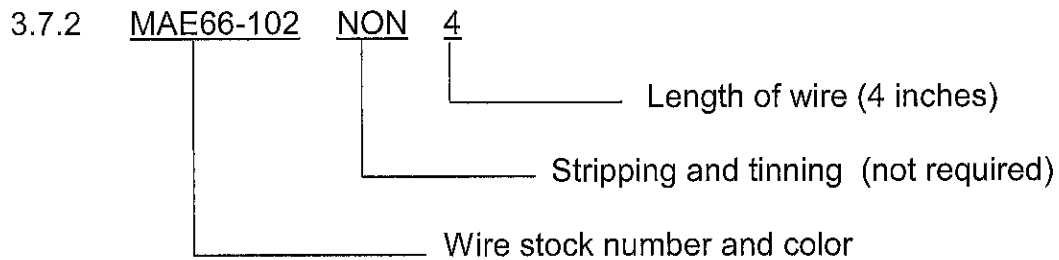
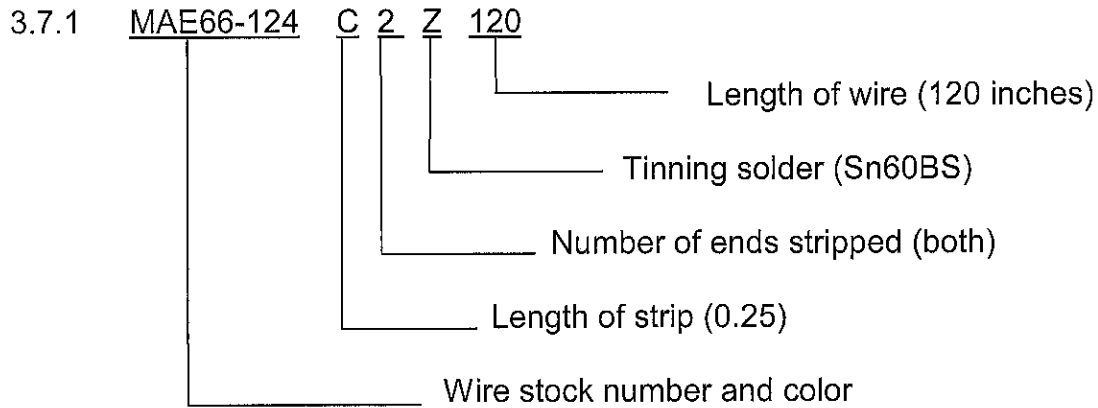
- 3.6.1 Whole Inches - When the wire length is 10 inches and over, the total wire length will be specified by a numeric code corresponding to whole inches; parts of an inch are not allowed. The length tolerance will always be $\pm 5\%$. The maximum number of digits is three; therefore, the maximum length per this method is 999 inches. Do not prefix or weight the numbers with zero(s); i.e., use 14, not 014; and 4, not 004.
- 3.6.2 Inch(es) with a fraction - When the wire length is less than 10 inches, a dash number may be added to the numeric length code to add quarterly fractional increments to the length.

$$-1 = 1/4$$

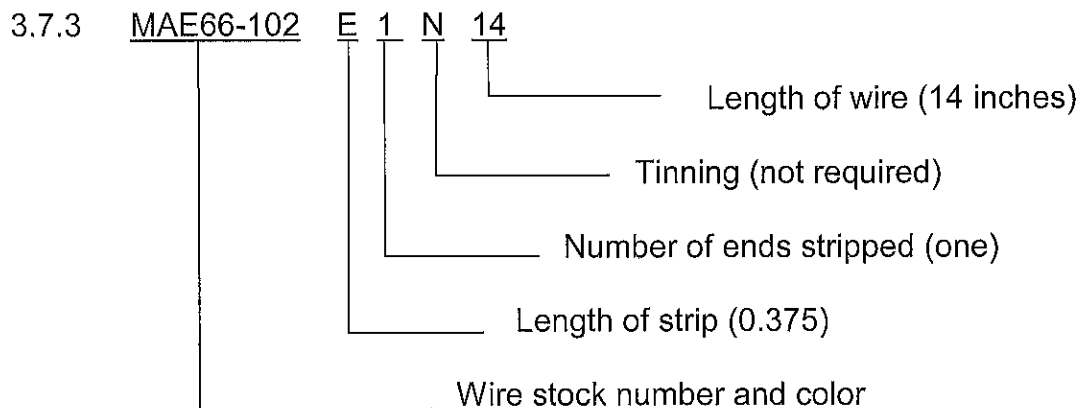
$$-2 = 1/2$$

$$-3 = 3/4$$

The total length tolerance will be $\pm 5\%$.

3.7 Examples

NOTE: On this example, the stripping and tinning are not required; this wire is cut to length only.



NOTE: On this example, the wire is cut to length, one end stripped but not tinned.

3.7.4 MAE66-124 C2Z 4-1

Length of wire (4 ¼ inches)

Same as example 3.7.1

4.0 APPLICATION

- 4.1 This method is intended for use in all product classes where a high volume production unit is being fabricated. It, therefore, is not mandatory nor required in all cases. If Production Planning, Manufacturing Engineering, etc., deems it necessary where it is presently not used on released drawings, then the engineering drawing change request route should be followed.
- 4.2 If the complete method as described in paragraph 4.1 is not applicable, then the information should be provided on the applicable assembly, sub-assembly, or detail drawing.
- 4.3 Stock numbers (per present system) may continue to be used without these additional suffix characters.