

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

REPLACEMENT OF PRESSURE CRIMP-TYPE SOLDERLESS
CONNECTORS DURING FIELD MAINTENANCE
OF ARMY SIGNAL EQUIPMENT

Headquarters, Department of the Army, Washington 25, D. C.
25 January 1963

1. Purpose. This bulletin establishes soldering as the approved maintenance process for replacing defective pressure crimp-type solderless connectors during third and fourth echelon repair and maintenance of Army Signal equipment.

2. Exceptions. a. Replace defective pressure crimp-type solderless connectors during field maintenance of Army Signal equipment in accordance with the soldering instructions given in paragraph 3, except when pressure crimp-type solderless connectors are used-

- (1) To terminate tinsel cordage.
- (2) In equipments whose performance may be altered by solder or the heat from the soldering process.
- (3) In equipments that generate heat greater than the melting point of soft solder.
- (4) In enclosed areas such as Army aircraft, vehicles, and shelters where the use of heat-generating equipment such as soldering irons or guns and gas torches constitute a safety hazard due to the presence of explosive vapors from high octane fuel, oil, etc.

b. Replace the defective pressure crimp-type solderless connectors during depot maintenance of Army Signal equipment in the same manner as

indicated for field maintenance (a above), except during production line operations. For connecting pressure crimp-type solderless connectors to hookup wire under controlled production line operations (at base maintenance activities), use the manufacturer's tools and jigs in accordance with his installation and testing instructions.

3. Instructions. Solder a pressure crimp-type solderless connector to the wire as follows:

a. Remove the insulation from the end of the wire so that the bare wire is the same length as the connector ferrule and does not extend beyond the ferrule.

Caution

Do not nick the wire when stripping or cleaning.

b. Clean the bare wire with No. 000 sandpaper. If sandpaper cannot effectively clean the bare wire, use a wire scraper.

c. Tin the bare wire with rosin-core solder.

d. If the inside of the connector ferrule is oxidized, scrape it clean.

e. If the connector has an insulator, remove the insulator.

* This bulletin supersedes TB SIG 326, 26 November 1957.

- f. Tin the inside of the connector ferrule with rosin-core solder.
- g. Insert the tinned wire into the connector ferrule.
- h. Sweat (join) the wire and the connector together by applying a hot soldering iron to the bottom of the connector ferrule.

Caution

Do not move the connector or the wire until the solder has solidified.

i. If the connector is provided with a crimping sleeve (strain relief to engage insulated portion of wire adjacent to connector), lightly crimp the end of the crimping sleeve to engage the wire insulation.

j. Apply the hot soldering iron to the connector ferrule and fill the connector ferrule with additional rosin-core solder.

k. If electrical insulation is required, wrap the connector ferrule with electrical tape.

By Order of the Secretary of the Army:

EARLE G. WHEELER,
General, United States Army,
Chief of Staff.

Official:

J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

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NG: State NG (3); units-same as active army except allowance is one copy each unit.

USAR: None.

For explanation of abbreviations used, see AR 320-50.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS



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IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.

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The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
 1 decimeter = 10 centimeters = 3.94 inches
 1 meter = 10 decimeters = 39.37 inches
 1 dekameter = 10 meters = 32.8 feet
 1 hectometer = 10 dekameters = 328.08 feet
 1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
 1 decigram = 10 centigrams = 1.54 grains
 1 gram = 10 decigrams = .035 ounce
 1 decagram = 10 grams = .35 ounce
 1 hectogram = 10 decagrams = 3.52 ounces
 1 kilogram = 10 hectograms = 2.2 pounds
 1 quintal = 100 kilograms = 220.46 pounds
 1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce
 1 deciliter = 10 centiliters = 3.38 fl. ounces
 1 liter = 10 deciliters = 33.81 fl. ounces
 1 dekaliter = 10 liters = 2.64 gallons
 1 hectoliter = 10 dekaliters = 26.42 gallons
 1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

<i>To change</i>	<i>To</i>	<i>Multiply by</i>	<i>To change</i>	<i>To</i>	<i>Multiply by</i>
inches	centimeters	2.540	ounce-inches	Newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	Newton-meters	1.356	metric tons	short tons	1.102
pound-inches	Newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C
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