

DISCRETE WIRING SOLDERLESS WRAPPED ELECTRICAL CONNECTIONS - WIRE WRAP	
	<p align="center"><b>WIRE WRAPPING</b></p> <p>Solderless wrapped terminations are made by helically wrapping a solid uninsulated wire, around a specially designed termination post, to produce a mechanically and electrically stable connection.</p> <p>Class A: <b>Class A</b> provides improved vibration characteristics, and is the required wrap style for spaceflight hardware applications. This wrap configuration, requires 1/2 to 1-1/2 turns of insulated wire be in contact with a minimum of three (3) corners of the wrappost, in addition to the uninsulated wraps.</p> <p>Class B: <b>Class B</b> wraps are prohibited.</p>

	<p align="center"><b>ACCEPTABLE CLASS A – SINGLE TERMINATION</b></p> <p>The termination has the required number of insulated and uninsulated turns of wire, and is clean and free of foreign material.</p> <p><a href="#">MIL-STD-1130B [ 4.1 ]</a></p>
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	<p align="center"><b>ACCEPTABLE CLASS A – MULTIPLE TERMINATIONS</b></p> <p>The terminations are properly spaced, with each having the required number of insulated and uninsulated turns of wire, and are clean and free of foreign material.</p> <p><a href="#">MIL-STD-1130B [ 4.1 ]</a></p>
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	<p align="center"><b>ACCEPTABLE OVERLAPPED TURNS</b></p> <p>The insulated conductor overwrap does not exceed one (1) turn, and the termination wrap is tight.</p> <p><a href="#">MIL-STD-1130B [ 5.3.2.1 b ]</a></p>
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	<p align="center"><b>UNACCEPTABLE CLASS B</b></p> <p>Class B terminations, characterized by the absence of insulated turns, are prohibited.</p> <p><a href="#">Best Workmanship Practice</a></p>
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	<p align="center"><b>UNACCEPTABLE OVERWRAP</b></p> <p>Overlapping wraps reduce the reliability of the termination and may result in severed wraps.</p> <p><a href="#">MIL-STD-1130B [ 5.3.2.1 j ]</a></p>
	<p align="center"><b>UNACCEPTABLE SPIRAL WRAP</b></p> <p>The space between adjacent wrap turns shall not exceed one-half uninsulated conductor diameter. The sum of all gaps shall not exceed one wire diameter, excluding the first and last turn.</p> <p><a href="#">MIL-STD-1130B [ 5.3.2.1 f ]</a></p>

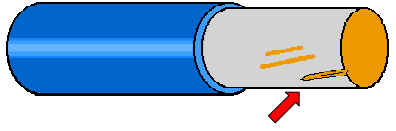
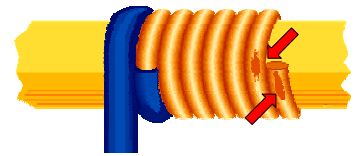
	<p align="center"><b>UNACCEPTABLE OPEN WRAP</b></p> <p>An open wrap is an indicator of an improper termination process and may reduce the reliability of the termination.</p> <p><a href="#">MIL-STD-1130B [ 5.3.2.1 f ]</a></p>
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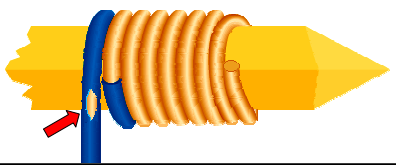
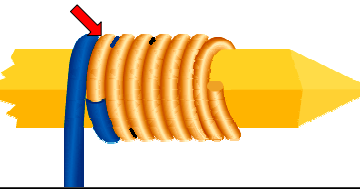
	<p align="center"><b>UNACCEPTABLE IMPROPER ROUTING</b></p> <p>The wire shall not be routed in any manner that will tend to unwrap the termination, and shall be routed around and between the wrapposts in a manner that prevents shorting to adjacent wrapposts.</p> <p><a href="#">MIL-STD-1130B [ 5.3.2.1 g ]</a></p>
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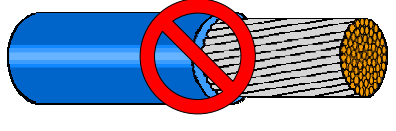
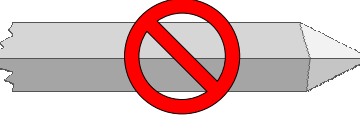
	<p align="center"><b>UNACCEPTABLE DAMAGED WRAPPOST</b></p> <p>The wrappost shall not exhibit evidence of cracking, flaking plating, bending, excessive twisting, gouging, or exposed base metal.</p> <p><a href="#">MIL-STD-1130B [ 5.3.2.1 a ]</a></p>
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	<p align="center"><b>UNACCEPTABLE DAMAGED WRAPPOST</b></p> <p>The wrappost shall not exhibit evidence of cracking, flaking plating, bending, excessive twisting, gouging, or exposed base metal after wire wrapping.</p> <p><a href="#">Best Workmanship Practices</a></p>
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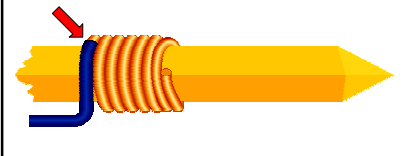
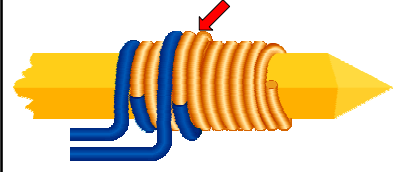
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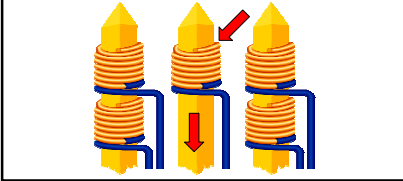
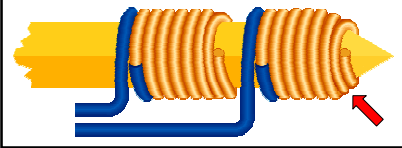
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<p><b>UNACCEPTABLE DAMAGED CONDUCTOR</b></p> <p>After removal of the insulation, the conductor shall not exhibit nicks, cuts, exposed base metal, ringing, or reduction of cross-sectional area. Burnishing of the wire surface is acceptable.</p> <p>MIL-STD-1130B [ 5.3.2 ]</p>	<p><b>UNACCEPTABLE DAMAGED CONDUCTOR</b></p> <p>After wrapping, the conductor shall not exhibit nicks, cuts, exposed base metal, ringing, or reduction of cross-sectional area. Burnishing of the wire surface is acceptable.</p> <p>Best Workmanship Practice</p>

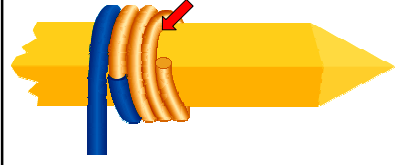
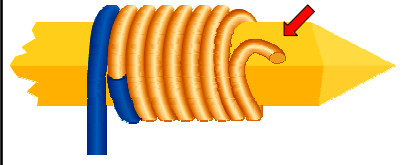
	
<p><b>UNACCEPTABLE DAMAGED INSULATION</b></p> <p>Cut, crushed, gouged, damaged, or nicked insulation may result in reduced electrical isolation and/or short circuits. Slight scuffing or discoloration is acceptable.</p> <p>Best Workmanship Practice</p>	<p><b>UNACCEPTABLE CONTAMINATION</b></p> <p>Contamination reduces the reliability of the termination.</p> <p>Best Workmanship Practice</p>


	
<p><b>UNACCEPTABLE STRANDED CONDUCTOR</b></p> <p>The use of stranded conductor for wire wrapping is prohibited.</p> <p>Best Workmanship Practice</p>	<p><b>UNACCEPTABLE SILVER UNDERPLATING</b></p> <p>The use of wrapposts with silver underplating is prohibited. Gold plating over nickel is preferred.</p> <p>MIL-STD-1130B [ 5.3.2.1 a ]</p>

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<p><b>UNACCEPTABLE INSUFFICIENT INSULATION WRAP</b></p> <p>The insulated section of the termination must be in contact with a minimum of three (3) corners of the wrappost.</p> <p>MIL-STD-1130B [ 5.3.2.1 a ]</p>	<p><b>UNACCEPTABLE OVERLAPPING WRAPS</b></p> <p>The overlapping wrap must not exceed one (1) complete turn over the last turn of uninsulated wire in a termination directly below it on the wrappost.</p> <p>MIL-STD-1130B [ 5.3.2.1 b ]</p>

	
<p><b>UNACCEPTABLE IMPROPER POSITION - SINGLE WRAP</b></p> <p>The first wrap should be located as low on the post as practical, providing sufficient space for additional terminations later.</p> <p>MIL-STD-1130B [ 5.3.2.1 b ]</p>	<p><b>UNACCEPTABLE IMPROPER POSITION - MULTIPLE WRAP</b></p> <p>Terminations in a multiple wrap configuration must be properly positioned to ensure the wraps are completed within the defined termination area of the wrappost.</p> <p>MIL-STD-1130B [ 5.3.2.1 b ]</p>

	
<p><b>UNACCEPTABLE INSUFFICIENT TURNS</b></p> <p>The uninsulated section of the termination shall have the minimum number of complete turns, as specified by MIL-STD-1130B, or as noted on the engineering documentation.</p> <p>MIL-STD-1130B [ 5.3.2 ]</p>	<p><b>UNACCEPTABLE END TAIL</b></p> <p>An end tail is the end of the last turn of wire that is protruding in a tangential direction from the surface of the wrappost. End tails present a risk of shorting.</p> <p>MIL-STD-1130B [ 5.3.2.1 d ]</p>

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