

Mega-Harnesses at Intercon, Inc. Capability Series –# 3 March 2009



A Mega-harness is a large configuration of several smaller wire or cable harnesses. A wire or cable harness is an assembly of wires or cables which transmit informational signals or operating currents (energy).

The wires or cables are bound together by clamps, cable ties, sleeves, electrical tape, or conduit. A mega-harness can have both data and power transmission capability.

Some advantages of a harness assembly include

- all wire and cable lengths are correct for the planned routing therefore installation is intuitive
- routing errors are eliminated
- accommodation for space constraints
- protection from the effects of vibrations and abrasions
- flame-retardant sleeves may be applied to guard against the risk of electrical fires
- protective coverings, i.e. for heat or abrasion protection are properly located.



As a manufacturer of custom assemblies, Intercon builds mega-harnesses that are scaled, routed and terminated to the customer's material and drawing specifications. As a value added service, Intercon can offer recommendations for construction methods, routing problems (i.e. not enough length to easily connect to mating connector), or environmental concerns for keeping moisture and pollutants from entering the mating connection, to name a few. Cost reducing measures such as component substitutions are also offered.

Mega-Harness Assembly - A diagram is attached to a board for the assembly preparation and assembly.

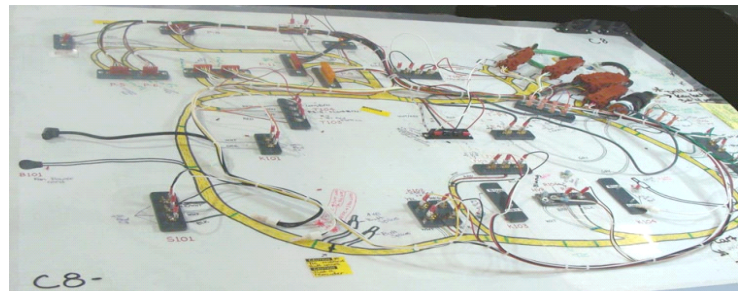
1. The wires are cut to the specified lengths usually using wire-cutting machinery.
2. The ends of the wires are stripped to expose the conductor.
3. Terminals are crimped.
4. Connectors are fitted and plugged.

The harness is assembled and bound, very efficiently, on the assembly board that is matted with the design specification.

Harness manufacturing involves routing wires through sleeves; taping on branch outs from wire strands; crimping terminals onto wires, particularly for double crimps (two wires into one terminal); inserting one sleeve into another; and fastening strands, clamps or ties.

Testing the electrical functionality of the cable or wire harness.

A test board can be used for proper electrical testing of the harness assembly. The circuit diagram data are pre-programmed into the test board utilizing electronic test equipment which ensures repeatability and reproducibility in accordance with the customer's specifications or requirements.



For more information on this topic please feel free to contact us. We are happy to help you with your requirements

