

CAMI Research Inc.

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NEW PRODUCT NEWS

August 1, 2008

Light-Guided Connector Assembly

CAMI Research introduces a new, computer-assisted technique for assembling circular connectors used in aerospace and other high-reliability applications. The "Light Director™" system uses light fibers driven by super-bright LED lamps to individually illuminate target cavities in the connector being assembled. When the technician enters the wire code printed on unconnected wires, a computer program turns on the appropriate fiber, thereby causing a bright, flashing light to project from inside the target cavity guiding the technician to the proper insertion point. Correct insertion is confirmed by the elimination of light from that location, whereas insertion into an incorrect location leaves the flashing light visible.

The Light Director also employs high-quality synthetic speech in English or Spanish to read the pin number to the technician, further reinforcing the target location. Speech recognition is also available as an option permitting the technician to read wire codes to the system, thus eliminating the need for a keyboard or monitor.

Normally, technicians crimp pins on wires in advance of assembly. Wires may be identified during the assembly process by numeric code, bar code, color code, or if no codes are present, by electrical detection using a wrist-strap if the far end of the cable has already been assembled and can be electrically connected to the system.

Field testing has shown that the Light Director doubles assembly rate over manual methods while nearly eliminating errors. Because the Light Director greatly reduces the perceptual challenge of manually locating pin cavities in a complex connector, technician fatigue is greatly reduced permitting a continuous, high productivity rate throughout the work day.

The Light Director™ is an accessory for CAMI's CableEye® PC-Based cable test system. Customer's purchase a mounting kit for each mating connector consisting of a plug-in board with LED sockets that attaches to the tester, LED light fibers, fiber guide boards, and a connector support board. The quantity price of a 64-pin capacity mounting kit is \$135, and the LED-fiber assemblies are \$1.75 each. All parts are reusable.

The CableEye tester checks cables and wire harnesses for opens, shorts, and miswires, measures diode forward voltage, checks resistance values over the range of 0.3 Ω to 10 M Ω , and tests conduction and isolation resistance against specified thresholds. The

CableEye® Model M3U Cable Tester sells for \$2195 for 152 test points and is expandable to over 2000 points.

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Keywords: connector assembly, military circular connectors, guided assembly, cable tester, harness tester, electronic test equipment, factory automation, wiring tester, continuity tester, resistance tester, CableEye.