# EN-	007-0206
NAME:	John Palahnuk
REV:	NC

Engineering Note

SUBJECT: **SUPPLEMENTAL SHIELDING FOR CABLE**

CICOIL cable is available with supplemental shielding. Supplemental shielding is an added layer of EMI protection on the cable. Supplemental shielding can be employed when protection from primary shields on individual conductors is not enough.

There are two distinct types of supplemental shielding. Both exhibit unique physical characteristics discussed below.

EMI FABRIC:

EMI fabric offers a proven method for shielding where the need for flexibility is essential or the environment is not ideal for an exposed metal shield. The EMI fabric can be marked for identification using MIL inks and fasteners can be used along its length. Cables with EMI fabrics can also come into contact with other like cables without catching or damaging the cable.

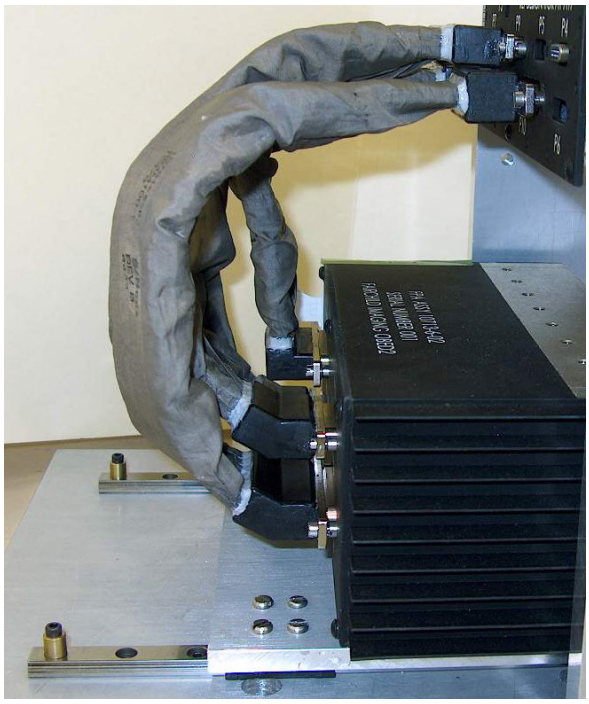

FIGURE 1: *The assemblies on the left and below are protected with EMI fabric. This supplemental shield allows for maximum flexibility.*

SUBJECT: SUPPLEMENTAL SHIELDING FOR CABLE

EMI FABRIC: (cont')

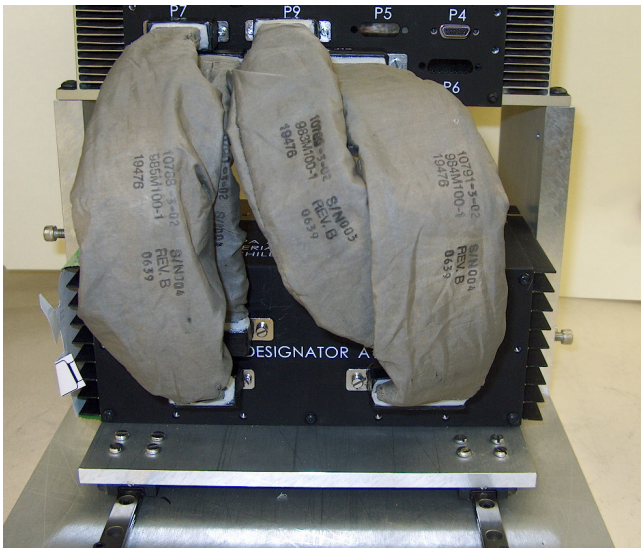

FIGURE 2: *The EMI fabric shield allows for the marking of the cable assembly using numerous ink types.*

OVERALL BRAID:

Overall braided shield is the most recognizable type of shielding. Braided shields are not as flexible as the EMI fabric, however it has mechanical advantages. The braided shield is not as susceptible to damage from a sharp object when compared to the EMI fabric. The overall braid shield also "hugs" the cable which translates to a tighter package than the EMI fabric. Finally, due to the construction of the woven braid, individual wires or cables can be routed out from the cable harness anywhere along its length.

SUBJECT: **SUPPLEMENTAL SHIELDING FOR CABLE**

OVERALL BRAID: (cont')

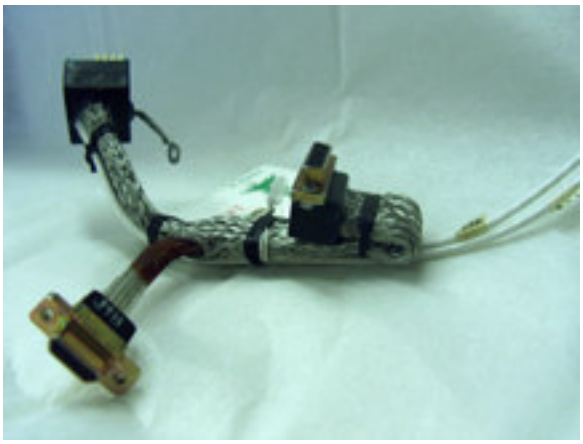

FIGURE 2: *The assembly on the left has an overall braided shield. Notice the shield does not significantly add to the size of the cable itself. The overall shield in combination with CICOIL highly flexible cable can hold a very tight bend radius.*

FIGURE 3: *The image to the right illustrates a cable branch out from the main cable.*

Please contact CICOIL for more information.

(661)295-1295
techsupport@cicoil.com
Or on the web at: cicoil.com