191, a Peltier module 192 and a heat sink 194.

[00043] The heat conduction pad 190 is a soft thermal transfer pad, preferably a liquid silicone gel pad. A protective material (preferably a thin PVC or other material that readily conducts heat and is UV resistant) is bonded to the front face of the heat conduction pad 190 (i.e., the face of the heat conduction pad 190 that in use is closest to the user's back). The rear face of the gel pad may be PVC or other suitable material, e.g., a polyester material. The periphery of the protective material of the heat conduction pad 190, is directly or indirectly attached to the fabric cover 162 material adjacent the respective cushioning cooling opening 164. The liquid silicone gel preferably has high heat conduction characteristics. Any non-toxic liquid or gel that has high heat conduction characteristics could be used to fill the gel pad.

[00044] In the embodiment illustrated in the drawings, the Peltier module comprises two Peltier chips, model CP40347 from CUI Devices™. Preferably, the Peltier module 192 itself and all related electrical circuits, are well protected by waterproof coatings (e.g., HumiSealR 1B73 conformal coatings).

[00045]

[00046] The Peltier module 192 has a heat receiving side and a heat emitting side. The cooling transfer plate 191 is between the heat conduction pad 190 and the heat receiving side of the Peltier module 192. The heat conduction pad 190 is bonded to the cooling transfer plate 191, (in the embodiments shown in the drawings, with a durable double sided tape). The Peltier module 192 is relatively fragile, and the cooling transfer plate 191 and heat sink 194 together support and secure the Peltier module 192.

[00047] The heat sink 194 is integral to, or bonded for optimum heat conduction with, the heat emitting side of the Peltier module 192. The heat sink 194 includes projecting heat sink fins 196 for heat dissipation.

[00048] The floating mount 182 is pivotally mounted to the backboard 120 at pivot mount 200 at the lower/proximal end of the floating mount 182. The cooling assembly 180 is attached