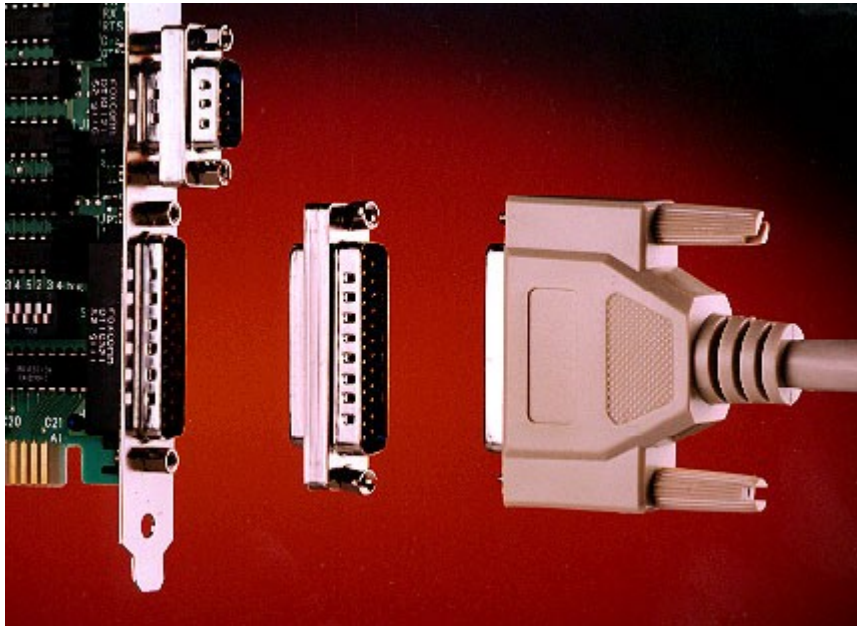
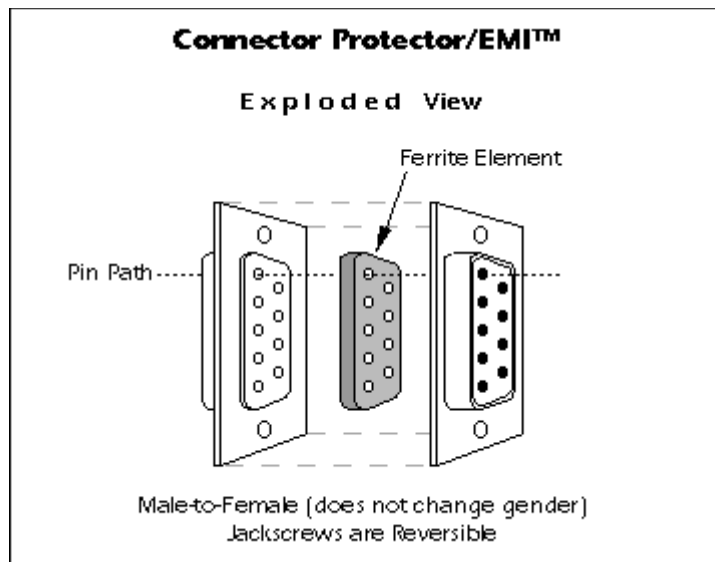


# The Connector Protector

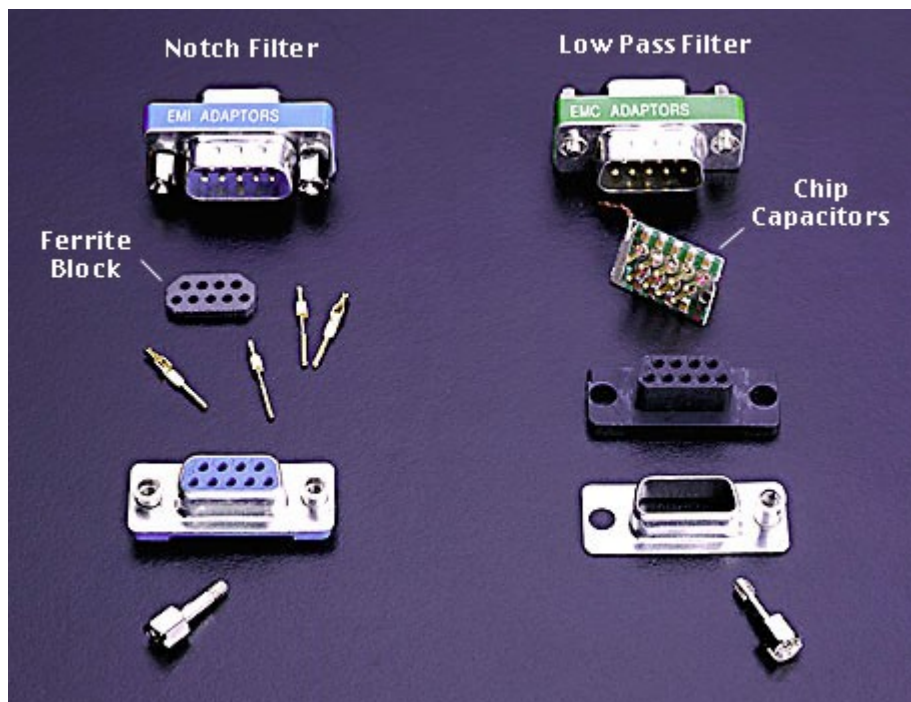


**Connector Insert with Straight-Through Pins Guards your Equipment** - Protect board-mounted D-subminiature connectors that are subject to frequent insertion and removal of cables from mechanical wear-out using the *Connector Protector™*. The size of a mini gender-changer, the Connector Protector firmly attaches to Dsub connectors using jackscrews. When cables are connected or disconnected, the inexpensive Connector Protector takes the mechanical wear, and may be quickly and easily replaced when continuity becomes intermittent or damage is sustained. Available for all standard and high-density D-sub sizes. Female Dsub connectors are especially prone to rapid wear-out and, in some cases, become intermittent after only 50 insertion cycles. The Connector Protector guards laptop PCs or other portable equipment from the high cost of replacing worn-out board-mounted connectors, and also finds applications in high-reliability, low down-time applications. The jackscrews may be easily reversed to allow mounting to either female or male connectors.

**Connector Insert with Ferrite or Capacitive Elements Blocks EMI** - Retrofit board-mounted Dsub connectors with a Connector Protector containing an integral ferrite or capacitive element to suppress environmental EMI. Identical in form and size to the standard Connector Protector, the Connector Protector-EMI (ferrite) or Connector Protector-EMC (capacitive) include internal components that attenuates high-frequency interference by as much as 30dB. As an additional benefit, the Connector Protector isolates soldered-in connectors from mechanical wear-out by taking the abuse of repeated cable insertions and removals.



The ferrite element serves as a notch filter with a resonant frequency of about 45 MHz. At this frequency, 30dB of attenuation is provided.



A disassembled view of the Connector Protector-EMI (ferrite) appears on the left, and the Connector Protector -EMC (capacitive) on the right. For the -EMC device, the chip capacitors mounted on this tiny PCB connect each pin to ground (the shield). The stock capacitance value is 1000 pF, however, other values could be provided on special order. The frequency response for a capacitive device will simply be that of a low pass filter whose cutoff point is determined by the line impedance.