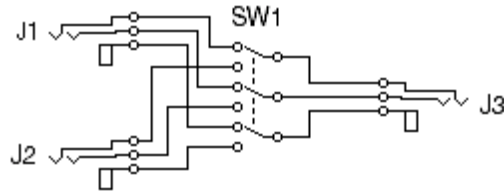


[5.7] GraphLink switchbox aids CBR/CBL programming

If you use the GraphLink software to write TIBasic programs for the CBR or CBL, you do a lot of cable swapping during program development. You must connect the calculator to the GraphLink cable to download the software, then connect the calculator to the CBL to test your software. This cable swapping wears out the cable and connectors, and can be avoided with a simple switchbox:



J1, J2 and J3 are female 2.5mm stereo jacks, and SW1 is a triple-pole, double-throw (3PDT) toggle switch. SW1 simply switches the three GraphLink cable conductors between J1 and J2, so the calculator connects to J3, the PC connects to J1, and the CBL connects to J2. Even though you must remember to put the switch in the proper position, the switchbox still eliminates the cable swapping.

Because of the low currents involved, SW1 should be a 'dry circuit' switch, with gold contacts. Unfortunately, 3PDT switches with gold contacts are not easy to get. The alternative is to use a switch with silver-plated contacts. Eventually, the silver will oxidize and communications will fail, and the switch will need to be replaced. However, I have been using such a switch for over a year with no failure yet. A typical switch is the C&K 7301SYZQE, which can be obtained from Mouser Electronics (www.mouser.com) as their part number 611-7301-001. Mouser also carries a high-quality 2.5mm stereo jack, their part number 161-3307.

If you build your own GraphLink cable, as shown in tip [5.6], you can build this switchbox into the same enclosure and save a 2.5mm jack.