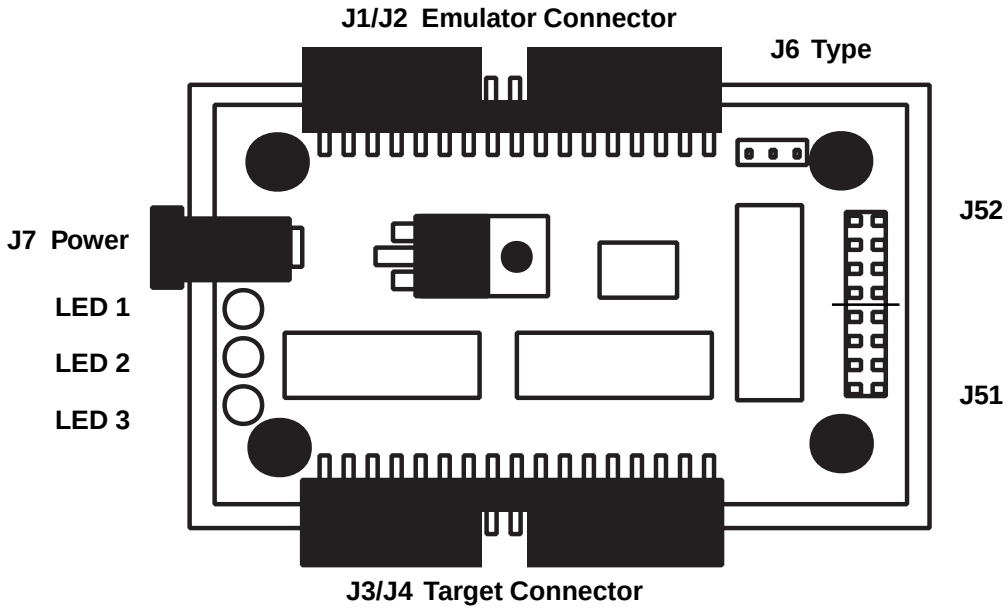
ADP3V

External power Supply and Low Voltage adapter for TechTools Memory Emulators

ADP3V is an adapter that inserts in-line with the target interface cable of our current memory emulator products. It provides 5V power to the emulator, 3V - 5V level translations and power down sense circuitry. TechTools ADP3V permits safe, valid operation of our memory emulators with targets operating at 2.8V - 5V.



J1/J2: Connect to Emulator with provided ribbon cable.

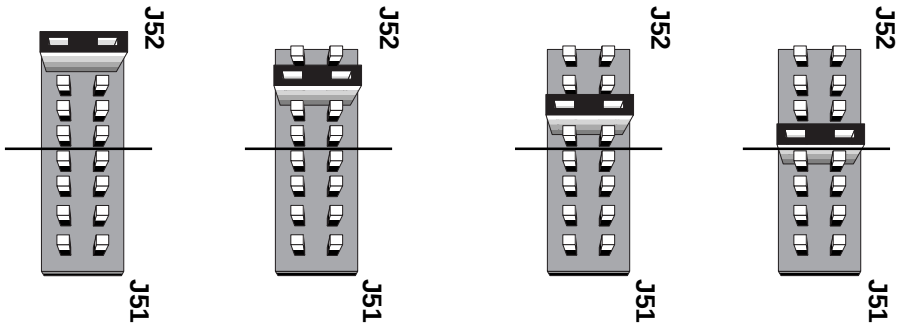
J3/J4: Connect to Target with original Emulator cable.

LED1: Indicates Power ON for the attached Emulator. If you have a UniROM connected to the ADP3V, this LED should follow the Target's power (same as LED2). If you have a FlexROM or EconoROM connected to the ADP3V, this LED should follow the ADP3V power (like LED3 - always ON).

LED2: Indicates Power sense circuitry has detected the Target's Power. This LED should glow whenver the Target has power applied. If LED2 fails to light when the Target is powered up, J52 is probably set incorrectly. Try moving it to a lower voltage threshold (away from J6).

LED3: Indicates ADP3V POWER. This should always be ON during use.

5 Volt Target. (4V Threshold) | **3.3 Volt Target. (2.7V Threshold)** | **3.0Volt Target. (2.4V Threshold)** | **2.8Volt Target. (2.2V Threshold)**



J52 Power Sense Threshold

J52: Configures the Target's valid voltage threshold. J52 has four jumper positions to select the voltage level at which the ADP3V power sense circuit isolates its data outputs to protect the target. This circuit also write-protects the emulator by insuring that the emulator's /CS line is held high when the target VCC is below the selected threshold.

J51 External Translation Buffers

J51: 4 extra translation buffers for reset lines, control lines and etc. Each pair of pins (left to right in the illustration above) are connected to a translation buffer. You could, for example, connect the 5V RESET signal from the emulator to one of the pins on the left. You could then connect the target reset input (presumably 3V) to the corresponding pin on the right. This will protect your target from the 5V levels from the emulator. (These are the Bottom 4 pairs of pins in the illustration above.)

***Econo*ROM / *Flex*ROM ("unswitched power source")** | ***Uni*ROM ("switched power signal")**

A. 

B. 

J6 Emulator Type

J6: Selects whether to power the emulator (with 5V from the ADP3V regulator) or supply the emulator with a switched 5V "power-sense signal". UniROM requires a "switched power signal" to determine when the target is powered down and when to over-ride arbitration settings. EconoROM and FlexROM models require the "unswitched power source" setting in order to have enough current to operate (position B will NOT power the emulator).

J7 Power Input

J7: ADP3V power input. 7.5V - 9V DC (power adapter supplied within the U.S.)

In general, you should enable power to the UniROM first, then the ADP3V and lastly the TARGET. You can power your target up and down at will without worrying about damaging the target, the ADP3V or the Emulator. When powering down, reverse the order.

If you are letting the TARGET WRITE into the emulator (configured for FLASH or using EPROM with an external WRITE input) and you experience problems with the target corrupting emulation memory when it cycles power, try moving J52 (power sense) to a higher threshold (towards J6).

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