

# FREQUENTLY ASKED QUESTIONS

## Power Supplies

Last updated: 4/13/05

### Q. How can I "trigger" an ATX power supply to test it?

#### A. Do this at your own risk...

- Is the power cord plugged into the power supply?
- Is it plugged into a live outlet?
- Plug the power supply AC power cord directly into a wall outlet.
- Many recent ATX power supplies have an additional power switch on the back of the power supply itself. Is it on?
- Is the power supply set for the correct voltage?
- Unplug the power cable to the power supply and disconnect all of the power cables from the power supply except the main power connector to the motherboard. Disconnect **all** other cables to the motherboard except the front panel power-on connector. Remove all expansion boards from the computer. Push the power-on switch and see if the power supply fan turns.
- Try another outlet.
- **Now to answer the question...** Unplug the power cord from the power supply, short-out pins 14 and 15 power supply main power connector, plug-in the power cord just long enough if the fan is working.
- This may not be the best thing to repeatedly do to an ATX power supply damage it). The [ATX12V Power Supply Design Guide](#) states that the power-on function should be normally done with TTL (transistor transistor logic) circuitry which pulls pin 14 low. I use a jumper cable with alligator clips at each end with partially stretched-out paper clips in each alligator clip (an old trick). Pull the power plug before removing the jumper. If the power supply works, remove the motherboard and see if it is shorted-out by a stand-off or lose screw. I have seen cases where a particular "good" ATX power supply would not work with a particular "good" motherboard -so much for standards and design guides

+3.3VDC	1	11	+3.3VDC	on the
+3.3VDC	2	12	-12VDC	and
COM	3	13	COM	to see
+5VDC	4	14	PS_ON#	
COM	5	15	COM	
+5VDC	6	16	COM	(it can
COM	7	17	COM	
PWR_OK	8	18	-5VDC	
+5VSB	9	19	+5VDC	
+12VDC	10	20	+5VDC	done

ATX POWER SUPPLY  
MAIN POWER CONNECTOR