

**DC-Jack:** Female, panel mount, 2.5\*5.5\*10 mm.

**Connectors**

Molex 39-01-2200, two 3.5" drive power connector, 1 floppy. P4-12V 4-pin header adapter sold separately.

**Overload protection**

Over load protection will be effected when either of the loads (+5V & +3.3V) exceeds > 200% Max Load.

**Turn-on Delay**

After turning on, at least 20 ms will be needed for the rise of +5VSB output voltage (measured from 10% to 95%) to reach its peak.

**Remote ON/OFF control**

Logic level is LOW - Output voltage is enabled (PS\_ON pin)  
Logic level is HIGH - Output voltage is disabled (PS\_ON pin)

**Operating environment:** Temperature: -20 to 85 degree centigrade.

Relative Humidity: 10 to 90 percent, non-condensing.

**Efficiency, MTBF:** 95%. MTBF= 60K hours at 55Celsius.

**Shipping and storage:** Temperature -40 to +90 degree centigrade. Relative humidity 5 to 95 percent, non-condensing

**Certifications (picopsu-120):** EN55024, EN55022 Class B (CE certification).

Australia/New Zealand (using CISPR 22, EN55022), Japan (VCCI: using CISPR 22, ANSI C63.4), United States (FCC Part 15, Subpart B, Class B), Canada (ICES-003 using CISPR 22, ANSI C63.4)

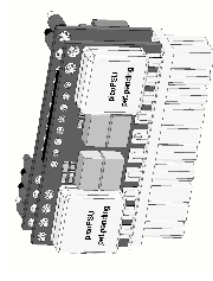
**Warranty**

1 Year Limited Warranty statement. Warranty is void if maintenance or calibration is performed by end-user or by use in conjunction with power modules not provided by mini-box.com.

**Support**

**Email:** [support@short-circuit.com](mailto:support@short-circuit.com)

**Web Site:** <http://www.short-circuit.com>



## picopsu-90

12V, 90Watt ATX Power Supply



[www.short-circuit.com](http://www.short-circuit.com)

## Quick Installation Guide

Version 1.1

P/N picopsu-90 (120006)

© 2006 [pat]

**NOT FOR VEHICLE USE**

## Introduction

The picoPSU-90 is a small yet powerful and fully compliant ATX power supply designed to power a wide variety of motherboard from a single 12V regulated power source.

The picoPSU-90 is the only snap on power supply solution for general purpose motherboards. Compatible with an entire range of mini-ITX, micro-ATX or full size ATX motherboards, the picoPSU-90 provides cool, silent power for system. The picoPSU-90 has many advantages over a regular power supply:

- Smallest ATX PSU to date
- 100% silent operation
- Low heat dissipation with efficiency over 95%
- Plugs directly into the motherboard's power connector -- no cable mess

## Quick Installation Instructions

The picoPSU-90 has been specifically designed for the Mini-ITX form factor, thus eliminating the need for ATX power cables. It is also 1U compliant – height will not exceed 1U form factor.

1) After the picoPSU module is snapped in, hook the hard drive power or floppy power to your floppy/hard drives. If more hard drives or floppy connectors are needed, use a HDD/floppy “Y” splitter cable.



2) Connect a 12 VDC power adapter (or any regulated 12V source) to the DC-to-DC connector, center pin / white wire is positive (+).

3) Turn on the PC using the motherboard ON/OFF switch.

## Typical configuration

The picoPSU-90 has been tested with all mini-ITX board under virtually all disk/floppy/CDROM/PCI configurations. Additionally, the picoPSU-90 can power P4 boards. Some P4 boards require a P4-12V connector. Please visit <http://www.short-circuit.com> for a cable harness adapter or solder a P4 cable harness into the 12V, 5V and GND pads on your ATX connector.

## Removing the picoPSU-90

In order to remove the picoPSU you must release the power connector latch and then remove the unit. Gently lift the picoPSU out from the ATX connector, by grabbing from the picoPSU PCB, not from components or the wire harness.

## Specifications, picoPSU-90, 90Watts DC-DC ATX Power Supply

Volts (V)	Power Ratings (Max Load = 85 Watts)		Regulation %
	Max Load (A)	Peak Load (A)	
5V	5A	6A	+/- 1.5%
5VSB	1.5A	2A	+/- 1.5%
3.3V	5A	6A	+/- 1.5%
-12V	0.05A	0.1A	+/- 5%
12V	3A	6A	Switched Input

At max load, forced air ventilation is required. For fanless operation de-rate the output of the 3.3V and 5V rails by -20%. Peak load should not exceed 60 seconds

Efficiency Ratings, 3.3 and 5V rail		
CH1=5V	Efficiency (%)	CH2=3.3V
1A	85%	1A
3A	93%	3A
6A	95%	5A

**Input Requirements:** 12V regulated, min=2A max=10A (load dependent). Over-voltage shutdown will occur at ~13-13.5V

**Size:** 44.5mm x 20mm x 30mm (LxWxH) (1U compliant)

**Weight:** 57grams (including cable harness) 27grams (without cable harness)