

## VP-12124 24 VOLT DC SWITCHING POWER SUPPLY

### INTRODUCTION

These instructions provide the specifications, installation and maintenance information for the VP-12124 24 Volt Power Supply.

### SPECIFICATIONS

The VP-12124 is a fully regulated 24VDC, 12 Amp switching power supply. The primary is protected by a 6.3 Amp fuse and the six, 2 amp outputs by auto-resetting fuses. The outputs are floating with respect to ground. The regulator will maintain 24 Volts +/-2% over the rated range of input voltages and output loads. A greater than 12 Amp load on power up will cause the power supply to current limit. Short circuit protection is provided. Over voltage is provided to limit the output voltage to approximately 28 Volts should a failure occur within the power supply. Outputs may be paralleled but not series connected.

### Applications

The VP-12124 is designed to be used with:

- All Valcom page control units
- Valcom one-way amplified speaker assemblies
- Any application where 24VDC filtered talk battery is required

### Design Features

- VP-12124: 90-260VAC, 50/60Hz input
- Hold Up Time: 350mS Power Line Ride Through
- (6) LPS outputs (24VDC @ 2A each)
- Meets Canadian requirements classified Level 3
- Short Circuit Protection
- UL/CSA/TUV Approvals
- LED operational indicator
- EMI filtering
- Auto recovery overload protection
- 83% Efficiency Green Technology
- 3 second power-up delay to drive large capacitive loads up to 40K  $\mu$ F
- Power Factor Correction

### Nominal Specifications

#### General

Efficiency: 83% @ 12A full load  
Weight: 7.7 lbs. (3.5 Kg)  
Dimensions: 12.10"H x 8.70"W x 3.90"D  
(30.70cm x 22.10cm x 9.90cm)

#### Input - VP-12124

Voltage: 90-260VAC  
Frequency: 50/60Hz  
Full Load Line Current: 3A @ 120V/1.5A @ 240V  
Rated Power: 360 Watts  
Fusing: 6.3A Fast







### Output

Rated Power: 300 Watts  
Voltage: 24 Volts  
Current: 12 Amps (6 - 2A outputs)  
Fusing: 6 - 2A, auto-reset polyswitch fuses  
Ripple & Noise: 1% P-P Max

### Environmental

Operating Temp: 0 to 40°C  
Storage Temp: -40° to 85° C  
Cooling: Free Air Convection  
Humidity: 10 - 90% (non-condensing)  
Shock:

### Precautionary Notes

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION: To reduce the risk of electric shock, Do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.		
	This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.	
	This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.	

### INSTALLATION

#### Mounting

The VP-12124 is designed to be wall mounted, via mounting slots, within 7 feet of an AC receptacle.

#### Connections

- Connections to Valcom page control units are shown in Figure 1.
- When using the VP-12124 with Valcom page equipment, a strap may be added from the local

- ground terminal to either of the "+" outputs.
- When installing Valcom one-way amplified horns, connect the white and black wires of the horn to the power supply "-" and "+" terminals respectively.
- When installing Valcom one-way speakers, connect the "-24VDC" and "GND" terminals of the speaker to the "-" and "+" terminals respectively.
- Plug power supply into wall outlet.
- Power supply activates after a 3 second delay.

**NOTE: Each 24VDC screw terminal is fused by a 2 Amp polyswitch automatic type fuse. Therefore, when connecting equipment to this power supply, the load should be distributed between the (6) 2 Amp output terminals and each load should not exceed 2 Amps.**

### TECHNICAL ASSISTANCE

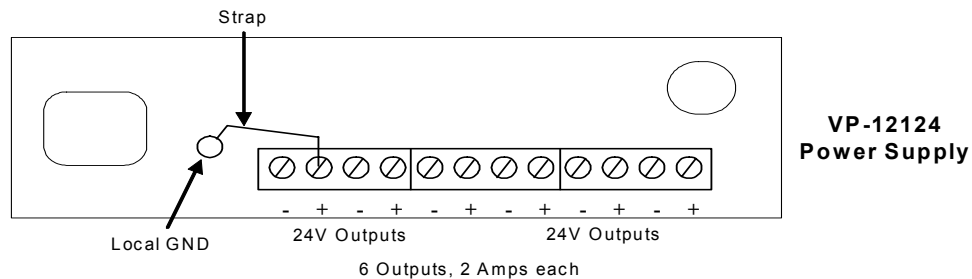
When trouble is reported, verify the unit is properly connected and there are no broken connections leading to this unit.

Assistance in troubleshooting is available from the factory. When calling, have a VOM and a test set and call from the job site. Call (540) 563-2000 and press 1 for Technical support or visit our website at <http://www.valcom.com>. Valcom equipment is not field repairable. Valcom, Inc. maintains service facilities in Roanoke, VA. Should repairs be necessary, attach a tag to the unit clearly stating company name, address, phone number, contact person, and the nature of the problem. Send the unit to:

**Valcom, Inc.  
Repair and Return Dept.  
5614 Hollins Road  
Roanoke, VA 24019-5056**

### TROUBLESHOOTING CHART

PROBLEMS	SOLUTIONS
1. No output.	a. Verify AC present at receptacle. b. Remove DC load and check for 24VDC using a VOM.
2. LED pulses in reset mode.	a. Locate and correct short circuit in output wiring. b. Verify total equipment power consumption does not exceed 12 Amps.



**Figure 1**

### VALCOM LIMITED WARRANTY

Valcom, Inc. warrants its products to be free from defects in materials and workmanship under conditions of normal use and service for a period of one year from the date of shipment. The obligation under this warranty shall be limited to the replacement, repair or refund of any such defective device within the warranty period, provided that:

- inspection by Valcom, Inc. indicates the validity of the claim,
- the defect is not the result of damage, misuse, or negligence after the original shipment.
- the product has not been altered in any way or repaired by others and that factory sealed units are unopened (a service charge plus parts and labor will be applied to units defaced or physically damaged),
- freight charges for the return of products to Valcom are prepaid,
- all units 'out of warranty' are subject to a service charge. The service charge will cover minor repairs (major repairs will be subject to additional charges for parts and labor).

**This warranty is in lieu of and excludes all other warranties, expressed or implied and in no event shall Valcom, Inc. be liable for any anticipated profits, consequential damages, loss of time or other losses incurred by the buyer in connection with the purchase, operation, or use of the product.**

This warranty specifically excludes damage incurred in shipment. In the event a product is received in damaged condition, the carrier should be notified immediately. Claims for such damage should be filed with the carrier involved in accordance with the F.O.B. point.

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