Specification.

Model	400PL/GE	520PL/GE	620PL/GE
Capacity	400VA/240W	520VA/312W	620VA/372W
Input	Voltage	230V		
	Voltage range	+20% / -25% (AVR)		
	Frequency	50Hz ± 5Hz		
Output	Voltage	230V		
	Frequency	50Hz ± 5Hz		
	Voltage regulation (Batt. Mode)	± 3%		
	Frequency regulation (Batt. Mode)	± 0,3%		
	Kształt Waveform	Modified sinewave		
Battery	Type	Sealed, lead-acid battery, maintenance free		
		12V 4,5Ah	12V 7Ah	
	Backup time	5 – 15 min.		
	Recharge time	8 hours to 90 % after complete discharge		
Transfer time		< 4 ms		
Indicator		AC mode: Green lighting Backup mode : Green falshing	AC mode : Green lighting Backup mode : orange flashing	
Alarm		Backup mode, Low battery		
Interface		Dry Contact DB9		
Operating ePL/GEironment		0 – 40 °C, 0 – 95% relative humidity (non-condensing)		
Weight (kgs)		5	6	7
Dimension (mm)		240 x 105 x 135	325 x 110 x 145	

orvaldi®
Power Protection

USER MANUAL

ORVALDI
400/ 520/ 620-PL/GE

1 Introduction

This UPS is specially designed for Personal Computer with multi-functions. Its light weight, compact design perfect fits to the limited working ePL/GEironment. The line of UPS is equipped with boost and buck AVR to stabilize input voltage range. It is also built-in with DC start function. This function enables the UPS to be started up without AC power supplied. Although it's a small UPS, it's equipped with Smart RS-232 Communication Port to offer users more benefits. The download software helps users monitor UPS inside status. The main features of Orvaldi UPS are listed below:

- Microprocessor control guarantees high reliability.
- Equipped with Boost and Buck AVR.
- Built-in RS-232 Communication Port.
- Free Software Download from the Internet.
- DC Start Function.
- Auto restart while AC recovery.
- Compact size, Light Weight.
- Provides Modem/Phoneline surge protection.

2 Installation and operation

2.1 Inspection

Remove the UPS from its packaging and inspect it for damage that may have occurred during shipping. If any damage is discovered, repack the unit and return it to the place of purchase.

2.2 Charging

This unit is shipped from the factory with its internal battery fully charged, however, some charge may be lost during shipping and the battery should be recharged prior to use. Plug the unit into an appropriate power supply and allow the UPS to charge fully by leaving it plugged in for at least 8 hours with no load (no electrical devices such as computers, monitors, etc.) connected.

2.3 Placement

Install the UPS unit in any protected ePL/GEironment that provides adequate airflow around the unit, and is free from excessive dust, corrosive fumes and conductive contaminants. Do not operate your UPS in an ePL/GEironment where the ambient temperature or humidity is high. On the other hand, place the UPS away from the monitor at least 20cm to avoid interference.

2.4 Connection

Plug the UPS into a 2-pole, 3-wire grounded receptacle. Then connect one computer-related device into each of the power receptacles supplied on the back of the UPS.

2.5 Turn On/Off

To turn on the UPS unit, press the power switch lightly. To turn off the UPS unit, press the power switch again.

2.6 DC Start

All Orvaldi Series are equipped with DC Start. To start the UPS when AC utility power is not available, simply press the power switch.
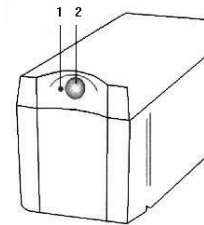
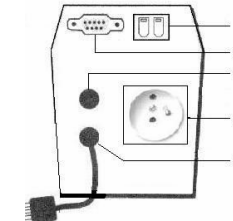## 2.7 Free Download Software –

- Go to Websit www.orvaldi.com

Note: The Power Switch must be kept in the 'ON' position, otherwise, the UPS will be disabled and your equipment will not be protected during a power failure.

3 System description – front and back panel
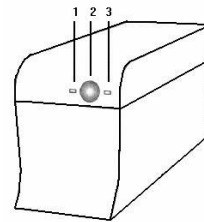
3.1 ORVALDI 400PL/GE

1. Power switch ON/OFF
2. LED indicators :
   - AC Mode : Green flashing
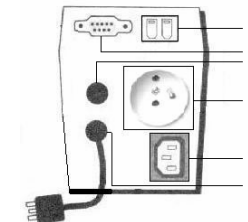   - Battery Mode : Green flashing

1. Modem/Phoneline surge protection
2. Communication port (dry contact)
3. Automatic Fuse breaker
4. Backup outlet (schuko)
5. Power cord

3.2.ORVALDI 520PL/GE / 620PL/GE

2. Power switch ON/OFF
1-3. LED indicators :
   1 - AC Mode : Green flashing
   3 - Battery Mode : Green flashing

1. Modem/Phoneline surge protection
2. Communication port (dry contact)
3. Automatic Fuse breaker
4. Backup outlet (schuko)
5. Backup outlet IEC 320
6. Power cord

4 Trouble Shooting

Problem	Possible Cause	Troubleshooting
No light, No alarm	1.Power cord in loose	1. Connect AC power cord to wall receptacle properly
	2. Main Switch is not „on"	2. Turn on main Switch
Less Backup time	1.Battery is not fully charged	Please recharge the battery for at least 6 hours. Should problem remain, call for service
	2. Battery is out of order	
	3. Charger is defective	