ACUMENTRICS CORPORATION

ACG700D

91-0033 Rev B

ACUMENTRICS CORPORATION

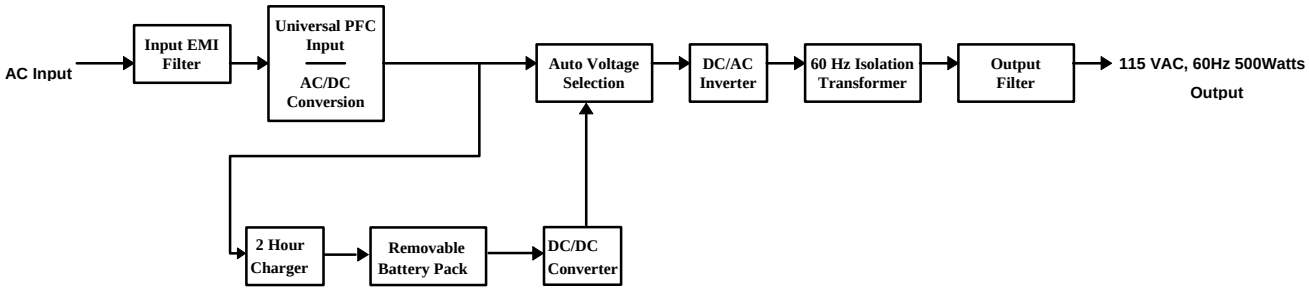
700 VA, 500 Watt global uninterruptible power supply

ACG700D

Please save packing materials.

The UPS's shipping materials are designed to protect the UPS from damage during shipping. Should the UPS need to be returned for service, this packaging should be used to prevent damage. Damage sustained to the UPS during transit is not covered under warranty.

Operation Topology



This unit is an ON-LINE Power Factor Corrected (PFC), Uninterruptible Power Supply (UPS). This UPS accepts wide range voltage and frequency inputs to allow it to provide clean, reliable AC power to the computer equipment connected to it.

The UPS is continually creating the AC output from a high voltage DC bus, thus protecting your equipment from surges, spikes, brownouts, blackouts and noise.

Charge Battery

The UPS charges its battery when connected to utility power. For best results, turn the UPS on and charge the battery 4 hours before connecting load. It is acceptable to use the UPS without first charging the battery, but on battery run time will be shorter if the battery is not fully charged.

UPS SAFETY GUIDELINES

- Connect the Uninterruptible Power Source to a two-pole, three-wire grounding mains receptacle. The receptacle must be connected to appropriate branch protection (fuse or circuit breaker). Connection to any other type of receptacle may result in a shock hazard and may violate local electrical codes.
- This Uninterruptible Power Source has an internal energy source (the battery) that cannot be de-energized by the user. **The output may be energized when the unit is not connected to a mains supply.**
- To properly de-energize the Uninterruptible Power Source in an emergency, turn the UPS off, disconnect the power cord from the AC power source, and remove battery.
- Avoid installing the Uninterruptible Power Source in locations where there is water or excessive humidity.
- Do not allow water or any foreign object to get inside the UPS. Do not put objects containing liquid on or near the unit.
- To reduce the risk of overheating the Uninterruptible Power Source, avoid exposing the unit to the direct rays of the sun. Avoid installing the unit near heat emitting appliances such as a room heater or stove.

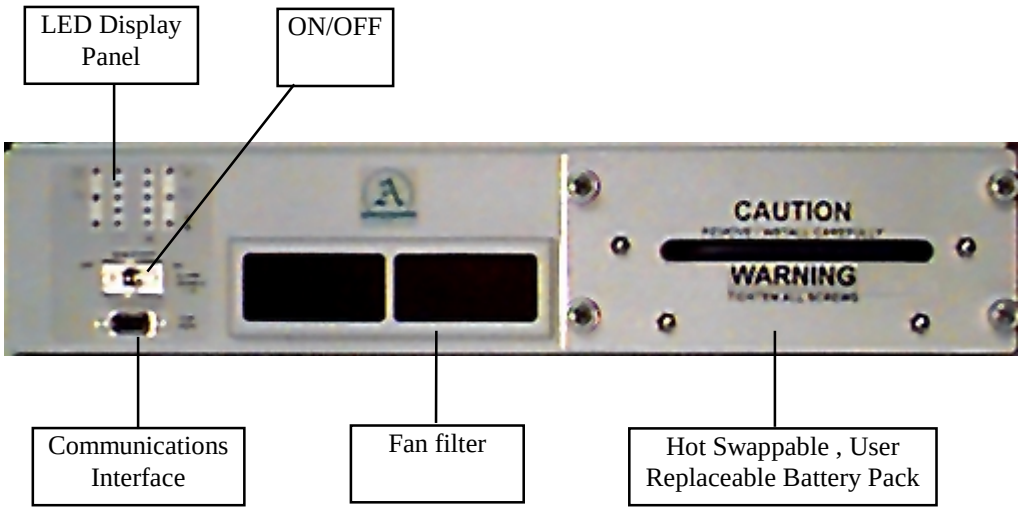
Warnings

- This Uninterruptible Power Source contains potentially hazardous voltages. Do not attempt to disassemble the unit. The UPS contains no user serviceable parts. Repairs are to be performed only by factory trained service personnel.

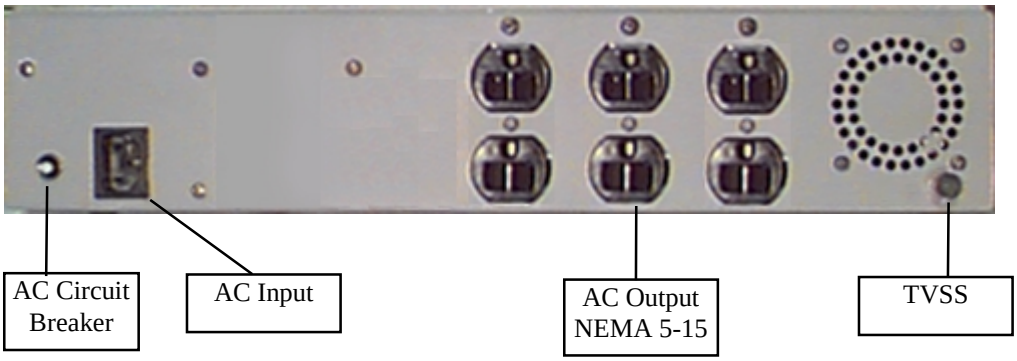
- This Uninterruptible Power Supply uses batteries, eventually these will become too weak to provide rated autonomous operation. To obtain battery replacement or repair service, please call the Customer Service telephone number listed at the back of this manual for information on the Service Center nearest you.

3. DISPLAYS AND FUNCTIONS

Front



Rear



SWITCHES/ BREAKERS

ON/OFF - Powers the unit as well as turns on\off audible alarm.

AC Input Breaker - Trips when the loads exceed the UPS's capacity.

LED DISPLAY PANEL

Battery Status Meter - Displays the present battery charge in volts.

Load Meter - Displays the power being drawn by the load (Range 0 - 500 watts).

Overload - This LED lights when the loads connected to the UPS exceed the UPS's capacity.

On Internal DC - The unit is supplying power to the loads for the internal batteries.

Over Temperature - This LED lights when the UPS internal operating temperature has exceeded specifications.

On AC - The unit is supplying power to the loads for the AC connection source.

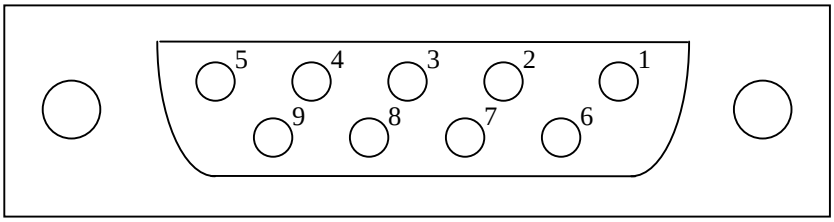
4. SPECIFICATIONS

Input Specifications	
Input AC Voltage	80-280 VAC
Frequency	47-66 Hz
Input Power Factor	.98 typical
Input Circuit Breaker Rating	15 A
Output Specifications	
Continuous Output Power	500 W or 700 VA
Load Crest factor	2.2 Continuous
AC Output Voltage	115 VAC + or - 5%
AC Output Frequency	60 Hz + or - 0.5%
AC Output Waveform	Sinusoidal
AC Output Connectors	six NEMA 5-15
Mechanical	
Size	Chasis: 17" wide x 16" deep x 3.5" high
Weight	44 lbs.
Finish	Lusterless Light Grey (36492)

Communications Interface Pin Out Functionality (DB9):

The DB9 connector is a 9 pin D type female with the following RS232 level:

TRUE = SPACE = +7.5V or greater
FALSE = MARK = -7.5V or less



Pin 1- Low battery warning. Goes TRUE if the battery voltage indicates less than 10% hold up time.
Pin 2- Not utilized
Pin 3- AC power good. TRUE if AC input is viable.
Pin 4- External shutdown input. When TRUE shuts down inverter.
Pin 5- Signal ground common.
Pin 6- Not utilized
Pin 7- Not utilized
Pin 8- Source fail. Goes TRUE if input power (AC or DC) fails or exceeds acceptable limits and UPS is operating on internal DC (battery backup).
Pin 9- Over temperature warning. Goes TRUE if internal temperature of UPS exceeds safe upper limit.

DB9 Interface Description

The Comm Port is an RS232 compatible interface through a nine pin D type connector. This port provides UPS and input power status information to the operator. UPS shutdown capability is provided as well. These functions are monitored through the use of the Acumentrics Shutdown Software for both Sun Solaris and DEC systems. The Software is not included with the unit but can be purchased separately as the ACG9500 for Sun systems with cable and the ACG9501 for the DEC systems with cable.

Shutdown software:

ACG9500	Shutdown Software for SUN workstations with cable
ACG9501	Shutdown Software for DEC workstations with cable

6. STORING THE UPS

Storage Conditions

The UPS should be covered and stored in a flat position in a cool, dry location. The UPS should be stored with the battery in a fully charged state. This means that the UPS should be allowed to charge the battery for at least 6 hours before the UPS is switched off for storage.

Extended Storage

To achieve expected run time following extended storage, the UPS should be allowed to refresh the battery for 12 hours once every 6 months in environments where the ambient temperature is -15 degrees C to +30 degrees C (5 degrees F to 86 degrees F). For extended storage in environments where the ambient temperature is +30 degrees C to +45 degrees C (86 degrees F to 113 degrees F), the UPS should be allowed to refresh the battery for 12 hours once every month.

7. BATTERIES AND RECYCLING

- The batteries used by this Uninterruptible Power Supply are recyclable. Proper disposal of the batteries is required. The batteries contain lead and pose a hazard to the environment and human health if not disposed of properly. Please refer to local codes for proper disposal requirements or return the unit to a factory authorized Service Center for battery replacement or disposal.

- Battery replacement should be performed or supervised by personnel familiar with the danger of batteries and the required precautions. Keep unauthorized personnel away from batteries. When replacing batteries, use the same number and type of sealed lead acid batteries as were originally contained in your UPS.

- Caution - Do not dispose of battery in fire. The batteries may explode.

- Caution - Do not open or mutilate the battery or batteries. They contain an electrolyte which is harmful to the skin.

- Caution - A battery can present a risk of electrical shock and high short circuit current. When replacing batteries, wrist watches and jewelry such as rings should be removed. Use tools with insulated handles.

8. WARRANTY INFORMATION

Limited Warranty

Acumentrics Corporation warrants its products to be free from defects in materials and workmanship for a period of two years from the date of purchase. Its obligation under this warranty is limited to repairing or replacing, at its own sole option, any such defective products. To obtain service under warranty you must obtain a Returned Material Authorization (RMA) number from Acumentrics. Products must be returned to Acumentrics with transportation charges prepaid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase. The product must be shipped back in the original packaging. This warranty does not apply to equipment which has been damaged by accident, negligence, or miss-application or has been altered or modified in any way. This warranty applies only to the original purchaser who must have properly registered the product within 10 days of purchase.

EXCEPT AS PROVIDED HEREIN, ACUMENTRICS CORPORATION MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

EXCEPT AS PROVIDED ABOVE, IN NO EVENT WILL ACUMENTRICS BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. Specifically, Acumentrics is not liable for any costs, such as lost profits or revenue, loss of equipment, loss of software, loss of data. costs of substitutes, claims by third parties, or otherwise. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

9. LIFE SUPPORT USE INFORMATION

Life Support Policy

As a general policy, Acumentrics Corporation does not recommend the use of any of its products in life support applications where failure or malfunction of the Acumentrics product can be reasonably expected to cause failure of the life support device or to significantly effect its safety or effectiveness. Acumentrics does not recommend the use of any of its products in direct patient care. Acumentrics will not knowingly sell its products for use in such applications unless it receives in writing assurances satisfactory to Acumentrics that (a) the risks of injury or damage have been minimized, (b) the customer assumes all such risks, and (c) the liability of Acumentrics is adequately protected under the circumstances.

Examples of devices considered to be life support devices are neonatal oxygen analyzers, nerve stimulators (whether used for anesthesia, pain relief, or other purposes), auto transfusion devices, blood pumps, defibrillators, arrhythmia detectors and alarms, pace makers, hemodialysis systems, peritoneal dialysis systems, neonatal ventilator incubators, ventilators for both adults and infants, anesthesia ventilators, and infusion pumps as well as any other devices designated as “critical” by the U.S. FDA.

Appendix A

Front Fan Filter Servicing Instructions

The front fan filter has been designed to reduce the amounts of sand, dirt and dust which can enter the unit via the fan. For this filter to operate effectively it must be serviced monthly. If the unit is being utilized in a harsh or dusty environment servicing should be more frequent.

To service the filter the following steps should be followed:

1. Pull the mesh filter out from the filter housing and shake to remove loose dirt, then rinse with water to remove remaining dirt. If the mesh filter is extremely dirty, a mild soap may need to be used to assist in cleaning.

2. Once the mesh filter has been washed make sure it is dried thoroughly.

3. Replace the clean, dry mesh in the filter housing.