


# ON Series<sup>®</sup> e UPS

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For use with ON Series e 200 - 600 VA, 60 Hz model



Desktop models  
Wallmount models



## ON Series e UPS User Instruction Manual

### IMPORTANT SAFETY INSTRUCTIONS

#### SAVE THESE INSTRUCTIONS.

Please read and save these instructions. This manual contains important instructions for the ON Series e UPS. Follow these instructions during the unpacking, installation and maintenance of the ON Series e UPS. If you have a problem with the unit, please refer to Troubleshooting on page 24 before calling ONEAC Technical Services.

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## **Introduction**

Thank you for selecting this uninterruptible power supply (UPS). ONEAC's ON Series offers the most reliable protection from the harmful effects of electrical line disturbances for your computing and communications equipment. ONEAC's ISO 9001 certification represents our commitment to building world-class products. We take pride in every unit that leaves our manufacturing facility

## **Registering Your ONEAC UPS**

To ensure that your ON Series e UPS model and serial number are registered, complete and mail the enclosed postage-paid warranty card or go on line at [www.oneac.com](http://www.oneac.com).

## **Technical Support**

ONEAC offers 24-hour technical support. To contact ONEAC Technical Services:

- North America: (847) 816-6000, option 3 or toll free (800) 327-8801, option 3.
- Europe: +44 (0) 2380 610311
- email: [ts@oneac.com](mailto:ts@oneac.com).

Please check with ONEAC Technical Services before attempting to repair or return any ONEAC product. If an ONEAC UPS needs repair or replacement, ONEAC Technical Services will issue a Return Material Authorization (RMA) number along with instructions on how to return the UPS.

### FCC Compliance

***ATTENTION:** Changes or modifications to this unit not expressly approved by the party responsible or in FCC compliance could void the user's authority to operate the equipment.*

This equipment was tested and complies with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the UPS is operating in a commercial environment. The UPS generates, uses, and can radiate radio frequency energy. If installation and use is not in accordance with the instruction manual, it may cause harmful interference to radio communications.



***ATTENTION:** Operation of this equipment in a residential area may cause harmful radio communications interference. The user is responsible for correcting the interference.*

Please check with ONEAC Technical Services before attempting to repair or return any ONEAC product. If an ONEAC UPS needs repair or replacement, ONEAC Technical Services will issue a Return Material Authorization (RMA) number along with instructions on how to return the UPS.

## Safety



**WARNING:** *This equipment services power from more than one source. The output receptacles may have voltages present even when the unit is unplugged.*

UPSs present a different safety issue than most electrical equipment because unplugging the UPS puts it into backup mode. Unplugging the UPS does not remove the electrical charge. To ensure that the UPS is off, turn the power switch “OFF” before unplugging the UPS from the wall outlet.



**CAUTION:** *This unit is intended to be used in a system that has a grounded neutral conductor.*



**CAUTION:** *Operating this equipment without proper grounding may present a risk of electrical shock.*

Do not use AC adaptors with only two conductors to connect the input line cord to the wall socket as this will not connect the earth ground to the equipment.



**WARNING:** *Dangerous voltages are present within this unit! There are no user-serviceable parts inside. Any repairs or modifications by the user may result in out-of-warranty repair charges, unsafe electrical conditions, or violation of electrical code.*

Do not remove the cover. All repairs should be done by qualified service personnel. Voltages inside the UPS may be lethal. Internal components are powered even when the power switch is in the “OFF” position. Even with the battery disconnected and the unit unplugged, energy is stored in high voltage capacitors and represents a severe shock hazard.

### Set-up and Installation

When selecting a location for your UPS, be sure that the unit is near a properly wired AC electrical outlet and is easily accessible for all other connections: equipment to UPS, optional battery enclosure(s) and/or optional communications cable.

***NOTE:** When connecting the UPS, make sure that the receptacle has power available and is not controlled by a wall switch.*

### Unpacking and Inspection

Before shipment, this product was tested, inspected and found to be free of mechanical and electrical defects. Upon receipt of your UPS, carefully examine the packing containers for any sign of physical damage. Notify the carrier immediately if damage is present. After inspecting, carefully unpack the UPS. Retain the packaging materials for reuse or dispose of the materials properly. Once unpacked, inspect and test the unit for hidden damage that may have occurred in transit. If damage is evident, contact ONEAC Technical Services.

### Long Term Storage

Improper long-term UPS storage may damage the UPS battery and invalidate the battery warranty. Unplugging a UPS from its AC utility power source for an extended period of time results in lost battery charge. Restoration of charge to maximum capacity requires 24 - 48 hours.

### Ventilation

The ventilation requirement for the ON Series e UPS is a minimum of 2 inches (50 mm) of clearance on all sides.



Do not cover or install the UPS in a confined or enclosed space.

### Grounding the Unit

To eliminate shock hazard, the ON Series e UPS needs to be connected to a properly grounded AC receptacle.

Before applying power, verify that the available line voltage matches the voltage listed on the rear-panel label.



**CAUTION:** Interruption of the protective grounding conductor or disconnection of the protective earth terminal presents a potential shock hazard that could result in personal injury and damage to the equipment.

### Set-up

#### Mounting Wall-mount Extended Runtime Units and Battery Enclosure(s)

Mount the power unit and battery enclosure(s) on a 3/4 inch plywood (minimum) backboard. Use the enclosed four (4) 1/4 inch x 1 inch slotted-hex, washer-head wood screws. (See fig. 1)

**NOTE:** When mounting the UPS and external battery enclosure(s), make sure that all connections can be made easily without twisting, pinching or stressing the cables or connectors. Two (2) inches of clearance are necessary if the battery enclosure(s) is mounted below the UPS. Five (5) inches are needed if the battery enclosure(s) is mounted on either side of the UPS. Due to the rising characteristics of heat, mounting the battery enclosure(s) above the UPS is not recommended.

1. Draw a straight, level, horizontal 8 inch line on the backboard. This represents where the top of the enclosure will be.
2. Mark two screw locations, on the line, 7-3/8 inch apart.

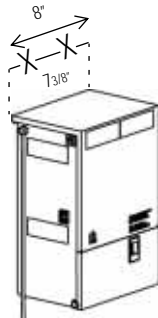


fig. 1: Mounting the ON Series e Wall-mount UPS

## *Set-up and Installation*

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3. Drill a 3/16 inch diameter hole at each screw location.
4. Drive the screws into the backboard at the screw locations. Allow a 1/8 inch gap between the screw head and the backboard.
5. Mount the unit by sliding the keyhole slots, located on the back of the enclosure, over the screws.
6. Check to ensure that the unit is level.
7. When level, drill a 3/16 inch diameter hole through the holes in the mounting tabs at the bottom of the enclosure. Then drive the remaining two screws.
8. Repeat steps 1 through 7 to mount any external battery enclosure(s).

## **Connections**

Before beginning, shut down and unplug the equipment to be protected. **DO NOT** make any connections or attempt to use any of the equipment until all the following connection instructions have been reviewed and completed.

### **Connection External Battery Enclosure(s)**

#### *Wall-mount External Battery Enclosure(s)*

1. Connect the battery cable from the closest battery enclosure to the external battery receptacle on the UPS, see fig. 2.
2. Connect the battery cable from the next external battery enclosure (if any) to the external battery receptacle on the battery enclosure connected in the previous step.

## Set-up and Installation

- Repeat step 2 to connect additional external battery enclosures.

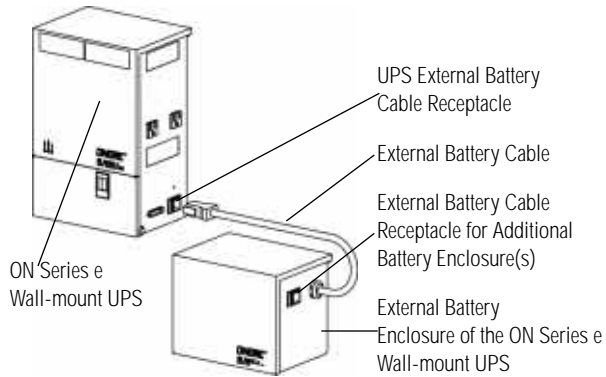


fig. 2: ON Series e Wall-mount UPS and External Battery Connections

### *Desk-top External Battery Enclosure(s)*

For additional runtime, some ON Series e UPSs can use extra batteries housed in a separate enclosure. Use only ONEAC model ONEXBC-217. The UPS power module and battery enclosure(s) are shipped separately.

1. Connect the battery cable from the closest battery enclosure to the external battery receptacle on the UPS, see fig. 3.
2. Connect the battery cable from the next external battery enclosure (if any) to the external battery receptacle on the battery enclosure connected in the previous step.

Repeat step 2 to connect additional external battery enclosures.

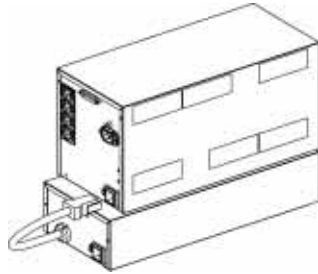


fig. 3: ON Series UPS and External Battery Connections

### Connecting Equipment to the UPS

Before beginning, shut down and unplug the equipment to be protected. **DO NOT** make any connections or attempt to use any of the equipment until all the following connection instructions have been reviewed and completed.

The UPS is equipped with a six foot attached line cord with a 5-15P plug. The 200 and 300 VA wall-mount models provide two 5-15R output receptacles and the 200 - 600 VA desk-top models provide four 5-15R output receptacles (see fig. 4).

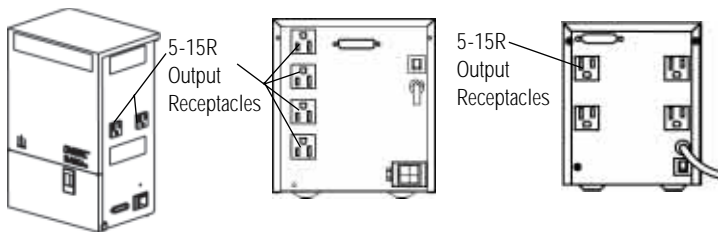


fig. 4: ON Series e UPS Back Panels

These connections are for common electrical equipment that have NEMA 5-15P power cords. Contact ONEAC Technical Support if your equipment does not provide these connections.

1. Disconnect the equipment to be protected from its existing power source.

## Set-up and Installation

2. Insert the connector(s) from the equipment to be protected into the 5-15R receptacles on the back of the UPS.

**NOTE:** ALL AC power supply cords from each component in the system to be protected must be connected to the UPS or complete protection will not be achieved.

3. Insert the UPS's 5-15P plug into a properly grounded and wired AC receptacle.
4. With the UPS connected to a properly wired AC input power source, toggle the power switch to the (|) "ON" position.

Power is immediately supplied to the output connectors. The ON Series e will perform a self-test when turned on.

Toggling the power switch to the (⏻) "standby" position will turn the power to the output connectors "OFF". The internal charger will continue to charge and maintain the battery as long as the line cord is connected to a live input AC power source.

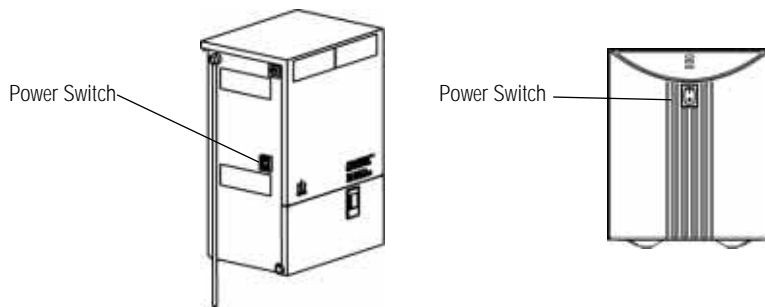


fig. 5: ON Series e UPS Power Switch

### Self Test

The UPS checks vital functions when it is first plugged in and indicates the status with the three LEDs on the front panel.

- A green LED indicates normal AC output.
- A blinking yellow LED shows the battery is being charged.

The UPS will continuously monitor the condition of the battery. If the battery cannot be charged, is disconnected or takes too long to charge, a code is represented in the LED display.

***NOTE:** The System Code Status Chart on the back of the UPS or inside the wall-mount battery compartment (and on page 12 of this manual) provides a quick reference for interpretation of the system status LEDs.*

### Front Panel

#### **On Battery**

If the AC input power source to the UPS rises too high, too low or fails, the UPS will switch to the internal inverter to deliver power to the outlets from the battery(ies). The LEDs will indicate that the UPS is on battery. An audible alarm will also sound every minute.

#### **Low Battery**

When the battery voltage falls to a predetermined value, the audible alarm will sound continuously and the green and yellow LEDs will blink. If the UPS continues to operate in this mode for two minutes or more, the UPS will shutdown and remove power from the output connectors.

When power returns, the UPS will return to on-line operation and the battery(ies) will automatically recharge.

#### **Overload**

If the load on the UPS exceeds its capacity, the red and green LEDs will blink. The audible alarm will sound once every minute.

If the UPS is heavily overloaded, the audible alarm will sound continuously and will shut down in a few seconds. The input breaker may also trip. To reset the breaker, first turn the UPS

power switch to the “OFF” position, remove the load and push the breaker back into its housing (see fig. 6). If the electronic overload has tripped, the UPS will have to be reset by toggling the power switch “OFF”, then “ON” to restore output power.

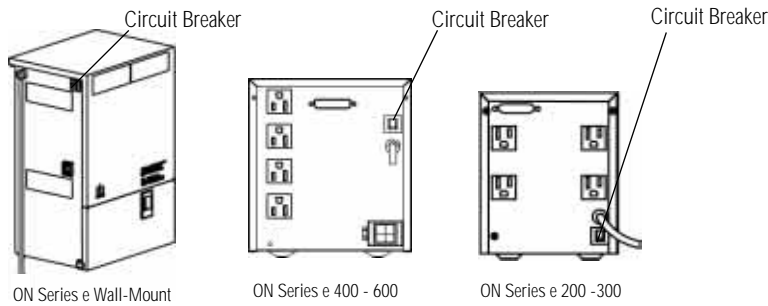


fig. 6: ON Series e UPS Circuit Breakers

### Battery Replacement

If the UPS has determined that the battery is no longer functional, the green and red LEDs will be on continuously and the yellow LED will flash. The audible alarm will sound every five minutes.

### Indicator Lights

**GREEN** - When the green LED is on, either solid or blinking, power is being supplied to the output. If blinking, it indicates the UPS is on inverter or there is an overload condition.

**YELLOW** - When the yellow LED is on solid, the UPS is on inverter. If blinking, it indicates the battery is charging when on line or low battery if running on inverter.

**RED** - When the red LED is on solid, it indicates there is a problem with the battery charger or inverter. If blinking, it indicates no battery, overload or high line and no battery present.

Table 1. System Code Status Chart

Power	Battery	Fault	Unit Status
0	0	0	OFF
●	0	0	ON/AC Present
●	k	k	ON AC/No Battery
●	k	0	ON AC/Battery Charging
●	k	l	ON AC/Replace Battery
*	0	k	ON AC/Overload
*	l	0	ON Battery Power
*	k	0	ON Battery/Battery Low
0	0	k	Off/Overload
0	l	l	Off/No AC - Fault
0	0	l	Off/Unit Fault
0 = Off, ● = On, * = Blinking			

**Communications  
(Factory Installed  
Options)**

The Basic Interface Port Option (see fig. 7) will send On Battery and Low Battery signals to the host computer. It will also accept a shutdown inverter signal to conserve battery life.

Pins 5 and 8 are RS-232 static levels. Less than five (5) volts indicates a normal or not true condition. Greater than five (5) volts indicates an alarm or true condition.

Pins 1, 10, 18, and 25 (simulated relay closures) are open drain FET transistor outputs which must have a pull-up resistor to a common reference supply no greater than +40V DC. The FETs are “N” channel type 2N7000. The load should be limited to 25 mA DC, noninductive. Pin 7 is the common for all of the relay closure pins and is connected to the UPS chassis ground reference.

Pin 20 is used to shut down the UPS when it is operating on battery. A positive signal (3 to 24V DC) with respect to pin 7 shuts down the UPS. A signal at or below ground allows the UPS to keep running.

## Set-up and Installation

The shell of the interface connector is connected to the UPS chassis ground reference.

Pin No.	Signal
1	Low Battery - normally open
5	Line Fail - RS-232 static levels
7	Signal Ground
8	Low Battery - RS-232 static levels
10	Line Fail - normally open
18	Line Fail - normally closed
20	Shutdown (to UPS)
25	Low Battery - normally closed

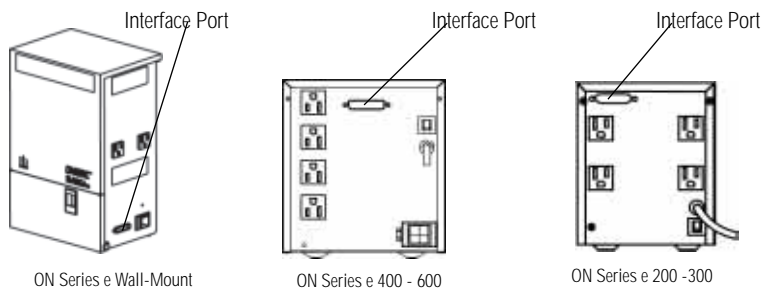


fig. 7: ON Series e Interface Port

### Features and Specifications

Your ONEAC ON Series UPS features full output isolation and power conditioning with Virtual Kelvin Ground<sup>®</sup> output filtering. This provides the highest level of protection from power line disturbances available.

Intelligent battery management system includes:

- Five-year warranty on power control systems
- Two-year warranty on batteries
- Battery condition monitoring and status alerts
- Low battery indication
- Hot-swap, user-replaceable battery
- Battery charge indication
- ONBoost<sup>®</sup>, low line voltage compensation without battery depletion
- Controlled inverter shutdown if battery is depleted

### Physical and Electrical Specifications

**Surge voltage withstand capability:** ANSI/IEEE C62.41 Category A&B, 6 kV/200 & 500 Amp, 100 kHz ringwave

**Surge voltage let-through (max):** Less than 10 V Normal mode (L-N), less than 0.5V Common mode (N-G) when subjected to 6 kV ANSI/IEEE C62.41 Cat. A

**Normal & common mode clamping response time:** Instantaneous

**Transfer time (typical/max):** 4/6 milliseconds

**On battery output voltage:** Pseudo sine wave

**ONBoost:** Boosts output voltage 10% above input voltage if between -21% & -15% of nominal

**Load power factor range (crest factor):** UPS .65 to 1.0 (3) — will support loads rated 0.5 to 1.0 (<5)

**Batteries:** Sealed, maintenance-free lead acid with a 3-6 year typical lifetime, user replaceable

**Recharge time to 60% available capacity:** 6-10 hrs

ONEAC UPSs also feature a five-year warranty. See Warranty Section on page 26 for full warranty details.

## Features and Specifications

### Specifications and Characteristics

Specification and Characteristics	ONe200A	ONe300A	ONe400A	ONe600A
Part Numbers (single battery) (double battery) (wall-mount)	ONE200A-SB ONE200DA-SB ONE200XA-W-SB	ONE300A-SB ONE300DASB ONE300XA-SB	NA ONE400DA-SB NA	NA ONE600XA-SB NA
Maximum Load VA/W	200/135300/200	400/265	600/400	
Load Power Factor Range	UPS .65 to 1.0 - will support loads rated 0.5 to 1.0			
Crest Factor	<3			
Nominal Input Voltage	120 VAC			
Low Limit for On-line Operation	85 VAC			
High Limit for On-line Operation	135 VAC			
Frequency Limits (on-line)	60 Hz +/- 5%			
Input Connection	6' attached line cord with 5-15P plug			
Input Over Current Protection	resettable circuit breaker			
ONBoost	Boosts output voltage 10% above input voltage if input is -21% to 15% of nominal			
Output Voltage (on battery)	115 VAC			
On Battery Waveshape	amplitude stabilized stepped sine-wave			
On Battery Frequency	60 Hz +/- 1%			
Transfer Time	4 mS, typical			
Output Receptacles (desk-top models) (wall-mount models)	(4) 5-15R (2) 5-15R	(4) 5-15R (2) 5-15R	(4) 5-15R NA	(4) 5-15R NA
Battery Type	maintenance free, spill proof, sealed lead-acid			
Typical Battery Life	3 - 6 years, depends on number of discharges and ambient temperature			
Recharge Time (60% Recovery)	6-10 hours			
External Battery Typical Recharge Time	20 hours/battery enclosure			
Communications	isolated basic signaling			
Interface Connector	25 pin male sub D style			
Output Signals - static	on battery (pin5) / low battery (pin 8) ≥ 5 VDC = true			
Input Signal - static	inverter shut down [pin 20 (+) to pin 7 (grd)] (+3 to +27 VDC shuts down inverter)			
Output Signals - stimulated relay	on battery (pin 10 N.N., pin 18 N.C.) Low battery (pin 1 N.O., pin 25 N.C.)			
Maximum Collector Voltage	25 VDC			
Maximum Collector Current	25 mADC			

*Table continued on next page*

## Features and Specifications

Specification and Characteristics	ONe200A	ONe300A	ONe400A	ONe600A
Output Type	open drain "N" channel FET 2N7000 or equivalent			
Operating Temperature	0 to +40° C (32 to 104° F)			
Storage Temperature	-15 to 45° C (+5 to 113° F)			
Relative Humidity	0 to 95%, non-condensing			
Operating Elevation	0 to 3,000 m (0 to 10,000 ft.)			
Storage Elevation	0 to 15,000 m (0 to 50,000 ft.)			
Desk-top UPS (HxWxL) in.	7.4 x 6 x 15 (19 x 15 x 38)	7.4 x 6 x 15 (19 x 15 x 38)	7.8 x 7 x 16 (20 x 18 x 41)	7.8 x 7 x 16 (20 x 18 x 41)
Desk-top UPS Shipping Weights lbs. (kg) (single/double battery)	29/32 (18/15)	34/40 (15/18)	NA /45 (NA/19)	NA/51 (NA/23)
Desk-top Extended Battery Enclosure Shipping Weight lbs. (kg)	NA	NA	NA	38 (17)
Wall-mount UPS (HxWxL) in. (cm)	14.4 x 9 x 6.6 (37 x 23 x 17)	14.4 x 9 x 6.6 (37 x 23 x 17)	NA	NA
Wall-mount UPS Ship Weight lbs (kg)	43 (20)	43 (20)	NA	NA
Wall-mount External Battery Enclosure (HxWxL) in. (cm)	12.38 x 9 x 6.63 (32 x 23 x 17)	12.38 x 9 x 6.63 (32 x 23 x 17)	NA	NA
Wall-mount External Battery Enclosure Ship Weight lbs (cm)	36 (16)	36 (16)	NA	NA
Surge Voltage Withstand Capability	ANSI/IEEE C62.41 Category A&B, 6 kV/200 &500 Amp, 100 kHz Ringwave			
Surge Voltage Let-through	Less than 10 V Normal mode (L-N), less than 0.5 V Common mode (N-G) when subjected to ANSI/IEEE C62.41 Cat. A			
Normal & Common Mode Clamping Response Time	instantaneous			

## Features and Specifications

### Typical Runtime

Table 2. Runtime for the ON Series e 200, 300, and 400 VA Desktop UPS

Typical Runtime by System Load	ONe200 One 12V, 7 AH Battery	ONe200D Two 6V, 10 AH Batteries	One300 One 12V, 7 AH Battery	ONe300D Two 12V, 7 AH Batteries	ONe400D Two 12V, 7 AH Batteries
VA LOAD	RUNTIME (HOURS:MINUTES)				
75 VA	0:28	0:53	0:41	1:32	1:15
100 VA	0:18	0:37	0:21	1:09	1:05
150 VA	0:12	0:25	0:16	0:40	0:50
200 VA	0:08	0:16	0:10	0:30	0:35
250 VA	NA	NA	0:07	0:20	0:25
300 VA	NA	NA	0:05	0:15	0:20
400 VA	NA	NA	NA	NA	0:15

**NOTE:** Due to application specific conditions, your actual run time may be different.

Table 2. ON Series e 600 Extendable Runtimes

Typical Runtime by System Load	ONe600X Two 12V, 7 AH Batteries	Plus1 External Battery	Plus2 External Batteries	Plus 3 External Batteries	Plus 4 External Batteries	Plus 5 External Batteries
VA LOAD	RUNTIME (HOURS:MINUTES)					
100 VA	1:05	4:40	8:50*	10:30*	13:30*	16:40*
200 VA	0:35	2:40	5:00*	7:00*	9:00*	11:10*
400 VA	0:15	1:20	2:20*	3:30*	4:30*	5:30*
600 VA	0:05	0:30	1:10*	2:20*	3:00*	3:45

**NOTE:** Due to application specific conditions, your actual run time may be different.  
**NOTE:** External Battery - Two 12V, 17AH per battery enclosure.  
 \* Values shown are calculated.

## Features and Specifications

Table 2. ON Series e 200 Wall-mount Extendable Runtimes

Typical Runtime by System Load	ONe200X Two 12 V, 7 AH Batteries	Plus1 External Battery	Plus2 External Batteries	Plus 3 External Batteries	Plus 4 External Batteries	Plus 5 External Batteries
VA LOAD	RUNTIME (HOURS:MINUTES)					
75 VA	1:32	6:32	12:25	—	—	—
100 VA	1:09	5:10	9:55	—	—	—
150 VA	0:40	3:33	6:49	10:19	—	—
200 VA	0:30	2:35	4:53	7:37	9:49	—
<b>NOTE:</b> Due to application specific conditions, your actual run time may be different.						
<b>NOTE:</b> External Battery - Two 12V, 17AH per battery enclosure.						

Table 2. ON Series e 300 Wall-mount Extendable Runtimes

Typical Runtime by System Load	ONe300X Two 12 V, 7 AH Batteries	Plus1 External Battery	Plus2 External Batteries	Plus 3 External Batteries	Plus 4 External Batteries	Plus 5 External Batteries
VA LOAD	RUNTIME (HOURS:MINUTES)					
75 VA	1:32	6:32	12:25	—	—	—
100 VA	1:09	5:10	9:55	—	—	—
150 VA	0:40	3:33	6:49	10:19	—	—
200 VA	0:30	2:35	4:53	7:37	9:49	—
250 VA	0:20	1:55	3:32	5:40	7:22	8:44
300 VA	0:15	1:26	2:30	4:10	5:28	6:16
<b>NOTE:</b> Due to application specific conditions, your actual run time may be different.						
<b>NOTE:</b> External Battery - Two 12V, 17AH per battery enclosure.						

**Safety & Approvals**

*Table 3. Emissions Test Regulations*

<b>Emissions Test Regulations</b>	
United States	47 CFR Part 15 Subpart A
Canada	Interference-Causing Equipment Standard (ICES-003 Issue 2, Rev.1)

*Table 4. Safety Regulations*

<b>Safety Regulations</b>	
United States	UL1778 (Uninterruptible Power Supply Equipment)
Canada	CSA 22.2

### Battery Considerations

#### Replacing Battery(ies): Standard and Wall-mount Units

***NOTE:** To obtain new battery(ies), contact ONEAC Technical Services at (847) 816-6000, or toll free at (800)-327-8801, opt. 3. In Europe, dial +44 (0) 2380 610311. Battery replacement is a safe procedure that is isolated from electrical hazards. You can leave the UPS and attached loads powered “ON” during the procedure. If the unit is “ON,” the audible alarm will sound when the battery is disconnected and the yellow and red LEDs will blink.*

***NOTE:** The UPS cannot protect against power outages while the batteries are disconnected.*

1. Lay the UPS on its right side.
2. Open the battery access door on the bottom by removing the two (2) Phillips head screws at the front. Retain the screws for use in step 8 later. The wall-mount UPS has a battery access door latch on the front. To open, press down and pull forward.
3. Carefully open the battery access door and slide the batteries out of the unit.
4. **ON Series e 200 and 300 VA UPSs:** disconnect the black wire, then the red wire from the battery pack.  
**ON Series e 400 and 600 VA UPSs:** remove the battery connector by squeezing the two “ears” on the sides of the connector and pulling straight out.



***WARNING:** Once the wires are removed from the battery(ies), use caution to not contact the exposed battery terminals due to the presence of electrical charge.*

5. **ON Series e 200 and 300 VA UPSs:** using the new battery(ies), connect the red wire to the red positive (+) terminal on the battery.

## Battery Considerations

**NOTE:** In the next step be aware that a small arc may occur while connecting the black wire to the battery terminal.

6. Connect the black wire to the (-) terminal on the battery.

**ON Series e 400 and 600 VA UPSs:** insert the battery connector in the plug in the battery compartment.

**NOTE:** The plug is polarized and connector will only fit in one way.

7. With the battery terminals toward the rear of the unit, slide the battery (pack) into the UPS. Make sure the battery wires retract without binding.
8. Close the battery access door and secure with the (2) screws removed in step 2. Return the desktop UPS to the upright position. On the wall-mount UPS, be sure the battery access door is completely closed and secured by the door latch.
9. Dispose of the old battery pack according to current environmental regulations. See Battery Disposal on page 23, if you would like ONEAC to dispose of battery.

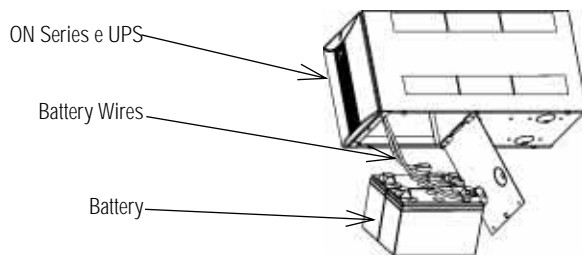


fig. 8: ON Series e Desktop UPS Battery Replacement

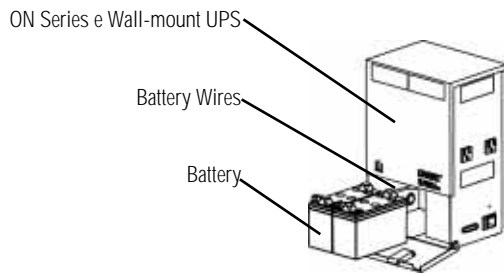


fig. 9: ON Series e Wall-mount UPS Battery Replacement

### Replacing External Battery Enclosure(s)

For additional runtime, some ON Series e UPSs support extra batteries housed in a separate enclosure. The UPS power module and battery enclosure(s) are shipped separately.

**NOTE:** *The UPS and attached loads may remain powered ON during the battery enclosure(s) replacement procedures.*

The batteries inside the external battery enclosure(s) are not user-replaceable. The entire battery enclosure must be replaced or the enclosure may be returned to ONEAC for battery replacement.

To disconnect the battery cable coming from an external battery to the UPS or another external battery, squeeze the two locking “ears” on the sides of the battery connector and pull straight out (see fig. 10).

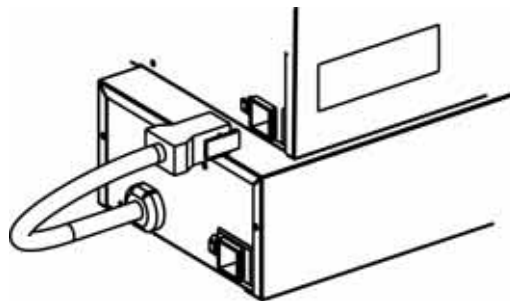


fig. 10: Battery Connector

*ON Series e UPS User Instruction Manual*

## Battery Disposal

For wall mounted batteries, after disconnecting ALL battery cables, remove the two lower mounting screws under the battery cabinet. Then lift the cabinet straight up to disengage from the upper two mounting screws (see fig. 11).

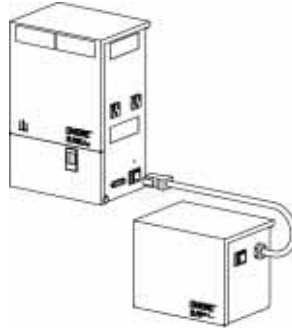


fig. 11: ON Series e Wall-mount UPS Battery Replacement

## Battery Disposal

UPS batteries contain toxic and acidic materials. Disposal method must adhere to local/national recycling laws. Dispose of the battery in one of three ways:

1. Return batteries prepaid to ONEAC for proper recycling. Contact ONEAC Technical Services at (847) 816-6000, toll free at (800) 327-8801 option 3 or in Europe at +44 (0) 2380 610311 for an RMA number. Mark the RMA number on the packing slip and shipping carton.
2. Phone ONEAC Corporation for the number of a local battery collection site (US only).
3. Make arrangements with a local auto shop that collects automotive batteries for reprocessing.



**CAUTION:** *DO NOT dispose of battery in a fire. The battery may explode. Do not open or mutilate the battery or battery enclosure. Released electrolyte is harmful to the skin and eyes and is toxic.*

## **UPS Disposal**

Once your UPS has reached the end of its useful life and it is necessary to dispose of the unit:

1. Remove the batteries as instructed in Replacing Battery(ies): Standard and Wall-mount Units on page 20.
2. Dispose of the batteries as instructed in Battery Disposal on page 23.
3. Dispose of the unit in accordance with local/national recycling or disposal ordinances.

## **Troubleshooting**

ONEAC offers 24-hour technical support. If you have questions or problems regarding your ON Series e UPS:

1. Refer to the Trouble Shooting table on page 25 for corrective or recommended action.
2. If you are unable to troubleshoot the problem, contact Technical Services. Refer to page 1, Technical Support, for the correct telephone number in your area. Technical Services will ask you to describe the problem. They will help solve the problem over the telephone or issue a Return Material Authorization (RMA) number along with instructions on how to return the UPS.

***NOTE:** You will need to supply the service representative with the UPS part number and serial number. You can access these numbers on the back panel of the unit on a label located near the receptacles.*

Always check with ONEAC Technical Services before attempting to repair or return any ONEAC product.

## Troubleshooting

If you have questions or problems regarding you ON Series e UPS, refer to the troubleshooting table below.

*Table 5. Troubleshooting*

Problem	Possible Cause	Solution
UPS will not turn ON	Front Panel Switch not "ON".	Switch the Power Switch to (I)
	UPS's input circuit breaker tripped.	Reduce the load on the UPS by unplugging the load and press the circuit breaker in on the rear panel.
	Unit not plugged in.	Plug unit into wall outlet.
UPS operates on battery even with line voltage present.	UPS's input circuit breaker tripped.	Reduce the load on the UPS by unplugging the load and press the circuit breaker in on the rear panel.
	High or low line.	Contact qualified electrician.
	Out of frequency range.	Check for UPS compatibility with power source.
Fault LED is ON	If yellow LED is blinking, the battery needs to be replaced.	Allow batteries to charge for 4 hours. If the problem continues, replace the battery(ies).
	If yellow LED is off or on solid, there is an internal UPS fault.	Do not attempt to use the UPS. Turn the UPS off, unplug from the power line and call Technical Service: (800)-327-8801, opt. 3 immediately.
Fault LED is blinking	If yellow LED is blinking, there is no battery connected or detected.	Connect install or replace the battery(ies).
	If green LED is blinking or off, the output is overloaded.	Reduce the load on the UPS until the LED goes out. If green LED is off, recycle power switch to reset.

## Warranty

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<b>Warranty</b>	ONEAC products are warranted free from defects in materials and workmanship for five years. This warranty is limited to repairing or replacing, at ONEAC's option, any defective component, circuit board, or module contained within the product only when it is returned with an ONEAC Return Material Authorization (RMA) number to ONEAC or to an ONEAC-designated repair facility. In all cases, the customer is responsible for shipping charges to and from ONEAC or the ONEAC-designated repair facility.
<b>Batteries</b>	Certain modules or peripherals included with the product, but not manufactured by ONEAC, including but not limited to batteries or battery enclosures, are warranted for two years or the extent of the manufacturer's warranty, whichever is longer.
<b>Limitations of Warranty</b>	<p>This limited warranty does not cover any losses or damage resulting from shipment to or from the customer, or from improper installation, inappropriate environment, abuse, modifications, adjustments, or unauthorized repair.</p> <p>For full details of the warranty, see ONEAC Warranty, Policy and Procedures (part number 955-053).</p>
<b>Exclusive Remedies</b>	Except as set forth herein and except as to title, there are no warranties, express or implied, or any affirmations of fact or promises by ONEAC for the products, their merchantability, or fitness for any particular purpose. In no event shall ONEAC be liable for lost profits, goodwill or any other special or consequential damages.
<b>Return Procedure</b>	To return a UPS, contact ONEAC Technical Support for a Return Material Authorization (RMA) number. This number must be marked on the shipping carton and packing slip of the unit returned. The customer is responsible for repair charges for damages incurred in shipment that result from inadequate or improper packing of the product.

ONEAC Corporation, a wholly owned subsidiary of Chloride Group, PLC was founded in 1979. ONEAC designs and manufactures products that provide the highest level of protection against power and data line disturbances, regardless of conditions. ONEAC's comprehensive product lines include power conditioners, uninterruptible power supplies, DC power solutions and voice & data line protection devices. With ISO9001 certified manufacturing plants in the U.S. and U.K., ONEAC is dedicated to demand-flow manufacturing and the highest quality standards.

Organizations whose productivity goals allow no possibility for system downtime use ONEAC. They include many of the world's leading companies, in a wide range of applications including telecommunication systems, information technology, retail information systems, computer-integrated manufacturing systems, semiconductor test equipment and biomedical instrumentation and information systems. Information on ONEAC products and services is available on the Internet at [www.oneac.com](http://www.oneac.com).

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