# MUST READ BEFORE INSTALLATION

# THIS DOCUMENTATION CONTAINS IMPORTANT INFORMATION <u>TO</u> ACTIVATE WARRANTY

TW 007 NX\_Series\_Service and Warranty Guide Rev 2018-08-17





## **NX-SERIES SERVICE AND WARRANTY GUIDE**

10 KVA – 160 KVA THREE PHASE UPS SYSTEM

#### **UPS Identification**

\*Owner to fill out (information can be found on CSA Rating Label inside the front door)

**UPS Model** 

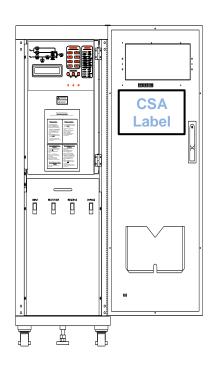
**UPS Serial #** 

**Site Location** 

Tag #

**Date Received** 

Date of Commissioning



#### **Summary of Always On NX Series Limited Warranties**

**LIMITED WARRANTY PERIOD:** The period covered for Product installed in Canada and the United States is twelve (12) months from the date of Product startup or eighteen (18) months from date of Product shipment, **whichever occurs first.** 

**BATTERY EXTENSION:** Additional 9 year extension Battery Replacement Warranty is available, (only) for customers who are on the Always On PM program. This is on a pro-rata basis for ALW batteries whereas a 4 year pro-rata extension is provided for all non-ALW batteries. UPS internal batteries do not apply to the extension.

**STORAGE REQUIREMENTS:** The optimal temperature for battery storage is 20°C (68°F) to 25°C (77°F). *Batteries not recharged at the recommended intervals will void the warranty.* Please consider the following Battery Shelf Life information carefully. *Full Detail, see <u>Installation Manual – Storage.</u>* 

#### **BATTERY SHELF LIFE:**

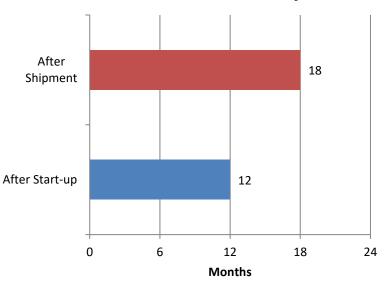
Storage Temperature	Charging Interval
2030°C	6 months
3035°C	3 months
3540°C	2 months

**NOTE:** Additional costs will apply to re-condition batteries before or during commissioning and start-up. Please see Service and Warranty Guide for further details.

This Warranty is not valid: Unless an authorized Always On Customer Service Technician performs start-up and commissioning of the Product. *Commissioning details see pg.8.* 

All warranties will be voided if operating conditions change after commissioning.

\*Detail warranty conditions see pg.4 to 7.



#### **NX-Series Warranty**

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#### Limited Factory Warranty for Always On Three-Phase UPS Products

#### **THREE-PHASE PRODUCTS**

**WARRANTOR:** The warrantor for the limited warranties set forth herein is Always On UPS Systems Canada Inc. ("Always On").

LIMITED WARRANTY: This limited warranty (this "Warranty") applies only to the original End-user (the "End-user") of the Always On three-phase UPS Products (the "Product") and cannot be transferred. This Warranty applies even in the event that the Product is initially sold by Always On for resale to an End-user.

LIMITED WARRANTY PERIOD: The period covered by this Warranty for Product installed in Canada and the United States is twelve (12) months from the date of Product startup or eighteen (18) months from date of Product shipment, whichever occurs first.

#### WHAT THIS LIMITED WARRANTY COVERS:

The warrantor warrants that the Always On three-phase UPS electronics, Always On-built accessories, and Always On-built battery cabinets, (individually and collectively, the "Warranted Items") are free from defects in material and workmanship. If, in the opinion of Always On, a Warranted Item is defective and the defect is within the terms of this Warranty, Always On's sole obligation will be to repair or replace such defective item (including by providing service, parts and labor, as applicable), at the option of Always On. The Warranted Item will be repaired or replaced onsite at the End-user's location or such other location as determined by Always On. Any parts that are replaced may be new or reconditioned. All parts replaced by Always On shall become the property of Always On.

#### WHAT THIS LIMITED WARRANTY DOES

**NOT COVER:** This Warranty does not cover any defects or damages caused by: (a) failure to properly store the Product before installation, including the "trickle charge" of batteries no later than the date indicated on the packaging: (b) shipping and delivery of the Product if shipping is FOB Factory; (c) neglect, accident, fire, flood, lightning, vandalism, acts of God, Customer's neglect, abuse, misuse, misapplication, incorrect installation; (d) repair or alteration, not authorized in writing by Always On personnel or performed by an authorized Always On Customer Service Manager; or (e) improper testing, operation, maintenance, adjustment or any modification of any kind not authorized in writing by Always On personnel or performed by an authorized Always On Customer Service Technician.

This Warranty is not valid: (a) unless an authorized Always On Customer Service Technician performs startup and commissioning of the Product; (b) if the Product is moved to a new location by someone other than an authorized Always On Customer Service Technician; or (c) if the Product's serial numbers have been removed or are illegible. Any Warranted Items repaired or replaced pursuant to this Warranty will be warranted for the remaining portion of the original Warranty subject to all the terms thereof. Labor warranty is not provided for Product located outside of Canada or the United States. Any equipment, parts or materials included in the Product and not manufactured by Always On are warranted solely by the manufacturer of such equipment, parts or materials and are not included as part of this warranty. Batteries are not warranted by Always On.

THIS WARRANTY IS THE END-USER'S SOLE REMEDY AND IS EXPRESSLY IN LIEU OF, AND THERE ARE NO OTHER, EXPRESSED OR IMPLIED GUARANTEES OR WARRANTIES (INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE, WHICH ARE EXPRESSLY DISCLAIMED). LIMITATION OF LIABILITY: In no event shall Always On be liable for any indirect, incidental, special or consequential damages of any kind or type whatsoever, or based on any claim or cause of action, however denominated. Always On shall not be responsible for failure to provide service or parts due to causes beyond Always On's reasonable control. In no case will Always On's liability under this Warranty exceed the replacement value of the Warranted Items.

**END-USER'S OBLIGATIONS:** In order to receive the benefits of this Warranty, the End-user must use the Product in a normal way; follow the Product's operators and maintenance manual; and protect against further damage to the Product if there is a covered defect.

**OTHER LIMITATIONS:** Always On's obligations under this Warranty are expressly conditioned upon receipt by Always On of all payments due to it (including interest charges, if any). During such time as Always On has not received payment of any amount due to it for the Product, in accordance with the contract terms under which the Product is sold, Always On shall have no obligation under this Warranty. Also during such time, the period of this Warranty shall continue to run and the expiration of this Warranty shall not be extended upon payment of any overdue or

unpaid amounts.

#### **COSTS NOT RELATED TO WARRANTY: The**

End-user shall be invoiced for, and shall pay for, all services not expressly provided for by the terms of this Warranty, including without limitation, site calls involving an inspection that determines no corrective maintenance is required. Any costs for replacement equipment, installation, materials, freight charges, travel expenses or labor of Always On representatives outside the terms of this Warranty will be borne by the End-user.

#### **OBTAINING WARRANTY SERVICE: In**

Canada, call the Always On Customer Service Department at 1.877.259.2976, or directly at 250-491-9777 ext 234. For comment or questions about this Limited Factory Warranty, email to the Customer Service, service@alwayson.com.

#### **Limited Battery Warranty**

**WARRANTOR:** The warrantor for the limited warranties set forth herein is Always On UPS Systems Canada Inc. ("Always On").

LIMITED WARRANTY: This limited warranty (this "Warranty") applies only to the original End-user (the "End-user") of the Battery Products (the "Product") and cannot be transferred. This Warranty applies even in the event that the Product is initially sold by Always On for resale to an End-user.

**LIMITED WARRANTY PERIOD:** The Battery Replacement period covered by this Warranty for Product installed in Canada and the United States is twelve (12) months from the date of Product startup or eighteen (18) months from date of Product shipment, whichever occurs first. Additional 9 year (108 months) extension is on a pro-rata basis.

#### **REQUIRED OPERATING CONDITIONS: The**

ambient temperature at the equipment site must not exceed no more or less than 20-25°C (68-77°F) with a humidity rating of 0-90% (noncondensing).

For further details, see Always On <u>Operators</u> <u>Manual</u>.

WARRANTY EXCLUSIONS: This Warranty does not cover any defects or damages caused by: (a) failure to properly store the unit before installation; (b) shipping and delivery of the product; (c) neglect, accident, abuse, misuse, misapplication, or incorrect installation; (d) repair or alteration not authorized in writing by Always On; (e) repair or alteration performed by unauthorized personnel; or (f) use under other than normal operating conditions (see operating conditions) or in a manner inconsistent with the unit's labels or instructions(g) Unit not in Always "On" Preventive Maintenance Program. Any warranted items repaired or replaced pursuant to this Warranty Policy will be warranted for the remaining portion of the original Warranty subject to all the terms thereof.

This Warranty Policy is the sole and exclusive Warranty Policy offered by Always On with respect to UPS batteries and, except for such foregoing Warranty Policy, Always On disclaims all other warranties, including, but not limited to, any implied warranties of merchantability, title, no infringement and fitness for a particular purpose. Correction of non-conformities in the manner and for the period of time provided above shall constitute Always On's sole liability and End User's exclusive remedy for failure of Always On to meet its Warranty obligations, whether claims of the End User are based in contract, in tort (including negligence and strict liability), or otherwise.

#### WARRANTY PROCEDURE AND

LIMITATIONS: The above Warranty Policy is exclusive and in lieu of all other expressed or implied warranties whatsoever, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose. Any advice furnished to the End User before or after delivery in regard to use or application of Always On batteries is furnished without charges and on the basis that it represents Always On's best judgment under the circumstances. The use of any such advice by the End User is solely and entirely at his or her own risk.

Always On's obligation under this Warranty Policy is limited to repairing or replacing, at its own sole discretion, any such defective products. To obtain service under Warranty, you must obtain a Returned Material Authorization (RMA) number from the Always On Warranty department. Products must be returned in the original packaging, delivered F.O.B. to Always On's factory, with proof of purchase, including date and place of purchase. This Warranty applies only to the original purchaser. In the case of three phase UPS & Emergency Lighting Systems batteries start-up and commissioning must be performed by authorized, factory trained personnel. All Expenses and/or costs associated, shall be the responsibility of the Purchaser except when it is authorized by Always On in writing.

EXCEPT AS PROVIDED ABOVE, IN NO EVENT WILL ALWAYS ON 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. Especially, Always On is not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use 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 that vary from province to province or state to state. Warranties are valid only in Canada and the United States of America.

WARRANTY CLAIMS: Always On shall not be responsible for any charges for testing, checking, removal, or installation of a warranted battery(s). All defective batteries, when returned and replaced, become the property of Always On. An annual PM Program is essential to maintain the ongoing battery warranty once the batteries have been replaced. For Maintenance Program details, see pg.9.

Any Future remaining battery warranties will not be valid unless an Always On Service tech (representative) performs a re-startup of the unit to ensure the system is operating normally. (Battery replacement is not included, but can be arranged at additional cost). **FORCE MAJEURE:** Always On shall not be liable for any delays or defaults hereunder by reason of fire, flood, acts of God, labour troubles, accidents to machinery, delays of carriers or suppliers, inability of suppliers to supply, the impositions of priorities, restrictions or other acts of government, or other causes beyond its reasonable control.

#### **COSTS NOT RELATED TO WARRANTY: The**

End User shall be invoiced for, and shall pay for, all services not expressly provided for by the terms of this Warranty, including, without limitation, site calls involving an inspection that determines no corrective maintenance is required. Any costs for replacement equipment, installation, materials, freight charges, travel expenses or labour of Always On representatives outside of the terms of this Warranty, the cost of shipment, duties or all other expenses associated with shipment of repaired or replaced items is for the account of the End User except where single phase UPS internal batteries are still under warranty.

Always On will not be responsible or liable for work done or expense incurred in connection with repair or replacement except as expressly authorized by Always On in writing. If a service engineer is required, labour, at current published rates, and all travel and living expenses are for the account of the End User. Always On reserves the right to require payment prior to delivery of the repaired or replacement equipment.

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#### **Commissioning and Start-up**

**GENERAL:** UPS system requires suitable commissioning and start-up. If this work is not carried out properly, there is the danger of subsequent damage and related safety hazards.

Do not start up the unit or apply power to input terminals. Start-up and commissioning tests must be performed by Always On factorytrained personnel or warranty will be voided.

#### **BEFORE SCHEDULE WITH ALWAYS ON:**

Please fill out both the Installation Checklist (Section 6 on Installation Manual) and the yellow Request for Startup Service Form (the Form) located at the front door of the UPS system by either electrical contractor or other requestor.

- Read the Form carefully and make sure all conditions stated on the Form will be met and accomplished prior to start-up.
- Please make sure each NOTE sections on the Form have been taken into considerations. *Extra charges apply for a return visit.*
- If the Form is damaged or lost by any reason, please contact Always On Service Department.

**DATE RECOMMENDATIONS:** Please make sure the UPS system is available for start-up and commissioning within six(6) months of shipment. Additional system re-condition costs will apply if over this period.

**INSTALLATION SPACING:** Must provide required spacing refers to <u>Installation Manual –</u> <u>Spacing.</u>

#### WHAT THIS COMMISSIONING AND START-UP COVERS:

- Check site environmental conditions to ensure suitability for UPS system.
- Conduct inspection of electrical installations, ensure the cable sizes are appropriate and connections are tight and secure.
- Perform a complete operational test of the system, including battery discharge test. Measure and record charging voltages of each battery.
- Record Front Panel meter reading and status.
- Provide basic operator training to user or contractor authorized person(s).
- Detail final report will be provided to user or contractor authorized person(s).

**SPECIAL NOTE:** Basic operator training is included only on Commissioning day. Please have your people available for training. *Extra charges apply for a return visit.* 

#### **Preventive Maintenance Program**

**FACTS:** Batteries, capacitors, fans and air filters in a UPS system are consumable parts which have limited lifespans. Typically, poorly performing batteries are a major cause of UPS failure due to lack of system maintenance.

**NOTE:** The nine (9) years pro-rata battery replacement extension shall be null and void if the UPS system is not on an Always On Preventive Maintenance Program.

#### **BENEFITS FROM REGULAR**

MAINTENANCE: Regular testing and maintenance of a UPS system is essential to ensure it remains in optimal operating condition to protect critical systems and keep them performing reliably as designed. It also ensures critical component degradation is identified and that repairs or replacements are carried out before a fault occurs. This helps to prevent unplanned and inopportune downtime and outages of critical systems, addresses problems quicker that can occur, and extends battery lifespan.

ALWAYS ON PM PROGRAM: Always On Services offer flexible service programs that fit the specific needs of your site. It is designed to ensure that risks and costs are minimised. It is one of the most cost-effective measures that can be taken to ensure the ongoing health of your critical equipment and overall business operations.

An Annual Major UPS maintenance program should be implemented as part of a user's regular maintenance program, and is highly recommended as part of the overall equipment budget and lifecycle planning.

After warranty service is available upon request at additional costs, program including extended warranty, preventive maintenance services, and options such as the 24/7 premium support, and next day service. For further details, please contact Always On Service Department.

#### WHAT THIS PM PROGRAM COVERS:

- UPS: Inspecting, cleaning, calibration and functional testing of all modes of operation ensures factory-specified performance through the lifecycle of the UPS System. Record keeping is a snapshot in time for tracking and analysis of the results, of the components' performance as the system ages. Maintenance takes into account the actual age of the specific devices, comparing expected performance to the lifespan. This allows us to monitor the health of the UPS system, and take corrective actions as necessary under pre-planned conditions.
- **BATTERIES:** Conduct load test and measurement accurately assess battery backup capacity. Regular battery discharge and recharge operations, and data collection ensure that it is known when the batteries are reaching the end of their life. Cycling the batteries helps to equalize cell voltages and improve battery performance. Inspecting and cleaning the batteries and connections maintains system efficiency. Verifying temperatures to detect possible thermal runaway conditions of a battery (due to a hot environment) allows for preventive action to be taken to reduce the chance of damaging the rest of the batteries.
- TRAINING (Optional): Many power interruptions can also be a result of human error. Refreshing operator training so that they have a solid understanding of the correct operation, warnings and alarms of the UPS system and associated equipment, will reduce the consequences of any incorrect action. For details, please contact Always On Service Department.

#### **Recommended Maintenance Schedule**

**REGULAR INSPECTIONS (MONTHLY):** Performed by Onsite Technician

 Visually inspect equipment for loose connections, burned insulation or any other signs of wear and a partial discharge test.

## **MINOR PM (SEMI-ANNUAL):** Performed by Authorized Always On Personnel

Minor PM includes status and operational checks of the UPS system. For critical applications or environments, it is recommended to have a Minor PM Service (semi-annual) on a regular basis.

- Check site environmental conditions to ensure it continues to be suitable for the UPS system.
- Clean exterior of UPS and battery enclosures.
- Perform a complete operational test of the system, including battery discharge check. Measure and record voltages of battery string to evaluate their performance.
- Record Front Panel meter reading and status.
- Record the history logs for further review of UPS performance.

#### **MAJOR PM (ANNUAL):** Performed by Authorized Always On Personnel

Major PM includes comprehensive operation and status check of the UPS and battery system. The following services will be performed under Major PM Program.

- Check site environmental conditions to ensure suitability for UPS system.
- Disassemble system to conduct a visual inspection of internal assemblies, major components and mechanical connections and modules to ensure they are tight and not generating heat.
- Re-torque all battery connections to all their proper specifications.
- Perform any necessary factory upgrade.
- Clean and vacuum interior and exterior of the enclosures.
- Perform a complete operational test of the system, including battery discharge test. Measure and record charging voltages of each battery.
- Record Front Panel meter reading and status.
- Record the history logs for further review of UPS performance.

#### PARTS REPLACEMENT RECOMMENDATIONS:

- Batteries approx. 5-8 years (depending on operating conditions)
- Capacitors (Inverter Capacitors, Filter Capacitors, DC Capacitors) – approx. 7 -8 years
- Fans approx. 5-8 years



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Canada	www.alwayson.com

#### Maintenance Schedule NX Series UPS Systems

Maintenance Intervals	Months after Commissioning																				
Maintenance Item	1	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
Preventive maintenance (PM) visits																					
Inspections (monthly)																					
Minor PM (semi-annually)				٠		•		٠		•		٠		•		•		•		•	
Major PM (annually)			•		•		•		•		•		•		•		•		•		•
Parts Replacement Recommendations																					
Batteries																					
Capacitors																					
Fans																					
Air Filters			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

\*Disclaimer: Only Authorized, Factory trained personnel are permitted to perform Preventative Maintenance Services on the UPS Systems.

\*For technical support and services, please feel free to contact us, and we will be happy to help you.



### **Always On UPS Systems Canada Inc**

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