

LIMITED WARRANTY

Applicable for European Countries except Germany, Swiss, Austria and Liechtenstein
valid 01. July 2022

This is the LIMITED WARRANTY policy (hereinafter "LIMITED WARRANTY") of the LG Electronics, Inc. ('LGE') from which you ('Purchaser') purchase LG ESS System product. This LIMITED WARRANTY is applicable only to LG ENERGY STORAGE SYSTEM (PCS + Battery) product (hereinafter 'PRODUCT(S)') purchased.

Your Product will be repaired or replaced, at LGE's option, if it proves to be defective in material or workmanship under normal use, during the warranty period listed below, effective from the date of original invoice/ purchase of the Product. To ensure optimal functionality during the warranty period and to be able to act quickly in the event of a service request, we strongly recommend registering the LG ESS at <http://enervu.lg-ess.com/> (see also Chapter 6).

1. WARRANTY PERIOD

PRODUCT TYPE		WARRANTY	Battery Performance Guarantee
LG ESS Home 5	D005KD1N111 (PCS)	10 years	---
LG ESS Home 8	D008KE1N211 (PCS)	10 years	---
LG ESS Home 10	D010KE1N211 (PCS)	10 years	---
LG ESS HB 6.4	ED00064CN00 (Battery)	10 years	Retention Capacity 60%
LG ESS HB 7.0H	BLGRESU7H (Battery)	10 years	Retention Capacity 60%
LG ESS HB 10.0H	BLGRESU10H (Battery)	10 years	Retention Capacity 60%
LG ESS HBP 10H	BLGRESU10HP (Battery)	10 years	Retention Capacity 70%
LG ESS HBP 16H	BLGRESU16HP (Battery)	10 years	Retention Capacity 70%
LG ESS HBC 11H	BUEL011HBC1	10 years	Retention Capacity 70%
LG ESS HBC 15H	BUEL015HBC1	10 years	Retention Capacity 70%

¹ PCS (Power Conditioning System)

The warranty start date (“Warranty Start Date”) shall be the date of purchase by the original end use purchaser. If the customer is unable to provide adequate documentation of the original purchase, the Warranty Start Date shall be 3 months after the product was manufactured.

2. SUMMARY OF TERMS AND CONDITIONS

- (a) This LIMITED WARRANTY is valid only for PRODUCT(S) sold.
- (b) This LIMITED WARRANTY is valid only for PRODUCT(S) purchased directly from LGE or a LGE authorized distributor and Dealer.
- (c) Proof of purchase for PRODUCT(S) shall be available for inspection by LGE.
- (d) PRODUCT(S) shall be properly installed and operated in accordance with the manufacturer’s instructions.
- (e) The records of operating history shall be kept and available for inspection by LGE.
- (f) Labor costs for (re)-installation of PRODUCT(S) are not covered under this LIMITED WARRANTY.
- (g) Transportation cost to LGE or LGE’s authorized agent or distributor are not covered under this LIMITED WARRANTY.
- (h) In case LGE ESS are initially purchased and/or installed not as a set together with LGE batteries LGE herewith guarantees for the period of one year after the date of purchase of LGE ESS its technical compatibility of

LG ESS HB 6.4	ED00064CN00 (Battery)	Product is end of lifetime
LG ESS HB 7.0H	BLGRESU7H (Battery)	Scalable with HB 7.0H and HB 10.0H only
LG ESS HB 10.0H	BLGRESU10H (Battery)	Scalable with HB 7.0H and HB 10.0H only
LG ESS HBP 10H	BLGRESU10HP (Battery)	Scalable with HBP 10H only
LG ESS HBP 16H	BLGRESU16HP (Battery)	Scalable with HBP 16H only
LG ESS HBC 11H	BUEL011HBC1 (Battery)	Scalable with HBC 11H only
LG ESS HBC 15H	BUEL015HBC1 (Battery)	Scalable with HBC 15H only

- (j) The availability of a firmware / software update for LG ESS should be checked regularly – at least once a year – and the latest version should be installed. Please see also chapter 6 “Firmware / Software Update”.

3. HOW THIS LIMITED WARRANTY APPLIES

Repair or replacement will be made with new or re-manufactured PRODUCT(S) or parts and the replaced PRODUCT(S) or parts shall become the property of LGE.

If LGE determines to replace the PRODUCT(S) and it has been discontinued or is not available, LGE reserves the right, at its sole option, to deliver new or remanufactured PRODUCT(S) that may differ in size, color, shape, model number, and/or power level.

This LIMITED WARRANTY covers the transportation cost for reshipment of any repaired or replaced PRODUCT(S) to the Customer site, but does NOT cover the transportation cost and risk including shipping damage or loss for return of the PRODUCT(S) to LGE or LGE's authorized agent or distributor(installer) and any other costs associated with installation, removal, or reinstallation of the PRODUCT(S).

If a PRODUCT(S) returned to LGE is found not to be defective or this LIMITED WARRANTY has expired, the Customer is responsible to pay for return shipping cost.

The remedies set forth in this LIMITED WARRANTY operate alongside and in addition to all rights and remedies conveyed the national consumer protection laws and regulations valid in the respective country where the ESS product was sold and the original warranty period in this LIMITED WARRANTY shall not extend beyond the period set forth therein.

4. LIMITED WARRANTY EXCLUSIONS

This Limited Warranty does NOT apply to:

PRODUCT(S) with original serial numbers that have been removed, altered, or cannot be readily determined.

PRODUCT(S) used to power medical devices or life-support equipment.

Damage and/or failure caused by

- (a) installations not in conformance with the PRODUCT(S) specifications, Installation manuals, operation manuals, or labels attached to the PRODUCT(S) or matching with 3rd party company battery;
- (b) improper wiring, installation, incorrect electrical current, voltage, components or handling;
- (c) improper or incorrectly performed maintenance, operation or modification;
- (d) repairs not in accordance with LG's instructions;
- (e) inappropriate handling during storage, packaging or transportation;
- (f) environmental pollution such as soot, salt damage, or acid rain;
- (g) natural forces (earthquakes, tornados, floods, lightning, hurricanes, heavy snow, etc.) and fire, power failures, power surges or other unforeseen circumstances that are beyond LGE's control;
- (h) external stains or scratches that do not affect output or operating;
- (i) PRODUCT(S) installed in a location that exceeds operating conditions.
- (j) transportation and/or handling, including scratches, dents, chips, and/or other damage to the finish of your Product, unless such damage results from defects in materials or workmanship, and is reported within one (1) week of delivery.
- (k) Cockroaches, mice, rats or other insects or rodents.

(l) installations in a location where vibrations may occur. For example, aircraft, ship (vessel, boat, yacht), car or train are not allowed.

(m) Network problems related to local network settings and external internet connection availability

(n) Damages based on non-qualified 3rd party devices that are not confirmed by LGE and published accordingly, i.e. outlined at LG ESS datasheet, -manuals or LGE webpage

5. LIMITATION OF WARRANTY SCOPE

EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THE SYSTEM IS LIMITED IN DURATION OF THIS LIMITED WARRANTY.

UNDER NO CIRCUMSTANCES SHALL LG BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, LOST GOODWILL, LOST REVENUES OR PROFITS, WORK STOPPAGE, SYSTEM FAILURE, IMPAIRMENT OF OTHER GOODS, COSTS OF REMOVAL AND REINSTALLATION OF THE SYSTEM, LOSS OF USE, INJURY TO PERSONS OR PROPERTY ARISING OUT OR RELATED TO THE SYSTEM. LG'S TOTAL LIABILITY, IF ANY, DAMAGES OR OTHERWISE, SHALL NOT EXCEED THE INVOICE VALUE PAID BY THE CUSTOMER FOR THE SYSTEM OR SERVICE FURNISHED, WHICH IS THE SUBJECT OF A CLAIM OR DISPUTE.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY GIVES THE CUSTOMER SPECIFIC LEGAL RIGHTS; CUSTOMERS MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE.

6. FIRMWARE / SOFTWARE UPDATE

The LG ESS product is continuously developed and the associated firmware is updated at regular intervals as part of updates. To ensure that the LG ESS product works properly, the LG ESS must be updated to the latest firmware.

Malfunctions that can be traced back to the use of outdated firmware are not covered by the LGE manufacturer's warranty. The automatic firmware update takes place when the LG ESS product is connected to the Internet and registered (strongly recommended). Further information can be found in the LG ESS operating instructions, chapter "Using EnerVu". (Download <https://www.lg.com/de/business/solar/download>)

If the LG ESS product is not connected to the internet, the update can also be performed manually. The firmware version of the LG ESS product can be checked in the EnerVu app in the "System Information" area using the extension xxxR. The latest firmware version and instructions for installation are published on the following website
<https://www.lg.com/de/business/solar/download>
<https://www.lg.com/global/business/ess/business-resources/download>

In case of important firmware updates by LG Energy Solution for battery type **HBP10H (BLGRESU10HP)** and **HBP16H (BLGRESU16HP)** the batteries are recommended to

- Get connected to the internet directly
- Register the batteries at RESU Monitoring website (<http://resumonitor.lgensol.com>)

Please follow the instructions in the of the latest available version of the installation manual

If you have any questions about the firmware update or for assistance with the update, please contact the LG ESS service:

Phone : +49 (0)39484 976 380

E-Mail : lge@e-service48.de

7. BATTERY PERFORMANCE WARRANTY FOR HB7.0H (BLGRESU7H), HB10.0H (BLGRESU10H), HBP10H (BLGRESU10HP) and HBP16H (BLGRESU16HP), HBC11H (BUEL011HBC1) and HBC15H (BUEL015HBC1)

LGE warrants that the Product retains at least the Nominal Energy outlined in chapter 1 at the earlier of the end of 'Warranty' period (10 years) or when the aggregate energy throughput is met as set out below. The warranty only applies if the battery system is operated under a normal use followed by the specification and the manual provided by LGE. Furthermore the warranty covers the minimum energy throughput as per the following table.

The term "Nominal Energy" herein means the initially rated capacity of the Products as printed on the label of the Products. The precondition of the valid 10 year Performance Warranty shall be as follows:

- (i) The ambient temperature during the operation of the Products shall not fall below -10 °C or exceed 45°C
- (ii) The energy throughput for (10) years is less than values in table below:

Product Name	Nominal Energy	Energy Throughput
BLGRESU7H	7.0kWh	19.6MWh
BLGRESU10H	9.8kWh	27.4MWh
BLGRESU10HP	9.6kWh	32MWh
BLGRESU16HP	16.0kWh	54MWh

BUEL011HBC1	11.9kWh	43.9MWh
BUEL015HBC1	15.8kWh	58.6MWh

Capacity measurement condition for BLGRESU7H and BLGRESU10H only

- Ambient temperature: 25~30°C
- Initial battery temperature from BMS: 25~30°C
- Charging/discharging method
 - Charge: (0.2) CC/CV (Constant voltage:
 - BLGRESU7H (126)V
 - BLGRESU10H (176.4)V
 - Cut-off current (0.05)C
 - Discharge: (0.2)CC (Cut-off voltage:
 - BLGRESU7H (90)V
 - BLGRESU10H (126)V
 - Current at (0.2)C: (12.6)A
- Current and voltage measurement at battery DC side

Capacity measurement condition for BLGRESU10HP and BLGRESU16HP only

- Ambient temperature: 25~30°C
 - Initial battery temperature from BMS: 25~30°C
 - Charging/discharging method
 - Charge: 0.3CP/CV, Cut-off current 0.05C at:
 - BLGRESU10H Prime: 174.3V(BPI*)
 - BLGRESU16H Prime: 290.5V(BPI*)
 - Cut-off current (0.05)C
 - Discharge: 0.3CP, Cut off voltage at:
 - BLGRESU10H Prime: 126V(BPI*)
 - BLGRESU16H Prime: 210V(BPI*)
 - Current and voltage measurement at battery DC side
- * BPI : Battery Power Interface

Capacity measurement condition for BUEL011HBC1 and BUEL015HBC1 only

- Ambient temperature: 25~30°C
- Initial battery temperature from BMS: 25~30°C
- Charging/discharging method

- Charge: 0.3CP, Cut-off current 450mA at:
 - o BUEL011HBC1: 344.4V
 - o BUEL015HBC1: 459.2V
 - o Cut-off current (0.05)C
- Discharge: 0.3CP, Cut off voltage at:
 - o BUEL011HBC1: 271.32V,
 - o BUEL015HBC1: 361.76V
- Current and voltage measurement at battery DC side

8. WARRANTY COVERAGE

In the case the products are not available in the market anymore or LGE cannot supply the **products** service stock anymore, LGE will

- replace other **products** of equivalent performances and functions or
- compensate the price after the product is depreciated for 10 years warranty period.

NOTE:

- If two batteries are connected to one PCS and one of the two should be replaced, the SOH of the replacement battery should not be essential higher than the SOH of the already installed battery. The end of the warranty period for the replacement battery is the same as for the originally installed battery.
- If Distributor or installer has an uninstalled battery for more than one year, the battery has to be recharged. It is recommended to install the battery within one year.

9. OBTAINING WARRANTY PERFORMANCE

Customers who believe they have a justified claim covered by this LIMITED WARRANTY must immediately notify the authorized LGE representative, or contact LGE directly by writing to:

LG Electronics Deutschland GmbH

Alfred-Herrhausen-Allee 3-5

65760 Eschborn

Deutschland

Tel. : + 0049 18 06 807 020

E-Mail: b2b.service@lge.de

Website: <https://www.lg.com/de/business>