



*Integrated Back-up Battery System
ground based AC plug-in charger*

Model: IBBS-12v-CHARGER

The IBBS-12v-CHARGER is a line voltage supplied charger intended to be used with the IBBS-12v-4ah battery back-up system.

The IBBS-12v-CHARGER provides a simple means to keep an IBBS system fully charged during long term product storage. Additionally, the charger can provide full power to the IBBS system for fast charging after doing continued airworthiness inspections.

The IBBS-12v-CHARGER is connected to standard line voltage power from 100-240 VAC, 50/60 Hz. The unit is provided with the mating CPC connector that matches up to the IBBS product. The charger also has an LED indicator to show the battery charge state.

The IBBS-12v-CHARGER is intended only to be used for charging a TCW Technologies, LLC. IBBS-12v-4ah back-up battery system, no other uses are permitted. The charger is an indoor type product and not intended to be exposed to rain, snow, damp environments or high humidity or utilized outdoors.

The IBBS-12v-CHARGER will only charge the IBBS battery pack, it will not provide pass through power to any other equipment.

Operation and Use:

Connect the IBBS-12v-CHARGER to the CPC connector on an IBBS-12v-4ah Integrated Back-up Battery System. Plug the line cord into a suitable source of power (100-240 Vac).

The IBBS-12v-CHARGER provides both trickle charge and fast charge capability of an IBBS unit. If an IBBS unit is to be stored for a long period of time (3 months or greater), it is highly recommended that it be connected to the IBBS-12v-CHARGER and left plugged into AC power.

When using the IBBS-12v-CHARGER is used to fast charge an IBBS unit, leave the system connected for at least 2 hours regardless of the state of the LED indicator.

An indicator LED is located near the CPC charge connector. The LED provides the following information:

- 1) If the battery pack is being fast charged or the pack is at or near full charge the LED will illuminate brightly.
- 2) If the battery pack is significantly discharged the LED will NOT illuminate even though the battery is being trickle charged. After trickle charging for up to 24 hrs, the system will continue into fast charge mode and the LED should then illuminate brightly.

For service or if you have questions, please contact us.

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TCW Technologies, LLC.

During the first 12 months from the date of purchase and subject to the conditions hereinafter set forth, TCW Technologies, LLC. (TCW) will repair or replace to the original user or consumer any portion of your new TCW product which proves defective due to defective materials or workmanship of TCW. Contact TCW Technologies for warranty service. TCW shall have and possess the sole right and option to determine whether to repair or replace defective equipment, parts or components. Damage due to equipment, environment or conditions beyond the control of TCW Technologies are NOT COVERED BY THIS WARRANTY.

LABOR, COSTS: TCW shall IN NO EVENT be responsible or liable for the cost of field labor or other charges incurred by any customer in removing and/or reaffixing any TCW product, part or component thereof.

THIS WARRANTY WILL NOT APPLY: (a) to defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with printed instructions provided; (b) to failures resulting from abuse, accident, or negligence; (c) to normal maintenance services and the parts used in connection with such service; (d) to units which are not installed in accordance good trade practices; or (e) to unit used for purposes other than for what it was designed and manufactured.

RETURN OR REPLACED COMPONENTS: any item to be replaced under this Warranty must be returned to TCW Technologies in Emmaus, PA, or such place as TCW may designate, freight prepaid.

PRODUCT IMPROVEMENTS: TCW reserves the right to change or improve its products or any portions thereof without being obligated to provide such a change or improvement for units sold and /or shipped prior to such change or improvement.

WARRANTY EXCLUSIONS: as to any specific TCW product, after the expiration of the time period of the warranty applicable thereto as set forth above. THERE WILL BE NO WARRANTIES, INCLUDING ANY IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. No warranties or representations at any time made by any representative of TCW shall vary or expand the provisions hereof.

LIABILITY LIMITATION: IN NO EVENT SHALL TCW OR ITS AFFILIATES BE LIABLE OR RESPONSIBLE FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES RESULTING FROM OR RELATED IN ANY MANNER TO ANY TCW PRODUCT OR PARTS THEREOF. THE SUITABILITY OF USE OF THE TCW TECHNOLOGIES, LLC. PRODUCT IS TO BE DETERMINED BY THE AIRCRAFT BUILDER.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This Warranty gives you specific legal rights and you may also have other rights which vary from state to state. In the absence of other suitable proof of this installation date, the effective date of this Warranty will be based upon the date of manufacture plus one year. Direct All Notices To: Warranty and Product Service Department, TCW Technologies, 4906 Raymond Ct. Emmaus, PA 18049