



# Toshiba 1000 Series User Manual

Reliability in motion single phase 1000/1200 va



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**Uninterruptible P**

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### [Laptop Toshiba 1000-S157 User Manual](#)

1000-s157 user's guide (246 pages)

### [Controller Toshiba V Series User Manual](#)

Integrated controller, loop controller (158 pages)

### [Laptop TOSHIBA Satellite 1000 Series User Manual](#)

Toshiba satellite portable personal computer (126 pages)

### [Laptop Toshiba Satellite 1000 User Manual](#)

Toshiba satellite 1000 notebook (126 pages)

### [UPS Toshiba 1000 SERIES User Manual](#)

(64 pages)

### [UPS Toshiba RELIABILITY IN MOTION 1000 Series User Manual](#)

Single phase 1000 va to 3000 va uos (54 pages)

### [UPS Toshiba UT1A1A010C6 User Manual](#)

User guide (51 pages)

### [UPS Toshiba 1000 Series Installation Instructions](#)

Toshiba power supply user manual (4 pages)

### [UPS Toshiba 1000 SEREIS Brochure & Specs](#)

1000 series (2 pages)

### [UPS Toshiba 1000 Series Specification](#)

Ups rack-mount 2u rail kit (2 pages)

### [UPS Toshiba 1500 Series Operation Manual](#)

(32 pages)

### [UPS Toshiba 1500 Plus Series Operation Manual](#)

6/.8/1.0 kva 220v uninterruptible power system (31 pages)

### [UPS Toshiba 1600 Series Instruction Manual](#)

Single phase - 2.4/3.6/6/8 kva plus (49 pages)

### [UPS Toshiba 1600XPi Series Installation And Operation Manual](#)

8-22kva battery cabinet (23 pages)

### [UPS Toshiba 1600XP SERIES Installation And Operation Manual](#)

1600xp series single phase - 3.6/6/8/10/14/18/22 kva (100 pages)

### [UPS Toshiba 1800 Series User Manual](#)

1800 series uninterruptible power systems (ups) 1500/2000/2400va (52 pages)

## Summary of Contents for Toshiba 1000 Series

**Page 2** The sales contract contains the entire obligation of Toshiba International Corporation (TIC) 's UPS Division. The warranty contained in the contract between the parties is the sole warranty of Toshiba International Corporation's UPS Division and any statements contained herein do not create new warranties or modify the existing warranty.

**Page 3** UNINTERRUPTIBLE POWER SUPPLY Complete the information below for the UPS system received. Unless otherwise specified on the warranty card, the warranty period for the UPS or UPS part is 36 months from the shipment date (see TIC bill of lading). Unless otherwise specified on the warranty card, the warranty period for a UPS battery is 24 months from the shipment date (see TIC bill of lading).

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## [Page 5: Manual's Purpose And Scope](#)

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## [Page 6: Contacting Toshiba International Corporation's Customer Support Center](#)

Contacting Toshiba International Corporation's Customer Support Center Toshiba International Corporation's Customer Support Center can be contacted to obtain help in resolving any Uninterruptible Power Supply system problems that you may experience or to provide application information. The center is open from 8 a.m. to 5 p.m. (CST), Monday through Friday. The Support Center's toll free number is US (800) 231-1412/Fax (713) 896-5212.

## [Page 7: Emc Statements](#)

EMC Statements FCC Part 15 NOTICE: Pursuant to section 15 of the FCC rules this product has been tested and complies with the conditions of a Class B digital device. The product has been established as offering sufficient protection against dangerous interference for installations in a residential area.

[Page 8](#) Declaration of Conformity Request Units labeled with a CE mark comply with the following standards and directives: Harmonic Standards: EN 50091-1-1 and EN 50091-2. EU Directives: 73/23/EEC, Council Directive on equipment designed for use within certain voltage limits. 93/68/EEC, Amending Directive 73/23/EEC. 89/336/EEC, Council Directive relating to electromagnetic compatibility.

## [Page 9: General Safety Instructions](#)

General Safety Instructions DO NOT attempt to install, operate, maintain or dispose of this equipment until you have read and understood all of the product safety information and directions that are contained in this instruction manual. Safety Alert Symbol / Signal Words The Safety Alert Symbol indicates that a potential personal injury hazard exists.

[Page 10](#) 2. Warning — The word WARNING in capital letters preceded by the safety alert symbol indicates that a potentially hazardous situation exists that, if not avoided, could result in death or serious injury to personnel. WARNING 3. Caution/Attention — The word CAUTION or ATTENTION in capital letters preceded by the safety alert symbol indicates that a potentially hazardous situation exists that, if not avoided, may result in minor or moderate injury.

[Page 11](#) Special Symbols Other warning symbols may appear in conjunction with the Danger, Warning, and Caution symbol and are used to specify special hazards. These warnings describe particular areas where special care and/or procedures are required in order to prevent serious injury and possible death. 1.

## [Page 12: Important Safety Instructions](#)

UPS output and the load input. 3. The maximum ambient operating temperature is 104° F (40° C). 4. Battery servicing should be performed by a qualified Toshiba Representative only. 5. Unauthorized personnel should not service batteries.

[Page 13](#) 5. Be knowledgeable of batteries and the required handling and maintenance precautions. For further information on workplace safety visit [www.osha.gov](http://www.osha.gov).

## [Page 14: Important Safety Instructions \(Cont'd\)](#)

WARNING Misuse of this equipment could result in injury and equipment damage. In no event will Toshiba Corporation be responsible or liable for either indirect or consequential damage or

injury that may result from the misuse of this equipment. CAUTION Do not dispose of the batteries in a fire.

[Page 15](#) —Strict adherence to the following precautions is a requirement when working with batteries— To be performed by Qualified Personnel only. 1. Verify that the UPS is off and that the power cord is disconnected from the power source. 2. Remove watches, rings or other metal objects. 3.

### [Page 16: Instructions Importantes Concernant](#)

Instructions Importantes Concernant LA SÉCURITÉ CONSERVER CES INSTRUCTIONS Cette notice contient des instructions importantes concernant la sécurité. ATTENTION Une batterie peut présenter un risque de choc électrique, de brûlure par transfert d' énergie. ATTENTION L' élimination des batteries est règlementée. Consulter les codes locaux à cet effet.

### [Page 17: Inspection/Storage/Disposal](#)

Inspection/Storage/Disposal CAUTION Inspection Upon receipt of the UPS, an inspection for shipping damage should be performed. Use caution when removing the unit from the pallet. Refer to labels or documentation attached to packing material. Uncrating Check the unit for loose, broken, bent or otherwise damaged parts. If damage has occurred during shipping, keep all original crating and packing materials for return to the shipping agent.

[Page 18](#) It is illegal to dump lead-acid batteries in landfills or dispose of improperly. Please help our Earth by contacting the environmental protection agencies in your area, the battery manufacturer, or call Toshiba toll-free at (800) 231-1412 for more information about recycling.

### [Page 19: Installation Precautions](#)

Installation Precautions CAUTION 1. Install the unit in a well-ventilated location; allow at least 10 cm (4 inches) on all sides for air ventilation and for maintenance. 2. Install the unit in a stable, level and upright position that is free of excessive vibration.

[Page 20](#) 12. Connect the output terminals of the UPS to the load (refer to NEC Article 300 – Wiring Methods and Article 310 – Conductors For General Wiring). Size the branch circuit conductors in accordance with NEC Table 310.16. Conductor Routing and Grounding 1.

### [Page 21: Operating Precautions](#)

CHARGE LED has gone out before opening the door of the UPS once the UPS power has been turned off. 8. Do not attempt to disassemble, modify, or repair the UPS. Call your Toshiba sales representative for repair information.

[Page 22](#) Allow the unit to cool before coming in contact with these items. 13. Warning signs should be placed on or near the load as a notification that the load is being powered by the UPS. 14. Additional warnings and notifications shall be posted at the equipment installation location as deemed required by Qualified Personnel.

### [Page 23: Introduction](#)

1. Introduction The information provided in this manual covers single phase 1000 – 1200 VA uninterruptible power systems. Included in this manual is information on the installation, operation, safety precautions, shipping, and storage of the equipment. Installation must be carried out in accordance with this manual. Electrical installations must also follow local legislation and regulations.

### [Page 24: General Description](#)

2.1 General Description As a double conversion on-line UPS, it is able to supply uninterrupted, clean single- phase power to your critical systems while keeping batteries charged continuously, even if the utility power fails. Other features of the UPS includes •...

[Page 25](#) • An input filter reduces transients on the main supply. • For maintaining full battery charge, AC-power is rectified and regulated in the rectifier feeding power to the inverter and battery converter. • DC power is converted to AC in the inverter and passes it on to the load. •...

[Page 26](#) Free Run Mode Free run mode is a mode of operation in which the output frequency



does not match input frequency. The UPS operates in free run mode when the input frequency is outside of the selected input frequency range. When starting the UPS, the targeted frequency is 50 or 60 Hz  $\pm 0.25$ Hz Refer to section 4.3 Front Panel Settings to set up bypass availability while running in free run mode.

## [Page 27: System Configuration](#)

2.2 System Configuration The UPS device and the internal backup battery make up the system. Depending on the site and load requirements of the installation, available options may be utilized to create a tailored solution. Planning a UPS system should include the following considerations: •...

## [Page 28: Storage](#)

3. Storage Please adhere to the following instructions if the UPS is not installed when received:  
• Store the equipment in its original packing and shipping carton. • Store the unit in a temperature of 15° C to 25° C. •...

## [Page 29: Installation](#)

3. Installation 3.2 Environment To ensure safe and proper operation, ensure that the installation conforms to the following specifications. Ensure that the installation location is consistent with the following: • Avoid extreme temperature and humidity. Maximal battery life can be attained with a recommended temperature range of 15°...

[Page 30](#) Vertical and Wall-mounted Installations with Accessories Install the vertical and wall-mounted units as shown below. Vertical Installation Wall-mounted installation.

[Page 31](#) Rack-mounted Installation with Accessories Install the rack-mounted unit as shown below. Installation with bottom bracket. Screw: M5\*11, 4 PCS.

[Page 32](#) Stacked UPS Installation with accessories Install the stacked unit as shown below. Stack installation...

[Page 33](#) Rear Panel Views 1000VA – 1200VA Tower Rear Panel...

[Page 34](#) 1000VA Rack mount (1U) Rear Panel...

[Page 35](#) 1000VA Rack mount (2U) Rear Panel...

[Page 36](#) 3.3 Connection to main supply and loads (1000 – 1200 VA) • Ensure that the UPS is disconnected from the main supply and loads while connecting the External Battery Cabinets. • Use the battery cable supplied with the External Battery Cabinet to connect the External Battery Cabinet to the UPS.

[Page 37](#) Figure 2 Example of Installation of Plug & Play products.

## [Page 38: Front Panel Settings](#)

4.3 Front Panel Settings Listed below are the default settings of the primary UPS parameters.  
Settings Options Default Remarks 120V (FOR LV series) 1) O/P VOLT SET  
100V/110V/115V/120V/127V 120V 230V (FOR HV series) (Output Voltage Set) 208/220/230/240 Vac 230V Input Frequency range 2) I/P FREQ SET  $\pm 2\%$   $\pm 5\%$ ...

[Page 39](#) Remarks Settings Options Default This is a load-shed feature. 7) OUTLET SETTING  
GROUP 1 / GROUP 2 Option 1 Option 1: 1 On / 2 On Option 2: 1 Off / 2 On Option 3: 1 Off / 2 Off  
Option 4: 1 On / 2 Off Perform battery test 8) BATTERY TEST...

## [Page 40: Computer And Alarm Connections](#)

4. Computer and Alarm Connections At the rear of the UPS is an interface that allows direct communication with a computer system (see figure 2). There is a RS232 serial data interface, a USB data interface, and an emergency power off switch. The RS232 port and the USB interface cannot be used simultaneously.

[Page 41](#) USB Port Connecting the UPS to a computer using the USB port of the computer

requires USB compliant hardware, PC operating system support, and a UPS driver. The RS232 serial port cannot be used when using the USB port. The USB cable is a standard cable and may be purchased separately.

## [Page 42: User's Guide To Operations](#)

5. User's Guide to Operations Normal ongoing UPS operation requires little or no user input. Startup and shutdown requirements of the user are discussed in this section. 5.2 UPS Startup and Shutdown Starting the UPS • Ensure that installation is correct and that the input power cable is connected to a properly grounded outlet.

## [Page 43: Control Panel Functions](#)

2. " " is the Enter button. (a) Press and hold the Enter button for at least 2 seconds to read the parameter settings of the UPS. Press the Enter button again to read the next parameter. (b) Ten seconds of inactivity will return the display to the original status. 3.

[Page 44](#) Status of the UPS, measurements, and alarms are all indicated on the LCD screen. Figure 3 Control panel Normal Display The UPS status is shown in the normal display mode. The UPS Meters display and the Setting display may be accessed by pressing this button. UPS Meters Display Listed below are the parameters available for viewing from the UPS meters display.

[Page 45](#) UPS Configurations 1) Parameter settings may be viewed from the UPS Settings display. 2) To enter the configuration mode, press and hold the Function button for one second. The first configuration parameter will be shown on the LCD display. 3) Press the Function button again to scroll through the remaining parameters. 4) Press the Enter button to select a displayed parameter.

## [Page 46: Interpreting Ups Messages](#)

UPS Manual Test Manual UPS and Battery tests may be performed from the UPS configuration screen. Tests may be performed when the battery is not being charged. To run the battery test scroll to the "Manual Bat Test" parameter press the Enter button twice.

## [Page 47: Troubleshooting](#)

5.6 Troubleshooting Displayed on LCD Audible Alarm Alarm Description What You Should Do Output Overload Two Beeps/sec The UPS is overloaded Remove loads from the UPS; (in Line Mode). More least to most critical. If this power required than the solves the problem, the UPS UPS can provide.

## [Page 48: Maintenance](#)

6. Maintenance With a minimal amount of maintenance you can expect years of satisfactory operation from the UPS unit. The most critical issues for the reliability of the UPS are environmental issues. Ensure that the temperature and humidity are always in accordance with the specifications and keep the area around the unit clean and dust free.

## [Page 49: Technical Specifications](#)

7. Technical Specifications 7.2 Power Range 1000-1200 VA (LV) General Rated power: 1000 VA, 1200 VA at power factor 0.7 Technology: On-line, double conversion topology with automatic bypass Input Phase: Single phase with ground Bypass Voltage: 96VAC-138 VAC (user selectable) Input Voltage range: 80VAC-144 VAC Frequency:...

## [Page 50: Power Range:1000 Va \(19" Rack-Mount Model, Lv, 1U & 2U\)](#)

7.3 Power Range:1000 VA (19" Rack-mount model, LV, 1U & 2U) General Rated power: 1000 VA at power factor 0.7 Technology: On-line, double conversion topology with automatic bypass Input Phase: Single phase with ground Bypass Voltage: 96VAC- 138VAC (user selectable) Input Voltage range: 80VAC- 144VAC Frequency:...

## [Page 51: Power Range 1000-1200 Va \(Hv\)](#)

7.4 Power Range 1000-1200 VA (HV) General Rated power: 1000 VA, 1200 VA at power factor 0.7 Technology: On-line, double conversion topology with automatic bypass Input Phase: Single phase with ground Bypass Voltage: 184VAC-265VAC (user selectable) Input Voltage range: 160VAC-276VAC Frequency: 50/60 Hz Auto selection Frequency window from main supply:...

## [Page 52: Power Range 1000 Va \(19" Rack-Mount Model, Hv, 1U & 2U\)](#)

7.5 Power Range 1000 VA (19" Rack-mount model, HV, 1U & 2U) General Rated power: 1000 VA at power factor 0.7 Technology: On-line, double conversion topology with automatic bypass Input Phase: Single phase with ground Bypass Voltage: 184VAC- 265VAC Input Voltage range: 160VAC-276VAC Frequency: 50/60 Hz Auto selection...

[Page 53](#) Tower HV Model OUTPUT POWER 1000VA/700W 1200VA/840W Connection Input IEC 320 (10A) IEC 320 (10A) Connection Output 4 x IEC 320 (10A) 4 x IEC 320 (10A) Battery type Lead-acid 9Ah/12V Lead-acid 9Ah/12V Number of batteries Backup time/full load 7 min 6 min Recharge time <4 hours to 90%...

[Page 54](#) Tower LV Model OUTPUT POWER 1000VA/700W 1200VA/840W Connection Input 5-15R 5-15R Connection Output 6 x 5-15R (US) 6 x 5-15R (US) Battery type Lead-acid 9Ah/12V Lead-acid 9Ah/12V Number of batteries Backup time/full load 7 min 6 min Recharge time <4 hours to 90% <4 hours to 90% Dimensions WxDxH (mm) 420x152x239...

## [Page 55: Warranty Information](#)

TIC Bill of Lading. Note 2: For the 1000 Series the warranty applies if the unit is sent and returned (paid for) by the user to/from the Toshiba International Corporation or a Toshiba International Corporation designated Authorized Service Center.

[Page 56](#) This limited warranty shall not cover the UPS, UPS part, or BATTERY during their respective warranty periods, if the following storage, maintenance, installation, operating conditions are not met throughout the warranty periods (5 conditions below): VALVE REGULATED LEAD ACID (VRLA) BATTERIES FOR TOSHIBA INTERNATIONAL CORPORATION UPSREQUIRED OPERATING CONDITIONS Annual...

[Page 57](#) All defective UPS, UPS parts, and/or BATTERIES shall be the property of TIC upon replacement. 3. The sales contract contains the entire obligation of Toshiba International Corporation and constitutes the sole and exclusive remedy of all purchasers and users of the UPS, UPS part, and/or BATTERY.

[Page 58](#) Procedure for Defective Product Screening and Disposition User must contact TIC via e-mail [upsservice@tic.Toshiba.com](mailto:upsservice@tic.Toshiba.com), or phone 1-877-867- 8773 (outside the U.S. call 713-466-0277) to report a defect in a UPS, UPS part, and/or BATTERY. Subject to the limitations of TIC policy and product type, TIC service, or TIC service representative shall repair/replace the UPS/part warranted hereunder, without charge for material or labor.

[Page 59](#) MODIFICATIONS No representative, salesperson, agent, distributor, or employee of TIC is authorized to modify any of the terms of the warranty, unless modifications are made in writing and signed by an authorized TIC officer.