

GE T2100 Treadmill

Operator's Manual

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Revision A



GE Medical Systems
Information Technologies

gemedical.com

NOTE

The information in this manual only applies to the GE T2100 Treadmill. It does not apply to earlier product versions. Due to continuing product innovation, specifications in this manual are subject to change without notice.

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CE Marking Information

Compliance

NOTE

The CE mark information is part of the operator manual and is applicable for all products marked and delivered by GE Medical Systems Information Technologies in the European community.

The GE T2100 Treadmill bears CE mark CE-0459 indicating its conformity with the provisions of the Council Directive 93/42/EEC concerning medical devices and fulfills the essential requirements of Annex I of this directive. The product is in radio-interference protection class A in accordance with EN 55011.

The country of manufacture can be found on the equipment labeling.

The product complies with the requirements of standard EN 60601-1-2 “Electromagnetic Compatibility - Medical Electrical Equipment”.

The safety and effectiveness of this device has been verified against previously distributed devices. Although all standards applicable to presently marketed devices may not be appropriate for prior devices (i.e. electromagnetic compatibility standards), this device will not impair the safe and effective use of those previously distributed devices. See user's information.

Exceptions

The GE T2100 Treadmill EMC: Immunity Performance

Users should be aware of known RF sources, such as radio or TV stations and hand-held or mobile two-way radios, and consider them when installing a medical device or system.

Be aware that adding accessories or components, or modifying the medical device or system may degrade the EMI performance. Consult with qualified personnel regarding changes to the system configuration.

Refer to the service manual for detailed exceptions and compliance information.

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1 Introduction

Manual Information

Revision History

Each page of the document has the document part number and revision letter at the bottom of the page. The revision letter identifies the document's update level.

The revision history of this document is summarized in the table below.

| Revision | Date | Comment |
|----------|-----------------|----------------------------|
| A | 7 February 2005 | Initial release of manual. |

Manual Purpose

This manual contains the instructions necessary to operate the equipment safely in accordance with its function and intended use. These instructions include but are not limited to:

- an explanation of the function of controls and indicators,
- the sequence of operation,
- connection and disconnection of detachable parts and accessories, and
- instructions for operator cleaning, preventive inspection and maintenance.

Where necessary the manual identifies additional sources of relevant information and/or technical assistance.

Conventions

Below are the conventions used in this manual.

Safety Messages

DANGER safety messages indicate an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

WARNING safety messages indicate a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

CAUTION safety messages indicate a potentially hazardous situation which, if not avoided may result in minor or moderate injury.

NOTE messages provide additional user information.

Definitions

- Items shown in **Bold** text are keys on the keyboard, text to be entered, or hardware items such as buttons or switches on the equipment.
- Items shown in *Italicized* text are software terms which identify menu items, buttons, or options in various windows.
- To perform an operation which appears with a plus (+) sign between the names of two keys, you press and hold the first key while pressing the second key once. This is called a keystroke combination. For example, “Press **Ctrl+Esc**” means to press and hold down the **Ctrl** key while pressing the **Esc** key.
- When instructions are given for typing a precise text string with one or more spaces, the point where the spacebar must be pressed is indicated as: <Space>. The purpose of the < > brackets is to ensure you press the spacebar when required.
- **Enter** means to press the **Enter** or **Return** key on the keyboard. Do not type **Enter**.

Safety Information

Responsibility of the Manufacturer

GE Medical Systems *Information Technologies* is responsible for the effects of safety, reliability, and performance only if:

- Assembly operations, extensions, readjustments, modifications, or repairs are carried out by persons authorized by GE Medical Systems *Information Technologies*.
- The electrical installation of the relevant room complies with the requirements of the appropriate regulations.
- The equipment is used in accordance with the instructions for use.

General

This device is intended for use under the direct supervision of a licensed health care practitioner.

To ensure patient safety, use only parts and accessories manufactured or recommended by GE Medical Systems *Information Technologies*.

Contact GE Medical Systems *Information Technologies* for information before connecting any devices to this equipment that are not recommended in this manual.





Parts and accessories used must meet the requirements of the applicable IEC 601 series safety standards, and/or the system configuration must meet the requirements of the IEC 60601-1-1 medical electrical systems standard.




The use of ACCESSORY equipment not complying with the equivalent safety requirements of this equipment may lead to a reduced level of safety of the resulting system. Consideration relating to the choice shall include:

- use of the accessory in the PATIENT VICINITY; and
- evidence that the safety certification of the ACCESSORY has been performed in accordance to the appropriate IEC 60601-1 and/or IEC 60601-1-1 harmonized national standard.

Equipment Symbols

The following symbols may appear on the equipment.

| | |
|---|---|
|  | This symbol means that you must pay attention to the documents delivered with this equipment. It calls attention to the things to which you must pay special attention during operation and when the equipment is operated in conjunction with other equipment. |
|  | <p>In Europe, this symbol means dangerous or high voltage. In the United States, this symbol represents the caution notice below:</p> <hr/> <p>CAUTION</p> <p>— To reduce the risk of electric shock, do NOT remove cover (or back). Refer servicing to qualified personnel.</p> <hr/> |
|  | Type B equipment. Type B equipment is suitable for intentional external and internal application to the patient, excluding direct conductive connection to the patient's heart. |
|  | Alternating current (AC) |

| | |
|---|---|
|  | This symbol means that you must pay attention to the documents delivered with this equipment. It calls attention to the things to which you must pay special attention during operation and when the equipment is operated in conjunction with other equipment. |
|  | Equipotential (This is the ground lug.) |
|  | Protective earth (ground) |

Warnings and Dangers

WARNING

CONNECTION TO MAINS — This is class I equipment.

The mains plug must be connected to an appropriate power supply.

WARNING

DEFIBRILLATOR PRECAUTIONS — Do not come into contact with patients or unit during defibrillation. Otherwise, serious injury or death could result.

WARNING

EQUIPMENT MALFUNCTION — Replace only with the same type and rating of fuse.

WARNING

EXPLOSION HAZARD — Flammable anesthetic vapors or liquids can cause explosions.

Do NOT use in the presence of flammable anesthetic vapors or liquids.

WARNING

MOVING PARTS — To avoid injury to patient, wait until treadmill belt is moving before placing feet on belt.

WARNING

MOVING PARTS — To avoid injury to patient, keep hands, hair, jewelry and loose clothing away from moving parts.

WARNING

MOVING PARTS — To avoid injury to patient, operate the treadmill with 6 feet of clearance at the rear (end opposite the motor).

WARNING

SHOCK HAZARD — Improper use of this device presents a shock hazard. Strictly observe the following warnings. Failure to do so may endanger the lives of the patient, the user, and bystanders.

When disconnecting the device from the power line, remove the plug from the wall outlet first, before disconnecting the cable from the device. Otherwise there is a risk of coming in contact with line voltage by inadvertently introducing metal parts in the sockets of the power cord.

Devices may be connected to other devices or to parts of systems only after making certain that there is no danger to the patient, the operators, or the environment as a result. Standards IEC 60601-1-1/EN60601-1-1 must be complied with in all cases.

WARNING

SITE REQUIREMENTS — Do not route cables in a way that they may present a stumbling hazard.

Do not route cables underneath the equipment.

For safety reasons, all connectors for patient cables and leadwires are designed to prevent inadvertent disconnection, should someone pull on them.

For devices installed above the patient, adequate precautions must be taken to prevent them from dropping on the patient.

WARNING

TREADMILL CHANGES — Rapid changes in treadmill speed and/or grade during a stress test may result in injury.

DO NOT rapidly change treadmill speed and/or grade during a stress test.

Cautions

CAUTION

INJURY — Do not use the treadmill without proper footwear as injury to feet may result.

Always wear proper footwear when using the treadmill.

CAUTION

POWER REQUIREMENTS — Before connecting the device to the power line, check that the voltage and frequency ratings of the power line are the same as those indicated on the unit's label. If this is not the case, do not connect the system to the power line until you adjust the unit to match the power source.

This equipment is suitable for connection to public mains as defined in CISPR 11.

CAUTION

RESTRICTED SALE — U.S. federal law restricts this device to sale by or on the order of a physician.

CAUTION

SUPERVISED USE — This equipment is intended for use under the direct supervision of a licensed health care practitioner.

Make sure all users are under the direct supervision of a licensed health care practitioner.

Service Information

Service Requirements

Refer equipment servicing to GE Medical Systems *Information Technologies* authorized service personnel only. Any unauthorized attempt to repair equipment under warranty voids that warranty.

It is the user's responsibility to report the need for service to GE Medical Systems *Information Technologies* or to one of their authorized agents.

Failure on the part of the responsible individual, hospital, or institution using this equipment to implement a satisfactory maintenance schedule may cause undue equipment failure and possible health hazards.

Regular maintenance, irrespective of usage, is essential to ensure that the GE T2100 Treadmill will always be functional when required

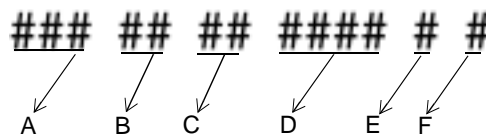
Technical specifications describing the equipment can be found in the GE T2100 Treadmill Service Manual shipped with your system.

Equipment Identification

The Equipment Identification tag contains the Serial Number, and is located on the back of the treadmill.

Serial Number

Every GE Medical Systems *Information Technologies* device has a unique serial number for identification. An explanation of the Serial Number code is shown below.



001

| | |
|---|---|
| A | Product Code |
| B | Year Manufactured (00-99) 00 = 2000 01 = 2001 02 = 2002 (and so on) |
| C | Fiscal Week Manufactured |
| D | Production Sequence Number |
| E | Manufacturing Site |
| F | Miscellaneous Characteristic |

2 GE T2100 Treadmill Overview

Intended Use

The GE T2100 Treadmill is intended for use with any of the several GE Medical Systems *Information Technologies* exercise testing systems or the MTC-1 (manual treadmill controller), for administering a controlled exercise load during a diagnostic stress test. Standard features include the emergency stop switch, a full handrail set, and a long, 60-inch walking surface.

The emergency stop switch is intended for emergency situations where immediately stopping the treadmill is required to deliver appropriate emergency care to the patient or health care provider, as implied by the American Heart Association “Guidelines for Clinical Exercise Testing Laboratories” (1995). It is not intended for routinely stopping the treadmill.

Preparation for Use

Safe Handling Guidelines

The GE T2100 Treadmill ships preset with an approximate 2% grade. This slight elevation provides for free wheel movement and prevents the shroud from scraping the floor.

Before moving the treadmill after it has been in operation, use the controlling equipment to set the grade to approximately 7%. Then remove power and disconnect all cables to the treadmill before moving the unit.

Follow the steps below to move the treadmill. We recommend that two people work together since the treadmill may be too heavy for some individuals to lift and lower safely.

NOTE

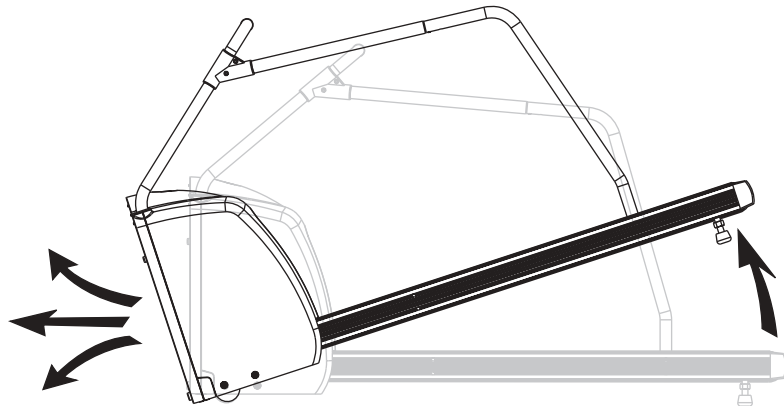
We recommend the treadmill not be placed on carpet or carpet tile floors as a final location, as continual movement of the wheels may eventually damage the carpet and possibly the treadmill.

WARNING

INJURY OR DAMAGE — The treadmill is too heavy to lift, lower or move safely by one person. Serious bodily injury or damage to the treadmill may result.

A minimum of two people are required when lifting, lowering or moving the treadmill.

1. Lift the end of the bed assembly to about knee height, keeping knees bent and backs straight as you lift.
2. Rotate the treadmill in the direction you want to go (the treadmill will pivot on its wheels) and push forward.
3. When you have maneuvered the treadmill into its new location, gently lower the end of the bed assembly to the floor.



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Operating Instructions

Electrical Safety Tests

The electrical safety of this installation is the responsibility of the customer, not GE Medical Systems *Information Technologies*. In hospitals, contact your in-house biomedical technician, electrician, or technically qualified personnel. Outside of hospitals, contact your hospital affiliation for these services. Otherwise, contact GE Medical

Systems *Information Technologies* and open a customer-billable service call.

Before using the treadmill, have qualified personnel perform the tests listed below.

- AC line voltage test to verify the power outlet is properly wired.
- Ground continuity test to verify all exposed metal is properly grounded.
- Leakage tests to verify the equipment passes all applicable leakage tests.

Your in-house biomedical technician, electrician, or technically qualified personnel can find instructions for performing these tests in the GE T2100 Treadmill Service Manual shipped with your system.

Calibrating Treadmill

It is recommended that the treadmill be calibrated each time it is moved. Refer to the steps below to activate the GE T2100 Treadmill self-calibration feature:

1. Connect the AC power cable on the treadmill to the wall outlet.

WARNING

POWER CABLES — Route the AC Power cable away from moving parts.

An AC power cable caught in moving parts could cause injury to the user and equipment.

2. Turn the power switch on the treadmill to On.
3. Remove controlling device cable or turn off the controlling device.

WARNING

INJURY TO PERSON — The treadmill will reach maximum elevation speed. Injury may result.

Make sure you monitor the site at all times.

Make sure there are no customers or patients near the treadmill during calibration.

4. A push button is located at the rear panel. Hold down the push button and power cycle the unit. Hold the push button in for at least 4 seconds after power up for calibration to occur.

The software calibrates the speed and grade from the minimum points to the maximum points.

Operating Controls

The treadmill has two operating controls, the power switch and the emergency stop switch. The power switch is located on the rear panel, and the emergency stop switch is on the front handrail.

Power Switch

The power switch controls the AC power to the treadmill. The On position **(I)** applies power. The Off position **(0)** removes power.

Emergency Stop Switch

The emergency stop switch is a safety device for use in emergency situations to stop the treadmill. Press the **STOP** push-button and the treadmill promptly stops. Please note the belt will not lock after the treadmill is stopped, allowing for removal of foreign objects.

To release the emergency stop switch, turn the push-button 1/4-turn in either direction.

Emergency Stop Switch Check

NOTE

Verify proper operation of the stop switch assembly every month.

- With the belt moving at a relatively high speed, press the emergency stop switch. The treadmill belt will stop promptly but the belt will not lock, allowing for removal of foreign objects. To release the switch, turn the button 1/4-inch turn in either direction.
- Use the controlling equipment to terminate the exercise session and turn off the treadmill.

Controlling the Treadmill

- Turn the power switch On **(I)**.
- Use the controlling equipment to start the treadmill, adjust the treadmill speed and grade, proceed through the exercise phases, terminate the exercise session, and turn off the treadmill. Refer to the appropriate controlling equipment Operator Manual for instructions.

Maintenance

Recommended Maintenance

Refer to the GE T2100 Treadmill Service Manual shipped with your system for detailed maintenance information.

NOTE

Unless you have an Equipment Maintenance Contract, GE Medical Systems *Information Technologies* does not in any manner assume the responsibility for performing the recommended maintenance procedures. The sole responsibility rests with the individual or institution using the equipment. GE Medical Systems *Information Technologies* service personnel may, at their discretion, follow the procedures provided in this manual as a guide during visits to the equipment site.

Inspection and Cleaning

Visual Inspection

Perform a visual inspection daily. Turn off the unit and remove power before making an inspection or cleaning the unit. If you notice any items that need repair, contact an authorized service person to make the repairs.

Inspect the following for excessive wear or damage:

- Walking belt
- Drive belt
- Handrail and hardware
- All cords and cables for fraying or other damage.

- Verify that all cords and connectors are securely seated.

Exterior Cleaning

Turn the treadmill system off. Clean the exterior surfaces with a clean, soft cloth and a mild dishwashing detergent diluted in water. Use anti-septic cleaner on the handrails and walking belt. Avoid contact with open vents, plugs or connectors. Dry the surfaces with a clean cloth or paper towel.

3 Maintenance

Introduction

Recommended Maintenance

Refer to the Series 2100 Treadmill Service Manual shipped with your system for detailed maintenance information.

NOTE

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- Walking belt
- Drive belt
- Handrail and hardware
- All cords and cables for fraying or other damage.
- Verify that all cords and connectors are securely seated.

Exterior Cleaning

Turn the treadmill system off. Clean the exterior surfaces with a clean, soft cloth and a mild dishwashing detergent diluted in water. Wring out the excess water from the cloth and take care not to drip solutions on the keyboard or writer assembly. (Use anti-septic cleaner on the handrails and walking belt.) Avoid contact with open vents, plugs or connectors. Dry the surfaces with a clean cloth or paper towel.

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