

## Safety Certifications

### Intrinsically Safe, Sécurité Intrinsèque

II 1 G Ex ia IIC T4 Ga

CE 0891

TRAC11ATEX1129X

-40°C ≤ T<sub>A</sub> ≤ 40°C Um(max) 250VAC

IP67

FCC ID: J5XT3HEP -- Meets FCC Part 15

IC: 5916A-T3HEP -- Complies with Canadian ICES-003

### WARNINGS!

**WARNING!** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

**WARNING!** To prevent ignition of a hazardous atmosphere, battery must only be charged in an area known to be nonhazardous.

**WARNING!** Substitution of components may impair intrinsic safety.

**AVERTISSEMENT!** Les changements ou modifications non expressément approuvés par la partie responsable de la conformité pourraient annuler l'autorité de l'utilisateur à utiliser cet équipement.

**AVERTISSEMENT!** Pour éviter l'inflammation d'une atmosphère dangereuse, les batterie doivent être chargées seulement dans une zone connu comme être non dangereuse.

**AVERTISSEMENT!** La substitution de composants peut compromettre la sécurité intrinsèque.

### FCC Statements

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

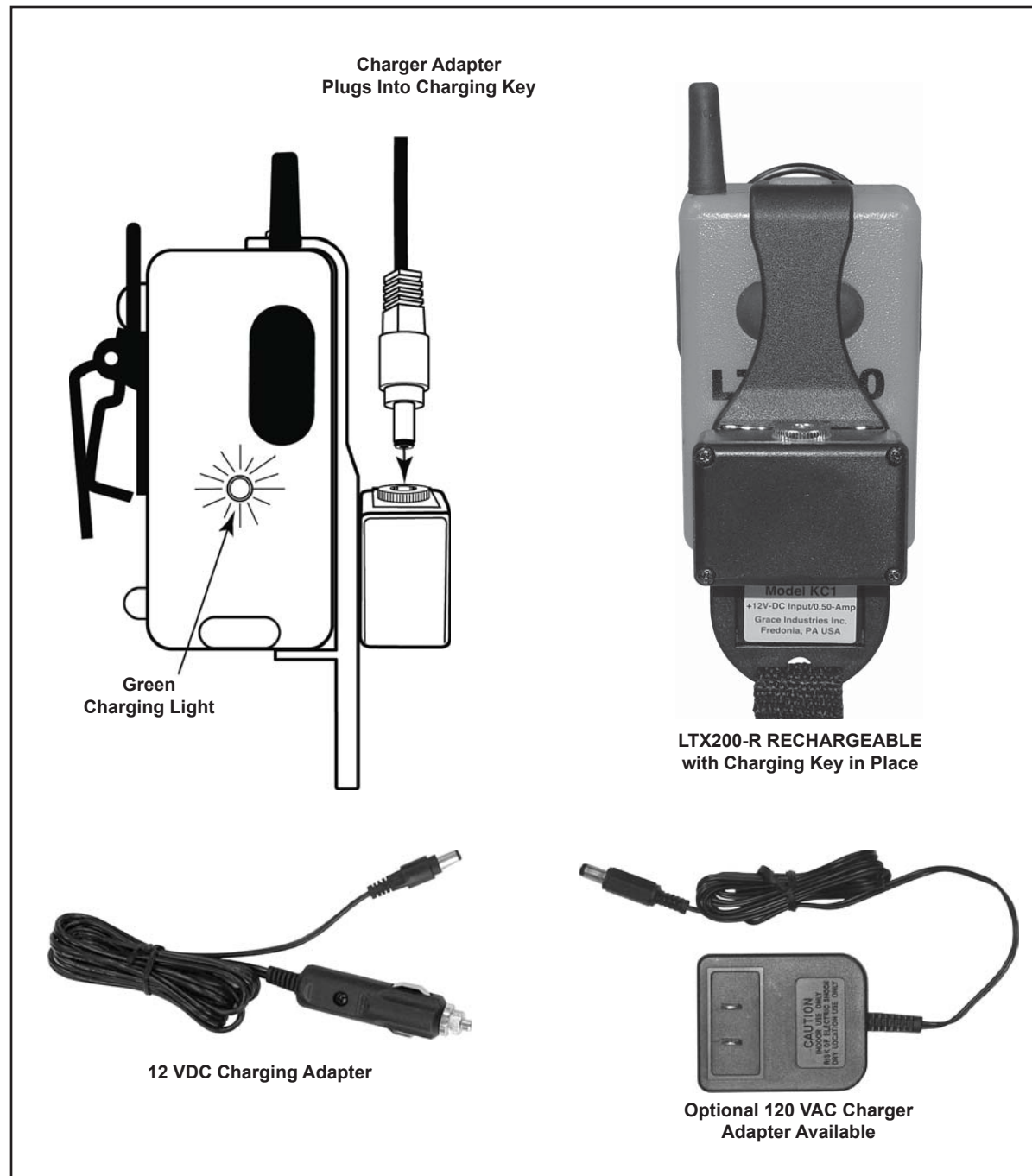
### Industry Canada Statements

This Class A digital apparatus complies with Canadian ICES-003.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada. (select the class for your device)

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.



### Battery Charging LED Display

**Charging:** When the charging key is in place and plugged into a power source, a steady Green LED will glow below the left side button (left side when facing the LTX200-R unit).

**Charging Complete:** Unit is fully charged when the steady green glow is replaced by a flashing Green display.

The Low Battery Alarm will sound when the battery has been exhausted to 20% of capacity (indicating approx. 1 hour operating time remains). Charging the battery is necessary when low battery alarm sounds.

The low battery alarm is an easily recognized series of two audio beep tones enunciated every five seconds when the LTX200-R is in the Sensing Mode.

Grace Industries, Inc. assumes no liability for mechanical, electrical, or other types of battery failure.

### Pre-Alert and Alarm Time Periods

Alarm Time	Pre-Alert	Alarm
30 seconds	Pre-Alert 18 to 23 seconds	30 to 35 seconds to Alarm
60 seconds	Pre-Alert 48 to 53 seconds	60 to 65 seconds to Alarm
90 seconds	Pre-Alert 78 to 83 seconds	90 to 35 seconds to Alarm
120 seconds	Pre-Alert 108 to 113 seconds	120 to 125 seconds to Alarm

## Warranty Information

Grace Industries, Inc. warrants TPASS® LTX200-R to be free from defects in workmanship and materials for a period of one year from date of purchase. This warranty is valid only when the returned TPASS® LTX200-R is accompanied by a sales receipt or other proof of purchase that states the date and location of purchase. Grace Industries, Inc. will not repair or replace any merchandise under warranty which has been damaged because of accident, misuse or abuse of the TPASS® LTX200-R while in possession or control of the consumer or outside of Grace Industries Inc's control. This warranty is void if any attempt to repair or replace parts was made or attempted by other than qualified Grace Industries, Inc. personnel. This warranty is void if any of the sealed compartments are opened or tampered with. Send all returned merchandise, prepaid and accompanied by proof of purchase to: Grace Industries, Inc., Repair Division, 305 Bend Hill Road, Fredonia, PA 16124. Customer is responsible for return shipping. Grace Industries, Inc. shall not be liable for any direct, incidental or other consequential loss or damage arising out of the failure of the device to operate.

The sole and exclusive remedy under all guarantees or warranties, expressed or implied, is strictly limited to repair or replacement as herein provided. ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF FITNESS AND MERCHANTABILITY, ARE HEREBY LIMITED IN DURATION TO A PERIOD ENDING ONE (1) YEAR FROM THE DATE OF PURCHASE. The warranty and liability set forth in the prior paragraphs are in lieu of all other warranties, expressed or implied, in law or in fact, including implied warranties of merchantability and fitness for a particular purpose. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

The information contained in this booklet is believed to be accurate and reliable. Grace Industries, Inc. provides this information as a guide only.

TPASS® LTX200-R technical assistance is available by contacting Grace Industries, Inc. at (724) 962-9231 or by email at [info@graceindustries.com](mailto:info@graceindustries.com).

For training purposes a copy of this information is available by contacting Grace Industries, Inc.

## TPASS® LTX200 RECHARGEABLE USER'S INFORMATION

Only To Be Removed By End User

ATEX CERTIFIED



TPASS® LTX200 Rechargeable Auto-ON Model with Accountability Key in Place

MADE IN USA

Grace Industries, Inc.

[www.graceindustries.com](http://www.graceindustries.com)

Ph. 724-962-9231 • Fax 724-962-3611

TPASS® LTX200 Rechargeable Manual ON/OFF Model



[www.graceindustries.com](http://www.graceindustries.com)

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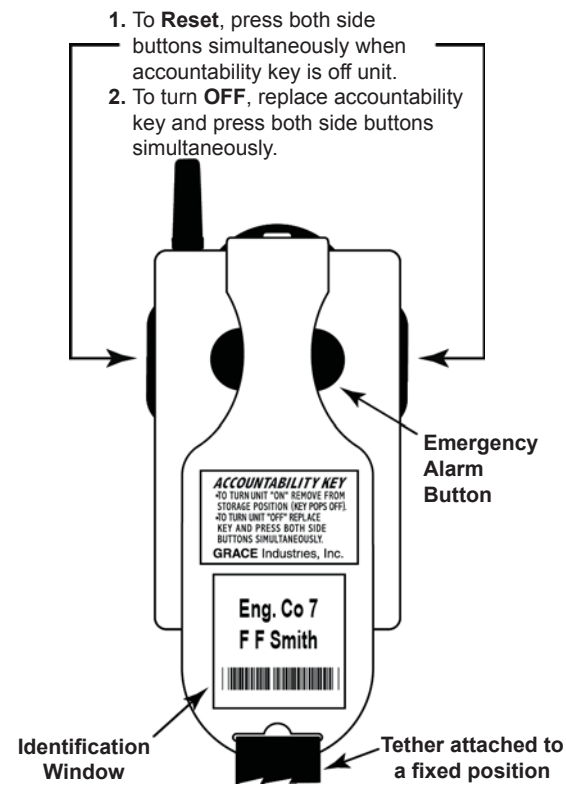
LTX200R ATEX 0916 UI

**GRACE**  
INDUSTRIES, INC.  
Solutions for Life Safety



# TPASS® LTX200 Intrinsically Safe Rechargeable Operating Instructions (120 seconds to Alarm used for example)

Always test the unit prior to each use



## Auto-On Activation

**ACTIVATING LTX200-R:** When the LTX200-R is removed from a storage position, the Accountability Key automatically detaches, activating LTX200-R into the motion **Sensing Mode**.

During activation, an operational signal of escalating audio tones will be heard and an alternating display of yellow LEDs indicates the LTX200-R is in **Sensing Mode**. When LTX200-R is activated, its internal radio transmits signals that are received by the MX900.

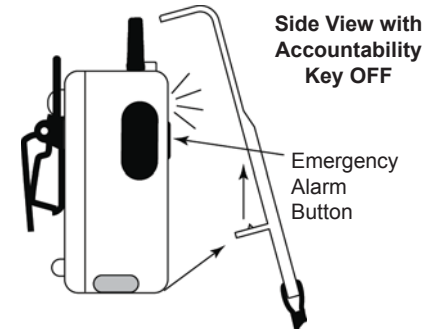
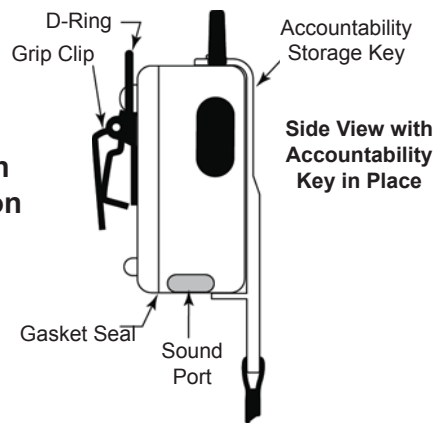
**PRE-ALERT MODE:** After approximately 108 to 113 seconds of no motion, LTX200-R begins an audible Pre-Alert sound and the alternating yellow LED display is interrupted by the pulsing of two red LEDs. The Pre-Alert sound progressively becomes louder, indicating LTX200-R is closer to going into **Alarm**.

**ALARM MODE:** There are two methods of activating the Alarm Mode.

**1) MOTION-ALARM:** After 120 to 125 seconds of no motion, LTX200-R enters the **Alarm Mode** as indicated by a rapid pulsing of two red LEDs while sounding a rapidly modulated, loud audio alarm. During Alarm, an emergency radio signal is transmitted to MX900, alerting personnel outside the immediate area that personnel may need assistance

**2) PANIC ALARM:** Panic Alarm can be activated at any time (from **Sensing Mode** or **Off Mode**) by pressing the Emergency Alarm Button.

## Auto-On Activation



**Reset the Alarm Mode** and return LTX200-R to **Sensing Mode** by simultaneously pressing both side buttons.

**TURN OFF:** To turn LTX200-R **OFF**, replace Accountability Key and press both side buttons simultaneously.

## Mode Selection

### AUTO-ON ACTIVATION

- Remove Accountability Key to automatically activate the unit into **Sensing Mode**.

### ALARM

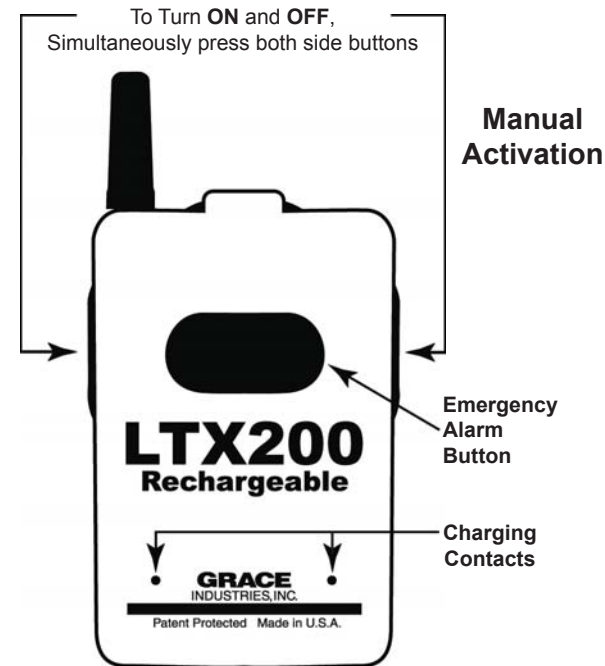
- Alarm Mode** can be manually activated at any time (from **Sensing Mode** or **Off Mode**) by pressing the Emergency Alarm Button.

### RESET

- When in **Alarm**, the LTX200-R can be reset to **Sensing Mode** by simultaneously pressing both side buttons.

### OFF

- Turn OFF LTX200-R by replacing the Accountability Key and then pressing both side buttons simultaneously.



## Manual Activation

**ACTIVATING LTX200-R:** Simultaneously press both side buttons to activate LTX200-R into the motion **Sensing Mode**.

During activation, an operational signal of escalating audio tones will be heard and an alternating display of yellow LEDs indicates the LTX200-R is in **Sensing Mode**. When LTX200-R is activated, its internal radio transmits signals that are received by the MX900.

**PRE-ALERT MODE:** After approximately 108 to 113 seconds of no motion, LTX200-R begins an audible Pre-Alert sound and the alternating yellow LED display is interrupted by the pulsing of two red LEDs. The Pre-Alert sound progressively becomes louder, indicating LTX200-R is closer to going into **Alarm**.

**ALARM MODE:** There are two methods of activating the Alarm Mode.

**1) MOTION-ALARM:** After 120 to 125 seconds of no motion, LTX200-R enters the **Alarm Mode** as indicated by a rapid pulsing of two red LEDs while sounding a rapidly modulated, loud audio alarm. During Alarm, an emergency radio signal is transmitted to MX900, alerting personnel outside the immediate area that personnel may need assistance

**2) PANIC ALARM:** Panic Alarm can be activated at any time (from **Sensing Mode** or **Off Mode**) by pressing the Emergency Alarm Button.

**Reset the Alarm Mode** and return LTX200-R to **Sensing Mode** by simultaneously pressing both side buttons.

**TURN OFF:** When in Sensing Mode, the LTX200-R can be turned **OFF** by pressing both side buttons simultaneously.

Using an accountability key (w/ 6" tether) may help prevent accidental activation of the Emergency Alarm.

## Mode Selection

### MANUAL ACTIVATION

- Simultaneously press both side buttons to activate LTX200-R into the motion **Sensing Mode**.

### ALARM

- Alarm Mode** can be manually activated at any time (from **Sensing Mode** or **Off Mode**) by pressing the Emergency Alarm Button.

### RESET

- When in **Alarm**, the LTX200-R can be reset to **Sensing Mode** by simultaneously pressing both side buttons.

### OFF

- When in Sensing Mode, the LTX200-R can be turned **OFF** by pressing both side buttons simultaneously

## Visual / Audio Mode Display

### OFF

- No LED display.

### ON (Sensing Mode)

- A series of escalating, loud audio tones.
- Followed by yellow alternating LED display.

### PRE-ALERT

- No motion sensed for 108 - 113 seconds.
- Yellow alternating LED display interrupted by the pulsing of two red LEDs.
- Accompanied by progressively louder, sweeping audio tones.

### ALARM

- No motion sensed for 120 - 125 seconds.
- Rapid pulsing of two front red LEDs.
- Accompanied by a rapidly modulated, loud (92dBA) audio alarm.
- Audio alarm signal is between 1,000 and 2,000 Hertz and cycles at 5.25 seconds on and .75 seconds off as an aid for determining direction when personnel need assistance.

## LTX200-R Maintenance

LTX200-R requires minimum maintenance and will provide years of service.

### Please Observe These Guidelines

- At the end of each use, clean unit with a damp cloth. **DO NOT use cleaning solvents.**
- After each use, inspect unit for signs of physical damage. **Remove LTX200-R from service if physical damage is observed.**
- Store LTX200-R in a dry, well ventilated area consistent with battery manufacturer requirements. Recommended storage conditions are: 50° to 77°F (10° to 25°C) at no more than 65% relative humidity.
- Units contaminated by chemical or radioactive materials must be disposed of or decontaminated in accordance with all applicable regulatory standards.
- DO NOT mark or apply paint to LTX200-R.**

## Specifications

**Dimensions:** 2-1/8" wide, by 2-1/4" deep (with clip), 5" high (with antenna)

**Weight:** 7.3 ounces with battery

**Alarm Audio Output:** approx. 92 dBA @ 10 feet

**Case:** rugged, high temperature, impact resistant, translucent, Apache Orange polycarbonate. .

**Methods of Attachment:** rugged Grip Clip and D-ring for versatility in attaching to gear.

**Antenna:** short threaded antenna for easy replacement

**Alarm Transmission:** a 1.5 second burst of RF transmissions occurring every 4.5 seconds.

**Battery:** Intrinsically safe Lithium-ion.

**Battery Life:** estimated at 80 hrs in Sensing Mode and 4 to 6 hours in the Alarm Mode.

**Battery Charging:** 12VDC (std) or 120 VAC (optional adapter required) may be used

**Battery Charging Time:** 6 to 8 hrs

**Battery Charging Cycles:** 500

**Product Life:** Approximately 3 to 5 years or longer, depending on fitness for use. Fitness for use is best determined by the end user through a proper inspection and maintenance program. Product should be retired from service when damaged or returned to Grace Industries for evaluation and repair if applicable.

## Limitations

To reduce risk of serious injury or loss of life, ensure LTX200-R is fully operational by testing and inspecting the unit prior to use. Use of a LTX200-R maintenance and training program including recharging exhausted or low batteries is required for safe and proper use.

After charging battery, always test LTX200-R with the MX900 to ensure proper operation.

If proper operation of LTX200-R is questionable, remove unit from service and contact Grace Industries for assistance.

The LTX200-R is **Not** available in a temperature sensing model.