Safety Certifications

Intrinsically Safe, Sécurité Intrinséque

II 1 G Ex ia IIC T4 Ga

CE 2776

TRAC11ATEX11299X

-40°C ≤ T_A ≤ 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 non-hazardous.

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 pro-vide 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.

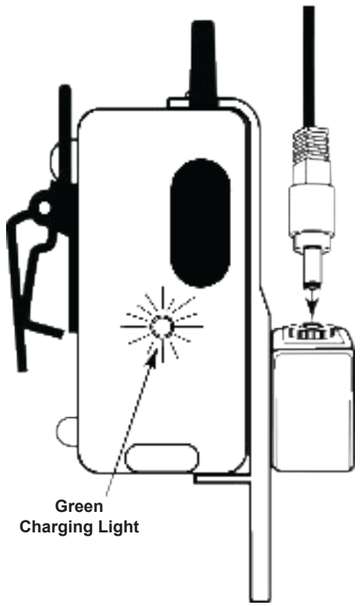
Industry Canada Statements

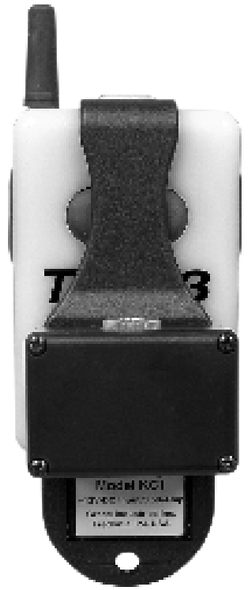
This Class A digital apparatus complies with Canadian ICES-003.

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.





TPASS®3 RECHARGEABLE with Charging Key in Place

120 VAC Charging Adapter

Optional 12 VDC Charging Adapter Available

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 TPASS®3 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 approximately 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 TPASS®3 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 95 seconds to Alarm
120 seconds	Pre-Alert 108 to 113 seconds	120 to 125 seconds to Alarm

Limitations

To reduce risk of serious injury or loss of life, ensure TPASS®3 is fully operational by testing and inspecting the unit prior to use. Use of a TPASS®3 maintenance and training program including recharging exhausted or low batteries is required for safe and proper use.

After charging battery, always test TPASS®3 with the MX900 to ensure proper operation.

If proper operation of TPASS®3 is questionable, remove unit from service and contact Grace Industries for assistance.

TPASS®3 Rechargeable is *Not* available in a temperature sensing model.

GRACE One (1) Year WARRANTY

Grace Industries Incorporated, of Fredonia PA 16124 USA, warrants products that it manufactures to be free from defects in workmanship and materials for a period of one (1) year from the original date purchase. This warranty does not apply to third party products sold by Grace Industries. Grace Industries will repair or replace, at their sole discretion, defective products free of charge. This warranty applies to products that Grace Industries deems defective in its sole discretion due to defects in material or workmanship under normal use and maintenance and where a defect was not caused by accident, misuse or abuse of the product and that no disassembly, repairs or parts replacement were made or attempted by other than Grace Industries' personnel. **GRACE INDUSTRIES, INCORPORATED SHALL NOT BE LIABLE FOR ANY DIRECT, INCIDENTAL OR CONSEQUENTIAL LOSS OR DAMAGE ARISING OUT OF THE USE OF THE PRODUCT OR FAILURE OF THE PRODUCT 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 OF ONE (1) YEAR FROM THE DATE OF ORIGINAL PURCHASE.** The warranty and liability set forth here are in lieu of all other warranties, expressed or implied, in law or in fact, including warranties of merchantability and fitness for a particular purpose.

Warranty claims process: 1) Obtain a Return Authorization Code or Number from Grace Industries corporate headquarters by calling phone number 724-962-9231, or by email correspondence to sales@graceindustries.com. 2) The product name, serial number, date and proof of purchase must be provided and 3) Return products including Return Authorization number, prepaid and accompanied by original proof of purchase that states the date and location of purchase to: Grace Industries, Inc., Repair Department, 305 Bend Hill Road, Fredonia, PA 16124, USA. Customer is responsible for all shipping costs, return shipping costs, handling, or any other fees associated with a warranty claim.

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

TPASS®3 technical assistance is available by contacting Grace Industries, Inc. at (724) 962-9231 or by email at info@graceindustries.com.

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

www.graceindustries.com

Printed in U.S.A. P/N: TP3-H-R ATEX UI 0324

TPASS®3 RECHARGEABLE
USER'S INFORMATION

Only To Be Removed By End User

ATEX CERTIFIED

TPASS®3
Rechargeable
Auto-ON Model
with Accountability
Key in Place

Grace Industries, Inc.
www.graceindustries.com
Ph. 724-962-9231 • Fax 724-962-3611

TPASS®3
Rechargeable
Manual ON/OFF Model

GRACE INDUSTRIES, INC.
LONE WORKER SAFETY

TPASS®3 Intrinsically Safe Rechargeable

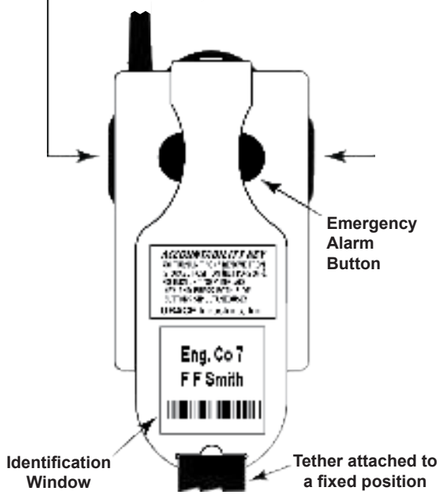
TPASS®3 may be used for personnel Safety Monitoring when used with Grace Advanced Safety Monitoring Systems

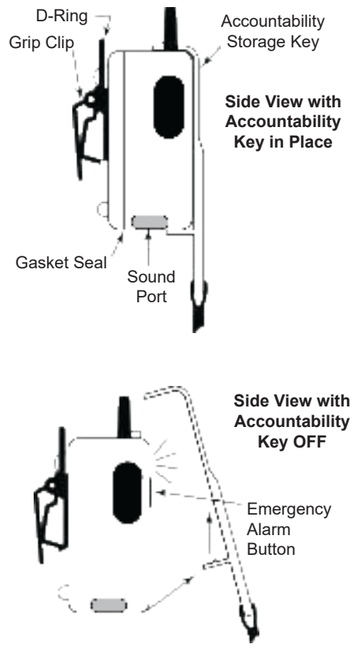
TPASS®3 Operating Instructions (120 seconds to Alarm used for example)

Always test the unit prior to each use

Auto-On Activation

1. To **Reset**, press both side buttons simultaneously when accountability key is off unit.
2. To turn **OFF**, replace accountability key and press both side buttons simultaneously.





Auto-ON Activation

ACTIVATION: Remove Accountability Key to automatically activate TPASS®3 into motion **Sensing Mode**.

During activation, an operational signal of escalating audio tones will be heard and an alternating display of Yellow LEDs indicates the TPASS®3 is in **Sensing Mode**. When activated, the internal radio transmits signals to the Grace receiver.

PRE-ALERT MODE: After approximately 108 to 113 seconds of no motion, TPASS®3 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 TPASS®3 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, TPASS®3 enters the **Alarm Mode.**

2) PANIC ALARM: PASS user can activate **Alarm Mode** at any time (from **Sensing Mode** or **Off Mode**) by pressing the Emergency Alarm Button.

ALARM MODE is indicated by a rapid pulsing of two front Red LEDs while sounding a loud audio alarm. During Alarm, an emergency radio signal is transmitted to Grace Safety Monitoring System, alerting personnel outside the immediate area that personnel may need assistance. .

Reset Alarm Mode and return to **Sensing Mode** by simultaneously pressing both side buttons.

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

Mode Selection

AUTO-ON ACTIVATION

- Remove Accountability Key to automatically activate TPASS®3 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.

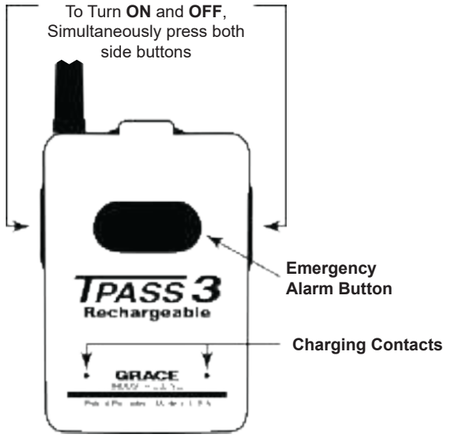
RESET

- When in **Alarm**, reset to **Sensing Mode** by simultaneously pressing both side buttons.

OFF

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

Manual Activation



Manual Activation

ACTIVATION: Simultanesouly press both side buttons to activate TPASS®3 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 TPASS®3 is in **Sensing Mode**. When TPASS®3 is activated, its internal radio transmits signals that are received by the Grace Receiver.

PRE-ALERT MODE: After approximately 108 to 113 seconds of no motion, TPASS®3 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 TPASS®3 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, TPASS®3 enters the **Alarm Mode.**

2) PANIC ALARM: PASS user can activate **Alarm Mode** at any time (from **Sensing Mode** or **Off Mode**) by pressing the Emergency Alarm Button.

ALARM MODE is indicated by a rapid pulsing of two front Red LEDs while sounding a loud audio alarm. During Alarm, an emergency radio signal is transmitted to Grace Safety Monitoring System, alerting personnel outside the immediate area that personnel may need assistance. .

Reset Alarm Mode and return to **Sensing Mode** by simultaneously pressing both side buttons.

OFF: When in Sensing Mode, turn **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

- Simultanesouly press both side buttons to activate TPASS®3 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**, reset to **Sensing Mode** by simultaneously pressing both side buttons.

OFF

- When in Sensing Mode, turn **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 Green alternating LED display.

PRE-ALERT

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

ALARM

- No motion sensed for 120 to 125 seconds.
- Rapid pulsing of two front Red LEDs.
- Accompanied by a rapidly modulated, loud (92dBA) audio alarm.
- Audio alarm signal on and off as an aid for determining direction when personnel need assistance.

CALL

- CALL LED (running man) flashes Red.
- Two front Geen LEDs flash rapidly.
- Loud, unique audio alarm tone ("deetle-y deet").

REPORT-IN

- Top Yellow LED flashes (near antenna).
- Two front Green LEDs flash.
- Unique audio alarm tone ("ba deetle deet" twice, with a pause before repeating).

ROLL-CALL

- Top Yellow LED flashes (near antenna).
- Two front Green LEDs flash.
- Unique audio alarm tone ("ba deetle deet" twice, with a pause before repeating).

LOSS of SIGNAL

- Top Yellow LED flashes (near antenna).
- Double chirping audio tone approximately every 35 seconds until signal link is re-established.

LOW BATTERY

- Series of two audio been tones enunciated every 5 seconds when TPASS®3 is in **Sensing Mode**.

TPASS®3 Maintenance

TPASS®3 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 from service if physical damage is observed.**
- Store 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 TPASS®3.**

Specifications

Dimensions: 2-1/8" wide, by 2-1/4" deep (with clip), 4-1/8" 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 Yellow engineered plastic.

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 rechargeable Lithium-ion.

Battery Life: estimated at 40 hrs in Sensing Mode and 4 to 6 hours in the Alarm Mode.

Battery Charging: 120 VAC (standard) or 12VDC (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.

For TPASS®3 with Alarm Monitoring

The Alarm Monitoring feature allows personnel to monitor the status of other personnel working in the same general area, when they are equipped with Grace Telemetry products. TPASS®3-AM MUST be in the Sensing Mode to receive Alarm signals from other Grace Telemetry products. When one telemetry unit goes into Alarm and an Alarm Monitoring TPASS®3 receives the signal, the receiving TPASS®3-AM will sound a rapid ringing tone and provide a visual indication with a flashing Yellow LED at the base of the antenna. The Alarm Monitoring display may be momentarily silenced for one minute by pressing both side buttons simultaneously. Other units which go into alarm during the one minute period will reactivate the Alarm Monitoring audio sound signature and display. After one minute if the original unit is still in alarm, the alarm monitoring feature and display will be reactivated. This cycle will continue until the telemetry unit in Alarm is reset or shut off. TPASS®3-AM has an orange case.

For TPASS®3 with Out of Range Operation

(For Mobile Lone Worker Applications ONLY)

The TPASS®3-OR is similar to the standard TPASS®3 in most respects but with the added feature of notifying the user when they have exceeded the effective signaling range of a compatible MX900 transceiver. The MX900 transceiver, with which the TPASS®3-OR is to be used, must have its Ping feature turned ON. The two devices operate as a system whereby the MX900 unit (with its PING feature turned on) will echo back a normal on-mode polling signal that is received from a Grace Industries TPASS®3-OR Transceiving device. The TPASS®3-OR device will receive the echo of its own on-mode polling signal (sent from the MX900) and resets the Out-of-Range Notification timer. If the echoed signal sent from the MX900 is not received, or conversely the MX900 does not receive a polling signal from the TPASS®3-OR within approximately 3 minutes, an audible warning sound will activate on the TPASS®3-OR indicating the effective range of the system has been exceeded. This audible Out-of-Range notification (a bell-like, double-chirping sound) will occur approximately every 30 to 40 seconds until the signal link between the TPASS®3-OR and MX900 is re-established.

Out Of Range - Audible Notification:

First Out-of-Range Notification at approximately 3 minutes after no signal.

Out-of-Range reminder notification approximately every 30 to 40 seconds while out of range.