



Pedestrian Detection Aid System

USER MANUAL **SA-TX1**

PST SAS

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I Overview of the SaveX device

Principle of operation (example of 2 detection zones)



The SaveXSA-IHM device's display installed in the driver cab indicates the number of pedestrians detected in the pre-alert or alert zones.

An audible signal (parameterizable) is generated according to the pedestrian zone closest to the machine. In the above figure, the SA-IHM display indicates "02" and an audible signal is triggered (parameterizable).

If no pedestrian enters the detection zone, a red point on the SA-IHM1's display signals to the driver that no pedestrian is present in the safety perimeter around his machine.

The distances of the detection zones and the associated bells can be parameterized (distance coverable up to 25 metres, audio signal timing, power, bell, etc.)

II Disclaimer

CAREFULLY AND COMPLETELY READ ALL THE INSTRUCTIONS before using the SA-TX1 portable device.

KEEP THIS USER MANUAL HANDY.

III Precautions

WARNING ! NEVER let a person with a pacemaker use a SA-TX1 portable device.

WARNING ! NEVER use battery packs or chargers that are not recommended by PST because performances may be altered and would cancel the portable device's warranty.

REMARK : Keep the battery terminals clean. It is recommended to clean the battery terminals once a week.

AVOID using the portable device in direct sunshine or exposing it to it, or in a location where the temperature is below - 20°C or above +55°C.

NEVER modify the portable device whatever the reason. The portable device's warranty does not cover problems due to an unauthorised change.

WARNING ! The SA-TX1 portable device's box is sealed and meets IP67 (immersion to a depth of 1 m for 30 minutes). However, the portable device's waterproofing can no longer be warranted after a fall on account of, among others, resulting box cracks or seal damages.

Federal Communications Commission (FCC) Compliance Statement:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Industry Canada (IC) Compliance Statement:

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.

NOTE: THE GRANTEE IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

IV Precaution in the use of the SA-TX1 battery

If Lithium-Ion batteries are incorrectly used, the following risks can result : release of smoke, fire or explosion of the battery. Incorrect use can also damage the battery or degrade performances.

WARNING : A risk of explosion is possible if the battery is replaced by an incorrect type of battery.

Discard used batteries following the instructions.



SA-TX1 portable device batteries can only be changed by a PST after-sales service technician or an approved dealer.

Use and charge only the PST specified battery pack with portable devices or the PST chargers.

It is recommended to recharge any unused battery pack every six months.

V Charging warnings

DANGER ! NEVER charge the battery pack in a location where the temperature is extremely high, for example, in the vicinity of a fire or a stove, in direct sunshine, or in a car exposed to sunlight. In such an environment, the charge is automatically interrupted by the battery's protection or the safety internal circuit.

DANGER ! NEVER charge or leave the battery in the battery charger longer than the indicated charge time. If the battery is not completely charged at the end of the indicated time, interrupt the charging and remove the battery from the charger. Charging longer than the indicated time may cause a fire, overheating or explosion of the battery.

DANGER ! NEVER insert the portable device wet or dirty (battery attached to the device) in the charger to avoid corroding the battery charger's terminals or damaging the charger. The charger is not waterproofed.

WARNING : NEVER charge the battery outside the indicated temperature range : BC-119NSA and BC-121NSA (+10°C to +40°C). PST recommends charging the battery at +20°C. The battery can heat or explode if it is charged at an ambient temperature outside the indicated range. In addition, the battery's performances and its service life can be significantly reduced.

MAKE SURE to place the portable device in the charger's slot in the right direction. The "En Charge" (Charging) led indicator must go on.

VI Technical characteristics of the SA-TX1

Pedestrian collision avoidance portable device : SA-TX1 (Equipment for each pedestrian)

- Function : permanently transmits a radio signal to the receiver which allows calculating the distance with the machine.
- Location : carried by each pedestrian
- Main specifications :
 - Autonomy > 12 h
 - Dust- and water-proof : IP-67
 - "Driver inhibit" function
 - Vibrator and information led indicator
 - Permanent autotest
 - Power supply : by Li-Ion battery : 3.7 V / 2.6 Ah
 - Reduced dimensions : 130 x 60 x 30 mm / Weight : approx. 230 g
 - Charging system : individual charger or 6-portable-device charger



1. SA-TX1 portable device display led indicators



Led indicators display	Meaning
<input checked="" type="radio"/> ON <input checked="" type="radio"/> DEFAULT	Goes on as soon as the portable device is taken out of its charge base (continuous display of the "ON" (Power On) and "DEFAULT" led indicators) :
<input type="radio"/> CHARGE <input type="radio"/> FULL	<ul style="list-style-type: none">- Initialization phase of the portable device for approximately 3 seconds.- The vibrator is activated at charging for 2 seconds.
<input checked="" type="radio"/> ON <input type="radio"/> DEFAULT <input type="radio"/> CHARGE <input type="radio"/> FULL	<p>The "ON" (Power On) led indicator flashes :</p> <ul style="list-style-type: none">- The portable device is operating normally- The portable device autotest function is operational
<input type="radio"/> ON <input type="radio"/> DEFAULT <input type="radio"/> CHARGE <input checked="" type="radio"/> FULL	<p>The "FULL" led indicator is permanently on :</p> <ul style="list-style-type: none">- The portable device is charged. Its battery level is at its maximum level. <p>4 to 6 hours are necessary to recharge the portable device (according to the battery level when it is being charged)</p>
<input type="radio"/> ON <input type="radio"/> DEFAULT <input checked="" type="radio"/> CHARGE <input type="radio"/> FULL	<p>The "CHARGE" led indicator is permanently on :</p> <ul style="list-style-type: none">- The portable device is being charged (placed in its charge base BC-119NSA or BC-121NSA)

2. SA-TX1 portable device detected faults



Led indicators display	Meaning	Corrective action
<input type="radio"/> ON	The led indicators are off	<ul style="list-style-type: none">- Check your battery level by placing your portable device in the charge base BC-119NSA or BC-121NSA. If the En Charge (Charging) led indicator goes on, keep the portable device in its charge base until the battery is completely recharged- If the problem persists, contact your approved dealer
<input type="radio"/> DEFAULT	The portable device is in the battery discharging state	<ul style="list-style-type: none">- If the problem persists, contact your approved dealer
<input type="radio"/> CHARGE		
<input type="radio"/> FULL		
<input type="radio"/> ON	The “DEFAULT” led indicator is permanently on :	<ul style="list-style-type: none">- Voltage anomaly on the antennas terminals- The vibrator starts vibrating in bursts to alert the carrier
<input checked="" type="radio"/> DEFAULT		
<input type="radio"/> CHARGE		
<input type="radio"/> FULL		
<input type="radio"/> ON	The “DEFAULT” led indicator flashes :	<ul style="list-style-type: none">- The portable device’s battery level is low (less than one hour of autonomy)- The vibrator starts vibrating in bursts to alert the carrier
<input checked="" type="radio"/> DEFAULT		<ul style="list-style-type: none">- Charge the portable device in its charge base BC-119NSA or BC-121NSA
<input type="radio"/> CHARGE		
<input type="radio"/> FULL		