

# *PushTracker*

Wheelchair Activity Monitor

## User's Manual



**It is STRONGLY recommended to contact MAX Mobility directly for service if you live inside the U.S. and your device is still under warranty!**

PT1-USM Rev. A



# Specification Sheet

Manufacturer: Max Mobility, LLC



## *PushTracker* Wheelchair Activity Monitor

### PushTracker Model: 1

Contained battery type:	Lithium-Ion (Lithium-Ion Polymer)
Nominal operating voltage:	3.8 V
Electric charge:	90 mA-h
Wireless operating band:	2.4 GHz (2.4000 to 2.4835 GHz)
Wireless power transmission:	0 dBm to -23 dBm
Expected lifetime (except battery) / service life:	5 years
Expected battery lifetime:	2 years
Contains Bluetooth® LE:	FCC ID QQOBT113 IC ID 5123A-BGTBLE113
Water resistance:	IPX4 (Splash proof) - Do not shower with the device or submerge it in water.
Wrist circumference range:	Small 4.5 to 6 in (114 to 152 mm) Medium 6 to 7.25 in (152 to 184 mm) Large 7.25 to 9 in (184 to 229 mm)
Band width:	0.70 in (18 mm)
Band material:	Thermoplastic Elastomer (TPE) - Latex-Free and completely Biocompatible
Display:	OLED (64 x 32 pixel)



# Table of Contents

<b>1.</b>	<b>Introduction</b>	<b>1</b>
	Intended Use of the PushTracker . . . . .	1
	Warnings and Safety Precautions . . . . .	1
	Electromagnetic Interference (EMI) . . . . .	2
	Bluetooth Wireless Communication . . . . .	2
	List of Components . . . . .	3
<b>2.</b>	<b>Using Your PushTracker</b>	<b>3</b>
	Attaching Your PushTracker . . . . .	3
	Button Function . . . . .	4
	Display Information . . . . .	4
	Power Assist Activated . . . . .	4
	Sleep Mode . . . . .	4
	Connecting to the App . . . . .	5
<b>3.</b>	<b>Settings Menu</b>	<b>5</b>
	Settings Descriptions . . . . .	5
	SmartDrive Settings . . . . .	6
<b>4.</b>	<b>Battery</b>	<b>6</b>
	Battery Information . . . . .	6
	PushTracker Battery Charging . . . . .	7
<b>5.</b>	<b>Maintenance</b>	<b>7</b>
	Inspection . . . . .	7
	Cleaning . . . . .	7
	Other Maintenance . . . . .	8
	Troubleshooting . . . . .	8
<b>6.</b>	<b>Warranty</b>	<b>8</b>
	Manufacturer's Contact Information . . . . .	8
<b>7.</b>	<b>EC Authorized Representative</b>	<b>8</b>

# 1. Introduction

## Intended Use of the PushTracker

The PushTracker is intended to be used to operate the SmartDrive Wheelchair Power Assist device and to monitor your wheelchair activity.

## Warnings and Safety Precautions



**All warnings and safety precautions issued by one's wheelchair manufacturer must be heeded in addition to those stated in this manual. Failure to do so could result in serious injury or death.**



**Handling or use of the PushTracker or SmartDrive by anyone who has not received proper instruction from this manual or the SmartDrive User's Manual may result in serious injury or death.**

**Always inspect your PushTracker for missing parts / damage prior to each use [see the "Maintenance" section for parts to pay attention to].**

**Make sure the PushTracker is charged before use.**

**When crossing major roads, intersection, railway crossings or highways as well as when you drive steep, long slopes you should always consider having somebody accompany you in the interest of your safety.**

**The PushTracker should ONLY be worn by the user sitting in the wheelchair with the SmartDrive attached.**

**Always turn OFF the power assist (via PushTracker) when parked to prevent accidental activation.**

**Always turn OFF the power assist (via PushTracker) before taking the PushTracker off of your wrist.**

**Always use caution when transferring in or out of the wheelchair. Every precaution should be taken to reduce the transfer distance and be certain the wheel locks are engaged to prevent the wheels from moving. Also always make sure the power assist is OFF (via PushTracker) when transferring to and from your chair.**

**The PushTracker has passed industry climate testing, the same as power wheelchairs, and is considered rain / splash proof. Complete submersion of either may cause malfunction or damage and void the warranty.**

**Take the PushTracker off prior to bathing or showering.**

**Any modifications to the PushTracker will void the warranty and may create a safety hazard.**

*NOTES: Figures and diagrams of the PushTracker in this manual may vary slightly from your device.*

*The Serial Number of your PushTracker is located on the bottom of the PushTracker housing.*

*It is recommended that you save this User's Manual and record the Serial Number below for reference.*

**PushTracker Serial Number:** \_\_\_\_\_

## Electromagnetic Interference (EMI)

Refer to the **SmartDrive User's Manual** for EMI specifications.

## USA / Canada

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, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## Bluetooth® Wireless Communication

Bluetooth® wireless communication [2.4 GHz frequency band] is used by the PushTracker to communicate to the SmartDrive when to activate/deactivate the power assist, send and receive signals from a smartphone, etc. The PushTracker must be within 25 ft (8 meters) of the SmartDrive / smartphone to connect and communicate. The maximum output power of this technology is 10 mW, and the operation of this device in close proximity to other wireless devices [i.e. electromagnetic security systems, Bluetooth® headsets, etc.] could cause the device to lose connection. Power assist is always deactivated whenever the motor is driving and there is a loss of connection; the SmartDrive will beep and PushTracker will also give indication when this happens. Worst case coexistence testing was performed on the device to ensure its safety and effectiveness. Please contact Max Mobility immediately for troubleshooting if continuous connection issues are experienced with the device.

## List of Components

1. OLED Display
2. Power Assist Button
3. App Connection Button
4. Charging LED
5. Indication LED
6. Buckle Band (Black)
7. Clasp Assembly
8. Strap Band (3 Sizes / Black)
9. USB Charging Port
10. Strap Holder



## 2. Using Your PushTracker

### Attaching Your PushTracker

The PushTracker is designed to comfortably and securely attach to the top part of wrists of all sizes. It has an embedded accelerometer to recognize when you push, when you want to activate the power assist and also when you tap your hand against the handrim to deactivate the power assist. Additionally, it is equipped with an OLED screen, LEDs and vibration motor to indicate different information, states and activations / deactivations that occur during everyday use.

The band on the PushTracker (see **Specification Sheet** for material) is designed for most users; but if you have difficulty securing the buckle / clasp, it doesn't fit right, or you wish to have one of a different color / material, the band can be easily replaced with essentially any 0.70 in (18 mm) wide off-the-shelf watch band of your choosing.



**It is recommended that the PushTracker be worn snug on your wrist to get the most reliable recognition of your hand movement for SmartDrive operation, propulsion activity tracking, etc.**

### Button Function

Press and release to  
turn Power Assist  
ON and OFF









Once the power assist is turned ON [OLED displays “SD ON”] and the PushTracker is connected to the SmartDrive, the Indication LED will flash blue. When the SmartDrive motor is driving, the Indication LED will be solid blue. The Indication LED will flash red when the PushTracker is trying to connect or has lost wireless connection to the SmartDrive. Whenever there is a change of state to the SmartDrive, you will feel vibration as additional indication from the PushTracker.

## Display Information

Slowly SINGLE tap the PushTracker Display to scroll through the different items.



**It is recommended that you turn OFF the power assist before tapping the display. Accidental power assist activation may occur if power assist is ON.**

	Time	Displays the current time in 12 or 24 hour format [see the “Settings Menu” section for details on changing].
	Pushes	Displays the current number of pushes performed that day. This number resets each day at midnight.
	Battery Level	Displays the current battery level of the PushTracker and SmartDrive [from the last time they were wirelessly connected].
	Coast Time	Displays the average coast time in seconds for the current day. This number resets each day at midnight.
	Distance	Displays the distance traveled by the SmartDrive for the current day in the units you have selected [see the “Settings Menu” section for details on changing]. This number resets each day at midnight.
	App Connection	Displays when the PushTracker is attempting to connect to the App [see “Connecting to the App” section for details].

## Power Assist Activated

When power assist is ON and the SmartDrive motor is driving, the PushTracker will display your current speed in the units that you have selected [see the “Settings Menu” section for details on changing]. The Indication LED will light up with various colors to notify you of the SmartDrive’s current state.

## Sleep Mode

Press and hold the Power Assist Button for three (3) seconds to place your PushTracker into sleep mode. This will help to conserve the battery when your PushTracker is not in use.

## Connecting to the App

The PushTracker must be paired with a phone prior to using the App [see the “Settings Description” section for pairing information].










Press and release  
to attempt to  
connect to the  
App

## 3. Settings Menu







### Settings Descriptions

Press and hold the App Connection Button for three (3) seconds to enter the settings menu.

	Settings Menu	Displays when you are entering the Settings Menu.
	SmartDrive Settings	Select this to go to the submenu to adjust the way your SmartDrive works [see “SmartDrive Settings” for menu options].
	Time & Date	Set the date and time manually. For most accurate results, connect to the PushTracker App and it automatically uses the time from your smartphone. Here you can switch between 12 and 24 hr display.
	App Pairing	Initial pairing to the PushTracker App. <b>Make sure Bluetooth® is enabled and the App is open on your smartphone when doing this!</b>
	SmartDrive Pairing	Re-pairing or pairing a new PushTracker to a SmartDrive. <b>Make sure there aren't any other SmartDrives on in the vicinity when doing this!</b>
	Units	Set either Imperial (mi and mph) or Metric (km and km/h) units.
	Exit	Exit the Settings Menu.




## SmartDrive Settings

	See User's Manual	Refer to this and the <b>SmartDrive User's Manual</b> prior to changing any settings.
	Max Speed	Adjust the maximum drive speed of the SmartDrive [refer to the <b>SmartDrive User's Manual</b> for more information]. Defaults to 70% or 4 mph (6 km/h).
	Acceleration	Adjust the acceleration / speed ramp rate of the SmartDrive for select Control Modes [refer to the <b>SmartDrive User's Manual</b> for more information]. Defaults to 50% or 1.0 ft/s <sup>2</sup> , and the lower the percentage is set the slower the SmartDrive will accelerate.
	Tap Sensitivity	Adjust the tap sensitivity of the PushTracker [refer to the <b>SmartDrive User's Manual</b> for more information]. Defaults to 100%, and the lower the percentage is set the HARDER you need to tap [LESS sensitive it is].
	Control Mode	Change the Control Mode of your SmartDrive [refer to the <b>SmartDrive User's Manual</b> for more info].
	Exit	Return back to Main Menu.

## 4. Batteries

### Battery Information

The PushTracker houses a rechargeable Lithium Ion Polymer (LIP) battery used to power it.

The battery is designed to last for an entire day of SmartDrive operation and wheelchair propulsion activity monitoring. Low PushTracker battery is indicated by a flashing battery symbol on the display. 

It is encouraged to charge the battery every night to avoid running out of charge during daily use. The life of the battery will not be deteriorated by charging when it is partially drained.

Make sure the charging receptacle is completely dry and free from debris. Blow water out of the receptacle if you suspect there being water in it.

Refer to the **SmartDrive User's Manual** for its battery information.

## PushTracker Battery Charging

Plug the provided wall adapter into a wall outlet and plug the USB cable [standard USB type A] plug into the wall adapter [this can also be done prior to plugging into the wall]. Then plug the USB connector [standard USB type micro-B] into the small port on the side of the PushTracker module making sure the it is powered off. The charging LED indicator light on the PushTracker will be red while the unit is charging, and will turn green once the battery is fully charged. The PushTracker can be charged using any standard USB [type A] port found on a computer, car charger with USB plug, etc. and any type A to micro-B cable. The estimated charge time for a full recharge of the PushTracker battery is approximately 1.5 hours.



**Always store and charge the PushTracker in a cool, dry area. Hot and damp environments can damage or short the unit, requiring a costly replacement.**

**Make sure the charging receptacles are completely dry before plugging in the charger, for this can cause a spark or short.**

**Also, never attempt to use the PushTracker while charging.**

**Do not shower or bathe with the PushTracker on.**



Li-ion

**Do not throw away the PushTracker. Please properly dispose of the battery by recycling at the end of its life or send it back to Max Mobility.**



## 5. Maintenance

### Inspection

Always inspect the PushTracker for missing parts / damage prior to each use. Cease use and contact Max Mobility or your mobility equipment dealer if you notice any of the following:

- Broken or cracked plastic
- Missing or loose screws
- Charging port damage
- Broken buckle or ripped bands
- Damaged Display

### Cleaning

Cleaning of the PushTracker can be done by wiping all of the parts down with a damp wash rag. This should be done as needed.

## Other Maintenance

Contact Max Mobility or your mobility equipment dealer for any other maintenance or replacements [i.e. PushTracker battery] that the device might need.

## Troubleshooting

Contact Max Mobility or your mobility equipment dealer for any other issues that you experience with the device.

## 6. Warranty

Max Mobility offers a 2 year warranty against manufacturing defects. Max Mobility's obligation under this warranty shall be limited to repairing or providing replacement of part(s), which are found to be defective. Any part(s) of the system replaced by us at our discretion shall be with a functionally operative part.

This warranty may be voided if: 1) the product is not used according to instructions given in this instruction manual, 2) defects were caused by improper use as determined by the company personnel, 3) modification or alteration of any nature is made in the electrical circuitry or physical construction, or 4) defects are due to cause beyond control like lightning, abnormal voltage or while in transit at the purchaser's place of business.

### Manufacturer's Contact Information

Manufacturer: Max Mobility, LLC

## 7. European Commission (EC) Authorized Representative



Advena Ltd.  
Pure Offices  
Plato Close  
Warwick CV34 6WE  
United Kingdom

