

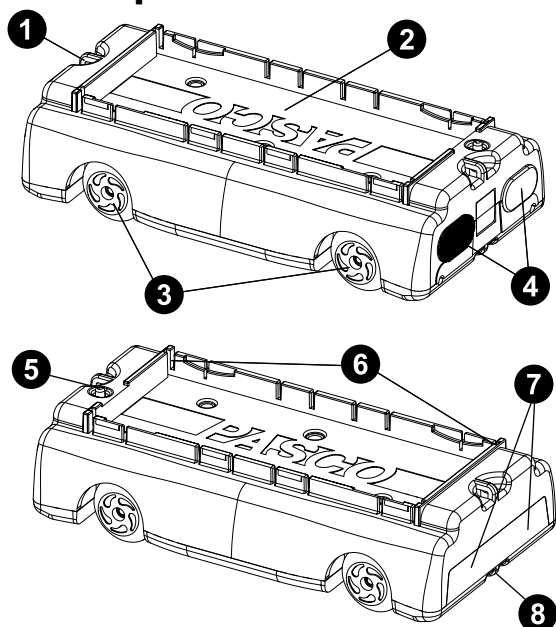
# PAScar

ME-6933 (Red) | ME-6934 (Blue)

## Introduction

The PAScar is a 250-g polycarbonate cart that includes a spring plunger, magnets, and hook and loop pads for collision studies. The PAScars come in red and blue and are compatible with all PASCO dynamics tracks and accessories.

## Part descriptions



### 1 Upper tie point

Use to attach a string to pull the cart.

### 2 Accessory tray

Use to hold Cart Masses (ME-6757A) or various cart accessories. Secure the accessories in place using the M5 threaded holes in the tray.

### 3 Wheels

Mounted to low-friction ball-bearings. The wheels retract into the body so that they are protected from drops or being stepped on.

### 4 Hook and loop pads

Use to make two carts stick together during an inelastic collision experiment.

### 5 Plunger trigger

Press to release the spring plunger to launch the cart, or for explosion experiments.

### 6 Slots

Insert the ends of a Cart Picket Fence (ME-9804) into these slots in the casing to secure the fence in place.

### 7 Magnets

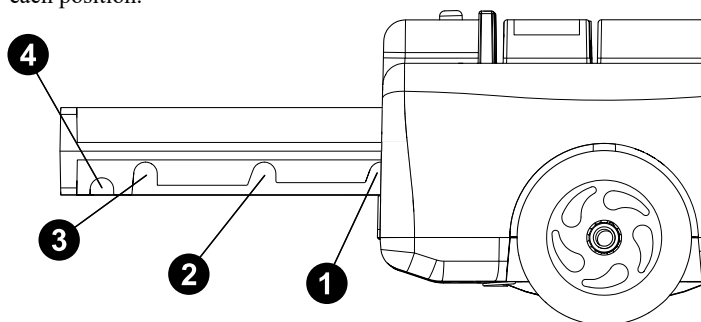
Use for elastic collision experiments between two carts or collisions with a magnetic Dynamics Track End Stop (ME-8971).

### 8 Lower tie point

Use to attach a string to pull the cart.

## Plunger operation

The plunger is used to launch the cart from a stationary object or another PAScar. It can be set at three different positions to launch the cart at three different speeds. There is also a fourth position for the plunger, which is used to make the plunger flush with the cart for inelastic collision experiments. The illustration below shows the points on the plunger which line up with the internal plunger retention bar at each position.



### 1 Position #1

### 2 Position #2

### 3 Position #3

### 4 Position #4

**CAUTION:** The plunger emerges rapidly when the trigger is pushed. To avoid injury, do not hold the plunger end of the PAScar near your eyes.

## Launch the cart

Follow the steps below to launch the cart at one of three different speeds using the plunger.

1. Push the plunger into the PAScar until you hear or feel a "click". This indicates that the plunger is locked at position #1. If desired, repeat this step to set the plunger to position #2 or #3.
2. Place the cart so that the end of the plunger is just touching a solid object.
3. Quickly press the plunger trigger to release the plunger and launch the cart.

## Set the plunger flush with the cart

For inelastic collision experiments where the hook and loop pads are used, the plunger needs to be pushed all the way in to position #4, making it flush with the cart. To do this:

1. Press and *hold down* the plunger trigger.
2. While holding down the trigger, push the plunger all the way into the PAScar until the end of the plunger is flush with the end of the PAScar.
3. While holding the plunger in place, release the plunger trigger. The plunger will now be locked in position #4.

## Specifications and accessories

Visit the product pages at [pasco.com/product/ME-6933](https://www.pasco.com/product/ME-6933) and [pasco.com/product/ME-6934](https://www.pasco.com/product/ME-6934) to view the specifications and explore accessories. You can also download experiment files and support documents from the product page.

## Experiment files

Download one of several student-ready activities from the PASCO Experiment Library. Experiments include editable student handouts and teacher notes. Visit [pasco.com/freelabs/ME-6933](https://www.pasco.com/freelabs/ME-6933) or [pasco.com/freelabs/ME-6934](https://www.pasco.com/freelabs/ME-6934).

## Technical support

Need more help? Our knowledgeable and friendly Technical Support staff is ready to answer your questions or walk you through any issues.

- Chat [pasco.com](https://www.pasco.com)
- Phone 1-800-772-8700 x1004 (USA)  
+1 916 462 8384 (outside USA)
- Email [support@pasco.com](mailto:support@pasco.com)

### Limited warranty

For a description of the product warranty, see the Warranty and Returns page at [www.pasco.com/legal](https://www.pasco.com/legal).

### Copyright

This document is copyrighted with all rights reserved. Permission is granted to non-profit educational institutions for reproduction of any part of this manual, providing the reproductions are used only in their laboratories and classrooms, and are not sold for profit. Reproduction under any other circumstances, without the written consent of PASCO scientific, is prohibited.

### Trademarks

PASCO and PASCO scientific are trademarks or registered trademarks of PASCO scientific, in the United States and in other countries. All other brands, products, or service names are or may be trademarks or service marks of, and are used to identify, products or services of, their respective owners. For more information visit [www.pasco.com/legal](https://www.pasco.com/legal).