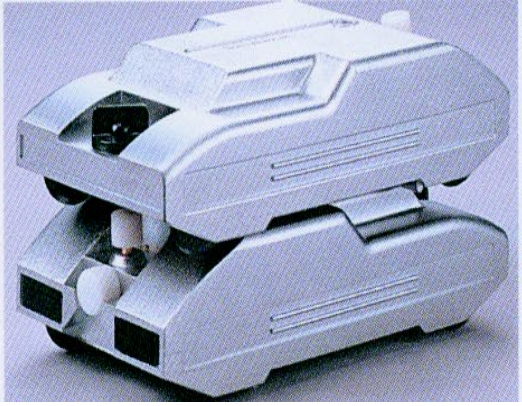
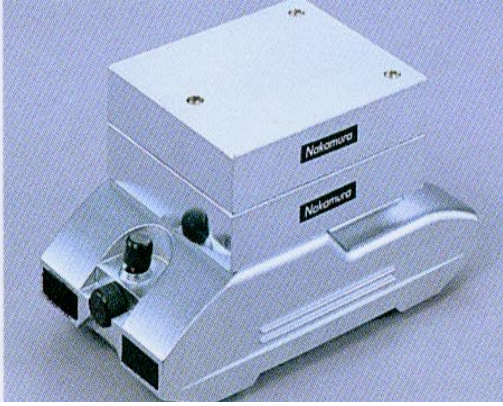




NADA SCIENTIFIC

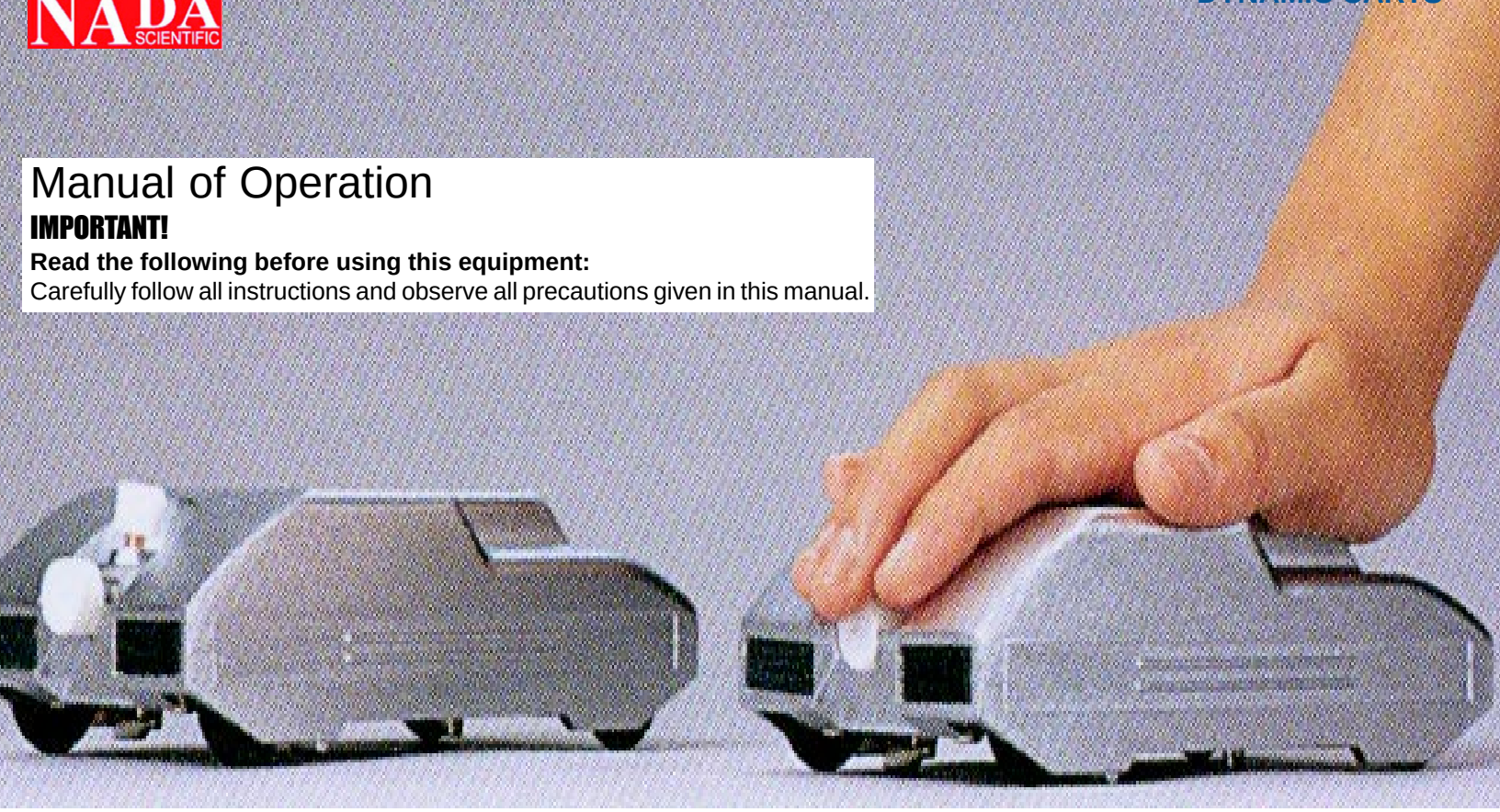
N99-C15-1640 DYNAMIC CARTS

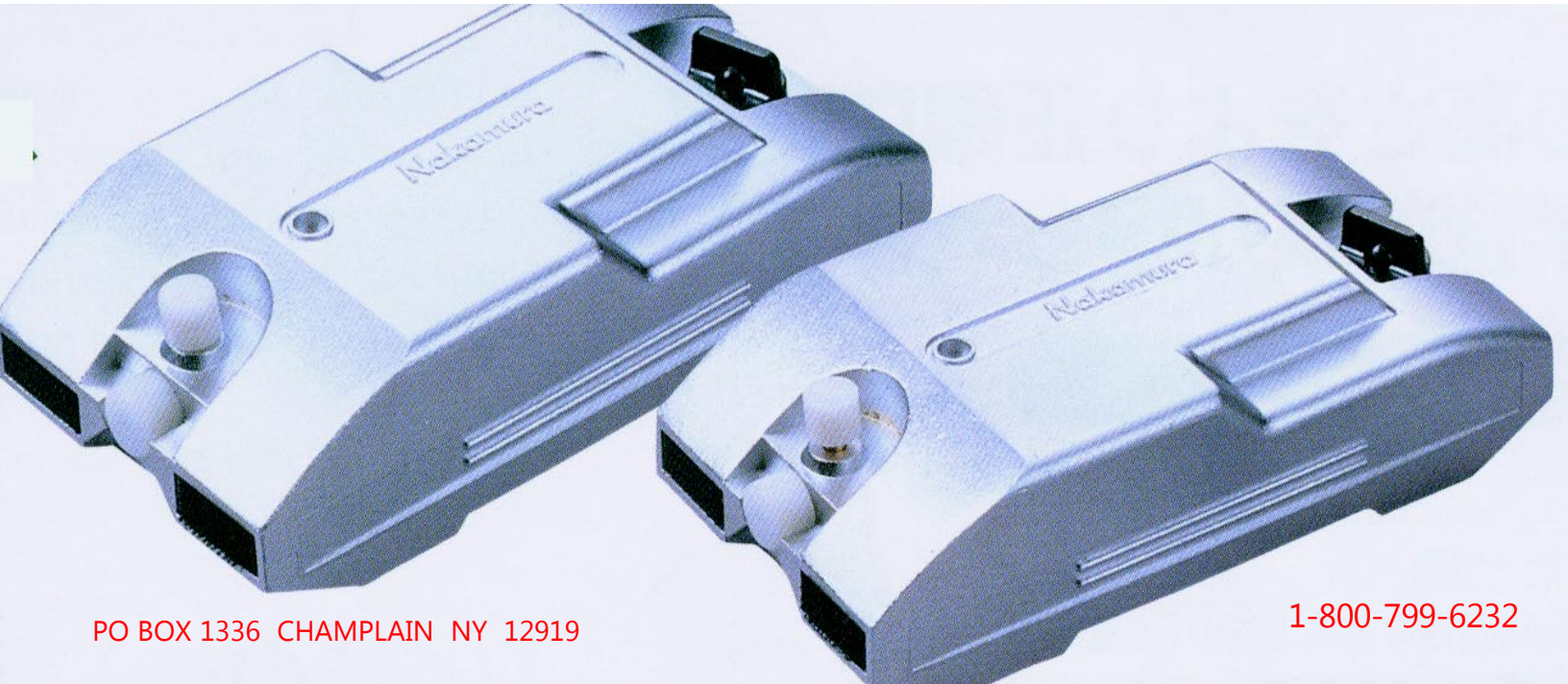
Manual of Operation

IMPORTANT!

Read the following before using this equipment:

Carefully follow all instructions and observe all precautions given in this manual.





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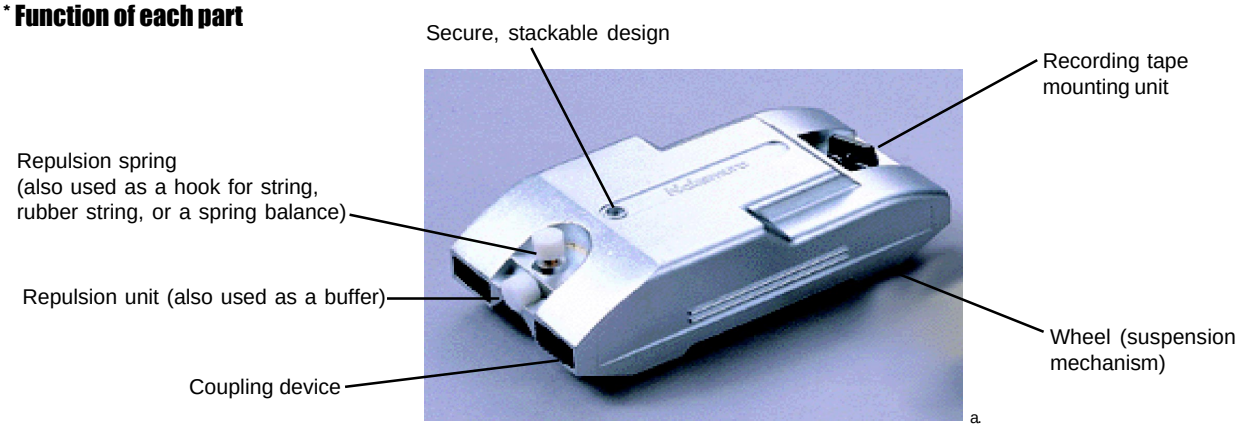
DYNAMIC CARTS N99-C15-1640

The dynamic carts are designed for the observation of uniform motion, accelerated motion, collision, and repulsion. In addition, the carts are used for observing the laws of inertia and conservation of momentum. The durable construction of these carts, combined with high quality ball bearing wheels, permits minimum friction to occur and excellent linearity of motion for many years. When pressure is applied from the top, these carts will automatically adjust and bounce back to their original position. This versatile apparatus is designed for easy stacking, as a mounting unit to place recording tape, and can be used as a repulsion spring.

* Function of each part



a.

* Mounting of recording tape

Insert a tape under the clamping screw of the unit after slackening it by one turn, and then securing the tape by tightening the screw.

* Coupling

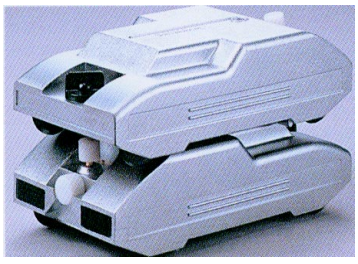
Perform an experiment by placing the two dynamic carts in line to collide with each other, in positions where therir coupling devices directly face each other. For this experiment, confirm that the repulstion units are in a fully activated state.

* Repulsion unit and repulsion spring operating projection

Screw the repulsion rod in or out by turning the repulsion unit to adjust the force of the spring. The repulsion unit then becomes ready to operate when it is pushed in. In the event that it is difficult to set the unit, move the repulsion rod in an upward direction when pushing it into the unit. (Caution) When the repulsion unit is set to operate, take great care not to bring your face or body near to the repulsion unit, and express the same caution to your students. Further, upon completion of an experiment or before storing the carts, be sure to confirm that the repulsion unit is deactivated.

* Stackable design

By placing one cart on top of another, facing in opposite directions, and by engaging the projection on the bottom of onoe cart with the top of the other, two or more carts can be stacked together. Using this method, the mass of a cart can be easily doubled or tripled. See picture ‘b’.
Specially designed weights for these units are available as seen in picture ‘c’.


b.


c.