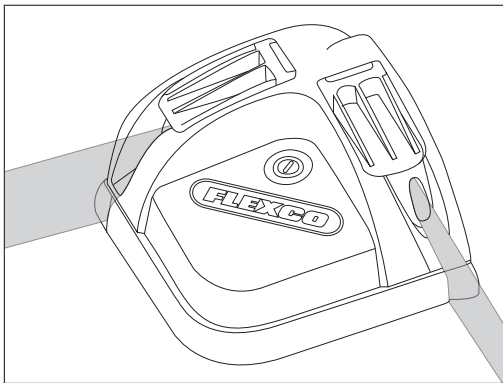


# Laser Belt Square™

## Safety and Operation Manual

For squaring conveyor belts for splicing



### **CAUTION**

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.



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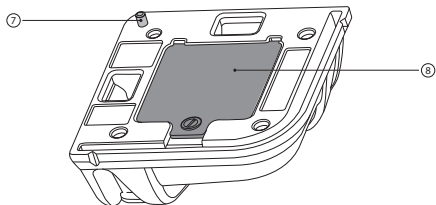
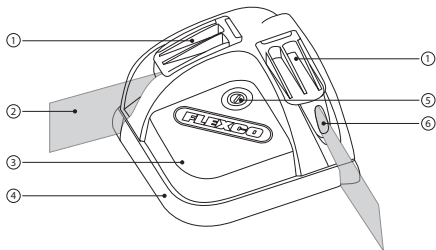
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# Main Components Laser Belt Square™



1. Targets
2. Laser Beam
3. Housing
4. Base
5. Power Switch
6. Lens
7. Spring Loaded Pin
8. Battery Storage Compartment
9. Protective case



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# Specifications

| <b><i>Laser Belt Square Specifications</i></b> |   |
|--|---|
| <b>Parameter</b>                               | <b>Specification</b>  |
| Product Laser Class                            | Class 3R  |
| Operating Voltage                              | 3 V   |
| Wavelength                                     | 635 - 650 nm  |
| Laser Power for Classification                 | <5 mW CW  |
| Beam Diameter                                  | <8 x 12 mm at 10 m  |
| Divergence                                     | <1 mrad x 0.35 to 1.57 Rad  |
| Transverse Beam Mode                           | TEM00   |
| Operating Temperature Range                    | -10 to 40 °C  |
| Overall Dimensions                             | 4-5/8" x 4-5/8" x 2-7/16"   |
| Ingress Protection Classification              | IP65  |
| Weight   | 2 pounds  |
| Battery Requirements                           | Four 1.5 V, AA batteries  |
| Estimated Battery Life                         | 60 hours (using alkaline type batteries)  |
| Laser Beam Squareness Tolerance                | +/- 1/4" @ 30 ft.   |
| FDA Compliance                                 | Complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007 |
| EN/IEC Compliance                              | EN/IEC 60825-1 2007   |



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# General Safety Rules - Save These Instructions -

Explanation of signal words used on the next pages:

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## Signal words:

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“DANGER” indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. The signal word is limited to the most extreme situations.

“WARNING” indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

“CAUTION” indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

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## Safety Symbol

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This international safety symbol is used to identify and call attention to specific safety matters.

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## Safety Information

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To Avoid Severe Personal Injury or Property Damage, read carefully and understand the following Safety Precautions.

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# General Safety Rules - Save These Instructions -

## 1. SAFETY CAUTIONS

### **WARNING**



Avoid laser radiation: LASER LIGHT, AVOID DIRECT EYE EXPOSURE, CLASS 3R LASER PRODUCT.

### **WARNING**

Do not place the laser in a position which may cause anyone to intentionally or unintentionally stare into the laser beam. Serious eye injury could result.

### **WARNING**

Do not operate the laser around children or allow children to operate the laser.

### **WARNING**

Turn the laser off when it is not in use.



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# General Safety Rules - Save These Instructions -

## 2. MAINTENANCE

### **WARNING**

Do not disassemble the laser. There are no user serviceable parts inside. Disassembling the Laser Belt Square will void all warranties of the product. Do not modify the product in any way. Modifying the tool may result in Hazardous Laser Radiation Exposure.

### **CAUTION**

No scheduled maintenance necessary to keep the product in compliance.

### **WARNING**

No service allowed by customer on this product.

### **WARNING**

Laser belt square is not to be opened or modified by the customer, except for battery replacement.

### **WARNING**

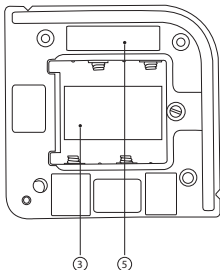
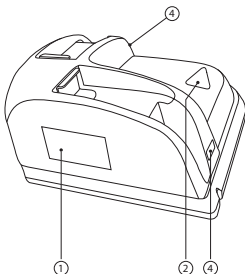
Service shall only be handled by authorized factory trained technicians. No user serviceable parts available. If service or repair is needed, the unit must be returned to:

Flexco, 1995 Oak Industrial Dr NE  
Grand Rapids, MI 49505 USA  
Telephone: (630) 971-0150

**FLEXCO**



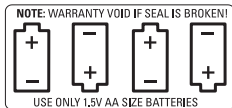
# Product Labeling



1.



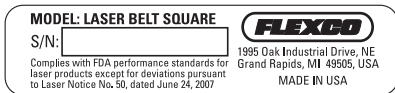
2.



3.



4.



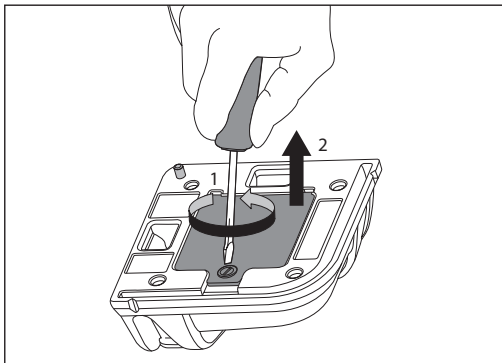
5.



## Installation of Batteries



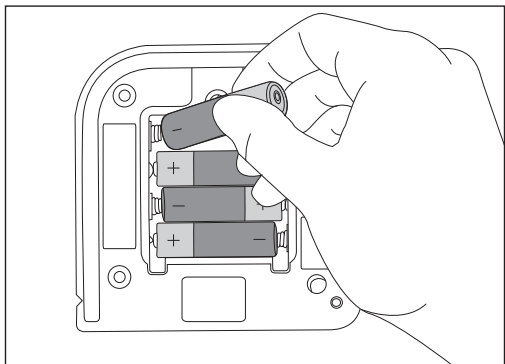
To guarantee a long life operation preferably use alkaline type batteries.

**A1**

Remove screw (1) to open battery housing cover (2).



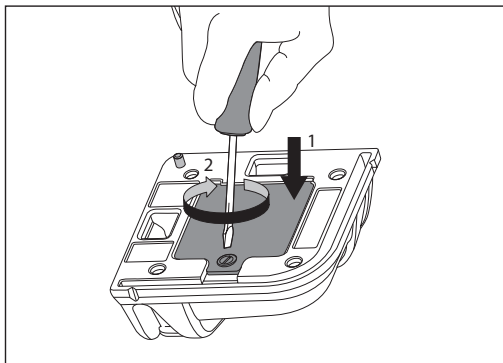
**A2**



Insert four 1.5 v, AA batteries per diagram. Pay attention to the polarity symbols ( + and - ).



**A3**



Apply battery housing cover (1) and install screw (2).

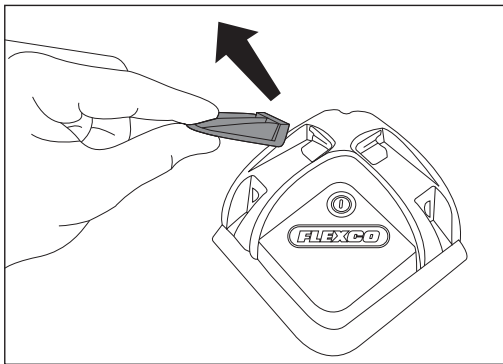






## Usage Instructions

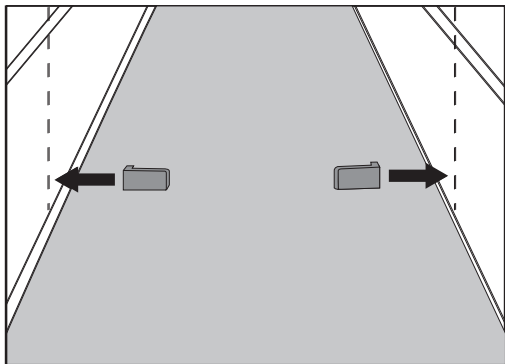
- ✓ Make sure the laser is turned off at the start of the operation

**B1**

Remove magnetic targets from laser housing.



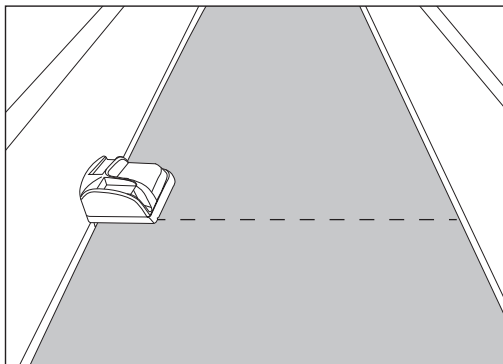
### B2



Attach targets to conveyor sidewalls approximately 4.5M (15 feet) away from future cut line. If less than 4.5M (15 feet) length is available, position targets as far as possible from future cut line.



**B3**



Position laser square at future cut line.



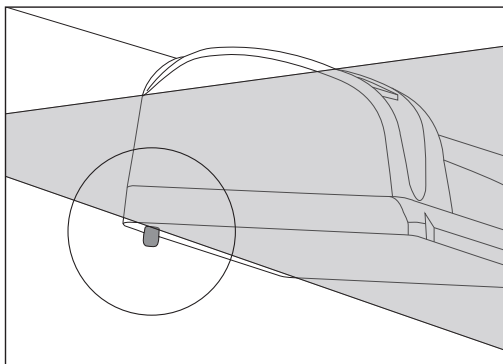
**B4**



Depress power switch to turn on lasers.



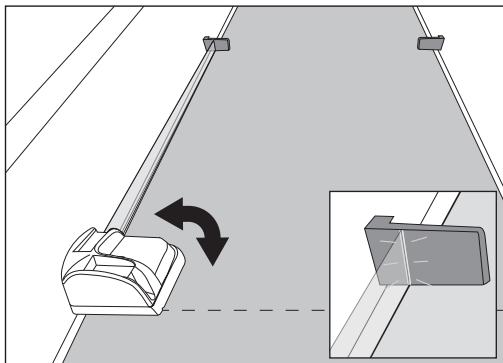
**B5**



Slide laser square off belt edge until spring loaded pin extends below belt surface.



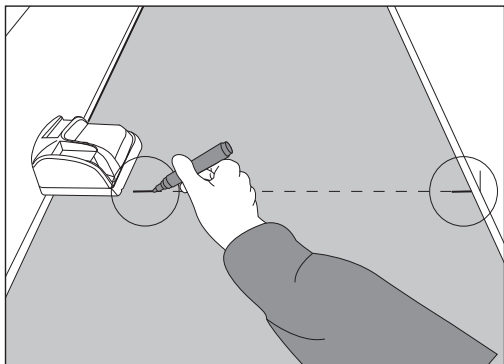
**B6**



Using the pin as a pivot point against belt edge, align laser with edge of the belt, using targets as an aid.



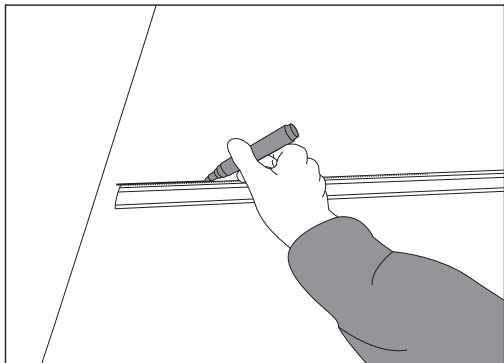
**B7**



Mark belt in two places along laser line- one directly in front of the laser window, one at opposite belt edge. Depress power switch to turn off lasers.



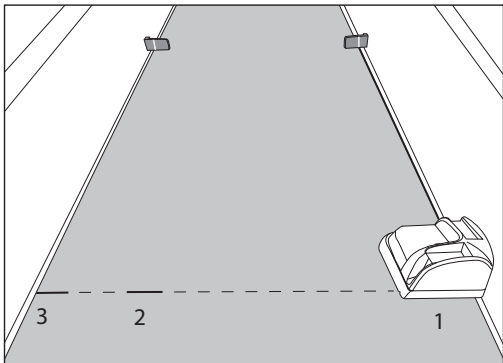
**B8**



If not using a Flexco Belt cutter: Use a straight edge to connect the two locations lines from B7 and continue to both belt edges.



### B9



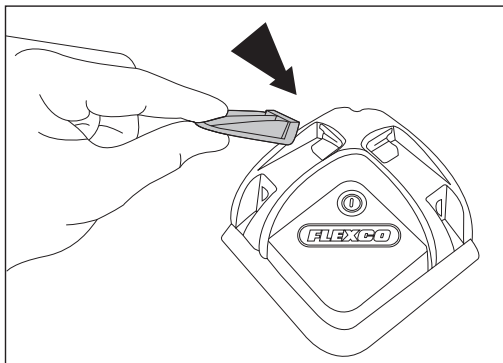
When using the Flexco belt cutter\*, it is desirable to have cut reference marks directly adjacent to both belt edges for easier alignment in the cutter. The cut line can be marked either by:

- A. Method used in B7-B8, using a straight edge across the two laser located reference lines.
- B. Method using laser square as a continuation from B7:
  1. Position laser square on opposite side of belt
  2. Repeat B3-B7, aligning with the existing marks from B7
  3. Mark belt on edge

\* e.g. Clipper® 845LD belt cutter or Electric Belt Cutter



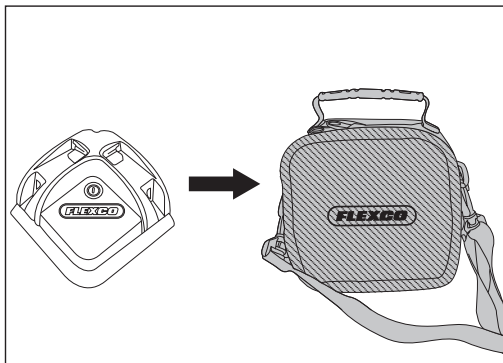
**B10**



Replace targets in base.



**B11**



Replace laser square in protective case.



Visit **[www.flexco.com](http://www.flexco.com)** for other Flexco locations and products, or to find an authorised distributor.