ENGINEER TZ-14

ENGINEER TZ-14 Automatic Center Punch Instruction Manual

Model: TZ-14

Brand: ENGINEER

1. Introduction

The ENGINEER TZ-14 Automatic Center Punch is a precision hand tool designed for creating accurate dimples or marks on various materials without the need for a hammer. Its spring-loaded mechanism delivers a consistent impact, making it ideal for preparing surfaces for drilling or other tasks. This pen-type tool features a durable tungsten carbide tip and an adjustable impact force, ensuring versatility and portability for professional and hobbyist use.

2. Safety Information

Please read and understand all safety instructions before using the ENGINEER TZ-14 Automatic Center Punch. Failure to follow these instructions may result in injury or damage to the tool.

- **Sharp Tip:** The punch features a very sharp tungsten carbide tip. Handle with extreme care to prevent accidental injury.
- **Eye Protection:** Always wear appropriate eye protection, such as safety goggles, to shield your eyes from potential debris or fragments during use.
- **Hand Protection:** Consider wearing gloves to protect your hands, especially when working with rough or sharp materials.
- **Intended Use:** This tool is designed for marking and dimpling. Do not use it for prying, chiseling, or any other unintended applications.
- **No Hammering:** This is an *automatic* center punch. **Do not strike the punch with a hammer**, as this can damage the internal mechanism and the tip.
- **Electrical Work:** Do not use this tool for electrical work or near live electrical circuits.
- **Children:** Keep out of reach of children. This is not a toy.

3. Product Features

- **Automatic Operation:** Creates a mark with a simple push, eliminating the need for a hammer.
- **Tungsten Carbide Tip:** Provides exceptional hardness and durability for long-lasting performance on various materials.
- **Adjustable Impact Force:** The strike force can be easily adjusted to suit different materials and marking requirements.
- **Pocket Clip:** Convenient pen-style design with a pocket clip for easy portability and access.
- **Versatile Use:** Suitable for marking hardware, plastic, and other materials.
- **Made in Japan:** Manufactured with high-quality standards.

4. Setup

The ENGINEER TZ-14 Automatic Center Punch requires no complex setup. It is ready for use directly out of the packaging.

1. Remove the center punch from its packaging.
2. Inspect the tool for any visible damage. If damaged, do not use and contact customer support.
3. Familiarize yourself with the adjustable cap at the top of the tool (see Section 6).

5. Operating Instructions

Follow these steps for effective and safe use of your automatic center punch:

1. **Prepare the Workpiece:** Ensure the material you intend to mark is stable and securely placed on a flat, sturdy surface.
2. **Position the Tip:** Carefully align the tungsten carbide tip of the center punch precisely at the desired marking point on the workpiece.
3. **Apply Pressure:** While holding the punch firmly and vertically, apply downward pressure on the body of the punch. The internal spring mechanism will compress until it reaches its trigger point, at which time it will release, creating a sharp, precise dimple on the surface.
4. **Verify Mark:** Lift the punch and inspect the created dimple. If a deeper or lighter mark is required, adjust the impact force as described in Section 6.
5. **Test First:** It is recommended to test the punch on a scrap piece of the same material or an inconspicuous area of your workpiece to determine the appropriate impact force setting before making final marks.

Figure 1: The ENGINEER TZ-14 Automatic Center Punch, ready for use.

Figure 2: A clear dimple created by the automatic center punch on a surface.

Figure 3: Proper grip and vertical application of the center punch to a workpiece.

6. Adjusting Impact Force

The ENGINEER TZ-14 features an adjustable impact force mechanism, allowing you to customize the strike strength for different materials and desired mark depths.

1. Locate the knurled cap at the top end of the center punch.
2. To **increase** the impact force, turn the cap clockwise. This compresses the internal spring more, resulting in a stronger strike.
3. To **decrease** the impact force, turn the cap counter-clockwise. This loosens the internal spring, resulting in a lighter strike.
4. Always test the adjusted force on a scrap material before applying it to your final workpiece.

Figure 4: The knurled cap for adjusting the impact force (High/Low).

7. Maintenance

Proper maintenance will ensure the longevity and optimal performance of your ENGINEER TZ-14 Automatic Center Punch.

- **Cleaning:** After each use, wipe the punch clean with a dry, soft cloth to remove any dust, debris, or residue. Avoid using harsh chemicals or abrasive cleaners.
- **Storage:** Store the center punch in a dry environment to prevent rust or corrosion. Keep the tip protected to avoid dulling or damage. The pocket clip can be used to secure it in a tool pouch or

pocket.

- **Tip Inspection:** Periodically inspect the tungsten carbide tip for any signs of wear, chipping, or damage. While highly durable, extreme misuse can affect its sharpness.

8. Troubleshooting

If you encounter issues with your automatic center punch, refer to the following common troubleshooting tips:

- **Punch not marking effectively:**
  - Ensure the tip is aligned precisely with the marking point.
  - Apply sufficient downward pressure until the mechanism triggers.
  - Adjust the impact force to a higher setting by turning the top cap clockwise.
  - Check the tip for any damage or excessive wear.
- **Punch mechanism feels stiff or inconsistent:**
  - Ensure the tool is clean and free of debris.
  - Avoid using the tool in excessively dusty or dirty environments.
  - Do not attempt to lubricate internal components unless specifically instructed by the manufacturer.

9. Specifications

Model	TZ-14
Tip Material	Tungsten Carbide
Overall Length	138 mm
Mechanism	Spring-loaded, Automatic
Origin	Made in Japan

10. Warranty and Support

Specific warranty details for the ENGINEER TZ-14 Automatic Center Punch are not provided in this manual. Please refer to the product packaging or the official ENGINEER website for the most current warranty information.
For technical support, inquiries, or service, please contact ENGINEER Corporation:

- **Manufacturer:** ENGINEER Corporation ( )
- **Address:** 2-8-9 Fukae-Kita, Higashinari-ku, Osaka City, Japan
- **Phone:** +81-6-6974-0100
- **Website:** Please visit the official ENGINEER website for further information and support.

RoHS Compliance: This product is RoHS compliant. For details, please refer to the information provided by the manufacturer.

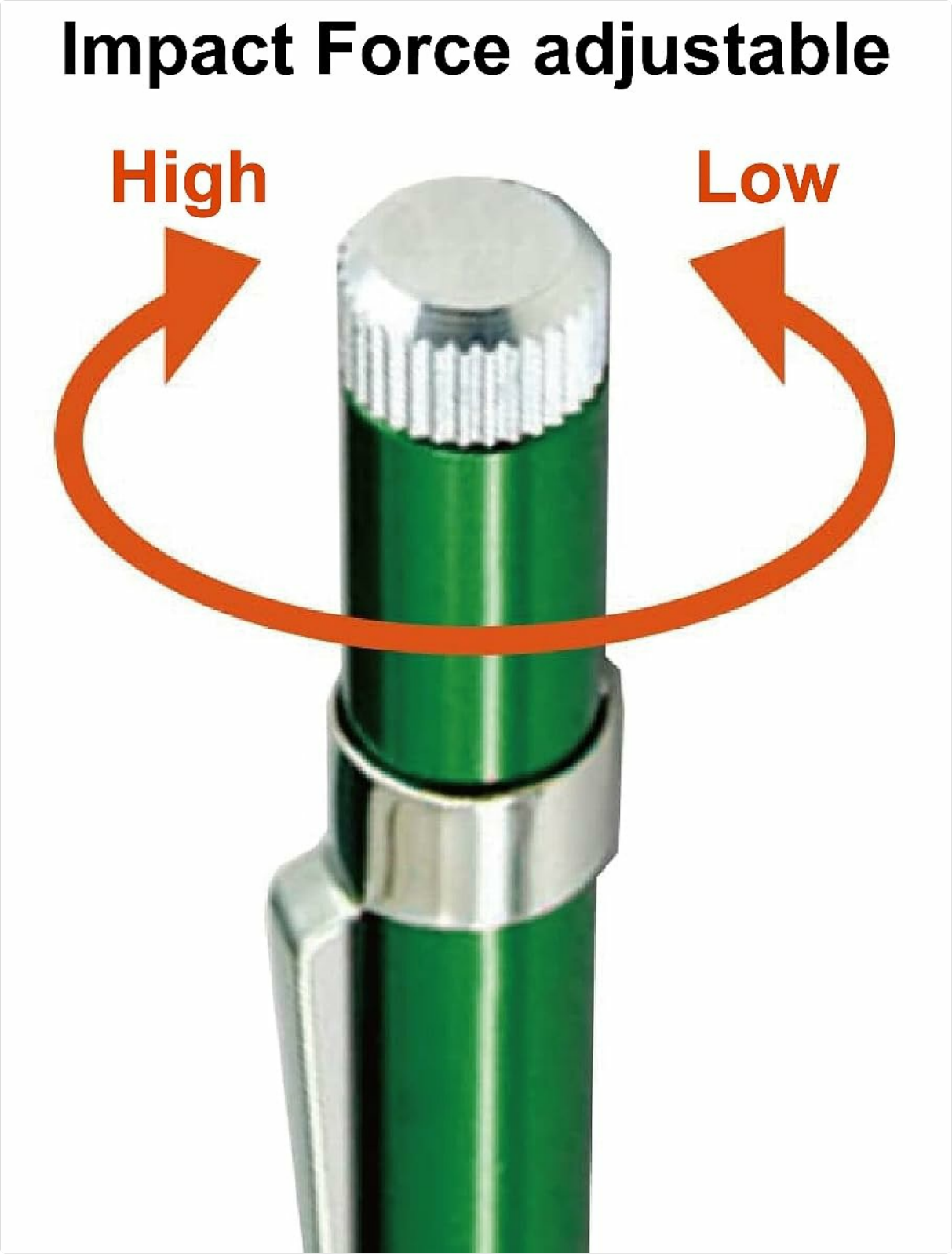

Figure 5: Product packaging and manual insert, showing specifications and manufacturer details.