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## YUCHENGTECH MT-00

# YUCHENGTECH MT-00 Magnetic Tensioner User Manual

Model: MT-00

## 1. INTRODUCTION AND OVERVIEW

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The YUCHENGTECH MT-00 Magnetic Tensioner is a precision instrument designed for controlling wire tension during coil winding operations. Utilizing a permanent magnet, it generates consistent and stable tension to the damp wheel, ensuring uniform winding results. Its non-contact mechanism provides reliable performance for both high and normal speed winding applications.

This manual provides essential information for the proper setup, operation, and maintenance of your MT-00 Magnetic Tensioner to ensure optimal performance and longevity.



Figure 1: Front view of the YUCHENGTECH MT-00 Magnetic Tensioner, showing the tension gauge and adjustment knob.

## 2. PRODUCT FEATURES

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- **Non-Contact Mechanism:** Ensures stable, consistent, and precise tension application to the wire.
- **Versatile Performance:** Suitable for both high-speed and normal-speed winding operations.
- **Wide Application Range:** Specifically designed for wire diameters between 0.02mm and 0.08mm.
- **Adjustable Tension:** Provides a tension scope ranging from 6 to 35 gram-force (g.f).
- **Durable Construction:** Manufactured with metal components for long-lasting use.

### 3. SPECIFICATIONS

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Specification	Value
Model	MT-00
Applied Wire Diameter	0.02 - 0.08 mm
Tension Scope	6 - 35 g.f
Material	Metal
Manufacturer	YUCHENGTECH
Part Number	NNW-1
ASIN	B07GZGSKTH

### 4. SETUP

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Proper setup is crucial for the accurate and consistent performance of the magnetic tensioner.

- 1. Mounting:** Securely attach the tensioner to your coil winding machine using the integrated mounting bracket. Ensure it is stable and free from vibrations. The mounting point should allow for a straight and unobstructed path for the wire.
- 2. Orientation:** Position the tensioner upright as shown in Figure 2, ensuring the wire path is aligned with your winding process.
- 3. Initial Inspection:** Before threading wire, visually inspect all moving parts for any obstructions or damage. Ensure the damp wheel rotates freely.



Figure 2: Side view of the YUCHENGTECH MT-00 Magnetic Tensioner, illustrating the mounting bracket and overall structure.

## 5. OPERATING INSTRUCTIONS

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Follow these steps for effective operation of the magnetic tensioner:

1. **Wire Threading:** Carefully thread the wire through the tensioner's guides and around the damp wheel. Ensure the wire passes smoothly without snagging or excessive friction. Refer to the product diagram for the correct wire path.
2. **Tension Adjustment:** The large black knob on the front of the unit (see Figure 3) controls the magnetic tension. Rotate the knob clockwise to increase tension and counter-clockwise to decrease it.

3. **Monitoring Tension:** The integrated gauge displays the current back tension. Adjust the knob until the desired tension (within the 6-35 g.f range for MT-00) is indicated on the gauge.
4. **Test Winding:** Perform a short test winding to verify the tension setting. Observe the wire behavior and the quality of the winding. Make fine adjustments as necessary.
5. **Consistent Operation:** Once the desired tension is set, the non-contact magnetic system will maintain consistent tension throughout the winding process.

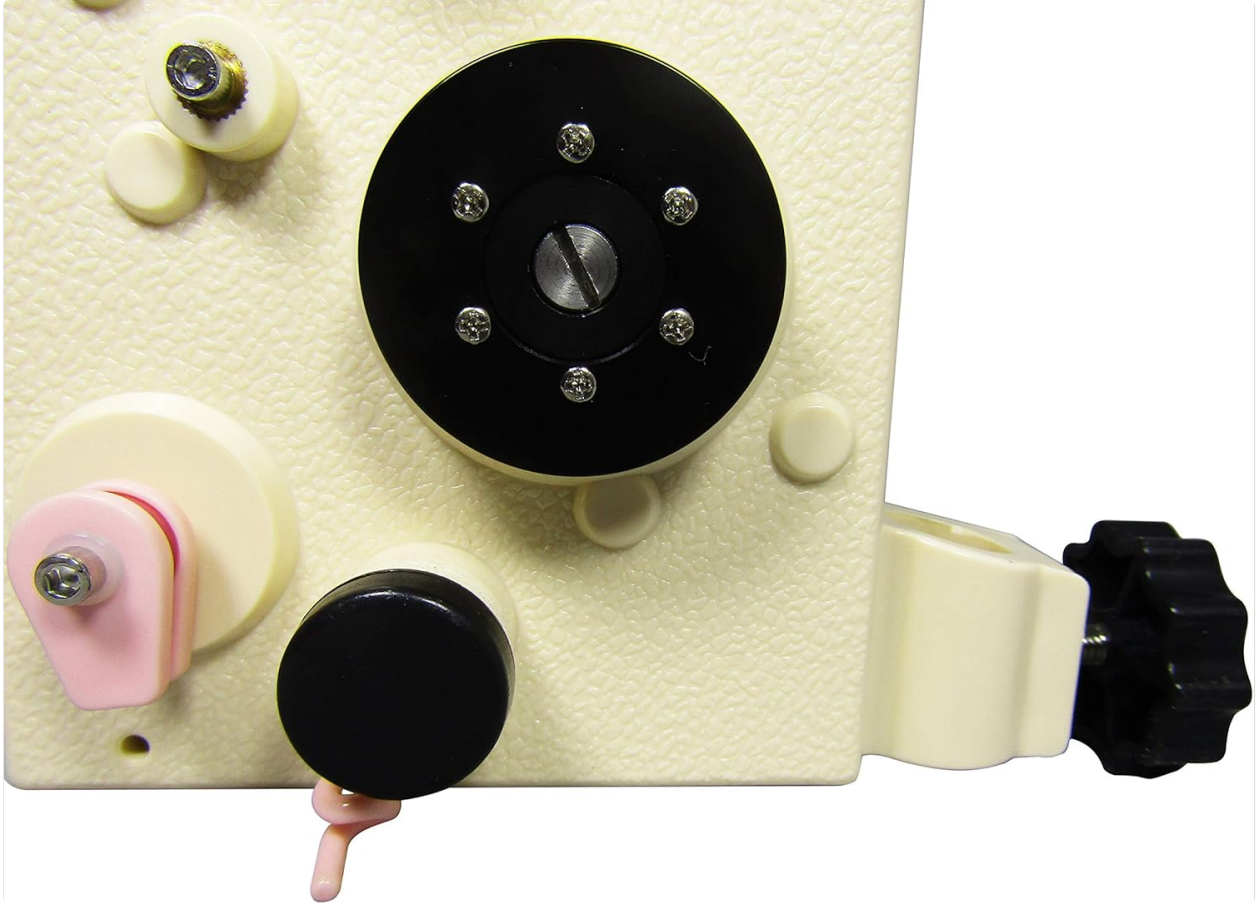


Figure 3: Close-up view of the tension adjustment knob and gauge on the MT-00 Magnetic Tensioner.

## 6. MAINTENANCE

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Regular maintenance ensures the longevity and optimal performance of your MT-00 Magnetic Tensioner.

- **Cleaning:** Periodically clean the exterior of the unit with a soft, dry cloth. Ensure no dust or debris accumulates on the damp wheel or wire guides, as this can affect tension consistency.
- **Inspection:** Regularly inspect the wire guides and damp wheel for wear or damage. Replace any worn components to prevent wire abrasion or inconsistent tension.
- **Lubrication:** The magnetic tension mechanism is non-contact and generally does not require lubrication. Avoid applying lubricants to the damp wheel or magnetic components.
- **Storage:** When not in use, store the tensioner in a clean, dry environment, protected from dust and extreme temperatures.

## 7. TROUBLESHOOTING

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If you encounter issues with your MT-00 Magnetic Tensioner, consider the following common problems and solutions:

- **Inconsistent Tension:**

- Check for debris on the damp wheel or wire guides.
- Ensure the wire is threaded correctly and not snagging.
- Verify the tensioner is securely mounted and not vibrating.

- **Wire Breakage:**

- Reduce the tension setting.
- Inspect wire guides and damp wheel for sharp edges or wear that could abrade the wire.
- Ensure the wire diameter is within the specified range for the MT-00 (0.02-0.08mm).

- **Tension Gauge Not Responding:**

- Ensure the adjustment knob is turning freely and engaging the mechanism.
- Check for any physical obstructions preventing the gauge needle from moving.

## 8. WARRANTY AND SUPPORT

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For warranty information or technical support, please contact YUCHENGTECH directly. Refer to your purchase documentation for specific warranty terms and contact details. When contacting support, please provide your product model (MT-00) and part number (NNW-1) for efficient assistance.