

USER GUIDE

**DIGITAL PROTRACTOR FOR PROPELLERS**  
**HIGH PRECISION PITCH MEASUREMENT**  
**[DGT-PRT]**

**Package Contents**

- Digital level with magnetic base
- Blade Mounting bracket
- digital level user guide
- Digital protractor user guide
- 

NB: The instrument model may vary depending on the supplier's availability



figure 1

## Operating procedure for the measurement of the angle of the blades.

1) **Preparation:** Conventionally, blade angle measurement is performed at 75% (three-quarters) of the propeller length. For example, for a 90 cm propeller, the measurement must be taken 22.5 cm from the tip of the blade. To ensure maximum precision, apply a piece of masking tape around the 75% mark, then carefully mark the exact point for measurement (See Figure 2).

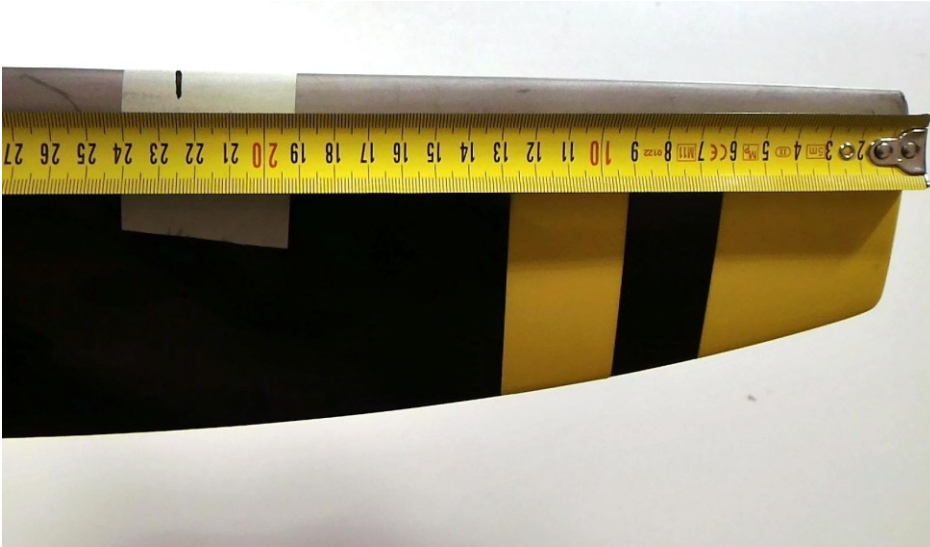


figura 2

2) **Bracket Attachment:** Apply the supplied bracket, ensuring it is in firm contact with the **lower surface** (pressure side) of the blade as shown in Figure 3. The bracket features multiple holes to adapt to all blade types. It is recommended to apply masking tape along the entire length of the bracket contact area.



figure 3



figure 4

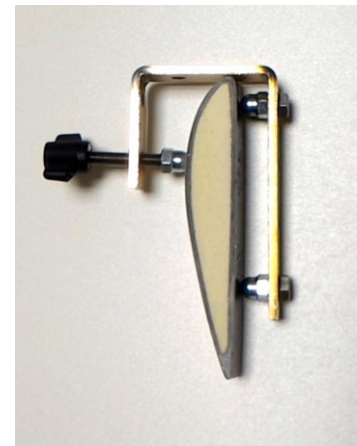


figure 5

3) **Securing:** Adjust the wing nut and tighten it without using excessive force. The upper part of the bracket must be in contact with the **leading edge** of the blade (Figure 4). Figure 5 shows the correct positioning of the bracket in cross-section.

4) **Alignment:** Position the bracket exactly at the previously marked point (Figure 6).

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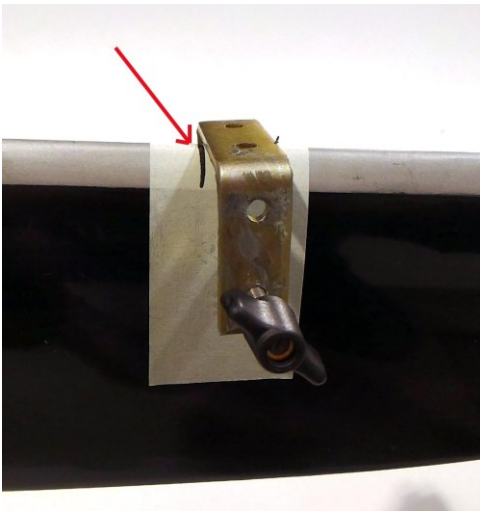


figura 6



figura 7

5) **Leveling:** Place the digital protractor as shown in Figure 8. Ensure the instrument is as level (flat) as possible to avoid altering the subsequent angle measurement

6) **Measurement:** With the digital protractor in position, press the ON/OFF button to turn on the level meter and read the angle. The instrument has an accuracy of **0.1°**.



figure 8

**Finalization:** Repeat steps 1 through 6 for all propeller blades.

## Warnings:

- **Hub Alignment:** Measurements should be taken with the hub at **90°**. Check the hub angle with the digital protractor and adjust the final blade measurement by adding or subtracting the difference.



figure 9

**Example (Figure 9):** If the instrument indicates the hub is at **88.8°** with the arrow pointing **down**, add **1.2°** to the blade measurement (e.g.,  $21.3^\circ + 1.2^\circ = 22.5^\circ$ ).

**Example:** If the arrow points **up**, subtract **1.2°** from the measurement.

**IMPORTANT:** ALWAYS POSITION THE TOOL IN THE DIRECTION INDICATED IN FIGURE 9.

- **First Use:** Before the first use, remove the battery protection tab: unscrew the battery compartment cover and remove the plastic strip (Figures 10 and 11).



figure 10



figure 11

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