



Angle Pro™

4-in-1 Digital Control Throw & Incidence Meter

Thank you for purchasing the Hangar 9 Angle Pro™ 4-in-1 Digital Control Throw & Incidence Meter. The Angle Pro™ allows ultra precision measurements of control throws, wing and tail incidence as well as engine thrust angles to 1/10th of a degree. You will also find the Angle Pro to be a handy tool around the shop allowing precision angular measurements of many of your building projects and works great as a precision level. Its patented sensor system utilizes the comparative force of gravity acting upon dual accelerometers to precisely determine angles. The angle pro features an acquire function that allows you to zero the unit at any angle, especially helpful when adjusting control throws. The hold function holds the last angle measured for easy reference.

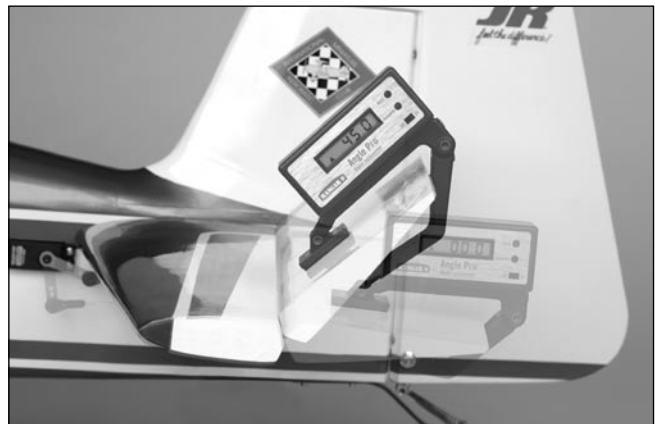
Note: The Angle Pro comes calibrated from the factory with a battery installed. When replacing the battery it's necessary to recalibrate the unit (see calibration below).

Features

- Patented technology works on models of all types & sizes (U.S. Patent 6880258)
- Easily measures control throws
- Incidence attachments allows precise digital measurement of wing, tail & thrust angles
- Clamps firmly and evenly to most control surfaces
- Reset 'zero' at any angle – no need to level the airplane
- Hold function allows the last reading to be stored
- 18-inch bar included

Measuring control throw

- Attach the meter to the control throw clamp via the fitting on the back of the meter.
- Attach the clamp to the aircrafts control surface as shown.



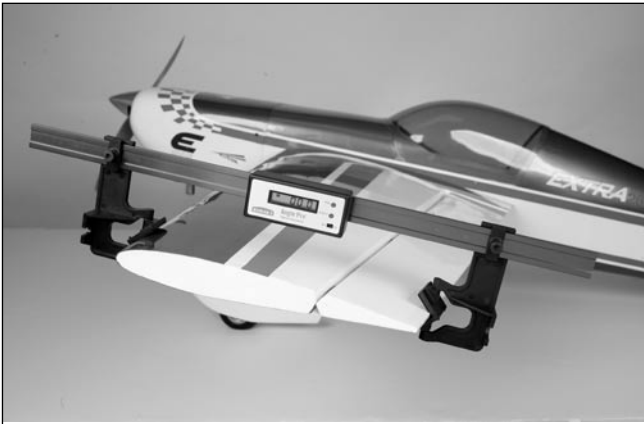
- Turn on the radio and center the trim.
- Press the acquire button to zero the angle.
- Using the transmitter deflect the control surface fully in one direction and record control surface angle.
- Now record the angle in the opposite direction.
- Make the appropriate travel adjustments to achieve the desired control throw.
- To measure the rudder control throw it is necessary to place the fuselage on its side.

Measuring comparative wing and tail incidence and thrust angles

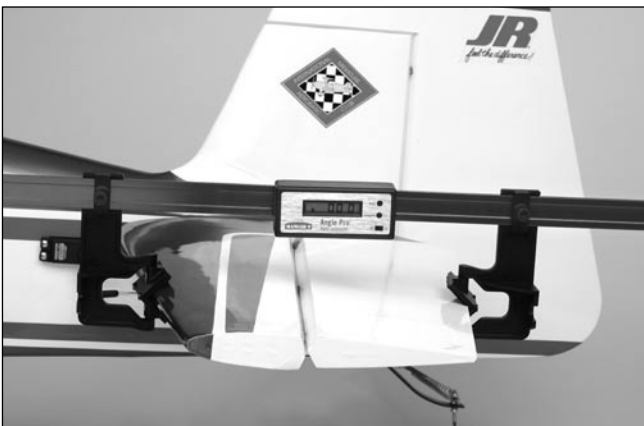
- Attach the meter to the incidence bar as shown



- Mount the incidence bar on the wing as illustrated



- Press the acquire button to zero the angle
- Remove the incidence bar from the wing and install it on the tail as shown carefully without upsetting the position of the airplane



- Record the tail angle and remove the bar from the tail
- Attach the meter to the thrust attachment as shown



- Attach the thrust attachment to the prop hub carefully without upsetting the position of the airplane and record the relative thrust angle

Note: Wing twist can be identified by measuring the wing angle at different distances out from the fuselage.

Note: An optional 36" bar is available for large cord wings by ordering item HAN194.



Calibrating the Angle Pro™

The Angle Pro comes calibrated from the factory however if the battery is changed or if the calibration is lost it will be necessary to recalibrate the unit.

Step 1

Press and hold both the hold and acquire buttons while turning on the switch. 88.8 should appear

Step 2

With the unit placed on a level surface press the hold button once. 11.1 should briefly appear then 88.8

Step 3

Rotate the unit exactly 90 degrees clockwise then press the hold button once. 22.2 should briefly appear then 88.8

Step 4

Rotate the unit another 90 degrees (180 degrees total) clockwise then press the hold button once. 33.3 should briefly appear then 88.8

Step 5

Rotate the unit another 90 degrees (270 degrees total) clockwise then press the hold button once. 44.4 should briefly appear then 88.8

Step 6

Press the top button one more time. The unit will then read accurately

Battery replacement

The Angle Pro uses a specialized 11 Amp 6 Volt micro battery, mainly used in wireless security remotes. Horizon Hobby has replacement batteries available for purchase by ordering item, HAN197 from your local hobby retailer or contacting Horizon directly.

Replacement Parts

HAN193	AnglePro™ (Digital Meter Only)
HAN194	36" Meter Extension Bar
HAN195	Replacement Control Throw Parts
HAN196	Replacement Incidence Meter Parts
HAN197	11A 6V Battery

Warranty

The Angle Pro™ is guaranteed to be free from original manufacturing defects in material and workmanship for a period of 1 year from the original date of purchase. This warranty is limited to the original purchaser and is not transferable. Warranty will not cover units that have been modified, misused, abused, or serviced by any unauthorized service center.

If your unit needs to be repaired, ship the AnglePro™ in its original box (freight pre-paid) to:

Horizon Service Center
Attn: Hangar 9
4105 Fieldstone Road
Champaign, IL. 61822

To speak to product support or a service technician, call (877) 504-0233

Include your complete name and address information inside the carton, as well as clearly writing it on the outer label/return address area. Include a brief summary of the difficulty. Date your correspondence and be sure that your name and address appear on this enclosure. Also, please include a phone number where you can be reached during the business day.

Warranty Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Providing that warranty conditions have been met, your charger will be repaired free of charge.

Non-Warranty Repairs

Should your repair cost exceed 50% of the retail purchase cost, you will be provided with an estimate advising you of your options. Any return freight for non-warranty repairs will be billed to the customer. For non-warranty repairs, please advise us of the credit card that you prefer to use. Horizon Service Center accepts Visa or MasterCard. Include your card number and the expiration date. Horizon Service Center also accepts money orders.



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