

Before using the instrument, you are recommended to read this leaflet fully.

QuDieM QuikHOLD is a unique light aviation Holding Pattern Computer. The combination of capability, ease-of-use and convenience make it a “must have” aid for all IMC/IFR student and qualified light aviation pilots.

Until now, pilots required to take-up a holding pattern had aids to assist them in entering the pattern, but had to rely on the mental application of established “rules of thumb” to determine the adjustments to outbound heading and time to compensate for the prevailing wind. Given the complex inter-relation of these parameters, this is an imprecise method that, particularly if carried out under instrument flying conditions, leads to additional workload and stress.

For air speeds of 90-110kts, QuikHOLD greatly eases the pilot’s task by, in addition to identifying the correct **entry procedure**, providing direct read-out of the **outbound track, heading adjustment** and **outbound time** for wind speeds up to 40kts. Magnetic variation and wind parameters having been pre-set, in-flight operation is limited to reversing, if necessary, the Approach Plate and rotating the instrument to the designated inbound magnetic track. Both operations may be completed single-handed.

Disclaimer

QuikHOLD is an aid to flight navigation. The pilot must at all times rely on his own skill and judgement to ensure the procedure is conducted safely within the local regulatory environment.

CavOK Ltd disclaims all responsibility for any damage sustained by any party associated with the use of this instrument.

Accuracy

QuDieM[®]QuikHOLD is designed for use at Indicated Airspeeds of 100kts +/- 10kts, a speed range covering most single engine light aircraft. The objective in flying a holding pattern is to complete the inbound turn within easy capture range of the inbound radial to the Fix and achieve a hold time of four minutes. Typical calculated accuracy is:

Wind speed	Inbound radial	Hold time
Up to 30kts:	±10°	±10 secs
Up to 40kts:	±20°	±15 secs

In practice, accuracy is significantly influenced by differences between forecast and actual wind conditions, combined Compass/Direction Indicator inaccuracies and the practical limits of accuracy to which light aircraft are flown.

Note that it is not possible to maintain a standard holding pattern when wind speed is more than half IAS and when conditions near this limit, flying an accurate holding pattern becomes extremely difficult.

As with all navigation aids, it is good practice to carry out a “sanity check” prior to applying the results obtained from the QuikHOLD to ensure no gross errors have been made.

Product Guarantee

QuDieM[®]QuikHOLD is designed for pilots of light aircraft. It is constructed from materials consistent with normal operating requirements and care has been taken during design and manufacture to ensure that its accuracy and durability will give many years of service in its intended use.

CavOK Ltd. guarantees the product against defective materials, workmanship and shipment damage for a period of twelve months from purchase and will provide a free of charge replacement provided that the faulty item:

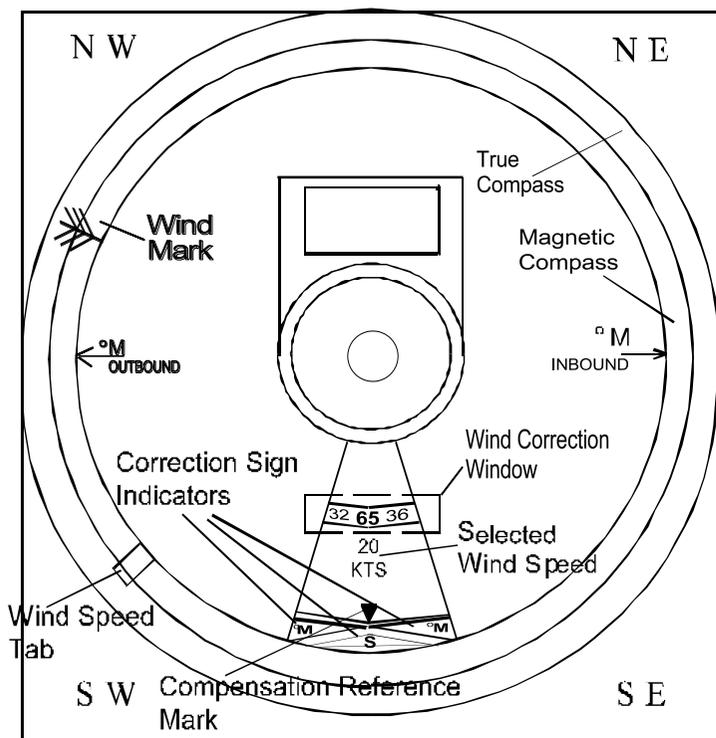
- has been paid for in full
- is returned, carriage paid, to **CavOK** within twelve months of purchase
- in the opinion of **CavOK**, has not been subject to misuse or accidental damage
- is returned on receipt, carriage paid, to CavOK in the event of a claim against shipment damage

Caring for your QuikHOLD

It is recommended that the instrument be kept in the wallet in which it was supplied to protect it from dirt and minor accidental damage.

As with most plastics, lengthy exposure to strong sunlight is best avoided.

Should one of the retaining latches around the Central Aperture become unseated, pressing it up from below easily resets it.



Note: Approach Plate omitted for clarity.

Pre-setting the Instrument

Before using **QuikHOLD** the following parameters must be set or checked.

Magnetic Variation: Aligning the reference mark on the underside of the True Protractor against the adjacent scale, using the raised thumb bars. Although this may not require frequent re-setting, it should be checked prior to each use to ensure no accidental misalignment.

Select Wind Speed: Restrain the Wind Speed Tab and rotate the Top Plate using the upstands around its circumference until the forecast wind speed clicks into view within the Display Window.

Set Wind Direction: Rotate the Wind Mark to the forecast direction on the True Compass. Moistening thumbs will help.

Entry Procedure

Check the direction specified for the hold and, if necessary, reverse the Approach Plate within the Top Plate to display **Right** or **Left Hand** as required.

Rotate the Top Plate of the instrument using the upstands around its circumference to align the **Inbound** arrow against the (yellow) Magnetic Compass scale.

Identify the heading being flown to the Fix on the Magnetic Compass scale, note the related entry sector and follow the associated entry procedure shown on the Approach Plate.

To better visualise the orientation of the approach path to the holding pattern and entry procedure, the instrument may be centred over the fix on the relevant chart.

Outbound Track

Outbound Track is indicated by the Outbound arrow against the (yellow) Magnetic Compass scale.

Examples

Set Magnetic Variation to 10° West for all examples.

Wind: 260/15 Inbound: 120°M Right Hand,
Approach Heading: 225°M

Entry is Sector 3 Outbound Track is 300°M
Outbound Heading is 300-10=290°M
Outbound Time is 76 seconds

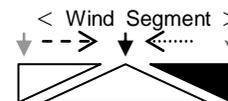
Wind: 260/15 Inbound: 300°M Left Hand,
Approach Heading: 140°M

Entry is Sector 2 Outbound Track is 120°M
Outbound Heading is 120+12=132°M
Outbound Time is 45 seconds

Wind: 340/20 Inbound: 340°M Right Hand,
Approach Heading: 255°M

Entry is Sector 1 Outbound Track is 160°M
Outbound Heading is 160-3=157°M
Outbound Time is 36 seconds

Wind Compensation



Rotate the Top Plate to centre the Wind Compensation Mark within the wind segment as shown, noting the half of the segment within which the Mark was originally positioned.

Referring to the three (1 or 2 digit) numbers visible within the Wind Correction Window, note the pair relating to that half of the Wind Segment.

- The non-emboldened number is the Heading adjustment to the still-air outbound track. The correction is added when the triangle within the wind segment group related to the heading adjustment is white, and subtracted when black.
- The **emboldened** number is the Outbound Time in seconds from wings level on the adjusted heading at the completion of the outbound turn.