

ADJUSTING YOUR COMPASS

Before your compass can be adjusted the aircraft must be capable of being aligned to both the East /West axis and North/South axis.

The use an another compass outside the aircraft, to determine the cardinal points is advised.

These following notes should be used for initial installation guidance only, the corrections should be checked by a qualified Compass Adjuster before flying.

CORRECTION EAST/WEST ('B' Coefficient)

- 1) Align your aircraft facing East, insert the Corrector Key provided, into the Left hand hole at the front of the compass, rotate the key in either direction so that the East point is directly under the Index line.
- 2) Align your vehicle/aircraft facing west and check that the West Point is under the Index line, Any error may be corrected by readjusting to remove HALF the error shown.

CORRECTION NORTH/SOUTH ('C' Coefficient)

- 1) Align your vehicle/aircraft facing North, insert the Corrector Key into the Right hand hole at the front of the compass, rotate the key in either direction so that the North point is directly under the Index line.
- 2) Align your vehicle/aircraft facing South and check that the South point is under the Index Line. Any error may be corrected by readjusting to remove HALF the error shown.

The above procedures can be repeated until the errors are minimized.

If these adjustments result in consistent errors on each of the Cardinal points the compass may not be aligned correctly on the Fore and Aft directions of the aircraft, to correct this misalignment proceed as follows:

CORRECTION FOR MIS-ALIGNMENT ('a' Coefficient)

Only follow this procedure if the results obtained so far do not reach or requirements.

- 1) Align the aircraft facing North; record the compass error in Box A.
- 2) Align the aircraft facing South; record the compass error in Box B.
- 3) Align the aircraft facing East, record the compass error in Box C.
- 4) Align the aircraft facing West; record the compass error in Box D.

Note:

Errors to the Left of the true heading should be prefixed with a plus sign (+). [Fig 2]

Errors to the right of the true reading should be prefixed with a minus sign (-). [Fig 3]

- 5) Add the readings in Boxes A to D, enter the result in Box E. Divide the figure in Box E by 4, record the result Box F, this figure is the error due to mis-alignment and may be corrected as follows.

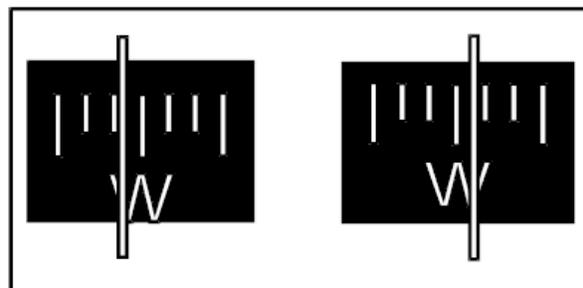


Fig 2

Fig 3

Note the current magnetic heading, carefully loosen the two cross headed screws which secure the compass to the bracket, rotate the compass body in the opposite direction to the error shown in Box F. i.e. If the error in Box F is +5 degrees, rotate the compass body by -5 degrees and vice versa. Carefully tighten the two cross-headed screws without moving the compass body

CORRECTION TABLE

In this example the compass body would need to be rotated by +5 degree

If having carried out these procedures the results are not satisfactory a new location must be found before this can be done the NAVIGATOR must be returned to it's ZERO status by carrying out the following procedure.

BOX	Sample Error	BOX	ACTUAL ERROR
A (NORTH)	+15	A	
B (SOUTH)	+5	B	
C (EAST)	-10	C	
D (WEST)	+10	D	
E (TOTAL)	+20	E	
F ("E" / 4)	+5	F	

- 1) Remove the NAVIGATOR from the bracket by removing the two cross-headed screws, this will reveal the top plate with its four spindles with white lines across.
- 2) Using the key provided rotate the spindles until all the white lines are parallel across the top plate, this is the ZERO CORRECTION status
- 3) Choose another location for the NAVIGATOR and repeat the installation procedure.

Technical Help can be provided by SIRS Navigation Ltd.

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