
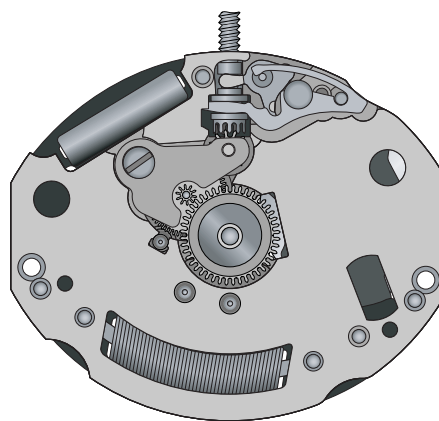
	Technical Guide		TG-19-C-049-E	B
	Prod. by: pelrom	Date: 04.05.2007	Modifications: See last page	

CALIBRE 1456

	Version A	Version B
$5 \frac{1}{2}'' \times 6 \frac{3}{4}''$ $\varnothing 13.00 \times 15.15 \text{ mm}$		
Height on movement	1.95 mm	
Height on battery	2.05 mm	
Number of rubies	6	
RoHS model	No	Yes



Omega personalised quartz movement, featuring circular graining, rhodium-plating and gilded engraving. 2-hand display (hours and minutes). Rate adjustment by inhibition. Stepper motor, with three impulses per minute.



	Page
Differences between non-RoHS 1456A and Rohs 1456B	4
Spare parts list for calibre 1456	5
Electrical tests	7
Modifications of version of Technical Guide for calibre 1456	8



General information for calibre 1456

Major points

Information on the battery (ref. 1449934)

1,55 V	"Low Drain"
Ø 6,80 mm,	H 1,60 mm
Renata	321
VartaChron	V321
UCAR, Energizer, Ray-O-Vac	321
Maxell, Panasonic, Sony	SR616SW

Standard movement exchanges

Follow Working Instruction 31 for standard movement exchanges.

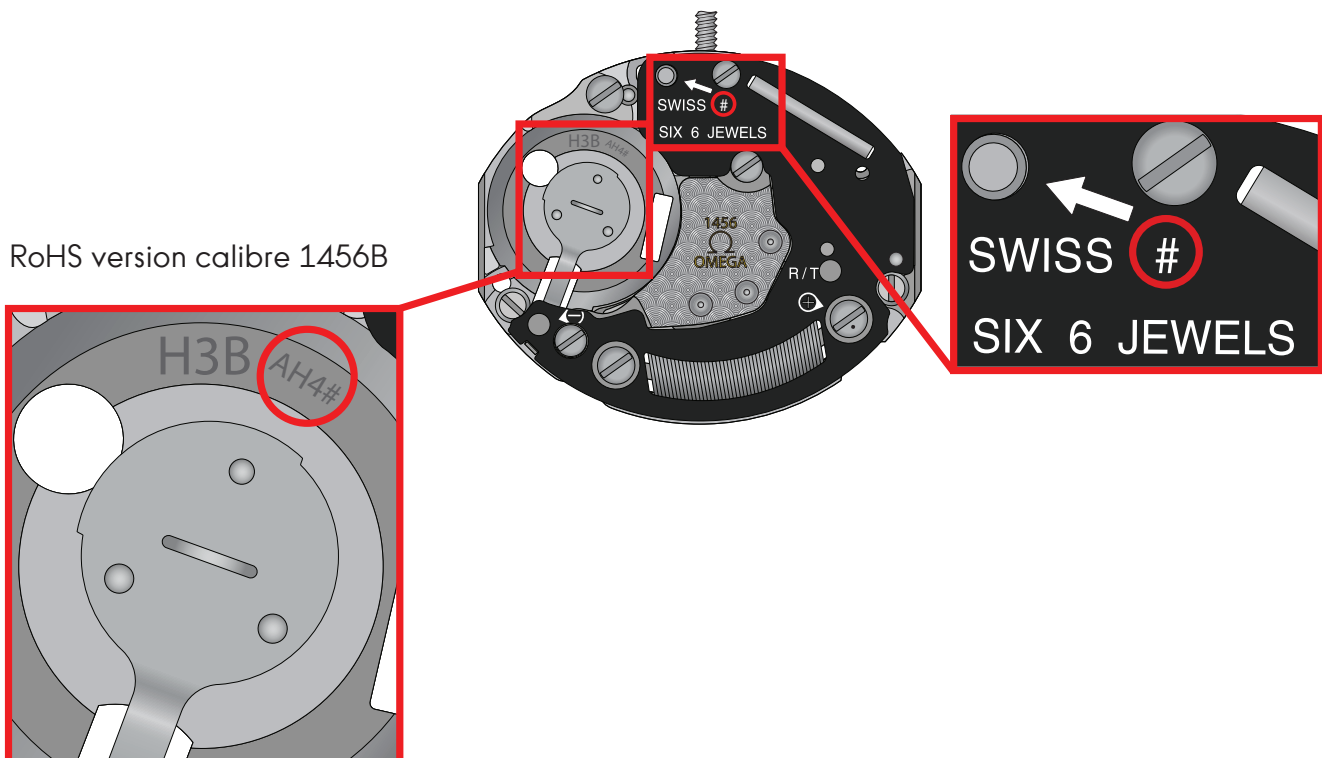
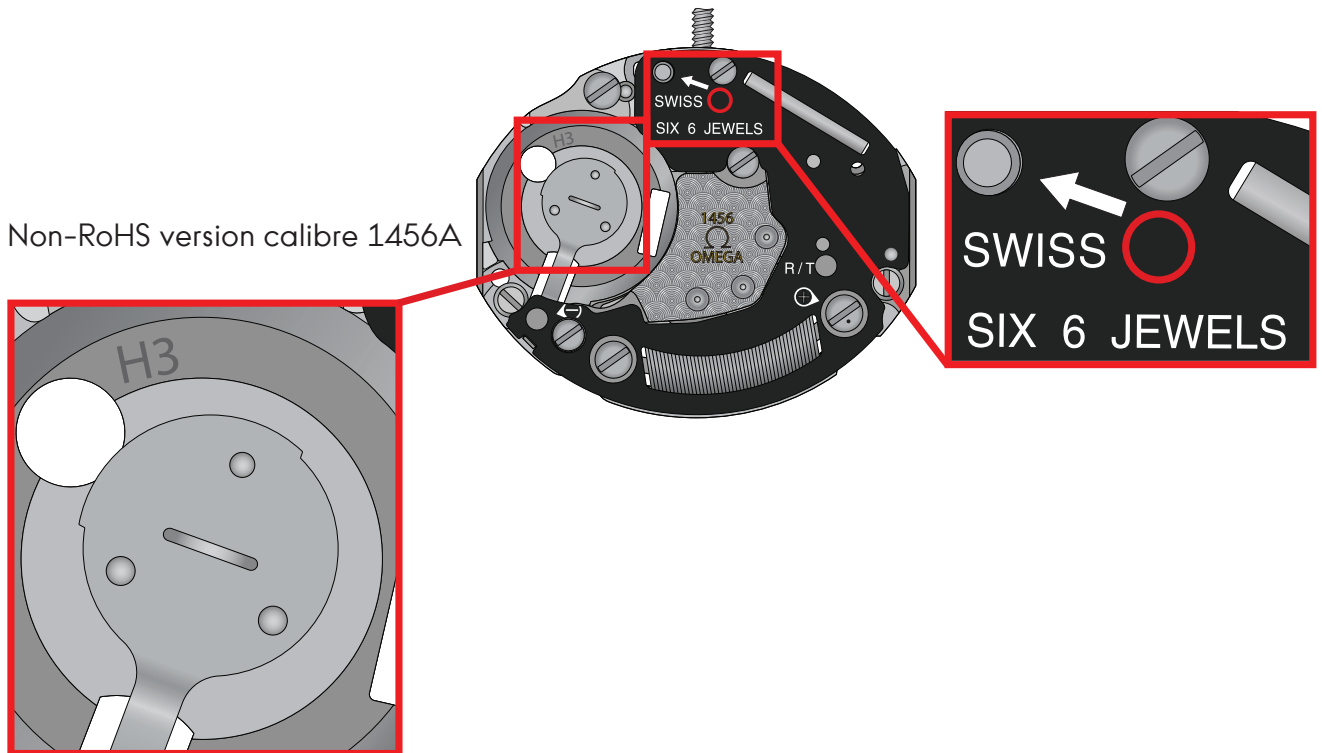
Mandatory tools :

Hand fitting	Ref.
Movement holder for hand setting	507 0016
Tweezers	
Plastic tweezers	502 310 0051











Differences between version 1456A and 1456B

Differences between a RoHS version and a non-RoHS version



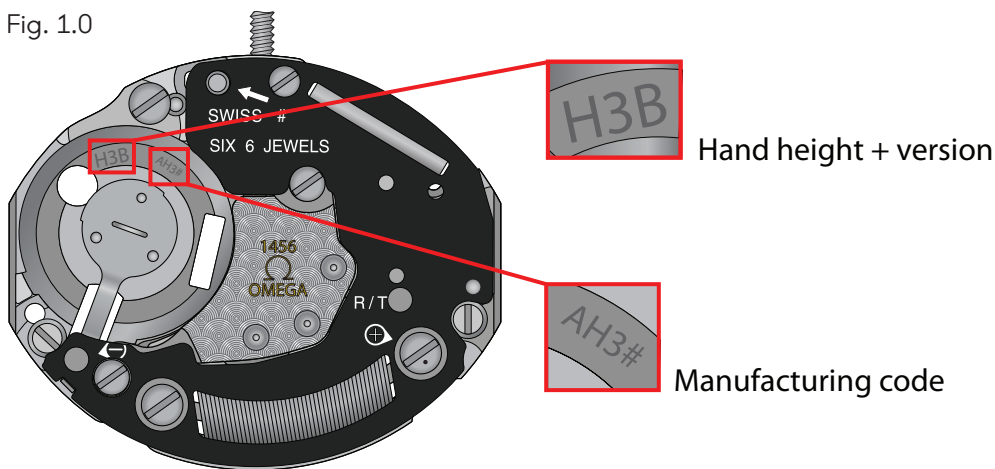
Spare parts list for calibre 1456

Battery	Version	Reference
	1456A	1449934
	1456B	
Battery insulator	Version	Reference
	1456A	72214559032
	1456B	
Battery fixing clamp +	Version	Reference
	1456A	72214559033
	1456B	
Hand setting stem Ø 0.80 mm / L 16 mm	Version	Reference
	1456A	72214559140
	1456B	
Hand setting stem Ø 0.90 mm	Version	Reference
	1456A	72213759100
	1456B	
Hand setting stem movement side, beak	Version	Reference
	1456A	72214559120
	1456B	
Hand setting stem movement side, split	Version	Reference
	1456A	72214559121
	1456B	
Battery fixing clamp screw +	Version	Reference
	1456A	72200002740
	1456B	



1.0 Information on height of hands

Fig. 1.0



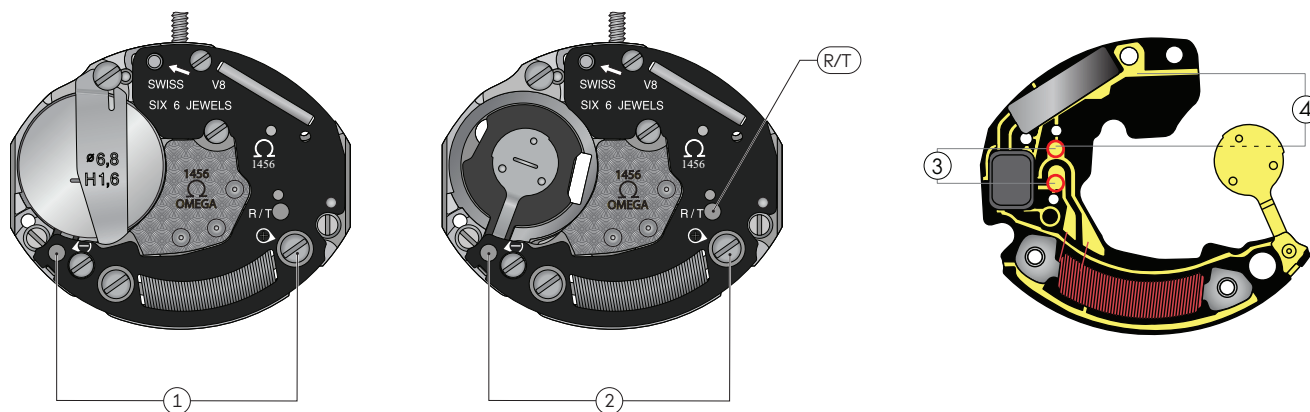
1.1 Runners for hand setting and hand setting force

Designation	Movement holder for hand-setting	No of runners for hand setting	Minimum force (N)	Maximum force (N)	Support (jewel)
Hours hand	507 0016	3	8	30	no
Minutes hand		1	8	30	no



Fig. 2.0

2.0 Electrical tests



Pos.	Setting of apparatus	Measurement	Test	Remarks
1	2 V ($R_i \geq 10 \text{ k}\Omega / \text{V}$)	1,55 V	Battery voltage	Measured with battery
2	10 μA	$\leq 0.60 \mu\text{A}$	Movement consumption	Measured without battery, with external supply, 1,55 V.
	2 V 16 Hz or 32 Hz selon IC	$\leq 1,30 \text{ V}$ Control of motor with 16 or 32 steps/sec. Bring the R/T point and track \ominus in contact.	Lower limit for operating voltage	Measured without battery, with variable external supply.
3	10 $\text{k}\Omega$	2,10 - 2,40 $\text{k}\Omega$	Coil resistance	Electronic module removed.
	200 μA	83-95 μA		

Comments :
To speed up the motor, connect the R/T point to the \ominus track = 16 or 32 impulses/s

Ohmmeters with measuring voltage greater than 0.40V inappropriate; recommended voltage 0.20V

Ambient temperature 20°C.

Rate adjustment by inhibition. The rate can only be measured using an instrument capable of measuring for sixty seconds or multiple times sixty seconds.

Modifications of version of Technical Guide for calibre 1456

Versions of Technical Guide				
Date of first release:	16.02.2007	Version A	Made by:	Pelrom
Date of last release:	04.05.2007	Version B		

Modifications of Technical Guide version B																						
Old (version A)			New (version B)																			
<p style="color: red;">Page 6: Runners for hand setting</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #d3d3d3;"> <th style="text-align: left;">Designation</th> <th style="text-align: center;">Minimum force (N)</th> <th style="text-align: center;">Maximum force (N)</th> <th style="text-align: center;">Support (jewel)</th> </tr> </thead> <tbody> <tr> <td>Hours hand</td> <td style="text-align: center;">8</td> <td style="text-align: center;">30</td> <td style="text-align: center;">no</td> </tr> <tr> <td>Minutes hand</td> <td style="text-align: center;">8</td> <td style="text-align: center;">30</td> <td style="text-align: center;">no</td> </tr> </tbody> </table>			Designation	Minimum force (N)	Maximum force (N)	Support (jewel)	Hours hand	8	30	no	Minutes hand	8	30	no	<p style="color: red;">Page 6; Adds: Runners for hand setting and hand setting force</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #d3d3d3;"> <th style="text-align: left;">Movement holder for hand-setting</th> <th style="text-align: center;">No of runners for hand setting</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">507 0016</td> <td style="text-align: center; background-color: #800080; color: white;">3</td> </tr> <tr> <td></td> <td style="text-align: center; background-color: black; color: white;">1</td> </tr> </tbody> </table>		Movement holder for hand-setting	No of runners for hand setting	507 0016	3		1
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