The SASM17 is a replacement for Pulsar ® 201 modules with time and seconds feature and dot display. As known from other watch movements produced by StrikesAndSpares Semiconductor the SASM17 is built with original parts from disassembled Pulsar®, Omega® or Hamilton® movements. The red display, the plastic carrier, the quartz crystal and the reed switches will be swapped from your module to a new circuit board. If the light sensor of your original module is under the display, please use a SASM11 (time only) or SASM12 with date feature.

The Time Feature: Press the right button once to show the time. The time will light up for 1,5 seconds. Hold the button for seconds display.

Displaying the date: If the date feature is activated, press the right button twice to show the date. The date will light up for 1,5 seconds.

How to set your watch: The time setting and the software time trimming features are activated with the magnet which is hidden in the clasp of the watch. If the original magnet is not available or too weak for various reasons, you can use any magnet to gain access to the setting feature. We recommend to start with the hour and continue to set the minutes. Hold the magnet without the actuation of a command button in the "hr" notch to advance the hours. Move the magnet in the "min" notch to increase the minutes. Make sure that you always set the minute to the next following one. For example at 12:09h, set the minutes to 12:10h. The time computing will not start and the time remains at :00 seconds until the time button has been pushed just at 12:10h. The time counting will start at 12:10:00 and the time will light up. If you have activated the date feature, you can hold the magnet in the "hr" notch and push the right button at the same time to set the month. Hold the magnet in the "min" notch and push the right button to set the day. During the set of the day you should also care about the AM/PM indicator. The upper dot should light up between 00:00h and 11:59h, between noon and midnight the lower dot should indicate PM time.

If you have activated the auto-set feature (see auto-set section below) you can also gain access to the setting feature if you push the right button twice and hold it. The display goes off and comes on again immediately. Now use the right button to change the hours. If you have chosen the right hour value, wait until the display switches to minutes. Repeat the procedure with the minutes. If you have also activated the date feature (see date feature below), you are able to set month and day following the same rules as for the setting of the time. During the set of the day you should also care about the AM/PM indicator. The upper dot should light up between 00:00h and 11:59h, between noon and midnight the lower dot should indicate PM time. When the display turns off you can start the time counting with the right button. The time lights up.

Trimming: The accuracy of the module can be adjusted by software. To start the software time correction feature use magnets in both the "hr" an "min" notches. The display will light up with „Stt" for **s**tandard **t**ime **t**uning. Remove both magnets. To diminish or increase the value of the correction parameter, push the right button. The correction value starts with 0.5 and ends with 5.0- (minus 5.0). Example: If the watch gains half a second per day, choose the correction value 0.5- (minus 0.5). In case the watch is running too slow and looses one second per day, choose correction value 1.0. Once the right value is shown in the display, release the right button. Wait until "SEt" lights up in the display. Now "Ftt" (**f**ine **t**ime **t**uning) lights up. Change the value between 0.1 and 0.4 seconds a day with the time button. Example: If the watch gains 0.6 seconds per day, choose the stt value 0.5- (minus 0.5) and the Ftt value 0.1. In case the watch is running too slow and looses 1.3 seconds per day, choose Stt value 1.0 and Ftt value 0.3.

To deactivate the software trimming feature, choose the Stt and Ftt value 0.0 and push the time button. By default, the correction feature is deactivated. A new user – chosen value will be stored in the memory and recalled after a battery replacement, so once set to the correct value there´s no need to do anything in the future.

Auto-Set: The SASM17 offers the possibility of an auto-set feature. This is quite handy when the original magnet is too weak to activate the reed switches or if you are switching between different time zones on a regular basis. To activate the auto-set feature hold magnets in both "hr" an "min" notches until "Stt" lights up. Wait until "SEt" followed by "Ftt" is displayed. Wait until "SEt" followed by "Aut" lights up. Choose "ON" with the right button. Wait until "SEt" is displayed – the auto-set feature is now activted. By default the auto-set feature is switched off.

Date Feature: The SASM17 is also able to display the date. Especially if you wear your watch regulary, the date feature makes your watch suited for daily use. To activate the date feature hold magnets in both “hr” an “min” notches until “Stt” and “SEt” lights up. Wait until “Ftt” is displayed. Wait until “SEt” followed by “Aut” is displayed. Wait until “SEt” and “dAt” is shown in the display. Then choose “ON” with the right button. Wait until “SEt” is displayed – the date feature is now activted. By default the date feature is switched off.

Batteries: We recommend installing two Varta cells of the type V13GA, V76PX or V357 with or without spacers. Other widely available types which can be used are LR44, #357, #1154, AG13 or SG13.

Warranty: We deliver all SASM modules with a full one year warranty. The appointed date of the warranty is the indicated date of the invoice. Please keep this invoice for your own records and as a document in case of a defect on the module which is covered by this warranty. The warranty does <u>not</u> include defects of the original display unit which is about 40 years in age!

Personalization and Software Releases: All SASM series modules can be programmed with a special, individual message. This message can either be shown when batteries are replaced or during normal operation, for example once you have pushed the time button several times. Please mention, that not all letters can be displayed through a seven segment display and the 1st digit can show the character “1” “,” “‘” or “I” only except for 24h modules (SASM32). The software version indicator will light up with “IN” ***(in**dividual)* to show the module as personalized. A personalization is 89,00 €. You can always change the software back to a standard release at a later point of time which is 29,00 €. The different software releases are arranged by the corresponding letter and are used in the manner you can see below. The following SASM modules can be updated to the latest release, which is also 29,00 € per module.: SASM11, SASM12, SASM13, SASM15 and SASM16.

E:	Initial release ***(E**rstausführung)*	A:	1st software modification
b:	2nd software modification	c:	3rd software modification
d:	experimental release	F:	4th software modification
H:	5th software modification	IN:	individual module

The SASM17 is a replacement for Pulsar ® 201 modules with time and seconds feature and dot display. As known from other watch movements produced by StrikesAndSpares Semiconductor the SASM17 is built with original parts from disassembled Pulsar®, Omega® or Hamilton® movements. The red display, the plastic carrier, the quartz crystal and the reed switches will be swapped from your module to a new circuit board. If the light sensor of your original module is under the display, please use a SASM11 (time only) or SASM12 with date feature.

The Time Feature: Press the right button once to show the time. The time will light up for 1,5 seconds. Hold the button for seconds display.

Displaying the date: If the date feature is activated, press the right button twice to show the date. The date will light up for 1,5 seconds.

How to set your watch: The time setting and the software time trimming features are activated with the magnet which is hidden in the clasp of the watch. If the original magnet is not available or too weak for various reasons, you can use any magnet to gain access to the setting feature. We recommend to start with the hour and continue to set the minutes. Hold the magnet without the actuation of a command button in the “hr” notch to advance the hours. Move the magnet in the “min” notch to increase the minutes. Make sure that you always set the minute to the next following one. For example at 12:09h, set the minutes to 12:10h. The time computing will not start and the time remains at :00 seconds until the time button has been pushed just at 12:10h. The time counting will start at 12:10:00 and the time will light up. If you have activated the date feature, you can hold the magnet in the “hr” notch and push the right button at the same time to set the month. Hold the magnet in the “min” notch and push the right button to set the day. During the set of the day you should also care about the AM/PM indicator. The upper dot should light up between 00:00h and 11:59h, between noon and midnight the lower dot should indicate PM time.

If you have activated the auto-set feature (see auto-set section below) you can also gain access to the setting feature if you push the right button twice and hold it. The display goes off and comes on again immediately. Now use the right button to change the hours. If you have chosen the right hour value, wait until the display switches to minutes. Repeat the procedure with the minutes. If you have also activated the date feature (see date feature below), you are able to set month and day following the same rules as for the setting of the time. During the set of the day you should also care about the AM/PM indicator. The upper dot should light up between 00:00h and 11:59h, between noon and midnight the lower dot should indicate PM time. When the display turns off you can start the time counting with the right button. The time lights up.

Trimming: The accuracy of the module can be adjusted by software and the on board trimmer on the left of the chip. To start the software time correction feature use magnets in both the “hr” an “min” notches. The display will light up with „cor“ for (time) correction. Remove both magnets. To diminish or increase the value of the correction parameter, push the right button. The correction value starts with 0.5 and ends with 6.0- (minus 6.0). Example: If the watch gains half a second per day, choose the correction value 0.5- (minus 0.5). In case the watch is running too slow and looses one second per day, choose correction value 1.0. Once the right value is shown in the display, release the right button. Wait until “Set” lights up in the display. To deactivate the software trimming feature, choose the value 0.0 and push the time button. By default, the correction feature is deactivated. A new user – chosen value will be stored in the memory and recalled after a battery replacement.

Auto-Set: The SASM17 offers the possibility of an auto-set feature. This is quite handy when the original magnet is too weak to activate the reed switches or if you are switching between different time zones on a regular basis. To activate the auto-set feature hold magnets in both “hr” an “min” notches until “cor” lights up. Wait until “Set” followed by “Aut” is displayed. Choose “ON” with the right button. Wait until “Set” is displayed – the auto-set feature is now activted. By default the auto-set feature is switched off.

Date Feature: The SASM17 is also able to display the date. Especially if you wear your watch regulary, the date feature makes your watch suited for daily use . To activate the date feature hold magnets in both “hr” an “min” notches until “cor” lights up. Wait until “Set” followed by “Aut” is displayed. Wait until “Set” and “dAt” is shown in the display. Then choose “ON” with the right button. Wait until “Set” is displayed – the date feature is now activted. By default the date feature is switched off.

Batteries: We recommend installing two Varta cells of the type V13GA, V76PX or V357 with or without spacers. Other widely available types which can be used are LR44, #357, #1154, AG13 or SG13.

Warranty: We deliver all SASM modules with a full one year warranty. The appointed date of the warranty is the indicated date of the invoice. Please keep this invoice for your own records and as a document in case of a defect on the module which is covered by this warranty. The warranty does not include defects of the original display unit which is about 40 years in age!

Personalization and Software Releases: All SASM series modules can be programmed with a special, individual message. This message can either be shown when batteries are replaced or during normal operation, for example once you have pushed the time button several times. Please mention, that not all letters can be displayed through a seven segment display and the 1st digit can show the character "1" "," "'" or "I" only except for 24h modules (SASM32). The software version indicator will light up with "IN" ***(individual)*** to show the module as personalized. A personalization is 89,00 €. You can always change the software back to a standard release at a later point of time which is 29,00 €. The different software releases are arranged by the corresponding letter and are used in the manner you can see below. The following SASM modules can be updated to the latest release, which is also 29,00 € per module.: SASM11, SASM12, SASM13, SASM15 and SASM16.

E:	Initial release ***(Erstausführung)***	A:	1st software modification
b:	2nd software modification	c:	3rd software modification
d:	experimental release	F:	4th software modification
H:	5th software modification	IN:	individual module