## SASM90 LED Watch Module Software Version E © 2014 StrikesAndSpares Semiconductor, Germany



The SASM90 is a replacement for Sinclair ® black watch modules which come with a HP5082-7415 display.

The Time, Day and Seconds Feature: Press the left button once to show the time and twice to show the day in standard brightness mode. Push the left button three times to show the seconds. The seconds will be displayed for 30 seconds unless you don't push the left button again. Press the right button once to show the time and twice to show the day in high brightness mode. Push the right button three times to show the seconds. The seconds will be displayed for 30 seconds unless you don't push the right button again. The seconds are always displayed in the standard brightness mode.

How to set your watch: Push the left button three times to show the seconds. During continuous seconds display, push the right button. Start with setting the month. To increase the months, push the left button, confirm with the right one. You will then be asked if you want to show the months with the day feature. Choose "OFF" if you want to keep the original setting and "ON" if you want to display the months together with the day with the left button. Confirm with the right one again. Then set day, hours and minutes in the same manner and push the right button to exit the setting mode. 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 right or left button has been pushed just at 12:10h. The time counting will start at 12:10:00 and the time will light up.

**Trimming:** The accuracy of the module can be adjusted by software. To start the time count calibration push the right button three times to show the seconds. During continuous seconds display, push the left button. There is a standard trimmer which runs from -5.0 to 5.0 seconds a day and a fine trimmer which runs from -0.4 to 0.4 seconds per day. You start with the standard trimmer. To diminish or increase the value of the correction parameter, push the left button.

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 left button and confirm the value with the right one. Now the fine trimmer value lights up. Change the value between 0.1 and 0.4 seconds a day with the left button. Example: If the watch gains 0.4 seconds per day, choose the standard trimmer value -0.0 (minus 0.0) and the fine trimmer value -0.4 (minus 0.4). In case the watch is running too slow and looses 1.3 seconds per day, choose the standard trimmer value 1.0 and the fine trimmer value value 0.3.

To deactivate the software trimming feature, set both values to 0.0. 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.

**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 if you have pushed both buttons. Please mention, that not all letters can be displayed through a seven segment. 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.

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