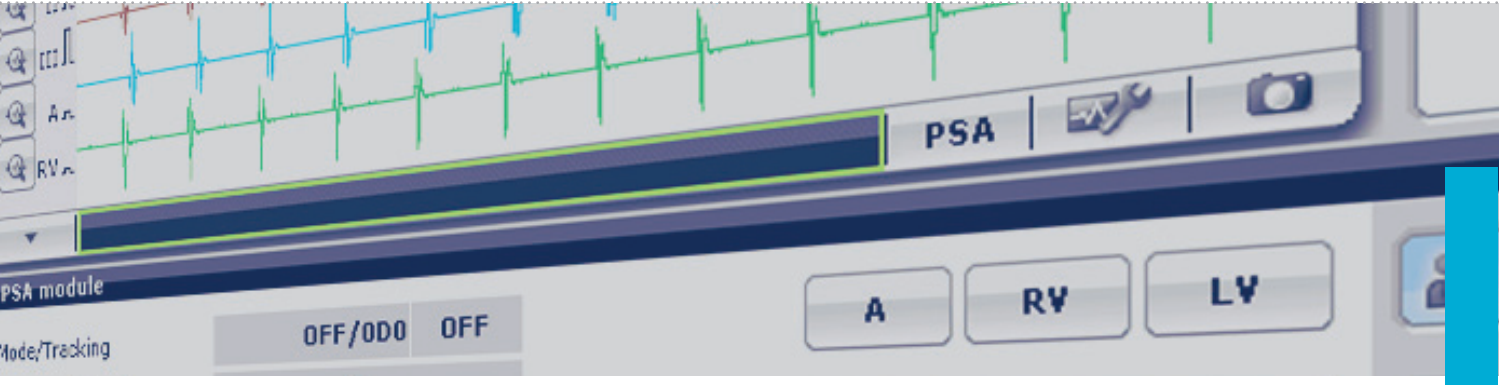
CRM

Renamic PSA Module

Expansion Module for Renamic



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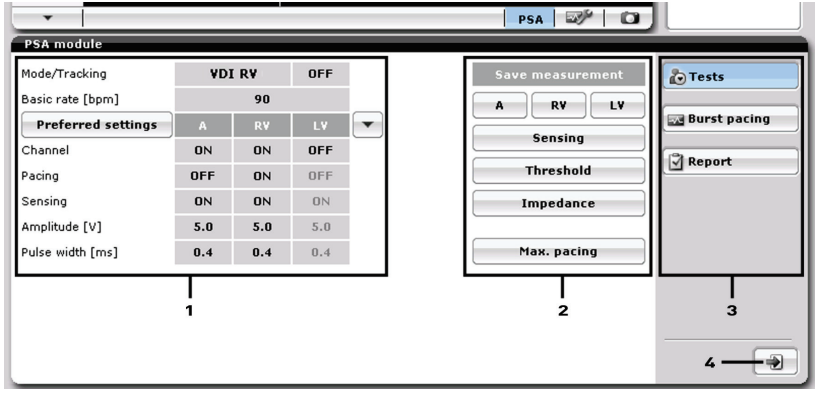


Opening the PSA Application

Select the **[PSA]** button in the information line below the IEGM.

User interface:

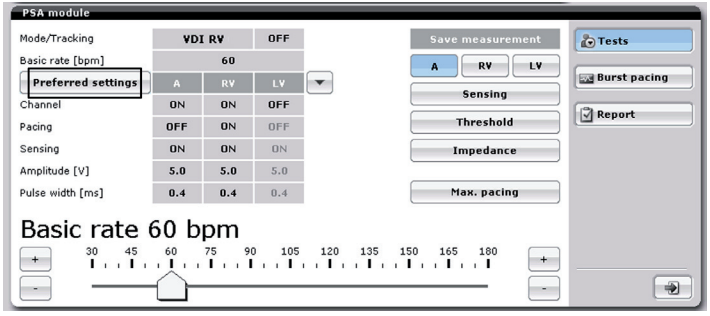
1 Adjustable settings
2 Selection of chambers, delivery of maximum pacing and storage of measured values
3 Navigator to switch between individual windows
4 Exit the application

Please read this first!

The PSA module is an expansion module for the Renamic programmer and is used during implantation and follow-up of implantable pacemakers and ICDs (implantable cardioverter-defibrillators). Renamic is equipped with a slot for inserting and transporting the module.

Do you have any questions?

If you have any questions, please contact your local representative or BIOTRONIK. See the back page of this reference guide for contact information.



Loading, Saving or Resetting Preferred Settings

Step 1: Select **[Preferred settings]**.

The `[Preferred settings]` window is displayed.

Step 2: Select:

- **[Save]** to save your settings,
- **[Load]** to load your saved settings or
- **[Factory settings]** to open the factory settings.

The corresponding window opens.
The respective settings are accepted after the window is confirmed.

Frequently Asked Questions

Can the PSA module be installed while Renamic is on?

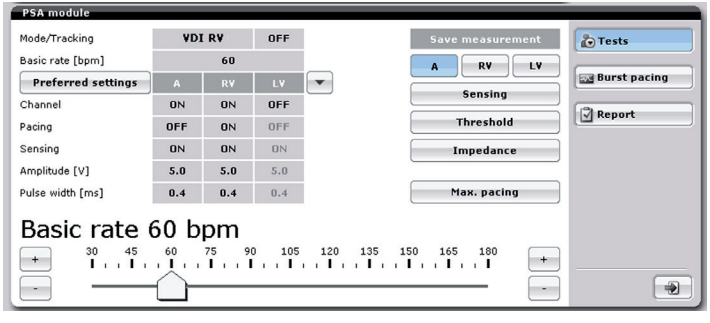
- No. Renamic has to be switched off and the power supply must be disconnected before installing the PSA module.

What will happen if the power supply to Renamic is interrupted?

- If Renamic is disconnected from the power supply (e.g. in the case of a power outage), the PSA module will continue pacing in the most recent pacing mode for 5 minutes. An acoustic signal will be emitted every 20 seconds during this pacing period.
- Prerequisite: Renamic must have been on for at least 3 minutes prior to the power interruption and a pacing mode must have been programmed.

To which alligator clips does the left ventricular lead have to be connected for triple-chamber operation?

- The left ventricular leads must be connected to the alligator clips labeled as ventricle.



Measuring the P/R Wave Amplitudes

Step 1: Select the chamber **[A]** / **[RV]** / **[LV]**, in which you want to perform the measurement.

Step 2: You have the following three options:

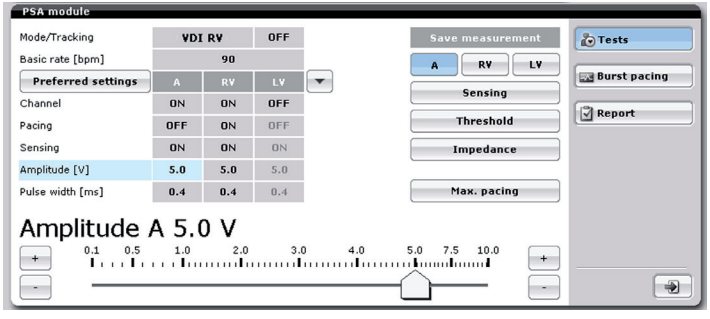
- Set pacing to **[OFF]**.
- Select a non-pacing **[Mode]**.
- Select **[Basic rate]** and set it to a value below the patient's intrinsic rhythm.

The measured amplitudes are displayed beside every sensed event in the IEGM signal of the respective channel.

Step 4: Click on the **[Sensing]** button to store the measured values.

The measured values are stored and can be viewed and printed at any time in the **[Report]** window.

Step 5: Repeat these steps for all the other chambers.



Measuring Pacing Threshold and Lead Impedance

Step 1: Select the chamber **[A]** / **[RV]** / **[LV]**, in which you want to perform the measurement.
Step 2: Set the pacing to **[ON]** or select a pacing **[Mode]**.
Step 3: Select **[Basic rate]** and set it to a value above the patient's intrinsic rhythm.

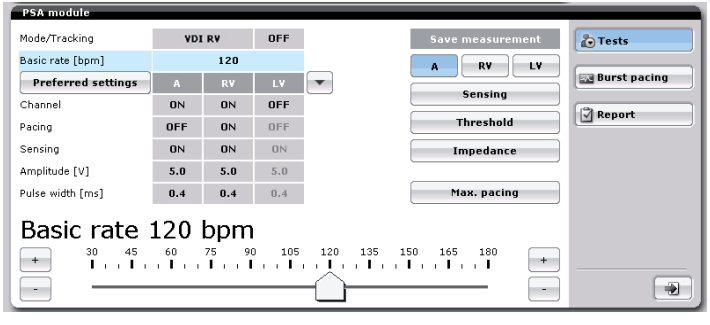
The measured pulse amplitudes are displayed beside every paced event in the IEGM signal of the respective channel.

Step 4: Select **[Amplitude]** and reduce it until pacing is no longer effective.

Step 5: Then gradually increase it until pacing is effective again.
Step 6: Click on the **[Threshold]** button to store the measured pulse amplitude and pulse width.
Step 7: Select **[Amplitude]** and reset it to a safe value.
Step 8: Click on the **[Impedance]** button to store the measured lead impedance value.

The measured values are stored and can be viewed and printed at any time in the **[Report]** window.

Step 9: Repeat these steps for all the other chambers.



Measuring VA Interval and AV Delay

Step 1: Select **[Mode]** and set the mode `VDI` (retrograde measurement) or `AAI` (antegrade measurement).
Step 2: Select **[Basic rate]** and set it to a value above the patient's intrinsic rhythm. Ensure that the pacing is effective.
Step 3: Click on the Freeze button to document the result of the conduction time test and freeze the IEGM.

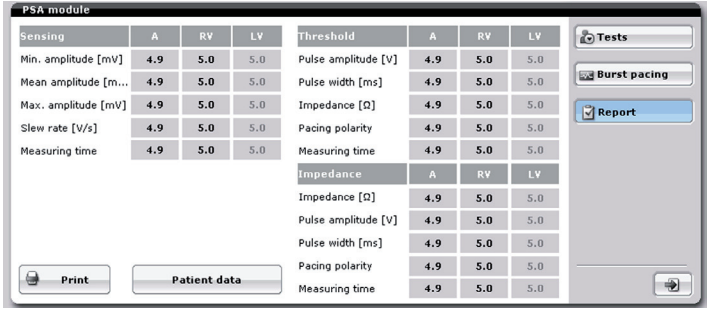
The `Freeze` window is opened and displays the frozen IEGM with markers.

Step 4: Analyze the frozen IEGM.

For further information on handling the `Freeze` window, see **[Help]**.

Step 5: Store the evaluated IEGM.

The frozen IEGM is stored and can be viewed and printed at any time via the **[Print manager]** button. For further information on handling the `Freeze` window, see **[Help]**.



Printing a Report

You can view and print the stored measured values at any time in the **[Report]** window.

Step 1: Select the **[Report]** window.

Step 2: Press **[Print]**.

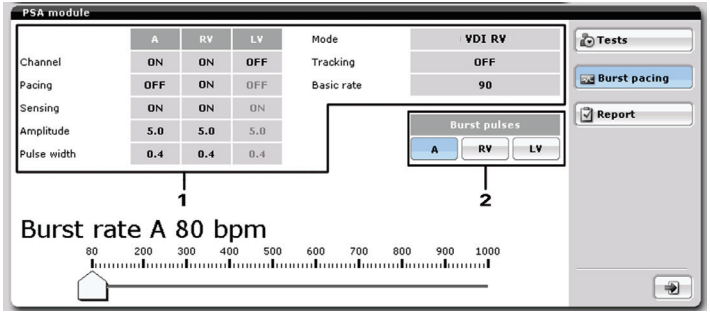
The stored data is printed according to your settings. For further information on the settings for printing, see **[Help]**.

Entering Patient Data

If you open a PSA application without previously interrogating an implant, you can enter the patient data in the **[Report]** window. To simplify the input of the serial numbers for the leads, you can use a USB barcode scanner that meets the following requirements:

- USB barcode scanner for Microsoft Windows
- Support for GS1-128 barcodes
- With integrated keyboard decoder

Step 1: Connect the USB barcode scanner, click on **[Serial number]** and scan the serial number of the lead used.



1 Settings for backup stimulation
2 Selection of the chambers, in which the burst pacing shall be delivered

Delivering Burst Pacing (High-Rate Pacing)

Step 1: Select the **[Burst pacing]** button.

The atrial chamber is preselected and the slider to set the burst rate is displayed.

Note: Burst pacing is delivered in the atrium as soon as you adjust the slider.

If you would like to deliver burst pacing in a different chamber, then select it respectively.

Step 2: Drag the slider to the desired rate.

Burst pacing is delivered.

To terminate burst pacing: release the slider for the burst rate.

Burst pacing is terminated and the slider automatically returns to the beginning.

The maximum duration of burst pacing is limited to 30 s. If burst pacing is delivered in the atrium and a ventricular pacing mode is set, then backup stimulation is performed in the ventricle. If burst pacing is delivered in the ventricle, no backup stimulation is performed in any of the other chambers.

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