

## Working procedure for ionization vacuum gauge SH200/ST200 maintenance service

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### 1. Abstract

This manual describes the procedure for replacing the vacuum gauge when using the maintenance service.

### 2. Configuration

The configuration of gauge differs between stand-alone and combination mode.

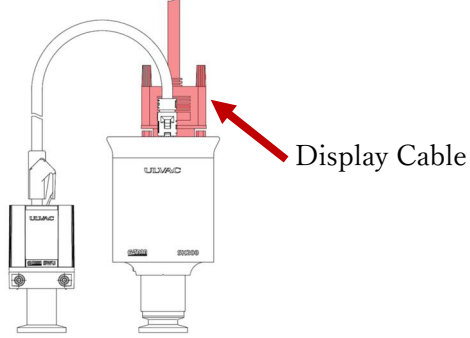
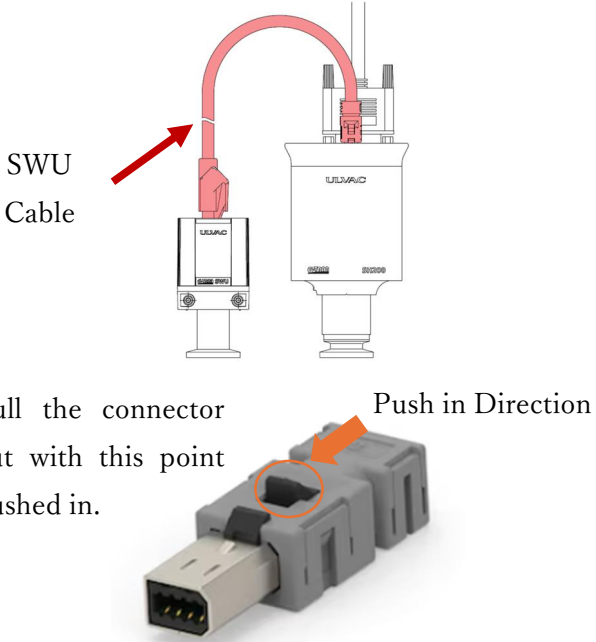
Standalone mode	Combination mode


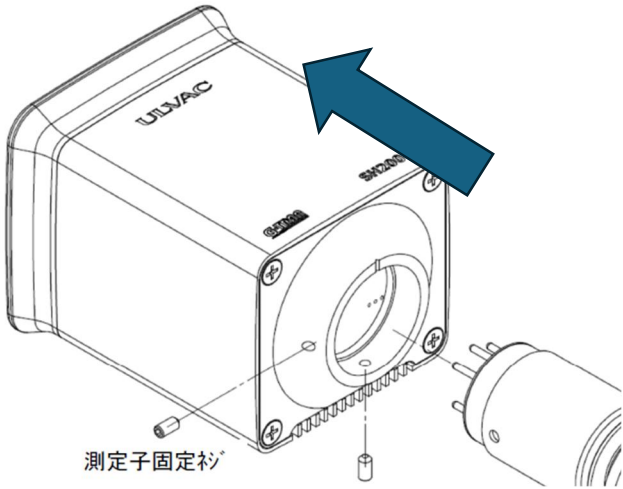
### 3. Tools for working with

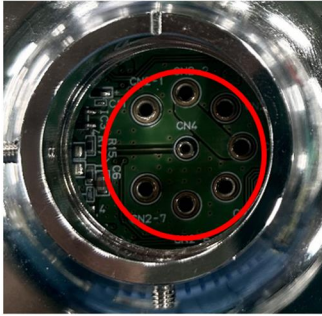


Please prepare the following tools before working.

Tools		Purpose and Specification
Screwdriver		For removing and fixing display cable connectors. Tip approx. 4 mm, plus or minus should be selected according to the specification of the D-sub connector on the device side.
Allen spanner		For removing and fixing the measuring element fixing screw. M3 (nominal 1.5)

**4. Procedure**

<p><b>1. Removal of the existing vacuum gauge</b>                  This is the process of removing the controller for which the condenser is to be replaced from the equipment.</p>		
<p>1-1</p>	<p>Removing the display cable (D-sub15pin)</p>	<p>If possible, disconnect the power supply to the vacuum gauge beforehand. Use a tool to unscrew the D-sub connector and remove the cable.</p> <div style="text-align: center;">  </div> <p>This connector contains the power supply, setpoint and pressure values of the IG. Please check in advance the interlocking conditions on the equipment side due to unplugging the connector.</p>
<p>1-2</p>	<p>Removing SWU cable                  *Only when using in combination mode.</p>	<p>Pull the cable out of the controller while pushing the connector latch in the direction of the cable insertion. Note that the connector may be damaged if it is forcibly pulled out.</p> <div style="text-align: center;">  </div> <p>Pull the connector out with this point pushed in.</p>

<p>1-3</p>	<p>Loosen the measuring element fixing screw.</p>	<p>Loosen the two fixing screws with an Allen spanner.</p> 
<p>1-4</p>	<p>Removing the controller</p>	<p>Pull the controller out axially. The vacuum inside the sensor is maintained when the controller is removed.</p> 
<p>1-6</p>	<p>Send back controller to our office</p>	<p>Please send it to us after curing it with air caps, etc.</p> <p>Please contact our sales or service offices for the destination.</p>

<b>2. Installation of alternative equipment</b> This is the process of attaching a replacement machine to the equipment.		
2-1	Controller installation	Check the layout of the sockets on the controller and the pins of the measuring unit before mounting. <div style="display: flex; justify-content: space-around; margin-top: 10px;">   </div>
2-2	Installation of the measuring element fixing screw	Tighten the two fixing screws evenly with an Allen key. <div style="text-align: center; margin-top: 10px;">  </div>
2-3	SWU cable installation *Only when used in combination mode.	Plug in the SWU cable. <p style="margin-top: 10px;">When using in combination mode, connect this cable before connecting the display cable. The external vacuum gauge is recognized when energized with this cable connected.</p> <p style="margin-top: 10px;">The SWU zero point and atmospheric pressure adjustment settings are stored inside the SWU and do not need to be readjusted after installation of the ionization vacuum gauge.</p>
2-4	Installing the display cable	Plug in the display cable and fix the screws.

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