

Update manual

# Pin-pointing system

**protrac®**

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# 1 ABOUT THIS MANUAL

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## 1.1 Using this manual

This update manual contains all the information you require to update the software and firmware versions of the system components of the protrac® pin-pointing system.

## 1.2 Applicable documents

This update manual applies in conjunction with the user manual for the protrac® pin-pointing system and other applicable documents.

## 1.3 Information on the screenshots used

The screenshots used are intended to illustrate the procedure and may differ slightly from the actual state.

## 2 UPDATING THE SOFTWARE AND FIRMWARE

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### 2.1 Updating the control unit software

#### Required equipment

- Empty USB drive (*FAT32* file system)
- PC or laptop
- Current software as ZIP file  
You can download the ZIP file from the BAUR website: <https://www.baur.eu>  
The ZIP file contains all the files you need to update the control unit software and the firmware of the acoustic ground probe.
- protrac® tool (included in the standard delivery)
- USB adapter cable (included in the standard delivery)

#### Procedure

The update process including automatic restart of the control unit takes approximately 2 – 3 minutes.

1. Make sure that the rechargeable or non-rechargeable batteries are fully charged, and stay with the device throughout the entire update process.
2. Download the ZIP file containing the current software.
3. Connect the USB drive to the PC or laptop.
4. Unzip the ZIP file to the USB drive.

**Important:** The software on the control unit can only be updated using the USB drive.

5. Open the battery compartment of the control unit carefully. Make sure that the rechargeable or non-rechargeable batteries do not fall out.
6. Connect the USB adapter cable to the mini USB port in the battery compartment.
7. Switch on the control unit and wait until the home screen is displayed.
8. Connect the USB drive to the USB adapter cable.

The update process starts automatically, after which the control unit is automatically restarted. This process can take 2–3 minutes.

9. Remove the USB drive and the USB adapter cable and close the battery compartment.

## 2.2 Updating the firmware of the acoustic ground probe

The update process involves the following steps:

1. Establish a Bluetooth® connection

Further information: Chapter *Pairing the laptop/PC with the acoustic ground probe* (on page 7)

2. Determine the COM port number of the AGP acoustic ground probe

Further information: Chapter *Determine the COM port number of the acoustic ground probe* (on page 9)

3. Update the firmware on the acoustic ground probe

Further information: Chapter *Updating the firmware of the acoustic ground probe* (on page 10)

**Note:** Administrator rights are **not** required to perform the update.

### Required equipment

- Laptop/PC with Bluetooth® function activated
- Current firmware and update software for the acoustic ground probe as a ZIP file  
You can download the ZIP file from the BAUR website: <https://www.baur.eu>  
The ZIP file contains all the files you need to update the control unit software and the firmware of the acoustic ground probe.

## 2.2.1 Pairing the laptop/PC with the acoustic ground probe

### Procedure for Windows 7

1. Switch on the acoustic ground probe.
2. On the laptop/PC, open the dialog **Devices and Printers**: Control Panel > **Hardware and Sound** > **Devices and Printers**
3. Click on **Add a Device**.  
The AGP acoustic ground probe is displayed as a multimedia device.  
**Note:** It can take a while before the acoustic ground probe appears in the list of devices.
4. Select the acoustic ground probe and click **Next**.  
If several acoustic ground probes are displayed, select the one with the desired serial number and click **Next**.  
**Note:** The identification for the acoustic ground probe contains the last 3 digits of the serial number of the acoustic ground probe.  
The acoustic ground probe is configured and shown as having been successfully added.
5. Click on **Close**.
6. Determine the COM port number of the acoustic ground probe.  
Further information: Chapter *Determine the COM port number of the acoustic ground probe* (on page 9)

## Procedure for Windows 10

1. Switch on the acoustic ground probe.
2. On the laptop/PC, open the **Manage Bluetooth devices** dialog. To do this, double-click the  symbol in the taskbar, for example.

A list of available Bluetooth® devices is displayed.

For further information on the Bluetooth® settings, use the operating system's help function.

**Note:** It can take a while before the acoustic ground probe appears in the list of devices. Wait until the acoustic ground probe is displayed and its status is **Ready to pair**.

3. Select the acoustic ground probe and click **Pair**.

If several acoustic ground probes are displayed, select the one with the desired serial number and click **Pair**.

The Bluetooth® connection between the laptop/PC and the acoustic ground probe is established. The acoustic ground probe is displayed as **Paired**.

4. Determine the COM port number of the acoustic ground probe.

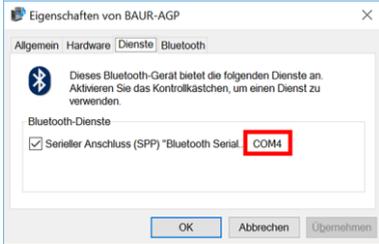
Further information: Chapter *Determine the COM port number of the acoustic ground probe* (on page 9)

### 2.2.2 Determine the COM port number of the acoustic ground probe

1. On the laptop/PC, open the dialog **Devices and Printers**: Control Panel > **Hardware and Sound** > **Devices and Printers**

A list of available devices is displayed. The AGP acoustic ground probe is displayed as a multimedia device.

2. Right-click on the acoustic ground probe and select the **Properties** context menu item.
3. Select the **Services** tab and note or write down the COM port number.



4. Continue with the firmware update.

Further information: Chapter *Updating the firmware of the acoustic ground probe* (on page 10)

### 2.2.3 Updating the firmware of the acoustic ground probe

1. If you have not yet unzipped the file: Unzip the ZIP file to the USB drive.

The files needed during the update process are located in the root directory of the USB drive:

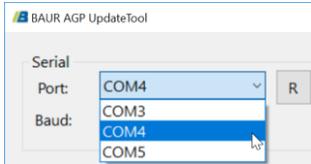
- *BAUR\_AGP\_UpdateTool\_vxxx.exe*
- *BAUR\_AGP\_Vxxxldr*

2. Switch on the acoustic ground probe.

3. Start the acoustic ground probe update software. To do this, double-click on the *BAUR\_AGP\_UpdateTool\_vxxx.exe* file.

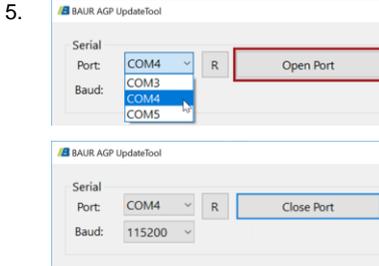


4. In the **Port** selection list, select the COM port number that has been determined.



If the COM port number is not displayed in the selection list, click on the **R** button.

The list is refreshed and the COM port number of your acoustic ground probe is displayed.

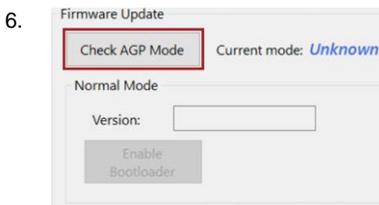


5. Click the **Open Port** button.

The text on the button changes to **Close Port**.

**Note:** If the text does not change, the Bluetooth® connection may have been interrupted. Pair the PC or laptop with the acoustic ground probe again.

Further information: Chapter *Pairing the laptop/PC with the acoustic ground probe* (on page 7)

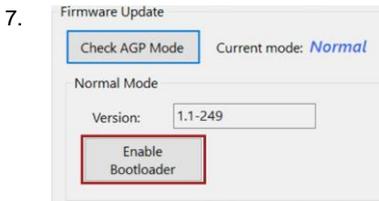


6. In the **Firmware Update** section, click on the **Check AGP Mode** button.

The current operating state of the acoustic ground probe is determined. At this point in the update process the acoustic ground probe is in the *Normal* operating state.

The current version of the firmware on the acoustic ground probe is displayed in the **Normal Mode** section. The **Enable Bootloader** button is active.

- ▶ If the current version of the firmware on the acoustic ground probe is not displayed, restart the laptop/PC and start the update process again.



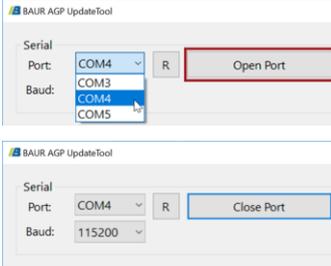
7. Click the **Enable Bootloader** button.

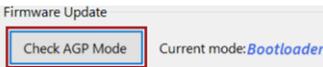
The acoustic ground probe switches to the *Bootloader* operating state. The operating state indicator LED flashes blue/green. The acoustic ground probe remains in this operating state until the firmware update is complete.

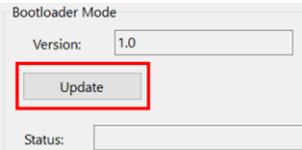


8. The message **Please reconnect COM-Port!** appears.

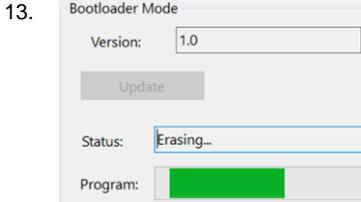
Confirm the message with **OK**.

9.  In the **Serial** section, click on the **Open Port** button. The text on the button changes to **Close Port**. **Note:** If the text does not change, the Bluetooth® connection may have been interrupted. Pair the PC or laptop with the acoustic ground probe again. Further information: Chapter *Pairing the laptop/PC with the acoustic ground probe* (on page 7)

10.  In the **Firmware Update** section, click on the **Check AGP Mode** button. The current operating state of the acoustic ground probe is determined. At this point in the update process the acoustic ground probe is in the *Bootloader* operating state. The operating state indicator LED flashes blue/green. The acoustic ground probe remains in this operating state until the firmware update is complete.

11.  In the **Bootloader Mode** section, click on the **Update** button. The **Update** dialog opens.

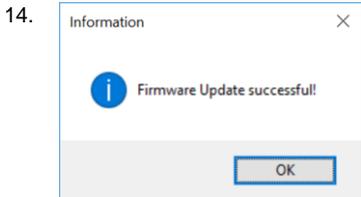
12. If the *BAUR\_AGP\_Vxxx.ldr* file has not been detected automatically, select it in the **Open** dialog.



The firmware is automatically updated. The text in the progress bar changes from **Erasing...** to **Programming...** and finally to **Verifying...**

This process can take several minutes.

When the update process is complete, a message appears stating that the update was successful.



Confirm the message with **OK**.

The updated firmware of the acoustic ground probe is immediately active; the acoustic ground probe does not need to be restarted.

The operating state indicator LED flashes blue.

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**Notes:**

- If there are any other protrac® Bluetooth® devices nearby, these may interfere with the update process. If an error message appears during the update, make sure that no other active Bluetooth® signal is present and start the update process again.
- If the error message **Erase fail** appears, restart the laptop/PC and start the update process again.



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