

## Resetting the Zero Position after exchanging the CCU of a Blue Phantom<sup>2</sup> System

### Introduction

For a Blue Phantom<sup>2</sup> system, the three-dimensional servo (the Blue Phantom<sup>2</sup> tank with mechanics) and the control unit (CCU) are pre-calibrated together in factory. Once the CCU is exchanged, the zero position of the servo coordinate system must be re-adjusted.

### Procedure

Connect the CCU to the servo and turn on the power. Wait until the system has initialized (up to 10 minutes) and the remote control screen is displaying the servo coordinates.

As a first step, move all axis of the phantom as close as possible to the zero position of the metal rulers.

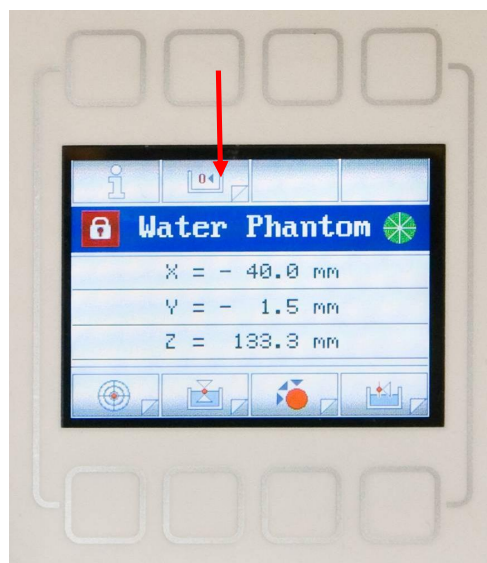
#### NOTICE

#### IMPORTANT NOTICE

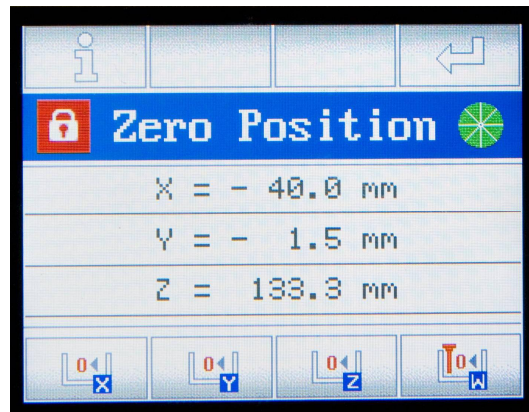
#### ZERO POSITION CANNOT BE REACHED

It might occur that this position cannot be reached or the mechanics does not move. If so, perform the zeroing at the current position, then move the axis in all three dimensions to the real zero position as indicated on the rulers, and then repeat the zeroing once more.

Push the soft button at the remote control to open the Zero Position interface at the remote control.



The Zero Position menu shows the following icons at the remote control:



Show explanation of the icons in the menu



Back to Water Phantom menu



Set zero position for X-dimension



Set zero position for Y-dimension



Set zero position for Z-dimension



Set zero position for W-dimension (TMR probe) while the float is on the lowest position (no water filled in)

Push all four icons at the remote control to set a new zero position for the sensors. The positions displayed on the remote control screen will change accordingly from the previous position value to zero. The position value of the TMR probe will not be displayed on the remote control.

If no TMR probe is mounted in the **Blue Phantom<sup>2</sup>**, the water level sensor button can be ignored.

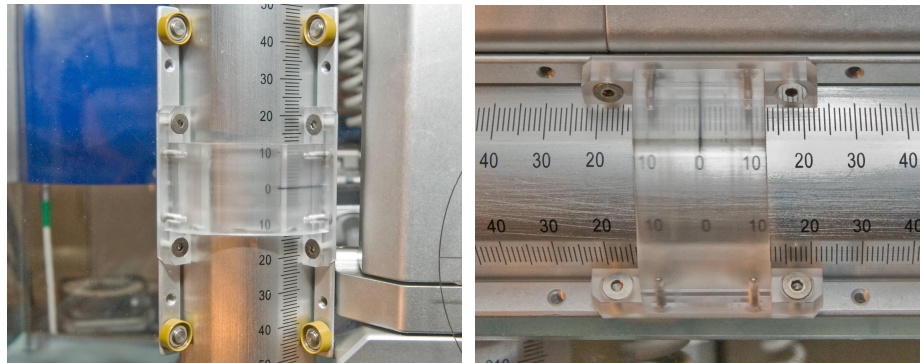
## NOTICE

### IMPORTANT NOTICE

#### ZERO POSITION OF TMR SENSOR

Please note that the zero position of the TMR sensor need to be defined in an empty phantom with floater at the bottom of the TMR-tube.

Verify that the positions of the position markers at the **Blue Phantom<sup>2</sup>** axis are the same as the positions displayed on the remote control.



*Position indicators at Z and Y axis*

Finally, move each axis with the remote control the end positions in both directions. If the zeroing has been performed correctly, the slider should stop automatically before it moves against the block at the end of the axis.

Should the slider move against the block (visual or by sound), the zero position needs to be reviewed. The margins / tolerances for the zero position are very small and the position indicator at the axis should match exactly to the zero markers at the ruler. Repeat the zeroing procedure and test on demand.

After this final review, leave the zeroing menu at the remote control by pressing the return button.



### **In case of any questions, please contact us under:**

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### **Reference:**

PW-04-002-510-003 03 **Blue Phantom<sup>2</sup>** User's Guide version 3.0; 10.5.2 Redefine zero position, p142