# COLLISION: TUBE UNABLE TO AUTOTRACK WALLSTAND BELOW SAFETY HEIGHT

APPLICABLE TO:	Intuition 4C system
ERROR MESSAGES:	Collision
INFORMATION:	This instruction covers how to find the most common root causes when autotracking towards Wallstand is disabled below safety height.

#### HOW THE AFFECTED FUNCTIONALITY IN THE SYSTEM <u>SHOULD</u> WORK:

When autotracking towards Wallstand is selected and Alpha is angled more than 45 degrees (+ or -) it should be possible to perform the entire movement stroke of Wallstand with autotracking functionality keeping the alignment with tube.

#### SYMPTOMS OF THIS ERROR:

It is possible to perform autotracking towards Wallstand in upper area but when safety height (at the distance of 1240 mm for two column table or 1170 mm for closed table, measured from bottom of collimator to floor) is reached the tube movement stops.

#### **POSSIBLE CAUSES:**

- SW/HW incompatibility (OIB-board needed and cables needed)
- Problem with Alpha angle switch
- Problem with IR-sensor (optional)

## **ACTION STEPS:**

Follow all instructions stated on next pages, from step 1 to step 4.

#### STEP 1 -- Check SW/HW compatibility

If system software version is 4.00 or later additional wires and a circuit board (OIB) must be installed.

Check release document "SwRLN\_0180-4C.pdf" and compare with your systems version:



**EXPLANATION:** If all **node versions in release note (blue)** match with **all node versions in tube display (green)** the **system** runs on **version stated in release note (red)**. Above example shows that **system version** is **4.2.0**.

If software version is 4.0.0 or later, check that an OIB is installed.

It is located behind the tube display, underneath the upper tube cover:



#### STEP 2 -- Check mechanical adjustments

Read the entire procedure on adjusting "safety height" in the Installation and Service manual delivered with your system. Make sure the calibration is performed correctly and that the mechanical adjustment of lever activating microswitches in tube stand acts accordingly:



#### NOTE!

The lever (B) should lift when the lowest point of tube stand is at a height of 1240 mm to floor and below (or 1170 mm and below for the closed table – see system manual for reference). When the lever lifts it deactivates the microswitches (A) and this will electrically inhibit downwards tube movement (during autotracking only).

### STEP 3 -- Check Alpha angle switch

While rotating Alpha angle further than -45 or +45 degrees, make sure the microswitch on Alpha gets activated:



Even if the microswitch gets mechanically activated, also confirm that the signal is coming through. Unplug connector J12 on SBB circuit board (1.5SBB01) and measure continuity while changing state of the microswitch:



## STEP 4 -- Check IR sensor switch (optional)

The IR sensor is an optional feature. It is used to protect the tube from colliding with the table (or an external object) during autotracking towards Wallstand in the case of unintended usage.

Check if the IR sensor is activated or not.

When the Alpha angle switch is activated there should be 24 VDC on TP5 (test point 5) of the SBB-board. If not, it indicates and issue with the IR-sensor. See below schematic for reference:



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