# PSL XY Align:
# Quick Start Guide

## 1. Hardware Installation

The system will be received laid out as follows:
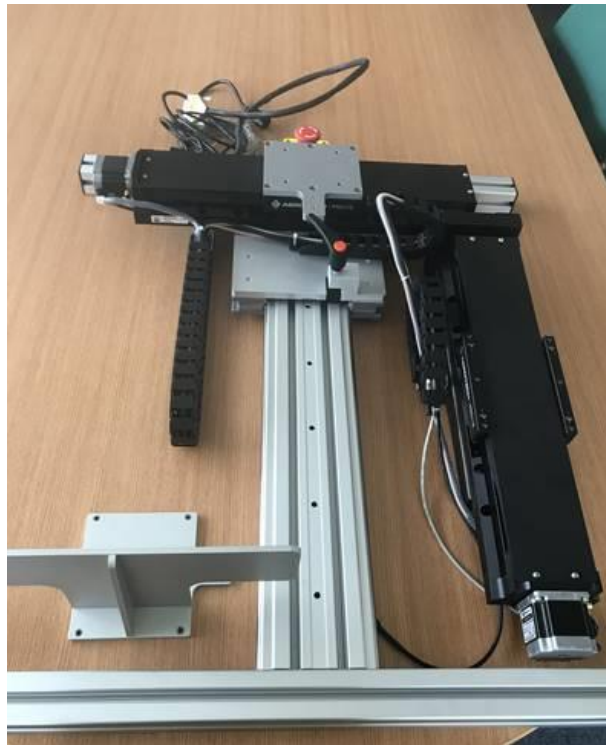


*Figure 1*

Firstly, place the upright stage onto the silver stage as shown in figure 2 and use the 4 shorter M6 screws to fix in place.

*Figure 2*

Attach the now loose cable onto the base plate using 2 of the pozi head screws, shown below in figure 3. It is attached on the small extrusion by the handle. After this use a cable tie to tidy up the cables, shown in figure 4.



*Figure 3*

*Figure 4*

Finally, attach the telescope holding plate onto the vertical stage. There are 6 M5 screws to hold the plate. There are also another 2 pozi head screws to hold the cable to this plate as well. The final assembly should be as follows:



*Figure 5*

**NOTE: In order to prevent malfunction of the hardware please ensure the PMC 3B is powered OFF before proceeding to fit cables**

A single 25 way connector should then run from the XY align stage to the back of the PMC 3B. Then connect the PMC 3B to the computer using the USB cable. After this connect the power cord to the PMC 3B and mains supply.

Following these steps, place the TEL310 on to the stage and connect power an USB cables if necessary.

# 2. Software Installation

**NOTE: If BenWin+ has been installed previously please back up all scans and configuration files before continuing. These folders are normally found under C:\Users\Public\Documents\Bentham\BenWin+**

Users should have been provided with an additional USB stick, upon which the software to run the stages can be found. Place this into a USB port on the computer attached to the PSL Align System.

Upon clicking on setup user will be presented with this window:



*Figure 6*

To install the utilities that enable the user to move the stage, users are directed to click on the BenWin+ installer.

# 3. TEL3xx Utility

Load Benwin+ and navigate to Utilities → TEL3xx. This should load up the utility and allow users to control the movement of the TEL310 and stage.
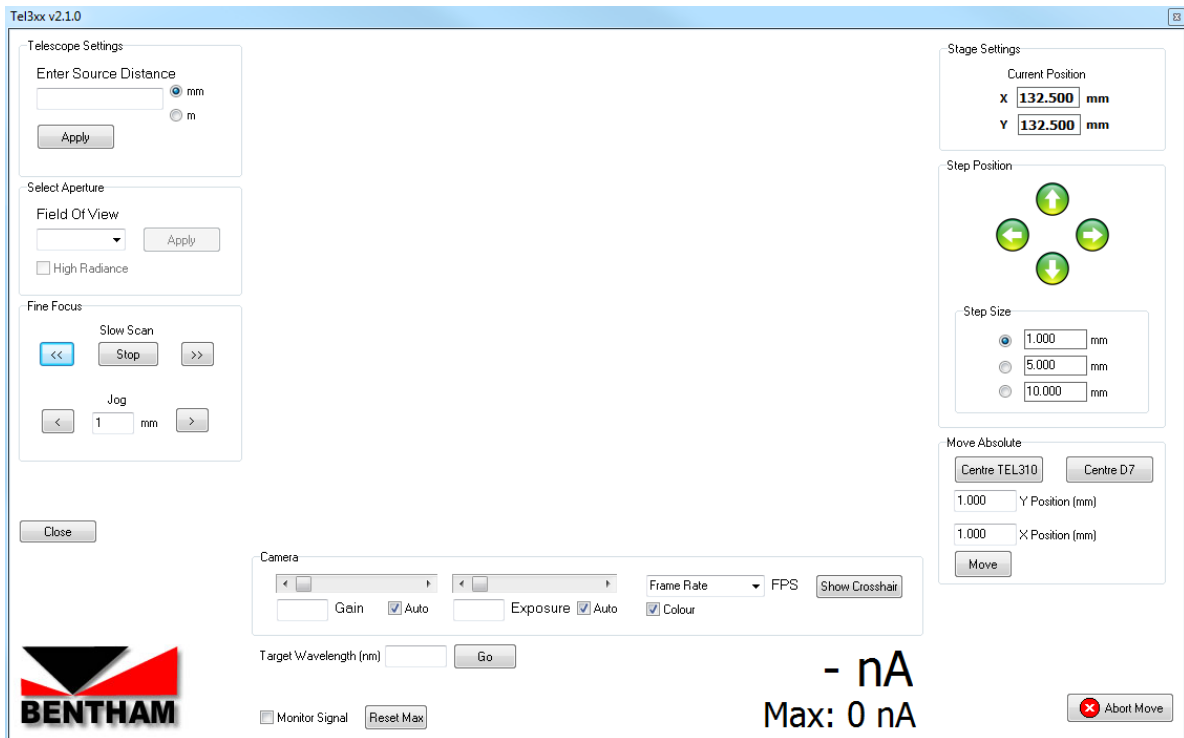


*Figure 7*

To adjust the position of the stage users should use the panels on the right of the window. The top panel, Stage Settings, denotes the current position of the stage.

The middle panel, Step Position, allows the users to step the stage vertically and horizontally using the ↑↓ and ←→ arrows respectively. This panel also allows the user to define the step size as they wish.

The lowermost panel, Move Absolute, allows the user to move the stage to absolute locations within the limit of movement. Pressing 'Centre TEL310' or 'Centre D7' will move the stage such that either the TEL310 or D7 Diffuser are in the centre of the limits. Alternatively, users can send the stage to absolute locations using the X and Y positions and then clicking the 'Move' button.

It should be noted that users can also move the stage in the z-axis (i.e. forwards and backwards with respect to the source). However, this is manually performed by the user.