

Jefferson Lab Alignment Group

LASER TRACKER SETUP PROCEDURE

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Procedure Overview

This procedure describes the steps necessary to setup the Laser Tracker.

Safety issues

The Laser Tracker is a class 2 laser. Do not look directly into the beam. Warn people in the area verbally and set out signs. Laser training and eye protection is not necessary for class 2 lasers. Refer to EH&S manual section 6410 for more detail.

Also, if necessary, ensure power and communication cords are secured to prevent trip hazards.

Refer to general survey hazard analysis for other issues concerning lifting, equipment transfer, etc.

Prerequisites

Basic understanding of the Laser Tracker and its components.

Procedure Steps

Step by step description of actions taken.

STEP 1

Connect the Laser Tracker backup / surge protector. **Always use a backup / surge protector.** We have 2 backups / surge protectors for use when using the Laser Tracker. One is mounted directly to the black cart and the other is free standing for use in areas where the cart cannot go. Connect the backup / surge protector cord to the power source and push the top button on the front of the

backup. All lights on the front of the backup should turn solid green if connected properly.

STEP 2

Connect the TCU (Tracker Control Unit) power cord to the back of the backup / surge protector.

STEP 3

Connect the gray temperature probe to connection no. 1 on the side of the TCU.

STEP 4

Connect the communication cable to the back of the TCU.

STEP 5

Connect the Tracker power cable (long heavy duty black cord) to the Tracker and the front of the TCU.

STEP 6

Turn on the TCU by flipping the switch on the back of the TCU.

Note: Never turn on the TCU before connecting the Tracker power cable to the Tracker and the TCU. This will result in severe damage to the Tracker and TCU.

STEP 7

The lights on the front of the Laser Tracker should begin to flash. The computer can be setup and powered up. The communication cable from the back of the TCU can now be connected to the computer. Once all the lights stop flashing the Tracker will be warm and the operator may proceed with the Tracker calibration.