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**Title: TopoLIFT Installation Instructions—DRAFT**

Congratulations on your purchase of TopoLIFT. TopoLIFT's patent pending design has been developed to dramatically increase the productivity of your laser scanning system. TopoLIFT is very easy to install and use. Please contact C3D with any questions.



Begin by placing the LIFT assembly behind the open bed pick-up truck. (Two people)



Two people are needed to lift the assembly into the bed of the pick-up.



Loosen the nuts behind the slide on both clamp assemblies. Slide the clamp up to the top position and tighten just so it doesn't fall.



Slide the LIFT back positioning the clamp such that the flat metal plate at the end of the slide arm will slide down between the bed and cab.



Loosen the slide bolts and move the slide down such that the clamp will squeeze the back wall of the truck bed. Tighten slide bolts. Tighten clamp screw. Note that you may need flat metal plate between rubber screw end and back of cab wall—depends on shape of cab wall



Install 12VDC battery on battery tray. Connect cable to posts—red to +, black to - . Battery should last a long time. Example, 120 lifts at 5amp draw, 15 secs/lift is only 2.5 amp-hours.

Note: It is possible to run TopoLIFT from vehicle power. We leave it to our customers to rewire and assure sufficient current for proper function.



Turn on power switch on electronics box



Place bridge on lift. Double bracket side on driver's side of truck.



Open bracket



Insert poles and close clamps  
(Do not tighten—allow poles to  
move relatively freely within  
clamps.)



Attach tower—make sure its seated well without an wobble with respect to bridge plate.



Mount scanner to same 5/8" bolt at top of tower.



Engage lift with remote to raise lift thereby lifting bridge and scanner to desired operational height. Keep in mind that you have to keep about 10 inches of lift travel between the operating height and the upper bridge limit. (Otherwise you couldn't lift the bridge off the ground.)



Upon reaching the operational height bring down legs to the ground (they may bind and travel up with the bridge.) Now tighten clamps securely thereby defining the operational height of the scanner.



Now a single click on button “1” will raise the bridge automatically. The bridge will stop when the upper limit is reached.

Once bridge stops at upper limit, an additional click on button “1” is required to “release” bridge from up position. Button “3” will bring the entire bridge down until the lower limit switch is reached. Similarly, an additional click on “3” is required to “release” bridge from down position. A rule of thumb for quick operation is: “13 down, 31 up”.

Once the bridge is disengaged from the lift, it is free standing and isolated from any vehicle movement and ready for scanning operation.

Note: You will find the free-standing bridge assembly relatively stable along the vehicle direction of travel on the two-legged (driver’s side). Also it is relatively stable in the orthogonal direction across the vehicle. On the single leg side however, one can shake the bridge assembly relatively easily along the direction of vehicle travel. Don’t be dismayed—our first advice is not to shake the leg. Under nominal weather conditions, away from very fast traffic, there is little surface area for wind and the scanner mass is too small to induce any movement. So there is no problem. Pay attention to your data for evidence of any movement.

Under more extreme conditions, say high winds and/or fast passing traffic (large trucks), the bridge may vibrate. In this case, employ the stabilization legs on the single leg by extending them to the ground and pushing the firmly into the ground like a tripod. This only takes a few seconds. These two additional legs will stabilize the single leg along the vehicle travel direction.