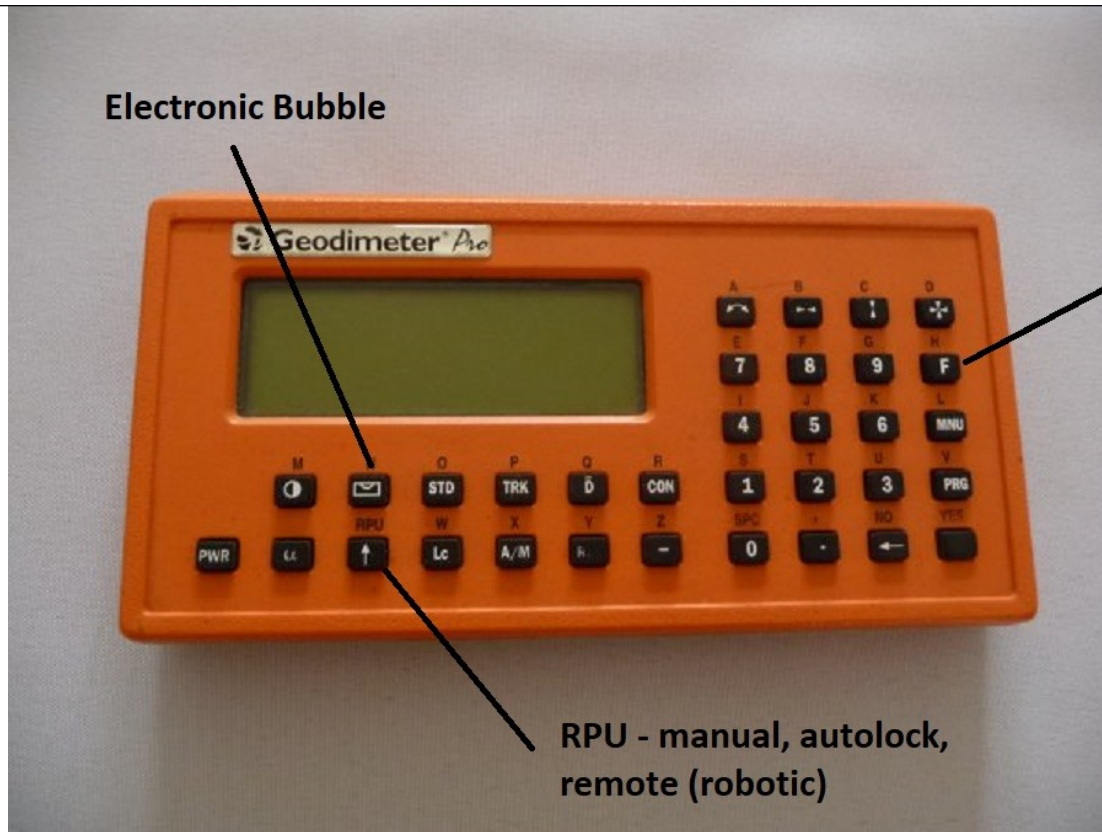


1	<p>Make sure everyone involved in the survey is aware of the need to protect the equipment. If you see it falling, catch it. Don't bump the instrument, but if you do, tell the operator so that it can be checked and reset if necessary.</p>
2	<p>Set up the tripod approximately over the mark and approximately level. There are some pen marks on the legs to show a reasonable position to extend the legs (the top black bracket) to, to get it to a reasonable height, however these marks are faded. The triangle strap between the legs should probably be reconnected (one side was disconnected to allow the tripod to be extended higher) as this strap is another safety device to stop the legs sliding out and hence stop the tripod from collapsing.</p>
3	<p>Carefully lift the TS out of the box and remove the tribrach then put the TS back in the box, making sure it doesn't damage the keyboard. Put the tribrach on the tripod and lock it on. First, kill the parallax by turning out fully the inner (larger) focus ring, then get the cross-hairs sharp by turning the eye-piece focus (outer), then use the inner focus ring to focus on the mark - when the image is sharp (including the cross-hairs), there should be no parallax. Then roughly re-level and recentre over the mark by looking through the tribrach eye piece. Hold two legs and move it around by looking through the eye piece. Drill holes in the ground for the tripod leg tips and stand on the legs to set them into the holes. There are two reasons for drilling holes - to stop the legs from slipping out, to reduce creep of the setup while it is being used as the reaction of the robotic motors produces twist on the legs.</p>
4	<p>Centre and level the setup by picking two legs to chase the bubble, lock the leg that is not being used. Get the bubble reasonably centred and the sight on the mark - fine adjustment will be done with the TS. Lock the two legs, i.e. the thumbscrews - the cam locks are not tight enough on their own.</p>
	
5	<p>Carefully (one hand on the handle, the other under the base) put the TS on the tribrach and close the tribrach lock. Recheck that the tripod screw into the tribrach is also locked. Connect up all the cables and power up the instrument with the keyboard. If it goes to local mode, disconnect power at the TS and try again. Level the TS electronic bubble. Press yes to run the compensator, press yes to all the parameters (the last one, ref angle might be no). F22 0 turn compensator off. Press the electronic bubble and level again. Check eye piece to see if still centred on mark, slide and relock if needed, re-level, re-check ... Turn off the electronic bubble. F 22 1 to turn the compensator back on, let it re-run, yes to all the parameters.</p>

**Electronic Bubble**



**Function**

**RPU - manual, autolock,  
remote (robotic)**

6	Spin (robot screws only, not by manually turning) the TS so that the side mark is between tripod legs and measure the instrument height, reduce by 2mm to account for the angle.
7	Put the TS into robotic mode. RPU 3, 1 (ok), no to the next two questions. It then should say press any key, I just press yes. Keyboard will shut down and so will the TS. Remove the keyboard and put it in the case.
8	Power on the Nomad, connect the serial port to the round port cables where the keyboard was connected. Start SurvCE and "restart" the TS via the Equip tab ("Geo Robo ...", I think) - however, the last setup is correct, so just need to green tick it). The instrument will then restart and will now be controlled by SurvCE, either with the radio or wired.
9	Do station setup by Store Points, select tripod symbol, put in stations and heights, set backsight angle by autolock onto tracking prism - you'll need to search for the prism first to get it to lock/track..
10	Take check shot using standard measure (change to fast for topo and reflectorless). Check by inverse (hard hat menu).
11	When manual sighting, kill the parallax first, as per tribrach eye piece.