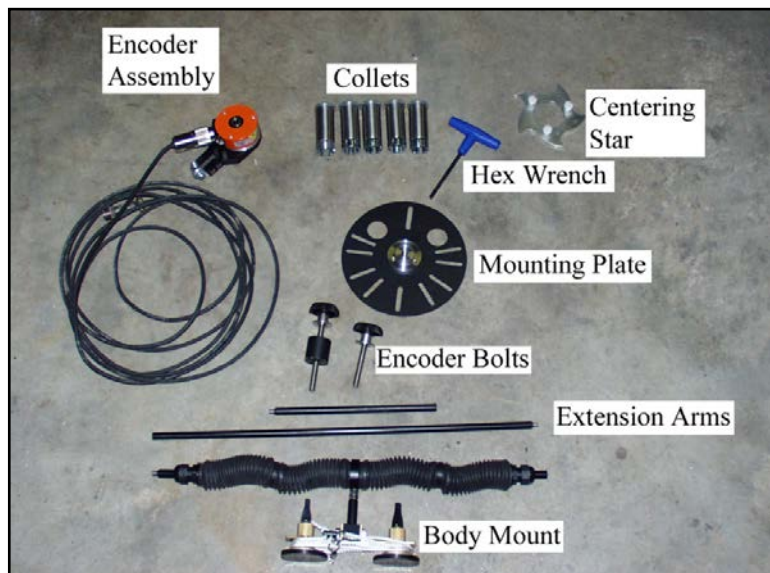




Model 630B Distance Measuring Instrument (DMI) Assembly Guide

Thank you for purchasing a Model 630B Distance Measuring Instrument (DMI). The 630B represents the state-of-the-art in high-speed, high-accuracy survey control. Please take a moment to compare the contents of your order with the image and list below.

If anything is missing or damaged, please contact your GSSI sales representative immediately at (603)893-1109, Monday-Friday, 8 AM-5 PM US Eastern Time.



Included Parts

Assembly and Attaching the DMI to the Vehicle

The 630B is designed to be used on the rear wheel of a vehicle. Do not attempt to mount the 630B on the front wheel of the vehicle.

1 Prepare the Wheel

Remove any hubcaps or other covering from the wheel.

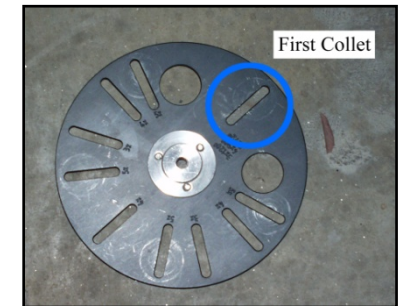
2 Attach the Collets

Remove the bolt and washer from the collets and then firmly seat collets on top of lug nuts. It may be necessary to use a rubber or wooden mallet to ensure a tight fit. If you have more than 5 lug nuts, make sure that the collets are evenly distributed. For example, if you have 6 lug nuts and 3 collets, you should place a collet on every other nut.



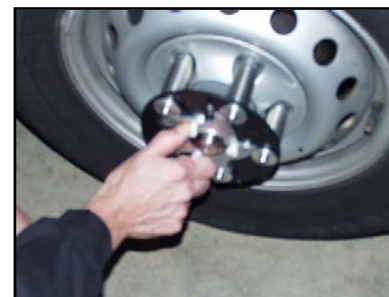
3 Place Mounting Plate on Collets

Find the black metal mounting plate. You will notice that there are 3x, 4x, and 5x etched out next to the vertical cutouts. This refers to the number of collets you are using and these numbers will assist you correctly place the plate on the wheel. Place the plate against the collets so that the side with the etching faces you. Loosely screw one of the bolts with the washer into the "First Collet" vertical cutout. Now loosely screw the other bolts into the collets using the appropriate vertical cutouts.



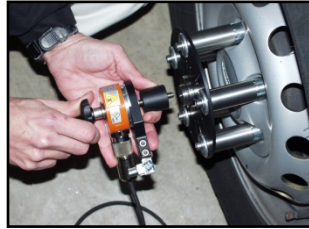
4 Center Mounting Plate on Collets

Find the Centering Star with the same number of points as the number of collets you have. Position it on the mounting plate and spin it clockwise. It will ensure that the mounting plate is properly centered on the wheel. Tighten the collet bolts with the Hex wrench. Only hand-tighten.



5 Attaching the Encoder Assembly

Decide if you need to use the short encoder bolt or the long one with the spacer. If you have a wheel which is deeply inset, or overhanging body panel, you may want the longer bolt. Run the bolt through the encoder assembly and then through the spacer (if needed) and then screw into the center of the mounting plate. Hand-tighten securely.



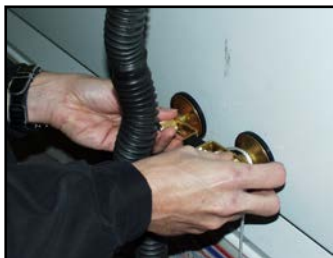
6 Attaching the Extension Arms

The 630B comes with two extension arms to add to the body mount. Decide which combination you need in order to place the body mount at a proper height on the vehicle. Bear in mind that the body mount should be placed on a flat, vertical surface. Screw the proper extension arm into the encoder assembly and then screw the other end into the body mount arm. Connection points are noted in the picture at the right with blue circles.



7 Attaching the Body Mount

Find a flat spot on a body panel directly above the encoder assembly. Make sure that the location is clean and dry. Moistening the suction cups may provide better adhesion. Firmly press the body mount suction cups against the vehicle and flip the locking switches on the cups to secure. Find some way to attach the safety strap clip to the vehicle (roof rack, bed tie down, door handle, etc).



8 Secure Cable

Run the data cable from the encoder assembly to the survey wheel input on the GPR control unit. Be sure to attach the cable in such a way so that it is secure and will not get caught on anything or drag on the ground. Having the cable catch on the wheel or other object while the vehicle is in motion will likely cause enormous damage to the 630B and the GPR control unit.



Properly assembled mount and secured cable.