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BIG E-GO

Purple Line's European-designed power trailer mover makes negotiating tight spots and hitching up as easy as pushing a button on a remote control

It isn't exactly a well-protected trade secret that trailers are big, boxy and bulky, and often difficult to maneuver into tight places. A prime example is when multiple movements back and forth are necessary because of campsite size constraints. Another complication is maneuvering a large tow vehicle into position for hitching up, particularly on one's own. Adding these ingredients using the classic recipe usually cooks up a nice serving of extra work and frustration.

A few products have been designed to aid in these situations, but most are not practical for home use or in a campground environment. However, the American RV market now has access to a trailer moving product that has been used in Europe for a long time, one that offers superior hitch-up support and convenient remote control. The Purple Line E-Go has been adapted to fit U.S. RV frame shapes and sizes, and is designed to allow owners the benefit of moving trailers into tight spaces, just as they do in Europe, where storage space is at a premium. Purple Line has packaged a ready-to-install power-trailer-mover system that utilizes a series of two or four motor units, providing maneuverability not previously experienced by American trailer owners.

Weight dictates the suitability of the E-Go. The system can move trailers up to 5,000 pounds using two motors or up to 7,800 pounds with a four-motor installation. In the case of our project trailer, a four-motor setup was necessary. Provided with the four-motor kit is everything needed to complete the installation including bolts, brackets, two sets of main- and cross-actuation bars, chassis (mounting) plates, spacers, specialty tools, control units and remote, and a wire-numbering system to boot. About the only things needed are a good drill with sharp bits, a 3/8-inch ratchet with corresponding metric sockets, metric and adjustable wrenches, a hole saw and basic wiring hand tools such as crimpers and cable cutters.

With regard to the installation time, you'll likely have one solid day's work invested, but as with any project, the great unknown comes into play, so do it right and make it an easy-paced

(1) Once the trailer is level and the tires chocked, it's best to use a floor jack to hold the motor assembly in place. (2) Find the proper location for the adapter plates and (3) mock up the installation to make sure the brackets will fit. (4) Use a clamp to hold the adapter plates in place to facilitate drilling the holes through the frame.

weekend project for you and a helper.

To begin the fitting process, find a clean, level workplace and secure the trailer with suitable chocks so it's immobilized. Before diving in, double-check that all parts and hardware are present, and ensure that all four rollers attached to the E-Go motors have been fully disengaged according to the directions and built-in sight windows. It's also a good idea to take a quick peek at the target install area to be sure all moving parts and plumbing, etc., are free and clear. Once everything passes inspection, determine which of the enclosed chassis clamp plates and braces (either L-shaped or I-profile) are to be used, based on the type of chassis frame — I-beam or tube.

After picking the correct plates, line them up appropriately, providing correct tire-to-roller alignment and sufficient spacing, while still allowing for proper engagement of the E-Go roller. We found that it was easier to utilize a floor jack to support each motor unit while mocking up the installation and checking fit. Also helpful for the install were a couple of locking-type pliers or C-clamps to hold the L-chassis clamp plates to the frame for marking and drilling.

One more quick tip: try using a silver permanent marker to make your reference points more visible on dark areas and use a black marker on bright surfaces. From here, it's a matter of drilling through the clamped-on plates and both sides of the frame. It is also imperative to look through the ends of the frame before drilling to find any wires that may have been run inside for the brakes, as was the case with the project trailer. When working on an I-beam chassis, special sliding mounts and extra plates take the place of drilling.

(5) With the chassis clamps in place, the crossbars can be positioned after assembling all the parts for one axle (6 and 7) and then tightened and torqued to spec. (8) Once the fit is confirmed, a 20mm spacer (not shown) is used to set the distance between the rollers and tires. Duct tape (arrow) can be used to tape the spacer to the roller during adjustment.

The chassis clamp mounts can now be permanently attached to the frame via the M10 x 55-millimeter chassis clamp bolts and associated washers with nylon insert lock nuts. Using two of the motor units and all three sizes of actuation hardware and crossbars, loosely assemble everything that will make up one axle. Now the whole axle assembly can to be lifted near its respective L-plate locations with the floor jack and/or some kind of blocks, before loosely bolting together the three plates, which ultimately affixes the entire drive arrangement to the trailer. You can then finish adjusting and aligning the entire apparatus, per the instructions.

This is when the roller distance spacers come into play and should be temporarily held in place with duct tape. Once you're pleased with the alignment, all remaining bolts and nuts can be torqued as specified in the instructions. For the other axle, simply flip the brackets and motor units around and repeat the install process; it will be much easier and faster the second time around.

With all the hard mounting complete, installing the electronic control units, power-isolation key and wiring are the only items left on the to-do list. For mounting the two control units that are required to run a four-motor setup, a dry storage compartment location within about 2 feet or so of the batteries is ideal. To finalize the wiring portion to the control

(9) After the spacing between the roller and tire has been set, the remaining bolts are tightened and torqued (40 lb-ft). (10) Two electronic control units are needed for a tandem axle installation. Here they are mounted near the batteries, and a hole is drilled in the floor to (11) route the wiring.

units, a hole approximately 1¼-inch will need to be drilled in the floor near the electronic boxes. As for the power-isolation key (battery disconnect), find a suitable home somewhere between the batteries and control units where it's safe to drill another hole.

Pay close attention to details clearly laid out in the instructions when routing the heavy-gauge wires to and from the motor units, electronic control units and batteries. It is obvious that Purple Line intended for a clean fit and finish by integrating split-loom conduit, plenty of wiring terminals, P-clips and even wire ties. Using the ultra handy numbering flags prevents any wiring confusion.

After completing the task of wiring all the associated electrical components, the rollers should be tested for proper direction. To verify the correct travel operation, the electronic control units and the remote handset must first be calibrated. This is easily done by removing and replacing one AAA battery in conjunction with

(12) With the control units securely mounted to the wall, the wires are connected to their respective terminals. (13) The kit includes split-loom conduit that is used to protect all the wiring.

pressing a button until a long beep is heard, followed by silence. Assuming everything works out as planned the first time, it's finally time to engage all four rollers to the tires — again, referring to the instructions and sight windows. From here, it's time for the real-world testing, referring to the manual once again to determine the operating mode that will work best for your trailer and conditions.

One of the most crucial elements for the E-Go to work as designed is the utilization of a front pivot point, which is dependent on the A-frame jack wheel. It's critical to have a strong and smooth rolling wheel, which means most of the cheap wheels used on trailers will not work properly. Do your homework here and don't skimp on quality for cost.

Once we had everything dialed in, it became apparent that the Europeans really do know something about moving trailers in tight places. The E-Go out-performed our expectations, moving the trailer easily and confidently, with the "brains" to provide unexpected features such as an initial soft start and

(14) There's plenty of split-loom conduit and wire, so take the time to route the wiring around potential hazards. Use clamps and cable ties to secure all the wiring. (15) The battery disconnect switch is installed in a convenient location. (16) The drill motor and supplied socket tool are used to engage and disengage rollers. (17) A remote control makes maneuvering the trailer a snap.

a smooth transition to full speed. The E-Go is capable of turning the trailer in almost military-tank fashion without harsh tire scrubbing. It's kind of like playing with a remote-control model car, which is fun for you and entertaining to onlookers.

The motors, with a direct gear drive, have a lot of torque and moved the test trailer, which weighs close to the safe working load of the system, with little effort. Careful consideration has been taken to keep the components resistant to corrosion, and all the parts are warranted for two years; the rollers have a lifetime warranty. While the four-motor system has a relatively expensive price tag of $2,999, it can be removed and reinstalled if the trailer is traded for a new one.

Eliminating solo hitch-up hang-ups by bringing the trailer to the tow vehicle via the remote control and maneuvering the trailer in places that normally create driver frustration make the Purple Line E-Go a sound investment and much cheaper than repairing trailer body damage.

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