



# TR2 - Tru-Trac<sup>TM</sup> Installation Instructions

## Notes

- 1. For installation, spring tensioning, and removal of the Tru-Trac<sup>™</sup> unit itself, refer to Technical Bulletin TB-518.
- 2. To install a TR2 rack-based gearing system, see the instructions below.
- 3. It is most common to mount the rack on the moving component of the system, and to mount the TR2 encoder on the stationary component.

## **Required Tools**

- EPC Rack Spacer Block ~ TR2 accessory part number # 176219
- 5/32" or 4 mm hex "L" key and 7/16" end wrench
- 3/32" hex "L" key

### Installation

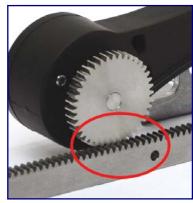
- 1. Place the rack section against the mounting surface.
  - A mounting surface that is flat within +/-0.001" is preferred.
  - Either the side mounting holes or bottom mounting holes may be used.
- 2. Insert 6-32 UNC screws into the available holes and tighten securely.
- 3. Mount the encoder with the pinion gear aligned to the rack so that it will run in the center.
  - Misalignment will cause unnecessary wear on the pinion and the rack teeth.
- Adjust the Tru-Trac<sup>™</sup> spring tension so that the pinion teeth are positively engaged to the rack, and ensure that the spring travel is not up against the stops.
  - For most applications, a spring setting in its midrange (2-3 lbs.) is sufficient.
  - A properly adjusted spring should allow the Tru-Trac<sup>TM</sup> pinion to be lifted 1/8" to 1/4" above the surface of the rack.
- 5. To create rack lengths over 36" long, use the rack spacer block to accurately join two or more pieces of rack. (View bottom right photos)
  - Place the spacer block upside down over the gap between the two adjacent pieces of rack.
  - Clamp the spacer block securely in place so that the teeth of both pieces of rack are fully engaged.
  - Use a straight-edge or sight level to align the adjacent rack pieces along their length.
  - Tighten the mounting screws in the rack evenly until secure.
  - Remove the spacer block and clamps.

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#### Perfect TR2 Rack and Pinion Fit





Pinion misalignment can cause inaccuracies or wear.







**TB522 Page 1 of 1**