



Assembly and Installation Guidelines

Strength Equipment



Table of Contents	
General Best Practices	Tie Rod Ends
Bolt Torque Specifications	Pad Bolts
Supplies	Cable and Belt Tensioning
Dis-assembly and Re-assembly	Carabiners
Frame Connections	Guide Rod Lubrication
Pivot Joints and Axles	

General Best Practices

- ALWAYS start threading a bolt by hand.
- Nyloc nuts must have 3-4 threads pass throw it and should not be reused if you can avoid it.
- Know your power tools. Do not over tighten bolts with a power tool. Remember, bolts that have a torque spec., must be tightened at the end with a torque wrench.
- When removing bolts during dis-assembly, always put them back where they came from, so you remember what goes where and you don't risk losing hardware in transport.
- Owner's manuals typically will include assembly instructions while some equipment may have a QR code. When scanned will take you to an assembly guide/video.

Bolt Torque Specifications

A torque wrench able to read N-m or ft-lbs. is required.

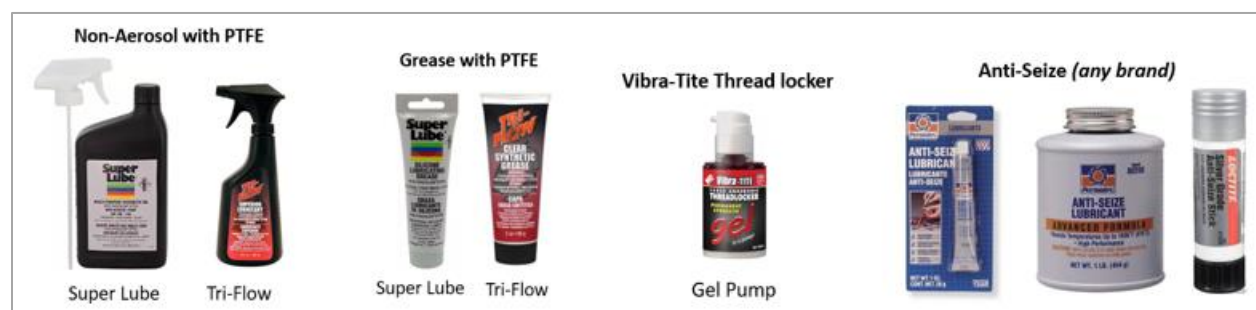
Connection/Bolt Size	Torque
Axle Arm	180 N-m / 133 ft-lbs.
M12 Bolts & Nuts (Flowdrill)	100 N-m / 74 ft-lbs.
M10 Bolts & Nuts (Flowdrill)	77 N-m / 57 ft-lbs.
M10 Bolts (Rivnut)	40 N-m / 30 ft-lbs.
M8 Bolts	25 N-m / 18 ft-lbs.
M8 Bolts (Plastic) & M6 Bolts	15 N-m / 11 ft-lbs.
Pad bolts	10 N-m / 7 ft-lbs.

Important: Never used power tools when installing a bolt that has a torque spec.

Supplies

Part #'s show below, are available to US and Canada customers only. For other countries, please contact your local Vision dealer or country's website.

Supply	Part #	Purpose
Super Lube w PTFE Non-Aerosol	ZMS4010636	Strength guide rods
Super Lube w PTFE Grease	ZMS4003063	Bearings, axles, and joints
Vibra-Tite Thread locker - Red		Strength bolts M6 and higher
Anti-Seize		For tie rod shafts



Dis-assembly and Re-assembly of Selectorized Product

Units should be disassembled only when they cannot fit through spaces (doors, hallways, etc.). The best option for disassembly is to disconnect the frame from the weight stack.



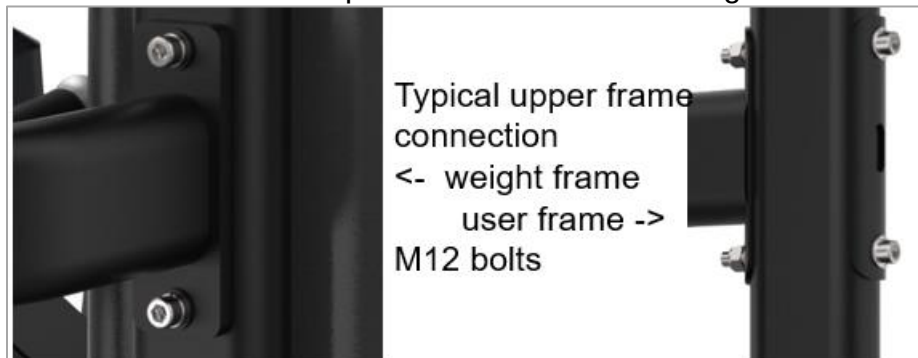
Best Practices:

- Reinstall the hardware from where you just removed it from, so you know where it came from, and it doesn't get lost.
- Take a photo showing the cable's route through the frame then disconnect the cable which will often be at the cam assembly on the frame.
- Always leave hardware loose until the entire unit is put back together.
- Rock or give the unit a shake to settle it to the floor before tightening hardware.
- Use leveling feet when applicable to ensure unit is stable.
- When rerouting cables, make sure to check each pulley with your eyes and hands to ensure the cable is sitting on the pulley and not above a cable keeper (this will break or damage the cable if not sitting on the pulley).
- Always engage cable bolts $\frac{1}{2}$ " (13mm) into head plate adapter or pulley axle (see the **Strength Cable Guide** for more information).
- Re-lubricate the guide rods after the unit is re-assembled.
- Test the unit and listen for noises to ensure the unit is assembled properly.

Frame Connections

Any frame connection bolt should have Vibra-Tite Red Gel applied to the threads during assembly or anytime the bolt is used to re-assemble a unit.

M12 bolts should be torqued to **100 N-m** if it is being used with a **nyloc nut**.



M12 bolts should be torqued to **100 N-m** if it is being used in a **rivnut**. Vibra-Tite Red Gel should be applied to the bolt threads after assembling the washer.



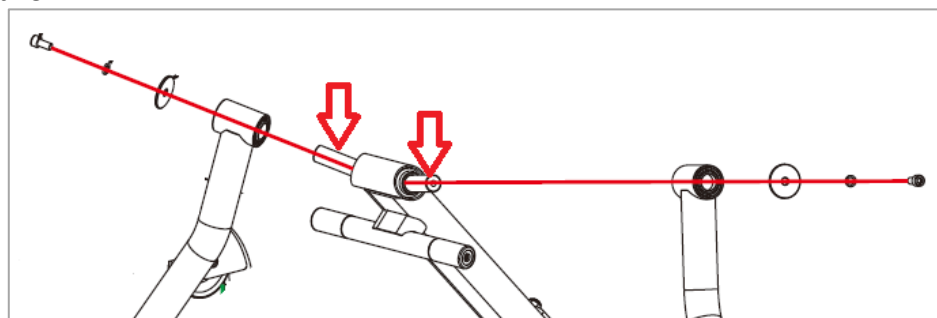
Vibra-Tite Thread locker



Gel Pump

Pivot Joints and Axles

All pivot axles are welded into the housing. Apply grease to the axle before assembling the arms onto the axle.



Grease with PTFE

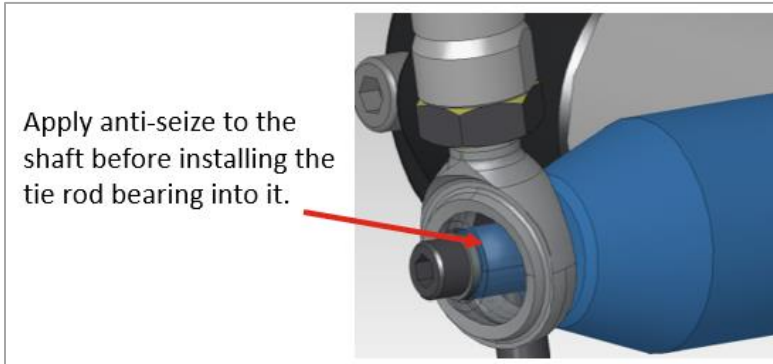


Super Lube

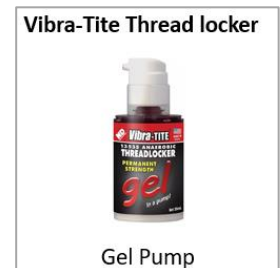
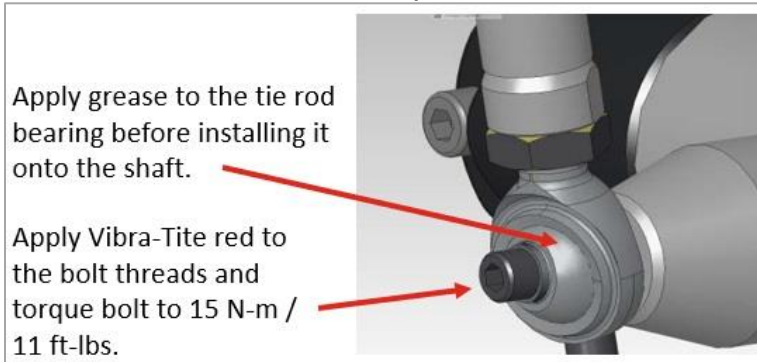
Tri-Flow

Tie Rod Ends

Apply anti-seize to the shaft before installing the tie rod bearing onto it.



Apply grease to the tie rod bearing before installing it. Once installed, torque the apply Vibra-Tite Red onto the bolt threads and torque to **15 N-m / 11 ft-lbs.**



Pad Bolts

Pads have rivnuts embedded into wood. Over torquing can cause damage to the Rivnut which would require a pad placement. For this reason, never used power tools when installing a bolt that has a torque spec.

Do not apply Vibra-Tite on pad bolts. It is important to torque them to **10 N-m / 7 ft-lbs.** Never use power tools to install a pad bolt.

Cable and Belt Tensioning

Weight Stack cable and belts must be attached and tensioned properly for the safety of users.

Please refer to the Strength Cable Guide for tensioning procedures.

Carabiners

Multi-Station and Functional Trainers often come with carabiners that are used to attach accessory handles to the cables. Please add the carabiner to the cable end then use a zip tie to secure it. This helps the carabiner stay with the cable and not get removed with accessories.



Guide Rod Lubrication

It is important to lubricate all guide rods with the approved lubricant. Super Lube with PTFE or Tri-Flow with PTFE pump spray (non-aerosol) must be used.

See the Supplies section of this document for more information on the approved lubricants.

