

zeroG® Inspection & Maintenance

A key requirement to keeping a high level of production is the ability to perform proper preventative and predictive maintenance while also optimizing equipment set-up and functionality.

Equipois recommends regular maintenance and upkeep for your zeroG system. Most maintenance for zeroG systems can be performed directly by the customer. Equipois also provides field service, training, spare parts and extended warranty agreements to assist with keeping your system at its peak performance level if required. The following is a list of recommended inspection procedures, maintenance activities and spare parts for each part of a zeroG system:

zeroG4 Arm

Customer Maintenance Items	Frequency	Parts or Maintenance Required
Springs: <ul style="list-style-type: none"> • Clean using clean dry compressed air after each use if possible. • DO NOT use alcohol, WD-40 or other chemical based solvents to clean the spring or any other parts • Check each spring for any dents, nicks or deformation. Make sure paint still covers entire spring – no metal rust showing. If there are any type of identifiable defects, CONTACT EQUIPOIS. • See 'Payload Testing' if degradation of performance is noted. 	Monthly	<ul style="list-style-type: none"> • Replace complete link via link exchange program if needed*
Adjuster Mechanism (internal to each link): <ul style="list-style-type: none"> • Clean using clean dry compressed air after each use if possible. • Make sure that mechanism is able to travel the full length of the screw. 	Monthly	
End Block: <ul style="list-style-type: none"> • Is the Delrin sleeve in place? Are there any cracks or deformation? If so, replace as needed. 	Monthly	<ul style="list-style-type: none"> • Kit, Tool Interface Sleeve with Clip P/N 102-6281*
Covers: <ul style="list-style-type: none"> • Check to make sure cover has no tears or rips and is securely fastened to the arm. Replace as needed. 	Monthly	<ul style="list-style-type: none"> • Polycy Disposable Cover P/N 300-2100* • Silicone permanent cover P/N 300-2200*
Docking: <ul style="list-style-type: none"> • Each zeroG4 arm has magnetic docks that can be used for stowing the arm when not in use. Please clean using clean dry compressed air after each use if possible. • Equipois strongly recommends the use of additional 'hook' docks or other mechanisms to secure the arm in lieu of magnetic docks especially if covers are in use. 	Monthly	
Arm Extrusions: <ul style="list-style-type: none"> • Adjust lift knobs to zero load • Does arm function normally with no lift – are there any hitches or rough spots in the movement? • Does each arm segment move up and down freely without binding? If not, contact Equipois. 	Quarterly or Semi-Annually	<ul style="list-style-type: none"> • Apply grease to adjuster – Use Extreme Pressure Grease – P/N 900-7005-GR*

<p>Lift knob inspection:</p> <ul style="list-style-type: none"> • Does carrier work on linear shaft? • Clean shaft thoroughly • Re-grease shaft 	<p>Quarterly or Semi-Annually</p>	<ul style="list-style-type: none"> • Apply grease to adjuster – Use Extreme Pressure Grease – P/N 900-7005-GR*
<p>Rate knob inspection:</p> <ul style="list-style-type: none"> • Is it able to thread in and out without any issues? • Is there any looseness or wiggling detectable? If so, contact Equipois. 	<p>Quarterly or Semi-Annually</p>	
<p>Shoulder and Elbow Hinges:</p> <ul style="list-style-type: none"> • Hinges between links should be able to fully rotate on each bearing • Look for any play between where each hinge and block surface mates with the other • Are caps still on each elbow hinge bearing location? If not, is retaining clip visible or missing? • On elbow hinge, check to make sure washers are in place. If not, replace as needed. • Inspect to make sure bumper pads on sides of each hinge are in place. If not, replace. 	<p>Quarterly or Semi-Annually</p>	<ul style="list-style-type: none"> • Parts are included in Kit, Complete Maintenance Pack, zeroG4 – P/N 101-5910*
<p>Internal Bumpers (four per link):</p> <ul style="list-style-type: none"> • Check the connection. Are they loose in any way? Tighten and add Loctite if loose. • If bumpers connected to magnetic docks are loose, contact Equipois. 	<p>Quarterly or Semi-Annually</p>	<ul style="list-style-type: none"> • Contact Equipois for details for magnetic dock replacement.
<p>Gas Springs (at shoulder and elbow):</p> <p>Check to see if gas spring at each location is still providing force</p> <ul style="list-style-type: none"> • If not, replace with appropriate gas spring replacement kit. • Check screws at each gas hinge to make sure they are secure. If not securely fastened, use Blue Loctite 243 to secure. 	<p>Quarterly or Semi-Annual</p>	<ul style="list-style-type: none"> • All arms after S.N. 1029 utilize long shoulder kit. • Gas Spring Replacement Kit, Long Shoulder – P/N 101-6250-02* • Arms previous to S.N. 1029 utilize short shoulder kit. – P/N 101-6250-01 • Blue Loctite 243 – P/N 900-7001-TL*
<p>Labels and Indications:</p> <ul style="list-style-type: none"> • Are any labels peeling or torn off. Replace as needed. • Check for pinch point labels and stickers for Lift and Rate knobs. 	<p>Quarterly or Semi-Annual</p>	<ul style="list-style-type: none"> • Contact Equipois for safety label replacements.
<p>Perform payload testing:</p> <ul style="list-style-type: none"> • Run rate screw to full extension (threads all the way out), then run it back two full rotations. • Set-up testing post set-up and apply 30 lbs of weight – utilize barbells or whatever form of weights are available to get an accurate payload test. • Looks that arm can still lift payload with about 2-5 lbs of play +/-. • If there any concerns about spring payload performance, please contact Equipois. 	<p>Annual</p>	<ul style="list-style-type: none"> • Contact Equipois for Payload Test Post Kit

zeroG2 Arm

Customer Maintenance Items	Frequency	Parts or Maintenance Required
<p>Springs:</p> <ul style="list-style-type: none"> • Clean using clean dry compressed air after each use if possible. • DO NOT use alcohol, WD-40 or other chemical based solvents to clean the spring or any other parts • Check each spring for any dents, nicks or deformation. Make sure paint still covers entire spring – no metal rust showing. If there are any type of identifiable defects, CONTACT EQUIPOIS. • See 'Payload Testing' if degradation of performance is noted. 	Monthly	<ul style="list-style-type: none"> • Replace complete link via link exchange program if needed*
<p>Adjuster Mechanism (internal to each link):</p> <ul style="list-style-type: none"> • Clean using clean dry compressed air after each use if possible. • Make sure that mechanism is able to travel the full length of the bearing shaft. 	Monthly	
<p>End Block:</p> <ul style="list-style-type: none"> • Is the Delrin tool interface sleeve in place? • Are there cracks or deformation? If yes, contact Equipois. 	Monthly	<ul style="list-style-type: none"> • Kit, Tool Interface Sleeve with Clip P/N 102-6281*
<p>Covers:</p> <ul style="list-style-type: none"> • Check to make sure cover has no tears or rips and is securely fastened to the arm. Replace as needed. 	Monthly	<ul style="list-style-type: none"> • Polyco Disposable Cover P/N 300-2100* • Silicone permanent cover P/N 300-2200*
<p>Docking:</p> <ul style="list-style-type: none"> • Equipois strongly recommends the use of additional 'hook' docks or other mechanisms to secure the arm especially if covers are in use. 	Monthly	
<p>Arm Extrusions:</p> <ul style="list-style-type: none"> • Adjust lift knobs to zero load • Does arm function normally with no lift – are there any hitches or rough spots in the movement? • Does each arm segment move up and down freely without binding? If not, contact Equipois. • Apply Extreme Pressure Grease to bearing shaft. 	Quarterly or Semi-Annually	<ul style="list-style-type: none"> • Extreme Pressure Grease – P/N 900-7005-GR*
<p>Lift knob inspection:</p> <ul style="list-style-type: none"> • Does spring termination hook work with bearing shaft? • Clean shaft thoroughly • Re-grease shaft 	Quarterly or Semi-Annually	<ul style="list-style-type: none"> • Apply grease to adjuster – Use Extreme Pressure Grease – P/N 900-7005-GR*
<p>Shoulder and Elbow Hinges:</p> <ul style="list-style-type: none"> • Hinges between links should be able to fully rotate on each bearing • Look for any play between where each hinge and block surface mates with the other • Inspect internal hinge roller assembly: delrin roller, roller shaft & retaining rings • Inspect to make sure bumper pads on sides of each hinge are in place. If not, replace. 	Quarterly or Semi-Annually	<ul style="list-style-type: none"> • Parts are included in Kit, Complete Maintenance Pack, zeroG2 – P/N 102-5910* • Contact Equipois if Hinge Roller Assembly Kit is needed

<p>Internal Bumpers (two per link):</p> <ul style="list-style-type: none"> • Check the connection. Are they loose in any way? Tighten if loose. 	Quarterly or Semi-Annually	
<p>Tensioning Bungee Cords (at shoulder and elbow):</p> <ul style="list-style-type: none"> • Check to see if bungee cord is still providing force • If not, replace with appropriate replacement kit. • Check hinge stops and bumpers at elbow & shoulder hinges: screws & lock washers in place and tight? 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Kit, Centering Cord with Cinch P/N 102-6250-02* • Kit, Centering Cord Complete (includes hinge stops and bumpers) P/N 102-6250-01*
<p>Labels and Indications:</p> <ul style="list-style-type: none"> • Are any labels peeling or torn off. Replace as needed. • Check for pinch point labels and stickers for Lift and Rate knobs. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Contact Equipois for safety label replacements.
<p>Perform payload testing:</p> <ul style="list-style-type: none"> • Set-up testing post set-up and apply 10 lbs of weight – utilize barbells or whatever form of weights are available to get an accurate payload test. • Looks that arm can still lift payload with about 2-5 lbs of play +/-. • If there any concerns about spring payload performance, please contact Equipois. 	Annual	<ul style="list-style-type: none"> • Contact Equipois for Payload Test Post Kit

Interface Mounting Blocks

Customer Maintenance Items	Frequency	Parts or Maintenance Required
<p>Overall mounting block:</p> <ul style="list-style-type: none"> • Clean using clean dry compressed air after each use if possible, especially near exposed bearings on dynamic and pre-set mounts • DO NOT use alcohol, WD-40 or other chemical based solvents to clean any components or parts. 	Monthly	
<p>Connection to existing structure:</p> <ul style="list-style-type: none"> • Check to make sure that all bolts are secure and properly tightened. • Look to make sure that mounting block connection is still level and shows no signs of deformation. 	Monthly	<ul style="list-style-type: none"> • Kit, Replacement 80/20 Bolts & Nuts – P/N 500-4164*
<p>Arm Connection to mounting block:</p> <ul style="list-style-type: none"> • Is hinge able to slide in securely to female location on mounting block? • Check to make sure there are no gaps or wiggle between the male hinge and the female location on mounting block. • Make sure quick release pin can slide in and out of block and hinge. • Check to make sure KP bearings (or bushings if positioning arm) are seated correctly and in place. • Replace KP bearings (or bushings) if needed. Consult Equipois for instructions on replacement. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Quick Release Pin P/N 900-9031-QP* • Kit, Spare Bearings (Fully Dynamic Style) P/N 500-4265* • Kit, Spare Bearings (Positioning Style) P/N 500-4266*

<p>Leveling knobs or handles:</p> <ul style="list-style-type: none"> • Make sure all knobs (Pre-Set) or adjustment handles (Dynamic) are present and securely fastened. • For Pre-Set mount, check that each striker plate (stop plate for each screw) is in place. Striker plates can be found on the inside surface of each block. Replace as needed. • Check that adjustment handles have clearance to turn freely. If not, it may be necessary to re-set their location. Allow for approximately 0.132 inches from surface to handle minimum. 	<p>Quarterly or Semi-Annual</p>	<p>Pre-Set 2-Axis:</p> <ul style="list-style-type: none"> • Pre-Set Knob Kit P/N 500-4262* <p>Dynamic 2-Axis:</p> <ul style="list-style-type: none"> • Adjustment Handle Kit P/N 500-4162*
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S1 Ring Gimbals

Customer Maintenance Items	Frequency	Parts or Maintenance Required
<p>Overall S1 Ring Gimbal:</p> <ul style="list-style-type: none"> • Clean using clean dry compressed air after each use if possible, especially near exposed bearings on dynamic and pre-set mounts • <u>DO NOT</u> use alcohol, WD-40 or other chemical based solvents to clean any components or parts 	<p>Monthly</p>	
<p>Outer race of ring gimbal:</p> <ul style="list-style-type: none"> • Check to make sure that bearings rotate freely • Check to make sure that outer ring halves are properly seated and retaining screws are secure. • Quick Release Gimbal ONLY: <ul style="list-style-type: none"> ○ Locking side should have no play (snug fit) ○ Latch should shut completely. If latch does not seat, it is possible to adjust catch plate position. 	<p>Quarterly or Semi-Annual</p>	
<p>Inner race of ring gimbal:</p> <ul style="list-style-type: none"> • Check to make sure that inner ring halves are properly seated and retaining screws are secure. • Check to make sure that tool mounting set screws are each making contact and firmly seated against tool surface. • Set screws should be just flush with outside of gimbal surface after being tightened. If set screw protrudes a different size set screw should be used. 	<p>Quarterly or Semi-Annual</p>	<ul style="list-style-type: none"> • Kit, Retaining Screw, Inner Race, S1 P/N 400-3576* • Kit, Set screws, Assorted Lengths P/N 400-3575-01*
<p>Pivot Bearings at Yoke Connection (Double Yoke only):</p> <ul style="list-style-type: none"> • Make sure that ring can freely rotate in yoke without restriction. Replace bearings as needed. • Check jam nuts are seated and secure. If not, tighten and add Blue Loctite 	<p>Quarterly or Semi-Annual</p>	<ul style="list-style-type: none"> • Kit, Yoke Pivot P/N 400-3120-02* • Blue Loctite P/N 900-7001-TL*
<p>Wrist Bearing at Yoke Connection (Single Yoke only):</p> <ul style="list-style-type: none"> • Check inset bolt is tight – not to exceed 20 ft-lbs • Check that screws holding 	<p>Quarterly or Semi-Annual</p>	<ul style="list-style-type: none"> • Pivot, yoke to wrist P/N 400-3630
<p>Yoke Clamp:</p> <ul style="list-style-type: none"> • Make sure yoke clamp is tight around yoke. Check screws are tight and secure – tighten to 20 foot-lbs 	<p>Quarterly or Semi-Annual</p>	

<p>Gimbal Posts:</p> <ul style="list-style-type: none"> • Check to make sure no threads are visible between posts. If necessary, tighten to remove any gaps • There should be clamp collars on both the top and bottom of where the gimbal post attaches to the zeroG arm. A Teflon washer should rest underneath the top collar. • Each clamp collar should be firmly seated with screws tightened to 10 foot-lbs 	<p>Quarterly or Semi-Annual</p>	<ul style="list-style-type: none"> • Two-piece Clamp Collar Kit P/N 400-1112*
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S2 Ring Gimbals

Customer Maintenance Items	Frequency	Parts or Maintenance Required
<p>Overall S2 Ring Gimbal:</p> <ul style="list-style-type: none"> • Clean using clean dry compressed air after each use if possible, especially near exposed bearings on dynamic and pre-set mounts. • DO NOT use alcohol, WD-40 or other chemical based solvents to clean any components or parts. 	<p>Monthly</p>	
<p>Rollers or Slides:</p> <ul style="list-style-type: none"> • Rollers or slides can be located on the inner or outer ring. Check to make sure that each ring rotates freely. • Rollers should be secured firmly via each screw. Screws should be tightened to 20 inch-lbs and Blue Loctite applied. • If slides are used, position for a controlled roll of opposing ring by adjusting to desired resistance (inner/outer). • Tighten screws on each slide to 10-12 inch-lbs. 	<p>Quarterly or Semi-Annual</p>	<ul style="list-style-type: none"> • S2 Roller Kit P/N 400-3610-15* • S2 Slide Kit P/N 400-3612-11* • Kit, Set screws, Assorted Lengths P/N 400-3575-01* • Blue Loctite P/N 900-7001-TL*
<p>Pivot Bearings at Yoke Connection (Double Yoke only):</p> <ul style="list-style-type: none"> • Make sure that ring can freely rotate in yoke without restriction. Replace bearings as needed. • Check jam nuts are seated and secure. If not, tighten and add Blue Loctite 	<p>Quarterly or Semi-Annual</p>	<ul style="list-style-type: none"> • Axle Pivot Bearing P/N 900-9032-BG* • Blue Loctite P/N 900-7001-TL*
<p>Wrist Bearing at Yoke Connection (Single Yoke only):</p> <ul style="list-style-type: none"> • Check that inset bolt is tight – not to exceed 20 ft-lbs • Check that screws are secure and tight 	<p>Quarterly or Semi-Annual</p>	<ul style="list-style-type: none"> • Pivot, yoke to wrist P/N 400-3630
<p>Yoke Clamp:</p> <ul style="list-style-type: none"> • Make sure yoke clamp is tight around yoke. Check that screws are tight and secure – tighten to 20 foot-lbs 	<p>Quarterly or Semi-Annual</p>	
<p>Gimbal Posts:</p> <ul style="list-style-type: none"> • Check to make sure no threads are visible between posts. If necessary, tighten to remove any gaps • There should be clamp collars on both the top and bottom of where the gimbal post attaches to the zeroG arm. A Teflon washer should rest underneath the top collar. • Each clamp collar should be firmly seated with screws tightened to 10 foot-lbs 	<p>Quarterly or Semi-Annual</p>	<ul style="list-style-type: none"> • Two-piece Clamp Collar Kit P/N 400-1112*

Palm Sander Gimbal

Customer Maintenance Items	Frequency	Parts or Maintenance Required
<p>Overall Gimbal:</p> <ul style="list-style-type: none"> • Clean using clean dry compressed air after each use if possible, especially near exposed bearings on dynamic and pre-set mounts • DO NOT use alcohol, WD-40 or other chemical based solvents to clean any components or parts 	Monthly	
<p>Gimbal Posts:</p> <ul style="list-style-type: none"> • Check to make sure no threads are visible between posts. If necessary, tighten to remove any gaps • There should be clamp collars on both the top and bottom of where the gimbal post attaches to the zeroG arm. A Teflon washer should be underneath the top collar. • Each clamp collar should be firmly seated with screws tightened to 10 foot-lbs • Check jam nuts are seated and secure. If not, tighten and add Blue Loctite • Check that counterweight set screw is secure. If not tighten and ad Blue Loctite 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Two-piece Clamp Collar Kit P/N 400-1112* • Blue Loctite P/N 900-7001-TL*

UMS Mobile Stands (Mini-Stand, zeroG2 Tripod Stand, zeroG4 Quad Stand)

Customer Maintenance Items	Frequency	Parts or Maintenance Required
<p>Assembly Points:</p> <ul style="list-style-type: none"> • Check all customer assembly points (T-Connectors) to make sure that all bolts and nuts are tight and secure. • If loose, torque to 20 foot-lbs. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Bolts – P/N 900-1069-SC • Self-Lock Nut – P/N 900-5015-NT
<p>Caster Wheels:</p> <ul style="list-style-type: none"> • Are caster wheels seated, secure and tight? If not, tighten to 10 foot-lbs. • Are caster wheels able to rotate freely? • Check locking mechanism on caster to make sure it if functioning properly. • Replace parts as needed. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Kit, Caster wheel – P/N 500-5330*
<p>Counterweights:</p> <ul style="list-style-type: none"> • Check to make sure that weights are properly filled and provide enough counterweight • Look for any leaks or damage. Replace as needed. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Weight Accessory, UMS – P/N 500-5160
<p>80-20 Mounting Post:</p> <ul style="list-style-type: none"> • Check that post is properly secured to UMS frame. • Each carriage bolt should be secure and tight. If loose, tighten to 15 foot-lbs. • Does the post allow enough vertical travel for the application? If not, it can be relocated lower or higher on the UMS frame. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Kit, Spare 80-20 Strut Hardware – P/N 500-5357*

<p>End Caps:</p> <ul style="list-style-type: none"> • Are protective end caps still in place? • Replace parts as needed. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Kit, Replacement End Caps (Qty 4) – P/N 500-5356*
<p>zeroG4 Quad Stand ONLY:</p> <ul style="list-style-type: none"> • Inspect gusset connection points and make sure they are tight and secure. • If loose, torque to 20 ft-lbs. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Bolt, zinc coated – P/N 900-1070

UMS Jibs (zeroG2 Static Link, Light Duty Jib, Heavy Duty Jib)

Customer Maintenance Items	Frequency	Parts or Maintenance Required
<p>Assembly Points:</p> <ul style="list-style-type: none"> • Check all customer assembly points (T-Connectors) to make sure that all bolts and nuts are tight and secure. • If loose, torque to 20 ft/lbs. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Bolts – P/N 900-1069-SC • Self-Lock Nut – P/N 900-5015-NT
<p>80-20 Mounting Post:</p> <ul style="list-style-type: none"> • Check that post is properly secured to UMS frame. • Each carriage bolt should be secure and tight. If loose, tighten to 15 foot-lbs. • Does the post allow enough vertical travel for the application? If not, it can be relocated lower or higher on the UMS frame. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Kit, Spare 80-20 Strut Hardware – P/N 500-5357*
<p>Hinges:</p> <ul style="list-style-type: none"> • Does hinge rotate smoothly? • If not, check to make sure that hinge is properly aligned. • Make sure that overall jib is level. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Assembly UMS Hinge – P/N 500-5170
<p>End Caps:</p> <ul style="list-style-type: none"> • Are protective end caps still in place? • Replace parts as needed. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Kit, Replacement End Caps (Qty 4) – P/N 500-5356*
<ul style="list-style-type: none"> • zeroG2 Static Link ONLY – inspect gusset to make sure at desired level • Shim bolt should be factory set with pin at +3 deg at 15 lbs load. If different angle is desired, remove pin, drill alternate pilot hole and re-pin. 	Quarterly or Semi-Annual	

UMS Linear Rail Structures (Linear Rail, Portable Gantry)

Customer Maintenance Items	Frequency	Parts or Maintenance Required
<p>Overall rail structure:</p> <ul style="list-style-type: none"> • Clean using clean dry compressed air after each use if possible, especially near exposed bearings on dynamic and pre-set mounts • DO NOT use alcohol, WD-40 or other chemical based solvents to clean any components or parts 	Monthly	

<p>Carriage:</p> <ul style="list-style-type: none"> • Make sure carriage moves freely without restriction • Manually adjust positioning brackets on back of carriage to desired friction. • Manually adjust carriage roller to desired friction • Replace broken or damaged components as needed. 	Monthly	<ul style="list-style-type: none"> • Carriage, Complete – P/N 912-1001-CR
<p>Mounting Plate:</p> <ul style="list-style-type: none"> • Make sure that all fasteners on mounting plate <u>are tight and secure</u>. Tighten as needed to 15-20 Foot-Lbs. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Plate Mounting Bolt – P/N 900-1069-SC x (2) • Plate Mounting Washer – P/N 900-4052-WR x (2)
<p>Stop Brackets:</p> <ul style="list-style-type: none"> • Make sure stop brackets on each end of rail are in place and secure. • Check to make sure bumpers still in place on each stop bracket. • Stop brackets prevent the carriage from coming off the rail. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Kit, Stop, Qty 2, Linear Slide Assy, UMS – P/N 500-5313
<p>Assembly Points:</p> <ul style="list-style-type: none"> • Check all customer assembly points (T-Connectors) to make sure that all bolts and nuts are <u>tight and secure</u>. • If loose, torque to 20 ft/lbs 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Bolts – P/N 900-1069-SC • Self-Lock Nut – P/N 900-5015-NT
<p>80-20 Mounting Post:</p> <ul style="list-style-type: none"> • Check that post is properly secured to mounting plate. • Each bolt should be secure and tight. If loose, tighten to 15 foot-lbs. 	Quarterly or Semi-Annual	
<p>Caster Wheels (Portable Gantry ONLY):</p> <ul style="list-style-type: none"> • Are caster wheels seated, secure and tight? If not, tighten to 10 foot-lbs. • Are caster wheels able to rotate freely? • Check locking mechanism on caster to make sure it is functioning properly. • Replace parts as needed. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Kit, Caster wheel – P/N 500-5330*
<p>End Caps:</p> <ul style="list-style-type: none"> • Are protective end caps still in place? • Replace parts as needed. 	Quarterly or Semi-Annual	<ul style="list-style-type: none"> • Kit, Replacement End Caps (Qty 4) – P/N 500-5356

Floor Post Assemblies

Customer Maintenance Items	Frequency	Parts or Maintenance Required
<p>If mounting interface is included ONLY:</p> <ul style="list-style-type: none"> • Is hinge able to slide in securely to female location on mounting block? • Check to make sure there are no gaps or wiggle between the male hinge and the female location on mounting block. • Make sure quick release pin can slide in and out of block and hinge. • Check to make sure KP bearings (or bushings if positioning arm) are seated correctly and in place. • Replace KP bearings (or bushings) if needed. Consult Equipois for instructions on replacement. 	<p>Quarterly or Semi-Annual</p>	<ul style="list-style-type: none"> • Quick Release Pin P/N 900-9031-QP* • Kit, Spare Bearings (Fully Dynamic Style) P/N 500-4265* • Kit, Spare Bearings (Positioning Style) P/N 500-4266*
<ul style="list-style-type: none"> • Check leveling bolts to make sure they are tight and secure. • When leveling ONLY, if it is necessary to turn bolts multiple times it may be necessary to tighten the bottom socket screw to remove unneeded clearance (under bottom of base plate). • Conversely, it may be necessary to loosen the bottom socket screw if not enough clearance to level is available. 	<p>Annual</p>	<ul style="list-style-type: none"> • Leveling bolt – P/N 900-1033-SC • Washer – P/N 900-4018-WR • Ball Socket Screw – P/N 900-9031-SC
<ul style="list-style-type: none"> • Check to make sure collar connections to floor post are tight and secure. • If loose, tighten to 15 foot-lbs. 	<p>Annual</p>	
<ul style="list-style-type: none"> • Check to make sure that bolts for mounting interface are secure and tight on the collar with washer in place. • If loose, tighten to 15 foot-lbs. and apply Red Loctite. 	<p>Annual</p>	<ul style="list-style-type: none"> • Washer – P/N 900-4017-WR • Red Loctite – P/N 900-7019-TL
<ul style="list-style-type: none"> • Replace protective cap on top of floor post if lost. 	<p>Annual</p>	<ul style="list-style-type: none"> • Replacement Cap – P/N 900-9078-CP

***RECOMMENDED SPARE PART**



RECOMMENDED SPARE PARTS

QTY	DESCRIPTION	PART NUMBER	PRICE
<u>zeroG4 Arm</u>			
1	Kit, Complete Maintenance Pack, zeroG4	101-5910	\$621.00
	<u>Included in Maintenance Kit:</u>		
1	Tool Interface Sleeve	102-6280	
1	Retainer Clip	900-9117	
4	Disposable, Polyco Arm Cover	300-2100	
1	Silicone Arm Cover	300-2200	
2	Extreme Pressure Grease	900-7005-GR	
1	O-Ring Grip Washer	101-6371	
1	Buna O-Ring 18mm	900-9105	
4	Bumper pads	900-9025-BP	
1	Kit, Gas Spring, Long Shoulder	101-6250-02	
2	Blue Loctite, 243, 10 mL	900-7001-TL	
<u>Available Separately:</u>			
1	Kit, Tool Interface Sleeve with Clip	102-6281	\$42.50
1	Disposable, Polyco Arm Cover	300-2100	\$26.50
1	Silicone Arm Cover	300-2200	\$250.00
1	Extreme Pressure Grease	900-7005-GR	\$24.00
1	Kit, Gas Spring, Long Shoulder	101-6250-02	\$165.00
<u>zeroG2 Arm</u>			
1	Kit, Complete Maintenance Pack, zeroG2	102-5910	\$615.00
	<u>Included in Maintenance Kit:</u>		
1	Tool Interface Sleeve	102-6280	
1	Retainer Clip	900-9117	
4	Disposable, Polyco Arm Cover	300-2100	
1	Silicone Arm Cover	300-2200	
2	Extreme Pressure Grease	900-7005-GR	
1	Kit, Centering Cord, Complete	102-6250-01	
2	Blue Loctite, 243, 10 mL	900-7001-TL	
<u>Available Separately:</u>			
1	Kit, Tool Interface Sleeve with Clip	102-6281	\$42.50
1	Disposable, Polyco Arm Cover	300-2100	\$26.50
1	Silicone Arm Cover	300-2200	\$250.00
1	Extreme Pressure Grease	900-7005-GR	\$24.00
1	Kit, Centering Cord with Cinch	102-6250-02	\$118.20
1	Kit, Centering Cord, Complete (bumpers, stops)	102-6250-01	\$290.78
<u>Fixed, Interface Mounting Block</u>			
1	Kit, Replacement 80/20 Bolts & Nuts	500-4164	\$12.50
1	Quick Release Pin	900-9031-QP	\$50.00



RECOMMENDED SPARE PARTS (Cont'd.)

QTY	DESCRIPTION	PART NUMBER	PRICE
<u>Pre-Set, 2-Axis, Interface Mounting Block</u>			
1	Kit, Complete Maintenance Pack, Pre-Set Mount	500-4260	\$250.00
<u>Included in Maintenance Kit:</u>			
1	Kit, Replacement 80/20 Bolts & Nuts	500-4164	
1	Quick Release Pin	900-9031-QP	
1	Kit, Spare Brgs, Full Float Mtg Interface	500-4265	
1	Kit, Spare Brgs, Positioning, Mtg Interface	500-4266	
1	Kit, Replacement Knobs, Pre-Set Mount	500-5262	
<u>Available Separately:</u>			
1	Kit, Replacement 80/20 Bolts & Nuts	500-4164	\$12.50
1	Quick Release Pin	900-9031-QP	\$50.00
1	Kit, Replacement Knobs Pre-Set Mount	500-4262	\$68.00
<u>Dynamic, 2-Axis, Interface Mounting Block</u>			
1	Kit, Complete Maintenance Pack, Dynamic Mount	500-4160	\$250.00
<u>Included in Maintenance Kit:</u>			
1	Kit, Replacement 80/20 Bolts & Nuts	500-4164	
1	Quick Release Pin	900-9031-QP	
1	Kit, Spare Brgs, Full Float Mtg Interface	500-4265	
1	Kit, Spare Brgs, Positioning, Mtg Interface	500-4266	
1	Kit, Replacement Knobs, Dynamic Mount	500-4162	
<u>Available Separately:</u>			
1	Kit, Replacement 80/20 Bolts & Nuts	500-4164	\$12.50
2	Quick Release Pin	900-9031-QP	\$50.00
1	Kit, Replacement Knobs Dynamic Mount	500-4162	\$75.00
<u>S1 Ring Gimbal</u>			
1	Kit, Complete Maintenance Pack, S1 Ring Gimbal	400-3574	\$265.00
<u>Included in Maintenance Kit:</u>			
1	Kit, Retaining Screw, Inner Race, S1	400-3576	
1	Kit, Set Screws, S1 Assorted Lengths	400-3575-01	
1	Kit, 2-Piece Collar & Teflon Wash (Qty 2)	400-1112	
2	Blue Loctite, 243, 10 mL	900-7001-TL	
<u>Available Separately:</u>			
1	Kit, Retaining Screw, Inner Race, S1	400-3576	\$4.50
1	Kit, Set Screws, Assorted Lengths	400-3575-01	\$30.50
1	Kit, 2-Piece Collar & Teflon Wash (Qty 2)	400-1112	\$26.50
2	Blue Loctite, 243, 10 mL	900-7001-TL	\$3.50
1	Kit, Yoke Pivot, Standard S1	400-3120-02	\$130.50



RECOMMENDED SPARE PARTS (Cont'd.)

QTY	DESCRIPTION	PART NUMBER	PRICE
<u>S2 Ring Gimbal</u>			
1	Kit, Complete Maintenance Pack, S2 Ring Gimbal	400-3675	\$425.00
<u>Included in Maintenance Kit:</u>			
1	S2 Roller Kit (if gimbal employs rollers)	400-3610-15	
1	S2 Slide Kit (if gimbal employs slides)	400-3612-11	
1	Kit, Set Screws, Assorted Lengths	400-3575-01	
1	Kit, 2-Piece Collar & Teflon Wash (Qty 2)	400-1112	
2	Blue Loctite, 243, 10 mL	900-7001-TL	
<u>Available Separately:</u>			
1	S2 Roller Kit (if gimbal employs rollers vs slides)	400-3610-15	\$175.00
1	S2 Slide Kit (if gimbal employs slides vs rollers)	400-3612-11	\$220.00
1	Kit, Set Screws, Assorted Lengths	400-3575-01	\$30.50
2	Blue Loctite, 243, 10 mL	900-7001-TL	\$3.50
1	Kit, 2-Piece Collar & Teflon Wash (Qty 2)	400-1112	\$26.50
<u>Palm Sander Gimbal</u>			
1	Kit, Complete Maintenance Pack, Sander Gimbal	400-3970	\$130.00
<u>Included in Maintenance Kit:</u>			
1	Kit, 2-Piece Collar & Teflon Wash (Qty 2)	400-1112	
2	Blue Loctite, 243, 10 mL	900-7001-TL	
3	Kit, Axle Pivot, MAG (Multi-Axis gimbal)	400-3430	
<u>Available Separately:</u>			
1	Kit, 2-Piece Collar & Teflon Wash (Qty 2)	400-1112	\$26.50
2	Blue Loctite, 243, 10 mL	900-7001-TL	\$3.50
3	Kit, Axle Pivot, MAG (Multi-Axis gimbal ONLY)	400-3430	\$33.00
<u>UMS Mobile Stands (Mini-Stand, zeroG2 Tripod Stand, zeroG4 Quad Stand)</u>			
1	Kit, Complete Maintenance Pack, Mobile Stands	500-5360	\$59.00
<u>Included in Maintenance Kit:</u>			
1	Kit, Caster, Qty 1, UMS	500-5330	
1	Kit, Spare 80-20 Strut Hardware, UMS	500-5357	
1	Kit, Replacement End Caps	500-5356	
<u>Available Separately:</u>			
1	Kit, Caster, Qty 1, UMS	500-5330	\$29.75
1	Kit, Spare 80-20 Strut Hardware, UMS	500-5357	\$17.25
1	Kit, Replacement End Caps	500-5356	\$12.00
<u>UMS Jibs (zeroG2 Static Link, Light Duty Jib, Heavy Duty Jib)</u>			
1	Kit, Complete Maintenance Pack, Jibs, UMS	500-5361	\$29.25
<u>Included in Maintenance Kit:</u>			
1	Kit, Spare 80-20 Strut Hardware, UMS	500-5357	
1	Kit, Replacement End Caps	500-5356	
<u>Available Separately:</u>			
1	Kit, Spare 80-20 Strut Hardware, UMS	500-5357	\$17.25
1	Kit, Replacement End Caps	500-5356	\$12.00



RECOMMENDED SPARE PARTS (Cont'd.)

QTY	DESCRIPTION	PART NUMBER	PRICE
<u>UMS Linear Rail Structures (Linear Rail, Portable Gantry)</u>			
1	Kit, Complete Maintenance Pack, Rail-Gantry, UMS	500-5362	\$110.00
<u>Included in Maintenance Kit:</u>			
1	Kit, Stop, Qty2, Linear Slide Assy, UMS	500-5313	
1	Kit, Caster, Qty 1, UMS	500-5330	
1	Kit, Replacement End Caps	500-5356	
<u>Available Separately:</u>			
1	Kit, Stop, Qty2, Linear Slide Assy, UMS	500-5313	\$68.25
1	Kit, Caster, Qty 1, UMS	500-5330	\$29.75
1	Kit, Replacement End Caps	500-5356	\$12.00
<u>Floor Post Assemblies</u>			
1	Kit, Complete Maintenance Pack, Floor Post Assy	500-1160	\$156.00
<u>Included in Maintenance Kit:</u>			
1	Quick Release Pin	900-9031-QP	
1	Kit, Spare Brgs, Full Float Mtg Interface	500-4265	
1	Kit, Spare Brgs, Positioning, Mtg Interface	500-4266	
<u>Available Separately:</u>			
1	Quick Release Pin	900-9031-QP	\$50.00