

Kawasaki Robot Customer Support

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KawasakiRobotics.com

Kawasaki Robot



CAUTIONS TO BE TAKEN TO ENSURE SAFETY

- For those persons involved with the operation / service of your system, including Kawasaki Robot, they must strictly observe all safety regulations at all times. They should carefully read the Manuals and other related safety documents.
- Products described in this catalogue are general industrial robots. Therefore, if a customer wishes to use the Robot for special purposes, which might endanger operators or if the Robot has any problems, please contact us. We will be pleased to help you.
- Be careful as Photographs illustrated in this catalogue are frequently taken after removing safety fences and other safety devices stipulated in the safety regulations from the Robot operation system.



ISO certified in Wixom, Michigan U.S.A.

24/7 assistance from our dedicated team is at your fingertips

Kawasaki Robotics is committed to providing the best possible service and support to keep your robots operating smoothly and without interruption. Our highly qualified and experienced technical support personnel is available to assist you with installation, startup, maintenance, troubleshooting, repair and spare parts.

Customer Service

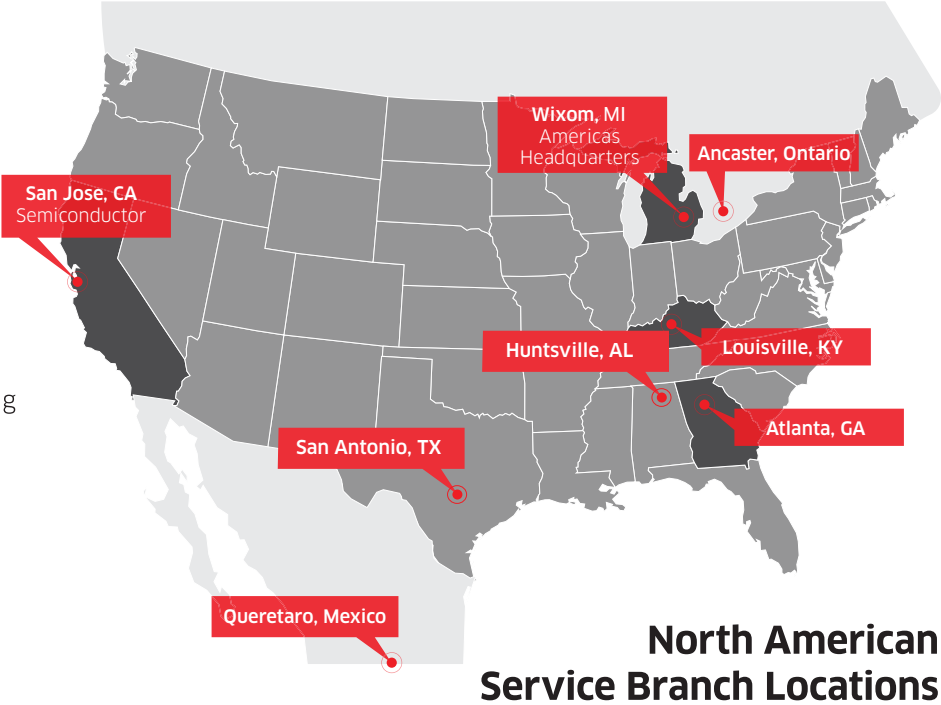
Kawasaki robot experts are located throughout North and South America, and are available for on-site service usually within 2-6 hours, and no longer than 24 hours of notice. Our wide variety of service options sets you up for success, and our team is only a phone call away if production emergencies arise.

On-Site Services

- Troubleshooting & repair
- Routine preventive maintenance (PM)
- Robot health assessments
- Refurbishment/repair training for technicians
- Kawasaki system relocation

Technical Services

- Expert-level robot & PLC programming
- 3D simulations - includes robot cycle times & robot reach studies
- Robot & system installation
- Commissioning support
- Robot specification conversion



24-HOUR
SUPPORT HOTLINE
(248) 446-4271

RECOMMENDED PREVENTIVE MAINTENANCE & REFURBISHMENT INTERVALS

| Operation Range | Robot Type | | | | | | |
|-----------------|------------|----------|----------|----------|----------|----------|----------|
| | Z series | F series | S series | R series | M series | B series | K series |
| 10,000 hours | ● | ● | ● | ● | ● | ● | ● |
| 15,000 hours | | ● | ● | | | | |
| 20,000 hours | ● | ■ | ■ | ■ | ■ | ● | ■ |
| 30,000 hours | ● | | | | | ● | |
| 40,000 hours | ■ | | | | | ■ | |

Legend:
● Preventive Maintenance
■ Refurbishment Evaluation

Preventive Maintenance

Protect your robotic investment with routine preventive maintenance (PM) performed at your location. These regularly scheduled check-ups can extend the life of your robot, and keep it running at peak performance. PM also helps prevent costly repairs and component malfunction during production.

Kawasaki Robotics offers the following PM service options:

Routine PM

- Flushing of used grease & replacement with new grease
- Filter & battery replacement

Health Assessment

- In-depth visual and quantitative inspections of the controller and robot's major parts such as brakes, reduction gears, timing belts and harnesses to determine the robot's current condition
- Based on health assessment results, recommendations are made to correct any deficiencies

Predictive Maintenance

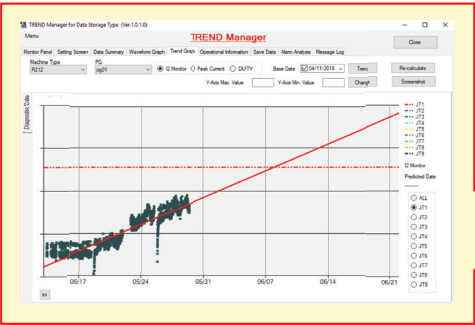
Predictive maintenance is a proactive approach that helps you predict when problems will occur, instead of reacting to unexpected and potentially costly failures as they arise.

Kawasaki TREND Manager

- Software that collects information during robot operation and analyzes trends to predict failures.

Ferrography

- In-depth and accurate analysis of the size and density of iron particles in reduction unit grease
- Quantitatively determine unit wear using a Wear Severity Index (SI)
- Grease samples needed for ferrography testing can be taken while performing regular PM inspections



Spare Parts

Kawasaki’s experienced Spare Parts team is here to make sure you have the necessary components to keep your robots running smoothly and efficiently. Using their extensive knowledge and expertise, they will advise you on the right parts to order based on your robot and application.

Spare Parts Lists

Our dedicated spare parts representative will provide a personalized Spare Parts program for your facility, which is broken down into categories based on importance. Discounts can be provided for bulk part orders or upon initial purchase.

- A = Highly recommend stocking part
- B = Recommend stocking part
- C = Stock part if possible

| Simple & friendly Kawasaki Robot | | ZX130S-B013 | | RECOMMENDED SPARE PARTS LIST | | | |
|-------------------------------------|------------|---------------------------|--|------------------------------|------------|-------------|-----------------|
| Level | Part No. | Part Name | Specification | Recommended Qty (per Robot) | | | Remarks |
| | | | | 1~5 units | 6~10 units | 11~20 units | |
| A | 00RBG105 | RING-O | | 1 | 1 | 1 | 2003.01-2005.08 |
| A | 00RBG105X | RING-O | | 1 | 1 | 1 | 2005.08- |
| A | 00RBG110 | RING-O | | 1 | 1 | 1 | 2003.01 |
| A | 40911-1161 | WRIST-UNIT | | 1 | 1 | 1 | |
| A | 50210-1173 | GEAR-ASSY,SPUR JT1 | | 1 | 1 | 1 | 2002.01- |
| A | 50601-1146 | MOTOR-ASSY-ELECTRIC | NEW U | 1 | 1 | 1 | |
| A | 50601-1148 | MOTOR-ASSY-ELECTRIC | PR0B23450LCK2AH20KB | 1 | 1 | 1 | |
| A | 50750-1007 | BATTERY-ASSY | BATTERY-ASSY 1FG1FX | 1 | 1 | 1 | 2002.04-2003.10 |
| A | 50750-1018 | BATTERY-ASSY | BATTERY-ASSY IMPROVEMENT OF 50750-1007 | 1 | 1 | 1 | 2003.10- |
| A | 50976-2426 | HARNESS-ASSY-MACHINE | CNB ASSY | 1 | 1 | 1 | |
| A | 50999-1547 | PRINTED CIRCUITBOARD-ASSY | | 1 | 1 | 1 | |
| A | 50999-1895 | PRINTED CIRCUITBOARD-ASSY | | 1 | 1 | 1 | |
| A | 60210-1481 | GEAR-SPUR RV | | 1 | 1 | 1 | |
| A | 60210-1482 | GEAR-SPUR JT1 | | 1 | 1 | 1 | 2002.01 |
| A | 60210-1571 | GEAR-SPUR INPUT 1135 | for 60216-1135 | 1 | 1 | 1 | |
| A | 60216-1105 | REDUCTION GEAR-CYCLO JT4 | | 1 | 1 | 1 | |
| A | 60216-1106 | REDUCTION GEAR-CYCLO JT5 | | 1 | 1 | 1 | |
| A | 60216-1107 | REDUCTION GEAR-CYCLO JT6 | | 1 | 1 | 1 | |
| A | 60216-1135 | REDUCTION GEAR-CYCLO | | 1 | 1 | 1 | |
| A | 60217-1081 | REDUCTION GEAR-RV JT1 | | 1 | 1 | 1 | |
| A | 60341-1462 | SEAL OIL | | 1 | 1 | 1 | |
| A | 60341-1524 | SEAL OIL | | 1 | 1 | 1 | |
| A | 60341-1530 | SEAL OIL | | 1 | 1 | 1 | |
| B | 60347-1327 | GASKET LIQUID | | 1 | 1 | 1 | |
| B | 60499-1053 | GREASE MULTEMP FZ | MULTEMP FZ(10KG) | 1 | 1 | 1 | |

Spare Parts Management Service

Kawasaki’s dedicated Spare Parts representative will come to your facility to assist you in managing inventory and provide you with any items that you need purchased.

- Create, maintain and update spare parts lists including recommended inventory levels
- Identify spare parts and monitor inventory levels for critical items
- Assist general stores in identifying obsolete, mislabeled or misplaced spare parts

Spare Parts Toolkit

Although Kawasaki maintains a comprehensive inventory of OEM parts to use for customer replacements, some parts require a longer lead time and should be kept at the customer’s facility to avoid production downtime in the event of an unexpected failure. Kawasaki’s Spare Parts Toolkit is a suggested list of parts that can be kept on hand, and serves as a baseline for customers with any robot type.



- Printed circuit boards
- Teach pendants
- Servo amplifiers (power block)
- MC units
- Servo motors
- Storage medium

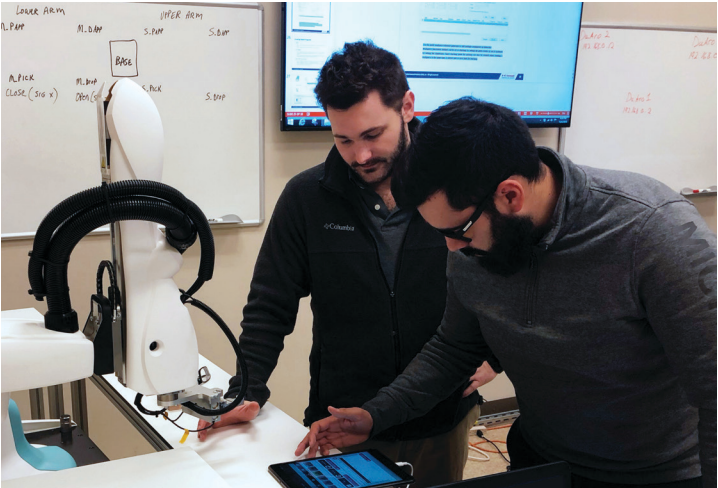
Training

Training courses provide an in-depth, hands-on experience for users of all levels to better understand Kawasaki robots, controllers and programs. Our Training and Documentation Department team members are professionals who possess numerous years of experience working in the robotics industry on many types of robotic systems and applications.

All training classes are held in the Training Center at the Kawasaki Robotics Americas headquarters in Wixom, MI, or they can be done at our branch offices or at a customer’s location when requested. When a training course is completed, electronic copies of the manuals are supplied, along with a graduation certificate.

You can choose from our robust selection of existing courses, or the training curriculum can be customized based on customer need:

- Operations & Programming (28 hours)
- AS Programming Language (28 hours)
- Electrical Maintenance (28 hours)
- Preventive Maintenance (8 - 12 hours)
- Arc Welding Programming (28 hours)
- Paint Robot Operations & Programming (28 hours)
- K-ROSET Simulation Software Tool (16 hours)
- Cubic-S Safety System (12 hours)
- System Integration (36 - 40 hours)



Integrator Certification Program

This rigorous, four-course curriculum and exam gives integrators the tools they need to successfully build a Kawasaki robot system. The program covers simulation, system integration, operations and programming using the AS Language.

“We weren’t getting what we wanted out of the classes we were taking from other robot companies... But (at Kawasaki) we went way far beyond what we would normally see in a class.

And that adaptability to your students - you just don’t see that.”

-Jerry Bransom, Owner, Bransom Tech Services

Part Repair

Certified Kawasaki Robotics' technicians provide the highest level of service when it comes to repairing Kawasaki robot parts and printed circuit boards. Upon receipt, our repair experts evaluate each part to determine current condition and formulate a plan for repair. Each part repaired by Kawasaki receives the latest component improvement updates and undergoes functionality testing under load, ensuring the quality of our product.

Repair Capabilities

- Printed circuit boards
- Teach pendants
- Servo amplifiers (power block)
- MC units
- Servo motors
- MIG torches

Refurbishment

Refurbishment is a cost-effective service option that extends the service life of your robots and keeps them running at top-level performance throughout their lifespan. Kawasaki uses only OEM parts during repair and refurbishment to ensure the highest quality for our customers, and a warranty is provided on all replaced or repaired parts.

At the same cost, refurbishment can be done at a Kawasaki Robotics facility or the customer's. The only difference in cost are shipping or travel expenses, depending on your choice.

Robot Refurbishment & Overhaul

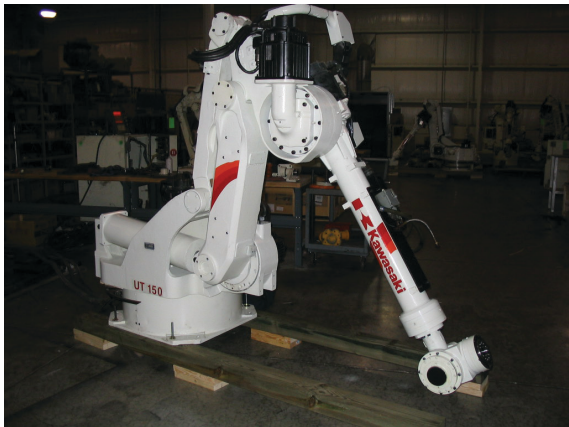
- Full robot tear down with complete clean-up and internal inspection of all major components
- Reduction unit disassembly, inspection and reassembly
- Replacement of bearings, seals, gaskets and belts
- Replacement of high-use gear
- Replacement of high-use snap ring
- Full function test for 20 hours

Sub-Assembly, Condition & Rebuild

- Complete gearbox rebuild including all gears, seals and bearings
- Complete wrist rebuild, including all seals, bearings and adjustments
- Counter balance rebuild, including rod, seals and bearings



Before



After



For after hours emergencies:
24-HOUR SUPPORT HOTLINE
(248) 446-4271

For customer support, call **(248) 446-4100**

Please have the following information ready when calling for assistance:

- Robot model and serial number
- Controller model and serial number
- Any error codes displayed on the robot panel or display
- What steps were taken prior to contacting Kawasaki
- As much information as possible about how the error or problem occurred

You can also reach our Customer Support teams via email:

Service@kri-us.com
Parts@kri-us.com
Training@kri-us.com
Repairs@kri-us.com
Refurbishment@kri-us.com