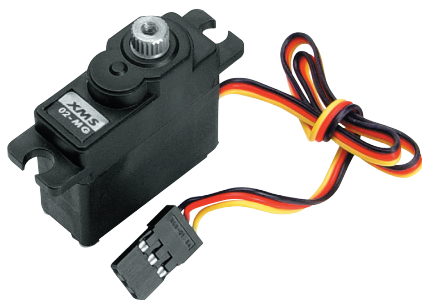




#38 9171 XMS02MG MICRO SERVO

The high-quality metal-gear micro servo has been specially chosen for the M18 because of its high precision, long life and high quality.



XM02MG TECHNICAL DATA		
Operating voltage range	4.8V to 6.0V	
Test voltage	At 4.8V	At 6.0V
Operating speed	0.12sec/60° At no load	0.10sec/60° At no load
Stall torque	2.8kg.cm (38.88oz.in)	3.4kg.cm (47.22oz.in)
Standing torque	2.2kg.cm (30.55oz.in)	2.7kg.cm (37.50oz.in)/5° Holdou
Dimensions	29.8x12.0x29.6mm (1.17x0.47x1.16in)	
Weight	19.0g (0.66oz)	
Output gear	Metal	

WIRE LEAD COLORS		
	Black = ground	
	Red = power	
	Yellow = signal	

SERVO TROUBLESHOOTING

Servo makes a grinding noise or acts erratic	<ul style="list-style-type: none">■ Remove the servo from the car.■ Open the case and remove the gears. Examine them for broken teeth. If broken, replace with a new gear set.
Servo jitters	<ul style="list-style-type: none">■ Remove the servo from the car.■ Open the case and remove the gears.■ Spray a zero-residue electrical cleaner into and around the potentiometer and work it in.■ After the cleaner has dried, re-install the gears and close the case.■ Possible damaged receiver/transmitter crystal.
Servo doesn't center properly	<ul style="list-style-type: none">■ Disconnect the steering rod from the left front steeringblock. Steer left and right with the transmitter several times. If the servo arm does not return to the same neutral position each time, the servo may be damaged.■ Remove the servo from the car. Open the case and check for proper gear alignment. Next check the case top for wear. If wear is evident, replace the case.
Servo is locked in place	<ul style="list-style-type: none">■ Remove the servo from the car.■ Open the case and check for proper gear alignment. If gears are damaged, replace the gear set.■ Check the case top for wear. If wear is evident, replace the case.
Servo hums	<ul style="list-style-type: none">■ This is normal if the servo is trying to hold position against the force of a load.■ If the servo hums when no load is applied, try loosening the servo case screws 1/4 to 1/2 turn.
Servo gets hot	<ul style="list-style-type: none">■ Check the servo wiring, it should match the receiver being used.■ If the wiring is okay, the servo motor may be stalled due to a failed gear train. Remove the servo from the car, open the case and inspect for any damage.
Wheels turn in opposite direction to setting input	<ul style="list-style-type: none">■ Change the servo reversing setting, and then re-adjust the steering subtrim and EPA settings.

WARRANTY

XRAY guarantees this product to be free from defects in both material and workmanship within 90 days of purchase. The total monetary value under warranty will in no case exceed the cost of the original tool purchased. This warranty does not cover any components damaged by use or modification or as a result of wear. No part will be sent under warranty without proof of purchase. Should you find any defect, contact the local distributor. Service and customer support will be provided through local hobby store where you have purchased the product or by the distributor, therefore make sure to purchase any XRAY products at your local hobby store.

XRAY has no control over usage of this product once it leaves the dealer, therefore XRAY can only offer warranty against all manufacturer's defects in materials, workmanship, and assembly at point of sale and before use. No warranties are expressed or implied that cover damage caused by what is considered normal use, or cover or imply how the speed controller will last before requiring replacement.

This warranty does NOT cover suitability for specific operation, incorrect installation, components worn by use, application of reverse or improper voltage, shipping, tampering, misuse like any soldering inside the unit, replacing of wires, connection to electrical components not mentioned in the instructions, mechanical damage, immersion of water and cutting of the original wires, plugs, connectors and switches.

XRAY does not pay nor refund shipping on any component sent to XRAY or its distributors for warranty. XRAY reserves the right to make the final determination of the warranty status of any component or part.

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