



# SPMXAM4502, SPMXAM4560, SPMXAM4595, SPMXSA4620, SPMXAM4630, SPMXAM4670, SPMXAM4675, SPMXAM4700, SPMXAM4725, SPMXAM4715, SPMXAM4745, SPMXAM4740, SPMXAM4770, SPMXAM4795, SPMXAM4796, SPMXAM4800, SPMXAM4805 Instruction Manual

## NOTICE

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, LLC. For up-to-date product literature, visit horizonhobby.com or towerhobbies.com and click on the support or resources tab for this product.

## Meaning of Special Language

The following terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

**WARNING:** Procedures, which if not properly followed, create the probability of property damage, collateral damage, and serious injury OR create a high probability of superficial injury.

**CAUTION:** Procedures, which if not properly followed, create the probability of physical property damage AND a possibility of serious injury.

**NOTICE:** Procedures, which if not properly followed, create a possibility of physical property damage AND a little or no possibility of injury.

**WARNING:** Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury.

This is a sophisticated hobby product. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. Do not attempt disassembly, use with incompatible components or augment product in any way without the approval of Horizon Hobby, LLC. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

**Age Recommendation: Not for children under 14 years. This is not a toy.**

**NOTICE:** This product is only intended for use with unmanned, hobby-grade, remote-controlled vehicles and aircraft. Horizon Hobby disclaims all liability outside of the intended purpose and will not provide warranty service related thereto.

## Building a power system

Electric power systems need to be matched to the needs of your aircraft. There are several important variables you must choose for your electric motor power system, and changing any one of those variables will change how the power system performs. Estimate your aircraft's all up weight, and begin your calculations by deciding how much power you demand for your aircraft and your style of flying.

- If your aircraft has moderate performance (for a trainer to a moderate sport plane): 75–125 watts per pound.
- If your aircraft is high performance (for high speed, 3D or other high performance aircraft): 175–250 watts per pound.

Watts are determined by multiplying volts and amps (current). Review the motor data and select a motor capable of delivering constant watts to meet your aircraft's needs, and is rated to spin a propeller suitable for your airframe.

Motor	SPMXAM4502	SPMXAM4560	SPMXAM4595	SPMXSA4620	SPMXAM4630	SPMXAM4670	SPMXAM4675	SPMXAM4700	SPMXAM4725	SPMXAM4715	SPMXAM4745	SPMXAM4740	SPMXAM4770	SPMXAM4795	SPMXAM4796	SPMXAM4800	SPMXAM4805
Description	Avian 2813-1750Kv	Avian 2830-950Kv	Avian 3530-1250Kv	Avian 3536-1200Kv	Avian EF1 Race 3545-1250kV	Avian 4240-800Kv	Avian 4240-1000Kv	Avian 4250-800Kv	Avian 4260-800Kv	Avian 4260-480Kv	Avian 5055-650Kv	Avian 5055-500Kv	Avian 5065-450Kv	Avian 6362-250Kv	Avian 6362-200Kv	Avian 8075-230Kv	Avian 8085-160Kv
Includes	prop saver, prop adapter and motor mount	prop saver, prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount	prop adapter and motor mount
Diameter	28 mm (1.1 in)	28 mm (1.1 in)	35 mm (1.4 in)	35 mm (1.4 in)	35 mm (1.4 in)	42 mm (1.7 in)	42 mm (1.7 in)	42 mm (1.7 in)	42 mm (1.7 in)	42 mm (1.7 in)	50 mm (2.0 in)	50 mm (2.0 in)	50 mm (2.0 in)	63 mm (2.5 in)	63 mm (2.5 in)	80 mm (3.1 in)	80 mm (3.1 in)
Length	13 mm (0.51 in)	30 mm (1.2 in)	30 mm (1.2 in)	36 mm (1.4 in)	45 mm (1.77in)	40mm (1.57in)	40 mm (1.6 in)	50 mm (2.0 in)	60 mm (2.4 in)	60 mm (2.4 in)	55 mm (2.2 in)	55 mm (2.2 in)	65 mm (2.6 in)	62 mm (2.4 in)	62 mm (2.4 in)	75 mm (3.0 in)	85 mm (3.4 in)
Kv	1750	950	1250	1200	1250	800	1000	800	800	480	650	500	450	250	200	230	160
Constant Watts	90	160	325	500	700	592	650	850	1000	1100	1200	1300	1800	2500	1450	5000	6500
Burst Watts	120	220	390	650	1000	740	740	1480	1850	1850	2200	2200	2300	3200	2300	6500	8400
Weight	20g (0.71 oz)	54g (1.9 oz)	71g (2.5 oz)	102g (3.6 oz)	159g [5.6oz.]	125g [4.4oz]	125g (4.4 oz)	198g (7 oz)	268g (9.5 oz)	268g (9.5 oz)	298g (10.5 oz)	298g (10.5 oz)	400g (14.1 oz)	634g (22.4 oz)	635g (22.4oz)	1250g (44.1 oz)	1480g (52.2 oz)
Shaft Diameter	3 mm (0.12 in)	3 mm (0.12 in)	4 mm (0.16 in)	4 mm (0.16 in)	5 mm (0.2 in)	5 mm (0.2 in)	5 mm (0.2 in)	5 mm (0.2 in)	5 mm (0.2 in)	5 mm (0.2 in)	8 mm (0.31 in)	8 mm (0.31 in)	8 mm (0.31 in)	8 mm (0.31 in)	8 mm (0.31 in)	10 mm (0.39 in)	10 mm (0.39 in)
Voltage Range	7.4-11.1V / 2-3S LiPo	7.4-11.1V / 2-3S LiPo	7.4-11.1V / 2-3S LiPo	11.1-14.8V / 3-4S LiPo	7.4-14.8V / 2-4S LiPo	11.1-18.5V / 3-5S LiPo	11.1-14.8V / 3-4S LiPo	11.1-14.8V / 3-4S LiPo	18.5-22.2V / 5-6S LiPo	18.5-22.2V / 5-6S LiPo	18.5 - 22.2V / 5-6S LiPo	18.5 - 22.2V / 5-6S LiPo	18.5 - 22.2V / 5-6S LiPo	33.3 - 37.0V / 9-10S LiPo	37.0-44.4V / 10-12S LiPo	33.3-55.5V / 9-15S LiPo	33.3-55.5V / 9-15S LiPo
Aircraft Wiegth (Sport)	225g (8 oz)	905g (32 oz)	1360g (3 lbs)	1815g (4 lbs)	1585g (3.5lb)	2676g-3583g (5.9-7.9lb)	2040g (4.5 lbs)	2950g (6.5 lbs)	3400g (7.5 lbs)	4310g (9.5 lbs)	4705g (10.5 lbs)	5215g (11.5 lbs)	6520 g (14.5 lbs)	9070 g (20 lbs)	11,340g (25lbs)	12.7 kg (28 lbs)	19.1 kg (42 lbs)
Aircraft Wiegth (3D)	140 g (5 oz)	565 g (20 oz)	905 g (2 lbs)	1135 g (2.5 lbs)	Not intended for 3D	1769g (3.9lb)	1360 g (3 lbs)	1845 g (4 lbs)	2210 g (5 lbs)	2720 g (6 lbs)	2950 g (6.5 lbs)	3175 g (7 lbs)	4080 g (9 lbs)	5445 g (12 lbs)	7,711g (17lbs)	8.17 kg (18 lbs)	11.79 kg (26 lbs)
Power System Recommendation	8 Amp ESC, 2S LiPo, 7x6 to 8x4 Slow-fly Prop	25 Amp ESC, 3S LiPo, 8x6 to 10x4.5 Slow-fly Prop	35 Amp ESC, 3S LiPo, 10x4.5 to 10x7 Electric Prop	45 Amp ESC, 4S LiPo, 10x7 to 11x7 Electric Prop	70 Amp ESC. 4S lipo, 8X8 Electric prop	35A ESC, 10x5 - 13x8 Electric Prop	45 Amp ESC, 3S LiPo, 11x8.5 to 12x6 Electric Prop	45 Amp ESC, 4S LiPo, 12x6 to 13x8 Electric Prop	60 Amp ESC, 6S LiPo, 10x5 to 11x5 Electric Prop	60 Amp ESC, 6S LiPo, 13x10 to 15x8 Electric P	60 Amp ESC, 6S LiPo, 12x6 to 13x4 Electric Prop	60 Amp ESC, 6S LiPo, 15x6 to 15x8 Electric Prop	80 Amp ESC, 6S LiPo, 16x6 to 17x8 Electric Prop	80 Amp ESC, 10S LiPo, 16x8 to 18x8 Electric Prop	80-100A ESC, 12S LiPo,17x10-19x10 Electric Prop	120 Amp ESC, 12S LiPo, 22x8 to 22x10 Prop	120 Amp ESC, 12S LiPo, 22x10 to 26x12 Prop

## Selecting a propeller

Selecting a motor will narrow down the propeller options, but choosing the propeller and battery can vastly affect the power system performance. Expect to test a variety of propeller sizes to find what works best for your aircraft and flying style.

The first number on the propeller is the diameter in inches. The second number represents the pitch and is written as the number of inches the propeller will move forward in one revolution. Increasing either the pitch or the diameter will increase current draw. A small propeller with large pitch may draw similar current as a larger propeller with smaller pitch, but they will have very different flight performance. A small diameter propeller with a large pitch will deliver more speed, at the expense of pulling power for vertical maneuvers and aerobatics. A larger diameter propeller with a smaller pitch will not deliver as much speed, but has more pulling power for 3D aerobatics or vertical climbs.

Be aware of ground clearance as well. Having enough room to swing a large propeller often becomes the limiting factor in choosing a power system. Before you start searching for a suitable propeller, research the maximum diameter propeller for your airframe. Always balance propellers before use. A well balanced propeller will improve efficiency, make the aircraft run smoother and quieter, and will reduce wear on your motor mount and airframe. A poorly balanced propeller can cause damage to an airframe if vibration is ignored.

## Selecting a battery

We recommend Spektrum Smart batteries to go along with the power system. Changing the cell count of the battery can vastly affect the power system performance. Review your motor specifications for the range of battery ratings (voltage) your motor is rated for. Choose a battery based on the dimensions of your aircraft, balance needs for your aircraft (CG), cell count (voltage), and your estimated maximum current.

**TIP:** Voltage (cell count) determines how fast a motor will spin, and capacity (mAh) determines how long the battery charge will last.

**TIP:** You can use the volts x current = watts equation to estimate your current at different voltage. Watts/volts = current. Use this equation to determine your expected current with different battery cell count (voltage).

**TIP:** LiPo batteries have a "C" rating. This determines the maximum current the battery is rated to deliver. Multiply the battery's capacity (mAh) and the C rating to determine the maximum current the battery is rated to deliver.

## Selecting an ESC

Choose an ESC that is able to handle more than the maximum estimated current. Selecting the next size up is often a wise choice to leave a buffer. Separately, consider how much current the servos being used on your aircraft will draw if you are going to be powering the receiver from an integrated BEC on the ESC. We recommend Spektrum Smart ESCs to pair with Smart batteries and these Avian motors. When used with a Smart compatible telemetry receiver and transmitter, you can determine important power system data without additional equipment. All of the metrics you need to properly set up and understand your power system are available on your transmitter screen with this system including current, voltage, RPM (pole count required to be input into Smart ESC telemetry setup screen for RPM) and more.

## Propeller adapters

Determine what type of propeller adapter you plan to use in preparation for mounting the motor.

- For prop saver style mounts always use quality O-rings and ensure the rubber is in good condition and well secured before connecting power to the aircraft.
- For collet style propeller adapters be sure the nut is securely tightened so the motor shaft cannot slip, however further tightening is not necessary and may damage the collet.
- For directly mounted propeller adapters use a small amount of removable thread lock and tighten the mounting screws in a star pattern to ensure it is centered on the motor.

## Motor installation

Determine what type of motor mount you plan to use in preparation for mounting the motor. Be aware of the length of mounting screws extending into the motor. Take into account the thickness of the firewall and never allow motor mounting screws to come into contact with the wires inside the motor (motor windings). If the mounting screws are tightened onto the motor windings there is a good chance the windings will be permanently damaged. Damage caused during installation is not covered under warranty.

## Connecting the motor

The motor wires may be connected to the ESC in any order. If you need to reverse the motor direction, trade any two of the three connectors.

## Power System Testing

If you do not have power system data through telemetry you will need to source a power meter (watt meter) to measure how many watts your power system is pulling and how well your batteries are holding up voltage under load. Testing and tuning your power system may be as simple as checking you are within the specifications, or it may come down to changing the propeller or battery to suit your needs.

Conduct ground testing first, once performance is verified proceed to flight testing. If you decide to increase the propeller size or battery cell count after your first flights, you will need to go back to ground testing to check power consumption before proceeding to more flights.

TIP: A power system is only as good as the battery supplying the power. Always begin power system testing with a fully charged battery known to be in good operating condition, and monitor the voltage during testing for signs of the battery's aptitude to handle the power demands. With no load the battery voltage will be highest, and it will be lowest at full throttle. The more power (watts) you demand from the battery, the more the voltage will sag, which is normal. Learning how to understand voltage sag is import because it is an important indicator of a battery's health and how suitable that battery is for a given application. Batteries with a higher C rating will have less voltage sag under power demands, which is why they can deliver more power. At no time during testing should battery voltage drop below 3.0 volts per cell (for LiPo type batteries, other batteries types will vary). Do the math for your battery cell count and never let the voltage drop below that value. When a battery is new and operating to full potential it will hold the voltage up better under load, and as a battery is used and abused it will loose its ability to hold voltage up under load (power demands). The motor RPM is directly related to the voltage, so if the voltage sags the motor slows down. The result of this in real life is a new battery is powerful and seems fresh, and old batteries cannot deliver the power they did when new and seem sluggish. If you are testing with an old battery that cannot deliver sufficient current without the voltage sagging, you will not see the actual performance capabilities of the power system.

## Ground Testing

**WARNING:** Always secure your aircraft prior to ground testing. Do not stand in front of a spinning propeller or reach around a propeller to make adjustments during testing. Failure to heed this warning may result in severe physical injury.

A power system will usually draw more power on the ground when testing static thrust than it will when the system is being used in flight, so it is reasonable to expect it will be drawing less power in flight if you are within the limits on the ground. Be aware, however, that airflow for cooling won't be as good on the ground as it should be in the air (with sufficiently good airframe design), so you need to monitor your power system temperatures during testing to prevent overheating.

Begin testing with the battery and propeller you chose to verify the power system is operating within the specifications of the motor, ESC and battery. You should find the watts does not exceed the motor's rating for continuous wattage, but if it does, never exceed the burst rating for wattage. If you exceed the continuous wattage, you should be aware of the throttle setting where you exceed that value and be cautious not to use throttle settings above that for any extended time period. If the wattage exceeds the burst rating for your motor during testing, you will need to make a change to the power system to prevent overloading the motor. If you overload the motor and continue to operate it, the motor will overheat which may cause permanent damage. If you need to reduce the wattage your motor is pulling, you may change the propeller or change the battery (voltage/cell count). Reducing the propeller diameter or pitch will reduce power consumed, and going to a lower cell count battery will also reduce power consumption. Double check your math for watts per pound with actual values instead of estimates, and proceed to flight testing as long as everything is aligned with your original estimates.

## Flight Testing

Fly the aircraft in the manner you plan to normally fly it. If this includes high speed aggressive flying, or 3D aerobatics be sure to land frequently and check the power system components temperature to make sure nothing is getting hot. If you want more speed, consider reducing the diameter and increasing the pitch of your propeller. If you want more pulling power for aerobatics and hovering type of maneuvers consider going to a larger diameter with a smaller pitch. If you go up with one number and down with the other you can make the change with minimal impact on the wattage consumed. If you only go up with one of the numbers you need to go back to ground testing to verify you aren't pulling too much power. If you want a lot more power and have enough overhead with the wattage you are putting through the motor, you can go to a larger cell count battery. Be aware going to a higher cell count battery will draw a lot more power because the motor will spin faster, so you will need to go back to ground testing and you might need to reduce the propeller size and/or pitch to keep the power system operating within the specifications.

Brushless Outrunner Motor Mounts	Compatible motors
GPMG1200	Small 28 mm motors
GPMG1205	Medium 35-42 mm motors
GPMG1210	Large 50-63 mm motors

Outrunner Prop Adapters	Compatible motors
GPMQ4903	35mm Diameter Motors
GPMQ4906	42mm Diameter Motors
GPMQ4909	50mm Diameter Motors
GPMQ4912	63mm Diameter Motors

### What this Warranty Covers

Horizon Hobby, LLC, (Horizon) warrants to the original purchaser that the product purchased (the “Product”) will be free from defects in materials and workmanship for a period of 1 year from the date of purchase.

### What is Not Covered

This warranty is not transferable and does not cover (i) cosmetic damage, (ii) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (iii) modification of or to any part of the Product, (iv) attempted service by anyone other than a Horizon Hobby authorized service center, (v) Product not purchased from an authorized Horizon dealer, (vi) Product not compliant with applicable technical regulations, or (vii) use that violates any applicable laws, rules, or regulations.

OTHER THAN THE EXPRESS WARRANTY ABOVE, HORIZON MAKES NO OTHER WARRANTY OR REPRESENTATION, AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER’S INTENDED USE.

### Purchaser’s Remedy

Horizon’s sole obligation and purchaser’s sole and exclusive remedy shall be that Horizon will, at its option, either (i) service, or (ii) replace, any Product determined by Horizon to be defective. Horizon reserves the right to inspect any and all Product(s) involved in a warranty claim. Service or replacement decisions are at the sole discretion of Horizon. Proof of purchase is required for all warranty claims. SERVICE OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE PURCHASER’S SOLE AND EXCLUSIVE REMEDY.

### Limitation of Liability

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF HORIZON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability. If you as the purchaser or user are not prepared to accept the liability associated with the use of the Product, purchaser is advised to return the Product immediately in new and unused condition to the place of purchase.

### Law

These terms are governed by Illinois law (without regard to conflict of law principals). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Horizon reserves the right to change or modify this warranty at any time without notice.

### WARRANTY SERVICES

#### Questions, Assistance, and Services

Your local hobby store and/or place of purchase cannot provide warranty support or service. Once assembly, setup or use of the Product has been started, you must contact your local distributor or Horizon directly. This will enable Horizon to better answer your questions and service you in the

event that you may need any assistance. For questions or assistance, please visit our website at [www.horizonhobby.com](http://www.horizonhobby.com), submit a Product Support Inquiry, or call the toll free telephone number referenced in the Warranty and Service Contact Information section to speak with a Product Support representative.

### Inspection or Services

If this Product needs to be inspected or serviced and is compliant in the country you live and use the Product in, please use the Horizon Online Service Request submission process found on our website or call Horizon to obtain a Return Merchandise Authorization (RMA) number. Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. An Online Service Request is available at [http://www.horizonhobby.com/content/service-center\\_render-service-center](http://www.horizonhobby.com/content/service-center_render-service-center). If you do not have internet access, please contact Horizon Product Support to obtain a RMA number along with instructions for submitting your product for service. When calling Horizon, you will be asked to provide your complete name, street address, email address and phone number where you can be reached during business hours. When sending product into Horizon, please include your RMA number, a list of the included items, and a brief summary of the problem. A copy of your original sales receipt must be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

**NOTICE: Do not ship LiPo batteries to Horizon. If you have any issue with a LiPo battery, please contact the appropriate Horizon Product Support office.**

### Warranty Requirements

For Warranty consideration, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be serviced or replaced free of charge. Service or replacement decisions are at the sole discretion of Horizon.

### Non-Warranty Service

Should your service not be covered by warranty, service will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for service you are agreeing to payment of the service without notification. Service estimates are available upon request. You must include this request with your item submitted for service. Non-warranty service estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Horizon accepts money orders and cashier’s checks, as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for service, you are agreeing to Horizon’s Terms and Conditions found on our website [http://www.horizonhobby.com/content/service-center\\_render-service-center](http://www.horizonhobby.com/content/service-center_render-service-center).


**ATTENTION: Horizon service is limited to Product compliant in the country of use and ownership. If received, a non-compliant Product will not be serviced. Further, the sender will be responsible for arranging return shipment of the un-serviced Product, through a carrier of the sender’s choice and at the sender’s expense. Horizon will hold non-compliant Product for a period of 60 days from notification, after which it will be discarded.**


## Warranty and Service Contact Information

Country of Purchase	Horizon Hobby	Contact Information	Address
United States of America	Horizon Service Center (Repairs and Repair Requests)	<a href="http://servicecenter.horizonhobby.com/RequestForm/">servicecenter.horizonhobby.com/RequestForm/</a>	2904 Research Rd. Champaign, Illinois 61822 USA
	Horizon Product Support (Product Technical Assistance)	<a href="mailto:productsupport@horizonhobby.com">productsupport@horizonhobby.com</a> 877-504-0233	
	Sales	<a href="mailto:websales@horizonhobby.com">websales@horizonhobby.com</a> 800-338-4639	

### FCC Information

Supplier’s Declaration of Conformity

 This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

 **CAUTION:** Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does

### IC Information

CAN ICES-3 (B)/NMB-3(B)

This device contains license-exempt transmitter(s)/receivers(s) that comply with Innovation, Science, and Economic Development Canada’s license-exempt RSS(s). Operation is subject to the following 2 conditions:

cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.  
Increase the separation between the equipment and receiver.  
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.  
Consult the dealer or an experienced radio/TV technician for help.

Horizon Hobby, LLC  
2904 Research Rd.,  
Champaign, IL 61822  
Email: [compliance@horizonhobby.com](mailto:compliance@horizonhobby.com)  
Web: [HorizonHobby.com](http://HorizonHobby.com)

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

