

PRECAUTION FOR USE

•Before using this product, carefully read the important warnings described in this instruction manual to understand the instructions thoroughly.

- ⚠ DANGER** Instructions that the user must observe to prevent serious injury.
- ⚠ CAUTION** Useful information for handling this product.
- ⚠ WARNING** Instructions that the user must observe to prevent accidents.

•About installation

- ⚠ DANGER** **To prevent accident and fault:**
Conduct wiring work carefully. If a connecting part comes off under vibration during travel, motor control may be disabled.
- ⚠ WARNING** **To prevent accident and fault:**
The soldering of each part must be conducted within 5 seconds.
Applying heat for a long period causes damage to the electronic components.

•About cable connections

- ⚠ CAUTION** **To prevent accident and fault:**
Make sure that the cables are properly connected. Do not connect the power supply with reverse polarities. Be sure to insulate cable connection terminals. If the connection terminals are short-circuited, it may result in damage to this product.

•About modification

- ⚠ DANGER** **To prevent smoke, fire and burns:**
Never attempt to solder the circuit board and electronic components in the motor.

•Handling precautions

- ⚠ DANGER** **To prevent smoke, fire and burns:**
During use of this product (when a power supply is connected to the motor, or when the power switch is ON), keep watching the motor. If an abnormal condition occurs, it may result in fire or other accident.
- ⚠ CAUTION** **To prevent accident and fault:**
Do not install this product in a place where water, oil, fuel or other conductive liquids are present. Electronic components are vulnerable to minerals contained in such liquids. If the product becomes wet with such liquids, immediately stop operation, and dry it.
- ⚠ CAUTION** **To prevent accident and fault:**
Be sure not to use the motor in fully-throttled condition, if the motor is not incorporated in a chassis drive unit. Running the motor at a high speed under no load causes damage to the motor.
- ⚠ CAUTION** **To prevent accident and fault:**
If an improper gear ratio is selected, it results in motor overload, causing the motor to be damaged by abnormal heating. Select an appropriate gear ratio carefully.

ACUVANCE CORPORATION
Technical Service Dept.

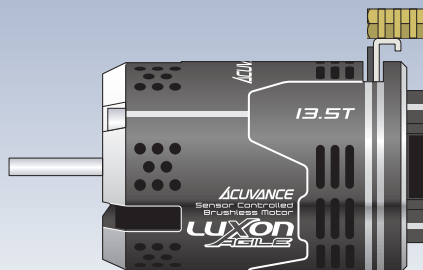
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ACUVANCE

Sensor Controlled Brushless motor
LUXON
AGILE

INSTRUCTION MANUAL



Thank you for purchasing the ACUVANCE Sensor-Controlled Brushless Motor. This motor provides the best performance when used in combination with the ACUVANCE brushless ESC "TACHYON". To obtain 100% performance of this product, be sure to read this instruction manual. After reading this manual, keep it carefully.

*LUXON AGILE is a motor dedicated to sensor-controlled brushless ESC. It is not applicable to sensorless ESC.

Characteristic of LUXON AGILE

AGILE performs lineup of a characteristic different rotor by the same diameter, same length

AGILE is equipped with the industry's first MFC system which enabled the interactive changes from a torque type to a rotary type without breaking weight balance. The optional rotor has the same weight, same diameter and same length in a torque type and rotary type. Therefore you can feel the essential characteristic change of the motor without spoiling "the natural and direct silky feeling" that ACUVANCE cultivated in the LUXON series.

Upsizing and lightweighting of the rotor blade

The rotor blade which produced a current of air in the inside is upsized and lightweighted. It balanced rotary performance with ability for higher cooling.

Drivers can customize a body color

AGILE adopted new transformation (TF) jacket to enable the customization of the motor color. You can create an original color in conformity to a chassis if you use TF color jacket for exclusive use of optional AGILE.

Dual sensor connector

AGILE has two places of sensor connectors. It improved the flexibility of the layout by placing a connector in the different direction.

Extended ADVANCED ANGLE

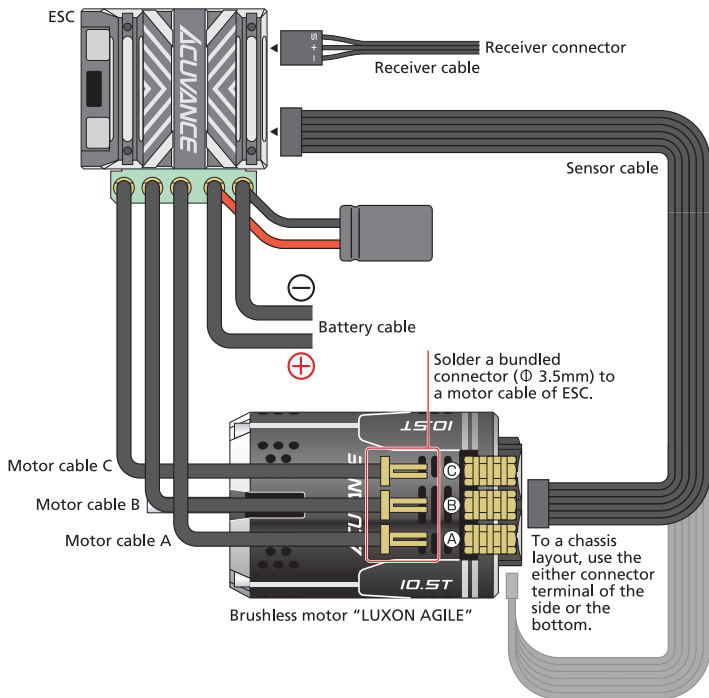
It extended advanced angle to 55 degrees, further high speed supports becoming it.

Large-diameter bearing

It adopts a large-diameter type to a front bearing, then it improved the rotary direction and the durability. (Outer diameter: 12.700mm/Inside diameter: 4.762mm)

CONNECTIONS

Connect the motor as shown below:



•Sensor cord

The sensor cord transmits a position signal of Hall element to a speed controller (hereinafter, referred to as ESC). Since the ESC and the motor use the same type of connector, there is no limitation in cord inserting direction. However, when inserting the cord, match the cord with the connector shape. If the sensor cord is not connected, the ESC initial setup cannot be performed. (During travel, keep the sensor cord connected to the ESC.)

Connect the sensor cord securely, because a contact failure causes malfunction and damage to equipment. Modification of the sensor cord causes a failure of the motor. Never attempt to modify the sensor cord.

CAUTION

When performing in-vehicle installation, do not group the motor cable with the sensor wire. Noise may cause improper operation.