ITEM 42187-42191

TRANSPEED BRUSHLESS OCTA

FOR EXPERT USE ONLY

TRF TAMIYA RACING FACTORY

CRP

TAMIYA

Thank you for purchasing this Transpeed Brushless motor.
The Transpeed Brushless motor provides high torque for expert R/C car drivers with its neodymium magnet and sintered rotor.
★The Transpeed Brushless motor is compatible with Tamiya Volac Brushless electronic speed controllers (Item 42127, 42144).
★Read carefully and fully understand the instructions prior to use to ensure the motor is always in the best condition. Make sure to read the following safety precautions as breakage and accidents due to improper use will void your warranty.

Specifications ★Specifications are subject to change without notice.

Specifications	4.5T	5.0T	7.5T	8.5T	9.5T
Input Voltage	3.7-7.4V	3.7-7.4V	3.7-7.4V	3.7-7.4V	3.7-7.4V
KV (rpm/volt)	7,700	7,000	4,700	4,100	3,800
Power	582W	534W	361W	316W	298W
Rotor	Sintered 12.5mm	Sintered 12.5mm	Sintered 12.5mm	Sintered 12.5mm	Sintered 12.5mm

★Do not use for Drift Driving.

Installation/Connection

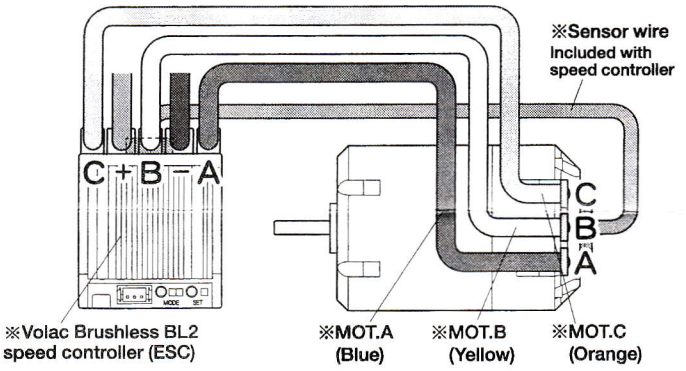
Sensor wire :
This bi-directional multipole wire connects the speed controller and the motor. Do not alter or modify this wire. The Hall Sensor wire is required to use the Transpeed Brushless motor. Make sure that the connectors are firmly secured.

Power wires :
The Transpeed Brushless motor requires soldering the power wires directly to the motor. Check the polarity of power wires then securely solder.
Caution: Do not solder longer than 5 sec. per soldering joint when attaching power wires to the motor to prevent possible damage to the speed controller and the motor due to overheating of the components.

Attaching motor to the chassis :
★The maximum length of the motor screws shall not exceed 8mm.

Connections
Motor : A = MOT. A (Blue)
Motor : B = MOT. B (Yellow)
Motor : C = MOT. C (Orange)

⚠ Caution
★Check all connections before using the motor.
★Applying full throttle without load will damage the motor.



Gear ratio

Due to the unique brushless design, these motors need different gear ratios than normal brushed motors. Read and follow the instructions with your model and make sure to use correct gear ratio.
★Do not use excessively high gear ratio. Incorrect gear ratio will increase heat buildup and may result in overheating and shutdown of the speed controller.

Refer to the gear ratio recommendations below.
Choose the actual gear ratio based on the track, chassis, track surface condition and/or battery.

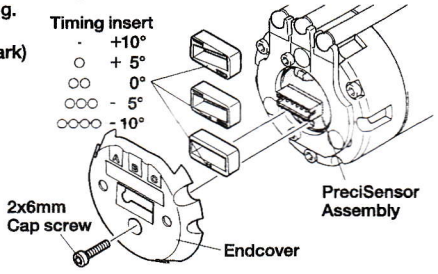
Motor	1/10 Touring cars Small track (5cell)	1/10 Touring cars Large track (5cell)	1/12 On-Road (4cell)	2WD Off-Road (6cell)	4WD Off-Road (6cell)	Off-Road Truck (6cell)
4.5T	8.8 : 1	7.5 : 1	29.0mm	-	-	-
5.0T	8.3 : 1	7.1 : 1	31.5mm	-	-	-
7.5T	7.3 : 1	6.3 : 1	39.0mm	9.1 : 1	9.5 : 1	11.0 : 1
8.5T	6.2 : 1	5.2 : 1	40.0mm	8.5 : 1	8.9 : 1	10.4 : 1
9.5T	6.8 : 1	5.8 : 1	41.0mm	7.5 : 1	7.9 : 1	9.2 : 1

Timing adjustment PreciSensor System

Supplied timing inserts enable fast, simple and super-accurate timing adjustment. By altering the timing, you can change the powerband and alter the characteristics of the motor.
Three important things to remember about timing adjustment:
●With higher timing, the motor revs higher, but has less torque.
●Higher timing requires shorter gearing.
●Timing adjustments should be done by experienced drivers only. Others should leave timing on standard setting.

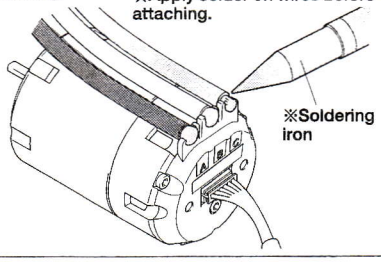
Standard insert - 10° (○○○○mark)

To change the timing:
①Loosen the 2x6mm center endcover screw and remove the plastic endcover.
②Install the desired timing insert and rotate sensor assembly slightly.
③Re-attach endcover and tighten 2x6mm screw carefully. Take care not to overtighten.



Soldering

★Apply solder on wires before attaching.

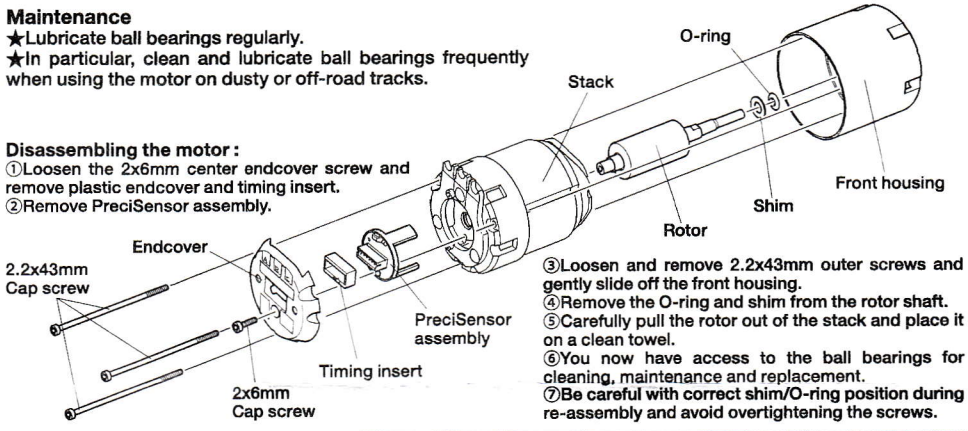


⚠ Caution
★Solder wires quickly and securely. Do not solder for a long time as overheating may damage the speed controller and the motor.
★Take extra care when using the soldering iron to prevent burning yourself or causing fires.

Maintenance

★Lubricate ball bearings regularly.
★In particular, clean and lubricate ball bearings frequently when using the motor on dusty or off-road tracks.

Disassembling the motor :
①Loosen the 2x6mm center endcover screw and remove plastic endcover and timing insert.
②Remove PreciSensor assembly.



③Loosen and remove 2.2x43mm outer screws and gently slide off the front housing.
④Remove the O-ring and shim from the rotor shaft.
⑤Carefully pull the rotor out of the stack and place it on a clean towel.
⑥You now have access to the ball bearings for cleaning, maintenance and replacement.
⑦Be careful with correct shim/O-ring position during re-assembly and avoid overtightening the screws.

⚠ Danger • Warning **Keep out of reach of small children. This product is intended for users over 14 years of age.**
Pay close attention to the following safety precautions as improper use can destroy the product and void your warranty or lead to property damage and personal injuries.
●Use Transpeed Brushless motor with Tamiya Volac Brushless (Item 42127) or Volac Brushless BL2 (Item 42144) ESCs.
●This motor is intended for use with R/C models that operate on the ground. Do not use for other models.
●Do not leave the model while it is switched on or connected to the battery. If a defect occurs, it could start a fire to the product or surroundings.
●Avoid incorrect connections with reversed polarity of the product. Incorrect wiring will damage the speed controller and the motor.
●All wires and connections must be well insulated. Short circuits will damage the product.
●Always wire up all the parts of the equipment carefully. If any of the connections come loose as a result of vibration, you could lose control over your model.
●Do not open the motor and solder on the circuit board or other components.
●Do not allow the speed controller and the motor to come in contact with water, oil, fuels or other liquids. If this happens, stop using immediately and allow to dry.
●Do not overtighten the motor screws.
●Do not apply full throttle if the motor is not securely installed as it may damage the motor.
●Do not use the incorrect gear ratio as it will cause motor overload and damage the motor.
●Continuous running will damage the motor. Let the motor cool down after each full battery run.
●Check whether any dust or sand has entered the motor after running.

Contact your local Tamiya dealer for any questions regarding this motor including parts, defects and repairs.

★Send the product with detailed description of the malfunction to Tamiya Customer Service for repair request (Effective in Japan only).

www.tamiya.com

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