



**The Hacker Brushless Motor is a High performance power-plant developed for Radio Control Models. This motor is a precision instrument and should be handled as such, please use only High Quality Sensorless Electronic Speed controllers and new high performance rechargeable batteries.**

### **Features**

- High efficiency and High power
- Very low Weight and Compact size
- For Small and Large models
- 60,000 to 80,000 max RPM
- Standard bolt spacing fits most models
- Available with or without Planetary Gearbox

### **Operating Instructions**

1. **General:** This motor is a Brushless design and will only work with Brushless-Sensorless Controllers. The following brands are recommended; **Jeti, Schulze, and Kontronik**

2. **Motor Mounting:** The correct length of screws must be used to mount direct drive motors.  
*The use of long screws will destroy the motor!*

B20 Series - **2.5mm Max Length**

B40 Series– **4mm Max Length**

B50 Series– **6mm Max Length**

C40 Series-**4mm Max Length**

C50 Series-**8 mm Max Length**

3. **Operation:** Connect the three motor wires in any order, to the three wires on the Sensorless Controller with solder or use connectors. Be sure to use Heat shrink tubing to insulate the wires.

**Note:** *To change the motor direction simply*

**REVERSE ONE PAIR** of the motor wires

- Do not shorten the motor wires.
- High Temperatures will destroy the motor, be sure to plan for adequate cooling during the installation of the motor.
- Do not open the Motor or Gearbox, this will damage the motor and Void the Warranty.
- Do not free run the motor. Free running the motor will destroy the motor and gearbox
- **Spinning Propellers are dangerous, exercise extreme caution when motor is running!**

## Drive System Guide

<b>Hacker Motors</b>	<b>Cells LiPO/MAH</b>	<b>Cells NiMH/MAH</b>	<b>Maximum Amps 15 Sec.</b>	<b>Continuous Amps</b>
B20S	2-3 / 1200	6-10 / 1100	12	8
B20L	2-3 / 1200	6-10 / 1100	18	12
B40S	2-4 / 4000	6-12 / 2000	40	25
B40L	2-5 / 4000	6-16 / 3000	50	30
B50S	2-5 / 6000	6-16 / 3000	55	35
B50L	3-6 / 8000	10-20 / 3000	60	35
B50XL	3-7 / 8000	10-24 / 3000	60	35
C40T	2-4 / 4000	6-12 / 3000	40	25
C40L	2-4 / 4000	6-12 / 3000	40	25
C50S	2-5 / 6000	6-16 / 3000	55	35
C50L	3-6 / 8000	10-20 / 3000	60	35
C50XL	4-10 / 8000	12-30 / 3000	60	40

**Note:**The above figures represent typical performance that can be achieved when the recommended drive system components are properly used, however variables in Battery condition, Speed Controller design and Set-Up may produce results different than those noted.

**Cells**=Number of cells in series and Capacity

**Amps**=The typical current the motor will use to achieve the maximum thrust

**Thrust**=The maximum static thrust, the drive system will produce

## Warranty

Aero-Model Inc. warrants products to be free from defects at the date of purchase. This warranty does not cover any component parts damaged by use or modification. AeroModel, Inc. reserves the right to change or modify this warranty without notice.

In that Aero-Model, Inc. has no control over the final assembly, no liability shall be assumed nor accepted for any damage resulting from the use by user of the final assembled product, the user accepts all resulting liability.

All returns require a "Merchandise Return Authorization (MRA)", which can be obtained by contacting Aero-Model Inc. No returns of any type will be accepted without a MRA number and will be returned to the sender. The following information is required for obtaining a MRA number: Customer name ( or Store name), Invoice number, part or model number and explanation of defect or problem.

- Aero-Model Inc. must authorize all returns within 7 days from receipt of order
- All returns must have a copy of the original invoice with MRA number
- All returning packages must have the MRA number clearly marked on the outside of the packaging
- All packages shall be inspected upon delivery. All claims for damaged products must be made with carrier within 3 days of the receipt of the package.
- All defective items must be processed through the Manufacturer or the Distributor of the product
- Sender must prepay all transportation and insurance charges
- All returning items must be in new , saleable condition. They must have original packing material, manuals and accessories