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D&D Motor Systems 170-004-0002A

D&D Motor Systems Club Car DS Motor (Series) 170-004-0002A Instruction Manual

Model: 170-004-0002A | Brand: D&D Motor Systems

1. INTRODUCTION

This instruction manual provides essential information for the proper installation, operation, and maintenance of your D&D Motor Systems Club Car DS Series Golf Cart Motor, model 170-004-0002A. This motor is designed for 36V or 48V Club Car DS series electric golf carts, offering increased torque and speed compared to stock motors. Please read this manual thoroughly before installation and use to ensure safe and optimal performance.



Image 1.1: D&D Motor Systems Club Car DS Series Golf Cart Motor (Model 170-004-0002A).

2. IMPORTANT SAFETY INFORMATION

WARNING: STOCK COMPONENT RESTRICTION

This product is intended for use in applications where the vehicle is **stock only**. This means the golf cart should **not** have modifications such as, but not limited to, a lift kit, larger tires, backseat, backbed, or trailer hitch. Additionally, the vehicle should only be operated in a flat environment and at speeds of 14 MPH or less.

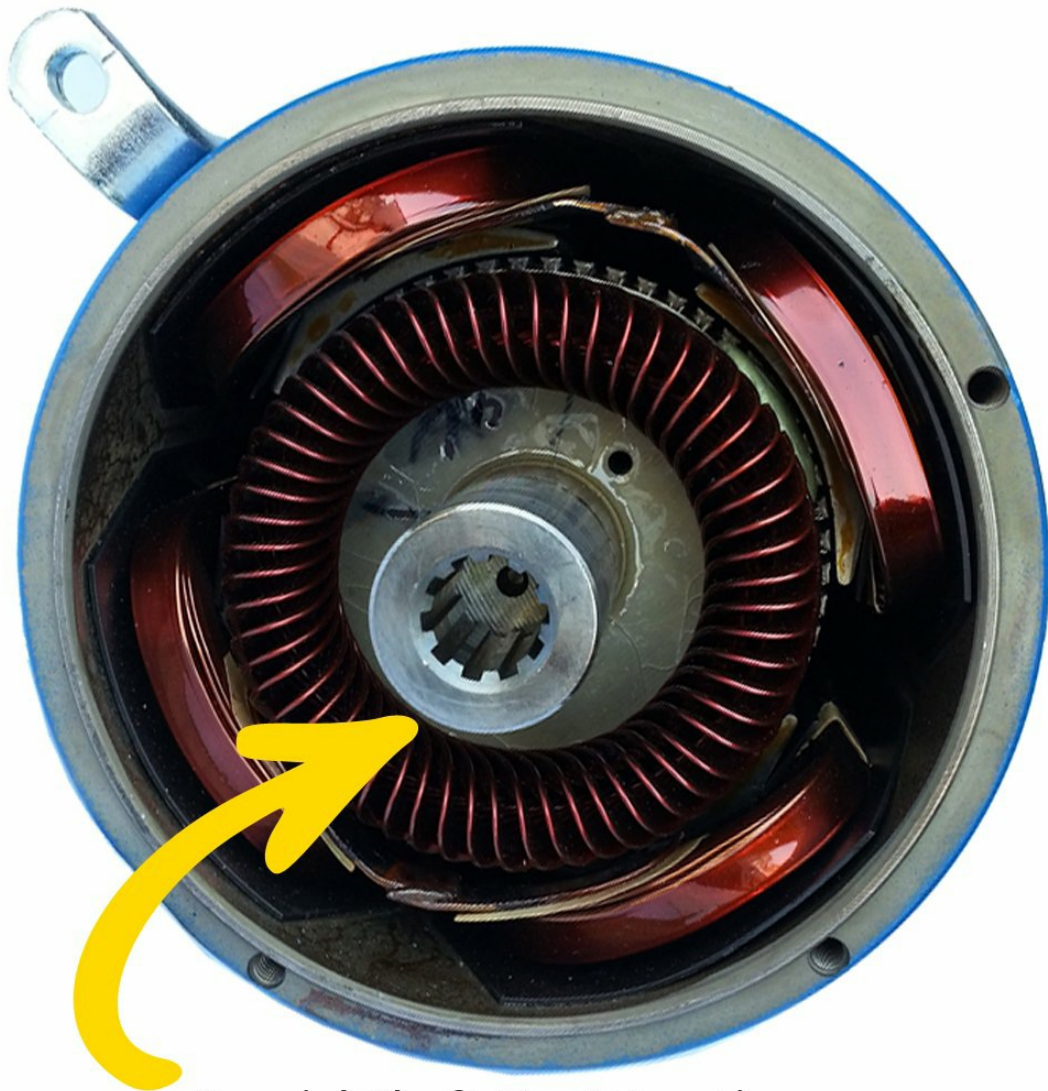
DISCLAIMER: PRODUCT LIABILITY

No product liability can be provided or assumed until D&D Motor Systems has all the necessary information regarding your vehicle's setup, application, and performance requirements. It is crucial to contact D&D Motor Systems Inc. at 315-701-0635 to confirm compatibility and setup approval before installation and use.

3. PRODUCT FEATURES

The D&D Motor Systems 170-004-0002A motor offers several advanced features:

- **High Performance:** Provides 15 MPH speed at 48V and 40% more torque compared to a stock golf cart motor.
- **Compatibility:** Designed for 36V/48V Club Car DS Series golf carts with a stock 10-tooth differential spline.
- **Enhanced Durability:** Features increased copper and steel content for higher thermal capabilities.
- **Advanced Shaft Treatment:** Special shaft heat treating reduces motor noise and shaft wear.
- **Corrosion Resistance:** Equipped with a durable and corrosion-resistant powder coating.
- **American Made:** Manufactured by D&D Motor Systems Inc. in the USA.



Special Shaft Heat Treating
(Results in Quieter motor & Less shaft wear)

Image 3.1: Internal view highlighting special shaft heat treating for reduced noise and wear.

Class H Thermal Rating (356°F/180°C) (Highest thermally rated motor in the golf cart market)



Most Durable & Corrosion Resistance Powder Coating

Image 3.2: Motor exterior showing Class H Thermal Rating and durable powder coating.

4. COMPATIBILITY AND GOLF CART IDENTIFICATION

It is critical to correctly identify your golf cart type (Series or Regen) and model to ensure compatibility with this motor. This motor is specifically designed for **Series** electric golf carts.

4.1. Identifying Series vs. Regen Golf Carts

Use the following questions to determine your golf cart type:

1. **Does your cart have a Run/Tow Switch?**
If **YES**, it is likely a **REGEN** cart.
2. **Does your existing motor have a speed sensor wire?**
If **YES**, it is likely a **REGEN** cart.

If you answer **NO** to **BOTH** questions, your cart is a **SERIES** vehicle, and this motor is compatible. If you answer a combination of YES and NO, or are unsure, please contact D&D Motor Systems for assistance.

Golf Cart Type - Series or Regen?

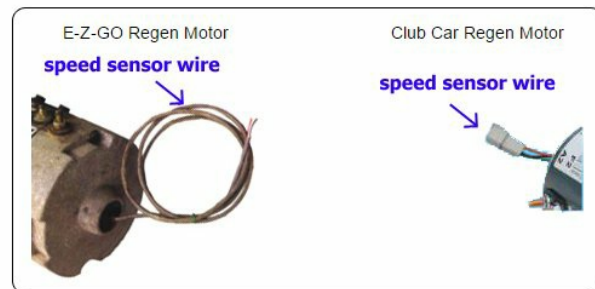
1. Does your cart have a Run/Tow Switch?

YES = REGEN



2. Does your existing motor have a speed sensor?

YES = REGEN



NO to BOTH Questions = SERIES
Contact Us if you answer combination of YES and NO

[Click For
Make & Model Info.](#)

Image 4.1: Visual guide for identifying Series or Regen golf carts.

4.2. Identifying Series Golf Cart Make & Model (Club Car)

For Club Car Series models, you can typically find the serial number on the passenger side of the glove box, from 1981 to present. The first two numerical characters indicate the last two digits of the year of manufacture.

Series Golf Cart Make & Model?

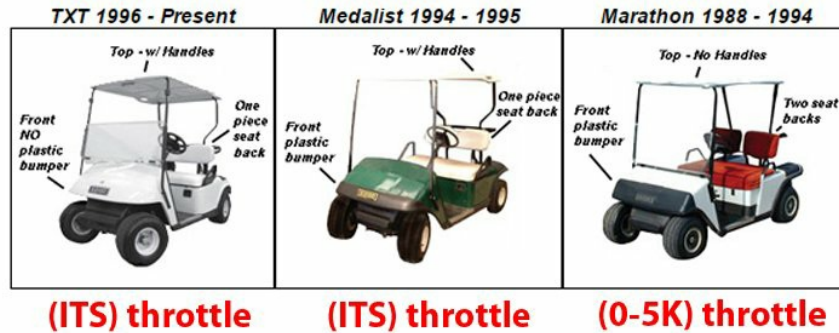
Club Car

From 1981 through Present, Club Car positions the serial number under the glove box on the passenger side of the golf cart. The first 2 numerical characters indicate the last 2 digits of the year of manufacture.

'96 and Newer	'92-'95	Before '92
(5K-0) throttle	(0-5K) throttle	Contact US

EZ GO

Identify Using
These Features



Yamaha **(0-1K) throttle**

Locate the Serial #. Under the driver side glove box, under the rear bumper on the frame or under the seat where the floor board meets the motor compartment. As long as the 1st 3 characters of your serial # are NOT: JR1, JU1, JC1, JW2 or JW9 then your cart is a SERIES vehicle with a (0-1K) throttle setting.

Image 4.2: Guide for identifying Series Club Car models.

This motor is a direct replacement for OEM# D395.

4.3. D&D Motor Product Line Overview

The following table provides an overview of D&D Motor Systems' product line, including Series Motors. This motor (170-004-0002A) is listed under Club Car Series motors.

D&D Motor Product Line

Regen Motors

EZ GO

Part # Search Term	Speed (MPH)	Torque (%)	Comment
170-505-0001	14	same	Heavy Duty Stock Replacement
170-501-0001	16	+10	
170-500-0001	18.5	-10	Speed Focus
170-502-0001	12	+40	Torque Focus - Hunting Buggy

Club Car

170-505-0002	14	same	Heavy Duty Stock Replacement
170-506-0002	24	-10	Speed Focus
170-502-0002	14	+40	Torque Focus - Hunting Buggy

Yamaha

170-505-0001	14	same	Heavy Duty Stock Replacement
170-502-0001	12	+40	Torque Focus - Hunting Buggy <i>Fabrication Note: Shock mount modification required</i>

Series Motors

EZ GO & Yamaha

Part # Search Term	Speed (MPH)	Torque (%)	Comment
170-004-0001	12	+40	Torque Focus - Hunting Buggy
170-001-0001	14	+20	
170-010-0002	14	+30	Torque Focus
170-002-0001	16	+10	
ES-52-Type	16	+30	Torque & Speed Focus
170-003-0001	18	-10	
170-006-0001	21	-15	Speed Focus
170-008-0001	21	-15	Speed Focus - Vented <i>Clean, On-Road Use Only!</i>

Club Car

170-004-0002A	14	same	Torque Focus - Hunting Buggy
170-001-0002	16	+10	
170-002-0002	18.5	-10	
170-003-0002	12	+40	Speed Focus
ES-81-Type	12	+40	Torque & Speed Focus
170-011-0002	12	+40	Speed Focus
170-012-0002	12	+40	Speed Focus - 36 Volt Only!

How to tell? Use the following images to determine.

Image 4.3: D&D Motor Product Line table.

5. INSTALLATION GUIDE

Motor installation should ideally be performed by a qualified technician. Always disconnect the battery pack before beginning any work on your golf cart's electrical system.

5.1. General Installation Steps (Consult a professional for detailed instructions)

- Safety First:** Ensure the golf cart is turned off, in neutral, and the parking brake is engaged. Disconnect the main battery pack.
- Access Motor:** Locate and access the existing motor. This may involve removing covers or other components.
- Disconnect Wiring:** Carefully label and disconnect all electrical wires from the old motor.
- Remove Old Motor:** Unbolt and remove the old motor from the differential.
- Install New Motor:** Mount the new D&D Motor Systems 170-004-0002A motor to the differential.
- Connect Wiring:** Reconnect the electrical wires to the new motor, ensuring correct polarity and secure connections. This motor typically involves 4 wires for series carts.

7. **Secure Components:** Reinstall any covers or components removed during the process.
8. **Reconnect Battery:** Reconnect the main battery pack.
9. **Test Functionality:** Test the golf cart's operation in a safe, open area.

Note on Mounting Bolts:

Some users have reported that the OEM mounting bolts may not be compatible with the new motor due to thread differences (fine vs. coarse). You may need to acquire new mounting bolts that match the threading of the D&D motor.

Before installation, D&D Motor Systems recommends contacting them to ensure your specific golf cart setup is approved for this motor. Call 315-701-0635.

6. OPERATION

This motor is designed to operate with either a 36V or 48V electrical system. Ensure your golf cart's controller and battery system are compatible with the motor's performance characteristics. The motor provides increased speed and torque, which may require adjustments to your driving habits, especially on varied terrain.

Always operate your golf cart responsibly and adhere to all local regulations and safety guidelines.

7. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your D&D motor.

- **Regular Inspection:** Periodically inspect the motor for any signs of damage, loose connections, or excessive dirt buildup.
- **Cleanliness:** Keep the motor clean and free from debris, especially around cooling vents (if present).
- **Connection Checks:** Ensure all electrical connections are tight and free from corrosion. Loose connections can lead to overheating and performance issues.
- **Brush Inspection (if applicable):** If your motor is a brushed type, consult a technician for periodic brush inspection and replacement as needed.
- **Avoid Overloading:** Do not consistently operate the golf cart beyond its recommended load capacity, as this can stress the motor.

8. TROUBLESHOOTING

If you experience issues with your motor, consider the following basic troubleshooting steps. For complex problems, contact D&D Motor Systems technical support.

Symptom	Possible Cause	Action
Motor not running or weak performance	Low battery charge, loose electrical connections, faulty controller, motor issue	Check battery charge, inspect all wiring connections, consult a technician for controller/motor diagnosis.
Motor overheating	Overloading, prolonged uphill driving, restricted airflow, faulty controller	Reduce load, allow motor to cool, ensure proper ventilation, consult technician.

Symptom	Possible Cause	Action
Unusual noises from motor	Loose components, internal wear, foreign object	Immediately cease operation and have the motor inspected by a qualified technician.

9. SPECIFICATIONS

Specification	Detail
Model Number	170-004-0002A
Brand	D&D Motor Systems
Voltage	36 Volts, 48 Volts
Horsepower	10.2 Horsepower
Material	Alloy Steel
Item Weight	62 Pounds
Package Dimensions	12.63 x 9.88 x 9.88 inches
Replaces OEM #	D395, 5BC48JB1134, GN1-4001

10. WARRANTY AND SUPPORT

10.1. Warranty Information

A 1-year warranty is provided **only if** D&D Motor Systems has all the information regarding your vehicle setup, application, and performance requirements, and approves your setup. It is essential to contact D&D Motor Systems Inc. to discuss your specific application.

10.2. Technical Support

D&D Motor Systems is committed to ensuring you have the correct motor for your golf cart. For technical support, setup approval, or any questions, please contact:

D&D Motor Systems Inc.

Phone: 315-701-0635