



TABLE OF CONTENTS

ARCO is a full service supplier of new and remanufactured electrical products for the starting and charging of marine engines. Located in the United States, **ARCO** has operated in Pensacola, Florida since 1960.

ARCO sells only original equipment quality items! All new and remanufactured units are assembled under the strictest quality control standards. **Each** and **every** unit is tested on the assembly line to ensure original equipment reliability.

ARCO products are distributed to thousands of dealers through a network of 180 national and international warehouse distributors worldwide.

ARCO stocks thousands of complete units and replacement parts to service everything from bass boats to battleships.

ARCO services all D.C. voltage systems, including clockwise and counterclockwise rotation starting motors.

ARCO catalogs only the items most frequently requested by our customers worldwide.

ARCO also supplies replacement parts for many "hard-to-find" and "obsolete" units from our constantly expanding inventory.



HOURS OF OPERATION
MONDAY - THURSDAY
7:00 A.M. - 5:30 P.M. CENTRAL
CLOSED FRIDAYS

NOTE: All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or otherwise, without prior written permission from ARCO Starting & Charging. Every effort has been made to make all information as complete and as accurate as possible. Product descriptions, typographic, price, or photographic errors are unintentional and subject to correction.

INDEX

- ARCO** Policies2
- Warranty Information**3
- Part Number Quick Reference** 4-9
- Outboard Starters** 14-26
- PWC Starters & Drive Assemblies**..... 27
- Inboard Starters**..... 31-38
- Tilt/Trim Motors & Repair Kits**..... 42-48
- Inboard Alternators**..... 52-59
- Inboard Battery Isolators**..... 61-62
- Solenoids** 69-72
- Outboard Rectifiers** 72
- Relays** 73
- Voltage Regulators** 74
- Miscellaneous Items** 74-76

TECH TIPS

- Computerized Testing Equipment** 10
- Battery Facts** 11-12
- Corrosion Protection** 13
- Starter Failure** 28
- How to Determine Starter Rotation** 29
- Drive Gear Facts** 30
- Tilt Trim Motor Tips** 39-41
- Charging Systems**..... 49
- Alternator Tips** 50-51
- Battery Isolator Circuits**..... 60
- Recommended Wire Sizes** 63-65
- Solenoid Types, Circuits & Testing** 66-68



© ARCO STARTING & CHARGING SPECIALISTS

Toll Free 800-722-2720 • Phone 850-455-5476 • Fax 850-453-2630 • www.arcomarine.com



PAYMENT POLICY



ARCO accepts the following major credit cards: MasterCard, Visa, American Express, and Discover. Credit card orders will be shipped immediately. **All shipments are processed by credit card only.**

SHIPPING

MONDAY - THURSDAY - CLOSED FRIDAYS

MINIMUM ORDER: \$50.00 (U.S. currency only). Please add 15% for Parcel Post. We are proud of our prompt, efficient service. 99.8% of all orders are shipped within 24 hours of placement. Shipments of 150 lbs or less are shipped via UPS or FedEx. Larger orders are shipped freight collect. All orders are shipped F.O.B. shipping point.

PRIORITY SHIPPING: Next day, second day, air, and air freight shipments are subject to an additional \$5 handling charge. Priority shipments will be hand-carried through the order process. **All orders received before 2:30 P.M. CST (M-TH) will be shipped the same day.**

DROP SHIPPING: Unless a duplicate order is placed for inventory, a 10% surcharge will be added for all drop shipments.

WARRANTY

ARCO products, **when properly installed**, are warranted by **ARCO** against defects in materials and workmanship for a period of 12 months for leisure use. Products used in commercial or racing applications are warranted for a period of 90 days.

This warranty extends to the application under normal use and service and **does not apply to rust, corrosion, submersions, cut wires, deliberate abuse, broken drive gears or housings.**

Improper installation, careless handling, tampering or dismantling of units makes this warranty null and void.

**Our warranty is limited to repair or replacement of the defective unit.
It does not cover labor or any other expense.**

This warranty being expressly in lieu of all other obligations or liabilities and **ARCO** neither assumes nor authorizes any other person or firm to assume for it any other liability in connection with the sale of its products or merchandise.

NOTE

Our warranty is limited to the repair or replacement of defective units only.

Labor or any other expenses are NOT covered.

All warranty returns must have a RETURN GOODS AUTHORIZATION NUMBER and include a complete explanation of malfunction.

RETURNS

LOST OR DAMAGED GOODS: Our responsibility ceases when the transportation company signs the bill of lading signifying your merchandise has been picked up in good condition. **If part of your shipment is lost or damaged, do not accept shipment until the freight agent makes a notation on your freight bill.**

THOROUGHLY INSPECT YOUR SHIPMENT AS SOON AS IT IS RECEIVED. If any concealed loss or damage is discovered, it is absolutely necessary for you to request an inspection by your freight agent. We are willing to give our assistance in collecting claims for loss or damage; however, we cannot be responsible for claims collection or replacement of damaged goods.

STOCK ADJUSTMENT:

All returns must be pre-approved and are subject to a 15% handling charge or an offsetting order of twice the equivalent value. Merchandise must be returned freight prepaid in original packaging and in saleable condition. **Dirty or damaged packaging will be replaced and charged to the customer's account.**

WARRANTY RETURNS:

All returns must be pre-approved and returned FREIGHT PREPAID. Warranty returns must include a complete explanation. Return warranty units for evaluation to:
ARCO Starting and Charging
3921 Navy Boulevard
Pensacola, FL 32507-1296 U.S.A.

PACKAGING:

All returned items must be packaged with due care in the original **ARCO** box(es). A copy of the original **ARCO** invoice and the returning company's packing list must be included. The packing list should show the **ARCO** part number(s) returned. **All warranty returns must include a complete explanation of the problem.**





WARRANTY INFORMATION

An ARCO Warranty Protects You From Defects in Materials or Workmanship... The Warranty **DOES NOT** cover such things as:



FREIGHT DAMAGE

ARCO part boxes are not shipping boxes.

If you are shipping a part to a customer or sending a warranty return, the part must be packaged in a way to prevent possible damage. Place extra packing material around the part, place it back in the part box and then into a well packed, sturdy shipping container.

To prevent damage, properly pack all parts before reshipment.



BROKEN SOLENOIDS

The solenoid was not broken when the starter was packaged to be shipped. We have special boxes made for the starters, and we use special packing materials to ensure the item will arrive to the customer safely. Sometimes, though, the packages are mishandled by the carrier (i.e., dropped or thrown) and the solenoid becomes damaged. This is the carrier's responsibility. It is not a material defect; therefore it is **not covered by warranty.**



RUST, CORROSION OR SUBMERSIONS

ARCO treats every component with a special rust and corrosion resistant coating to prevent water damage. However, it is impossible to protect the unit from direct contact with water. Therefore, a failure directly caused by rust, corrosion or submersion is **not covered by warranty.**

BROKEN MOUNTING FLANGES OR SHAFTS

A broken flange is typically caused by improper installation. The mounting holes may look evenly spaced in a triangular pattern, but they are not—one hole is slightly offset. Forcing a mounting bolt into the offset hole may cause the flange to break. This may also occur if the mounting bolts are not tightened evenly. A broken shaft is caused by a malfunction in the gearbox. These breaks are not material defects, and they are **not covered by warranty.**



CUT WIRES OR DISMANTLED UNITS

Cutting a unit's wires or dismantling a unit immediately voids the manufacturer's warranty. In addition, taking a motor off the reservoir and trying to install it on an old reservoir usually damages the brushes and seals in the motor. Disassembled parts are **not covered by warranty.**

BROKEN NOSE HOUSINGS

This type of failure is always blamed on a bad casting. In fact, it is caused when a starter, spinning at a high rate of rpm, comes to an abrupt stop. This can occur when an engine backfires or momentarily releasing the start switch and re-engaging the starter before it has spun down. It may also happen when a cylinder suffers a water hydraulic lock. In either case, the damage is not due to a defective unit, and is **not covered by warranty.**



© ARCO STARTING & CHARGING SPECIALISTS

Toll Free 800-722-2720 • Phone 850-455-5476 • Fax 850-453-2630 • www.arcomarine.com