Lewmar 590006

Lewmar TT 185 3.0Kw 12V Gen 2 Thruster

USER MANUAL

1. Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Lewmar TT 185 3.0Kw 12V Gen 2 Thruster. Please read this manual thoroughly before attempting any installation or operation. Proper understanding and adherence to these instructions will ensure optimal performance and longevity of your thruster.

The Lewmar TT 185 Thruster is designed to provide powerful and reliable assistance for maneuvering your vessel, offering precise control in challenging conditions. Key features include:

- No reservoir to install, eliminating leaks and maintenance associated with hydraulic systems.
- High-performance 5-blade propellers engineered for equal thrust in both directions.
- High-integrity seal design for enhanced durability and reliability.
- Spline-driven propeller, removing the need for a drive pin.
- Built in compliance with strict industry standards for marine equipment.

2. Safety Information

WARNING: Failure to follow these safety instructions could result in serious injury, damage to the product, or damage to the vessel.

- Installation and service should only be performed by qualified personnel or a certified marine technician.
- Always disconnect the vessel's battery power before performing any installation, maintenance, or inspection.
- Ensure all electrical connections are secure, properly insulated, and conform to marine electrical standards.
- Keep hands, hair, and loose clothing clear of the thruster propeller when power is connected.
- Do not operate the thruster out of water.
- Regularly inspect the thruster for any signs of wear, damage, or corrosion.

3. Setup and Installation

The Lewmar TT 185 Thruster requires careful planning and precise installation to ensure optimal performance and safety. Consult the detailed installation guide provided with the product for specific measurements and procedures.

3.1. Pre-Installation Checks

- Verify the correct thruster model and voltage (12V) for your vessel's electrical system.
- Ensure adequate space is available for the thruster tunnel and motor assembly.
- Confirm the hull material is suitable for thruster installation and can be properly sealed.

3.2. Mounting the Thruster Tunnel

The thruster tunnel must be securely mounted through the hull, typically in the bow or stern. The tunnel should be positioned to minimize hydrodynamic drag and maximize thrust efficiency. Ensure the tunnel is perfectly aligned and sealed to prevent water ingress.

3.3. Motor and Gearbox Assembly Installation

The motor and gearbox assembly are mounted directly onto the thruster tunnel. Ensure all mounting bolts are tightened to the manufacturer's specifications. The propeller should be installed onto the spline drive shaft, ensuring it rotates freely without obstruction.

Figure 1: The Lewmar TT 185 3.0Kw 12V Gen 2 Thruster. This image displays the complete thruster unit, featuring the electric motor assembly mounted atop the white tunnel, which houses the 5-blade propeller. The motor unit is encased in a protective white cover with the 'LEWMAR' logo, and electrical connections are visible at the rear of the motor housing. The robust design is evident, highlighting its readiness for marine installation.

3.4. Electrical Connections

Connect the thruster to a dedicated 12V DC power supply, ensuring appropriate cable sizing and circuit protection (fuses/breakers) are used. Refer to the wiring diagram in the full installation manual for precise connection details. All connections must be waterproof and corrosion-resistant.

4. Operating Instructions

The Lewmar TT 185 Thruster is designed for intermittent use to assist with docking and maneuvering. It is not intended for continuous propulsion.

- **Activation:** Turn on the main thruster power switch at the helm.
- **Control:** Use the dedicated joystick or control panel to activate the thruster. Pushing the control to the left will generate thrust to the port side, and pushing to the right will generate thrust to the starboard side.
- **Intermittent Use:** Operate the thruster in short bursts (typically 2-3 seconds) to avoid overheating the motor. Allow for cooling periods between prolonged uses.
- **Monitoring:** Pay attention to any unusual noises or vibrations during operation. If detected, discontinue use and investigate.

5. Maintenance

Regular maintenance is crucial for the reliable operation and longevity of your Lewmar thruster.

- **Annual Inspection:** Annually inspect the thruster for signs of corrosion, damage to the propeller, and integrity of electrical connections.
- **Anode Replacement:** The sacrificial anode (if fitted) must be checked and replaced regularly, typically annually or as wear dictates, to protect against galvanic corrosion.
- **Propeller Cleaning:** Keep the propeller and tunnel clear of marine growth and debris. This can be done during haul-out.
- **Seal Integrity:** Check the gearbox seals for any signs of leakage.
- **Electrical Connections:** Ensure all electrical terminals are clean, tight, and free from corrosion. Apply a suitable marine-grade dielectric grease to protect connections.

6. Troubleshooting

This section outlines common issues and basic troubleshooting steps. For complex problems, contact a qualified marine technician.

Problem	Possible Cause	Solution
Thruster does not operate	No power; Blown fuse/tripped breaker; Faulty control switch; Loose electrical connection.	Check battery connections; Inspect fuse/breaker; Test control switch; Verify all wiring connections.
Reduced thrust or unusual noise	Fouled propeller; Damaged propeller; Low battery voltage; Motor overheating.	Inspect and clean propeller; Check battery charge; Allow motor to cool; Inspect for propeller damage.
Motor runs but no thrust	Propeller not properly secured to shaft; Sheared spline.	Inspect propeller attachment; Contact service for spline repair.
Overheating shutdown	Excessive continuous use; Insufficient cooling.	Reduce operating time; Allow adequate cooling periods between bursts.

7. Specifications

Technical specifications for the Lewmar TT 185 3.0Kw 12V Gen 2 Thruster (Model 590006).

Specification	Detail
Model Number	590006
Voltage	12 Volts
Power	3.0 Kw
Item Weight	37.2 pounds (16.87 kg)
Product Dimensions	18 x 10 x 6 inches (45.7 x 25.4 x 15.2 cm)
Propeller Type	5-blade
Drive Type	Spline Driven

8. Warranty and Support

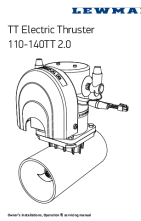
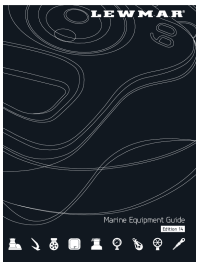
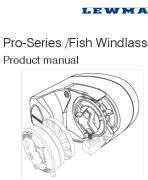
Lewmar products are manufactured to high standards and are backed by a limited warranty. Specific warranty terms and conditions are provided with your product documentation. Please retain your proof of purchase for warranty claims.

For technical support, spare parts, or warranty inquiries, please contact Lewmar customer service or visit their official website. Always provide your product model number (590006) and serial number when seeking assistance.

You can find more information and contact details on the official Lewmar website:Visit the Lewmar Store on Amazon

Related Documents - 590006

	Lewmar Electric/Hydraulic TT Thruster Installation, Operation, and Servicing Manual Comprehensive guide for installing, operating, and servicing Lewmar Electric/Hydraulic TT Thrusters, covering models from 110TT (1.5kW) to 300TT (15kW) Gen 2. Includes safety, installation, wiring, maintenance, and troubleshooting.
	Lewmar Electric/Hydraulic TT Thruster 140-300 Installation, Operation, and Servicing Manual Comprehensive manual for Lewmar's Electric/Hydraulic TT Thruster 140-300 series, covering installation, operation, maintenance, and troubleshooting for boat owners and marine professionals.

	[Lewmar TT Electric Thruster 110-140TT 2.0 Installation and Operation Manual] Comprehensive guide for installing, operating, and servicing the Lewmar TT Electric Thruster models 110TT and 140TT 2.0. Covers safety precautions, installation steps, electrical wiring, troubleshooting, and specifications.
	[Lewmar Marine Equipment Guide Edition 14] Comprehensive guide to Lewmar marine equipment, featuring windlasses, anchors, thrusters, winches, hatches, portlights, hydraulics, and steering systems. Explore product specifications, selection guides, and installation details for boaters.
	[Lewmar Pro-Series/Fish Windlass Installation and Operation Manual] Comprehensive product manual for Lewmar Pro-Series and Pro-Fish windlasses, covering specifications, installation, operation, safety, servicing, and troubleshooting for marine applications.
	[Lewmar Ocean Hatch Handle Fitting Guide] Step-by-step instructions for fitting an outside handle to Lewmar Ocean Hatch 10-20, covering drilling and assembly procedures.