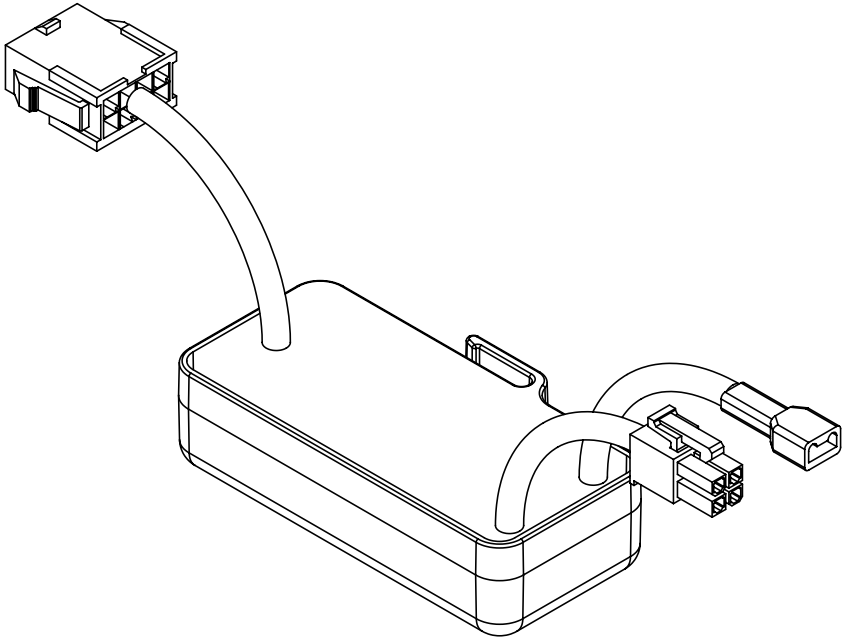


# Legacy Converter

Convert Gen 1 TT Thruster to use Gen 2 Controllers

559252 Iss.1



## 1- Introduction

Dear Customer,

Thank you for choosing Lewmar. Lewmar products are world renowned for their quality, technical innovation and proven performance. With a Lewmar product you will be provided with many years of outstanding service.

### **Product support**

Lewmar products are supported by a worldwide network of distributors and Authorised Service Representatives. If you encounter any difficulties with this product, please contact your national distributor, or your local Lewmar dealer. Details are available at: [www.lewmar.com](http://www.lewmar.com)

### **CE Approvals**

For CE approval certificates contact Lewmar.

### **Important information about this manual**

Throughout this manual, you will see safety and product damage warnings. You must follow these warnings carefully to avoid possible injury or damage.

## 2- Safety Notice

⚠ WARNING!

### General

Please ensure that you thoroughly understand the operation and safety requirements of the thruster before commencing the installation. Only persons who are completely familiar with the controls and those who have been fully made aware of the correct use of the thruster should be allowed to use it. If there is any doubt of how to install or operate this unit please seek advice from a suitably qualified engineer.

- ▶ Please ensure that you thoroughly understand the operation and safety requirements of the thruster.
- ▶ Your thruster should not be operated close to swimmers, as a powerful suction of water is generated when in use.
- ▶ The tunnel installation and any hull modifications should only be carried out by a specialist.
- ▶ We recommend that a qualified person install the thruster. Faulty installation will place the boat and crew in danger and make the warranty invalid.
- ▶ It is the unavoidable responsibility of the owner or master or other responsible party to assess the risk of any operation on the vessel.

### Thruster supply

- ▶ The thruster is securely packed for transit. However all parts should be inspected for signs of damage before installation. If any parts are found to be damaged please contact lewmar.

### Fitting

- ▶ This equipment must be installed and operated in accordance with the instructions contained in this manual. Failure to do so could result in poor product performance, personal injury and/or damage to your boat.
- ▶ Electric thrusters must be located in a dry environment. Should there be a need to install in a damp /wet location then the IP (Ignition Protected) version must be used.
- ▶ Electric bow thrusters use powerful electric motors, it is very important that there is sufficient battery capacity and large enough cables for safe operation. Using smaller than recommended battery and cables will cause loss of performance and may cause dangerous overheating.
- ▶ Electric motors spark and run hot. Do not place near flammable or sealed areas.
- ▶ Main battery must not be connected and power must not be switched on until all covers and terminal protectors are correctly fitted.
- ▶ It is very dangerous to run the thruster out of the water, even for a few seconds, the motor will over speed by 300%, causing damage to the motor seals etc. and the propeller will cause serious damage to whatever comes into contact with it. This action will invalidate the warranty.
- ▶ Consult the boat manufacturer if you have any doubt about the strength or suitability of the mounting location.

### Electrical

- ▶ Make sure you have switched off the power before you start installing this product.
- ▶ If in doubt about installing electrical equipment please seek advice from a suitably qualified electrical engineer.

To the best of our knowledge, the information in this manual was correct when it went to press. However, Lewmar cannot accept liability for any inaccuracies or omissions it may contain.

In addition, our policy of continuous product improvement may change specifications without notice. As a result, Lewmar cannot accept liability for any differences between the product and the manual.

⚠ This manual forms part of the product and **MUST BE RETAINED** along with, OR incorporated into, the Owner's Manual for the vessel to which the thruster is fitted.

### 3 - Part Numbers

The legacy converter will allow the use of the Gen2 control panel, with a Gen1 thruster system. The converter will allow easy installation of the Gen2 panel.

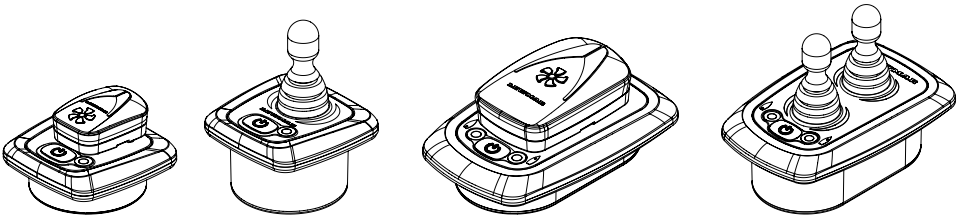
To install the legacy converter:

- ▶ Gen1 joystick must be removed
- ▶ The converter is connected to the existing loom 4-way connector.
- ▶ The Gen 2 control panel can then either be connected directly to the converter, or via an additional gen2 loom

The converter provides the following safety features:

- ▶ Auto shut-off if the thruster has not been used for more than 10 minutes.
- ▶ Fault mode if the joystick is operated for more than 3 minutes continuously
- ▶ Fault mode if the system is turned on with the joystick already operated

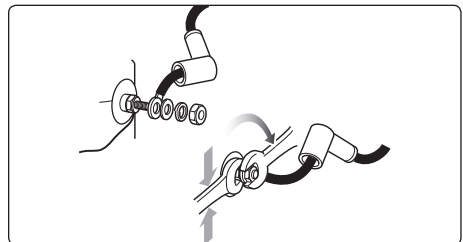
	MOLEX	DT PLUG
BLUE BOX CONVERTER	589842	589843
CONTROLLER UPGRADE KITS		
Pad Dual Upgrade	589864	589868
Pad Single Upgrade	589865	589869
Joystick Dual, Upgrade	589866	589870
Joystick Single Upgrade	589867	589871



## 4 - Electrical installation

### 4.1 Electric motor terminal connections

- ▶ Terminals must be correctly clamped to motor studs. Use a pair of spanners - the one nearest motor to stop rotation of the stud.
- ▶ Spanner sizes are 13 mm for 110TT @140TT and 17 mm for 185TT - 300TT. Tighten the bolts to 20 Nm (15 lbs.ft).



DO NOT overtighten electric motor terminal nuts.

## 4.2 Electrical wiring installation

The legacy converter is required to be able to use a new style (gen2) control panel with an old style (gen1) thruster.

Only one legacy converter is required per thruster.

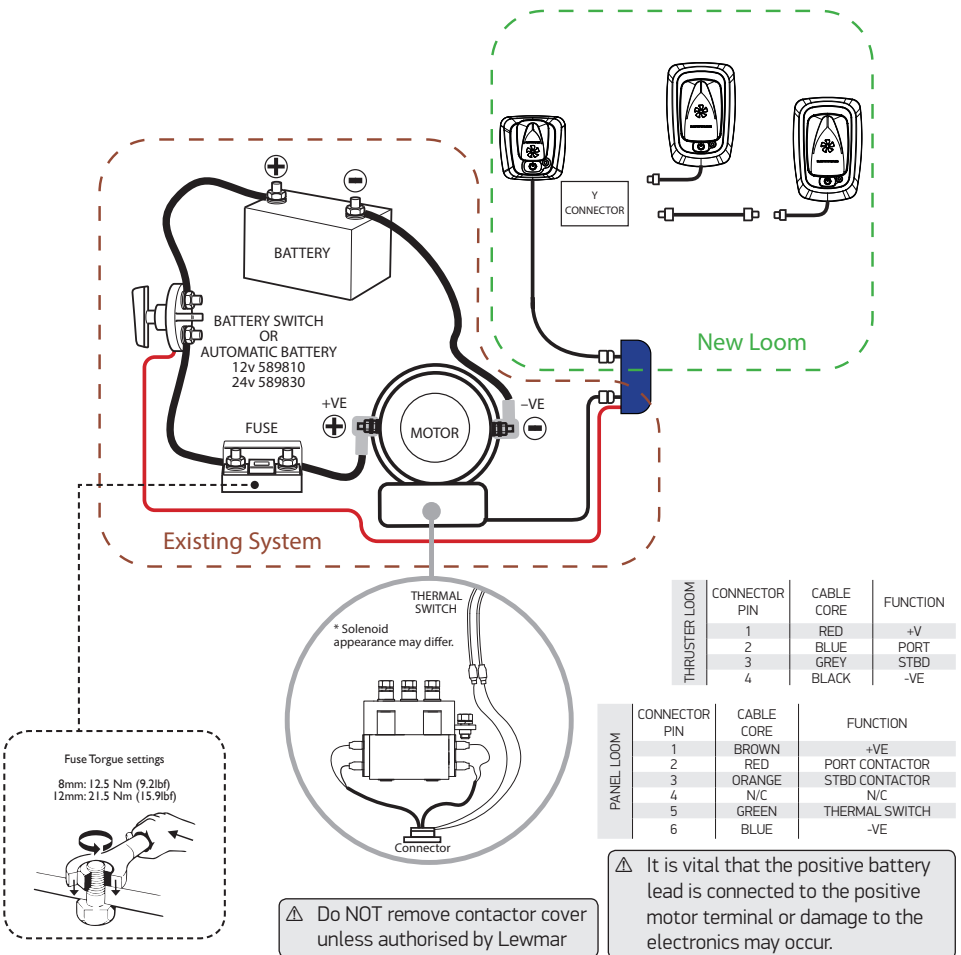
If multiple control panels are required, then these will connect into the legacy converter via Y connectors/splitters.

The legacy converter will connect to the thruster via the 4-core cable/connector.

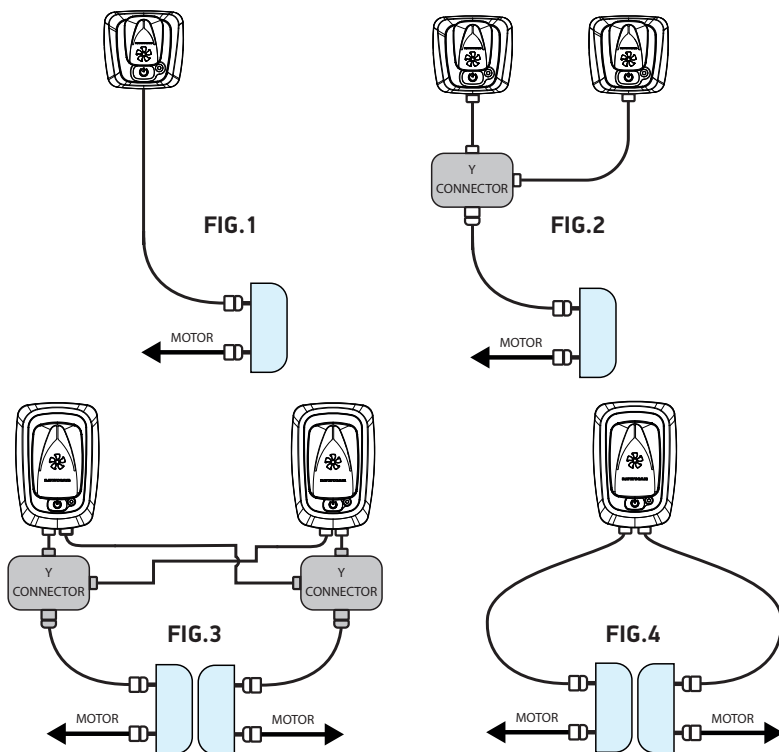
The controls panels connect to the legacy converter via the 8-way connector.

The legacy converter also has a red spade connector next to the 4-core thruster connector. This is used if either an ABS or PS switch has been included in the system.

**NOTE: Automatic switch (if fitted). Main power is switched on when panel is switched on.**



## 4.3 Y-Connector configuration



The legacy converter is required to be able to use a new style (gen2) control panel with an old style (gen1) thruster.

Only one legacy converter is required per thruster.

If multiple control panels are required, then these will connect into the legacy converter via Y connectors /splitters.

Fig 1. Single controller does not require a Y connector.

Fig 2. Dual controllers (single pad) for one thruster require a Y connector.

Fig 3. Dual (Dual pads) must use 2 Y connectors

Fig 4. Dual pad for 2 thruster requires 2 converters one for each thruster.

	MOLEX	DT PLUG
Y connectors /splitters	589842	589843

### NOTE:

Existing wiring can be used before the converter, Everything after must be to Gen 2 specification.

## 5 - Warranty

### Limited Warranty and Key Terms of Supply by Lewmar

Lewmar warrants that in normal private pleasure boat usage and with proper maintenance its products will conform with their specification for a period of three years from the date of purchase by the end user, subject to the conditions, limitations and exceptions listed below. Any product, which proves to be defective in normal usage during that three-year period, will be repaired or, at Lewmar's option, replaced by Lewmar.

#### A CONDITIONS AND LIMITATIONS

- i Lewmar's liability shall be limited to the repair or replacement of any parts of the product which are defective in materials or workmanship.
- ii Responsibility for the selection of products appropriate for the use intended by the Buyer shall rest solely with the Buyer and Lewmar accepts no responsibility for any such selection.
- iii Lewmar shall not be liable in any way for Product failure, or any resulting loss or damage that arises from:
  - a. use of a product in an application for which it was not designed or intended;
  - b. corrosion, ultra violet degradation or wear and tear;
  - c. a failure to service or maintain the product in accordance with Lewmar's recommendations;
  - d. faulty or deficient installation of the product (unless conducted by Lewmar);
  - e. any modification or alteration of the product;
  - f. conditions that exceed the product's performance specifications or safe working loads.
  - g. Abuse
- iv Product subject to a warranty claim must be returned to the Lewmar outlet that supplied the product for examination unless otherwise approved by Lewmar in writing.
- v This warranty does not cover any incidental costs incurred for the investigation, removal, carriage, transport or installation of product.
- vi Service by anyone other than authorized Lewmar representatives shall void this warranty unless it accords with Lewmar guidelines and standards of workmanship.
- vii Lewmar's products are intended for use only in the marine environment. Buyers intending to use them for any other purpose should seek independent professional advice as to their suitability. Lewmar accepts no liability arising from such other use.

#### B EXCEPTIONS

Cover under this Warranty is limited to a period of one year from the date of purchase by the end user in the case of any of the following products or parts of products:

- Electric motors and associated electrical equipment
- Electronic controls
- Hydraulic pumps, valves and actuators
- Hatch & Portlight weather seals
- Products used in "Grand Prix" racing applications
- Products used in commercial or charter applications
- Anchor rodes

#### C LIABILITY

- i Lewmar's liability under this warranty shall be to the

exclusion of all other warranties or liabilities (to the extent permitted by law). In particular (but without limitation):

- a. Lewmar shall not be liable for:
  - Any loss of anticipated turnover or profit or indirect, consequential or economic loss;
  - Damages, costs or expenses payable to any third party;
  - Any damage to yachts or equipment;
  - Death or personal injury (unless caused by Lewmar's negligence).

Some states and countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you

- b. Lewmar grants no other warranties regarding the fitness for purpose, use, nature or satisfactory quality of the products.

- ii Where applicable law does not permit a statutory or implied warranty to be excluded, then such warranty, if permitted by that state or country's law, shall be limited to a period of one year from the date of purchase by the end user. Some states and countries do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you.

#### D PROCEDURE

Notice of a claim for service under this warranty shall be made promptly and in writing by the end user to the Lewmar outlet that supplied the product or to Lewmar Limited at Southmoor Lane, Havant, Hampshire PO9 1JJ, England.

#### E SEVERANCE CLAUSE

If any clause of this warranty is held by any court or other competent authority to be invalid or unenforceable in whole or in part, the validity of the remaining clauses of this warranty and the remainder of the clause in question shall not be affected.

#### F OTHER RIGHTS

This warranty gives you specific legal rights, and you may also have other legal rights, which vary from state to state and country to country. In the case of European States a Consumer customer (as defined nationally) has legal rights under the applicable national law governing the sale of Consumer Goods; this Warranty does not affect those rights.

#### G LAW

This warranty shall be governed by and read in accordance with the laws of England or the state or country in which the first end user is domiciled at the time of purchase of the product.

#### H DISPUTES

Any dispute arising under this warranty may, at the option of the end-user, be referred to alternative dispute resolution under the rules of the British Marine Federation or to the Courts of the State whose law shall govern the warranty or to the Courts of England and Wales.

The British Marine Federation may be contacted at Marine House, Thorpe Lea Road, Egham, England, TW20 8BF

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