

# THRUST IT TO THE MAX

# **STERN ADAPTOR INSTALLATION MANUAL**







THIS MANUAL MUST BE KEPT ONBOARD AT ALL TIMES

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#### **GENERAL**

The use of **qualified marine personnel**, with experience in thruster installation, is strongly advised. Where possible, the boat manufacturer's design departments, architects, and/or shipyards should be consulted, prior to installation taking place. For any boat requiring official classification, bodies of approval should also be consulted at the earliest opportunity. In any case, all other bodies, governmental or otherwise, should be contacted to ensure conformity with legal regulations relating to the boat in question.

## REQUIREMENTS

Before the installation of the stern thruster the following requirements must be met:



- 1. The tunnel of the stern adaptor is ideally positioned when the distance between the waterline and the top of the turbine is one diameter (E).
- 2. The installation of the stern adaptor on the transom of the boat does not disrupt the water flow and is clear of all obstacles (stern drives, trim tabs, etc.) for minimum friction and hull-thruster interaction (or select the best possible compromise).
- 3. There is enough room to allow the complete removal of the thruster unit for maintenance and sufficient room for the wiring.
- 4. The installation does not foul existing equipment inside the boat such as steerage links, etc.
- 5. The thruster motor and the relay assembly are solid supported in such manner that the total weight does rest only on the stern adaptor tunnel, which will cause twisting actions.
- 6. The thruster's electrical components (control box, relay assembly, etc.) and the installation compartment will stay dry at all times.
- 7. All electrical wiring, cable sizes and battery capacities are according to the regarding thruster model installation manual.

### **INSTALLATION PROCEDURE**

Please follow the instructions advised by Max Power carefully, in order to achieve maximum performance and reliability of the thruster unit.



1. Define the best position and depth of the stern thruster unit while keeping in mind that there is enough space available <u>inside</u> and <u>outside</u> of the transom of the boat (no part of the stern adaptor is lower than the transom of the boat).

Stern Adaptor	Thruster Model	Tunnel Diameter (mm)
315389	CT35 / CT45	125
315392	CT60 / CT80 / CT100 / CT125	185
315395	CT165 / CT225	250
35015	CT325	315

\*Visit our website for the dimensions of the regarding stern adaptor module

- 2. Once the position of the installation is defined, hold the tunnel horizontally in place and mark the drilling holes.
- 3. Cut out the centre hole and the transom to the same internal diameter as the tunnel flange and drill the bolt holes.



- 4. Clean the surface of the stern adaptor which will be in contact with the hull.
- 5. Check the external surface of the hull, which needs to be clean and flat. If not, the hull will have to be flattened (please mind that with the use of grinders the unnecessary fiberglass material can be removed much easier).
- 6. Apply a thin coating of sealing compound, which must be resistant to hydrocarbons and water, to both the grooves of the stern adaptor.



- 7. Before fitting the stern adaptor to the transom of the boat, please install the drive leg to the tunnel as described in the thruster installation manual.
- 8. Fit the thruster in position and then tightening the screws (the screws must be tightening alternatively) whilst ensure to use an ample sealant around the regarding bolts to make a water tight fitting.



\*Please use the original Max Power stern adaptor fixation kit, reference code 35016 (for all stern adaptor models).

9. Please refer to the installation and user's manual of the regarding thruster model in order to advise further for the recommended thruster fitting.

#### **RELAY ASSEMLY POSITION**

In order to install a Max Power thruster unit to a stern adaptor the relay assembly is recommended to be relocated for optimal lifetime of the unit.

The position of the regarding relay assembly ideally must be vertical (with the terminals looking upwards) to the main axis of the thruster, in order to protect the spring sensitivity of the relay assembly from the vibrations produced by the boat while moving (please advise below picture).





CAUTION: If, during tests the boat moves in the wrong direction, change around the BLUE and the BROWN wires on the RELAY.

The specifications of the cables required to conclude the relocation of the relay assembly for each Max Power thruster model are presented in the following matrix.

Thruster Model (Power supply)	Sectional Area (mm <sup>2</sup> )
CT35 / CT45 (12V)	35
СТ60 / СТ80 (12V)	50
СТ60 / СТ80 (24V)	35
CT165 / CT225 (24V)	70

#### \*Cables not included

The installation manual of the regarding thruster unit must also be advised prior to stern adaptor installation!

#### WATER PROTECTION

It is very important to obtain all necessary measures, in order to ensure that the thruster installation will remain dry at all times.

The thruster's electric components, such as the electric motor and the direction solenoids, are NOT waterproof and will fail fast due to rust and corrosion.

Furthermore, Max Power advises to install an automatic bilge pump (with an alarm system, if possible) in the stern thruster compartment, if the complete water sealing of the regarding area is not guaranteed.

The <u>Max Power Stern Pod</u> unit offers an innovative solution with waterproof and ignition protected (ISO 8846) housing designed to withstand the corrosive damp atmosphere of the bilge.

Entirely assembled and tested in your factory, Stern Pod units guarantee long term trouble free operation with only minimal maintenance care.



#### CAUTION

Care must be taken not to use the thruster in areas where there may be people swimming or in the water close to the thruster.

Never tamper with the thruster / thruster turbine if not 100% sure that both the control and power circuits have been isolated, except if taking electrical measurements on the thruster motor or relay.

