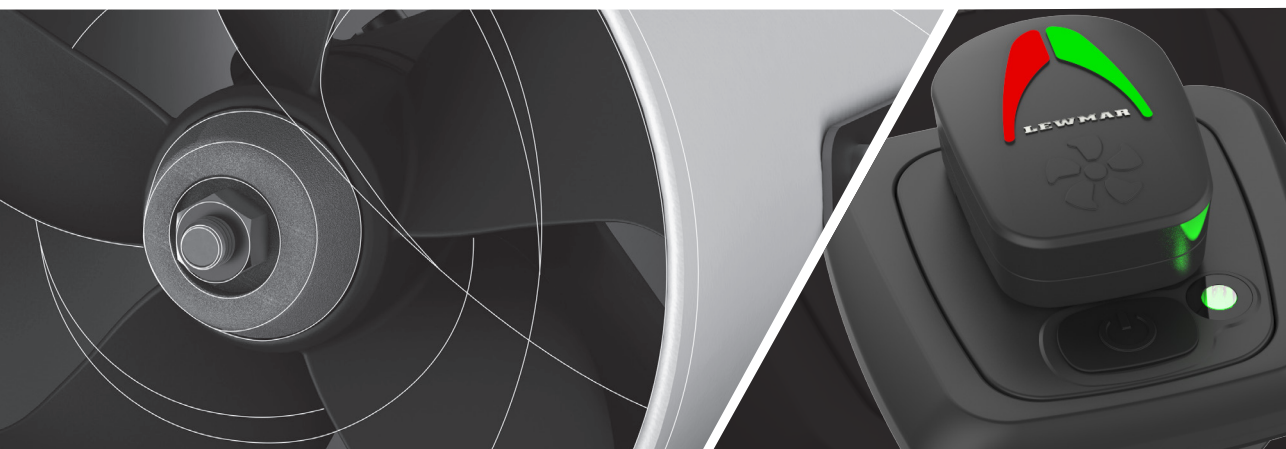




LEWMAR®

w w w . l e w m a r . c o m

Thruster Controller Systems





Thruster Controllers

Lewmar's new range of thruster controls provides a superior tactile control of single or dual thruster installations.

The controllers are designed for all Lewmar TT, RT, SRT & VRT thrusters fitted with a blue box and can be fitted to thrusters fitted with a black-box using a controller adapter:

The controllers are installed without the need for rear access and feature a snap-on bezel to neatly hide the mounting screws. A cover is also included, providing additional security against accidental use and giving extra environmental protection. If replacing a previous generation touch panel, joystick panel or dual joystick panel, the existing mounting hole and fixing screw positions can be reused.

- Ergonomic control 'pad' gives tactile feedback
- Membrane switch panel sealed from dust and moisture ingress
- Single and dual controllers available
- Dual controllers give total control of vessel via multi-axis function pad
- 12-24V dual voltage supply
- Multi-function LED indicator displays system deployment, thruster operation, low voltage, motor temperature warnings & fault conditions.
- Upgrade kit allows installation of single or dual controllers into a thruster system with previous generation controllers
- Fit existing cut-out of Lewmar joysticks
- Removable cover



589268

589223

589267

589222



LED Colour Diagnostics

Safety Features

- If the thruster is operated constantly in one direction for more than 3 minutes, the system will enter fault mode. When in fault mode, the control panel LED will turn RED.
- If the system is receiving a PORT/STBD signal when turning the system on, the system will enter fault mode. When in fault mode, the control panel LED will turn RED. This prevents the thruster from unintentionally activating during start-up due to a wiring fault, or a second joystick accidentally being operated.
- If PORT and STBD signals are received simultaneously then the system will stop thrusting.
- The system will automatically power down after 15 minutes of inactivity for TT, & 5 minutes for RT thrusters.
- When changing thrust instantly from PORT to STBD / vice-versa there will be a short delay to allow the propeller to come to rest before acceleration in the opposite direction.
- The thruster motor is fitted with a thermal switch to prevent thruster activation if the motor overheats. If the motor temperature is too high the system will stop operating and the panel LED will FLASH RED. Once the motor returns to a safe temperature the LED will turn GREEN and thruster operation can recommence.
- The system will detect if the battery voltage is low and indicate this by turning the control panel LED AMBER. The is for indication only and will not affect thruster performance.

COLOUR	STATUS
Green	System ON
Green (Flashing)	RT Thruster Extending / Retracting
Amber	Low Voltage
Red (Flashing)	Motor High Temperature
Red	Fault





Black Box Systems

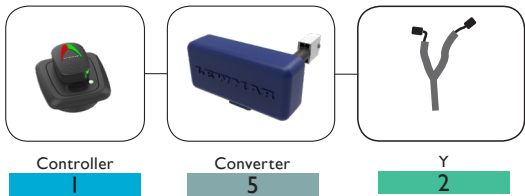
Controller Converter

Lewmar's new range of thruster controllers provides superior tactile control of single or dual thruster installations. The controllers can be fitted to all Lewmar TT thrusters fitted with a blue box and to the previous generation TT thrusters fitted with a black box using a controller converter:

- Upgrade kit allows replacement of the previous generation controller with the new in thrusters with black box
- Easy-fitting / Existing boat wiring can be used
- Needs to be installed next to the controller

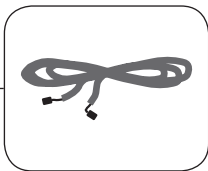
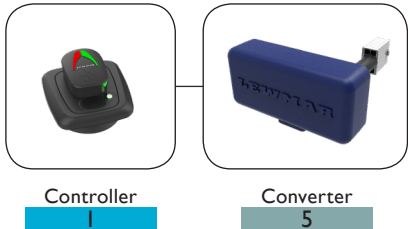


5
CONTROLLER CONVERTER
589842



Single/Dual Controller Splitter

- If you are installing a second controller, use a Y splitter before connecting to your existing system.



Existing Wiring



Black Box Thruster



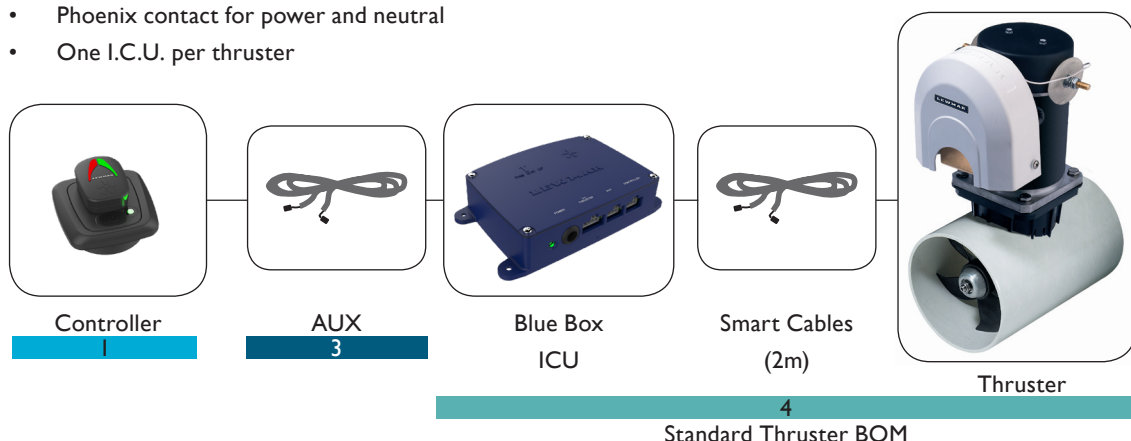
Blue Box Systems

Standard kits

The Lewmar blue box system is the new design of ICU in our next-generation thruster system. The main electronic components of the system have been completely re-designed to increase reliability and functionality.

The system fits with the new controllers and incorporates new features to surpass high-end systems currently on the market. The configuration has been designed to be as simple and reliable as possible while incorporating up with today's technological trends.

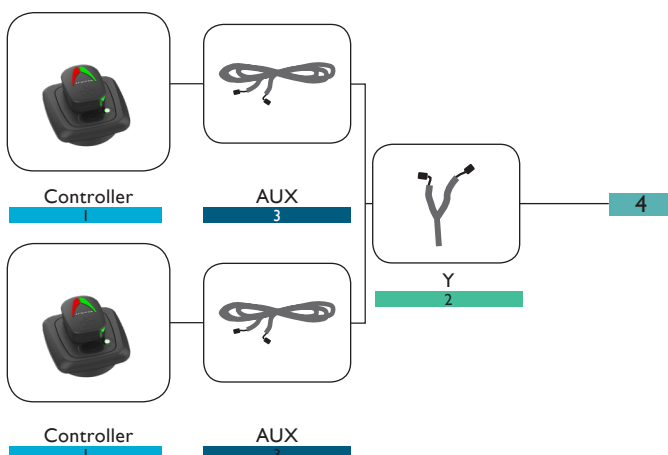
- Heath LED and on-board fuse on new blue box
- Powers and provide logic for panel controller
- Phoenix contact for power and neutral
- One I.C.U. per thruster



Single/Dual Controller Connecting Leads and Splitter

Standard loom suitable for standard installations

- Simply measure the distance from the thruster to the panel to define the suitable lead
- If you are installing a second or third panel, use a Y splitter

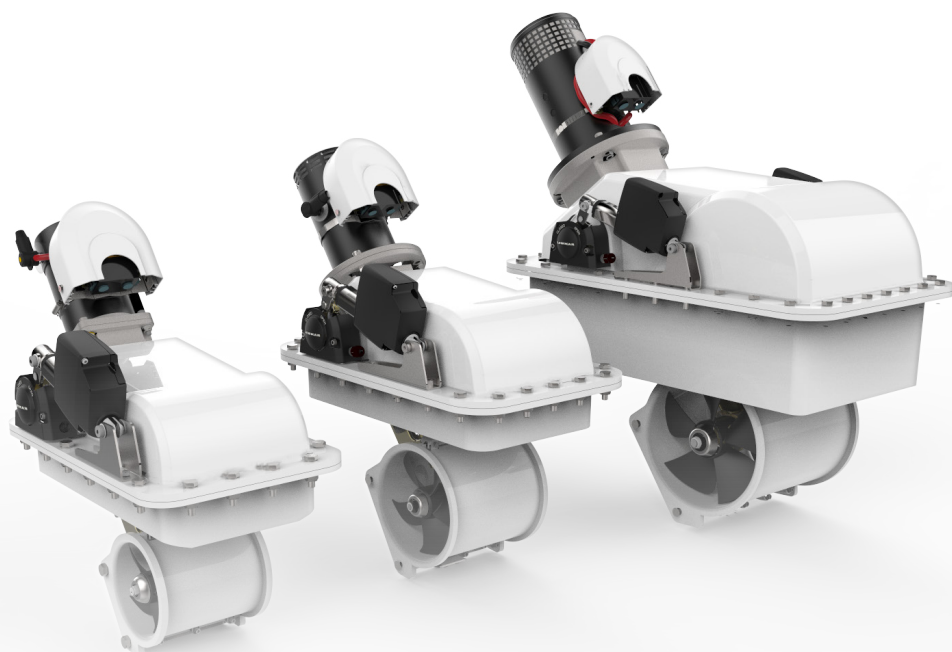




New Lewmar Retractable Thruster Range

Lewmar is launching a new range of retractable thrusters developed in conjunction with boat owners and their needs. Particular care and attention to the detail of the installation process was taken into consideration while retaining the proven components from the Lewmar TT thruster range. Lewmar thrusters achieve even thrust in both directions for maximum control and manoeuvrability. All Lewmar thrusters have been extensively tested, resulting in a smooth, efficient and quiet operation.

- The unique 'low pivot' mechanism minimises internal space requirements yet permits maximum tunnel immersion
- Flange mounting as standard for easy installation. The universal flange can be adjusted to any given hull shape and the captive nut allows effortless fastening from the top of the unit only
- Robust GRP construction
- 140, 185 and 250mm tunnel diameters available
- Auto-retract function 5 minutes after use
- Dual propellers on 185 & 250 models as standard





Testing

All Lewmar thrusters have undergone a vigorous testing procedure, ensuring all components are reliable and outperform our competitors. Testing consisted of 5000 operations of the retractable thruster to represent 10 years of heavy use over a period of two weeks. This was conducted in the controlled environment of our in-house test facility, replicating real-world conditions.



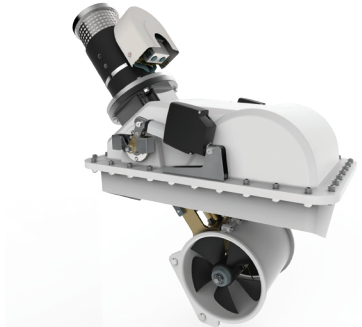
140 Retractable Thruster

- 2.0KW - 2.2KW Motor
- 12V options available
- Electric
- IP Available



185 Retractable Thruster

- 4.0KW - 6.0KW Motor sizes
- 12 or 24V options available
- Electric or Hydraulic
- IP Available on Electric



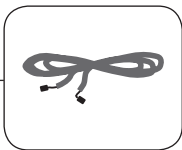
250 Retractable Thruster

- 8.0KW Motor size
- 24V Electric or Hydraulic
- Dual Actuators
- Dual Hub



Controller

1

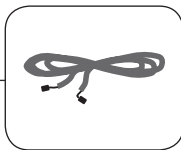


AUX

3



Blue Box
ICU



Smart Cables
(2m)

4



Retracting
Thruster

Standard Retracting Thruster BOM



Blue Box Systems Part Numbers

Controllers

1	
PART NO	DESCRIPTION
589222	Controller, Dual Pad
589223	Controller, Single Pad
589267	Controller, Dual Joystick
589268	Controller, Single Joystick
589845	Controller, Single, Hyd
589846	Controller, Dual, Hyd

Y Loom

2	
PART NO	DESCRIPTION
589800	Gen2 Y Loom MX
Only required for Dual controller configuration	
5	
PART NO	DESCRIPTION
589842	BLACK BOX CONVERTOR

AUX Loom

3	
PART NO	DESCRIPTION
589801	Gen2 AUX 2m Loom MX
589802	Gen2 AUX 7m Loom MX
589803	Gen2 AUX 10m Loom MX
589804	Gen2 AUX 18m Loom MX
589805	Gen2 AUX 22m Loom MX

TT Electric Thrusters

4																
PART NO	DESCRIPTION	TUNNEL SIZE (mm)	POWER		MOTOR VOLTAGE	IP	GEARBOX MATERIAL	PROPELLER	THRUST		WEIGHT		FUSE		FUSE HOLDER	
			kW	hp					kgf	lbs	Kg	lbs	Rating	Part Number	T1 - 589006	T2 - 589013
590000	TT 110 12V	110	1.5	2.0	12V		Composite	Single 5 Blade	28	62	10	22	200A	589012	✓	✓
590001	TT 110 12V IP	110	1.5	2.0	12V	✓	Composite	Single 5 Blade	28	62	11	25	200A	589012	✓	✓
590002	TT 140 2.0KW 12V	140	2.0	2.7	12V		Composite	Single 5 Blade	37	82	13	29	200A	589012	✓	✓
590003	TT 140 2.2KW 12V	140	2.2	3.0	12V		Composite	Single 5 Blade	42	93	13	29	200A	589012	✓	✓
590004	TT 140 2.0KW 12V IP	140	2.0	2.8	12V	✓	Composite	Single 5 Blade	37	82	14	31	200A	589012	✓	✓
590005	TT 140 2.2KW 12V IP	140	2.2	3.0	12V	✓	Composite	Single 5 Blade	42	93	14	31	200A	589012	✓	✓
590006	TT 185 3.0KW 12V	185	3.0	4.0	12V		st/st	Single 5 Blade	58	128	20	43	250	589008	✓	✓
590007	TT 185 3.0KW 24V	185	3.0	4.0	24V		st/st	Single 5 Blade	58	128	20	43	130A	589007	✓	✓
590008	TT 185 4.0KW 12V	185	4.0	5.4	12V		st/st	Single 5 Blade	65	143	20	43	400A	589010		✓
590009	TT 185 4.0KW 24V	185	4.0	5.4	24V		st/st	Single 5 Blade	65	143	20	43	130A	589007	✓	✓
590010	TT 185 5.0KW 12V	185	5.0	6.7	12V		st/st	Single 5 Blade	82	181	27	59	400A	589010		✓
590011	TT 185 5.0KW 24V	185	5.0	6.7	24V		st/st	Single 5 Blade	82	181	27	59	130A	589007	✓	✓
590012	TT 185 6.0KW 12V	185	6.0	8.0	12V		st/st	Single 5 Blade	97	214	27	59	500A	589011		✓
590013	TT 185 6.0KW 24V	185	6.0	8.0	24V		st/st	Single 5 Blade	97	214	27	59	325A	589009	✓	✓
590014	TT 185 3.0KW 12V IP	185	3.0	4.0	12V	✓	st/st	Single 5 Blade	58	128	21	47	250A	589008	✓	✓
590015	TT 185 3.0KW 24V IP	185	3.0	4.0	24V	✓	st/st	Single 5 Blade	58	128	21	47	130A	589007	✓	✓
590016	TT 185 4.0KW 12V IP	185	4.0	5.4	12V	✓	st/st	Single 5 Blade	65	143	21	47	400A	589010		✓
590017	TT 185 4.0KW 24V IP	185	4.0	5.4	24V	✓	st/st	Single 5 Blade	65	143	21	47	130A	589007	✓	✓
590018	TT 185 5.0KW 12V IP	185	5.0	6.7	12V	✓	st/st	Single 5 Blade	82	181	28	62	400A	589010		✓
590019	TT 185 5.0KW 24V IP	185	5.0	6.7	24V	✓	st/st	Single 5 Blade	82	181	28	62	130A	589007	✓	✓
590020	TT 185 6.0KW 12V IP	185	6.0	8.0	12V	✓	st/st	Single 5 Blade	97	214	28	62	500A	589011		✓
590021	TT 185 6.0KW 24V IP	185	6.0	8.0	24V	✓	st/st	Single 5 Blade	97	214	28	62	325A	589009	✓	✓
590022	TT 250 8.0KW 24V AL	250	8.0	10.8	24V		Aluminium	Twin CR 5 Blade	140	308	46	101	400A	589010		✓
590024	TT 250 8.0 24V	250	8.0	10.8	24V		Bronze	Twin CR 5 Blade	140	308	46	101	400A	589010		✓
590025	TT 250 9.6 48V	250	9.6	13.0	48V		Bronze	Twin CR 5 Blade	170	374	50	110	250A	589008	✓	✓
590033	TT 300 10.8 24V AL	300	10.8	14.5	24V		Aluminium	Twin CR 5 Blade	250	550	65	143	400A	589010		✓
590034	TT 300 10.8 24V	300	10.8	14.5	24V		Bronze	Twin CR 5 Blade	250	550	65	143	500A	589011		✓
590035	TT 300 15.0 48V	300	15.0	20.0	48V		Bronze	Twin CR 5 Blade	280	616	68	150	400A	589010		✓



TT Hydraulic Thrusters

4									
PART NO	DESCRIPTION	TUNNEL SIZE (mm)	POWER		PROPELLER	THRUST		WEIGHT	
			kW	hp		kgf	lbs	Kg	lbs
590054	TT 185 Hyd Gen 2	185	7.0	10.0	Single 5 Blade	100	220	8	17.5
590055	TT 250 Hyd Gen 2	250	15.0	20.0	Twin CR 5 Blade	200	240	13	28.5
590056	TT 300 Hyd Gen 2	300	22.5	30.0	Twin CR 5 Blade	300	660	17	37.5

Retracting Thrusters

4																												
PART NUMBER	59111001	59111002	59111003	59111004	59112004	59112005	59112006	59112007	59112008	59112009	59112010	59112011	59112012	59112013	59112014	59112019	59112020	59112021	59112022	59112023	59112024	59112025	59112026	59112027	59113001	59113002	59113003	59113004
TUNNEL SIZE	140	140	140	140	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185	250	250	250	250
MOTOR KW	2.0	2.2	2.0	2.2	4.0	4.0	4.0	5.0	5.0	5.0	6.0	6.0	6.0	HYD	HYD	4.0	4.0	4.0	5.0	5.0	5.0	6.0	6.0	6.0	8.0	8.0	HYD	HYD
VOLTAGE V	12	12	12	12	12	12/24	24	12	12/24	24	12	12/24	24	12	24	12	12/24	24	12	12/24	24	12	12/24	24	12/24	24	12	24
IP			✓	✓												✓	✓	✓	✓	✓	✓	✓	✓					

System Spares

PART NO	DESCRIPTION	PART NO	DESCRIPTION
589222	Controller, Dual Pad	589096	MOTOR SUPPORT BRACKET 140 TT
589223	Controller, Single Pad	589810	Gen2 ABS 12V
589267	Controller, Dual Joystick	589830	Gen2 ABS 24V
589268	Controller, Single Joystick	589811	Gen2 PS 24V/12V
589845	Controller, Single, Hyd	589813	Gen2 PS 48V/24V
589846	Controller, Dual, Hyd	589150	140TT Anode
589807	5m TT Motor Loom MX	589350	185TT anode
589800	Gen2 Y Loom MX	589550	250TT/300TT ANODE
589801	Gen2 AUX 2m Loom MX	56110026	RT 140 ANODE
589802	Gen2 AUX 7m Loom MX	56110027	RT 185 ANODE
589803	Gen2 AUX 10m Loom MX	56110028	RT 250 ANODE
589804	Gen2 AUX 18m Loom MX	559107	110TT Drive Pin
589805	Gen2 AUX 22m Loom MX	559018	140TT Drive Pin
589006	Fuse Holder	559017	185TT Drive Pin
589013	T2 Fuse Holder	56110032	RT 140 Drive Pin
589007	130 A ANL TYPE FUSE	56110033	RT 185 Drive Pin
589008	250 A ANL TYPE FUSE	56110034	RT 250 Drive Pin
589009	325 A ANL TYPE FUSE	589451	110TT Propellers
589010	400 A ANL TYPE FUSE	589151	140TT/RT Propellers
589011	500 A ANL TYPE FUSE	589351	185TT/RT Propellers
589012	200 A ANL TYPE FUSE	589552	250TT/RT LH Propellers
589064	MOTOR SUPPORT BRACKET 185 TT	589551	250TT/RT RH Propellers
589065	MOTOR SUPPORT BRACKET 300 TT	589751	300TT LH
589066	MOTOR SUPPORT BRACKET 250 TT	589750	300TT RH



LEWMAR®

UK

Southmoor Lane,
Havant, Hampshire,
PO9 1JJ
UK

Tel: +44 (0) 2392 471841
Fax: +44 (0) 2392 485720

US

351 New Whitfield Street,
Guilford
CT 06437
USA

Tel: +1 203 458 6200
Fax: +1 203 458 2270



www.lewmar.com



This manual is provided courtesy of **RV Tech Cheat Sheet**



Professional resources for the whole RV industry — free.

We put manuals, wiring diagrams and hard-won tech knowledge in every technician's hands, so repairs get done right the first time, techs work faster, and RV owners everywhere get better service.



rvtechcheatsheet.com/manuals

Find thousands more RV manuals, wiring diagrams and parts lists

RV techs: share fixes, ask questions and learn from each other.

Join our free Facebook group →



Follow proper safety practices. If in doubt, consult a professional RV technician.