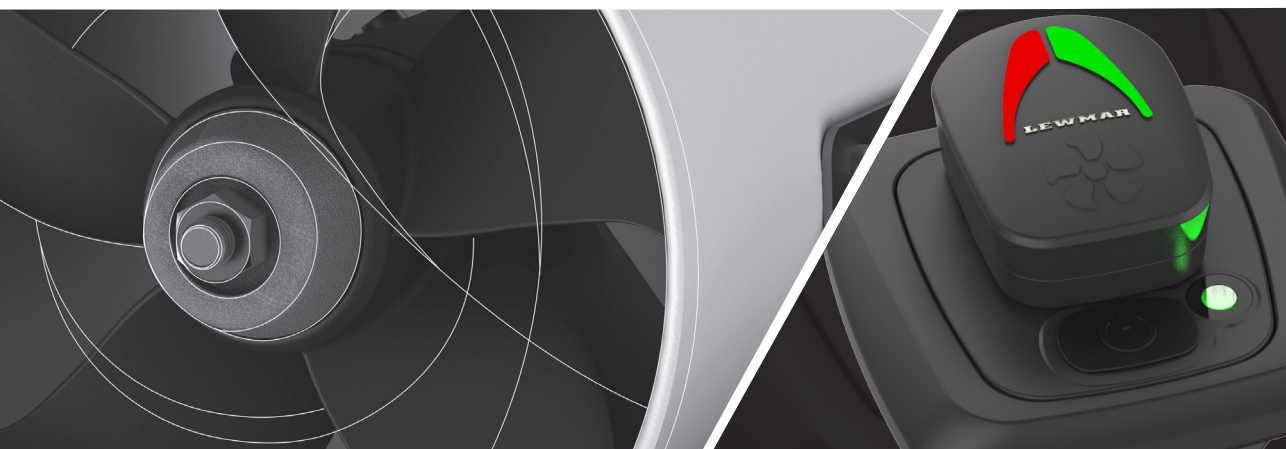




# LEWMAR®

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

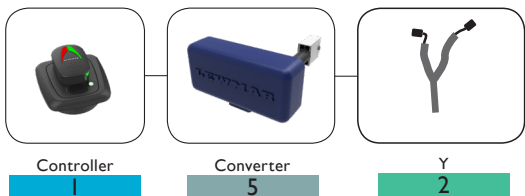
## Controller Converter

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

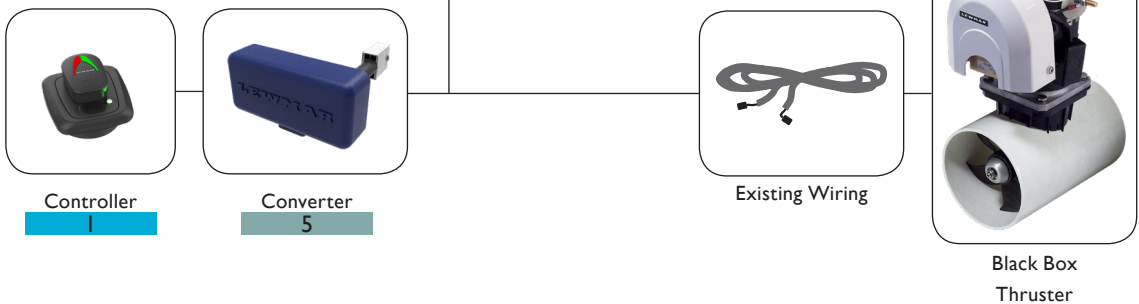


|                      |
|----------------------|
| 5                    |
| CONTROLLER CONVERTER |
| 589842               |



## Single/Dual Controller Splitter

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





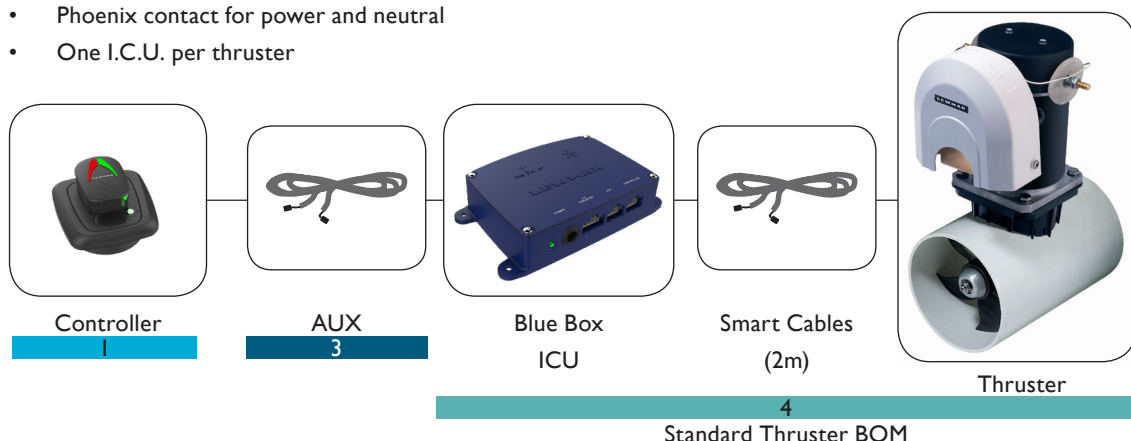
## Blue Box Systems

### 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.

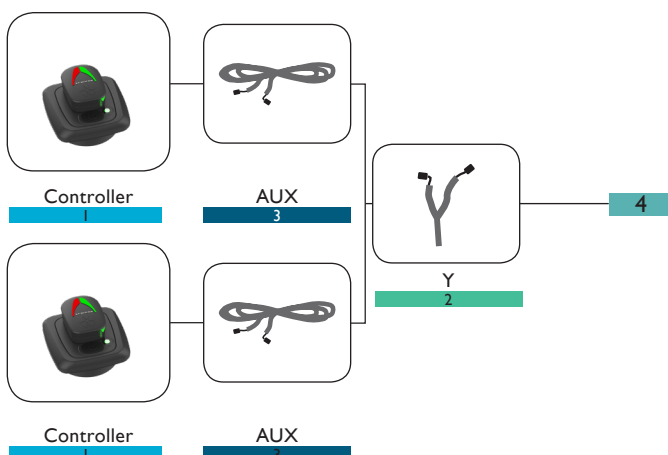
- Heath LED and on-board fuse on new blue box
- Powers and provide logic for panel controller
- Phoenix contact for power and neutral
- One I.C.U. per thruster



### 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

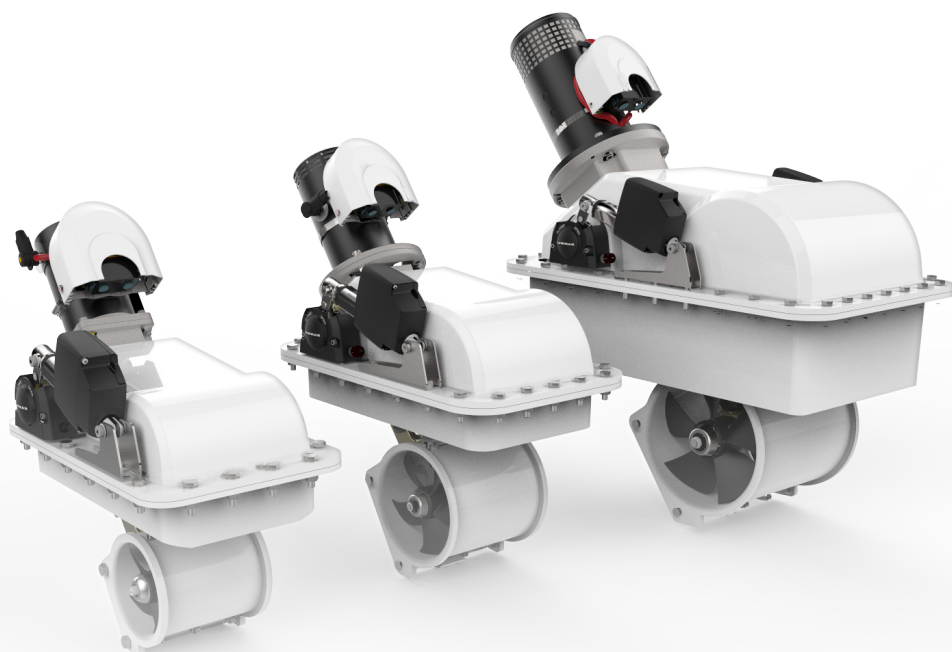




## New Lewmar Retractable Thruster Range

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

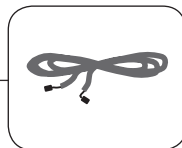


AUX

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<br>SIZE | POWER |      | MOTOR<br>VOLTAGE | IP | GEARBOX<br>MATERIAL | PROPELLER       | THRUST |     | WEIGHT |     | FUSE |        | FUSE HOLDER    |                |
|         |                     |                | (mm)  | kW   |                  |    |                     |                 | hp     | kgf | lbs    | Kg  | lbs  | Rating | Part<br>Number | T1 -<br>589006 |
| 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<br>(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                     |



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