

65001022 Issue 2

V700 Windlass

GB

Owner's Installation, Operation &
Basic Servicing Manual



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Contents

65001022 Issue 2. V700 Windlass.

Introduction	4	4. Maintenance	10
Product support	4	4.1 General recommendations	10
CE Approvals	4	5. Dismantling procedures	10
Safety notices	4	5.1 Gypsy replacement	10
General	4	5.2 Control arm replacement	10
Electrical	4	5.3 Main shaft lubrication	10
Electromagnetic compatibility	4	5.4 Fall safe pawl replacement	10
Important information about this manual	4	5.5 Fall safe lever replacement	10
1. Installation	5	6. Troubleshooting	11
1.1 Gypsy Suitability	5	6.1 Anchor rode pays out independently while windlass is not in use	11
1.2 Package contents	5	6.2 Electrical troubleshooting	11
1.3 Additional requirements	5	7. Parts list	12
1.4 Accessories	5	7.1 Service kits	13
1.5 Specifications	5	7.2 Parts list key	13
1.6 Fitting the windlass to the deck	5	8. Lewmar limited warranty	14
2. Electrical wiring installation	7		
2.1 Electric cable selection	7		
2.2 Wiring	7		
2.3 Control switch installation	7		
2.4 V700 Wiring diagram (toggle switch)	8		
2.5 V700 Wiring diagram (contactor)	8		
3. Operating your windlass	9		
3.1 Safety first	9		
3.2 Use of clutch	9		
3.3 Letting go under gravity	9		
3.4 Letting go under power	9		
3.5 Lying to anchor safely	9		
3.6 Hauling in	9		
3.7 Manual recovery	9		
3.8 Operating tips	9		
3.9 Joining rope to chain	9		

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 windlass is fitted.

Introduction

Dear Customer,

Thank you for choosing Lewmar windlass. Lewmar products are world renowned for their quality, technical innovation and proven performance. With a Lewmar windlass 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

CE Approvals

For CE approval certificates contact Lewmar.

Safety notices

General

Please read before installing and operating your Windlass.

Classification Societies and Lewmar require that a vessel at anchor must have its rode held by a chain stopper or equivalent strong point at all times!

At all times it is the responsibility of the boat user to ensure that the anchor and rode are properly stowed for the prevailing sea conditions. This is particularly important with high-speed powerboats, because an anchor accidentally deploying while under way can cause considerable damage. An anchor windlass is mounted in the most exposed position on a vessel and is thus subject to severe atmospheric attack resulting in a possibility of corrosion in excess of that experienced with most other items of deck equipment. As the windlass may only be used infrequently, the risk of corrosion is further increased. It is essential that the windlass is regularly examined, operated and given any necessary maintenance.

Please ensure that you thoroughly understand the operation and safety requirements of the windlass 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 windlass 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.

- Windlasses used incorrectly could cause harm to equipment or crew.
- Windlasses should be used with care and treated with respect.
- Sailing, like many other sports can be hazardous. Even the correct selection, maintenance and use of proper equipment cannot eliminate the potential for danger, serious injury or death.
- Lewmar windlasses are designed and supplied for anchor control in marine applications and are to be used in conjunction with any other use.
- It is the unavoidable responsibility of the owner or master or other responsible party to assess the risk of any operation on the vessel.

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.

The type of warnings, what they look like, and how they are used in this manual are explained as follows:

Warning!
This is a warning against anything which may cause injury to people if the warning is ignored. You are informed about what you must or must not do in order to reduce the risk of injury to yourself and others.

Safety Symbol
When you see the safety symbol it means: "Do not..."; "Do not do this"; or "Do not let this happen".

- Lewmar recommends the use of appropriate Personal Protective Equipment and hands free communication equipment by any person going aloft, and only then where the person going aloft is properly trained in the use of that equipment and where there remain sufficient trained and experienced personnel on deck to ensure constant observation and the continued safe conduct both of the vessel and the hoisting operation.

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.
- 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.

Electromagnetic compatibility

- It is essential that this product does not cause any electromagnetic disturbance to any other electrical or electronic equipment installed in the vessel. This will be achieved if the windlass is connected to the same battery as the vessel's starter motor and not to the service battery to which other equipment is connected. In addition, the run of the wiring, from the battery to the windlass, should be kept as far apart from the other wiring on the vessel as possible. For instance, if the main wiring loom is to starboard, fit the windlass wiring to port.

It should be noted that there is no evidence to indicate that windlass installations do cause magnetic interference but the installer is advised to carry out checks when the installation is complete.

1. Installation

1.1 Gypsy Suitability

Gypsies fitted to the V700 range of windlasses are ideally suited to handling our factory made Rope/Chain combination rodes, which consist of rope spliced to a chain tail.

Model	Gypsy	Chain	Rope
V700	RC0765	7 mm (1/4") High Test G-4 ISO	1/2" 3 strand medium lay or 1/2" 8 plait nylon
	RC0670	6 mm DIN766	12 mm 3-strand medium lay or 12 mm 8 plait nylon

Ropes used must be windlass grade, medium lay nylon. Ropes from different manufacturers have wide variations in stretch and consistency in diameter. Therefore, rope and chain from other manufacturers may require some experimentation to determine the optimum size.

Should you have difficulty in matching a gypsy to your chain please consult your local agent or our international network of Lewmar distributors worldwide.

1.2 Package contents

- Windlass
- Intelligent Mounting Studs, Washers and Nuts
- All-in-one Installation Wrench & Clutch Lever
- Base Gasket Seal
- Safety Instructions
- Mounting Template
- Instruction Booklet
- Warranty Registration Card
- Breaker/Isolator
- Control Switch

1.3 Additional requirements

Each installation requires:

WINDLASS INSTALLATION

- The following tools:
 - 9.5 mm (3/8") Drill
 - 65 mm (2 1/2") Hole Saw
 - 115 mm (4 1/2") Hole Saw
- Hack Saw
- An appropriate marine sealant

WIRING INSTALLATION

- Crimping Pliers/Wire Stripper
- Suitable electrical cable and crimp terminals

1.4 Accessories

Use only genuine Lewmar parts and accessories to ensure top performance and eliminate the risk of voiding your warranty. For replacement parts, please see Sec. 7 or visit your dealer or the Lewmar web site.

1.5 Specifications

Typical working figures:

V700	
Max. Pull	320 kg (700 lb)
Max. Line Speed	Freefall
Typical Working Load	80 kg (175 lb)
Normal Line Speed	22 m/min (72 ft/min)
Line Weight	6.5 kg (14 lb)
Boat Size	up to 10.7 m (35 ft)

1.6 Fitting the windlass to the deck

- If the deck is not flat, a suitable mounting pad may be required to take up camber or sheer.

Decks that are thin, or of foam or balsa laminate construction, will require reinforcement in order to spread the loads that will be applied to the deck while the windlass is in use.

The standard 8 mm (5/16") threaded mounting studs supplied suit deck and packing thickness of up to 76 mm (3"). These are adequate for most installations.

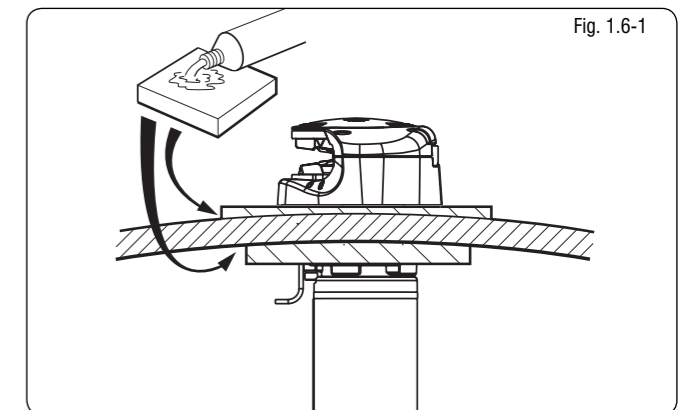


Fig. 1.6-1

- Place the windlass on the deck and decide upon a position for it with reference to the vessel's bow roller (Fig. 1.6-2) and the chain locker below. Rode lead from the roller should ideally be fed horizontally back to the top of the gypsy and along its centerline (Fig. 1.6-3).

There must be sufficient vertical fall for the chain or rope, even with a full locker, to draw the rode from the gypsy when hauling in.

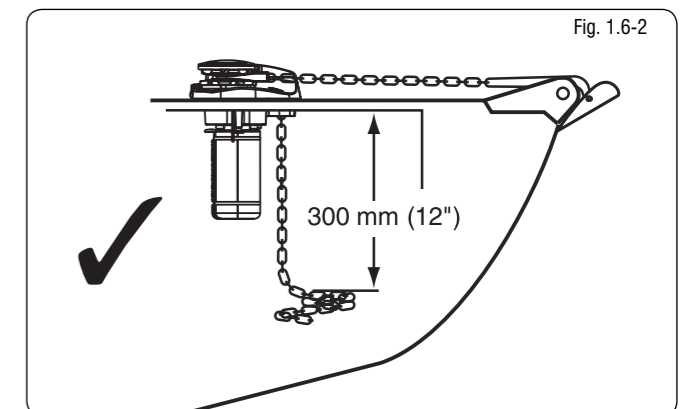


Fig. 1.6-2

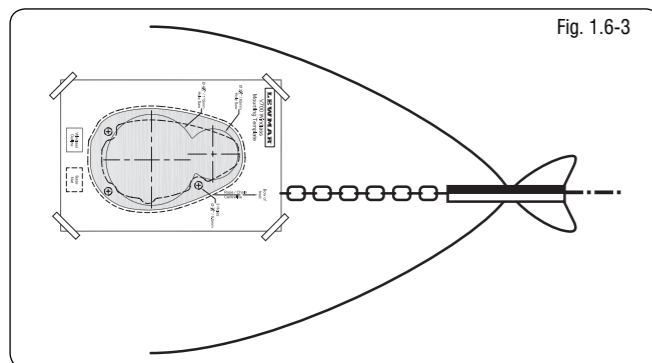


Fig. 1.6-3

- Place the mounting template on the deck or mounting pad in the desired position for the windlass and hold it in place using adhesive tape.
- NOTE: Check the scale of the template matches the winch.**

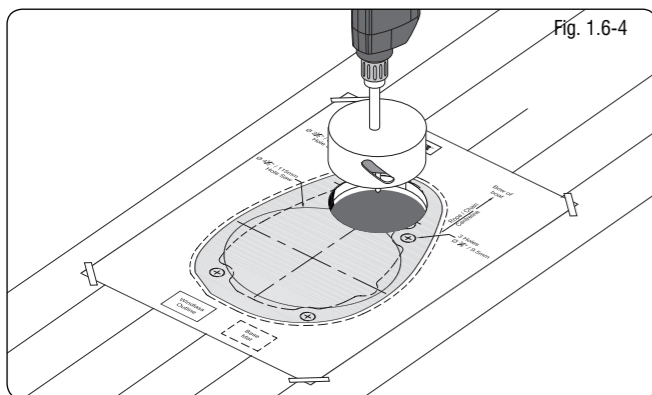


Fig. 1.6-4

- Using a 10 mm ($\frac{3}{8}$ ") diameter drill, make the three holes for the mounting studs. With a 65 mm ($2\frac{1}{2}$ ") diameter hole saw, make the hole for the rode to pass through with a 115 mm ($4\frac{1}{2}$ ") diameter hole saw, make a hole for the motor gearbox to pass through.

When all the holes have been made, remove the template. To help avoid water absorption by the deck, apply an appropriate marine sealant to the freshly cut hole edges.

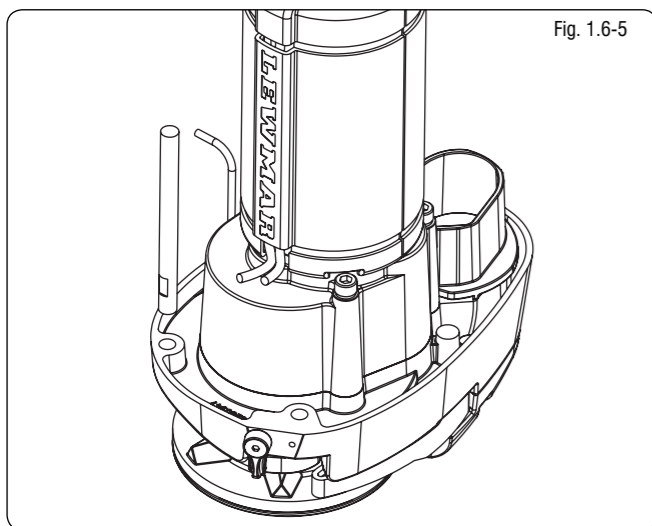


Fig. 1.6-5

- Fully screw the three mounting studs into the base of the windlass. This can be done, quite simply, using the multi-tool wrench supplied. Screw the studs into the base finger tight, with the flats towards the base as shown (Fig 1.6-5).

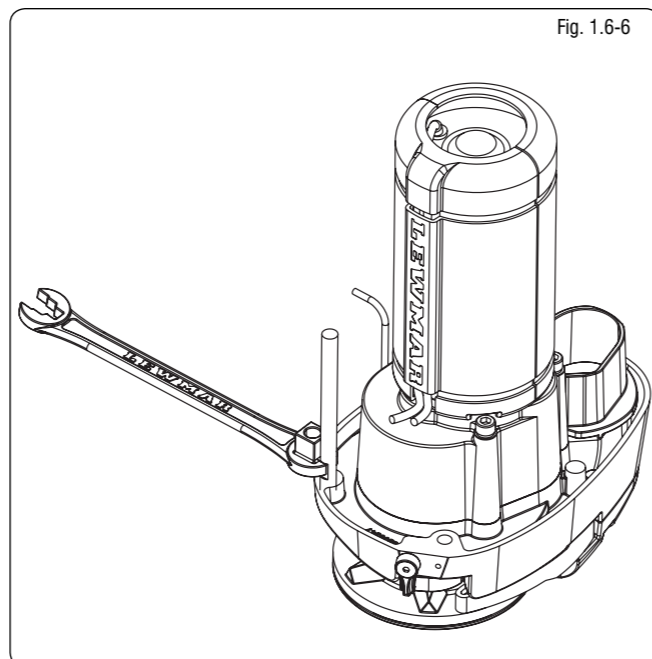


Fig. 1.6-6

- Next, using the wrench on the flats, tighten the studs until they bottom out in their holes. Do this to each of the studs in turn.

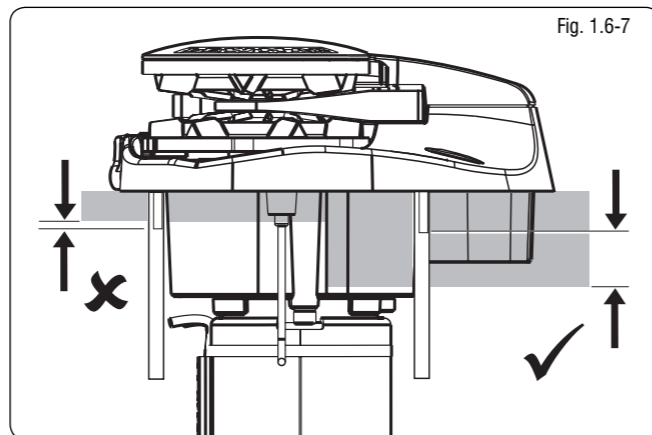


Fig. 1.6-7

- Place the base mat in position on the deck, optionally, apply a suitable sealant to the base of the windlass, any mounting pad or around the studs.

DO NOT use a permanent adhesive/sealant, e.g., 5200

As a rule of thumb, if the flats on the studs are visible below deck, the deck and/or any packing is likely to be too thin to offer adequate support when the windlass is under load.

- NOTE: If using silicone or other rubbery type sealant, it is advisable to allow curing of the sealant before final tightening of the mounting nuts. Trim the studs back to 6 mm ($\frac{1}{4}$ ") below the fully tightened nuts.**

2. Electrical wiring installation

2.1 Electric cable selection

To achieve the best performance and to safeguard your electrical system it is essential that any electrical windlass be fitted with sufficiently large diameter cable to cope with the current draw imposed upon it and to keep the voltage drop within acceptable limits. In any circumstance voltage drop due entirely to cable resistance should not exceed 10%.

The following table gives recommended cable sizes. The recommendations are based on total length of cable required, from the battery, following the route of the cables.

- Total length of cable run is from the battery to the windlass, and from the windlass back to the battery.**

DO NOT confuse cable length with the length of the vessel!

Boat Length		Cable Length Up To		Cable Size	
(m)	(ft)	(m)	(ft)	(AWG)	(mm ²)
7.5	25	0 - 10	0 - 33	8	10
9	30	11 - 18	34 - 60	6	16
10.5	35	19 - 24	61 - 80	4	25

- In Multi Station installations 14 AWG wire (1.5 mm² cross sectional area, 21/0.30 PVC covered) is used to connect the switches to the reversing control box.

2.2 Wiring

Plan the installation to suit the controls and give the operator a full view of the windlass. The wiring system should be of the two cable fully insulated return type, which avoids possible electrolytic corrosion problems. We recommend the use of type III stranded, tinned copper wire with copper crimp terminals. Most modern installations are negative return (negative ground) but polarity should be checked. If necessary add a grounding strap between the mounting studs and an earthing point.

- NOTE: If a Contactor is used in a V700 installation, the Contactor must be sited in a dry location.**

DO NOT install the contactor in the anchor locker.

If a contactor is installed in an anchor locker it is exposed to harsh conditions it is not designed to withstand. Furthermore this type of installation will void your warranty.

Overload protection, in the form of the circuit breaker/isolator supplied, must be built into the windlass wiring circuit. This protects the wiring and prevents undue damage to the windlass motor, in the event of its being stalled by an excessive load in service.

It is advisable to site the circuit breaker/isolator in a dry, readily accessible place. The Breaker/ Isolator supplied must be manually reset should an overload occur that causes it to trip to the off position.

- NOTE: Crimp terminals should be used on all wire ends wherever possible for good electrical contacts.**

If you are not sure you understand these guidelines, seek professional help. Ensure that the installation complies with USCG, ABYC, NMMA or other local regulations.

2.3 Control switch installation

Follow the mounting instructions supplied with the switch. Remember, in a Multi Station installation all switches must be wired in a parallel circuit.

2.4 V700 Wiring diagram (toggle switch)

Choice of cable thickness depends on total cable length:
A + B + C + D + E =
Battery to windlass, windlass to battery.

Model	Motor	Breaker / Isolator	Contactor
V700	12 V	35 A (68000604)	N/A

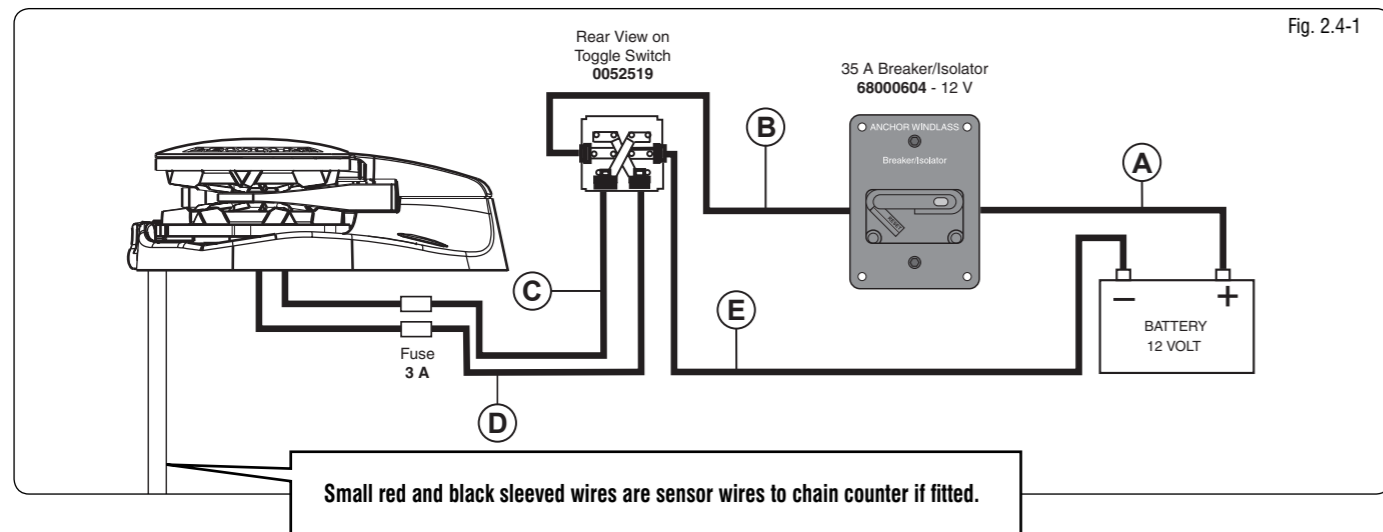


Fig. 2.4-1

2.5 V700 Wiring diagram (contactor)

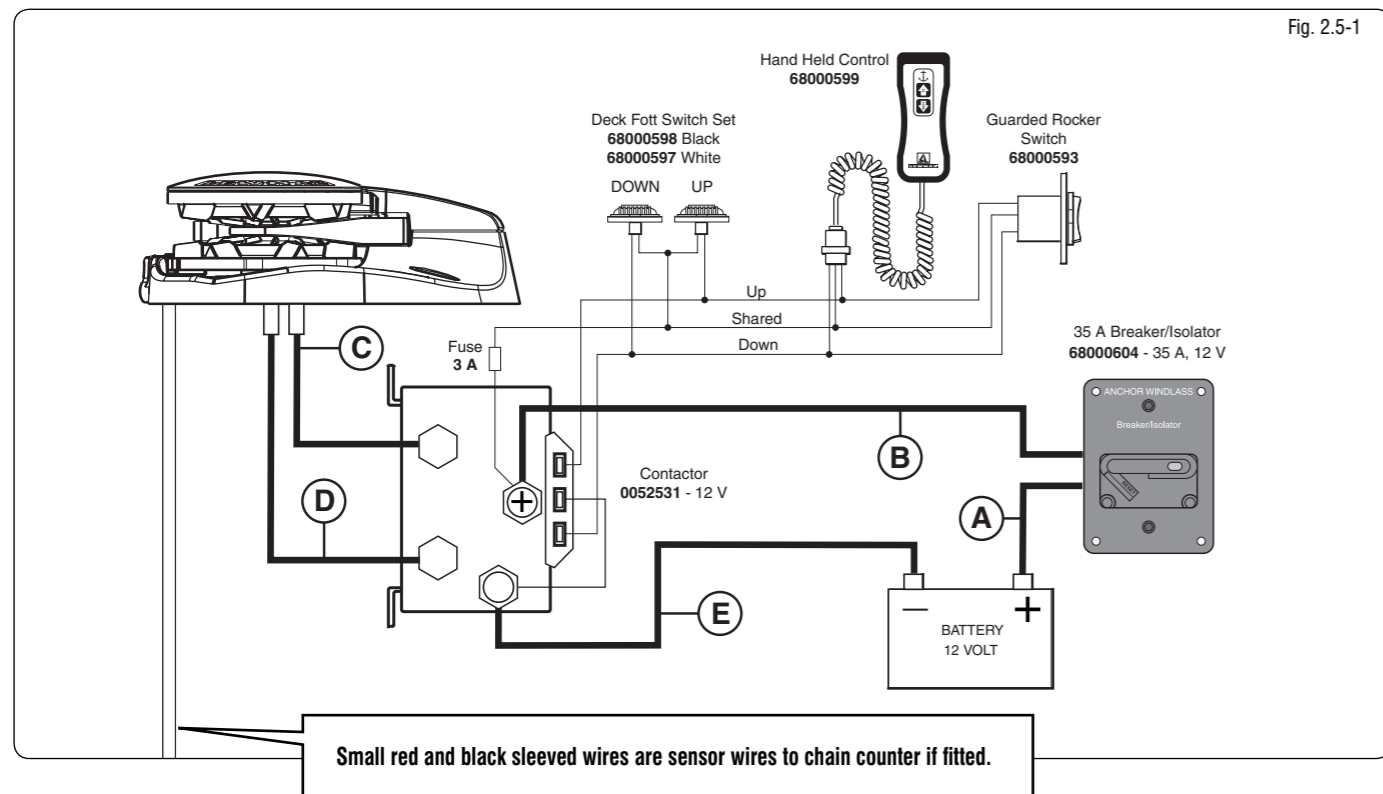


Fig. 2.5-1

Boat Length		Cable Length Up To		Cable Size	
(m)	(ft)	(m)	(ft)	(AWG)	(mm ²)
7.5	25	0 - 10	0 - 33	8	10
9	30	11 - 18	34 - 60	6	16
10.5	35	19 - 24	61 - 80	4	25

- **NOTE: Wireless remote also available.**
- **NOTE: Wireless remote can only be used if a contactor is fitted. See wireless remote instructions for wiring details.**

Model	Item	Description
Wireless	68000844	3 Button Windlass only
Remotes	68000845	5 Button Windlass & Thruster

3. Operating your windlass

As a prudent act of seamanship, anchor recovery operations require the undivided attention of skipper and crew to prevent personal injury or damage to the vessel.

In a typical anchor recovery situation, the windlass will pass through a number of operational phases.

3.1 Safety first

To avoid personal injuries ensure that limbs, fingers and clothing are kept clear of the anchor rode and windlass during operation. Always ensure that there are no swimmers or divers nearby when dropping your anchor.

3.2 Use of clutch

To tighten the clutch - using the clutch lever supplied, rotate the gypsy drive cap (31) clockwise, this will grip the gypsy, effectively locking it to the windlass geartrain.

To slacken the clutch - turn the gypsy drive cap anti-clockwise, this will free the gypsy allowing it to turn independently of the windlass geartrain.

⚠ Always remove the handle after use.

3.3 Letting go under gravity

⚠ Always check the fallsafe pawl (32) is disengaged from the gypsy and held clear of it by the fallsafe lever (34).

Insert the clutch lever into the gypsy drive cap (31) and turn it clockwise to ensure that the clutch is tight. Release any independent anchor locks. If it is safe to do so, pull back on the clutch lever until the anchor and rode begin to pay out. Control the rate of decent of the anchor by pushing the clutch lever forwards. When sufficient rode has been paid out, fully tighten the gypsy drive cap once again.

3.4 Letting go under power

Release any independent anchor locks.

If it is safe to do so, let go under power by operating a 'Down' control. Release the control when sufficient rode has been paid out.

3.5 Lying to anchor safely

Vessels at anchor will snub on the rode and this can cause slippage or apply excessive loads to the windlass.

⚠ For maximum safety and to prevent damage, the fallsafe pawl MUST NOT be left to take the entire force from the anchor rode while at anchor. The rode should be made fast directly to a bollard, sampson post or cleat.

3.6 Hauling in

Untie the bridle or replace the rode in the gypsy.

If it is safe to do so, operate an 'Up' control.

The fallsafe pawl (32) does not need to be disengaged during retrieval as it will act as a ratchet. When the anchor has been retrieved and is stowed in the bow roller, the fallsafe pawl should be left engaged in the gypsy to prevent accidental deployment of the anchor whilst underway.

REMEMBER - The fallsafe pawl DOES need to be disengaged from the gypsy before the anchor can be let go again.

Having retrieved the anchor, ensure it is independently secured to prevent its accidental release.

3.7 Manual recovery

Insert clutch lever supplied into gypsy drive cap (31) and turn clockwise to haul in the anchor.

3.8 Operating tips

When anchoring, it is best to power the rode out, allowing the vessel to take up stern way before full scope is let out. This helps prevent the rode from becoming tangled on top of your anchor on the seabed.

To aid anchor recovery, we recommend that the vessel's engine be used to assist by moving the vessel towards the anchor. We do not recommend that the vessel be motored over and beyond the anchor, as this can cause the rode to damage your topsides.

As the anchor approaches the stemhead, the last few feet of rode should be inched in by judicious use of controls to avoid damage to the vessel.

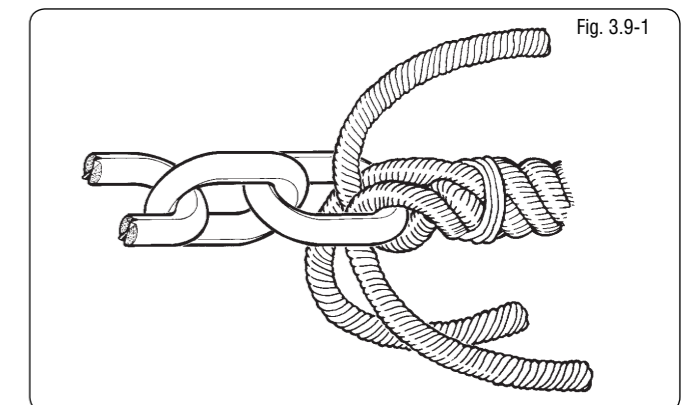
Having retrieved the anchor, ensure the fallsafe pawl is engaged in the gypsy to lock it and prevent accidental deployment of the anchor whilst underway.

When mooring stern to, at a suitable distance from the jetty, deploy the anchor to prevent the bow from swinging. Gently pay out the rode under the influence of the stern way of the vessel as it approaches the jetty. Make fast your vessel with warps from the stern.

3.9 Joining rope to chain

When splicing rope to chain, select a length of chain that will avoid having the splice positioned in the gypsy when the anchor comes over the stemhead. Furthermore, ensure that the splice is no tighter than the rope. A hard splice is not desired.

- With whipping twine or similar, seize your rope 200 mm (8") from the rope's end and unlay the strands.
- Pass one strand through the chain link from one side and the other two strands from the opposite side. Remove seizing and complete a back splice in the normal manner for four full tucks.
- With a hot knife pare down the three strands by one half of their diameter and continue with two further tucks.
- With a hot knife, carefully melt the ends back into the line. Because of wide variations in rope type and construction some experimentation may be required.
- Whip the line with permanent whipping at the beginning of the taper.
- The above method of joining is designed to minimize chafe between the rope and chain but as a matter of prudent seamanship the splice should be checked regularly and remade if there is any evidence of wear.



4. Maintenance

4.1 General recommendations

⚠ Isolate the windlass electrically, before carrying out any maintenance work.

- After the first two or three anchor recoveries, check the mounting nuts to ensure that the windlass is still fastened tightly to your deck, as it should now be bedded-in.
- Regularly wash down the exterior of your windlass with fresh water.

- Examine all electrical connections for possible corrosion, clean and lightly grease as necessary.
- Anchor rode splice should be checked regularly and remade if there is any evidence of wear.
- The Gypsy should be examined on a regular basis, because it is a high wear item. The Gypsy is designed for short scopes of chain and will last longer if properly used.

5. Dismantling procedures

⚠ Isolate the windlass electrically, before carrying out any maintenance work.

5.1 Gypsy replacement

Remove the Gypsy Drive Cap (31), anti-clockwise using the clutch operating lever. Withdraw the Drive washer (21), Remove the Socket Head Cap Screw (40) that retains the Stripper using a (5mm) Allen Wrench. Pull the Control Arm (30) back to clear the Gypsy. Remove the Gypsy Assembly (37). To replace the Gypsy, reverse the above procedure.

5.2 Control arm replacement

This should be carried out with the Gypsy (37) removed as detailed above. To remove the Control Arm (30). Unscrew the Control Arm Shoulder Screw (24) using a (4 mm) Allen Wrench and remove screw. Remove the Control Arm (30) and Torsion (12) Spring from the base plate. To replace the Control Arm, reverse the above procedure.

5.3 Main shaft lubrication

Note The geartrain and its bearings have been lubricated for you with SFG 100 grease and should require no regular attention. SFG is a white synthetic grease containing PTFE. Use grease of a similar specification throughout. It is recommended that the external Drive Shaft components be stripped, cleaned and re-greased at least annually. To do this, the Gypsy Assembly (37) should be removed as detailed above. Inspect the Main Shaft (20) and Gypsy (37) for damage before reassembly.

5.4 Fall safe pawl replacement

This should be carried out with the Gypsy (37) removed as detailed above. Turn the fall safe lever (34) so it is horizontal. Remove fall safe shoulder screw (35) using allen wrench. Lift off fall safe pawl (32). Remove fall safe spring (36). Replace new part by reversing the above procedure.

5.5 Fall safe lever replacement

Turn fall safe lever (34) so it is horizontal. Remove socket screw (6) using allen wrench. Remove fall safe lever (34). To refit use thread lock on the socket screw (6). Screw down screw (6) finger tight and leave to cure before operating fall safe lever (34).

6. Troubleshooting

6.1 Anchor rode pays out independently while windlass is not in use

This problem is a result of not securing the anchor rode combined with the Gypsy Drive Cap (31) being slack. Tighten the Gypsy Drive Cap using the tool provided and always secure the anchor rode independently of the windlass whenever it is not being deployed or recovered.

6.2 Electrical troubleshooting

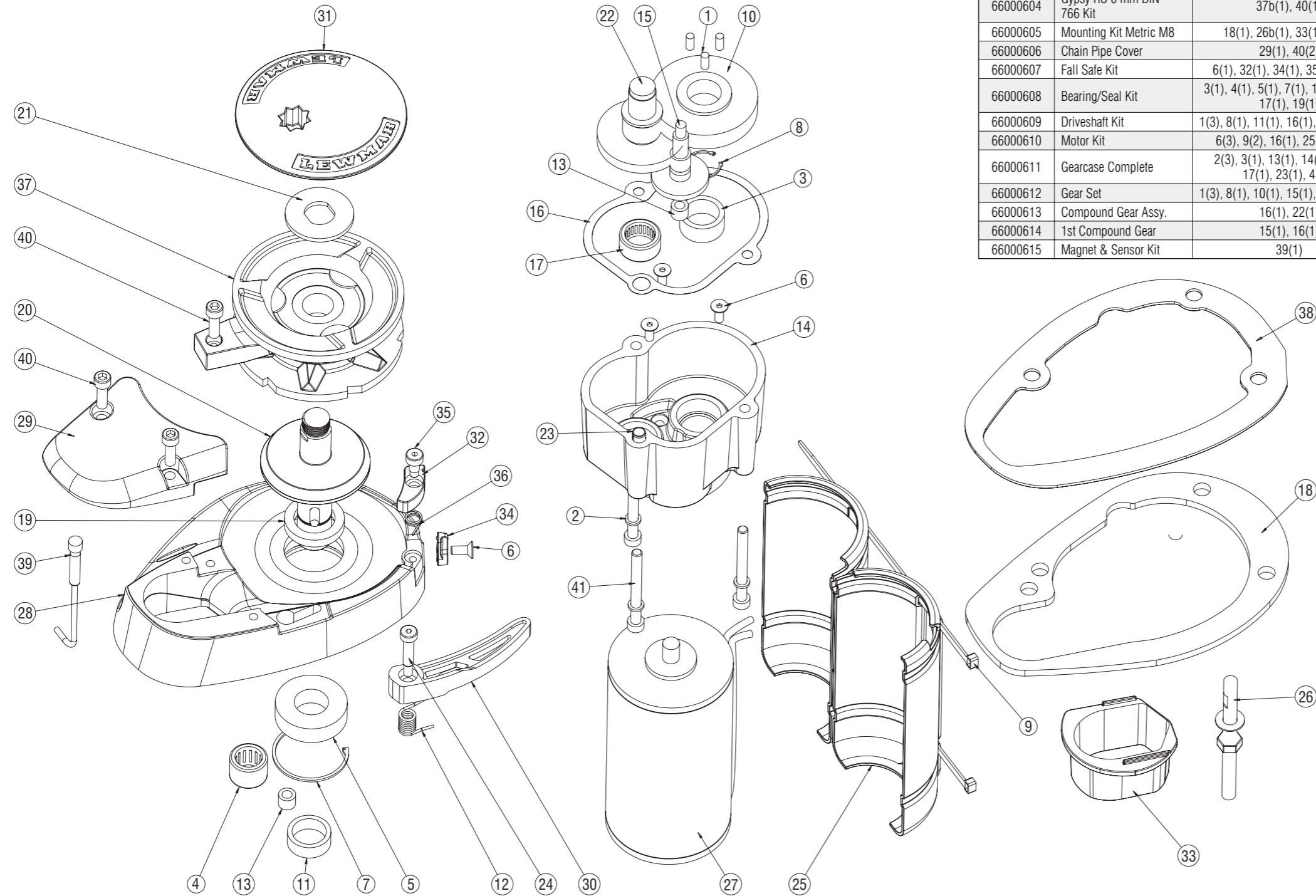
As with most electrical marine equipment the majority of problems that arise are electrical in nature. Therefore it is essential that the proper voltage be maintained. The proper voltage on a 12 Volt system is 13.5 Volts. (Constant low voltage will destroy the motor). Ensure that electrical cable size is large enough to handle the current draw imposed upon it and to keep the voltage drop within acceptable limits. In any circumstance voltage drop due entirely to cable resistance should not exceed 10%. Follow the charts to troubleshoot the problem.

Failure to Operate Troubleshoot Chart: Reversing Toggle Control Switch (Part No. 0052519)	
Is there voltage at the input terminal (positive) to the control switch?	If no voltage is present, the battery isolation switch is OFF, the breaker is tripped or a fuse has blown. The battery may also have been dead or disconnected.
YES ↓ NO →	
Check voltage at the output terminals of the control switch with the switch on forward then reverse. Is there voltage at either output terminal for forward then reverse.?	Control switch is defective.
YES ↓ NO →	
Replace motor.	

Sluggish Operation Troubleshoot Chart	
Is windlass overloaded?	Ease the load and ensure the battery is well charged.
YES ↓ NO →	
Check the voltage across the motor leads with the windlass on. (Proper voltage is 13.5 V. Constant low voltage will destroy the motor). Is the voltage low? (Below 11.0 V on a 12 V system).	There is a severe voltage drop in the circuit. Check for undersized cables, poor connections or corroded connections. Also check for resistance across the battery isolation switch or solenoid. (Feel them to see if they are heating up).
YES ↓ NO →	
Is the voltage correct? (Above 11.0 V and anchor is not fouled).	The motor is defective. Replace the motor.
YES →	

7. Parts list

7.1.1



7.1 Service kits

Kit	Description	Items Included (Qty)
66000099	Clutch Lever	Clutch Lever (1)
66000600	Control Arm Kit	12(1), 24(1), 30(1)
66000601	Gypsy Cap Kit	21(1), 31(1)
66000602	Mounting Kit 5/16" USA	18(1), 26a(1), 33(1), 38(1)
66000603	Gypsy RC 1/4"G4 & 7 mm Kit	37a(1), 40(1)
66000604	Gypsy RC 6 mm DIN 766 Kit	37b(1), 40(1)
66000605	Mounting Kit Metric M8	18(1), 26b(1), 33(1), 38(1)
66000606	Chain Pipe Cover	29(1), 40(2)
66000607	Fall Safe Kit	6(1), 32(1), 34(1), 35(1), 36(1)
66000608	Bearing/Seal Kit	3(1), 4(1), 5(1), 7(1), 13(2), 16(1), 17(1), 19(1)
66000609	Driveshaft Kit	1(3), 8(1), 11(1), 16(1), 20(1), 21(1)
66000610	Motor Kit	6(3), 9(2), 16(1), 25(1), 27(1)
66000611	Gearcase Complete	2(3), 3(1), 13(1), 14(1), 16(1), 17(1), 23(1), 41(3)
66000612	Gear Set	1(3), 8(1), 10(1), 15(1), 16(1), 22(1)
66000613	Compound Gear Assy.	16(1), 22(1)
66000614	1st Compound Gear	15(1), 16(1)
66000615	Magnet & Sensor Kit	39(1)

7.2 Parts list key

Item	Description	Qty.	Part No.
1	SS Roller	3	66000609 or 66000612
2	M6 Spring Washer	3	66000611
3	Needle Roller Bearing	1	66000608 or 66000611
4	Roller Clutch	1	66000608
5	Ball Bearing	1	66000608
6	M5 x 12 CSK Socket Screw	4	66000607 or 66000610
7	Internal Circlip	1	66000608
8	External Circlip	1	66000609 or 66000612
9	Black Nylon Cable Tie 200 mm	2	66000610
10	Mainshaft Gear 48 Teeth	1	66000612
11	Mainshaft Spacer	1	66000609
12	Control Arm Torsion Spring	1	66000600
13	Needle Roller Bearing	2	66000608 or 66000611
14	Gearcase	1	66000611
15	1st Compound Gear	1	66000612 or 66000614
16	Gear Case Gasket	1	66000608 or 66000609, 66000611 or 66000612
17	Needle Roller Bearing	1	66000608 or 66000611
18	Clamping Plate	1	66000602
19	Wiper Seal	1	66000608
20	Mainshaft	1	66000609
21	Drive Washer	1	66000601 or 66000609
22	2nd Compound Gear Assy.	1	66000612 or 66000613
23	Bush 6 x 12	1	66000611
24	Control Arm Shoulder Screw	1	66000600
25	Motor Cover	1	66000610
26a	Mounting Studs 5/16" (USA)	1	66000602
26b	Mounting Studs Metric M8	1	66000605
27	IP67 Motor, 320 W	1	66000610
28	Baseplate	1	n/a
29	Chainpipe Cover	1	66000606
30	Control Arm	1	66000600
31	Gypsy Drive Cap	1	66000601
32	Fall Safe Pawl	1	66000607
33	Chain Pipe Sleeve	1	66000602
34	Fall Safe Lever	1	66000607
35	Fall Safe Shoulder Screw	1	66000607
36	Fall Safe Spring	1	66000607
37a	Gypsy RC 1/4"G4 & 7 mm DIN 766	1	66000603
37b	Gypsy RC 6 mm DIN 766	1	66000604
38	Basemat	1	66000602
39	Magnet & Sensor Kit	1	66000615
40	M6 x 20 mm SKT HD Cap Screw	3	66000603 or 66000606
41	M6 x 60 mm SHT HD Cap Screw	3	66000611

8. Lewmar limited warranty

LIMITED WARRANTY and KEY TERMS OF SUPPLY BY LEWMAR

Lewmar warrants that in normal usage and with proper maintenance its products will conform with their specification for a period of five 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 five-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 which 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.
- iv Product subject to a warranty claim must be returned to the Lewmar outlet which supplied the product for examination unless otherwise agreed 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 authorised 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
- Weather seals
- Products used in "Grand Prix" racing applications

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 which supplied the product or to Lewmar at Southmoor Lane, Havant, Hampshire, England PO9 1JJ.

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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