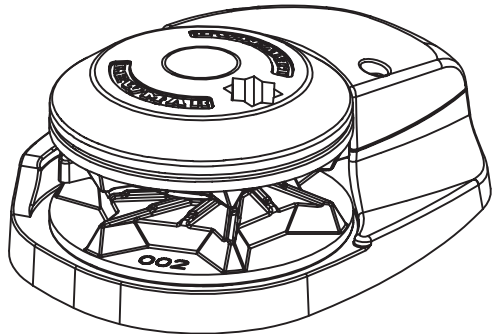
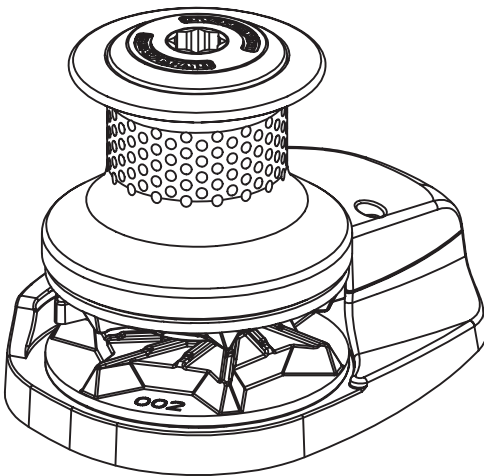


Lewmar CPX Vertical Windlass

66300104 Iss. 8



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

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.

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".

2. Safety Notice

IMPORTANT: Read these notes before continuing.

 **WARNING!**

2.1 Windlass general

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

At all times it is the responsibility of the boat operator 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.
- ▶ Boating, like many other activities 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 not to be used in conjunction with any other use.
- ▶ Keep limbs, fingers, clothing and hair clear of windlass, rode and anchor during operation. Severe bodily harm could result.
- ▶ Ensure there are no swimmers or divers nearby when dropping anchor.
- ▶ Windlasses must not be used as the sole means of securing the anchor to the bow fitting especially under storm conditions. Anchors should be independently secured to prevent accidental release.
- ▶ Classification Societies require that a vessel lying at anchor must have its anchor rope/chain secured to a chain stopper or other suitable independent strong point.
- ▶ A windlass should never be used as a mooring bollard, the anchor rode **MUST** be secured to a mooring cleat, chain stopper or other designated strong point. Using the windlass to secure the rode will damage the windlass.
- ▶ Do not use windlass for ANY purpose other than deployment and recovery of anchor.
- ▶ The circuit breaker in this product must never be deactivated or otherwise bypassed, it is intended to protect the motor and cables from overheating and damage.
- ▶ Always switch off this windlass at the circuit breaker/isolator when not in use.
- ▶ It is the unavoidable responsibility of the owner, master or other responsible party to assess the risk of any operation on the vessel.
- ▶ Windlass must not be operated whilst under the influence of alcohol or drugs.

2.2 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.

2.3 Electrical

- ▶ Make sure that the boat's battery power supply has been switched off before starting the installation.
- ▶ This product requires installation by a suitably qualified electrical engineer.

3. Installation

3.1 Basic requirements

Each installation requires the following tools:

Windlass Installation

An appropriate marine sealant and the following:

CPX 1-3

- ▶ 10 mm ($\frac{3}{8}$ ") Drill
- ▶ 12 mm ($\frac{15}{32}$ ") Drill
- ▶ 14 mm ($\frac{9}{16}$ ") Drill
- ▶ 63 mm (2 $\frac{1}{2}$ ") Hole Saw
- ▶ 57 mm (2 $\frac{1}{4}$ ")Hole Saw

CPX 4-5

- ▶ 12 mm ($\frac{15}{32}$ ") Drill
- ▶ 14 mm ($\frac{9}{16}$ ") Drill
- ▶ 77 mm (3")Hole Saw
- ▶ 70 mm (2 $\frac{3}{4}$ ") Hole Saw

Wiring Installation

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

3.2 Accessories

Use only genuine Lewmar parts and accessories to ensure top performance and eliminate the risk of voiding your warranty. For replacement parts, please visit your dealer or www.lewmar.com

3.3 Gypsy Suitability

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

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.

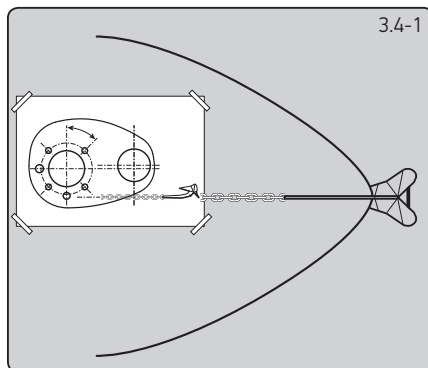
Should you have difficulty in matching a gypsy to your chain please consult your local agent or our international network of distributors.

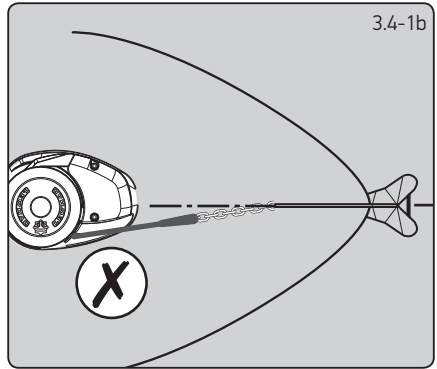
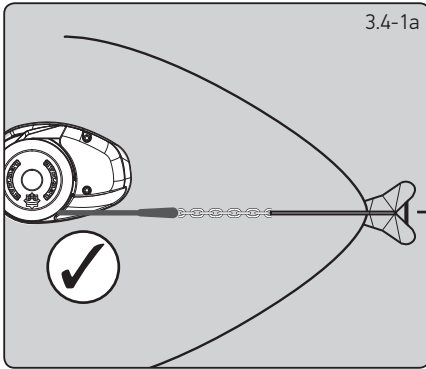
3.4 Above deck preparation

IMPORTANT - Plan location carefully and allow for the following:

1. Make an accurate drilling template using the product dimensions from the dimension template and decide upon a position for it with reference to the vessel's bow roller and the chain locker below and the rotation of manual operating handle.

If possible, select a flat area of deck.

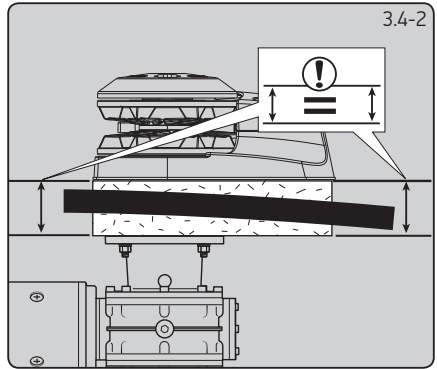




2. If a pad is required for these models, care must be taken to ensure that the windlass base is parallel to the motor/gearbox mounting flange. Shims may be used, before the motor/gearbox is installed, to correct minor misalignment.

Notes

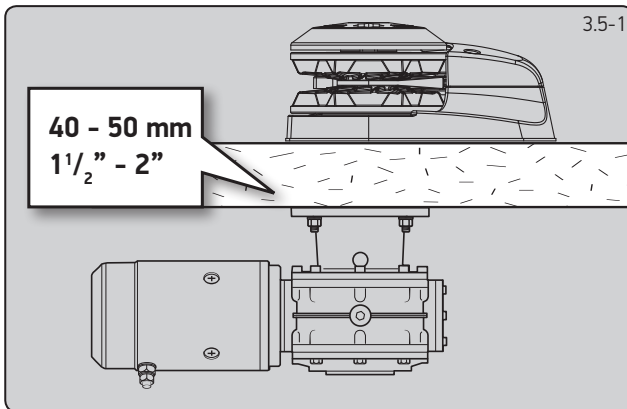
- ▶ if in doubt about the suitable construction of the pad consult a qualified marine engineer.
- ▶ Decks that are thin, or of foam or balsa laminate construction, will require reinforcement in order to spread the loads that will be applied to the deck while the windlass is in use



3.5 Deck thickness

The deck is an integral component of the windlass it has to secure the windlass and be strong enough to cope with the high torque stresses involved in recovering the anchor.

- ▶ Lewmar recommends a minimum deck thickness of 40mm (1½")
- ▶ M10 studs suit deck and packing thickness of 40-50mm (1½" - 2")

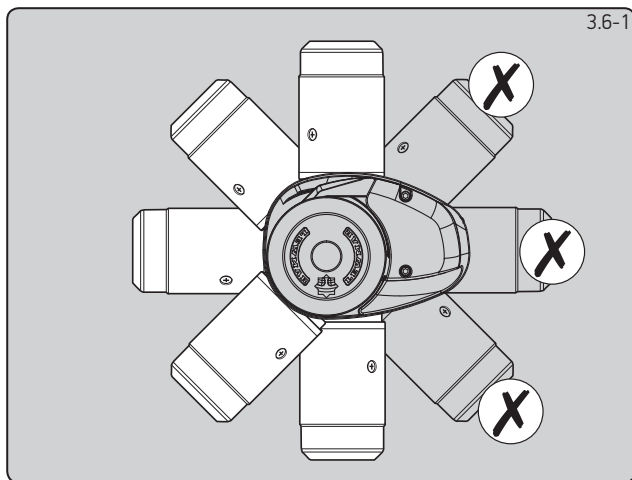


Note: For thicker deck, a longer shaft may be required (not standard). Contact your Lewmar representative for more information

3.6 Below deck preparation

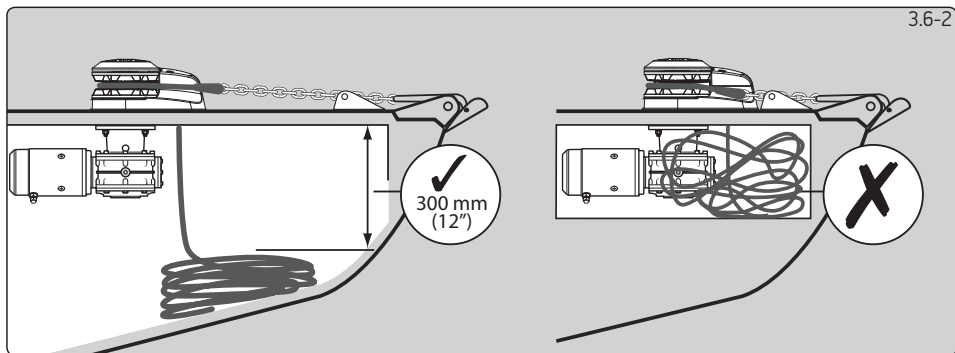
IMPORTANT:

The positioning of the windlass must be checked prior to cutting for deck/hull and bulkhead clearance.



1. The motor/gearbox is bolted via the through deck mounting bolts.

NOTE: Do not position motor/gearbox below rode/chain pipe fall area.

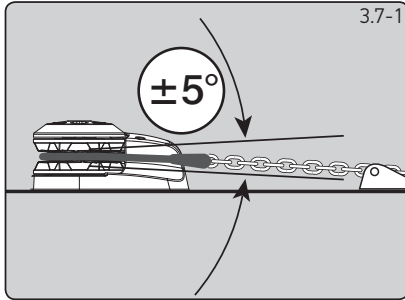


2. There must be sufficient vertical fall for the chain or rope when hauling in.

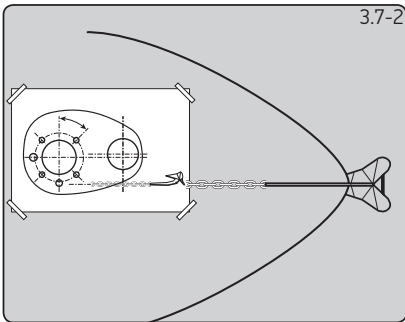
⚠ WARNING!

Failure to provide minimum vertical fall will cause jamming.

3.7 Above deck fitting



1. Lead from the roller should be fed horizontally back to the top of the gypsy and along its centre line within $\pm 5^\circ$.



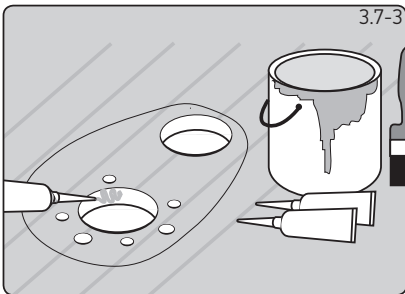
2. Using your template and after you have checked all the above and below deck requirements cut the following holes.

CPX 1-3

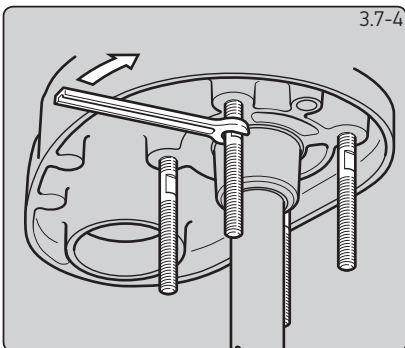
Using a 10mm ($\frac{3}{8}$ " diameter drill, make the 4 holes for the mounting studs, 12mm ($\frac{15}{32}$ " and 14mm ($\frac{9}{16}$ " for the sensors. With a 63mm ($2\frac{1}{2}$ " and 57mm ($2\frac{1}{4}$ " diameter hole saw, make two holes for the mainshaft and rode to pass through.

CPX 4-5

Using a 12 mm ($\frac{15}{32}$ " diameter drill, make the 4 holes for the mounting studs, 12mm ($\frac{15}{32}$ " and 14mm ($\frac{9}{16}$ " for the sensors. With a 77mm (3" and 70mm ($2\frac{3}{4}$ " diameter hole saw, make two holes for the mainshaft and rode to pass through.

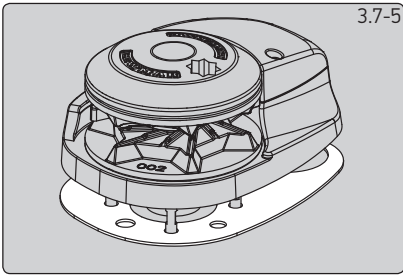


3. When all the holes have been made, remove the template. To help avoid water absorption by the deck, apply an appropriate marine sealant to the freshly cut hole edges.



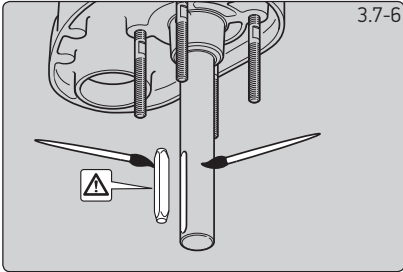
4. Assemble and tighten studs into base until they bottom out in their holes. Some studs have a flat. Position the flats of the studs nearest the base of the winlass.

- ▶ CPX 1-3 - Studs 21Nm
- ▶ CPX 4-5 - Studs 43Nm



3.7-5

- 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.
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.

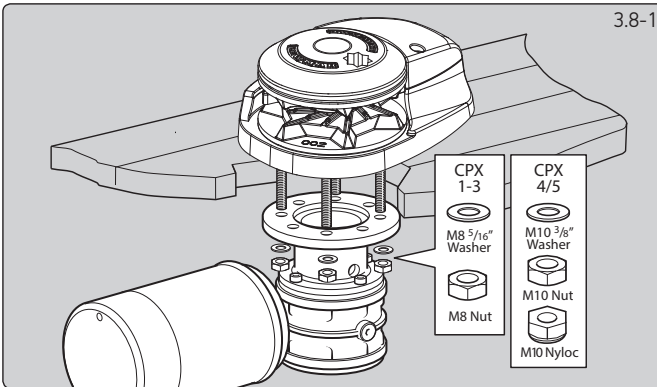


3.7-6

- Lightly coat the shaft with grease and ensure the drive key is in place before assembly to motor/gearbox.

⊘ DO NOT use a permanent adhesive/sealant eg.5200

3.8 Under deck fitting

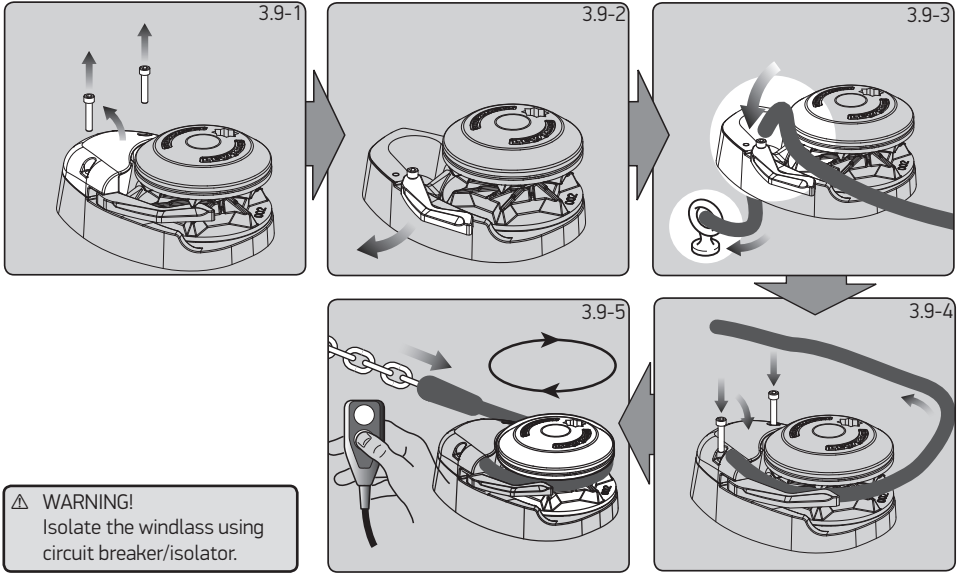


3.8-1

Lightly grease all moving parts.

- Ensure drive key is in place then gently slide the motor/gearbox up the drive shaft until it contacts the deck.
NOTE: Position the motor/gearbox away from the rope/chain pipe fall.
 - Check the motor/gearbox and windlass mounting surfaces are parallel.
 - ▶ CPX 1-3 - Assemble the washer then the M8 nut, secure with Loctite® threadlock to 21Nm torque.
 - ▶ CPX 4-5 - Assemble the washer then the M10 nut, secure with Loctite® threadlock to 43Nm torque. Lock tightened nut with spanner and then secure with the M10 Nyloc nut.
- 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.

3.9 Loading rope/chain



For safety and performance Lewmar recommends the use of matched Lewmar anchor rods.

1. Remove cover.
2. Pull out control arm.
3. Feed anchor rope/chain into entry hole. Tie off to suitable strong point.
4. Replace cover. Release control arm and wrap rope/chain around gypsy.
5. Power load rest of anchor rope/chain.

4. Electrical wiring

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

4.1 Electric cable selection

Lewmar recommends the installer source and install cable that meets the requirements of the standards and regulations relevant to the installation and codes of practice. The cable table gives recommended cable sizes based on total length of cable required, from the battery, following the route of the cables.

Windlass performance is directly related to cable size and length. Voltage drop over the complete wiring run must not exceed 10%.

4.2 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 fully insulated 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.

Overload protection, in the form of the circuit breaker/fuse supplied, must be built into the windlass wiring circuit.

⚠ WARNING!

NOTE: The circuit breaker should be positioned close to the battery in a dry, readily accessible place.

The breaker must be manually reset should an overload occur that causes it to trip to the off position.

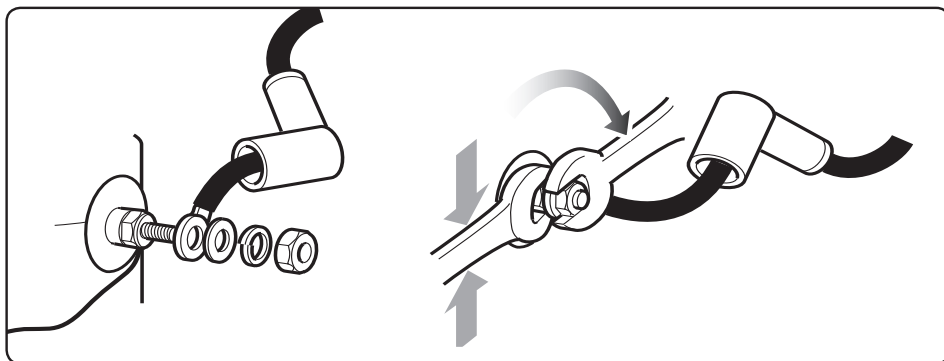
If you are not sure you understand these guidelines, seek professional help. Ensure that the installation complies with USCG, ABYC, NMMA or other local regulations.

4.3 Electric motor terminal connections

- ▶ When wiring Lewmar electric motor into the ship's electrical system the following caution must be taken.
- ▶ When tightening the front nut hold the back nut with a separate wrench to make sure the back nut does not turn. If the back nut turns, serious damage will occur, voiding Lewmar's warranty on the electric motor.

⊘ DO NOT overtighten electric motor terminal nuts.

⊘ Tighten M8 front nut to a torque setting of 15Nm to 18Nm



4.4 Control switch installation

Follow the mounting instructions supplied with the switch.

NOTE: In a multi station installation all switches must be wired in a parallel circuit.

MODEL	VOLTAGE	CABLE SIZING FOR LENGTH OF CABLE RUN					
		0 - 7 M	0 - 23 FT	7 - 15 M	23 - 50 FT	15 - 22 M	50 - 73 FT
CPX1	12	10 mm ²	6 AWG	16 mm ²	6 AWG	25 mm ²	4 AWG
CPX2	12	10 mm ²	6 AWG	16 mm ²	6 AWG	25 mm ²	4 AWG
CPX2	24	6 mm ²	10 AWG	6 mm ²	8 AWG	10 mm ²	8 AWG
CPX3	12	16 mm ²	6 AWG	25 mm ²	2 AWG	35 mm ²	0 AWG
CPX3	24	10 mm ²	8 AWG	16 mm ²	6 AWG	25 mm ²	4 AWG
CPX4	12	25 mm ²	3 AWG	35 mm ²	0 AWG	50 mm ²	0 AWG
CPX4	24	10 mm ²	8 AWG	16 mm ²	4 AWG	25 mm ²	2 AWG
CPX5	12	25 mm ²	3 AWG	35 mm ²	0 AWG	50 mm ²	0 AWG
CPX5	24	10 mm ²	8 AWG	16 mm ²	4 AWG	25 mm ²	2 AWG

MODEL	CIRCUIT BREAKER	CONTACTOR	CONTROL BOX
CPX1	90 A (68000349)	68000318	68000129
CPX2	90 A (68000349)	68000318	68000129
CPX2	50 A (68000348)	68000319	68000130
CPX3	110 A (68000350)	68000318	68000129
CPX3	90 A (68000349)	68000319	68000130
CPX4	150 A (68000351)	68000320	18000200
CPX4	110 A (68000350)	68000321	18000237
CPX5	150 A (68000359)	68000318	68000128
CPX5	110 A (68000350)	68000318	68000130

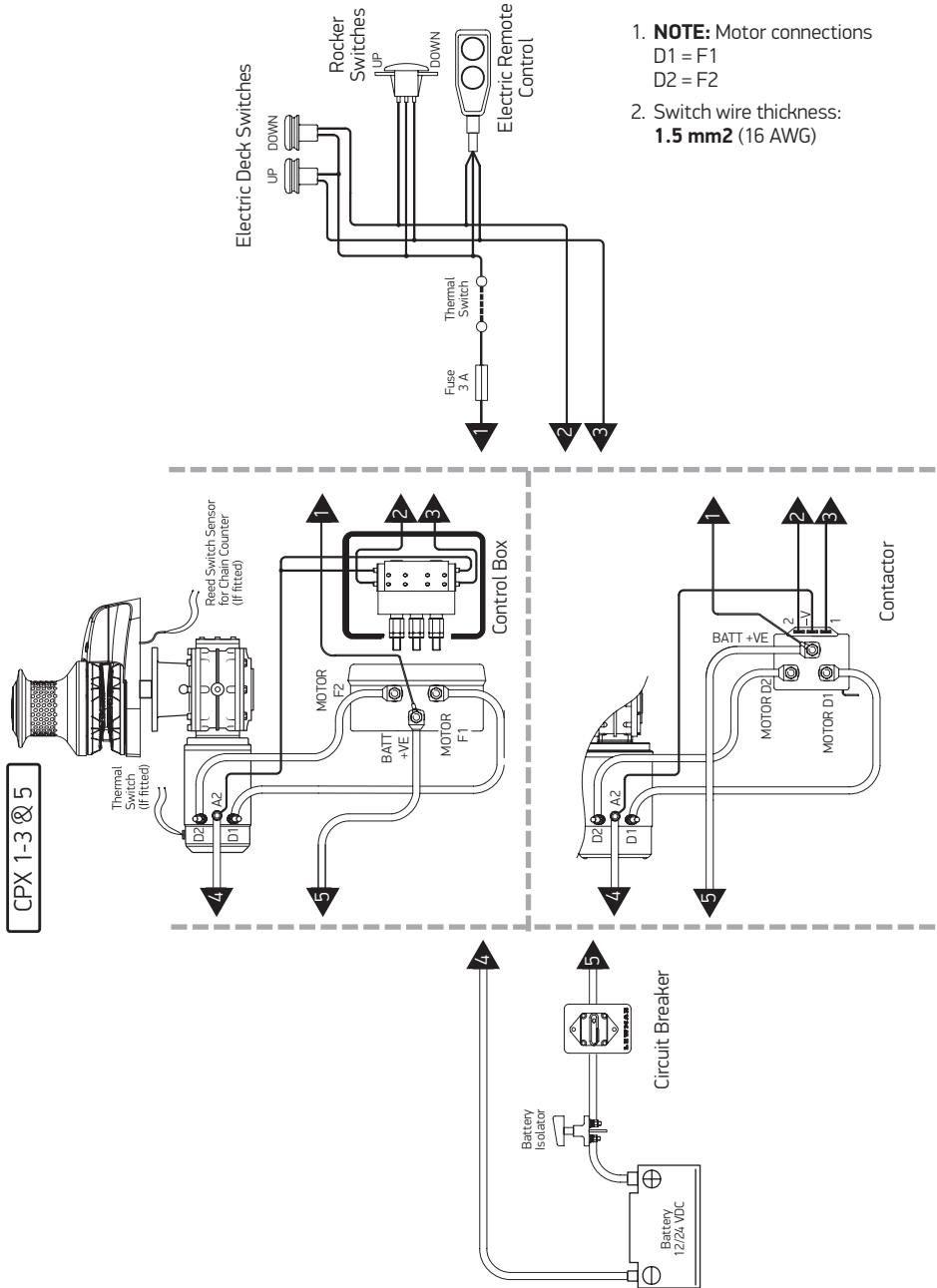
NOTE: Wireless remote also available.

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

WIRELESS REMOTE 3 BUTTON WINDLASS ONLY	WIRELESS REMOTE 5 BUTTON WINDLASS AND THRUSTER
68000967	68000968

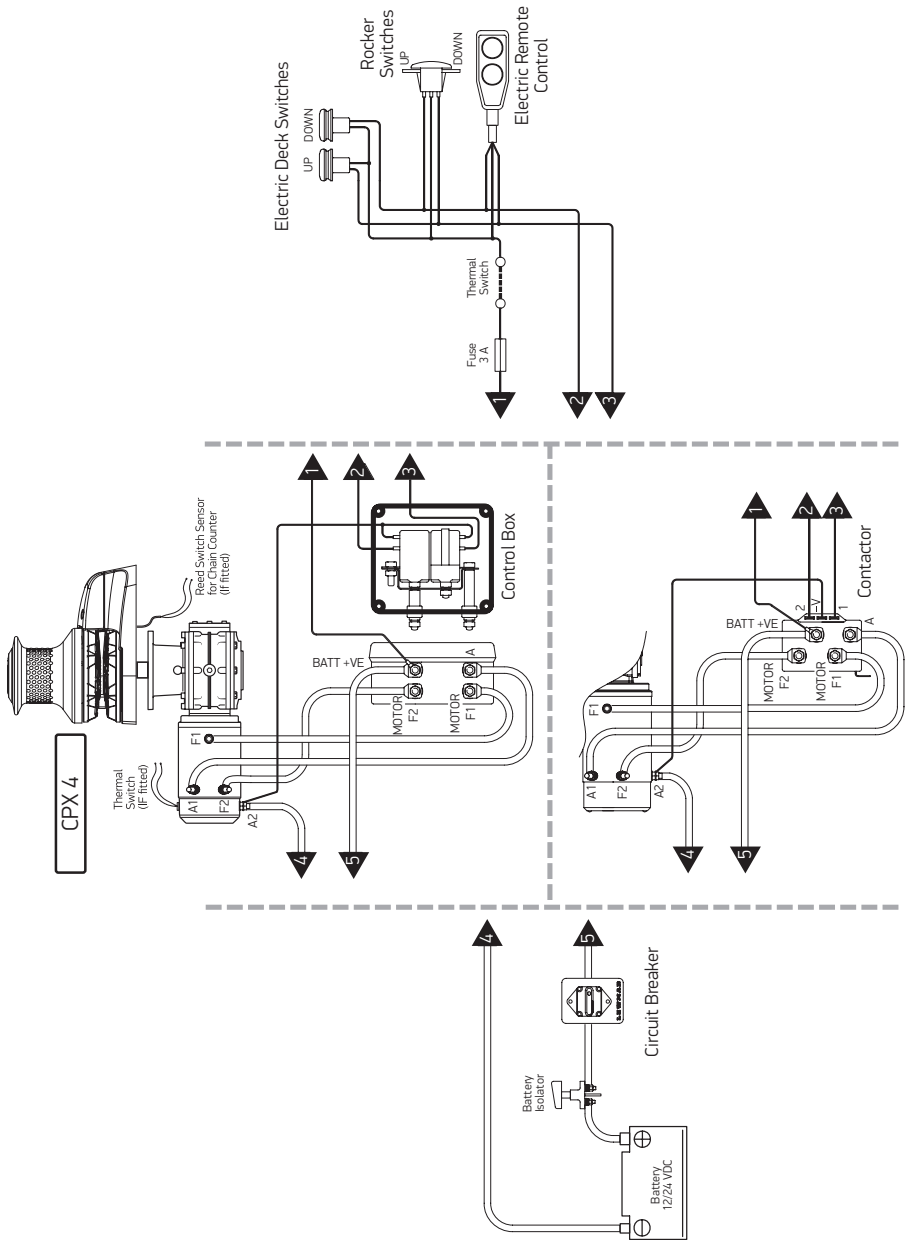
4.5 Wiring diagram CPX 1-3 & 5

Installation instructions are supplied separately with any accessories.



- NOTE:** Motor connections
D1 = F1
D2 = F2
- Switch wire thickness:
1.5 mm² (16 AWG)

4.6 Wiring diagram CPX 4.



5. Operation

5.1 Braked anchor free-fall

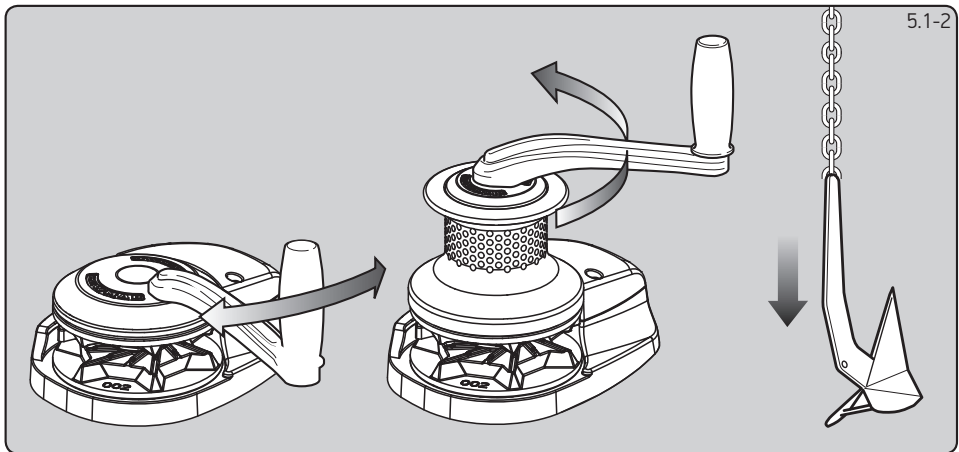
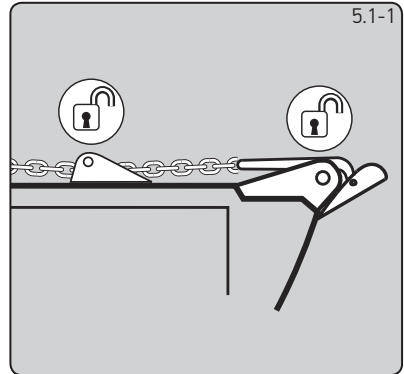
Use this method for quicker anchor deployment and to save battery power.

Gypsy only

- ▶ Release any anchor locks and when safe rotate handle anti-clockwise until anchor pays out.
- ▶ Adjust rate of fall with handle.
Once paid out fully tighten gypsy drive cap.

Gypsy/drum

- ▶ Place a Lewmar handle into the drum top nut and operate as gypsy version above.



⚠ WARNING! Isolate the windlass using circuit breaker/isolator.

⚠ WARNING! Always remove winch handle after use.

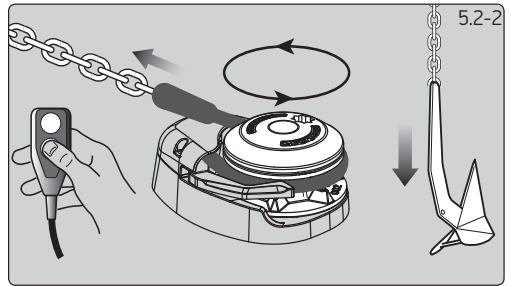
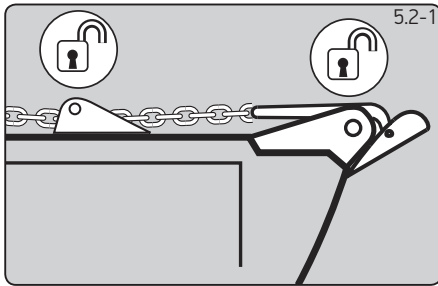
5.2 Power up/down

To release anchor.

1. Release any anchor locks.
2. When safe, operate DOWN control.

To retrieve anchor.

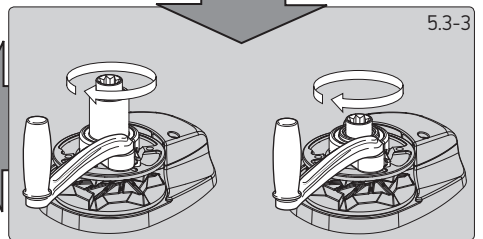
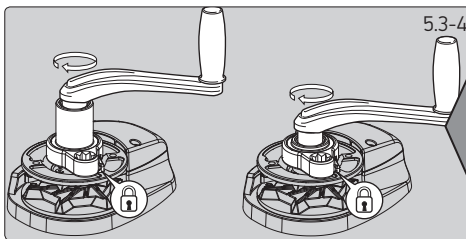
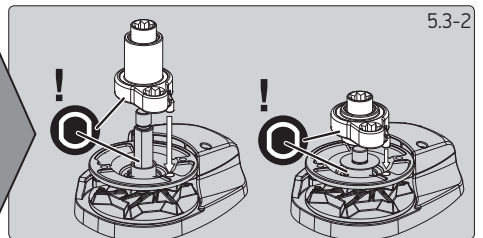
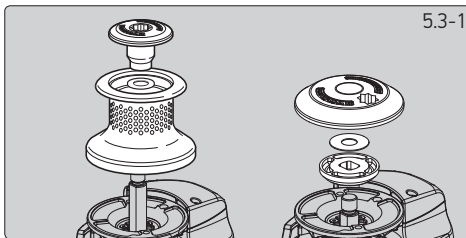
- ▶ Retrieving the anchor is the reverse to the above.
- ▶ When safe, operate the UP control.
- ▶ Once anchor is retrieved, ensure it is adequately secured to an independent strong point.



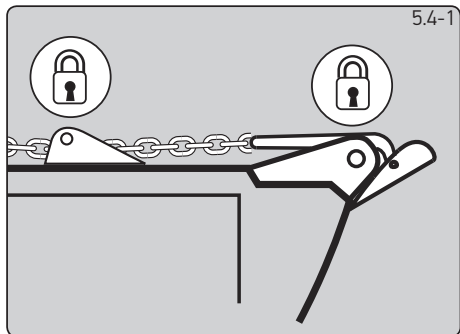
5.3 Optional manual recovery kits

- ▶ CPX 1 Gypsy only No.66840084
- ▶ CPX 2-3 Gypsy only No.66840084
- ▶ CPX 2-3 Gypsy/drum No.66840056
- ▶ CPX 4-5 Gypsy only No.66840003
- ▶ CPX 4-5 Gypsy/drum No.66840005

⚠ WARNING! Isolate the winlass using circuit breaker/isolator.



5.4 Independent warping

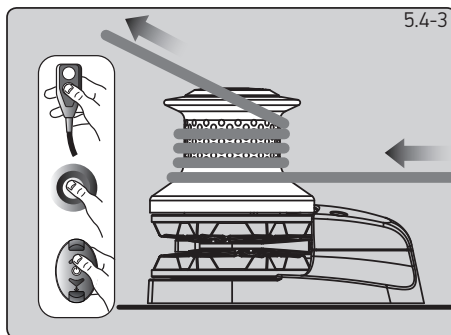
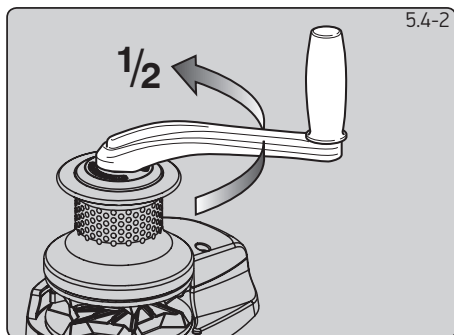


⚠ WARNING! Always remove winch handle after use.

Gypsy/drum only

1. Lock anchor chain before warping.
2. Place a Lewmar winch handle into top nut. Disengage clutch by turning anti-clockwise by half a turn. Remove handle.
3. When safe, operate the drum. If warping speed is too fast, ease tension in rope. When finished re-engage clutch by tightening the drum top nut.

⊘ DO NOT wrap chain around the capstan drum.



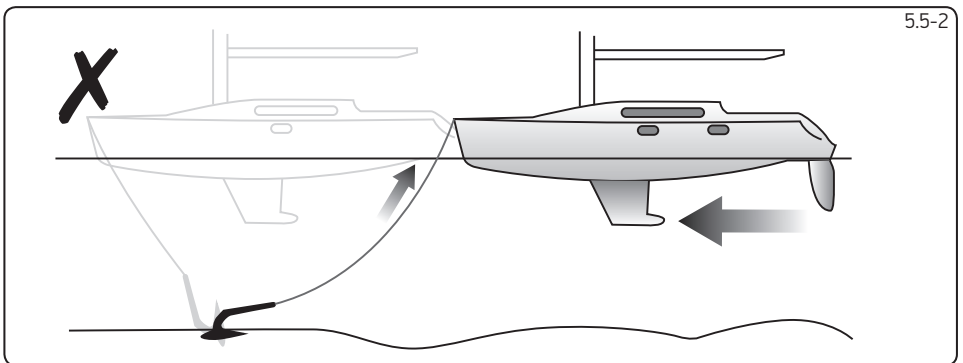
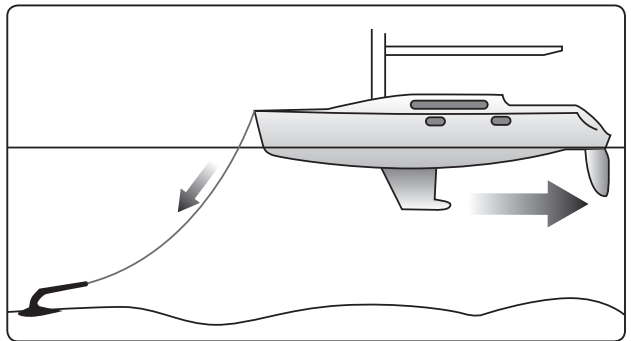
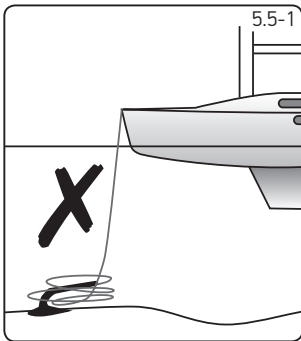
5.5 Operating tips

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

1. When anchoring, power rode out allowing the vessel to take up stern away preventing the rode tangling with anchor. Use this method for mooring stern first to a jetty.
 2. To aid recovery, under power, move vessel towards anchor but not over and beyond, as this can cause damage to topside.
- ▶ As anchor approaches the vessel, use careful adjustments of controls to avoid damaging vessel.
 - ▶ Scope: As a guide it is recommended that the depth of chain to rope is 7 to 1 at anchor.

⊘ The rode should be secured directly to a bollard, sampson post or cleat and a chain secured by a chain stopper.

⊘ When retrieving anchor do not overload or stall in windlass.



6. Servicing

⚠ WARNING! Ensure rode is adequately secured to an independent strong point.

⚠ WARNING! Isolate the windlass using circuit breaker/isolator.

6.1 Servicing schedule

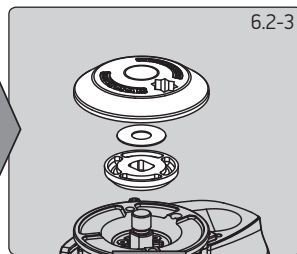
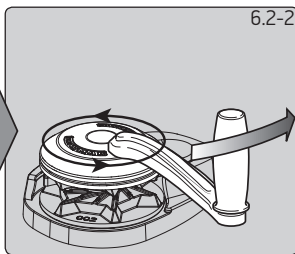
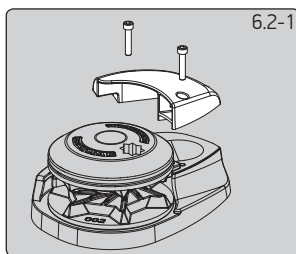
Regularly:

- ▶ Wash down the windlass using fresh water.
- ▶ Examine all electrical connections for corrosion, clean and lightly grease.
- ▶ Check anchor locker drain to avoid water damage to motor/gearbox.
- ▶ If anchor locker fills with water, check motor is dry and free of rust.
- ▶ Check anchor rode splice for wear.
- ▶ Check gypsy as it is a high wear item and will last longer if properly used. When re-assembling the cone and gypsy, add a small smear of grease to the contact surfaces.
- ▶ Check mounting studs after first two or three recoveries and regularly thereafter.

Annually:

- ▶ Check electric cables for damage. Repair/renew as required.
- ▶ Strip the above deck components, clean and lightly grease.
- ▶ Check motor/gearbox for corrosion, clean and repaint with a suitable marine grade oil based enamel paint.
- ▶ Remove electric motor cover and blow dust away from brushes using foot pump or similar taking care not to breathe any dust.

6.2 Gypsy replacement/service

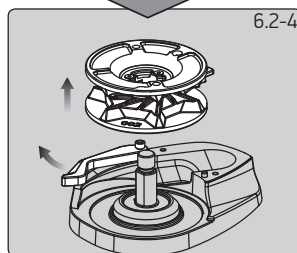


1. Remove chain pipe cover screws using 6mm (CPX1-3) 8mm (CPX 4-5) Allen key.
2. Place winch handle into gypsy drive cap, rotate anti-clockwise and remove.
3. Remove washer and top cone.
4. Pull control arm back to clear gypsy and remove gypsy assembly.

Wash with clean water - DO NOT JET WASH.

Assemble in reverse order greasing threads of chain pipe and washer and stripper screw.

When re-assembling the cone and gypsy, add a small smear of grease to the contact surfaces.



⚠ WARNING! Isolate the windlass using circuit breaker/isolator.

6.3 Gypsy/drum replacement

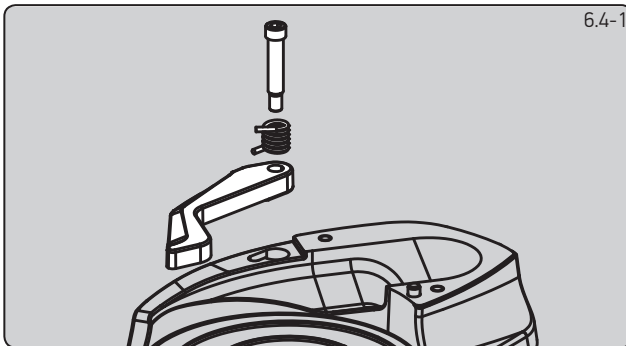
Proceed as 6.2 except place the winch handle into the drum top nut and remove drum assembly to get to gypsy.

6.4 Control arm replacement/service/retro-fitting

CPX1-3 are factory fitted with control arms as standard. CPX 4-5 are not supplied with a control arm but can be retro-fitted with a Lewmar control arm kit No. 66810031 available from Lewmar dealers.

Remove gypsy, proceed as sec.6.2.

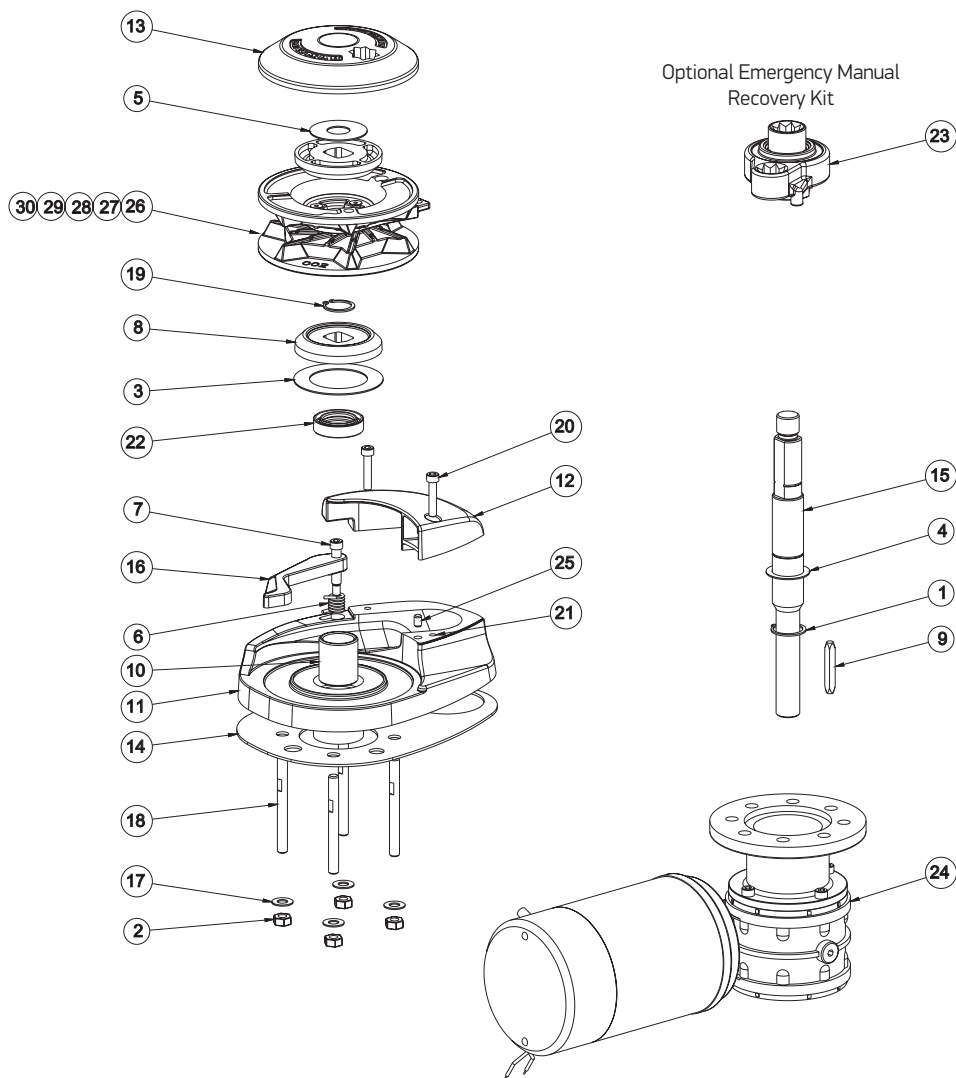
1. Unscrew control arm shoulder screw using a 4 mm Allen key.
 - ▶ Remove control arm and torsion spring from the base plate.
 - ▶ Wash with clean water (Not Jetwash). Replace components, (if necessary) and assemble in reverse order.



⚠ WARNING! Isolate the windlass using circuit breaker/isolator.

⚠ WARNING! Ensure rode is adequately secured to an independent strong point.

6.5 Parts list CPX 1

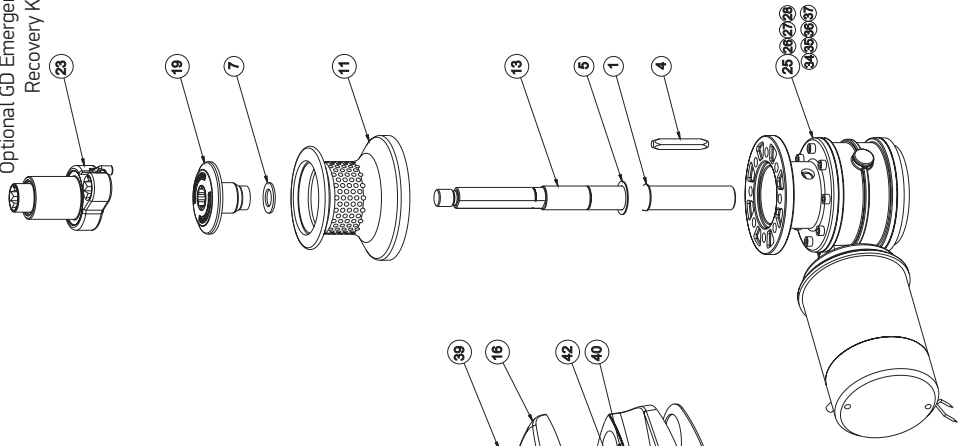


6.5 Parts list CPX 1

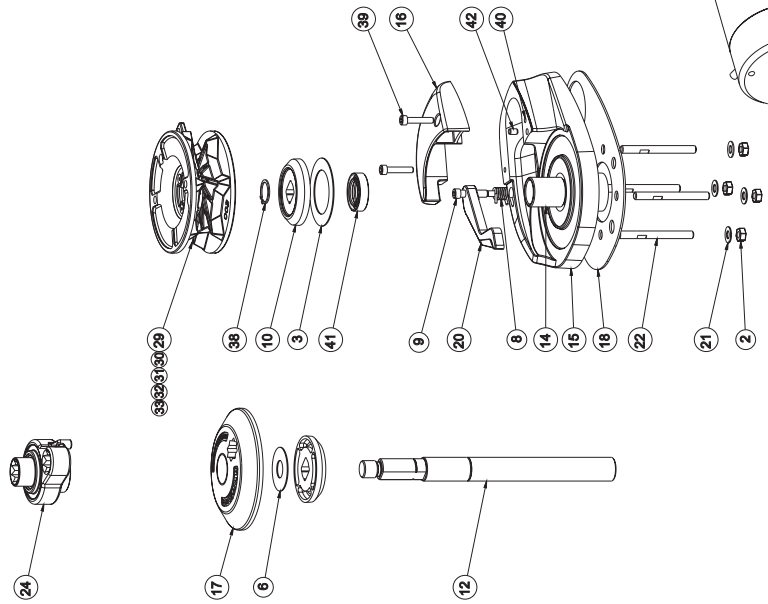
CPX1 PARTS LIST		
KIT NO.	KIT DESCRIPTION	ITEMS INCLUDED (QTY)
66000791	Base Kit	3(1), 6(1), 7(1), 10(1), 11(1), 12(1), 16(1), 20(2), 21(2), 22(1), 25(1)
66000792	Chain Cover Kit	12(1), 20(2)
66000741	Gypsy Only Top Nut Kit	5(1), 13(1)
66000720	Cones & Washer Kit	3(1), 5(1), 8(2)
66810030	Control Arm Kit	6(1), 7(1), 16(1)
66000793	Mounting Kit	2(4), 14(1), 17(4), 18(4)
66000743	Driveshaft Kit	1(1), 4(1), 9(1), 15(1), 19(1)
68001042	12V Motor Gearbox & contactor	24(1)
66840084	Gypsy Only Emergency Kit	23(1)
68001047	Gypsy & Stripper Kit (006)	26(1)
68001048	Gypsy & Stripper Kit (000)	27(1)
68001049	Gypsy & Stripper Kit (001)	28(1)
68001050	Gypsy & Stripper Kit (002)	29(1)
68001051	Gypsy & Stripper Kit (003)	30(1)

6.6 Parts list CPX 2-3

Optional GD Emergency Manual Recovery Kit



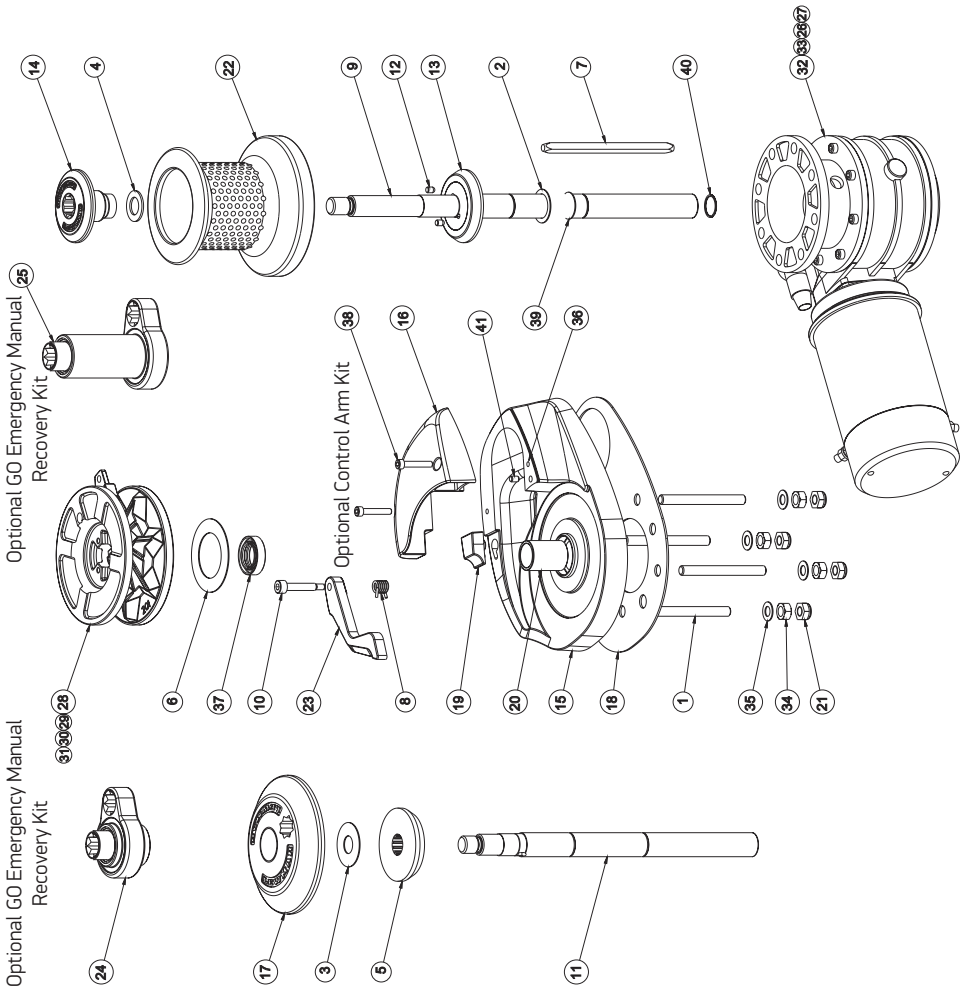
Optional GO Emergency Manual Recovery Kit



6.6 Parts list CPX 2-3

CPX 2/3 PARTS LIST		
KIT NO.	KIT DESCRIPTION	ITEMS INCLUDED (QTY)
66000791	Base Kit	3(1), 8(1), 9(1), 14(1), 15(1), 20(1), 40(2), 41(1), 42(1)
66000792	Chain Cover Kit	16(1), 39(2)
66000741	Gypsy Only Top Nut Kit	6(1), 17(1)
66000744	Gypsy/Drum Top Nut Kit	7(1), 19(1)
66000745	Drum Kit	7(1), 11(1), 19(1)
66000720	Cones & Washer	3(1), 6(1), 10(2)
66810030	Control Arm Kit	8(1), 9(1), 20(1)
66000713	Mounting Kit	2(4), 18(1), 21(4), 22(4)
66000746	Gypsy Only Driveshaft Kit	1(1), 4(1), 5(1), 12(1), 38(1)
66000747	Gypsy/Drum Driveshaft Kit	1(1), 4(1), 5(1), 13(1), 38(1)
66840056	Gypsy/Drum Emergency Kit	23(1)
66840084	Gypsy Only Emergency Kit	24(1)
68001048	Gypsy & Stripper Kit (000)	30(1)
68001049	Gypsy & Stripper Kit (001)	31(1)
68001050	Gypsy & Stripper Kit (002)	32(1)
68001051	Gypsy & Stripper Kit (003)	33(1)
68001047	Gypsy & Stripper Kit (006)	29(1)
68001043	CPX2 12V Motor Gearbox & contactor	25(1)
68001044	CPX2 24V Motor Gearbox & contactor	26(1)
68001045	CPX3 12V Motor Gearbox & contactor	27(1)
68001046	CPX3 24V Motor Gearbox & contactor	28(1)
68001073	CPX2 12V IP68 MGB - No Cables	34(1)
68001074	CPX2 24V IP68 MGB - No Cables	35(1)
68001075	CPX3 12V IP68 MGB - No Cables	36(1)
68001076	CPX3 24V IP68 MGB - No Cables	37(1)

6.7 Parts list CPX 4



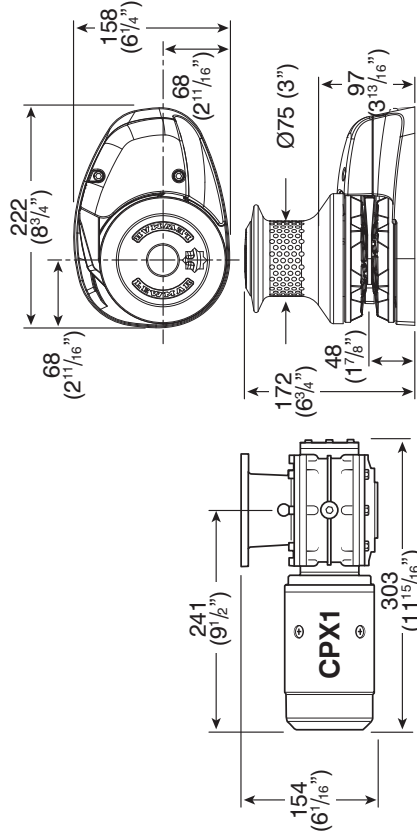
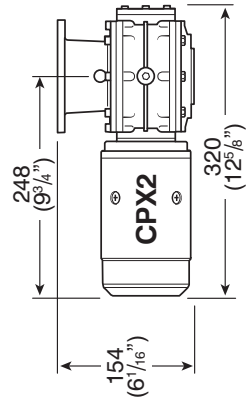
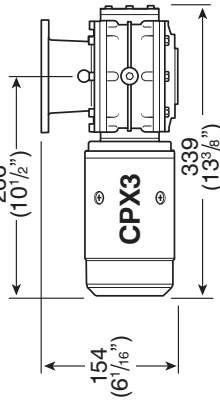
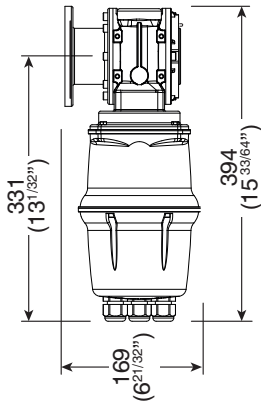
6.7 Parts list CPX 4

CPX 4/5 PARTS LIST		
KIT NO.	KIT DESCRIPTION	ITEMS INCLUDED (QTY)
66000794	Base Kit	15(1), 16(1),19(1), 20(1), 36(2), 37(1), 38(2), 41(1).
66000795	Chain Cover Kit	16(1), 38(2)
66000750	Top Nut Kit Gypsy Only	3(1), 17(1)
66000744	Top Nut Kit Gypsy Drum	4(1), 14(1)
66000751	Drum Kit	4(1), 14(1), 22(1)
66000752	Cones & Washer	3(1), 5(1), 6(1), 12(2), 13(1)
66810031	Control Arm Kit	8(1), 10(1), 23(1)
66000796	Mounting Kit	1(4), 18(1), 21(4), 34(4), 35(4)
66000754	Driveshaft Kit Gypsy Only	2(1), 7(1), 11(1), 12(2), 13(1), 39(1), 40(1)
66000755	Driveshaft Kit Gypsy Drum	2(1), 7(1), 9(1), 12(2), 13(1), 39(1), 40(1)
66840003	Emergency Kit Gypsy Only	24(1)
66840005	Emergency Kit Gypsy Drum	25(1)
68001063	Gypsy & Stripper Kit (201)	28(1)
68001064	Gypsy & Stripper Kit (202)	29(1)
68001065	Gypsy & Stripper Kit (203)	30(1)
68001066	Gypsy & Stripper Kit (204)	31(1)
68001077	CPX4 12V MGB	32(1)
68010878	CPX4 24V MGB	33(1)

7. Specifications

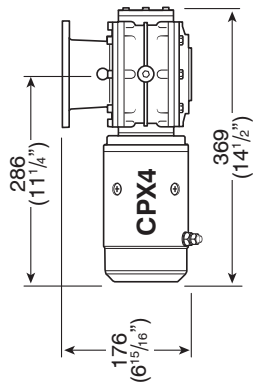
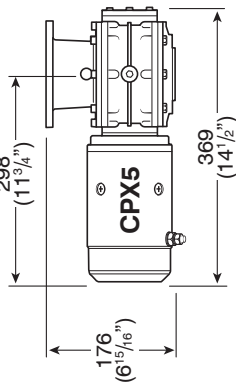
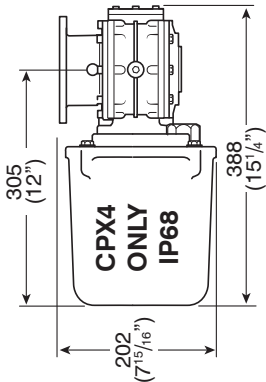
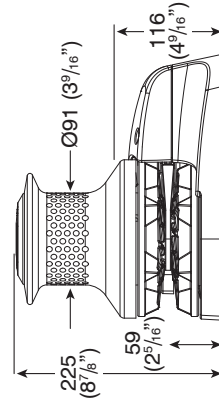
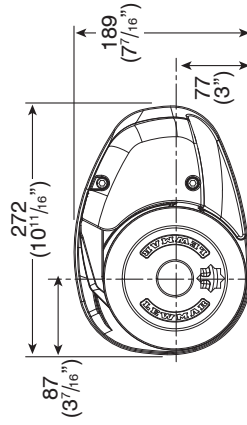
7.1 CPX 1-3 Dimensions

Gypsy No.	Strand and Plait	D (mm)	D (inch)	P (mm)	P (inch)	W (mm)	W (inch)	
68001047	12-14 mm (1/2") 3 Strand and 8 Plait	6	0.236	18	0.709	21.6	0.850	
68001048	12-14 mm (1/2") 3 Strand and 8 Plait	7	0.276	22	0.866	23.3	0.917	
68001049	12-16 mm (1/2" - 5/8") 3 Strand and 8 Plait (6" Only)	8	0.315	24	0.945	27.2	1.070	
68001050	12-16 mm (1/2" - 5/8") 3 Strand and 8 Plait (6" Only)	10	0.394	28	1.102	36	1.417	
68001051	16 mm (5/8") 3 Strand and 8 Plait	10	0.394	34.5	1.358	34.5	1.358	



7.2 CPX 4-5 Dimensions

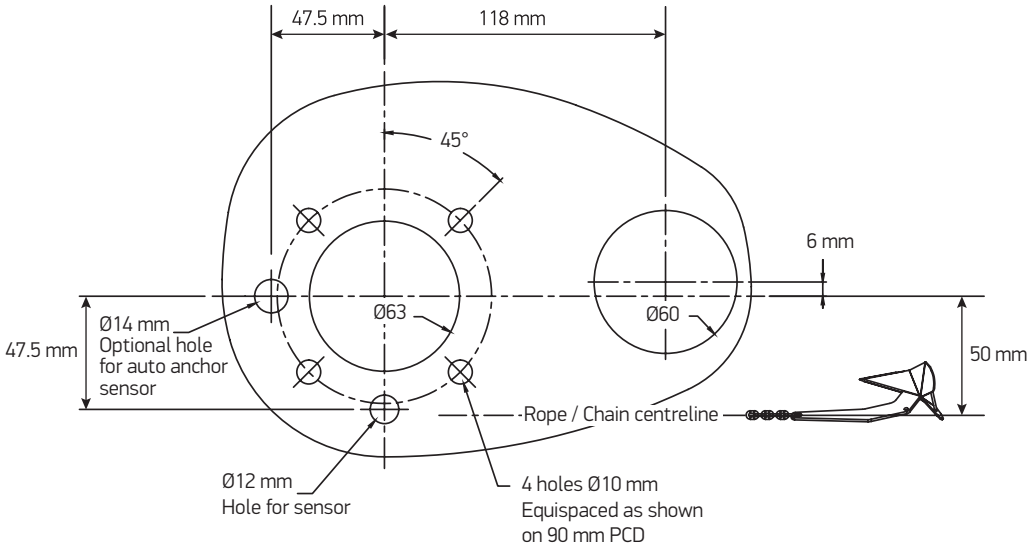
Image	Image	Image	Image	D		P		W	
				(mm)	(inch)	(mm)	(inch)	(mm)	(inch)
				8	0.315	24	0.945	288	1.134
68001063 Gypsy No. 201	8 mm ISO 4565 5/16" Campbell S4 8 mm DIN 766	12-14 mm (1/2") 3 Strand and 8 Plait		9	0.354	32	1.260	30	1.181
	5/16" G40			8	0.315	24	0.945	27.2	1.070
68001064 Gypsy No. 202	Lewmar 9.5mm G30/G40	16 mm (5/8") 3 Strand and 8 Plait		9.5	0.374	28	1.102	32	1.260
	5/16" Campbell S3			8	0.315	32	1.260	28	1.102
	3/8" Campbell S4			10	0.394	29	1.142	35	1.378
	10 mm DIN 766			10	0.394	28	1.102	36	1.417
68001065 Gypsy No. 203	10 mm ISO 4565 Lewmar 9.5mm G30/G40	16 mm (5/8") 3 Strand and 8 Plait		10	0.394	30	1.181	36	1.417
	3/8" Campbell S3			9.5	0.374	28	1.102	32	1.260
68001066 Gypsy No. 204	12 mm ISO 4565 13 mm DIN 766	18-20 mm (3/4") 3 Strand and 8 Plait		10	0.394	34.5	1.358	34.5	1.358
				12	0.472	36	1.142	43.2	1.701
				13	0.512	36	1.142	47	1.850



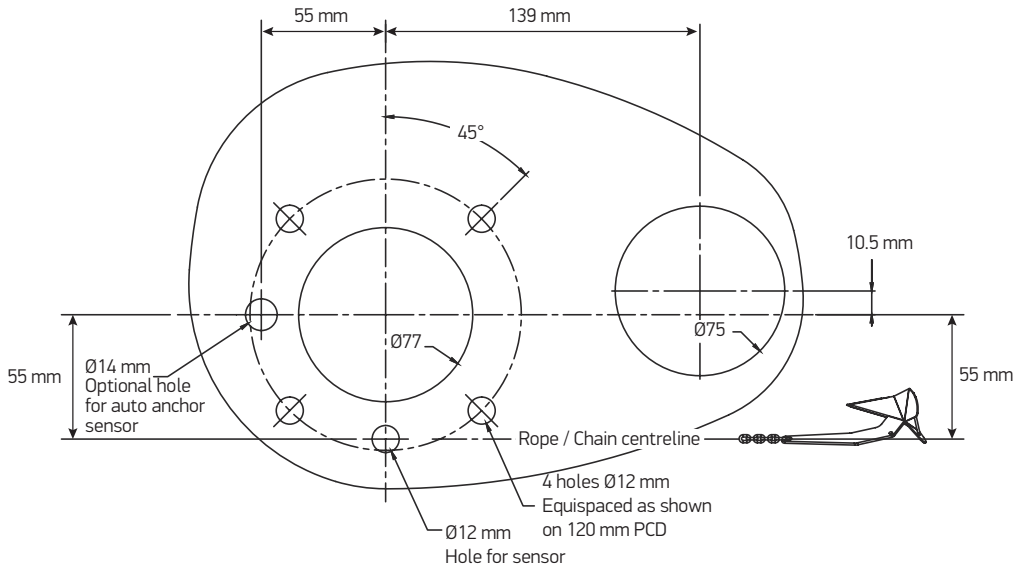
7.3 Deck template guide

⚠ DO NOT use this template as a cutter. It is supplied as a guide only. Check before drilling holes.

CPX1,2-3 Gen 2 Deck Mounting Detail



CPX4-5 Gen 2 Deck Mounting Detail



7.4 Electric specifications

MODEL	POWER OPTION	MOTOR	TYPICAL MAX. PULL		MAXIMUM LINE SPEED		TYPICAL WORKING LOAD	
	V		W	KG	LB	M/MIN	FT/MIN	KG
CPX1	12	700	750	1653	28	92	188	414
CPX2	12	700	850	1874	29	95	213	470
CPX2	24	900	850	1874	29	95	213	470
CPX3	12	1000	1025	2260	39	128	257	567
CPX3	24	1000	1025	2260	39	128	257	567
CPX4	12	1600	1250	2750	25	82	313	688
CPX4	24	2000	1500	3300	27	90	375	825
CPX5	12	2000	1450	3190	27	90	363	798
CPX5	24	2000	1600	3520	29	97	400	880

MODEL	NORMAL CURRENT DRAW	TOTAL WEIGHT GYPSY ONLY		TOTAL WEIGHT GYPSY/DRUM		CIRCUIT BREAKER
	A	KG	LB	KG	LB	A
CPX1	112	17.5	38.5	20	44	90
CPX2	121	17.5	38.5	20.5	45.1	90
CPX2	74	17.5	38.5	20.5	45.1	50
CPX3	131	20	44	23	50.6	110
CPX3	70	20	44	23	50.6	90
CPX4	125	26.5	58.3	33.5	73.7	150
CPX4	70	26.5	58.3	33.5	73.7	110
CPX5	120	28.5	62.7	35.5	78.1	150
CPX5	60	28.5	62.7	35.5	78.1	110

8. Trouble shooting

8.1 Electric windlass

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 being slack.

Tighten the gypsy drive cap using the winch handle and always secure the anchor rode independently of the windlass when not in use.

2. Failure to operate or sluggish operation.

- ▶ The majority of these problems are electrical in nature. It is essential that the proper voltage be maintained. The proper voltage on a 12 Volt system is 13.5 Volts (24 Volt system is 26.5 Volts), constant low voltage will damage motor.
- ▶ Ensure electrical cable size is large enough to handle the current draw and keep voltage drop within acceptable limits.
- ▶ Check control switches, connections, battery condition, isolator switch, fuse and motor for operation failure.

9. 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 rode

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

Notes

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