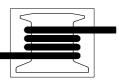


Via Philips 5 20052 Monza ITALY

WINDLASSES S.r.I.



KOBRA

MOUNTING, OPERATION AND MAINTENANCE INSTRUCTIONS

ISTRUZIONI PER INSTALLAZIONE , USO E MANUTENZIONE

ISTRUCTIONS DE MONTAGE, UTILISATION ET MAINTENANCE

INSTALLATIONS-, BEDIENUNGS- UND WARTUNGSHANDBUCHER FUR BOOTEINGENTUMER

INSTRUCIONES PARA MONTAJE, USO Y MANTENIMIENTO

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recovery WARNING ! always install the properly rated circuit breaker to protect the electric plant and electric motor from overheating and damages.

WARNING ! when not in use be sure to keep the anchor windlass circuit switch in the Off position to prevent accidental engagement of the windlass.

WARNING ! always keep your hands, feet and fingers clear of an operating windlass. If a jam occurs use extreme caution and turn off the windlass circuit before attending to clearing the anchor rode.

WARNING ! do not use the windlass for different purposes it was designed for.

WARRANTY

Lofrans' S.r.I. warrants its products for a period of one (1) year from the date of purchase against defects in materials or workmanship, under normal use and service. Any part which proves to be defective in normal usage during that one year period will be repaired or replaced by Lofrans'. This warranty is subjected to the conditions listed below.

Lofrans' liability shall be limited to repair or replacement of the part defective in materials or workmanship.

Lofrans shall not be liable in any way for failures due to use of products in applications for which they are not intended, improper installation, misuse incorrect maintenance, corrosion, normal wear and tear, discoloration and unauthorised alteration of the product, conditions that exceed the product 's performance specifications.

The claim of warranty must be promptly notified in writing, to Lofrans or Lofrans' authorised distributor, providing proof of purchase. Repair will be under taken upon return of the defective part, freight prepaid to Lofrans or Lofrans authorised distributor. Lofrans or its authorised distributor will not be responsible for any shipping charges or labour cost associated with any warranty claims. Lofrans shall not be liable for consequential damages to yachts , equipment or other property or persons due to use or installation of Lofrans equipment. Implied warranties are limited to the life of this warranty. All incidental and/or consequential damages are excluded from this warranty. Some states do not allow limitations on how long an implied warranty lasts or

the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusions may not apply to you. Lofrans' reserves the right to disclaim the warranty in case the windlass is controlled by not suitable electric accessories and/or in case of non installation of a proper circuit breaker on the windlass electric line.

MODEL CLASSIFICATION

FOR YOUR OWN SAFETY PLEASE READ THESE INSTRUCTIONS BEFORE INSTALLING OR OPERATING YOUR WINDLASS. Fill in this form to obtain a complete classification of the installed model.

MOTOR	700 Watt 12 Volt	700 Watt 24 Volt	
	1000 Watt 12 Volt	1000 Watt 24 Volt	
CHAIN	Ø 6 Iso - 6 Din 766 - 1/4"	Ø 10 Iso - 10 Din 766	
AVAILABLE	Ø 7 Iso - 1/4" G40	Ø 3/8" - 3/8" Din 766	
	Ø 8 Iso - 8 Din 766 - 5/16"	Ø 3/8" G40	
	Ø 5/16" G40	Ø 3/8" BBB	
OPTIONAL	Free Fall version		
	05		
PURCHASE DATE & PLA		 	
NOTES			
SERIAL NUMBER			

ELECTRIC PLANT

Check that the motor tension corresponds to the electric plant on board. The following table shows the suggest minimum battery feeding the windlass. the minimum suggested cable section and the proper circuit breaker to install on the power line.

MOTOR	BATTERY	CABLES SECT	ΓΙΟΝ	CIRCUIT BREAKER
700 Watt 12 V	100 Ah	25 mm ² 3	8 AWG	70 Amps
700 Watt 24 V	70 Ah	16 mm ² 4	AWG	35 Amps
1000 Watt 12 V	150 Ah	35 mm ² 2	AWG	100 Amps
1000 Watt 24 V	90 Ah	25 mm ² 3	8 AWG	70 Amps

If the windlass is fed by an inferior battery, the performances will be worse and the battery will be subject rapidly to wear and tear. We recommend to use excellent quality cables, insulated and heat resistant. It is important underline the cables section should be increased of 30% - 50% approx., if the length of the extended cable, positive and negative, is greater than 10 mts. or 29' length. The cables connected to the electric controls, shown on the wiring diagram as a thin line , should have a section of 1.5 mm² or 16 AWG approx.

Circuit breaker informations referring only to LOFRANS' circuit breaker so they could be incorrect for other circuit breakers.

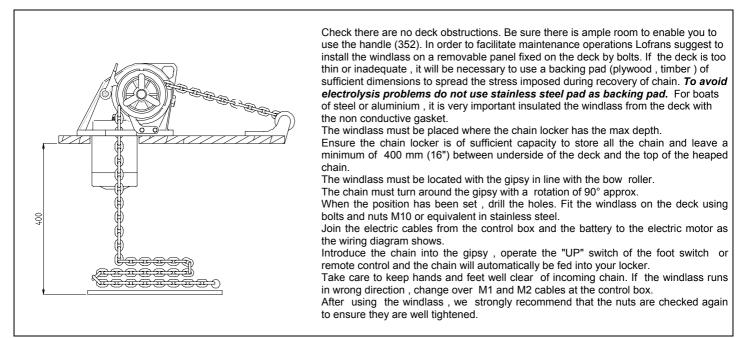
The circuit breaker protects from very dangerous short circuits, protects the windlass motor, avoiding damages due to anomalous absorption and interrupts the tension, when desired. The circuit breaker must be installed in a dry, accessible and visible position. For safety reasons we recommend that the windlass and remote controls are isolated during navigation and reactivated when anchoring. Install the control box preferably in a dry place on board. We recommend to install at least two remote controls to drive the windlass in case one of them gets damaged. For protection of electric remote controls, it will be necessary to install a circuit breaker of 5 Ampere.

We recommend You to use original LOFRANS' components only, which are designed for sea water purpose. LOFRANS equipment conforms to European Directives, products are CE approved.

Check if the windlass is complete in every parts. If any parts is missing or damaged , please contact your dealer.

TOOLS AND MATERIALS	Drill Ø 9 mm (3/8"), Spanner 10 mm A/F - 13 mm A/F
REQUIREMENTS	Jig Saw, Power Drill , Silicone Sealant

The electric motor of the windlass is able to operate under spray conditions ; however, if submerged, it could be irreparably damaged.



WARNING ! = Do not approach with hands or feet near the gipsy and chain , when operating.

WARNING ! = When the windlass is not in use or before use the handle , turn off the windlass at the main switch .

WARNING ! = Engage the chain stopper after anchoring. Windlass must not be used as sole means securing anchor in bow fitting. Anchors should be independently secured to prevent accidental release .

WARNING ! = Be sure the clutch and the chain stopper are well engaged before boating.

Gipsy Clutch Operation

Gipsy is connected at the main shaft (329) by a clutch, items (318 and 277). To engage the clutch insert the handle supplied into the wingnut (317) and tighten it until you cannot move the handle any more. To disengage the clutch loose the wingnut.

Raising The Anchor

Start the engine of the boat. Be sure that the clutch is well engaged. Draw out the handle from wingnut.

Push the button "UP" of the foot switch or remote control. Do not use the windlass to pull the boat to the anchor.

Release the button "UP" to stop the manoeuvre.

When you haul the last metres of the chain , pay attention to the anchor, which may damage the bow of your boat.

If case the anchor be stranded and the Lofrans circuit breaker gets released, wait some minutes before put it back into service and try the manoeuvre once more. Should the circuit breaker stop again, we suggest to fix the chain to a cleats or bollard, then use the boat engine to break the anchor loose.

For your safety we strongly recommend to turn **OFF** the circuit breaker and engage the chain stopper during navigation. Reactivate the circuit breaker and disengage the chain stopper before anchoring.

Lowering The Anchor

When you wish to lower the anchor very quickly, it is necessary disengage the clutch. The gipsy may freely run on its shaft and release the chain into the water. The chain fall can be controlled tightening the gipsy cap with the handle. At the end of the operation engage the clutch. Under usual conditions, we suggest to lower the anchor electrically, pushing the button "DOWN" placed on the remote control or foot switch. You will have always a perfect control of the manoeuvre, which can be interrupted any moment releasing the button "DOWN". Once anchored, we suggest in order to reduce the windlass load, to use a chain stopper and fix the chain with a rope to a strong point as a cleat.

Use Of The Drum Independently From The Gipsy

Stop the run of the chain, fasten it to a strong point as a chain stopper or similar. Disengage the clutch. Turn clockwise around the drum with two laps of rope. Keep the end of rope. Push the button "UP", recovering the rope at the same time. Engage the clutch at the end of the operation.

Raise The Anchor In Case Of Emergency

Insert the handle into the emergency wheel (340). Draw it forward and backwards alternatively. As there is no ratio , please keep in mind in case of deep anchoring the stress will be hard.

MAINTENANCE

WARNING ! = Before operate turn the windlass off at the main switch and remove with attention the chain from the gipsy .

A correct and periodic maintenance operation is essential for the best efficiency of your windlass. At least once every month remove the salt layer, which forms periodically on the outer casting, to avoid electrolysis problems which could prejudice the windlass performances. Wash with a fresh water and clean all the surfaces, particularly in the most hidden points, where salts deposits. We recommended, at least once every six months, to disassemble the windlass gipsy following the instructions below.

Remove (316). Using the handle unscrew (317), remove (318) then unscrew (217), remove (226 and 335). Remove (276) and extract (277). Clean and check all the parts, spray all with CRC 3097 "LONG LIFE" or WD40. Watch if there are no electrolysis traces and grease the main shaft thread.

After a long inactivity period, the electric motor could run slowly. We recommend to check and clear the brushes and replace it if necessary.

We strongly recommend to separate , at least once every year , the windlass from the deck to clean and remove the salt layer under the base.

The gearbox is proper filled with SAE 90 long life oil. If there is a leak of oil from the body, it will be necessary to disassemble and replace the seals. For this purpose, it is available a complete set of seals. At the beginning and at the end of the season, check the motor and control box, removing eventual residues and covering the terminals with grease.

ORDERING SPARE PARTS

To identify a windlass spare parts see the spare part list. When ordering spare parts, please specify for the KOBRA model the code **B.08.101**, give us a complete model classification, the serial number, the item number and the quantity.

Contact the nearest authorised LOFRANS' distributor or directly LOFRANS' S.r.I. fax + 39 (039) 2004299 .

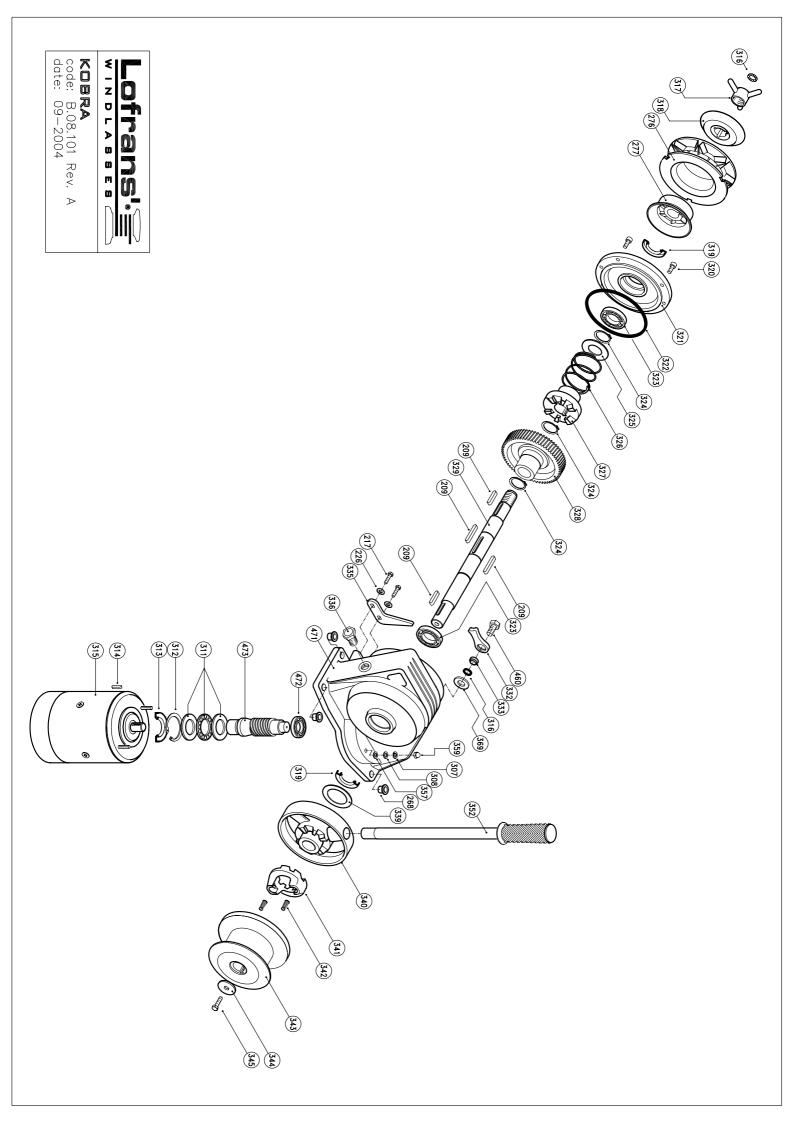


REMOTE CONTROL VEGA

WIRING DIAGRAM - 3 TERMINALS ELECTRIC MOTOR

ROCKER SWITCH TYPE C

1 To B2 O 2 To Battery \cap 3 To B3 4 To Battery 00000000000 **1** To Battery + 0 **3** To B3 I۵ 2 To B2 V FOOTSWITCHES UP DOWN B2 Β3 M1 M2 CONTROL BOX M2 М1 B3 B2 С brown blue red white LICIRCUIT BREAKER black FUSE 5 A BATTERY



KOBRA

	Description	1/:4	0.4
209	Description	Kit C	Q.ty
209	Key - 6x6x30 Hex hd screw M8x20	Kit C Kit B	4
217	Washer for screw M8	Kit B	2
268	Nylon bush	rue B	4
276a	Gipsy chain 6 Iso - Din 766		1
276b	Gipsy chain 7 Iso - 1/4" G40		1
276c	Gipsy chain 8 Iso - Din 766 - 5/16" BBB		1
276d	Gipsy chain 5/16 G40		1
276e	Gipsy chain 10 Iso - 3/8 G40		1
276f	Gipsy chain 3/8 Din 766 - 10 Din 766		1
276g	Gipsy chain 3/8 BBB		1
276h	Gipsy chain 3/8 PC		1
277	Clutch cone - inner		1
307	Spring washer for screw M6	Kit B	2
308	Washer for screw M6	Kit B	2
311	Thrust bearing - 51105		1
312	Circlip - 43 Din 472	Kit D	1
313	Seal - 25x43x9	Kit A	1
314	Key - 5x5x15	Kit C	1
315a	Electric motor 700W 12V		1
315b	Electric motor 700W 24V		1
315c	Electric motor 1000W 12V		1
315d	Electric motor 1000W 24V		1
316	O Ring seal - 117	Kit A	2
317	Wingnut		1
318a	Clutch cone - outer		1
318b	Clutch cone- outer (for gipsy type e-f-g-h)		1
319	Seal - 25x42x6	Kit A	2
320	Hd cap screw - M6x16	Kit B	4
321	Cover		1
322	O Ring seal - 4437	Kit A	1
323	Bearing - 6005		2
324	Circlip - 25 Din 471	Kit D	3
325	Washer		1
326	Spring		1
327	Dog clutch		1
328	Wormwheel		1
329	Main shaft		1
332 333	Pawl		1
335	Spacer		1
336	Stripper Oil plug 3/8"		1
339	Nylon washer		1
340	Emergency wheel		1
341	Emergency dog clutch		1
342	Spring		2
343	Drum		1
344	Washer		1
345	Hex hd screw M6x20	Kit B	1
352a	Handle		1
357	Nylon washer for screw M6	Kit B	2
359	Cap nut M6	Kit B	2
369	Washer for screw M10	Kit B	1
460	Hex hd screw M10x20	Kit B	1
471	Body		1
472	Bearing - 16100		1
473	Worm		1
		_	<u> </u>
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ltem	Description	Kit	Q.ty
KA08101	Kit A - Seals		1
KB08101	Kit B - Screw&Nuts		1
KC08101	Kit C - Keys		1
KD08101	Kit D - Circlips		1
			-
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		-	-
			-
			-

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