Anchorman Power 700

Installation, Operation and Maintenance Instructions

CONTENTS

1. PARTS
- 1.1 Exploded Diagram
- 1.2 For Future Reference
- 1.3 Parts List

2. PLANNING THE INSTALLATION
- 2.1 Gipsy Suitability
- 2.2 Package Contents
- 2.3 Additional Requirements
- 2.4 Electric Cable Selection

3. ACCESSORIES

4. SPECIFICATION
- 4.1 Performance
- 4.2 Materials

5. INSTALLATION
- 5.1 Fitting Windlass to Deck
- 5.2 Wiring
- 5.3 Joining Rope to Chain

6. OPERATING INSTRUCTIONS
- 6.1 Safety First!
- 6.2 Function of Clutch
- 6.3 Function of Gipsy Pawl
- 6.4 Function of Friction Cone
- 6.5 Letting Go Under Gravity
- 6.6 Letting Go Under Power
- 6.7 Lying to Anchor Safely
- 6.8 Hauling In
- 6.9 Warping
- 6.10 Emergency Hand Operation
- 6.11 Operating Tips

7. IMPORTANT USER INFORMATION

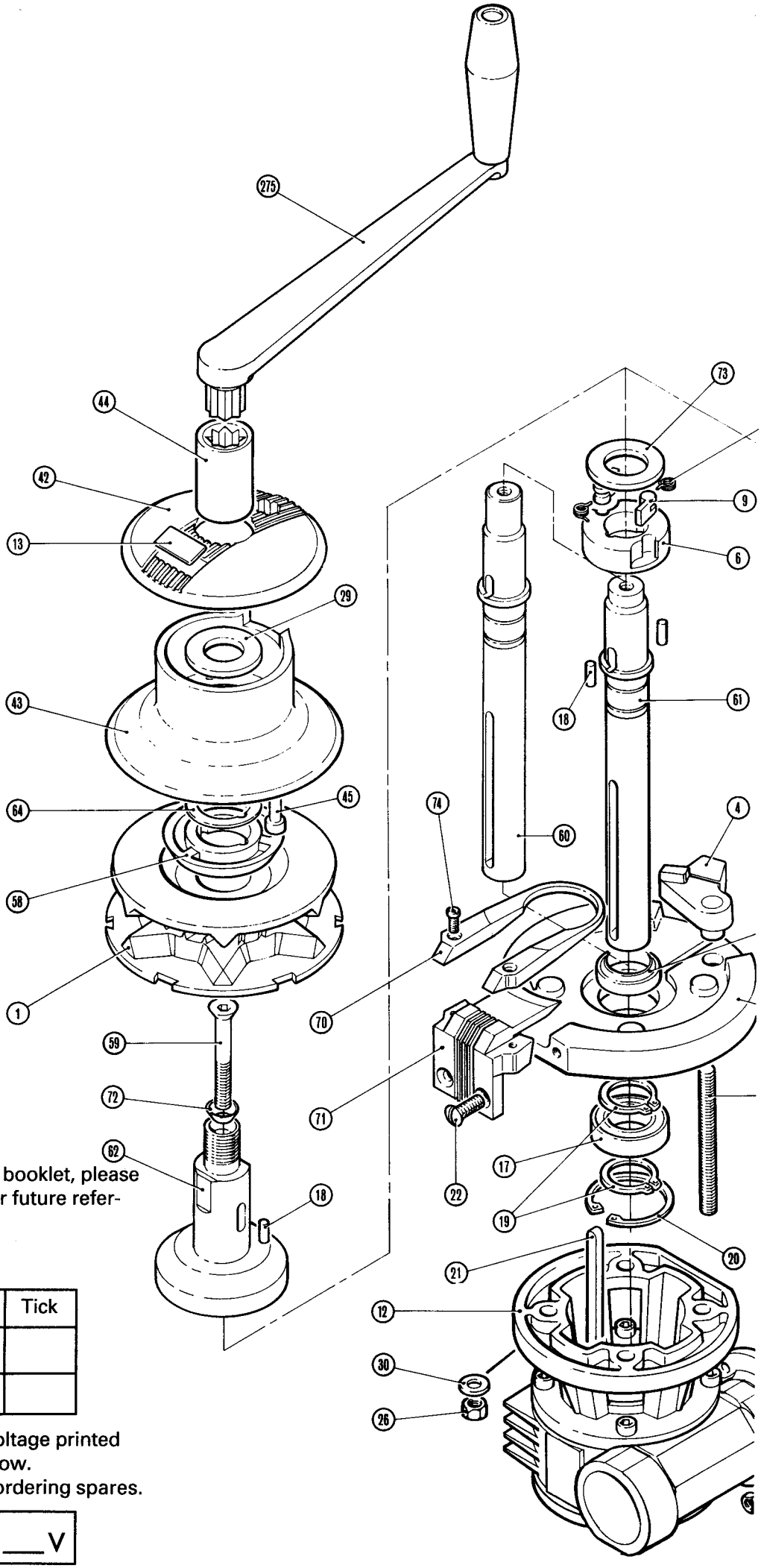
8. MAINTENANCE
- 8.1 General Recommendations
- 8.2 Dismantling
- 8.3 Winter Laying Up

9. WARRANTY

SIMPSON LAWRENCE

1. PARTS

1.1 Exploded Diagram



1.2 For Future Reference

After you have read this instruction booklet, please keep it safe on board your vessel for future reference.

1.2.1 Identify your model

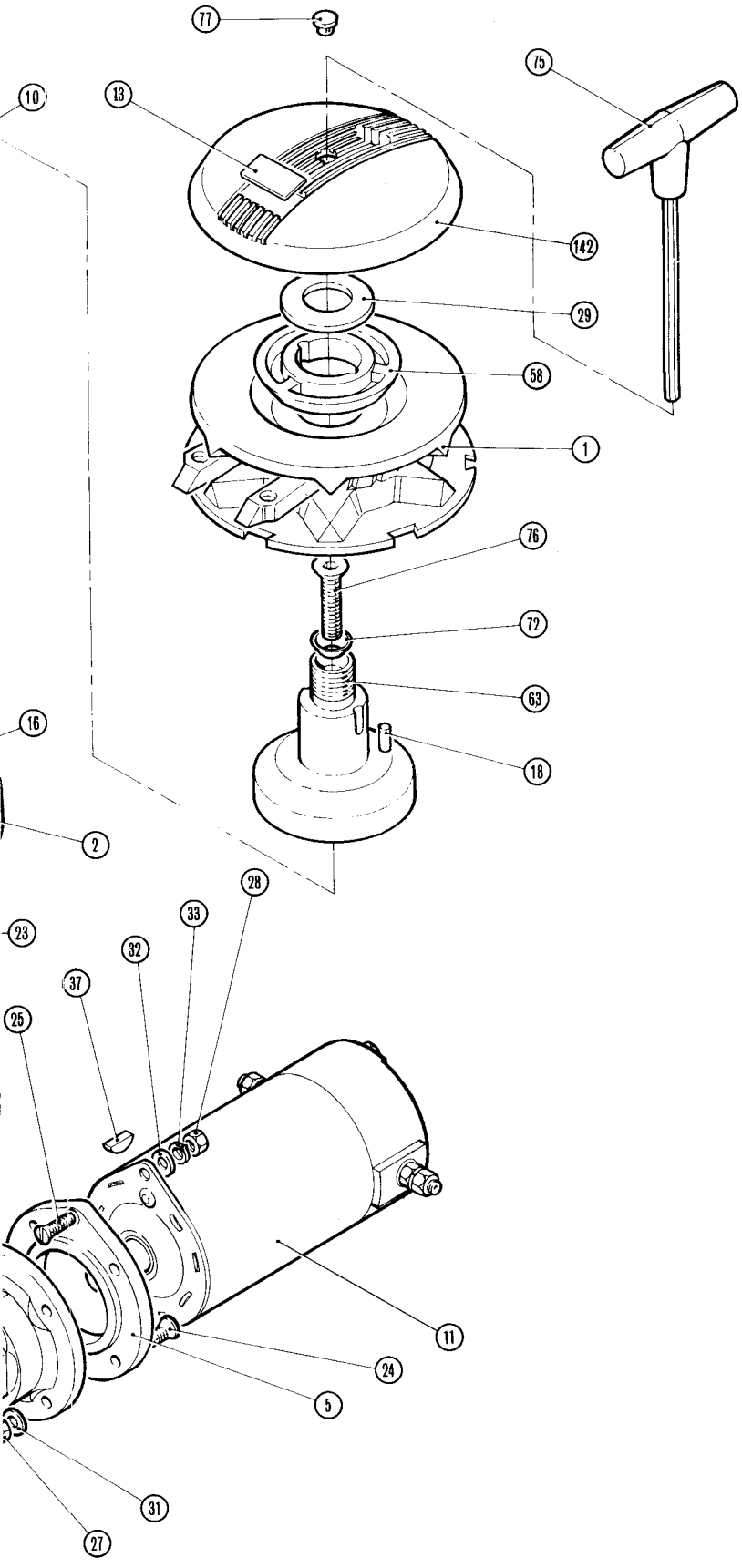
Model	List No.	Tick
Gipsy/Drum	0044500	
Gipsy only	0044600	

1.2.2 Please find the serial number and voltage printed on the gearbox label and note it below.

This information is essential when ordering spares.

_____	___V

1.3 Parts List



Part Number	Description	Quantity 445	Quantity 446
1	Gipsy	1	1
2	Baseplate	1	1
4	Gipsy Pawl	1	1
5	Motor Attatchment Flange	1	1
6	Drive Pawl Carrier	1	1
9	Drive Pawl	2	2
10	Pawl Spring	2	2
11	Motor	1	1
12	Gearbox Assembly	1	1
13	Nameplate	1	1
16	Wiper Seal	1	1
17	Sealed Bearing	1	1
18	Drive Roller	4	4
19	External Circlip	2	2
20	Internal Circlip	1	1
21	Key	1	1
22	Screw	2	2
23	Stud	4	4
24	Screw	4	4
25	Screw	2	2
26	Nut	4	4
27	Nut	4	4
28	Nut	2	2
29	Washer	1	1
30	Washer	4	4
31	Washer	4	4
32	Washer	2	2
33	Spring Washer	2	2
37	Woodruff Key	1	1
40	Adaptor Plate	1	1
41	Distance Piece	1	1
42	Drum Cap	1	0
43	Drum	1	0
44	Clutch Nut	1	0
45	Screw	3	0
58	Clutch Cone	1	1
59	Socket Screw	1	0
60	Mainshaft (Gipsy/Drum)	1	0
61	Mainshaft (Gipsy Only)	0	1
62	Gipsy/Drum Carrier	1	0
63	Gipsy Carrier	0	1
64	Distance Piece	1	0
70	Fleming	1	1
71	Fleming Stripper	1	1
72	Friction Cone	1	1
73	Washer	1	1
74	Screw	2	2
75	Socket Screw Key	1	1
76	Socket Screw	0	1
77	Plug	0	1
142	Gipsy Cap	0	1
275	Sheet Winch Handle (Not included, see accessories)	1	1

2. Planning the installation

2.1 Gipsy Suitability

The rope/chain gipsy enables the windlass to be used for hauling rope and chain without the need to transfer from warping drum to gipsy.

It is ideally suited to anchor rodes which consist of rope with a chain tail.

Rope used with rope/chain gipsies should be three strand nylon.

The RC172 gipsy is designed to suit 12 mm (1/2") rope, the RC162 and RC152 gipsies to suit 16 mm (5/8") rope but they all may accept diameters that are plus or minus 3 mm (1/8") depending on the particular lay of the rope. The 180 & 181 gipsies handle chain only.

Chain should be chosen to suit gipsies as follows:-

GIPSY	CHAIN	
RC152	American NACM	5/16"
RC162	S-L 0058004	9.5 mm
	American Proof Coil	5/16"
	American BBB	3/8"
	American Proof Coil	3/8"
	American Hi Test	3/8"
	French NFE 26011	10 mm
	German DIN 766	9 & 10 mm
	Italian	10 mm
	Norwegian	1/4"
	Australian PWB & Beavers	8 mm
	Australian Grade 'L'	10 mm
RC172	S-L 0058002	1/4"
	S-L 0058003	8 mm
	American Transport	1/4"
	American BBB	5/16"
	American Hi Test	5/16"
	French NFE 26011	8 mm
	German DIN 766	8 mm
	Italian	8 mm
	Norwegian	1/4"
		5/16"
		8 mm
	Australian	8 mm
180	Accoloy	9/32"
181	German DIN 766(86)	6 mm

Depending on manufacture, other chains in the range from 6mm to 10mm and 1/4" to 3/8" may be suitable with one of the above gipsies. Should you have difficulty in matching a gipsy to your chain please consult your local agent or Simpson-Lawrence Ltd.

2.2 Package Contents (Checklist)

Windlass Above Deck Assembly
Motor & Gearbox Unit
Mounting Studs, Washers & Nuts
Socket Screw Key
Safety Instructions D1000-1
Instruction Manual D1007-3
Mounting Template D1018-1

2.3 Additional Requirements

Each windlass installation requires :

a. A standard sheet winch handle.

b. The following tools:

Flat Bladed Screwdriver
9.5mm (3/8") Diameter Drill
Jig Saw or Trepanning Tool
13mm AF Spanner
Crimping Pliers / Wire Stripper

c. Sealant

d. A Circuit Breaker for overload protection which can also be used as a main isolating switch. (We recommend the ones listed under '3. Accessories')

e. A control switch (or switches) by preference.

f. A solenoid for a single direction installation, or a boxed pair of solenoids for a reversing installation. (Unless the High Load Footswitch only is used)

g. Suitable electrical cable and crimp terminals.

2.4 Electric Cable Selection

To achieve the best performance and safeguard your electrical system it is essential that any electric windlass is 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 5%, roughly 0.5V for a 12V installation and 1.0V for a 24V one.

The following tables give recommended cable sizes. The recommendations are based on the total length of cable required, from the battery to the windlass and back to the battery, following the route of the cables. (See the Wiring diagram for the definition) DO NOT confuse Cable Length with the length of the vessel!

METRIC OR STARTER CABLE

VOLTAGE	Cable Length m	Cable Length ft.	Size mm
12	8.4	28	20
	11.7	38	25
	16.2	53	35
	18.0	59	40
	22.0	72	50
24	20.4	67	15
	22.1	73	16
	25.3	83	20
	35.1	115	25

AMERICAN CABLE

VOLTAGE	Cable Length ft.	Cable Size AWG
12	20	6
	32	4
	51	2
	65	1
	82	1/0
24	61	6
	97	4
	154	2

Thin wire of 2.5mm cross sectional area, 35/0.30 or 50/0.25 PVC covered (American equivalent 14 AWG) is required for the control switch circuits. This is used to connect the switch(es) to the solenoid(s) and the circuit breaker pilot light to the main circuit.

3. ACCESSORIES

List Number	Item
0044501	Windlass Cover - - - - - White
0044502	Windlass Cover - - - - - Blue
0044901	Rode Management System
0050711	70 Amp Circuit Breaker - 12 Volt Installation
0050710	50 Amp Circuit Breaker - 24 Volt Installation
0052505	12 Volt Solenoid - - - - Single direction
0052506	24 Volt Solenoid - - - - Single direction
0052509	12 Volt Solenoids - - - - Reversing
0052510	24 Volt Solenoids - - - - Reversing
0052512	Push Button Switch - - - Single direction
0052514	Foot Switch - - - - - - Single direction
0052516	High Load Footswitch - - Single direction
0052511	Joystick Control Switch - Single or Reversing
0052515	Hand Remote Switch - - Single or Reversing
0052513	Push Button Switch - - - Reversing
0052514	Foot Switch X 2 - - - - - Reversing
0052522	Touch Pad Control - - - Reversing
2417201	Chain Pipe - - - - - - - Flat type with cover
2417202	Chain Pipe - - - - - - - Hooded type
2756700	10" Operating Handle - - Autolock
2756900	10" Operating Handle - - Standard

4 Specification

4.1 Performance

Maximum Pull

	12V Model	24V Model
Chain in Gipsy	250kg (550lb)	350kg (770lb)
Rope in Gipsy	300kg (660lb)	400kg (880lb)
Rope on Drum	275kg (600lb)	375kg (825lb)

Typical Working Figures

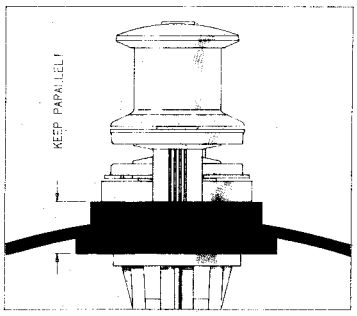
	Load	Speed	Current Draw
12V	50kg *110lb*	16m/min *52.5ft/min*	65 Amp
24V	50kg *110lb*	17m/min *56ft/min*	35 Amp

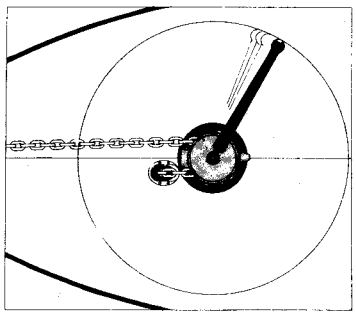
4.2 Materials

Drum/Cap	Hot Stamped Bronze
Gipsy	Hot Stamped Bronze
Internal Pawls	Stainless Steel
Base Plate	Hot Stamped Bronze
Mainshaft	Stainless Steel
Gearbox	Aluminium Case, Steel/Bronze Gear Set
Electric Motor	500W, 4 Pole Permanent Magnet
Weight	Gipsy/Drum Model 15.5kg (34lb) Gipsy Only Model 14.5kg (32lb)

5. INSTALLATION

5.1 Fitting Windlass to Deck

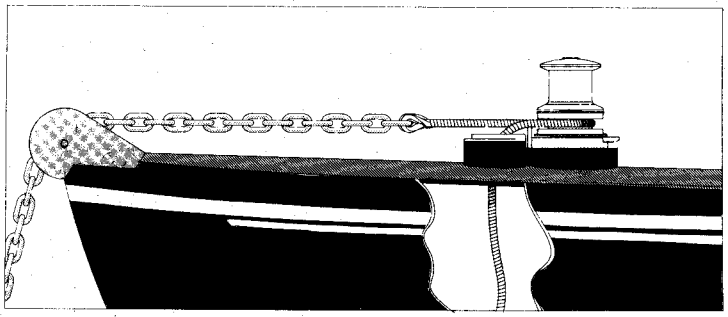




5.1.1 If the deck top is not flat a suitable mounting pad may be required to take up camber or sheer. Decks which are thin, of foam or balsa laminate construction, will require a backing piece in order to spread the loads which will be applied locally to the deck while the windlass is in use. Care must be taken if the deck is of uneven thickness and a mounting pad and/or backing piece fitted that the top and bottom surfaces are parallel for correct alignment.

5.1.2 Place the windlass on the deck or mounting pad in the desired position and check the line up of the chain or rope with reference to the stemhead roller and the chain locker below.
Check that there is sufficient room to fully rotate a bi-square winch handle without obstruction.

5.1.3 Rode lead from the bow roller should be in the same plane as the centre of the gipsy so any deck pad may also be required to be angled. There must be sufficient vertical fall for the chain or rope, even with a full locker, to draw the rode from the gipsy when hauling in.

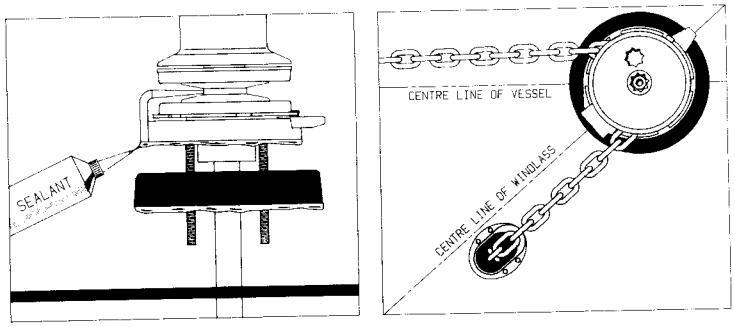


5.1.4 Place the mounting template in the desired position. Cut a 55mm diameter (2 3/8") clearance hole for the baseplate and mainshaft to pass through and four 9,5mm (3/8") holes for the studs. The studs supplied are 100mm (4") long to suit decks and mounting pads up to 70mm (2 3/4") thickness. For thinner decks or some installations without mounting pads it may be necessary to reduce the length of the mounting studs.

5.1.5 Screw the studs into the baseplate, this can best be done by putting two nuts on the opposite end, one of which acts as a lock nut. Use this technique on each of the four studs in turn.

5.1.6 Apply a suitable sealant to the bottom of the base plate, the mounting pad and around the studs. Place the windlass in position.

5.1.7 Apply grease to the mainshaft below deck then offer up the gearbox and secure it firmly to the studs with the nuts and washers supplied.
NB If using silicone or other rubbery type sealants it is advisable to allow curing of the sealant before final tightening of the mounting bolts.



5.1.8 Please note the following when fitting a chain pipe :

a. When using rope or rope/chain combination rodes in the gipsy, we strongly recommend the chain pipe be fitted close to the stripper as shown on the mounting template.

b. The chain pipe should, where possible, be fitted against the baseplate of the windlass in alignment with the stripper as detailed on the template. In certain installations this may not be possible - e.g. where the windlass cannot be sited directly over the chain locker - and under such restrictions, the chain pipe can be fitted remotely (see note d. below) but must always be in direct alignment with the stripper so that the rode runs in a straight line off the gipsy (see diagram).

c. It is essential that the rode leaves the gipsy and enters the chain pipe horizontally, this may entail placing packing below the chain pipe in order to achieve this, especially if the windlass has had to be mounted on a deck pad.

d. If mounting the chain pipe remotely from the windlass, it is necessary to ensure that the minimum fall of rode within the full chain locker is still greater than the distance between the stripper and the chain pipe. This enables gravity to aid the stripping of the rode from the gipsy.

5.2 Wiring

5.2.1 General Recommendations

The wiring system should be of the two cable fully insulated return type, which avoids possible electrolytic corrosion problems. Most modern installations are negative return (negative earth) but polarity should be checked.

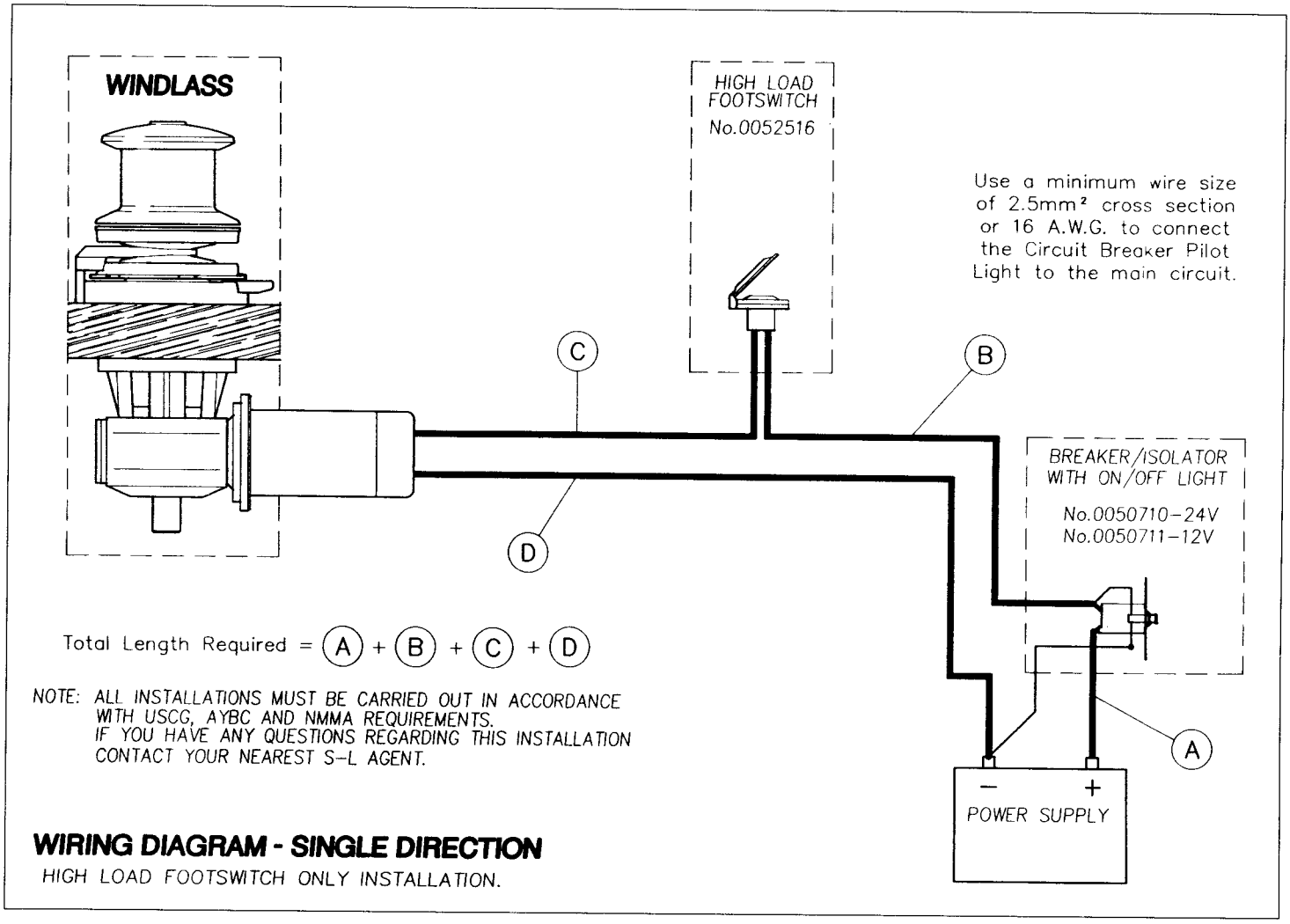
A Circuit Breaker **must** be included in the windlass wiring circuit. This protects the wiring and prevents undue damage to the windlass motor, in the event of it being stalled by an excessive load in service. The recommended Circuit Breaker should be mounted in a dry, readily accessible place, as it must be manually reset should an overload occur that causes it to trip to the off position. If not using the Circuit Breaker recommended, an alternative must have identical characteristics.
When fitted, Solenoids should be mounted as close to the battery as possible.

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

5.2.2 Control Switch Installation

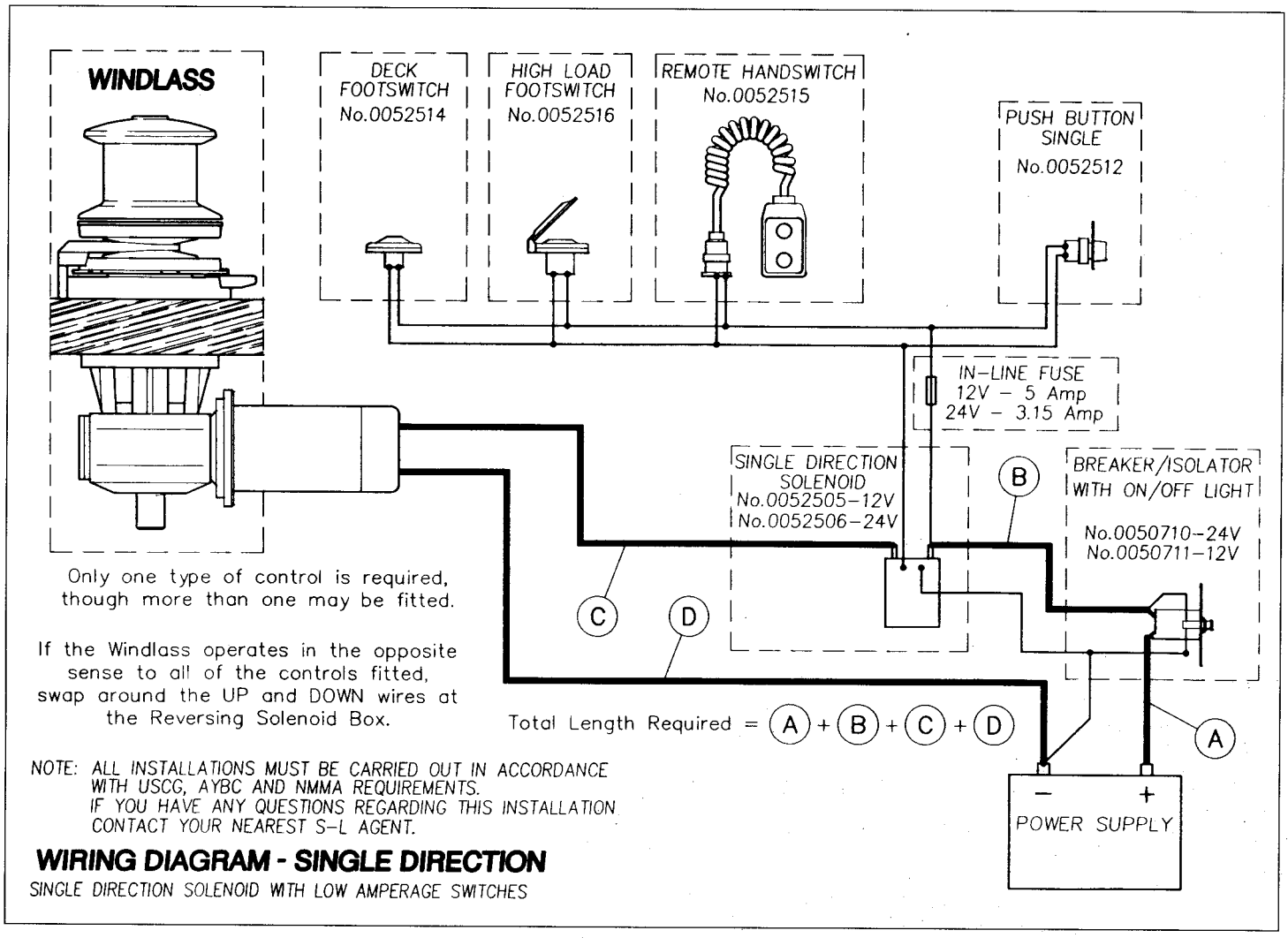
Follow the mounting instructions supplied with the switch. Remember, when using more than one Control Switch it is important to their correct operation that they are wired in a parallel circuit.

5.2.3 Single Direction Wiring (High Load Footswitch Only)



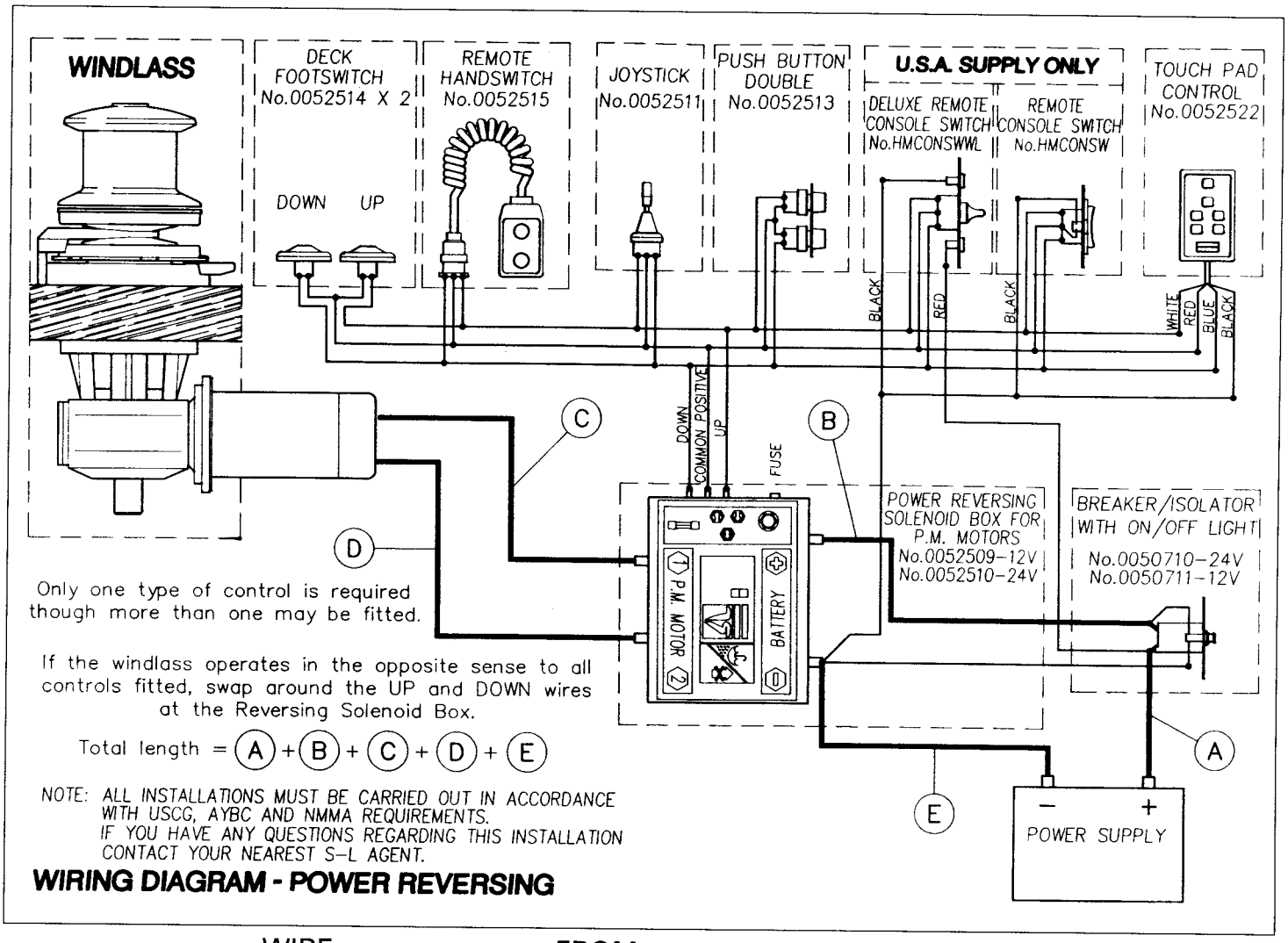
WIRE	FROM	TO
Thick cable	Positive battery terminal	Circuit Breaker
Thick cable	Circuit Breaker	High Load Footswitch
Thick cable	High Load Footswitch	Positive motor terminal
Thick cable	Negative battery terminal	Negative motor terminal
Thin wire	Circuit Breaker Pilot Light	Main circuit (positive)
Thin wire	Circuit Breaker Pilot Light	Main circuit (negative)

5.2.4 Single Direction Wiring



WIRE	FROM	TO
Thick cable	Positive battery terminal	Circuit Breaker
Thick cable	Circuit Breaker	Solenoid
Thick cable	Solenoid	Positive motor terminal
Thick cable	Negative battery terminal	Negative motor terminal
Thin wire	Solenoid	Control switch(es)
Thin wire	Control switch(es)	Main circuit (positive)
Thin wire	Solenoid	Main circuit (negative)

5.2.5 Power Reversing Wiring



WIRE	FROM	TO
Thick cable	Positive battery terminal	Circuit Breaker
Thick cable	Circuit Breaker	Reversing Solenoid box
Thick cable	Solenoid box	Motor
Thick cable	Negative battery terminal	Reversing Solenoid box
Thick cable	Solenoid box	Motor
Thin wire	Solenoid box	Control switch(es) common terminal
Thin wire	Solenoid box	Control switch(es) up terminal
Thin wire	Solenoid box	Control switch(es) down terminal

NB If you are not sure that you understand the above guidelines seek professional advice.