

# Compact Winch Model: CWS-160

PN: 420532 220V 420937 230V  
420377 220V 421165 230V

## Introduction

### ► Feature

- Lifting capacity: 160 kg wire rope top layer
- Lifting height: 30 m
- Lifting speed: 14 – 22 m/min
- Brake: Electromagnetic and mechanical ratchet
- Limit protection: Lifting and lowering limiters
- Control: Pendant switch powers the winch

### ► Unpacking

- Winch assembly 1pc
- Wire rope 4.8 mm x 31 m 1pc
- Wire rope 4 mm x 41 m for PN:420377 1pc
- Wire rope 3.2 mm x 45 m for PN:421165 1pc
- Weight hook CHW-0033 1pc
- Power lead 1.5 mm<sup>2</sup> x 3C x 5 m and plug 1pc
- Pendant switch CPB-313 w/cord 1.25 mm<sup>2</sup> x 6C x 10m 1pc

### ► Read this manual carefully

You should carefully read and understand this manual before operating it. Careless winch operation may result in personal injury hazards or property damage.

### ► Information requesting or parts ordering

Please specify the followings information:

- Winch PN
- Serial number
- Part description

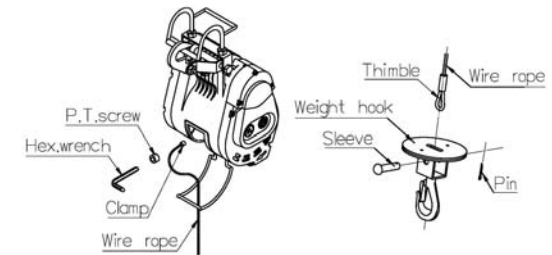
- Replacement part number
- Quantity for each part

## Installation

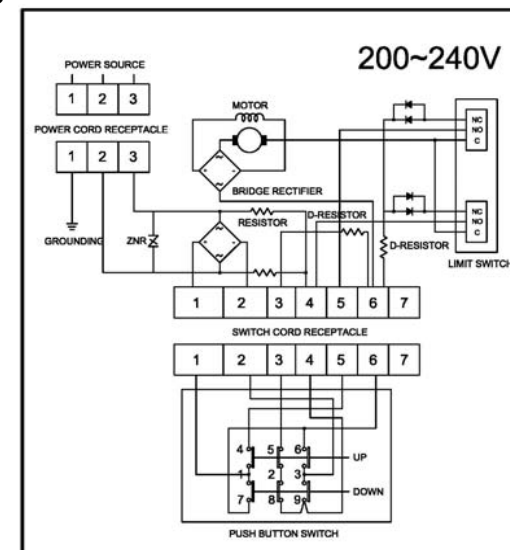
Before using the winch, make sure all electrical components have no corrosion or damaged; the environment should be clear and dry.

### ► Wire rope replacement

- Put a new wire rope through the hole of the round plate of swivel hook.
- Insert a sleeve pin through the thimble of wire rope.
- Insert a pin through the sleeve pin and bent it by a pliers.
- Let a new wire rope w/clamp through the limit lever and insert it into the hole of the drum.
- Put a P.T. screw into the hole of the drum and tighten it by a hexagon wrench.
- Press the ↑ button to rotate the drum in the lifting direction.
- An uneven winding of wire rope may cause the load to be swing, thus damaging the rope and reducing its life.



### ► Wiring Diagram



## Warning

- The winch is not intended to be used in any manner for the movement or lifting of personnel.
- The lifting capacity shown is based on the top layer of rope on the drum.
- The rope winding on the drum shall remain 5 wraps from the drum.

## Parts List

Item No.	Description	Part No.	Qty
1	Gearbox rear cover kit	880493	1
2	Ratchet stopper kit	880547	1
3	Brake kit	881497	1
4	1 <sup>st</sup> gear kit	881498	1
5	3 <sup>rd</sup> gear kit	881499	1
6	4 <sup>th</sup> gear kit	880500	1
7	Gear box kit	880470	1
8	Hanger kit	880476	1
9	Carbon brush holder	880472	1
10	Carbon brush 100V~240V	880473	2
11	Over-winding bracket kit	880503	1
12	Wire rope	880504	1
	Wire rope for PN:420377	881397	
	Wire rope for PN:421165	882859	
13	Weight hook CHW-0033	880505	1
14	Armature core 220/230V	880973	1
15	Cooling cover	881500	1
16	Armature winding 220/230V	880513	1
17	Motor rear cover kit	880477	1
18	Reverse winding shaft kit	880478	1
19	Output shaft kit	880507	1
20	Drum kit	881501	1
21	Control panel 220~240V	881255	1
21-1	D type resistor 220~240V	883328	1
21-2	Limit switch	881503	2
21-3	Diode	881504	2
21-4	D type resistor 220~240V	883329	1
22	Rubber packing	880483	1
23	Electric cover kit	880511	1
24	Power lead w/3 round pins plug	880492	1
	Power lead w/2 flat pins plug	880490	1
25	Remote control, CPB-313	880486	1

## Winch Assembly

