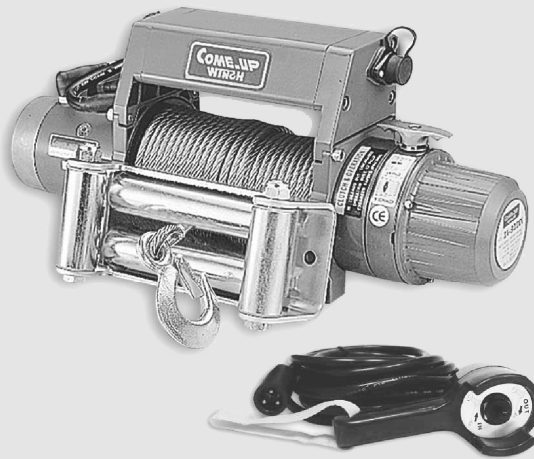




**Model: DV-6000/6000i
DV-9000/9000i
DV-12000/15000**

Your First Winching Solution



● **INSTRUCTION
MANUAL**

**Self-Recovery
Winch**





Self-Recovery Winch

Thank you for purchasing a **COME-UP Winch**. This manual covers operation and maintenance of the winch. All information in this publication is based on the latest production information available at the time of printing.

General Safety Precautions

A **COME-UP Winch** is designed to give safe and dependable service if operated according to the instructions. Read and understand this manual before installation and operation of winch.

Follow these general safety precautions:

- Don't use unsuitable pulleys or accessories.
- Don't use unsuitable rope in construction, strength or having any defects.
- Check the winch for smooth operation without load before winching operation.
- Make sure the wire rope is wound evenly on the first layer on the drum, rewind it if not evenly wound.

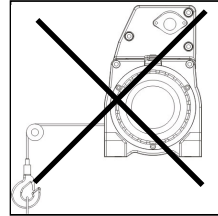


1. The winch is rated for intermittent-periodic duty.
2. The winch is not to be used to lift, support or otherwise transport personnel.
3. A minimum of five (5) wraps of rope around the drum are necessary to support the rated load.
4. When choosing the right winch, you need to consider the vehicle size and weight. As a general guide, you need a winch with a maximum load rating of at least one and a half times greater than the gross vehicle weight.
5. The rated line pull of the winch must be powerful enough to overcome the added resistance caused by whatever the vehicle is stuck in.

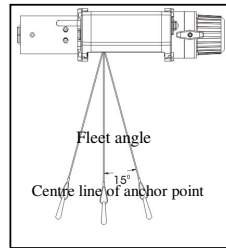
I. Safety Precautions

Please read and understand this Instruction Manual before installing your winch.

- ⚠ Don't use unsuitable wire rope in construction, strength or having any defects.
- ⚠ Don't use an unsuitable hook and snatch block for wire rope.
- ⚠ The operator of a winch in some cases, is required to have qualifications according to applicable laws and ordinances.
- ⚠ Do not use the winch as a lifting device or a hoist for vertical lifting (Fig1).
- ⚠ Do not use winch to move people.
- ⚠ Do not exceed maximum line pull ratings shown in tables. Shock load must not exceed these ratings.
- ⚠ Keep hands clear of wire rope and fairlead opening.
- ⚠ Pull from an angle below 15 degree to straighten up the vehicle or load. (Fig2)
- ⚠ Use leather gloves or a heavy rag when handling the wire rope.
- ⚠ When winching a heavy load lay a heavy blanket or jacket over the wire rope near the hook end.



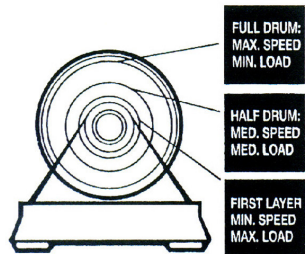
(Fig1)



(Fig2)



Load and speed vary according to how much wire rope is on the drum. The first layer of rope on the drum delivers the slowest speed and the maximum load. A full drum delivers the maximum speed and the minimum load. For this reason, winches are rated on their performance first layer of rope on the drum.



II. Performance Data

► Specifications

Model		DV-6000	DV-6000i	DV-9000	DV-9000i	DV-12000	DV-15000
Line Pull (first layer)		2,722 kg / 6,000 lb		4,082 kg / 9,000 lb		5,443 kg / 12,000 lb / 6,803 kg / 15,000 lb	
Line Speed (first layer, no load)		14.6mpm / 48 fpm		13.4mpm / 44 fpm		8.3mpm / 27fpm / 6.9mpm / 22fpm	
Amp. Draw	12V	400A 12 volt only		350 A		440 A	
	24V			210 A		290 A	
Motor		Type		Series wound			
Output	12V	2,685 w / 3.6 hp				4,175 w / 5.6 hp	
	24V	12 volt only		1,940 w / 2.6 hp		2,684 w / 3.6 hp	
Gear Train		Type		3 stage planetary			
Ratio		156:1		156:1		261:1 / 315:1	
Free spool		Rotating ring gear					
Brake		Automatic, full load cone brake					
Control		Detachable solenoid pack	Integrated solenoid pack	Detachable solenoid pack	Integrated solenoid pack	Detachable Solenoid pack	
Wire Rope		Type		A7 x 19 aircraft galvanized			
Length		24.4 m / 80 ft		30 m / 100 ft		38 m / 125 ft / 27 m / 89 ft	
Size		8 mm / 5/16 in		8 mm / 5/16 in		9.5 mm / 3/8 in / 11 mm / 7/16 in	

► Performance

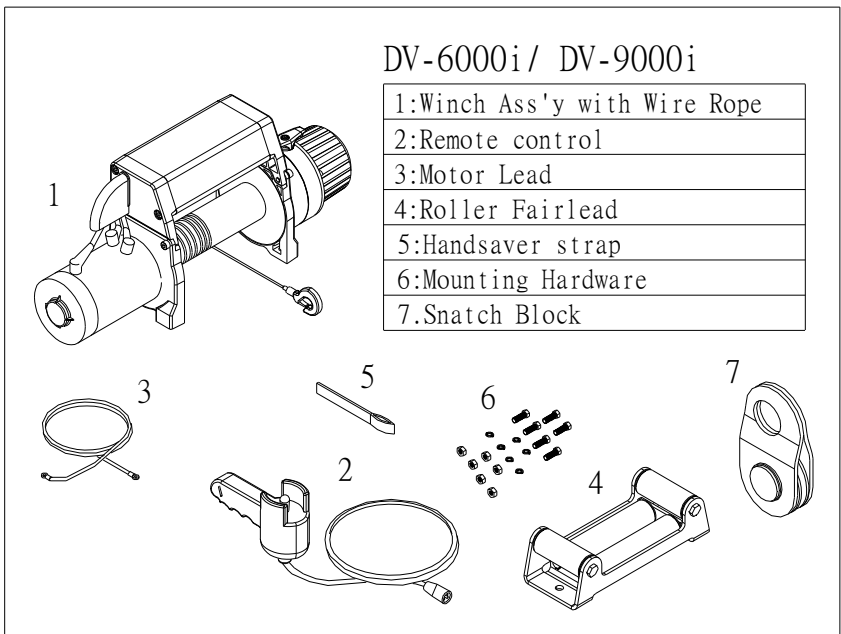
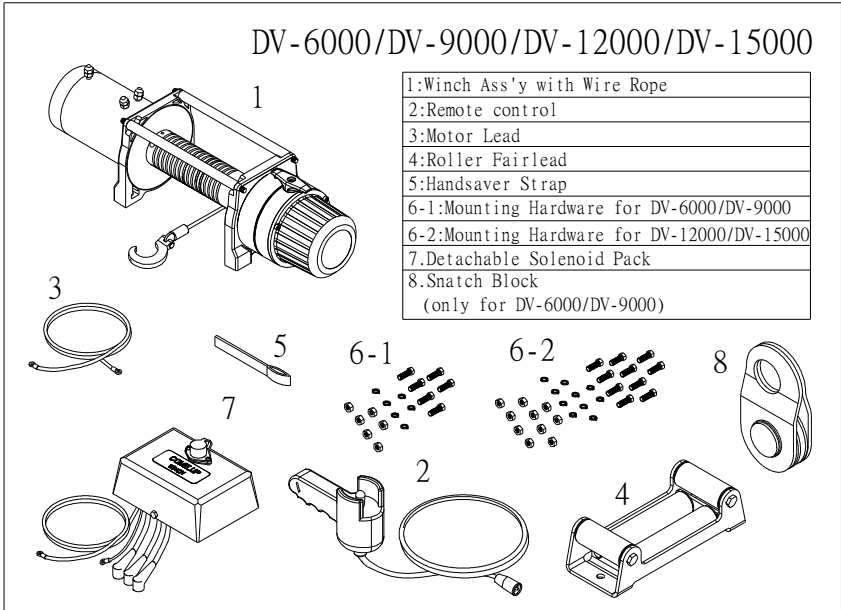
Model		DV-6000	DV-6000i	DV-9000	DV-9000i	DV-12000	DV-15000
1 st layer	Line pull (kg / lb)	2,722 / 6,000		4,082 / 9,000		5,443 / 12,000 / 6,803 / 15,000	
	Line speed (mpm / fpm)	3.1 / 10		2.0 / 6.6		1.2 / 4 / 0.76 / 2.5	
	Rope cap (m / ft)	6.1 / 20		6.1 / 20		6.2 / 20.3 / 5.3 / 17.4	
2 nd layer	Line pull (kg / lb)	2,224 / 4,903		3,335 / 7,352		4,561 / 10,056 / 5,575 / 12,292	
	Line speed (mpm / fpm)	3.7 / 12.1		2.4 / 7.9		1.43 / 4.7 / 0.92 / 3.01	
	Rope cap (m / ft)	13.5 / 44.3		13.5 / 44.3		13.6 / 44.6 / 11.8 / 38.7	
3 rd layer	Line pull (kg / lb)	1,880 / 4,144		2,820 / 6,217		3,926 / 8,657 / 4,723 / 10,413	
	Line speed (mpm / fpm)	4.3 / 14.1		2.9 / 9.5		1.67 / 5.47 / 1.09 / 3.57	
	Rope cap (m / ft)	22.3 / 73.2		22.3 / 73.2		22.1 / 72.5 / 19.5 / 64	
4 th layer	Line pull (kg / lb)	1,628 / 3,589		2,442 / 5,383		3,446 / 7,599 / 4,097 / 9,033	
	Line speed (mpm / fpm)	3.0 / 16.4		3.3 / 10.8		1.9 / 6.23 / 1.26 / 4.13	
	Rope cap (m / ft)	24.4 / 80		30 / 100		31.9 / 105 / 27 / 89	
5 th layer	Line pull (kg / lb)					3,070 / 6,770	
	Line speed (mpm / fpm)					2.13 / 6.98	
	Rope cap (m / ft)					38 / 125	

► Line speed and Amp. Draw

At the first layer of wire rope on the drum.

Model		DV-6000/DV-6000i				DV-9000/DV-9000i				DV-12000				DV-15000			
Line Pull		Line Speed		Amp.	Line Speed		Amp.	Line Speed		Amp.	Line Speed		Amp.	Line Speed		Amp.	
Kg	lb	mpm	fpm	12V	mpm	fpm	12V	24V	mpm	fpm	12V	24V	mpm	fpm	12V	24V	
0	0	14.6	48	60	13.4	44	55	30	8.3	27	60	50	6.9	22	60	50	
907	2,000	7	23	170	4.6	15	110	65	*	*	*	*	*	*	*	*	
1,814	4,000	4	13	320	3.4	11	200	100	2.6	8.6	200	100	1.6	5.4	180	90	
2,722	6,000	3.1	10	400	2.7	9	230	130	*	*	*	*	*	*	*	*	
3,629	8,000	*	*	*	2.3	7.5	260	170	1.7	5.8	310	190	1.2	3.8	280	190	
4,082	9,000	*	*	*	2.0	6.4	350	210	*	*	*	*	*	*	*	*	
4,535	10,000	*	*	*	*	*	*	*	1.4	4.4	370	230	1.0	3.3	330	220	
5,443	12,000	*	*	*	*	*	*	*	1.2	4.0	440	290	0.9	2.9	385	260	
6,805	15,000	*	*	*	*	*	*	*	*	*	*	*	0.8	2.5	460	340	

► Main Components

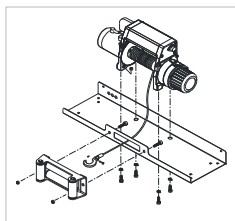


III. Installation

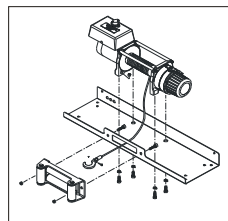
Before using the winch, make sure all electrical components have no corrosion or damaged; the environment should be clean and dry. The voltage drop from the battery connections to the winch must not exceed 10% of the nominal voltage under normal operating condition.

► Mounting

1. It is very important that the winch will be mounted on a flat and hard surface, mounting channel, in order to make sure the motor, drum and gearbox housing are aligned correctly.
2. The roller fairlead doesn't mount to winch directly.
3. Four (4) M10 x 1.50 pitch 8.8 Grade High Tensile Steel Bolts must be used for DV-6000/9000/DV-6000i/9000i in order to sustain the loads imposed on the winch mounting.
4. Eight (8) M12 x 1.75 pitch 8.8 Grade High Tensile Steel Bolts must be used for DV-12000/15000 in order to sustain the load imposed on the winch mounting.
5. Two (2) M12 x 1.75 pitch 8.8 Grade High Tensile Steel Bolts must be used for fastening the roller fairlead into the mounting channel.



**DV-6000 / 9000
DV-6000i / 9000i**



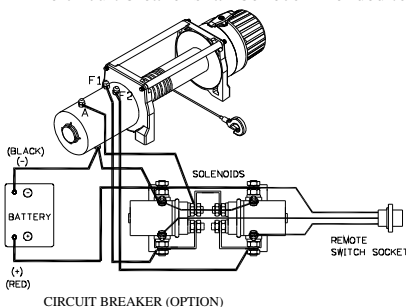
DV-12000/15000

► Battery leads connection

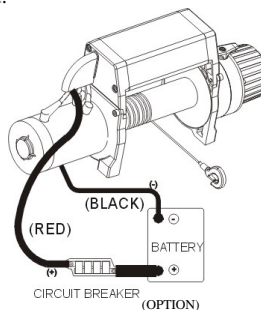
Battery leads specification:

Model	DV-6000	DV-9000	DV-6000i	DV-9000i	DV-12000	DV-15000
Control Type	Detachable solenoid pack		Integrated solenoid pack		Detachable solenoid pack	
Volt	12V or 24V		12V or 24V		12V or 24V	
	Red lead: 2AWG x 1.83 m/ 72"		Red lead: 2AWG x 1.83 m/ 72"		Red lead: 2AWG x 1.83 m/ 72"	
	Black lead: 2AWG x 1.83 m/ 72"		Black lead: 2AWG x 1.83 m/ 72"		Black lead: 2AWG x 1.83 m/ 72"	

1. Attach the black lead (grounding) firmly to the negative (-) battery terminal.
2. Attach the red lead to the circuit breaker, connect the other end to the positive (+) battery terminal.
3. The circuit breaker shall be recommended to be fitted.



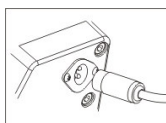
**CIRCUIT BREAKER (OPTION)
DV-6000/9000/12000/15000**



**CIRCUIT BREAKER (OPTION)
DV-6000i/9000i**

► Remote control Connection

1. A remote switch with ϕ 1.25 mm X 3c X 5 m (16AWG X 3c X 17') lead supplied
2. Open the dust-proof cover of the winch, then insert the switch plug into the socket (fig3).



(Fig3)

IV. Operation

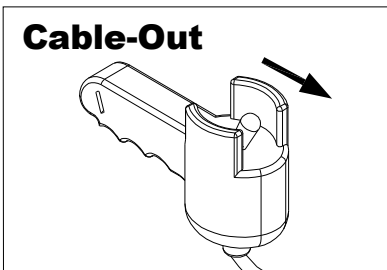
►Precautions

- ⚠ Check all safety and environmental conditions prior and during use.
- ⚠ A wire rope should be replaced if it shows signs of excessive wear, broken wires, corrosion or any other defects.
- ⚠ The operator must remain with the winch when it is being operated.
- ⚠ The winches duty rating is S3 (intermittent – periodic)
- ⚠ If the winch fails to pull a load under normal conditions, stop the operation within 30 seconds otherwise motor damage may be occurred.
- ⚠ Ensure that the winch is connected to the correct voltage. 12VDC or 24VDC only
- ⚠ Check that the free-spool T-handle is in the “Engaged” position during and after use.
- ⚠ Remove the switch from the winch when not in use.
- ⚠ Do not wrap the wire rope around the load and back onto itself. Always use a strap to ensure that the wire rope does not fray or kink.
- ⚠ Keep hands and clothes away from the winch, wire rope, and roller fairlead.
- ⚠ Never unplug the remote control when winching a load.
- ⚠ Before use, ensure that you are familiar with all winching operations (winch speeds & direction).
- ⚠ To avoid insufficient power when winching a load, the vehicle should be running and in neutral.
- ⚠ Keep the remote control clear of the wire rope at all times.
- ⚠ If noise or vibration occurs when running, stop the winch immediately and return it for repair.

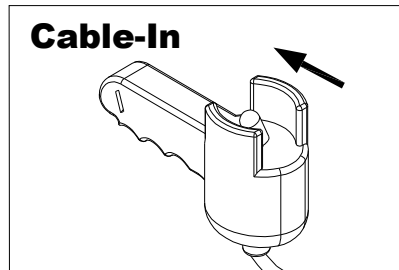
►Cable-in/ Cable-out Operation

- 1). To determine “Cable - Out”, trigger → out (fig.4)
- 2). To determine “Cable - In”, trigger ← in (fig.5)

To stop winching, release the trigger



(Fig4)



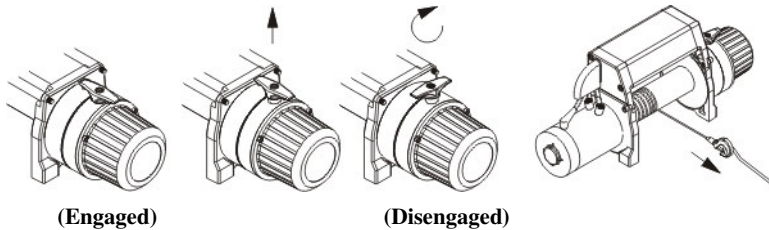
(Fig5)

►Free-spool Function

The free-spool allows rapid pay-out of the wire rope for hooking onto a load or anchor points and is operated by a free-spool T-handle.

The free-spool T-handle must be in the “Engaged” position before winching.

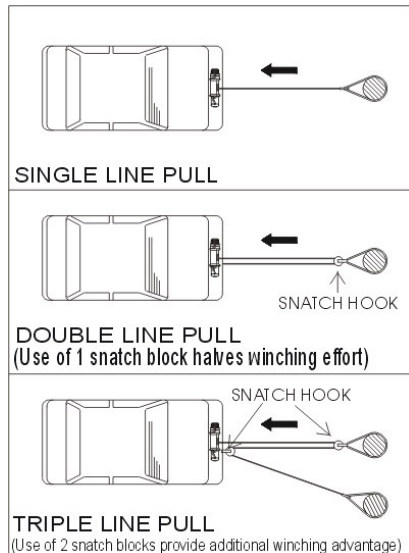
- 1). To disengage, lift the free-spool T-handle up and turn it at 90° clockwise rotation to the “Disengaged” position, wire rope can now free-spool off the drum.
- 2). To engage, lift the free-spool T-handle up and turn it at 90° counter-clockwise rotation to the “Engaged” position.
- 3). If a free-spool T-handle can't be properly locked in the “Engaged” position, rotate the drum to make the free-spool device coupled to the gear train.
- 4). Wear leather gloves and use a strap when guiding the wire rope off the drum.



►Recovery Procedures

Followings are some safety tips to get out of trouble during a recovery.

- 1).Using a snatch block will increase the capacity, but the speed will decrease accordingly.
- 2).Experience has shown the best wire rope service is obtained when the maximum fleet angle is not more than 15 degree. Keep the wire rope as close as possible to the centre line of the anchor point.
- 3).It is the best to work with the most of wire rope unreeled from the drum to get more pulling power, but a minimum of five (5) wraps of wire rope should be wound around the drum to support the rated load.

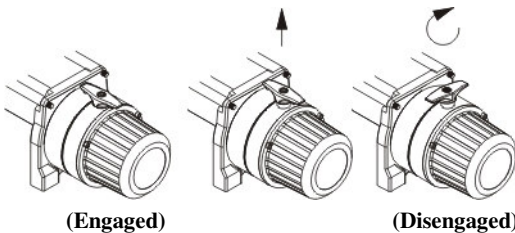


V. Maintenance

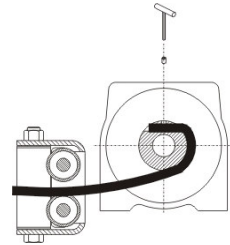
► Wire rope Replacement

- Never use a wire rope of a different size or material and only use genuine replacement parts.
- The wire rope end is inserted through a hole in the drum and an allen set screw is used to clamp the wire rope in place. This rope attachment is simple and ingenious.

- 1). Disengage the free-spool T-handle (Fig6)
- 2). Spool the entire wire rope, and then remove it from the drum.
- 3). Place the replacement wire rope through the fairlead opening, pass below the drum, and insert it into the hole on the drum core. (Fig7)
- 4). Tighten the screw downwards to secure the wire rope (Fig7).
- 5). The paints red markings on the wire rope to indicate 3 meters should remain on the drum.



(Fig 6)

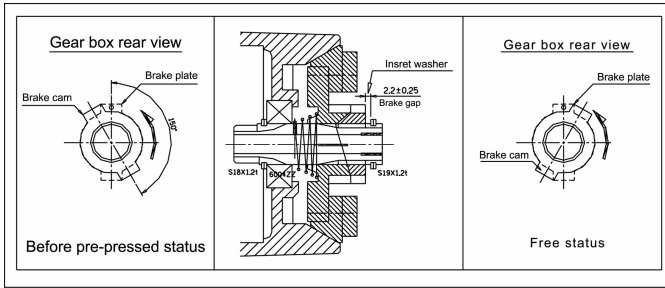


(Fig 7)

► Brake adjustment

When the brake wears to the point that the load begins to slip. The brake can be adjusted as follows:

- 1). Loosen the bolt on the brake cover and take out retaining rings
- 2). Insert few washers to maintain the brake spacer between to be 2.2 ± 0.25 mm
- 3). Make sure to keep the free-spool base plate counter-clockwise by 150 – 180 degree



► Lubrication

All moving parts in the winch are permanently lubricated at the time of assembly. Under normal conditions factory lubrication will suffice. If re-lubrication of gear box is necessary after repair or disassembly use Shell EP2 or equivalent grease with 0.25 litres. Free-spool T-handle lubricates regularly with light oil. It is not allowed to have brake ass'y lubricated.

► Maintenance Schedule

- Ensure that a responsible person carries out all inspections as per schedule.
- Inspections are divided into Daily, Monthly and 3 Monthly.

Classification of check			Item	Checking method	Checking reference	
Daily	Periodical					
	One month	Three month				
○			Installation	Mounting bolts & alignment.	Bolt tension & wear.	Existence of abnormalities
○			Remote control	Working	Manual	Reasonable actuation
		○		Wearing in contact points	Visual.	Free of wear or damage.
○			Wire rope	Broken strands	Visual, measuring	Less than 10%
○	○			Decrease in rope diameter	Visual, measuring	7% of nominal diameter max
○				Deforming or corrosion	Visual	Existence of abnormalities
○				Fastening condition of end	Visual	Existence of abnormalities

		○	Free spool	Wear in spring	Visual evidence of wear	Free of wear or damage.
		○	Motor	Staining, damage	Visual evidence of wear	Existence of abnormalities
		○	Brake	Wearing of brake disc	Visual evidence of wear	Free of wear or damage.
○				Performance	Visual	Reasonable actuation
		○	Gear	Damage, wearing	Visual evidence of wear	Free of wear or damage.

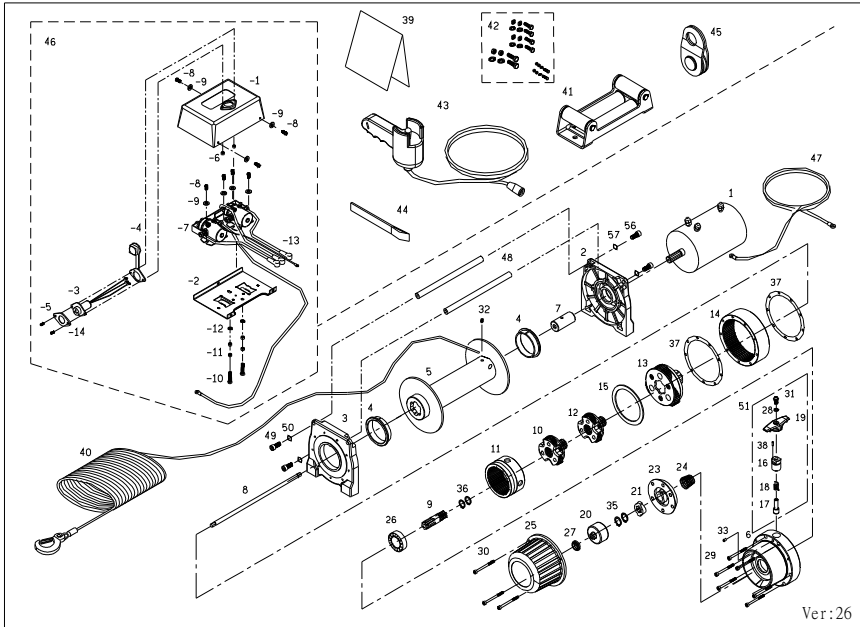
VII. Trouble Shooting

When the winch fails to operate after several attempts, or if there is any fault while

Symptom	Possible Cause	Remedy
Winch will not operate	Cut circuit	Check battery lead.
	Weak battery	Recharge or replace battery (at least 650CCA)
	Damaged over-load protector(option)	Replace over-load protector(option)
	Bad connection of wirings	Reconnect tightly
	Damaged solenoid	Replace solenoid
	Cut circuit on switch	Replace switch
	Damaged motor or worn carbon brush.	Replace motor or carbon brush
Motor runs in one direction.	Dropt or lost motor wirings.	Replace wirings or tight it.
	Broken wirings or bad connections	Reconnect or replace wirings
	Damaged or stuck solenoid	Replace solenoid
	Switch inoperative	Replace switch
Drum will not free spool.	Dropt or lost wirings.	Replace wirings and tighten.
	Free-spool not disengaged	Engaged free spool
	Damaged 1 st shaft	Replace 1 st shaft
	Damaged brake cam and disc	Replace brake cam and disc
No brake	Damaged output shaft	Replace output shaft
	Damaged brake cam and disc	Replace brake cam and disc
	Damaged gear box	Replace gear box
	Dropt retaining ring	Replace retaining ring
	Oil leakage at brake	Clean oil leakage
Brake distance is too long	Damaged or inoperative spiral spring	Replace and position spiral spring
	Worn or damaged brake	Replace or adjust brake
Brake will be locked	Oil leakage at brake.	Clean oil leakage
	Too much brake powder	Clean brake ass'y
	Over pre-pressed spiral spring	Adjust pre-pressed spiral spring
Damaged gear box	Stuck between brake lining and gear box	Replace a new winch
	Hit by certain exterior force.	Replace the damaged components
	Damaged gear train.	Replace the damaged components
Motor runs extremely hot	Over load operation.	Replace a new winch
	Long period of operation	Allow to cool
	Damaged motor	Replace or repair motor
	Damaged or inoperative brake	Replace or repair brake

VII. Replacement parts List

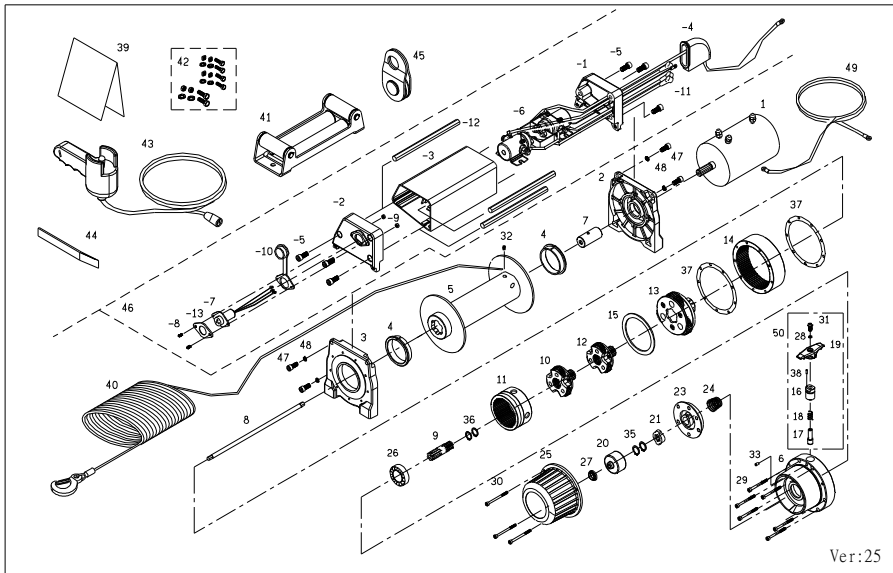
►DV-6000/9000



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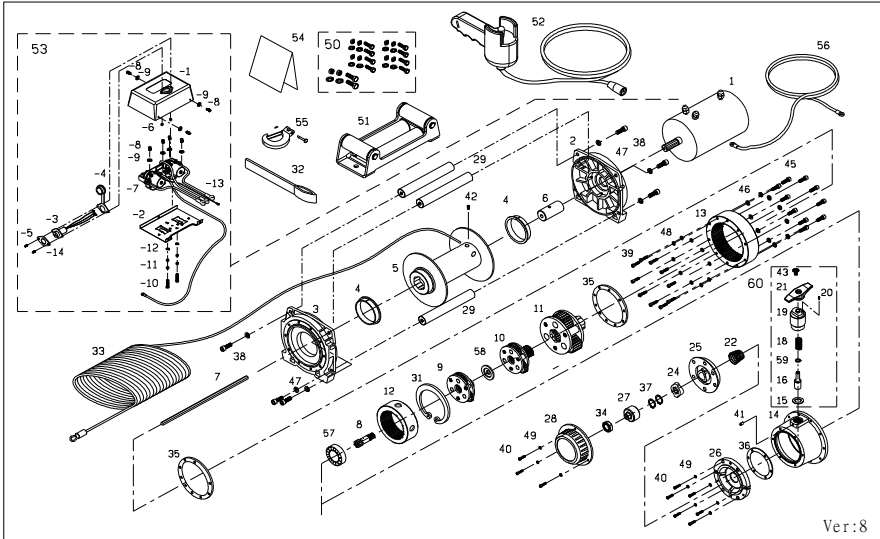
No.	Description	Q'ty	No.	Description	Q'ty	No.	Description	Q'ty
1	Motor 12V	1	23	Brake disc	1	46	Solenoid pack 12V	1
	Motor 24V		24	Spiral spring	1		Solenoid pack 24V	
2	Motor support rack	1	25	Brake cover	1	-1	Solenoid upper plate	1
3	Gearbox support rack	1	26	Bearing	1	-2	Solenoid lower plate	1
4	Drum bushing	2	27	Bearing	1	-3	Remote switch socket	1
5	Drum	1	28	Spring washer	1	-4	Socket gland	1
6	Gear box	1	29	Hex. bolt	6	-5	Screw	2
7	Motor coupling	1	30	Hex. bolt	3	-6	Nut	2
8	1 st shaft	1	31	Hex. bolt	3	-7	Solenoid 12V	1
9	1 st pinion	1	32	Hex. bolt	1	-8	Solenoid 24V	1
10	1 st stage carrier	1	33	Hex. bolt	1	-9	Hex bolt	5
11	1 st & 2 nd ring gear	1	35	Retaining ring	2	-10	Toothed washer	5
12	2 nd stage carrier	1	36	Retaining ring	2	-11	Hex bolt	2
13	3 rd stage carrier	1	37	Gasket	2	-12	Nut	4
14	3 rd ring gear	1	38	Spring pin	1	-13	Spring	2
15	3 rd bushing	1	39	Foot print	1	-14	Lead gland	3
16	Free-spool barrel	1	40	Wire rope	1		Socket plate	1
17	Free-spool lever	1	41	Roller fairlead	1	47	Motor lead	1
18	Spring	1	42	Mounting hardware	1	48	Tie bar	2
19	Free-spool T-handle	1	43	Remote control	1	49	Hex bolt	4
20	Brake free-spool base	1	44	Handsaver strap	1	50	Spring washer	4
21	Brake cam	1	45	Snatch block	1	51	Free-spool ass'y	1

►DV-6000i/9000i



No.	Description	Q'ty	No.	Description	Q'ty	No.	Description	Q'ty
1	Motor 12V	1	23	Brake disc	1	46	Solenoid pack 12V	1
	Motor 24V	1	24	Spiral spring	1		Solenoid pack 24V	1
2	Motor support rack	1	25	Brake cover	1	-1	Solenoid left cover	1
3	Gearbox support rack	1	26	Bearing	1	-2	Solenoid right cover	1
4	Drum bushing	2	27	Bearing	1	-3	Upper box	1
5	Drum	1	28	Spring washer	1	-4	Rubber gland	1
6	Gear box	1	29	Hex. bolt	6	-5	Hex bolt	6
7	Motor coupling	1	30	Hex. bolt	3	-6	Solenoid 12V	1
8	1 st shaft	1	31	Hex. bolt	1	-7	Solenoid 24V	1
9	1 st pinion	1	32	Hex. bolt	1	-7	Remote switch socket	1
10	1 st stage carrier	1	33	Hex. bolt	1	-8	Bolt	2
11	1 st & 2 nd ring gear	1	35	Retaining ring	2	-9	Nut	2
12	2 nd stage carrier	1	36	Retaining ring	2	-10	Socket gland	1
13	3 rd stage carrier	1	37	Gasket	2	-11	Lead gland	3
14	3 rd ring gear	1	38	Spring pin	1	-12	Tie bar screw	2
15	3 rd bushing	1	39	Foot print	1	-13	Socket plate	1
16	Free-spool barrel	1	40	Wire rope	1	47	Hex bolt	4
17	Free-spool lever	1	41	Roller fairlead	1	48	Spring washer	4
18	Spring	1	42	Mounting hardware	1	49	Motor lead	1
19	Free-spool T-handle	1	43	Remote control	1	50	Free-spool ass'y	1
20	Brake free-spool base	1	44	Handsaver strap	1			
21	Brake cam	1	45	Snatch block	1			

►DV-12000/15000



No.	Description	Q'ty	No.	Description	Q'ty	No.	Description	Q'ty
1	Motor 12V	1	27	Brake free-spool base	1	53	Solenoid pack 24V	1
	Motor 24V		28	Brake cover	1	-1	Solenoid upper plate	1
2	Motor support rack	1	29	Tie bar	3	-2	solenoid lower plate	1
3	Gearbox support rack	1	31	Retaining ring	1	-3	Remote switch socket	1
4	Drum bushing	2	32	Handsaver strap	1		Socket gland	1
5	Drum	1	33	Wire rope	1	-5	Screw	2
6	Motor coupling	1	34	Bearing	1	-6	Nut	2
7	1 st shaft	1	35	Gasket A	2	-7	Solenoid 12V	1
8	1 st pinion	1	36	Gasket B	1	-7	Solenoid 24V	1
9	1 st stage carrier	1	37	Retaining ring	2	-8	Hex bolt	5
10	2 nd stage carrier	1	38	Hex. bolt	6	-9	Toothed washer	5
11	3 rd stage carrier	1	39	Hex. bolt	10	-10	Hex bolt	2
12	1 st & 2 nd ring gear	1	40	Hex. bolt	9	-11	Nut	4
13	3 rd ring gear	1	41	Hex. bolt	1	-12	Spring	2
14	Gear box	1	42	Hex. bolt	1	-13	Lead gland	3
15	Plain washer	1	43	Hex. bolt	1	-14	Socket plate	1
16	Free-spool lever	1	45	Hex. bolt	10	54	Foot print	1
18	Spring	1	46	Spring washer	10	55	Hook	1
19	Free-spool barrel	1	47	Spring washer	6	56	Motor lead	1
20	Spring pin	1	48	Spring washer	10	57	Bearing	1
21	Free-spool T-handle	1	49	Spring washer	9	58	Packing	1
22	Spiral spring	1	50	Mounting hardware	1	59	O-ring	1
24	Brake cam	1	51	Roller fairlead	1	60	Free-spool ass'y	1
25	Brake disc	1	52	Remote control	1			
26	Brake base	1	53	Solenoid pack 12V	1			

Limited Warranty

This Limited Warranty is given by the COMEUP INDUSTRIES INC (the “Seller”) to the original purchaser (the “Purchaser”) of a **COMEUP Winch** specified in this manual. This Limited Warranty is not transferable to any other party.

The Seller takes the responsibility for all parts and components, with the exception of the wire rope, to be free from defects in materials and workmanship appearing under normal use for as long as the said Purchaser owns the vehicle that the winch was originally mounted on. Electrical components are warranted for 1 Year from date of purchase under the same conditions. Any **COMEUP Winch**, which is defective, will be repaired or replaced without charge to the Purchaser.

Upon discovering any defect, the Purchaser under this Limited Warranty is requested to return the complete winch and inform the seller or their authorised distributors of any claims. The Purchaser must provide a copy of the proof of purchase bearing the winch serial number, date of purchase, owners name and address, vehicle details and registration number.

The Limited Warranty does not cover any failure that results from improper installation, operation or the Purchaser’s modification in design. The winch is designed for vehicle self-recovery use only and should not be used in industrial applications or for moving people. The Seller does not warrant them to be suitable for such use.