



MAXIMUM OFF-ROAD RECOVERY.™

RECOVERY ELECTRIC WINCH
FITTING INSTRUCTIONS

- ➔ 5.5 HP Series Wound Motor
- ➔ Featuring the New Wireless Multi-control
- ➔ New High-end Integrated Solenoid Module (ISM)



GENERAL SAFETY PRECAUTIONS

Warning! Observe safety precautions for personal safety and the safety of others. Improper equipment operation may cause personal injury and equipment damage.

Read the following carefully before attempting to operate your winch and keep the instructions for future reference.

1. Dress Properly:

- Don't wear loose clothing or jewelry. They can be caught in moving parts.
- Wear leather gloves when handling winch cable. Do not handle cable with bare hands as broken wires can cause injuries.
- Non-skid footwear is recommended.
- Protective hair covering to contain long hair.

2. Keep a Safe Distance:

- Ensure that all persons stand well clear of winch cable and load during winch operation, 1.5 times the cable length recommended. If a cable pulls loose or breaks under load it can lash back and cause serious personal injury or death.
- Don't step over the cable.
- All visitors and onlookers should be kept away from the work area.
- Keep proper footing and balance at all times.

3. Don't Abuse the Cord:

- Never carry your winch by the cord or yank it to disconnect it from the receptacle.
- Keep cord from heat, oil and sharp edges.

4. Don't Overwork the winch:

- If the motor becomes uncomfortably hot to touch, stop and let it cool for a few minutes.
- Don't maintain power to the winch if the motor stalls.
- Don't exceed maximum line pull ratings shown in tables. Shock loads must not exceed these ratings.

5. Avoid Unintentional Starting:

- Winch clutch should be disengaged when not in use and fully engaged when in use.

6. Check Damaged Parts:

- Before using, you should check your winch carefully. Any part that is damaged should be properly repaired or replaced by an authorized service centre.

7.Repair Your Winch:

- When repairing, use only identical replacement parts or it may cause considerable danger for the user.

8.Respool the Cable:

- Leather gloves must be worn while respooling. To respool correctly, it is necessary to keep a slight load on the cable. Hold the cable with one hand and the remote control switch with the other. Start as far back and in the centre as you can. Walk up keeping load on the cable as the winch is powered in.

- Do not allow the cable to slop through your hand and do not approach the winch too closely.

- Turn off the winch and repeat the procedure until all the cable except 1m is in.

- Disconnect the remote control switch and finish spooling in cable by rotating the drum by hand with clutch disengaged.

- On hidden winches, spool in cable under power but keep hands clear.

Warning: The use of any other accessory or attachment other than those recommended in the instruction manual may present a risk of personal injury.

WINCH OPERATION WARNINGS

Read the following carefully before attempting to operate your winch and keep the instructions for future reference.

1. The uneven spooling of cable, while pulling a load, is not a problem, unless there is a cable pile up on one end of the drum. If this happens reverse the winch to relieve the load and move your anchor point further to the centre of the vehicle. After the job is done you can unspool and rewind for neat layers of the cable.

2. Store the remote control switch inside your vehicle where it will not become damaged, inspect it before you plug it in.

3. When ready to begin spooling in, plug in remote control switch with clutch disengaged, do not engage clutch with motor running.

4. Never connect the hook back to the cable. This causes cable damage. Always use a sling or chain of suitable strength.

5. Observe your winch while winching, if possible while standing at a safe distance. Stop the winching process every metre or so to assure the cable is not piling up in one corner. Jamming the cable can break your winch.

- 6.** Do not attach tow hooks to winch mounting apparatus. They must be attached to vehicle frame.
- 7.** The use of a snatch block will aid recovery operations by providing a doubling of the winch capacity and a halving of the winching speed, and the means to maintain a direct line pull to the centre of the rollers. When double loading during stationary winching, the winch hook should be attached to the chassis of the vehicle.
- 8.** Ensure rated "D" or bow shackles are used in conjunction with an approved tree trunk protector to provide a safe anchor point.
- 9.** When extending winch cable, ensure that at least five wraps of cable remained on drum at all times. Failure to do this could result in the cable parting from the drum under load. Serious personal injury or property damage may result.
- 10.** All winches are provided with a Red Cable marking to identify that 5 cable wraps remain on the Winch drum when this mark appears at the rollers. No recovery should be attempted beyond this marking.
- 11.** Since the greatest pulling power is achieved on the innermost layer of your winch, it is desirable to pull off as much line as you can for heavy pulls (you must leave at least 5 wraps minimum on the drum-red cable). If this is not practical use a snatch block and double line arrangement.
- 12.** Draping a heavy blanket or similar object over the extended winch cable is recommended as it will dampen any back lash should a failure occur.
- 13.** Neat, tight spooling avoids cable binding, which is caused when a load is applied and the cable is pinched between the others. If this happens, alternatively power the winch in and out. Do not attempt to work a bound cable under load free by hand.
- 14.** Apply blocks to wheels when vehicles are on an incline.
- 15. Battery:**
 - Be sure that the battery is in good condition. Avoid contact with battery acid or other contaminants.
 - Always wear eye protection when working around a battery.
 - Have the engine running when using the winch, to avoid flattening the battery.

16. Winch cable:

- Be sure the cable is in good condition and attached properly.
- Do not use the winch if cable is frayed.
- Do not move the vehicle to pull a load.
- Do not replace the cable with a cable of less strength.
- The life of cable is directly related to the use and care it receives.

Following its first and subsequent uses, a cable must be wound on to the drum under a load of at least 500lbs (230kg) or the outer wraps will draw into the inner wraps and severely damage the cable during winching. The first winch use should be a familiarisation run while in a relaxed, non-recovery situation. Spool out the cable until the red cable mark appears (about five wraps on the drum), then rewind the cable onto the drum under a load of 500lbs (230kg) or more. This will slightly tension and stretch the new cable and create a tight cable wrap around the drum. Failure to do so may result in cable damage and reduced cable life.

- When the cable is replacing, be sure to apply Loctite, or an equal compound, to the cable clamp thread. Tighten the clamp screw properly but do not overtighten. The loctite will prevent loosening of the screw in arduous conditions, Loctite 7471 Primer and 222 Theadlocker are recommended.

17. Do not attempt to exceed the pulling limits of your winch.

18. DO NOT drive your vehicle to assist the winch in any way. Vehicle movement in combination with winch operation may overload the cable, the winch itself or cause damaging shock loads.

19. Shock loads when winching are dangerous! A shock load occurs when an increased force is suddenly applied to the cable. A vehicle rolling back on a slack cable may induce a damaging shock load.

20. The winches shown in this manual are solely for vehicle and boat mounted, non-industrial applications.

21. Never move your winch by lifting the clutch handle, which will cause damage to clutch or injury to persons.

22. Do not use winch in hoisting applications due to required hoist safety factors and features.

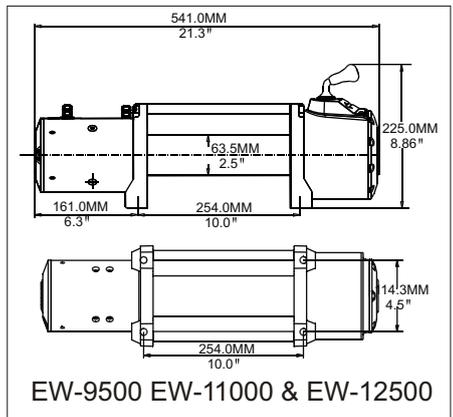
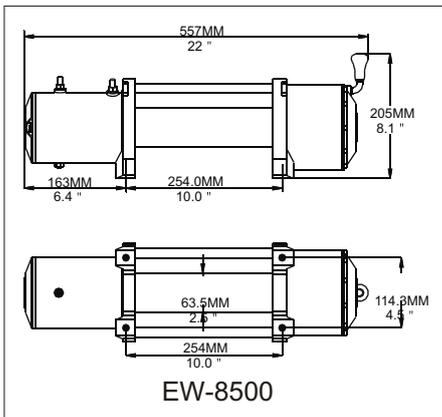
23. Do not use the winch to lift, support or otherwise transport personnel.

INSTALLATION

MOUNT YOUR WINCH

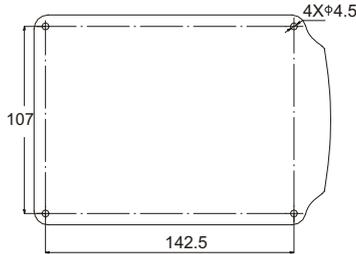
1. The winch is to be mounted into a suitable steel mounting frame using 4 point foot mounting system in either a horizontal or vertical direction.
2. It's very important that the winch be mounted on a flat surface so that the three sections (motor, cable drum and gear housing) are properly aligned.
3. Before commencing installation ensure the mounting facility being used is capable of withstanding the winches rated capacity.
4. The fitment of winches and / or a frontal protection system may affect the triggering of SRS air bags. Check that the mounting system has been tested and approved for winch fitment in the airbag equipped vehicle.
5. Should you wish to manufacture your own mounting plate the dimensions below will assist. A steel mount plate 6mm thick is recommended. Fasteners should be steel high tensile grade 5 or better. A poorly designed mount may cause great danger and void warranty.
6. The winch should be secured to the mounting with 3/8"UNCx1-1/4" stainless steel bolts and spring washers provided.
7. The roller fairlead is to be mounted so as to guide the rope onto the drum evenly.

The following are winch overall dimensions and mounting patterns for reference before the installation.



MOUNT INTEGRATED CONTROL BOX

There are 4 holes left on the Plate (P/N: 7329103.1-2 see the following Integrated Control Box Part List), Which can be connected with suitable bolts directly to a place on the vehicle you prefer; Or you may use a suitable frame to mount this Control Box on the winch Tie Bars. Mounting Pattern is as below.



The manufacturer offers one frame for Integrated Control Box with each winch but cannot ensure this frame be suitable for all conditions.

WARNING! The temperature of the Control Box will increase because of big current during your winching operation. Especially during extreme winch operation, the temperature may rise to a very high extent. Be sure not to mount the Control Box to any place where is not heat-resist and cannot radiate heat. Do not touch the Control Box by bare hands immediately after your winching operation. The high temperature will hurt your hands.

LUBRICATION INSTALLATION

All moving parts in the winch are permanently lubricated with high temperature lithium grease at the time of assembly. Under normal conditions factory lubrication will surface. Lubricate cable periodically using light penetrating oil. Inspect for broken strands and replace if necessary. If the cable becomes worn or damaged it must be replaced.

CABLE INSTALLATION

Unwind the new cable by rolling it along the ground, to prevent kinking. Remove old cable and observe the manner in which it is attached to the cable drum flange.

ELECTRICAL CONNECTION

Be sure to observe the following steps for a correct and safe electrical connection:

Step 1. Short Red cable with red sleeve(B') connecting to the red terminal (B) of winch motor.

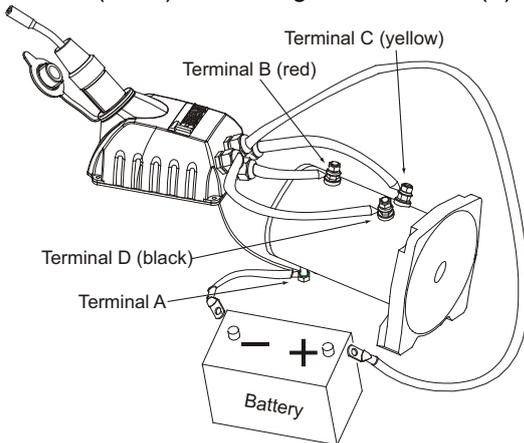
Step 2. Short black cable with yellow jacket(C') connecting to the yellow terminal (C) of winch motor.

Step 3. Short black cable with black jacket(D') connecting to the black terminal(D) of winch motor.

Step 4. Thin black cable (a') connecting to bottom Terminal (A) of winch motor.

Step 5. One end of the Long Black Cable (1.8m) to Terminal (A) of winch motor and the other end to the Negative (-) of the battery.

Step 6. Long red cable (1.8m) connecting to the Positive (+) of battery.



Warning: Never apply your winch to AC power.

WINCH OPERATION

SUGGESTION:

The best way to get acquainted with how your winch operates is to make a few test runs before you actually need to use it. Plan your test in advance. Remember you can hear your winch as well as you can see it operate. Get to recognize the sound of a light steady pull, a heavy pull, and sounds caused by load jerking or shifting. Soon you will gain confidence in operating your winch and its use will become second nature to you.

OPERATING:

1. Ensure the vehicle is secured by applying the parking brake or chocking the wheels
2. Pull out the winch cable the desired length and connect to an anchor point. The winch clutch allows rapid uncoiling of the cable for hooking onto the load or anchor point. The shifter tab located on the gear housing of the winch operates the clutch as follows:
 - a) To disengage the clutch, move the clutch shifter tab to the "OUT" position. Cable may be free spooled off the drum.
 - b) To engage the clutch, move the clutch shifter tab into the "IN" position. The winch is now ready for pulling.
3. Recheck all cable rigging before proceeding.
4. T-MAX Outback Series winch presents an extreme wireless multi-control.

1). Radio control: Put the plug into the Socket. Use the handheld controller and press button "IN" or "OUT" for wire rope in or out. The radio control system is exclusive to each winch. One same handheld controller cannot control another winch wirelessly.



2). Wire control:

Step1 Connect one end of the control cable to the interface of the handheld pendant ;

Step2 Another end to the interface of the plug, then put the plug into the socket, press button "IN" or "OUT" for wire rope in or out.

WARNING: Strictly obey the above steps for wire control and to avoid unintentionally working the radio control, which will cause serious dangers.

Radio Control Specifications:

Working Voltage	9V -- 12V
Frequency	433MHz
Power	10mW
Working Temperature	-20□□ -- + 60□□
Maximum Control Distance	30m

Precautions:

- 1) Within a distance of 200 meters, do not operate the winches with same frequency at the same time by Radio Control, for interference will happen among the radio signals with same frequency.
 - 2) In case that water enters into the Handheld Controller, get out of the battery inside and clean the circuit board with ethyl alcohol (density required $\square\square98\%$).
 - 3) After a certain period use, change a new battery into the Handheld Controller to ensure sufficient power to the radio control. Low voltage will result in shorter control distance
5. To commence winching operation, start vehicle engine, select neutral in transmission, maintain engine speed at idle.

WARNING: Never leave the plug connected to the socket when winch is not in use. The unintentional starting of the winch will cause serious dangers.

Note:

1. Never winch with your vehicle in gear or in park, which would damage your vehicle's transmission.
2. Never wrap the cable around the object and hook onto the cable itself. this can cause damage to the object being pulled, and kink or fray the cable.
3. Keep hands ,clothing, hair and jewellery clear of the drum area and cable when winching.
4. Never use the winch if the cable is frayed, kinked or damaged.
5. Never allow anyone to stand near the cable, or in line with the cable behind the winch while it is under power. if the cable should slip or brake, it can suddenly whip back towards the winch, causing a hazzard for anyone in the area. Always stand well to the side while winding.
6. Don't leave the switch plugged in when winch is not in use.

MAINTENANCE

It is highly recommended that the winch be used regularly (once a month). Simply power the cable out 15m, free spool 5m and then power back in. This will keep all components in good working condition so that the winch can be relied on when needed. Contact the authorized outlet for technical assistance and repairs.

SPARE PARTS:

A comprehensive range of spare parts is available. For further information please contact the Distributor on the end cover.

WINCHING CAPACITY

Pulling capacity is reduced as the incline increases. Recommended safe loads for various inclines are listed in the table below:

Rated Line Pull	10%	20%	40%	60%	80%	100%
1500lb	7538	5102	3233	2496	2134	1928
2000lb	10050	6803	6347	2816	2407	2175
2500lb	12563	8503	5388	4060	3556	3213
3500lb	17588	11905	7543	5824	4979	4499
6000lb	30151	20408	12931	9983	8535	7712
9500lb	47690	32300	20425	15770	13490	12160
10000lb	47739	32313	20474	15833	13515	12211
11000lb	55219	37399	23648	18259	15619	14079
12000lb	60240	40800	25800	19920	17040	15360
12500lb	62749	42499	26874	20737	17393	15990

Note:

1. This guide is recommended for average vehicle rolling loads. Some applications may require a larger winch than indicated.
2. The weight the winch could pull perpendicular to the ground with a single line on the first layer of cable on the drum.
3. A 10% grade is a rise of one metre in ten metre.
4. Winch is not intended as a load securing device.

NOTE:

The safety precautions and instructions discussed in this manual can't cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors, which cannot be built into this product, but must be applied by the operator.

FEATURES & SPECIFICATIONS

EW-8500 (12V /24V) FEATURES & SPECIFICATIONS

Rated Line Pull	8500LB (3852kg)	Single-line
Motor	5.5hp 12v Series Wound;6hp 24VSeries Wound	
Control	Wireless Multi-control	
Gear train	3-Stage Planetary	
Gear reduction ratio	172.8:1	
Clutch	Sliding Ring Gear	
Braking	Automatic In-The-Drum	
Drum size	Diameter 2.52" (64mm)Length 8.82"(224mm)	
Cable	94' 21/64" diameter(28.5m,8.2mm diameter)	
Fairlead	4-way roller fairlead	
Remote Control	Included	
Recommended Battery	650CCA minimum for winching	
Battery Leads	25mm ² , 72"(1.83m)	
Finish	Dark Gray	
Weight	80.5lbs(36.5kg)	
Overall dimensions	(LxWxH)22"x6.3"x8.1"(557x160x205mm)	
Mounting Bolt Pattern	10.00±0.015INx4.50±0.010IN(254x114.3mm)	

EW-8500 (12V /24V) LINE SPEED & AMP DRAW - FIRST LAYER

Line Pull	Lbs	Kgs	NO LOAD	2000	4000	6000	8000	8500
				906	1813	2719	3626	3852
Line Speed	ft/min	12v	37.20	18	13.76	10.71	8.61	7.56
		24v	46	22	18.9	15.12	11.03	9.98
	M/min	12v	11.34	5.49	4.19	3.26	2.62	2.30
		24v	14.02	6.71	5.76	4.61	3.36	3.04
Motor Current	amps	12v	70	190	250	315	395	405
		24v	45	90	135	157	192	205

EW-8500 (12V /24V) LINE PULL AND CABLE CAPACITY

Layer of cable		1	2	3	4
Rated line	Lbs	8500	7432	6730	6245
Pull per layer	Kgs	3852	3370	3050	2830
Cumulative	Ft	16	42	72	94
Cable capacity	m	5	12	21	28

EW-9500 (12V /24V) FEATURES & SPECIFICATIONS

Rated Line Pull	9500LB (4300kg)	Single-line
Motor	5.5hp 12v Series Wound;6hp24V Series Wound	
Control	Wireless Multi-control	
Gear train	3-Stage Planetary	
Gear reduction ratio	218:1	
Clutch	Sliding Ring Gear	
Braking	Automatic In-The-Drum	
Drum size	Diameter 2.52" (64mm)Length 8.82"(224mm)	
Cable	94' 21/64" diameter(28.5m,8.2mm diameter)	
Fairlead	4-way roller fairlead	
Remote Control	Included	
Recommended Battery	650CCA minimum for winching	
Battery Leads	25mm ² , 72"(1.83m)	
Finish	Dark Gray	
Weight	84lbs(38kg)	
Overall dimensions	(LxWxH)21.15"x6.3"x8.6"(537x160x218mm)	
Mounting Bolt Pattern	10.00+0.015INx4.50+0.010IN(254x114.3mm)	

EW-9500 (12V /24V) LINE SPEED & AMP DRAW - FIRST LAYER

Line Pull	Lbs Kgs	NO LOAD	2000	4000	6000	8000	9500	
			906	1813	2719	3626	4305	
Line Speed	ft/min	12v	29.5	14.4	12.1	10.1	9	7.5
		24v	41.7	20.5	15.4	14	12.1	10.2
	M/min	12v	8.99	4.39	3.69	3.08	2.74	2.29
		24v	12.71	6.25	4.69	4.27	3.69	3.11
Motor Current	amps	12v	70	170	235	300	365	405
		24v	50	90	120	140	175	200

EW-9500 (12V /24V) LINE PULL AND CABLE CAPACITY

Layer of cable		1	2	3	4
Rated line	Lbs	9500	8435	7640	7086
Pull per layer	Kgs	4305	3822	3460	3212
Cumulative	Ft	16	42	72	94
Cable capacity	m	5	12	21	28

EW-11000 (12V /24V) FEATURES & SPECIFICATIONS

Rated Line Pull	11000LB (4985kg)	Single-line
Motor	5.5hp 12v Series Wound;6hp 24VSeries Wound	
Control	Wireless Multi-control	
Gear train	3-Stage Planetary	
Gear reduction ratio	265:1	
Clutch	Sliding Ring Gear	
Braking	Automatic In-The-Drum	
Drum size	Diameter 2.52" (64mm)Length 8.82"(224mm)	
Cable	94' 23/64" diameter(28.5m,9.2mm diameter)	
Fairlead	4-way roller fairlead	
Remote Control	Included	
Recommended Battery	650CCA minimum for winching	
Battery Leads	25mm ² , 72"(1.83m)	
Finish	Dark Gray	
Weight	95lbs(43kg)	
Overall dimensions	(LxWxH)21.3"x6.3"x8.6"(541x160x218mm)	
Mounting Bolt Pattern	10.00±0.015INx4.50±0.010IN(254x114.3mm)	

EW-11000 (12V /24V) LINE SPEED & AMP DRAW - FIRST LAYER

Line Pull	Lbs	NO	2000	4000	6000	8000	10000	11000	
	Kgs	LOAD	906	1813	2719	3626	4532	4985	
Line Speed	ft/min	12v	26.20	13.80	12.45	10	7.40	6.80	6.50
		24v	32.58	17.30	14.30	11	9.80	8.70	8.30
	M/min	12v	7.99	4.21	3.80	3.05	2.26	2.07	1.98
		24v	9.93	5.27	4.36	3.35	2.99	2.65	2.53
Motor Current amps	12v	70	145	207	270	330	375	400	
	24v	45	85	115	140	165	190	205	

EW-11000 (12V /24V) LINE PULL AND CABLE CAPACITY

Layer of cable		1	2	3	4
Rated line	Lbs	11000	9500	8490	7800
Pull per layer	Kgs	4985	4305	3850	3535
Cumulative	Ft	16	42	72	94
Cable capacity	m	5	12	21	28

EW-12500 (12V /24V) FEATURES & SPECIFICATIONS

Rated Line Pull	12500LB (5665kg)	Single-line
Motor	5.5hp 12v Series Wound;6hp24VSeries Wound	
Control	Wireless Multi-control	
Gear train	3-Stage Planetary	
Gear reduction ratio	265:1	
Clutch	Sliding Ring Gear	
Braking	Automatic In-The-Drum	
Drum size	Diameter 2.52"(64mm) Length 8.82"(224mm)	
Cable	94' 3/8" diameter(28.5m,9.5mm diameter)	
Fairlead	4-way roller fairlead	
Remote Control	Included	
Recommended Battery	650CCA minimum for winching	
Battery Leads	25mm ² , 72"(1.83m)	
Finish	Dark Gray	
Weight	95lbs(43kg)	
Overall dimensions	(LxWxH)21.3"x6.3"x8.6"(541x160x218mm)	
Mounting Bolt Pattern	10.00±0.015INx4.50±0.010IN(254x114.3mm)	

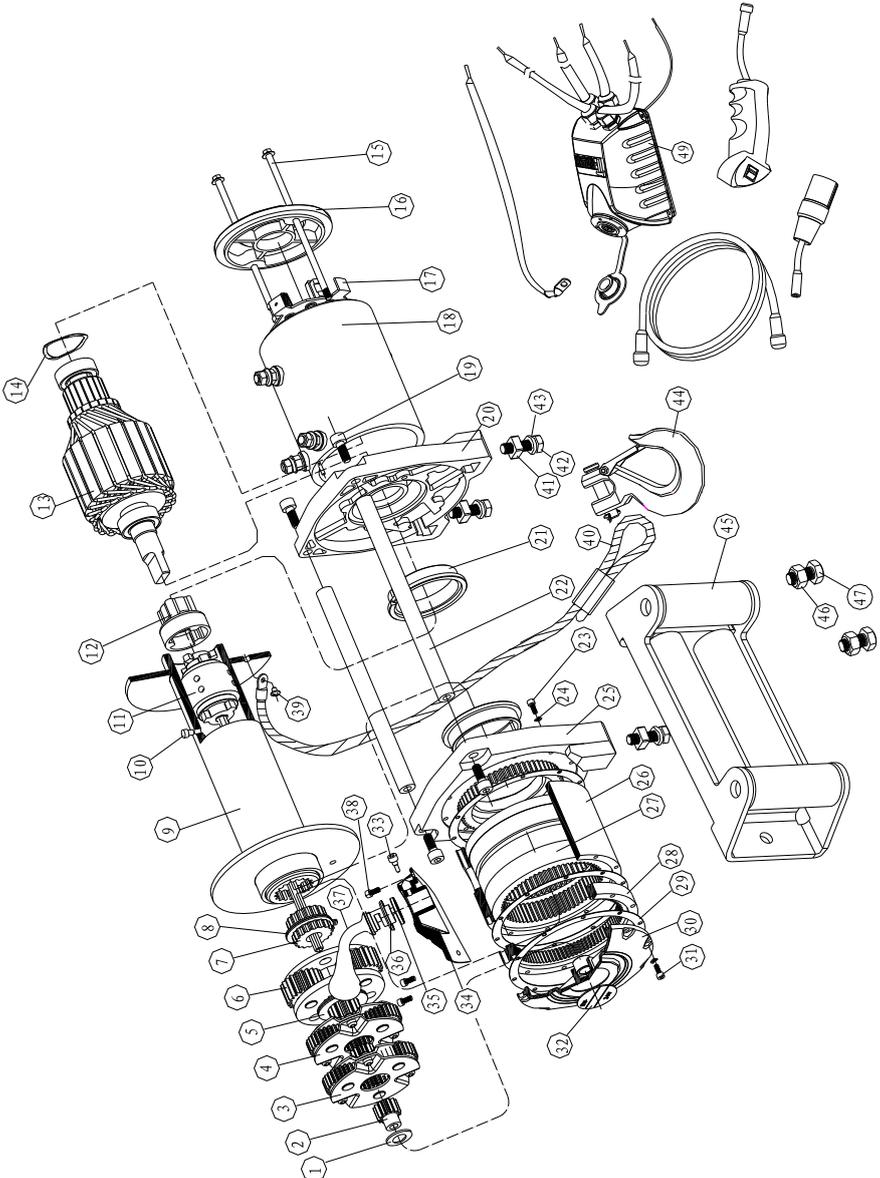
EW-12500 (12V /24V) LINE SPEED & AMP DRAW - FIRST LAYER

Line Pull	Lbs	NO	2000	4000	6000	8000	10000	12000	12500	
	Kgs	LOAD	906	1813	2719	3626	4532	5438	5665	
Line Speed	Ft/min	12v	23.50	12.60	10.30	8.90	7.50	6.50	5.25	4.50
		24v	26.40	15.10	13.25	11.20	10	8.60	7.50	7.10
	M/min	12v	7.16	3.84	3.14	2.71	2.29	1.98	1.60	1.37
		24v	8.05	4.60	4.04	3.41	3.05	2.62	2.29	2.16
Motor Current amps	12v	70	125	165	215	270	330	390	405	
	24v	45	85	105	135	155	185	210	215	

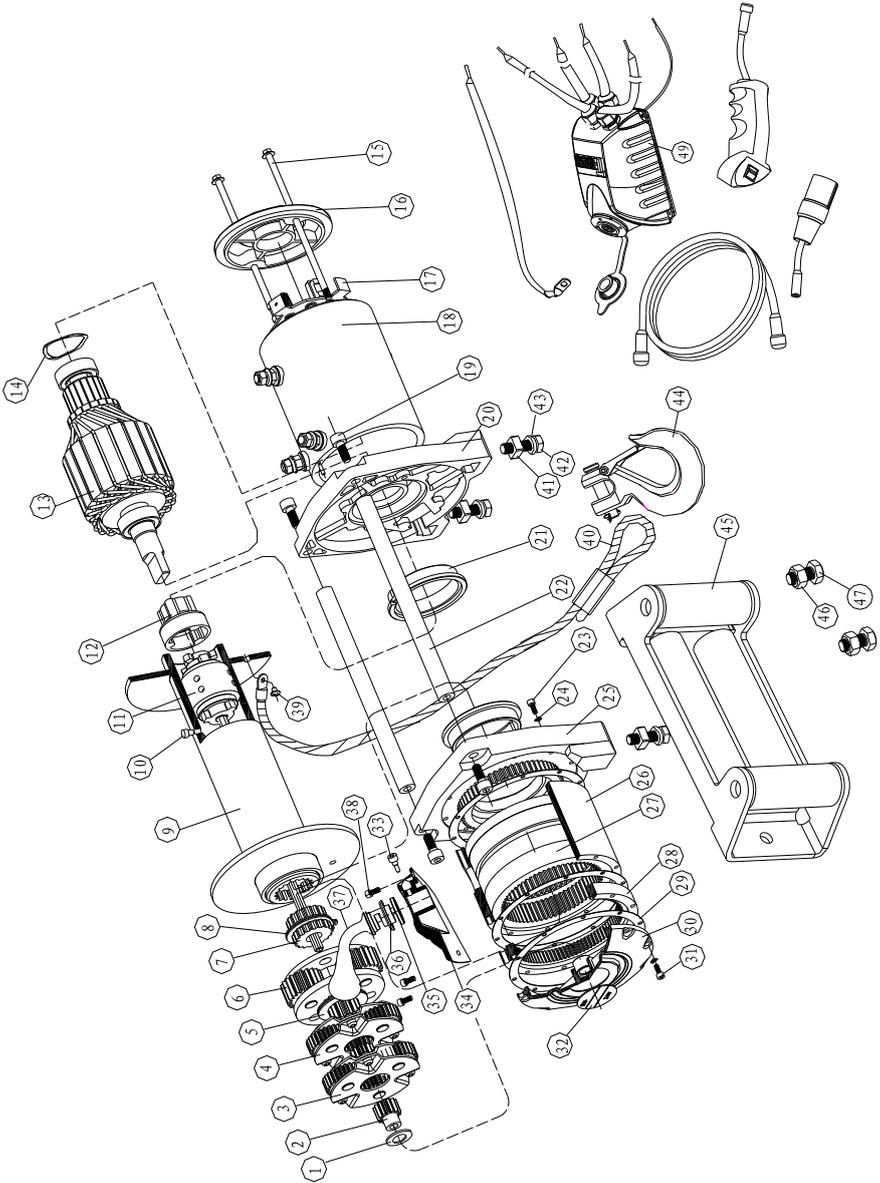
EW-12500 (12V /24V) LINE PULL AND CABLE CAPACITY

Layer of cable		1	2	3	4
Rated line	Lbs	12500	10700	9575	8800
Pull per layer	Kgs	5665	4850	4340	3790
Cumulative	Ft	16	42	72	94
Cable capacity	m	5	12	21	28

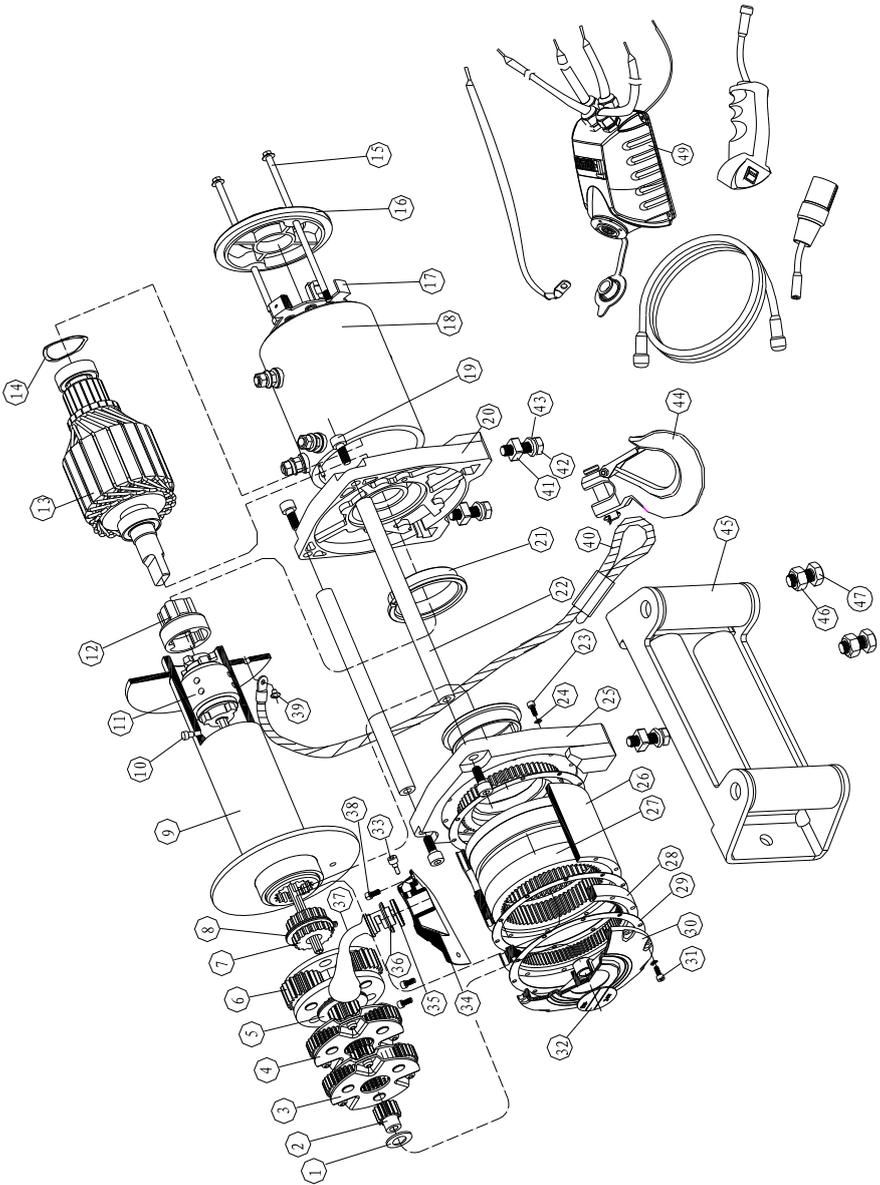
EW-9500 WINCH EXPLODED VIEW



EW-11000 WINCH EXPLODED VIEW



EW-12500 WINCH EXPLODED VIEW





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