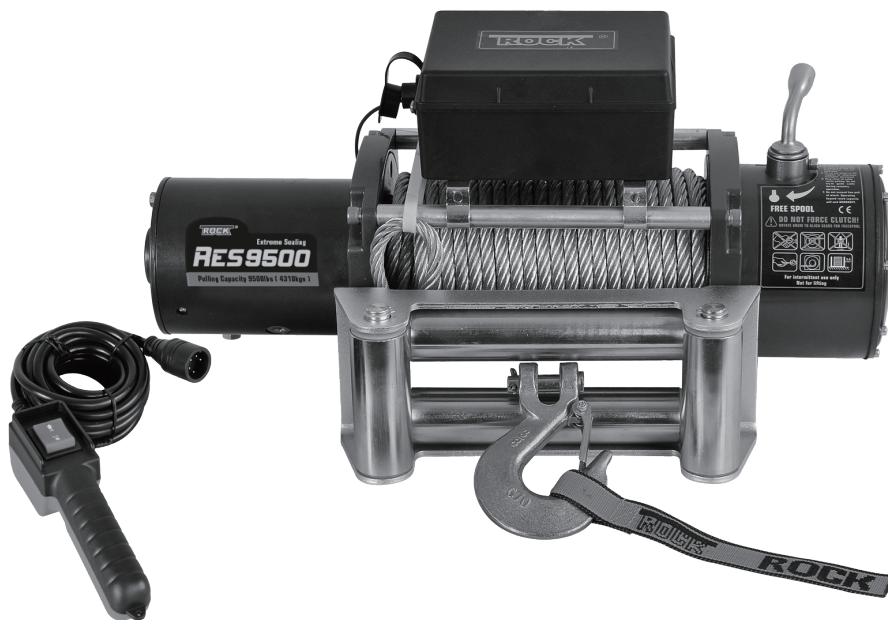


# ROCK<sup>®</sup>

## Electric Winch Installation & Operation Manual



ISO/TS16949:2009

**TO PREVENT SERIOUS INJURY,  
READ AND UNDERSTAND ALL WARNINGS  
AND INSTRUCTIONS BEFORE USE.**

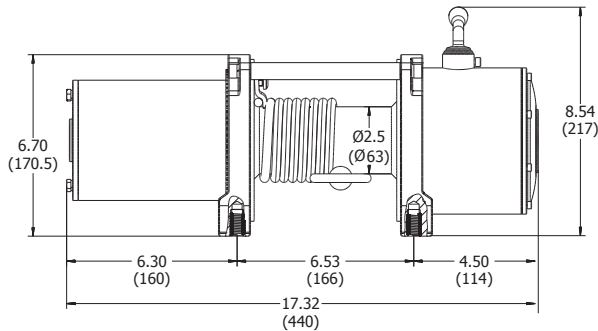
Due to continuing improvements, actual product may differ slightly from the product described herein.





# EXTREME SEALING WINCHES SERIES

## RES6000



### Specifications:

Rated line pull ----- 6000lbs(2720kgs)single line  
 Motor(series wound) ----- 12V DC, 3.7Hp(2.7kw)  
 Gear Ratio ----- 210:1  
 Gear train ----- 3-stage planetary  
 Drum ----- Ø2.5"x4.88"(63mm×124mm)  
 Rope supplied ----- Aircraft steel cable,  
 Ø9/32"×80'(Ø7.14mm× 24m)  
 Hook ----- 5/16"  
 Winch dimension ----- 17.32"×6.34"×8.54"  
 (440mm×161mm×217mm)  
 Mounting bolt pattern ----- 6.54"×4.5"(166mm ×114.3mm)

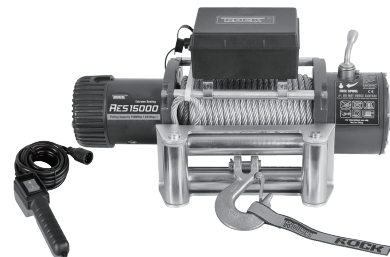
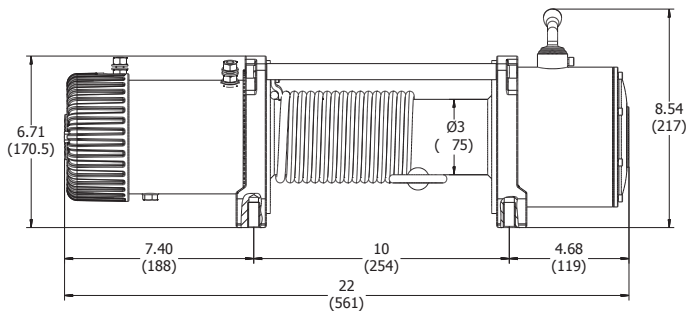
### Line Pull by Layer

Cable Layer	Rated Line Pull	
	Lbs	Kgs
1	6000	2724
2	4985	2263
3	4264	1936
4	3725	1691
5	3307	1501

### Performance of 1st layer

Line Pull		Line Speed		Motor Current
Lbs	Kgs	Fpm	Mpm	Amp
0	0	19.5	6.0	80
1500	680	15.8	4.8	125
3000	1360	13.6	4.1	160
4500	2040	10.4	3.2	205
6000	2720	9.0	2.7	220

## RES15000



### Specifications:

Rated line pull: 15000lbs(6810kgs)  
 Motor(series wound): 12V DC input power  
 6.8Hp(5kw)  
 24V DC input power  
 6.8Hp(5kw)  
 Gear Ratio: 294:1  
 Gear train: 3-stage planetary  
 Drum: Ø3"x8.35"(Ø75mmx212mm)  
 hardened  
 Rope supplied: Aircraft steel cable  
 Ø25/64"x80'(Ø10mmx24m)  
 Hook: 7/16"  
 Winch dimension: 22"x6.3"x8.54"  
 (561mmx160mmx217mm)  
 Mounting bolt pattern: 10"x4.5"  
 (254mmx114.3mm)

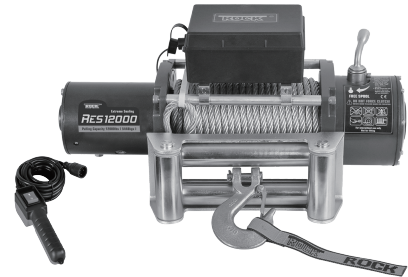
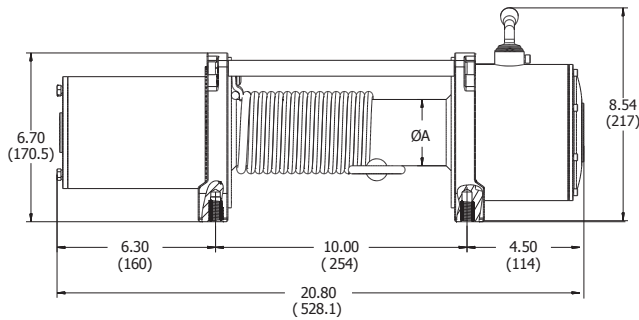
### Line pull by layer

Cable Layer	Rated Line Pull	
	Lbs	Kgs
1	15000	6810
2	11944	5423
3	9923	4505
4	8487	3853
5	7414	3366

### Performance of 1st layer

Line Pull		Line Speed				Motor Current	
Lbs	Kgs	12V		24V		12V	24V
		Fpm	Mpm	Fpm	Mpm	Amp	Amp
0	0	16.7	5	22.3	6.8	120	75
4000	1810	12	3.7	16	4.9	202	130
6000	2720	10.5	3.2	13.5	4.1	225	155
8000	3630	9.2	2.8	12.1	3.7	250	177
10000	4540	7.9	2.4	12.1	3.2	310	210
12000	5440	6.6	2	9.8	3	355	243
15000	6800	5.9	1.8	8.2	2.5	420	275

# RES8000/RES9500/RES12000



## RES8000

### Specifications:

Rated line pull: 8000lbs(3629kgs) single line  
 Motor(series wound): 12 VDC input power,4.9hp(3.6kw),  
 24V available

Gear Ratio: 210:1  
 Gear train: 3-stage planetary  
 Drum: Ø2.64"x8.35"(67mmx212mm)  
 Rope supplied: Aircraft steel cable Ø21/64"X92' (Ø8.3mmx28m)  
 Synthetic rope Ø21/64"x92' (Ø8.3mmx28m)  
 Hook: 3/8"  
 Winch dimension: 20.8"x6.35"x8.54" (528mmx161mmx217mm)  
 Mounting bolt pattern: 10"x4.5" (254mmx114.3mm)

### Line pull by layer Performance of 1st layer

Cable Layer	Rated Line Pull		Line Pull				Line Speed		Motor Current
	Lbs	Kgs	Lbs	Kgs	Fpm	Mpm	Amp		
1	8000	3629	0	0	21.0	6.4	86		
2	6000	2720	2000	910	11.0	3.4	150		
3	5200	2360	4000	1810	8.8	5.5	205		
4	4400	2000	6000	2720	7.5	2.3	235		
			8000	3630	6.0	1.8	252		

## RES9500

### Specifications:

Rated line pull: 9500lbs(4310kgs)  
 Motor(series wound): 12 VDC input power,4.9hp(3.6kw),  
 24V available

Gear Ratio: 210:1  
 Gear train: 3-stage planetary  
 Drum: Ø2.5"x8.35"(Ø63mmx212mm),hardened  
 Rope supplied: Aircraft steel cable Ø21/64"X92' (Ø8.3mmx28m)  
 Synthetic rope Ø21/64"x92' (Ø8.3mmx28m)  
 Hook: 3/8"  
 Winch dimension: 20.8"x6.35"x8.54" (528mmx161mmx217mm)  
 Mounting bolt pattern: 10"x4.5" (254mmx114.3mm)

### Line pull by layer Performance of 1st layer

Cable Layer	Rated Line Pull		Line Pull				Line Speed		Motor Current
	Lbs	Kgs	Lbs	Kgs	Fpm	Mpm	Amp		
1	9500	4310	0	0	21.0	6.4	86		
2	7374	3348	2000	910	11.0	3.4	150		
3	6246	2836	4000	1810	8.8	5.5	205		
4	5417	2459	6000	2720	7.5	2.3	235		
5	4783	2171	8000	3630	6.0	1.8	252		
			9500	4310	6.2	1.7	300		

## RES12000

### Specifications:

Rated line pull: 12000lbs(5445kgs)  
 Motor(series wound): 12V DC input power  
 4.9hp(3.6kw)  
 24V DC input power  
 4.9hp(3.6kw)

Gear Ratio: 294:1  
 Gear train: 3-stage planetary  
 Drum: Ø2.64"x8.35"(Ø67mmx212mm),hardened  
 Rope supplied: Aircraft steel cable Ø3/8"X92'  
 (Ø9.5mmx28m)  
 Synthetic rope Ø3/8"x92'  
 (Ø9.5mmx28m)

Hook: 3/8"  
 Winch dimension: 20.8"x6.35"x7.86"  
 (528mmx161mmx200mm)  
 Mounting bolt pattern: 10"x4.5"  
 (254mmx114.3mm)

### Line pull by layer

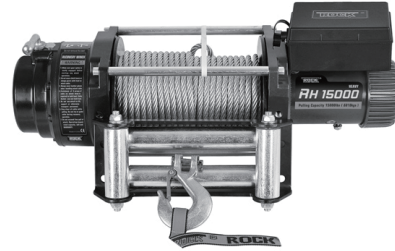
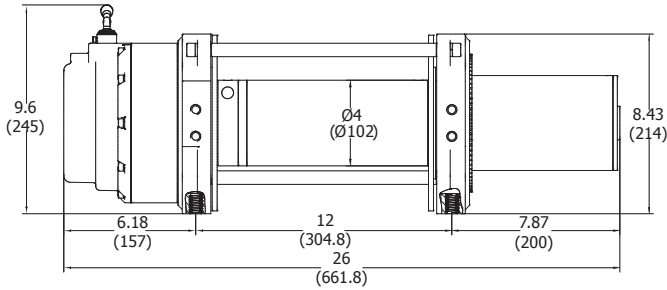
Cable Layer	Rated Line Pull	
	Lbs	Kgs
1	12000	5448
2	9607	4362
3	8010	3637
4	6868	3118
5	6011	2729

### Performance of 1st layer

Line Pull		Line Speed				Motor Current	
		12V		24V			
Lbs	Kgs	Fpm	Mpm	Fpm	Mpm	Amp	Amp
0	0	16.4	5.0	19.7	6.0	85	55
4000	1810	8.8	2.7	16.0	4.9	160	93
6000	2720	7.5	2.3	13.0	4.0	191	120
8000	3630	6.7	2.0	11.5	3.5	235	165
10000	4540	5.6	1.7	9.8	3.0	270	196
12000	5440	4.9	1.5	8.2	2.5	300	220

# HEAVY DUTY WINCHES SERIES

## RH15000/RH18000



### RH15000

#### Specifications:

Rated line pull: 15000lbs(6800kgs)  
 Motor(series wound): 12 VDC input power  
 7.35hp(5.4kw)  
 24 VDC input power  
 7.35hp(5.4kw)  
 Gear Ratio: 315:1  
 Gear train: 3-stage planetary  
 Drum: Ø4"x10"(Ø102mmx254mm)  
 Rope supplied: Aircraft steel cable Ø1/2"x75'  
 (Ø12.7mmx22m)  
 Hook: 7/16"  
 Winch dimension: 26"x8.5"x9.6"  
 (662mmx214mmx245mm)  
 Mounting bolt pattern: 12"x4.5"  
 (304.8mmx114.3mm)

#### Line pull by layer

Cable Layer	Rated Line Pull	
	Lbs	Kgs
1	15000	6804
2	12549	5692
3	10786	4893
4	9457	4290

#### Performance of 1st layer

Line Pull		Line Speed				Motor Current	
		12V		24V			
Lbs	Kgs	Fpm	Mpm	Fpm	Mpm	Amp	Amp
0	0	24.6	7.5	28.0	8.5	70	26
3000	1360	10.8	3.3	13.1	4.0	180	89
6000	2720	9.2	2.8	11.8	3.6	250	160
9000	4080	5.9	1.8	7.8	2.4	310	187
12000	5440	3.9	1.2	5.8	1.7	400	200
15000	6800	2.6	0.8	4.6	1.4	450	223

### RH18000

#### Specifications:

Rated line pull: 18000lbs(8172kgs)  
 Motor(series wound): 12 VDC input power  
 7.7hp(5.6kw)  
 24 VDC input power  
 7.7hp(5.6kw)  
 Gear Ratio: 315:1  
 Gear train: 3-stage planetary  
 Drum: Ø4"x10"(Ø102mmx254mm)  
 Rope supplied: Aircraft steel cable Ø1/2"x75'  
 (Ø12.7mmx22m)  
 Hook: 1/2"  
 Winch dimension: 26"x8.5"x9.6"  
 (662mmx214mmx245mm)  
 Mounting bolt pattern: 12"x4.5"  
 (304.8mmx114.3mm)

#### Line pull by layer

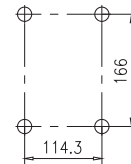
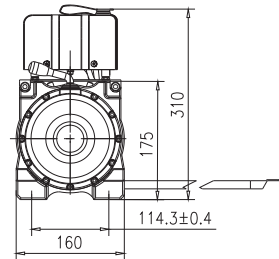
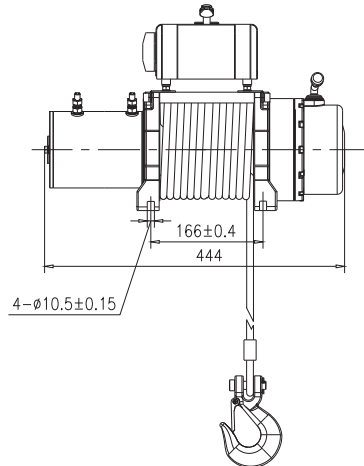
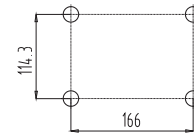
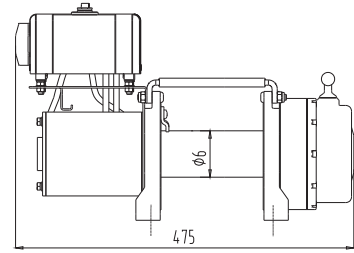
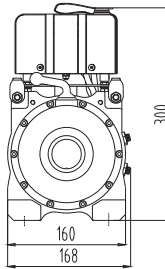
Cable Layer	Rated Line Pull	
	Lbs	Kgs
1	18000	8165
2	14727	6680
3	12462	5653
4	10800	4898

#### Performance of 1st layer

Line Pull		Line Speed				Motor Current	
		12V		24V			
Lbs	Kgs	Fpm	Mpm	Fpm	Mpm	Amp	Amp
0	0	23.6	7.2	27.9	8.5	68	25
6000	2720	10.2	3.1	12.5	3.8	235	150
8000	3630	9.2	2.8	7.5	2.3	282	176
10000	4540	4.9	1.5	6.9	2.1	310	185
12000	5440	3.9	1.2	5.9	1.8	378	198
15000	6800	3.3	1	4.6	1.4	420	213
18000	8170	2.6	0.8	3.6	1.1	469	233

# CLASSIC WINCHES SERIES

## RS6000C/RS6000i



### Performance of 1st layer

Line Pull		Line Speed		Motor Current
Lbs	Kgs	Fpm	Mpm	Amp
0	0	15	4.6	30
1000	454	11.5	3.5	80
3000	1361	9	2.7	120
5000	2268	7	2	170
6000	2722	4.9	1.5	210

### Line Pull & Cable Capacity by Layer

Cable Layer	Rated Line Pull		Cable Capacity	
	Lbs	Kgs	Ft	Meters
1	6000	2722	12.7	3.9
2	5000	2268	27.5	8.4
3	4250	1928	44	13.4
4	3720	1687	64	19.5
5	3300	1497	85	26

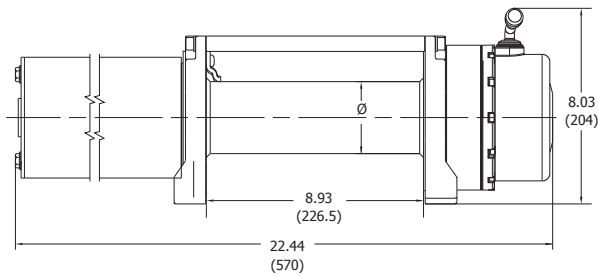
### Specifications:

#### RS6000C

#### RS6000i

Rated line pull (Single line)	6000lbs(2724kgs)	6000lbs ( 2724 kgs)
Gear Reduction ratio	212:1	
Motor(series wound)	12 volt ,3.6hp(2.7Kw)	
Drum size	Ø 2.5"× 5.51"(Ø63mm×140mm)	
Drum Flange	Ø151	
Cable supplied	9/32" ×78'(7.14mm×24m)	
Aircraft cable (min. break force 8200lbs)		
Hook	5/16"	
Overall dimension	18.7" × 6.6"× 11.8" (475mm×168mm ×300mm)	17.5"×6.3"×12.2" (444mm×160mm ×310mm)
Net weight	72lb (33kg)	
Mounting bolt pattern	6.535" ×4.5" (166mm × 114.3mm)	

# RS15000C/RS15000i/RS12000C/RS12000i/RS10000C



## RS15000C/RS15000i

### Specifications:

Rated line pull: 15000lbs(6800kgs)single line  
 Motor(series wound): 12V DC input power:6.9hp(5kw)  
 Gear Ratio: 295.75:1  
 Gear train: 3-stage planetary  
 Drum: Ø3"x9"(Ø75mmx228mm)  
 Rope supplied: Ø25/64"x80'(Ø10mmx24m)  
     Aircraft steel cable  
     for RS15000C, RS15000i  
     Ø25/64"x80'(Ø10mmx24m)  
     Synthetic rope  
     for RS15000Csr, RS15000isr  
 Fairlead: Roller Fairlead for RS15000C, RS15000i  
     Aluminum Hawse Fairlead  
     for RS15000Csr, RS15000isr  
 Hook: 7/16"  
 Mounting bolt pattern: 10"x4.5"(254mmx114.3mm)

### Line Pull by Layer

Cable Layer	Rated Line Pull	
	Lbs	Kgs
1	15000	6810
2	11944	5423
3	9923	4505
4	8487	3853
5	7414	3366

### Performance of 1st layer

Line Pull		Line Speed				Motor Current	
		12V		24V		12V	24V
Lbs	Kgs	Fpm	Mpm	Fpm	Mpm	Amp	Amp
0	0	15.7	4.8	21	6.5	115	70
5000	2270	9.8	3.0	14	4.3	215	140
8000	3630	8.8	2.7	11.5	3.5	250	170
10000	4540	7.2	2.2	10.2	3.1	310	205
12000	5445	6.6	2.0	9.2	2.8	350	232
15000	6800	5.9	1.8	8.2	2.5	420	268

## RS12000C/RS12000i

### Specifications:

Rated line pull: 12000lbs(5440kgs)single line  
 Motor(series wound): 12V DC input power: 5.4Hp(4.0Kw)  
     24V DC available  
 Gear Ratio: 295.75:1  
 Gear train: 3-stage planetary  
 Drum: Ø2.64"x9"(Ø67mmx228mm)hardened  
 Rope supplied: Ø3/8"X92'(Ø9.5mmx28m)  
     Aircraft steel cable  
     for RS12000C, RS12000i  
     Ø3/8"X92'(Ø9.5mmx28m)  
     Synthetic rope  
     for RS12000Csr, RS12000isr  
 Fairlead: Roller Fairlead for RS12000C, RS12000i  
     Aluminum Hawse Fairlead  
     for RS12000Csr, RS12000isr  
 Hook: 3/8"  
 Mounting bolt pattern: 10"x4.5"(254mmx114.3mm)

### Line Pull by Layer

Cable Layer	Rated Line Pull	
	Lbs	Kgs
1	12000	5448
2	10200	4631
3	8400	3814
4	7300	3314
5	6500	2950

### Performance of 1st layer

Line Pull		Line Speed				Motor Current	
		12V		24V		12V	24V
Lbs	Kgs	Fpm	Mpm	Fpm	Mpm	Amp	Amp
0	0	14	4.2	16.8	5.1	90	68
4000	1815	9.2	2.8	11.3	3.5	190	140
6000	2720	7.9	2.4	9.5	2.9	230	165
8000	3630	6.9	2.1	8.4	2.5	260	190
10000	4540	6.5	2.0	7.8	2.4	300	220
12000	5440	5.9	1.8	7.0	2.2	330	245

## RS10000C

### Specifications:

Rated line pull: 10000lbs(4536kgs)single line  
 Motor(series wound): 12V DC input power:5.7Hp(4.2Kw)  
     24V DC input power:5.7Hp(4.2Kw)  
 Gear Ratio: 295.75:1  
 Gear train: 3-stage planetary  
 Drum: Ø3"x9"(75x228mm)  
 Rope supplied: Aircraft steel cable Ø3/8"X88'  
     (Ø9.4mmx27m)  
 Fairlead: Roller fairlead  
 Hook: 3/8"  
 Winch dimension: 22.4"x8.7"x8.4"(569x221x213mm)  
 Mounting bolt pattern: 10"x4.5"(254x114.3mm)

### Line Pull Layer

Cable Layer	Rated Line Pull	
	Lbs	Kgs
1	10000	4540
2	8006	3635
3	6675	3030
4	5724	2599
5	5009	2274

### Performance of 1st layer

Line Pull		Line Speed				Motor Current	
		12V		24V		12V	24V
Lbs	Kgs	Fpm	Mpm	Fpm	Mpm	Amp	Amp
0	0	16.4	5.0	19.4	5.9	110	50
2000	910	14.1	4.3	15.7	4.8	151	106
4000	1810	10.5	3.2	11.8	3.6	200	126
6000	2720	9.2	2.8	10.5	3.2	250	152
8000	3630	7.9	2.4	9.2	2.8	290	158
10000	4536	6.6	2.0	8.9	2.7	340	179

# RS9500C/RS9500i/RS8000C/RS8000F/RS12000F

## RS9500C/RS9500i

### Specifications:

Rated line pull: 9500lbs(4310kgs)single line  
 Motor(series wound): 2V DC input power: 5.7Hp(4.2Kw)  
 24V available

Gear Ratio: 212:1  
 Gear train: 3-stage planetary  
 Drum: Ø2.64"x9"(Ø67mmx228mm),hardened  
 Rope supplied: Ø3/8"x100"(Ø9.5mmx30.5m)  
 Aircraft steel cable for RS9500C  
 Ø3/8"x92"(Ø9.5mmx28m)  
 synthetic rope for RS9500Csr

Fairlead: Roller fairlead for RS9500C  
 Aluminum hawse fairlead for RS9500Csr

Hook: 3/8"  
 Winch dimension: 22.44"x6.3"x11"  
 (570mmx160mmx204mm)

Mounting bolt pattern: 10"x4.5"(254mmx114.3mm)  
 Net weight: 94.8lbs( 43kgs)

### Line Pull Layer

Cable Layer	Rated Line Pull	
	Lbs	Kgs
1	9500	4309
2	7500	3402
3	6200	2812
4	5300	2404
5	4630	2100

### Performance of 1st layer

Line Pull		Line Speed		Motor Current
Lbs	Kgs	Fpm	Mpm	Amp
0	0	19	5.8	110
4000	1815	12.5	3.8	210
6000	2720	10.5	3.2	260
8000	3630	8.6	2.6	300
9500	4310	7.9	2.4	350

## RS8000C

### Specifications:

Rated line pull: 8000lbs(3629kgs)  
 Motor : 12 VDC series wound 4.8 hp  
 Gear Ratio: 152:1

Gear train: 3-stage planetary  
 Drum: Ø2.5"x9"(Ø63mmx228mm) hardened  
 Rope supplied: Aircraft steel cable Ø5/16"x92'  
 (Ø8mmx28m)

Hook: 5/16"  
 Winch dimension: 22.44"x6.5"x8.03"  
 (570mmx166mmx204mm)

Mounting bolt pattern: 10"x4.5"(254mmx114.3mm)

### Line pull by layer

Cable Layer	Rated Line Pull	
	Lbs	Kgs
1	8000	3629
2	6336	2874
3	5243	2378
4	4473	2029
5	3190	1447

### Performance of 1st layer

Line Pull		Line Speed		Motor Current
Lbs	Kgs	Fpm	Mpm	Amp
0	0			
4000	1816	11.8	3.6	75
6000	2722	7.5	2.3	170
8000	3632	5.9	1.8	215
		10.8	1.6	270

## RS8000F (Fast speed)

### Specifications:

Rated line pull: 8000lbs(3629kgs)  
 Motor(series wound): 12 VDC input power: 4.8 hp  
 Gear Ratio: 152:1

Gear train: 3-stage planetary  
 Drum: Ø2.5"x9"(63x228mm),hardened  
 Rope supplied: Aircraft steel cable Ø5/16"x92'  
 (Ø8mmx28m)

Fairlead: Roller fairlead  
 Hook: 5/16"  
 Winch dimension: 22.44"x6.5"x8.03"  
 (570mmx166mmx204mm)

Mounting bolt pattern: 10"x4.5"(254x114.3mm)

### Line pull by layer

Cable Layer	Rated Line Pull	
	Lbs	Kgs
1	8000	3629
2	6336	2874
3	5243	2378
4	4473	2029
5	3190	1447

### Performance of 1st layer

Line Pull		Line Speed		Motor Current
Lbs	Kgs	Fpm	Mpm	Amp
0	0	26	7.9	95
2000	907	20	6	175
4000	1814	14	4.3	240
6000	2722	12	3.8	295
8000	3629	10.8	3.3	370

## RS12000F (Fast speed)

### Specifications:

Rated line pull: 12000lbs(5445kgs)  
 Motor(series wound): 12V DC input power:  
 7.3hp(5.4kw)  
 24V DC input power:  
 11hp(8kw)

Gear Ratio: 12V 212:1 24V 152:1  
 Gear train: 3-stage planetary  
 Drum: Ø3"x9"(Ø67mmx228mm),hardened  
 Rope supplied: Aircraft steel cable Ø3/8"x92'  
 (Ø9.5mmx28m)

Fairlead: Roller fairlead  
 Hook: 3/8"  
 Winch dimension: 21.6"x6.6"x11.8"  
 (548X167X228mm)  
 Mounting bolt pattern: 10"x4.5"(254x114.3mm)

### Line Pull by Layer

Cable Layer	Rated Line Pull	
	Lbs	Kgs
1	12000	5448
2	9607	4362
3	8010	3637
4	6868	3118
5	6011	2729

### Performance of 1st layer

Line Pull		Line Speed				Motor Current	
Lbs	Kgs	12V		24V		12V	24V
		Fpm	Mpm	Fpm	Mpm	Amp	Amp
0	0	29.5	9.0	39	11.8	95	74
5000	2270	20.7	6.3	19	5.8	280	217
8000	3630	11.8	3.6	16	4.9	330	256
10000	4540	9.2	2.8	14.4	4.4	380	295
12000	5445	6.6	2.0	12.8	3.9	440	337



## UNPACKING

When unpacking, check to make sure all parts are included. Refer to Assembly Drawings and Parts Lists behind. If any part is missing or broken, please call your local distributor where you bought the winch from as soon as possible.

## Safety Warnings & Precautions

**When using this winch, safety precautions should always be followed to reduce the risk of personal injury and damage to the winch.**

### **LEARN TO USE THIS WINCH:**

After winch has been installed, take some time and practice using it so you will be familiar with ALL OPERATIONS. Periodically check the winch installation to ensure that all bolts are tight. To ensure proper operation, carefully inspect for any damaged parts before operating the winch. Any damaged part should be properly repaired or replaced by identical parts by a qualified technician.

### **KEEP WINCHING AREA CLEAR:**

Do not allow people to remain in the area during winching operations. Do not step over a taut wire rope or allow anyone else to do so. Due to the possibility of a cable breaking, direct all persons to stand clear of any possible pathways. A snap cable could cause winch failure, injury or death. Keep proper footing and balance at all times. Do not reach over or across the winch and/or pulling cable while the winch is in operation.

### **INSPECT WIRE ROPE AND EQUIPMENT FREQUENTLY:**

The wire rope should be inspected for damages that can reduce its breaking strength. A frayed rope with broken strands should be replaced immediately. Always replace the rope with a rope that is rated to sustain any load that winch is capable of pulling. Any substitute must be **IDENTICAL** in strength, quality, lay and stranding to the ROCK cable originally supplied.

### **WORKING AREA CONDITIONS:**

Keep the working area well lit. Do not use this winch in the presence of flammable gases or liquids.

### **KEEP CHILDREN AWAY:**

Keep children away from working area, Never let children operate the winch.

### **USE LEATHER GLOVES:**

When handling or rewinding wire rope, always use hand protection to eliminate the possibility of cuts caused by burrs & slivers from broken strands.

### **DRUM ROPE:**

Always make sure that there are at least 5 complete turns of rope left on the drum before winching.

### **KEEP HANDS AND FINGERS CLEAR OF WIRE ROPE AND HOOK WHEN OPERATING WINCH:**

Never put your finger through the hook when reeling in the last few feet. If your finger gets trapped in the hook or rope, you could lose it. Never guide a wire rope under tension onto the drum with your hand.

### **NEVER HOOK THE ROPE BACK ONTO ITSELF:**

Hooking the rope back onto itself creates an unacceptable strain, breaking individual strands, which in turn weakens the entire wire rope.

**KEEP PULLING DURATIONS AS SHORT AS POSSIBLE:**

The winch is designed for intermittent use and cannot be used in constant duty applications. Do not pull more than one minute at or near rated load. If the motor becomes too hot to touch, stop and let it cool off for a few minutes. If the motor stalls, cut off the power immediately.

**DO NOT OVERLOAD:**

Always use this winch at its rated capacity for your safety and for better performance. Do not use inappropriate attachments in an attempt to exceed its rated capacity.

**AVOID CONTINUOUS PULLS FROM EXTREME ANGLES:**

This will cause the rope to pile up at one end of the drum. When feasible, get the rope as straight as possible to the direction of the object.

**NEVER OPERATE THE WINCH WITHOUT THE ROPE FAIRLEAD FITTED:**

Operator injury or winch damage can result if a fairlead is not installed.

**STAY ALERT:**

Watch what you are doing. Use your common sense. Do not use this winch when you are tired, stressed or **WHEN UNDER THE INFLUENCE OF DRUGS, ALCOHOL OR MEDICATION.**

**DISCONNECT SWITCH:**

Unplug switch when not in use.

**REPLACEMENT PARTS & ACCESSORIES:**

When servicing, use only identical replacement parts. Use of any other parts will void the warranty.

## Winch Warnings & Precautions

- 1) Keep hands and body away from Fairlead (cable intake slot) when operating.
- 2) Secure vehicle in position before using winch.
- 3) Do not exceed winch load weight capacity (see specifications on Page 1-6).
- 4) Make sure the winch is properly bolted to a structure(or vehicle) that can hold the winch load.
- 5) Always use proper couplings when connecting winch cable hook to load.
- 6) Do not lift items vertically. The winch was designed for horizontal use only.
- 7) Do not use inappropriate attachments to extend the length of the winch cable.
- 8) Never lift people or hoist loads over people.
- 9) Never come in between the winch and the load when operating.
- 10) Do not apply load to winch when cable is fully extended.Keep at least 5 full turns of cable on the reel.
- 11) After moving an item with the winch, secure the item. Do not rely on the winch to hold it for an extended period.
- 12) Examine winch before using. Components may be affected by exposure to everyday weathering chemicals, salts, and rust. Replace any parts needed before using winch.
- 13) It is recommended to lay a heavy blanket or jacket over the rope about halfway along to hook attachment. If a rope failure should occur, the weight of the blanket or jacket will act as a damper and help preventing the broken rope from whipping(see Fig.1).
- 14) Never operate winch if cable shows any signs of weakening, knotted or kinked.
- 15) Winch does not have a locking mechanism. Secure load after moving.
- 16) Do not cross over or under the cable while it is in process of loading.
- 17) Do not move vehicle with cable extended and attached to load to pull it.The cable could snap.
- 18) Apply blocks (such as a wheel chock) to vehicle when parked on an incline.
- 19) Re-spool cable properly.

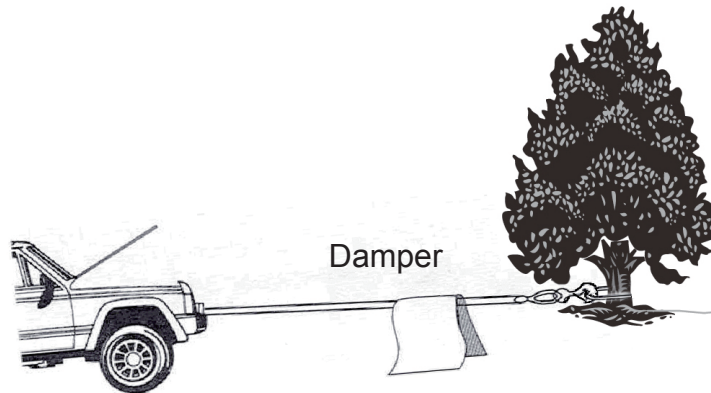


Fig.1

## INSTALLATION

1. **NOTE:** Depending on your level of knowledge regarding electrical wiring, you may wish to have this procedure performed by a qualified technician.

2. **Select a mounting site:** on the bed of a truck, trailer, or other suitable location

**CAUTION** This Winch can generate pulling force as nominated in its specifications. Make sure the location selected can withstand this much force. It may be required to use steel reinforcement plates (not included), and/or to weld on additional bracing (not included), depending on the desired mounting location. Remember that the winch is designed for horizontal pull, not vertical.

3. **Mount the Roller Fairlead to the Mounting Frame** ( not included ) using supplied Bolts, Nuts.

4. **Mount Electric Winch to the Mounting Fame** using Bolts, Nut. All provided. (See Fig.2)

5. **Mount Solenoid Assembly and Solenoid Bracket to the winch.**

1). Firstly, put the winch on a mounting channel or flat surface. To attach the supplied Solenoid Bracket , remove the 2-Screws from the Motor End Bearing Assy.(See Fig.3)

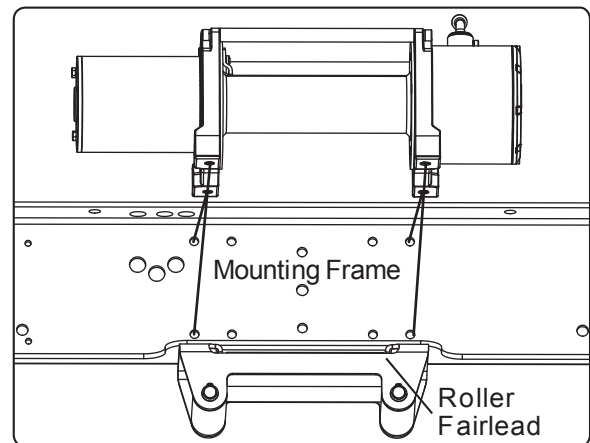


Fig2

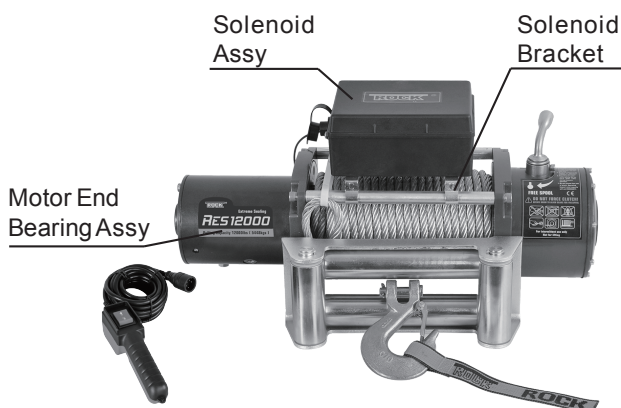


Fig.3

2). Then, align the Solenoid Bracket with the 2-Tie Bar mounting holes. Resecure the Tie Bars and attach the Solenoid Bracket to the Motor End Bearing Assy using the 2 same Screws that were previously removed.

3). Torque the Screws tightly. Retain the Solenoid Bracket supplied to the Motor End Bearing Assy by attaching the Plastic Strap around both Motor End Bearing Assy by attaching the Plastic Strap around both until tightly secured.

## 6. Electric Cable Connecting(refer to Fig. 4)

- 1). Before wiring, pay attention to the color of the motor terminals and power cable. Both are color coded.
- 2). Connect 3 short cables(coded red, black and yellow) to the color coded terminals on the motor accordingly.
- 3). Connect the red long cable from the Solenoid Assembly to the positive battery terminal and the black long cable to the Negative battery terminal at one end and to the motor ground terminal at the other end.
- 4). Connect the black thin wire(ground wire) from the Solenoid Assembly to the motor ground terminal.
- 5). Lift the Socket Cover and insert the plug of the Switch Assembly(Remote Control).

**NOTE:** Connecting of the cables determines the winch operation direction controlled by the push-buttons on the Switch Assembly (Remote Control). After the winch is mounted and powered, check the direction of the Power In and Power Out on the buttons. If you wish to change the direction on the Buttons, disconnect the cable from the battery, switch the yellow coded cable with the green cable. Then reconnect the battery cables.

- 6). Disconnect the Switch (Remote Control) when not in use.

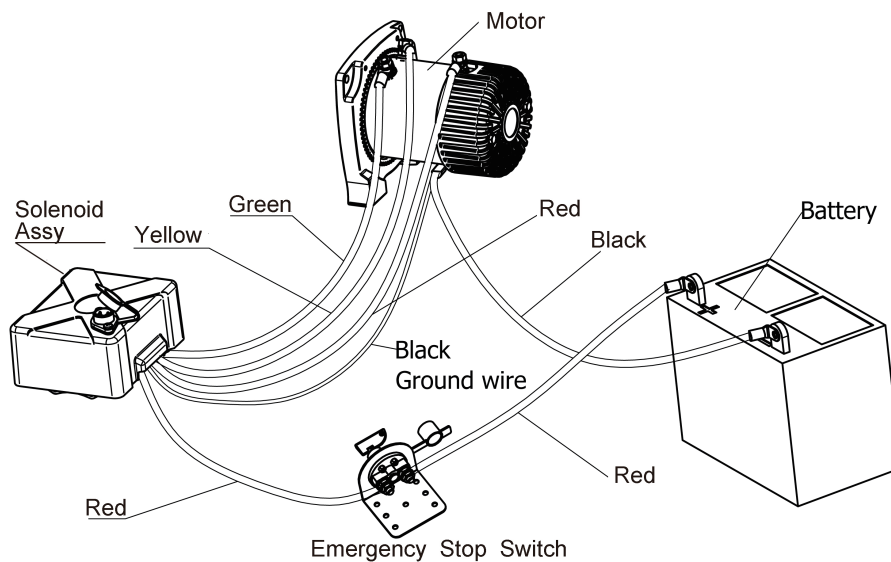


Fig.4

7. **Disengage the clutch** by turning the Clutch Handle to the Disengaged position.(See Fig.5).
8. **Pull the Cable** through the Fairlead and connect the Hook and Safety Pin.

NOTE: The use of at least a 650 CCA battery is recommended.

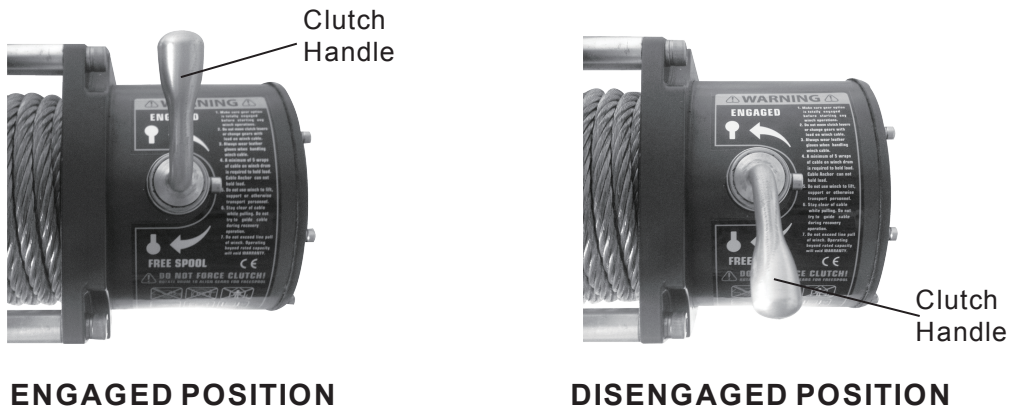


Fig.5

## WINCHING OPERATION

1. Disengage the clutch by moving the Clutch Handle to the **DISENGAGED** position.
2. Grab the Cable Assembly hook with Hand Strap and pull the cable to the desired length, then attach to item being pulled.

**CAUTION** Always leave at least 5 turns of cable on the drum. Review winch safety warnings & precautions on page5 through 6 before continuing.

3. Re-engage the clutch by moving the Clutch Handle to the ENGAGED position.
4. Lift the Female Connector Cover on Solenoid Assy exposing the electrical switch connector.

### With Wire Remote Control

1. Insert the Switch Assy into the Female Connector. (See Fig.6)

2. While standing aside of the tow path, push the button on Remote Control forward and backward (Fig.7 and Fig.8) to check winch running directions. Wait until the motor stops before reversing directions.

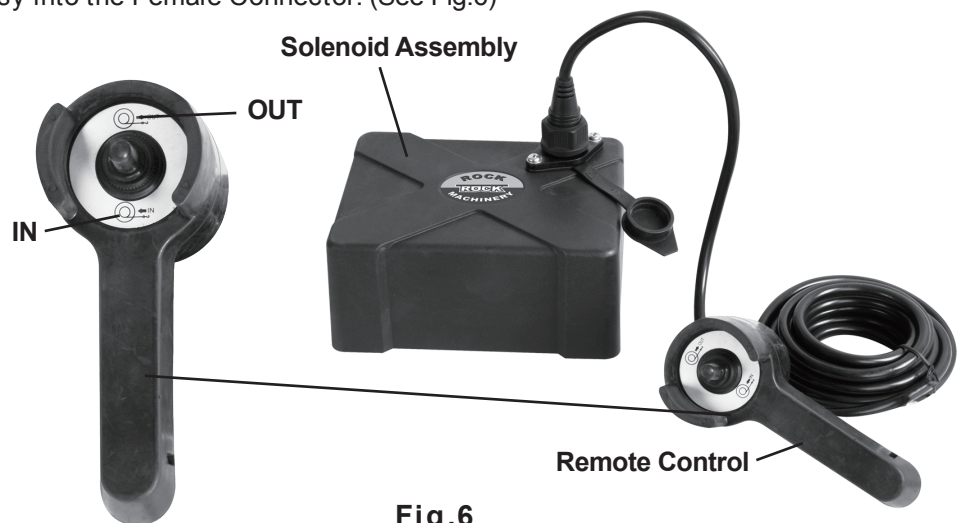


Fig.6



Fig.7

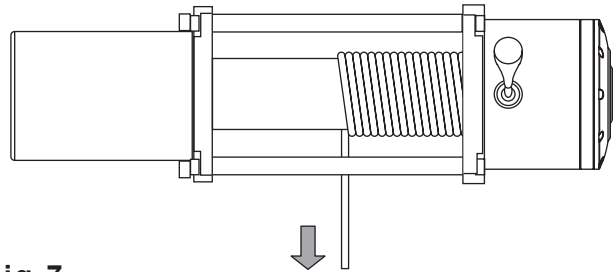
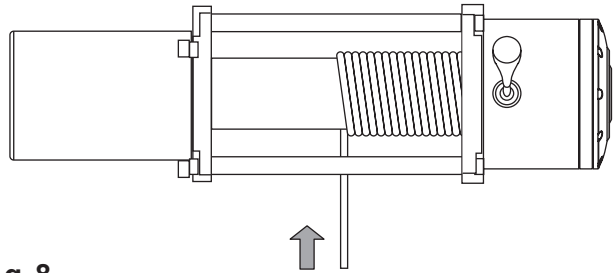


Fig.8



**CAUTION Do not POWER winch OUT for more than 10 seconds at a time as this may cause damage to the brake system.**

3. When the pulling is complete, rewind the cable onto the drum. The cable must be rewound on to the drum under a load of at least 500lbs. If this precaution is not taken, inner wraps will damage winch cable.
4. Remove the Switch Assy from the Female Connector and replace the Female Connector Cover.

**CAUTION** It is important to make sure the winch is mounted on flat surface to guarantee the 3 major sections of the winch (the motor end, the cable drum and the gear housing end) are properly aligned. Run the vehicle engine during pulling operations to keep the battery charging. When pulling a heavy load, place a blanket or the similar over the cable 5 to 6 feet (1.5m to 1.8m) from the hook.

### **WIRELESS REMOTE CONTROL for ROCK ELECTRIC WINCH**

\* Voltage-12V/24V (receiver)

\* Frequency-315 mHz

- CE \* CE-LVD certificate: BST13050306Y-1SC-2
- \* CE-EMC certificate: BST13050306Y-1EC-1
- \* Receiver FCC ID: WWWBLR001-R015
- \* Remote Controller ID: wwwblt001-t042
- \* RoHS certificate: BST14040135Y-IRC-4

#### **Features:**

1. Waterproof
2. Power-IN and power-OUT control.
3. Remote range up to 15 meters.
4. Better line-of sight during recovery operations enables you standing on a safer position.
5. Somatological design makes operation soft and easy.

#### **Installation:**

1. Disconnect power to the winch.
2. Mount Wireless Remote Control Receiver on to the vehicle properly.
3. Plug Wireless Remote Control Receiver in the Solenoid Assembly. Make sure Plug and Socket are in correct type (Fig.9).

4. Reconnect winch's power.
5. Release the winch clutch handle and pull out about 3 meters steel cable (or wire rope) laying loosely on the ground. Stay clear of the steel cable (or wire rope) and hook.
6. Reengage the winch clutch handle.
7. Activate the Remote by pressing and holding both IN and OUT buttons on the Remote Controller simultaneously for 4 seconds till the red LED on the Remote lights up and stays on.
8. Press the "OUT" or "IN" button on the Remote Controller. Watch the steel cable (or wire rope) feeding out or retracting in accordingly.
9. If the steel cable (or wire rope) movement does not match "OUT" or "IN" action on Remote Control, check and correct winch wiring. Make test again after correction.
10. If the Wireless Remote Control operates the winch correctly, the winch is ready for use.



**Fig.9**

**Operation:**

1. Activate Wireless Remote Control (Refer to Installation 7)
2. Press IN or OUT button to power in or power out as operation required.
3. Deactivate Wireless Remote Control by pressing and holding both IN and OUT button for 4 seconds simultaneously till the red LED in Remote Controller turns off.

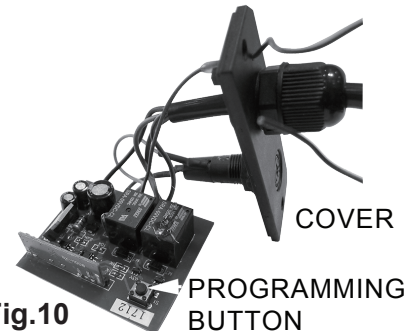
**Note:**

1. Remote Controller can automatically turn off in 2 minutes standby to save battery.
2. Mis-operation protection: If both IN & OUT button are pressed and held for 15 seconds, program will treat it as mis-operation and Remote Controller will turn off automatically. Reactivate it if you start operation again.

**Program Receiver to a replacement Remote Controller**

Remote Controller is programmed in the factory to communicate with Remote Receiver. Under normal circumstances, programming is not necessary unless a Remote Controller has to be replaced.

- 1st step:** Activate Remote Controller, (Refer to Installation 7)  
**2nd step:** Plug Receiver into Solenoid Assembly (power connected). Open Receiver cover (Fig.10)  
**3rd step:** Press and hold Programming Button on Receiver, meanwhile press IN or OUT button on Remote Controller. Now the programming is complete.



**Fig.10**

**Replace Battery**

If the LED light on the Remote Controller flashes during operation, the battery is low and should be replaced (Fig.11)

1. Remove the 2 screws from the Remote Controller
2. Separate the top and bottom covers of the Remote Controller.
3. Replace the old battery with a new one. Battery : DC12V/23A
4. Join the top and bottom covers with the rubber seal sitting between properly.
5. Secure the Remote with two screws.



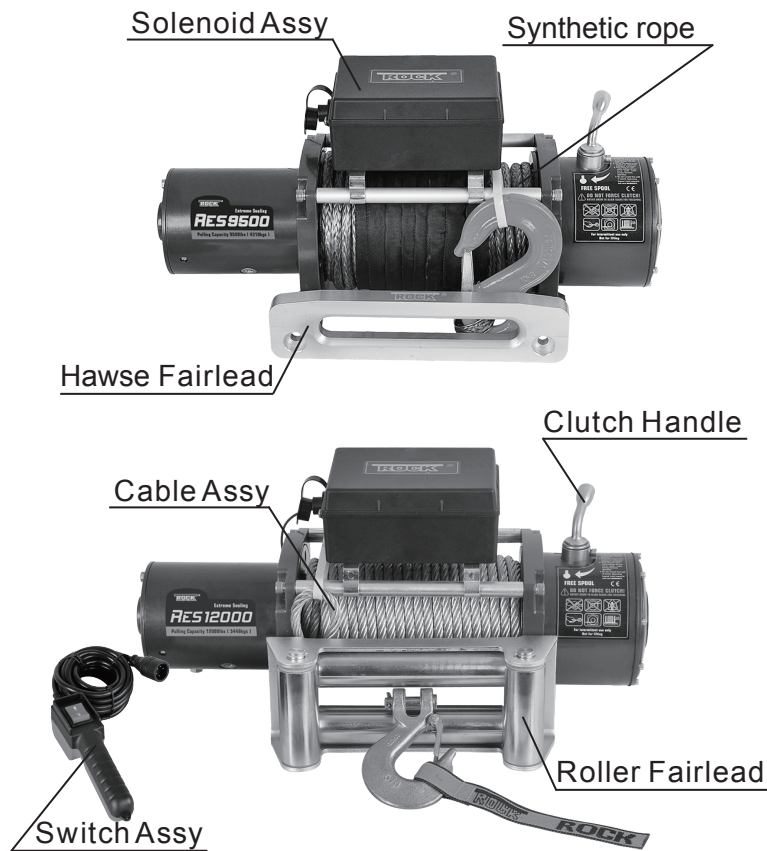
**Fig.11**

**WARNING**

1. Use with vehicle mounted recovery winches only. Do not use for any other application.
2. Read this manual and winch operation manual before use.
3. After use, disconnect Solenoid Assembly from the winch to prevent accidental operation.
4. To prevent fire, replace fuse only with fast acting 8 amp fuse (Fig.12)



**Fig.12**



## LUBRICATION

1. All moving parts within the Electric Winch have been lubricated using high temperature lithium grease at the factory. No internal lubrication is required.
2. Lubricate Cable Assembly periodically using light penetrating oil.

## CABLE ASSEMBLY REPLACEMENT

1. Move Clutch Handle to DISENGAGED position.
2. Extend Cable Assembly to its full length  
**\*Note how the existing cable is connected to the inside of the drum\***
3. Remove old Cable Assembly and attach new one.
4. Rewind Cable Assembly onto cable drum being careful not to allow kinking.

### Note:

Performance of this winch may vary depending on variations of vehicle and/or battery power.

### Warning:

The warnings, cautions and instructions discussed in this instruction manual cannot cover all the possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors that cannot be built into this product, but must be exercised by the operator.

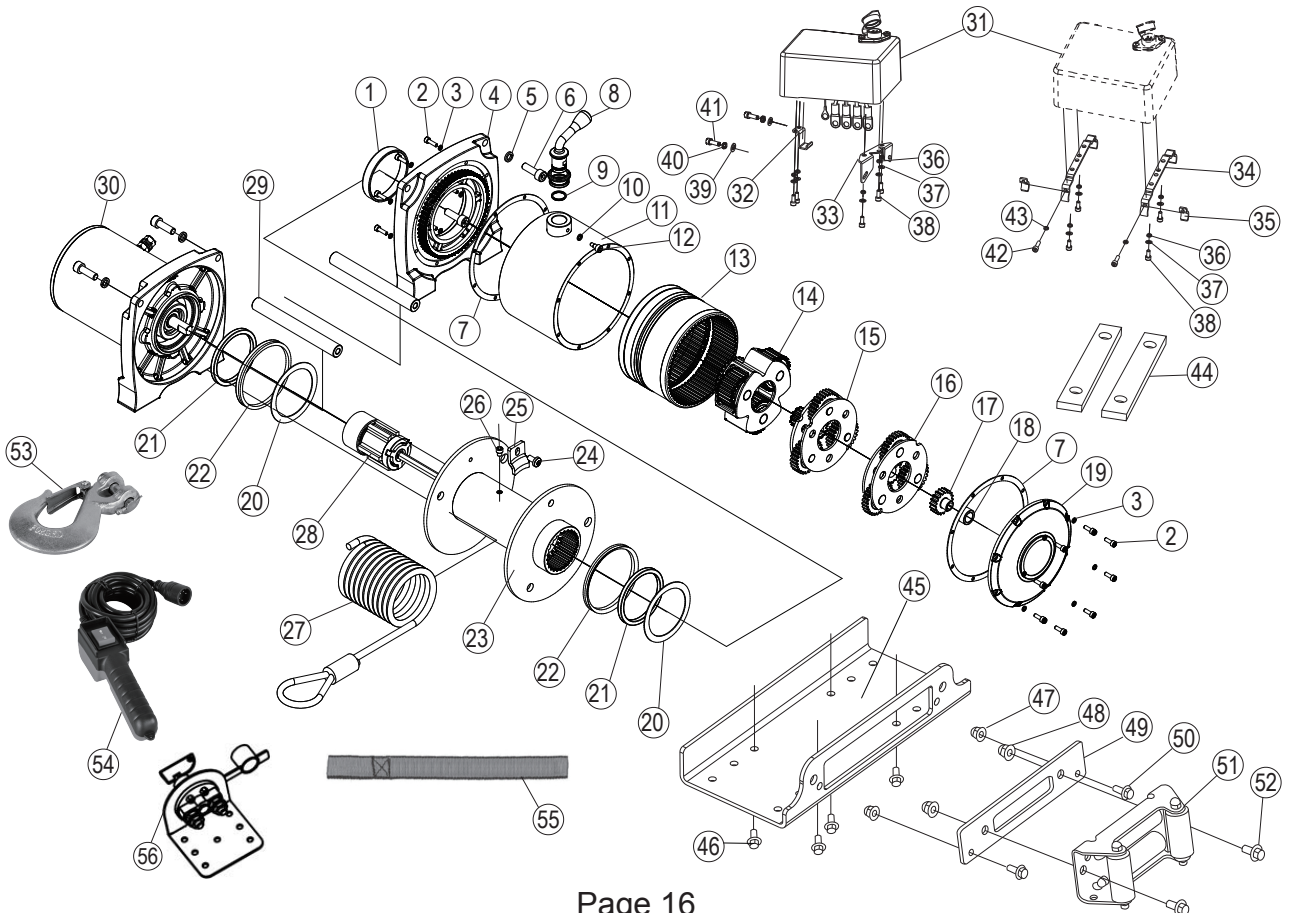


## Trouble Shooting

SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY
Motor does not turn on	- Switch Assy not connected properly	- Insert Switch Assy firmly to the connector
	-Loose battery cable connection	-Tighten nuts on cable connectors
	-Solenoid malfunctioning	-Tap Solenoid to free contact, applying 12V (for 12V motor) or 24V(for 24V motor) to coil terminal directly. Solenoid will make an audible clicking when activating.
	-Defective Switch Assy	-Replace Switch Assy.
	-Defective motor	-Check for voltage at armature port with switch pressed. If voltage is present, replace motor
	-Water has entered motor	-Drain and dry. Run in short bursts without load until completely dry.
Motor runs too hot	-Long period of operation	-Let winch cool down periodically.
Motor runs slowly or without normal power	-Battery runs down	-Recharge battery by running vehicle engine.
	-Insufficient current or voltage	-Clean, tighten or replace the connector.
Motor runs but cable drum does not turn	-Clutch not engaged	-Push clutch Handle(13) into IN position. If that does not work, ask a qualified technician to check and repair.
Motor runs in one direction only	-Defective or stuck Solenoid	-Tap solenoid to free contacts. Repair or replace solenoid.
	-Defective Switch Assy	-Replace Switch Assy.

## Winch Assy Drwg & Parts List for Model RES6000

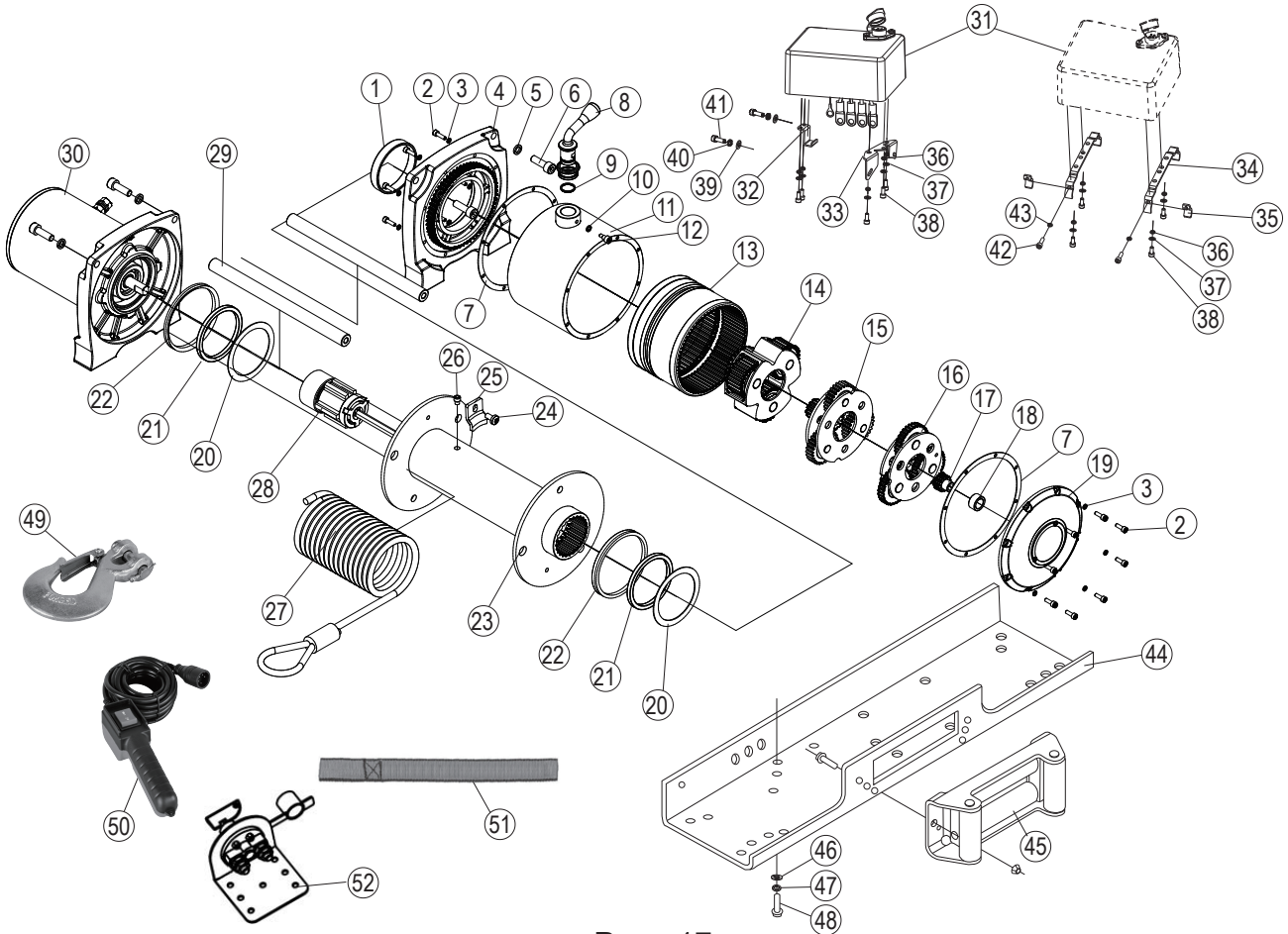
Item	Qty	Description	Item	Qty	Description
1	1	Dry Bearing	29	2	Tie Bar
2	16	Screw M4×12	30	1	Motor End
3	16	Spring Washer M4	31	1	Solenoid Assy
4	1	End Bearing	32	1	Solenoid Bracket 1
5	4	Spring Washer M8	33	1	Solenoid Bracket 2
6	4	Screw M8×25	34	2	Solenoid Bracket 3
7	2	Gasket	35	2	Solenoid Bracket 4
8	1	Clutch Handle	36	5	Washer M6
9	1	Seal	37	5	Spring Washer M6
10	1	Washer 5	38	5	Screw M6×16
11	1	Gear Ring	39	2	Washer M6
12	1	Retaining Screw	40	2	Spring Washer M6
13	1	Gear Ring-input/intermediate	41	2	Screw M6×12
14	1	Gear Carrier Assy-output	42	2	Screw M5×16
15	1	Gear Carrier Assy-intermediate	43	2	Spring Washer M5
16	1	Gear Carrier Assy-input	44	2	Plate (Optional)
17	1	Gear-input sun	45	1	Mount Channel (Optional)
18	1	Gear Bushing	46	4	Screw
19	1	Gear Box Cover	47	2	Nut M10
20	2	Spacer	48	2	Nut M12 (Optional)
21	2	Ring	49	1	Fairlead Mount Plate (Optional)
22	2	Seal Ring	50	2	Screw
23	1	Drum Assy	51	1	Roller Fairlead
24	1	Screw	52	2	Screw (Optional)
25	1	Cable Anchor	53	1	Safety Hook
26	1	Screw	54	1	Switch Assy
27	1	Cable	55	1	Hand Strap
28	1	Brake/Shaft Assy	56	1	Emergency Stop (operational)



## Winch Assy Drwg & Parts List for Model RES8000/RES9500/RES12000/RES15000

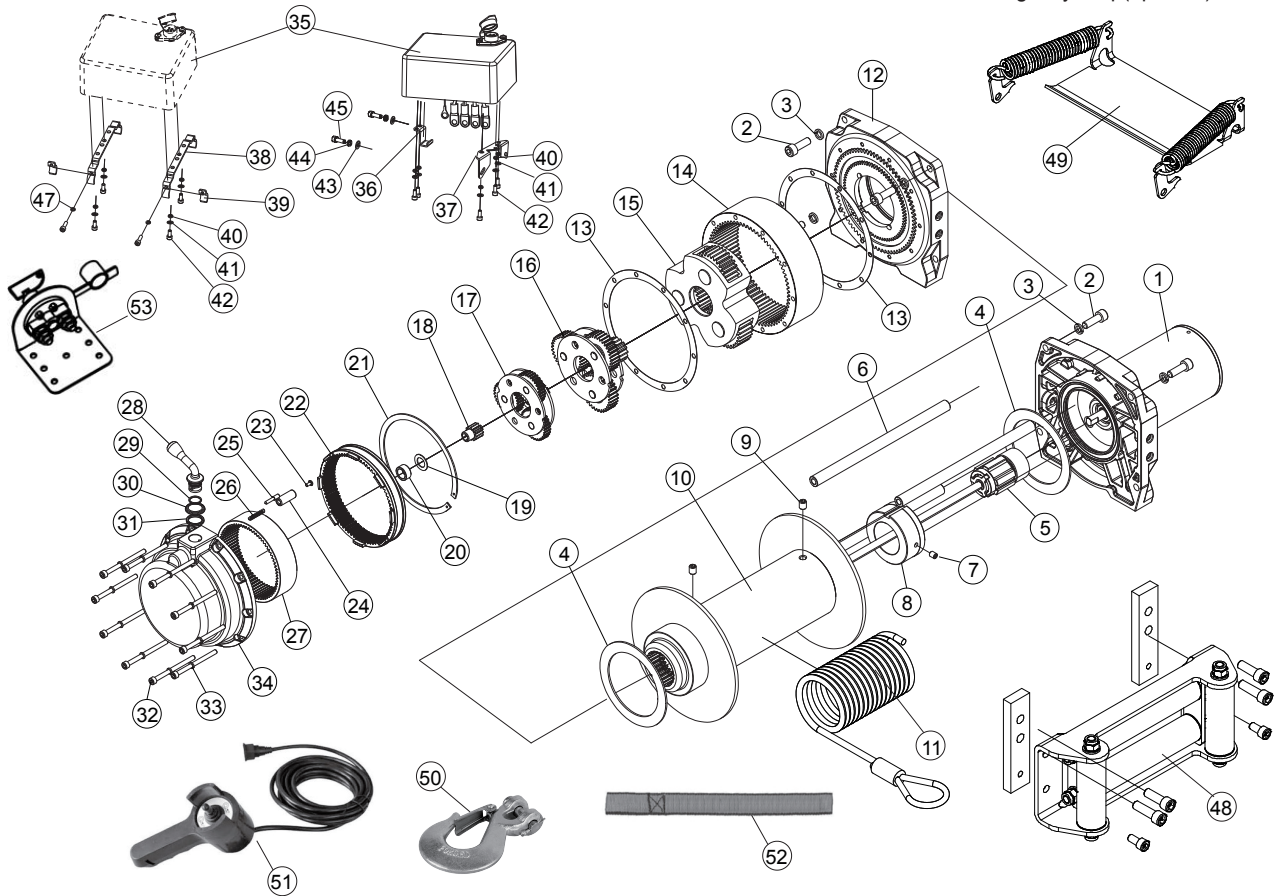
Item	Qty	Description
1	1	Dry Bearing
2	16	Screw M4×12
3	16	Spring Washer M4
4	1	End Bearing
5	4	Spring Washer M8
6	4	Screw M8×25
7	2	Gasket
8	1	Clutch Handle
9	1	Seal
10	1	Spring Washer
11	1	Gear Ring
12	1	Retaining Screw
13	1	Gear Ring-input/intermediate
14	1	Gear Carrier Assy-output
15	1	Gear Carrier Assy-intermediate
16	1	Gear Carrier Assy-input
17	1	Gear-input sun
18	1	Gear Bushing
19	1	Gear Box Cover
20	2	Spacer
21	2	Ring
22	2	Seal Ring
23	1	Drum Assy
24	1	Screw
25	1	Cable Anchor
26	1	Screw

Item	Qty	Description
27	1	Cable
28	1	Brake/Shaft Assy
29	2	Tie Bar
30	1	Motor End
31	1	Solenoid Assy
32	1	Solenoid Bracket 1
33	1	Solenoid Bracket 2
34	2	Solenoid Bracket 3
35	2	Solenoid Bracket 4
36	5	Washer M6
37	5	Spring Washer M6
38	5	Screw M6×16
39	2	Washer M6
40	2	Spring Washer M6
41	2	Screw M6×12
42	2	Screw M5×16
43	2	Spring Washer M5
44	1	Mount Channel (Optional)
45	1	Roller Fairlead
46	4	Washer
47	4	Spring Washer
48	4	Screw
49	1	Safety Hook
50	1	Switch Assy
51	1	Hand Strap
52	1	Emergency Stop(optional)



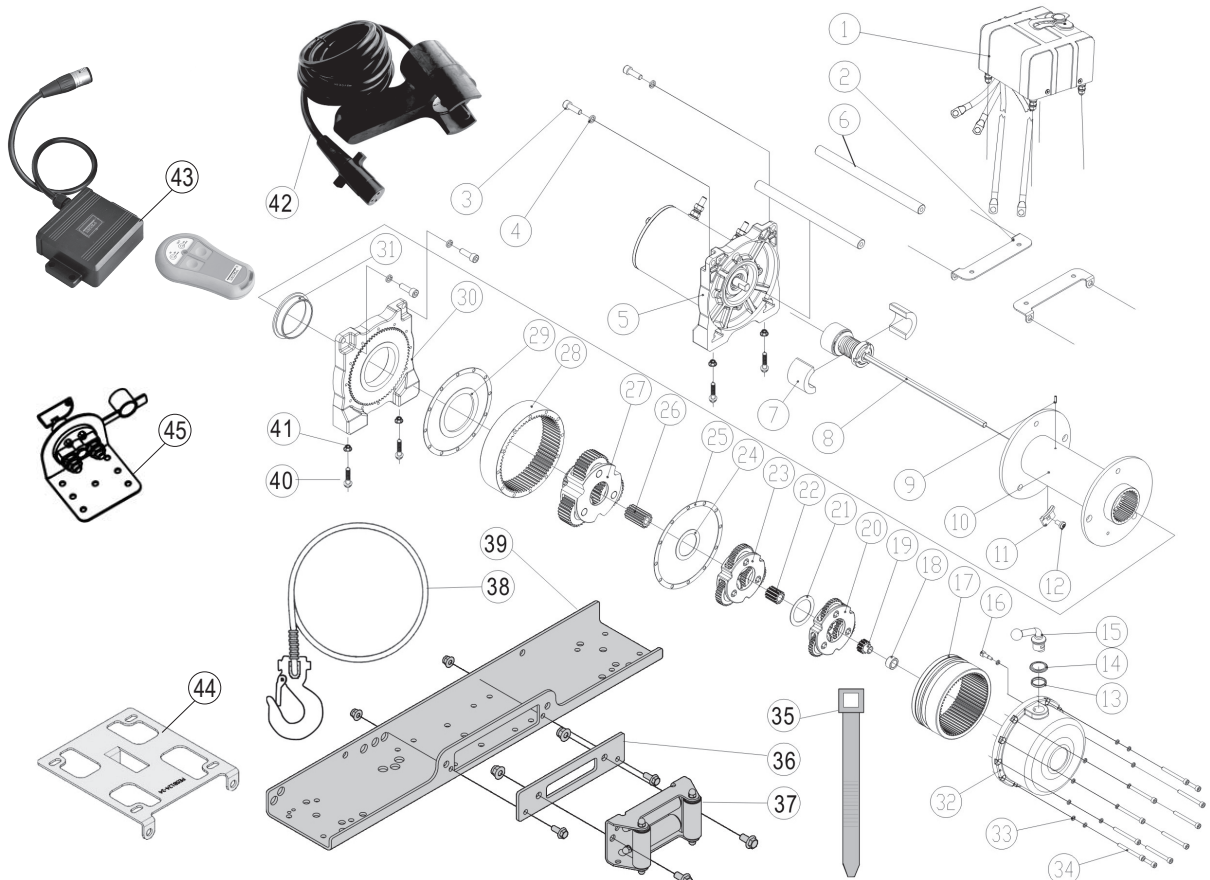
## Winch Assy Drwg & Parts List for Model RH15000/RH18000

Item	Qty	Description	Item	Qty	Description
1	1	Motor End	27	1	Gear Ring
2	6	Screw M10×30	28	1	Clutch Handle
3	6	Spring Washer M10	29	1	O Seal Ring
4	2	Gasket	30	1	Seal Ring Cover
5	5	Brake/Shaft Assy	31	1	Ring
6	2	Tie Bar	32	10	Screw M6×60
7	1	Screw M8×10	33	10	Spring Washer M6
8	1	Brake Fittings	34	1	Gear Box Cover
9	2	Screw M10×12	35	1	Solenoid Assy
10	1	Drum Assy	36	1	Solenoid Bracket 1
11	1	Cable	37	1	Solenoid Bracket 2
12	1	End Bearing	38	2	Solenoid Bracket 3
13	2	Gasket	39	2	Solenoid Bracket 4
14	1	Gear Ring	40	5	Washer M6
15	1	Gear Carrier Assy-output	41	5	Spring Washer M6
16	1	Gear Carrier Assy-intermediate	42	5	Screw M6×16
17	1	Gear Carrier Assy-input	43	2	Washer M6
18	1	Gear-input sun	44	2	Spring Washer M6
19	1	Spacer	45	2	Screw M6×12
20	1	Bearing	46	2	Screw M5×16
21	1	Retaining Ring	47	2	Spring Washer M5
22	1	Gear Ring	48	1	Roller Fairlead Assy
23	1	Screw	49	1	Wire Rope Tensioner Kit
24	1	Pin	50	1	Safety Hook
25	1	Locating Pin	51	1	Switch Assy
26	1	Spring	52	1	Hand Strap
			53	1	Emergency Stop(optional)



## Winch Assy Drwg & Parts List for Model RS6000i,RS6000C

Item	Descriptio	Qty	Item	Descriptio	Qty
1	Solenoid Assy	1	23	Gear Carrier-middle	1
2	Solenoid Bracket (For RS6000i)	2	24	Washer	1
3	Screw	4	25	Gasket	2
4	Spring Washer	4	26	Sun Gear-output	1
5	Motor	1	27	Gear Carrier-output	1
6	Tie Bar(aluminum)	2	28	Gear Ring-output	1
7	Brake Shoe	2	29	Washer	1
8	Brake Assy	1	30	End Bearing	1
9	Spring Pin	1	31	Dry Bearing	1
10	Drum Assy	1	32	Gear ring Housing	1
11	Cable Anchor	1	33	Spring Washer	12
12	Screw M6	1	34	Bolt	11
13	Seal	1	35	Pulling Strap	1
14	Seal Cover	1	36	Mount Plate	1
15	Clutch Handle	1	37	Roller fairlead	1
16	Retaining Screw	1	38	Cable,Hook	1
17	Gear Ring-input/middle	1	39	Mountchannel(optional)	1
18	Bush	1	40	Bolt M10x40	6
19	Input Sun Gear	1	41	Nut M10	6
20	Gear Carrier-input	1	42	Remote Control( 5#)	1
21	Washer-input	1	43	Wireless Remote Control(optional)	1
22	Sun Gear middle	1	44	Solenoid Bracket (For RS6000C)	1
			45	Emergency Stop	1



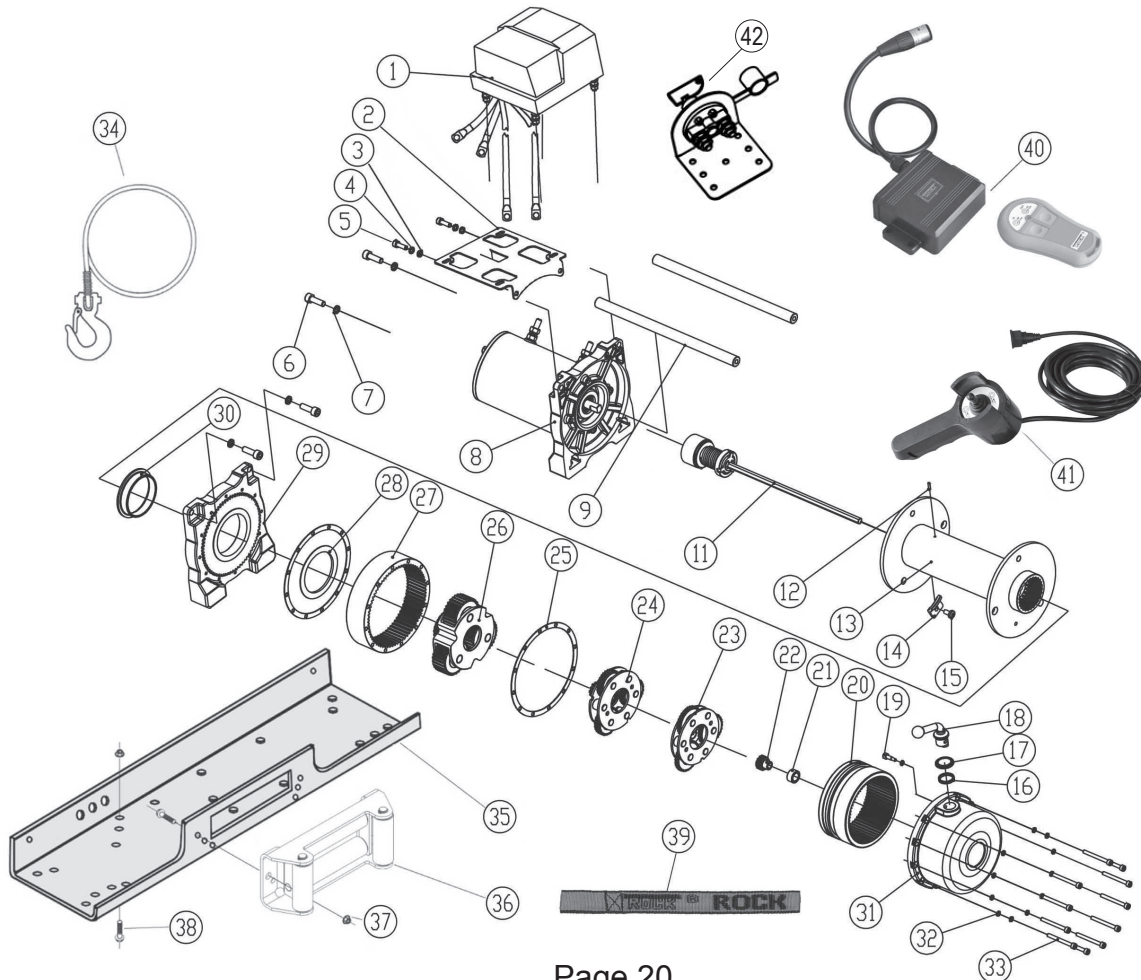
## Winch Assy Drwg & Parts List for Model RS8000F,RS8000C,RS9500C,RS12000C,RS15000C

Item	Qty	Description	Item	Qty	Description
1	1	Solenoid Assy	22	1	Gear-input sun
2	1	Solenoid Bracket	23	1	Gear Carrier Assy - input
3	4	WasherØ6	24	1	Gear Carrier Assy - intermediate
4	1	Spring WasherØ6	25	2	Gasket
5	1	Screw M6×12	26	1	Gear Carrier Assy - Output
6	4	Bolt M8×25	27	1	Gear Ring-output
7	4	Self-locking Nut M8	28	1	Washer
8	1	Motor End	29	1	End Bearing
9	2	Tie Bar	30	2	Dry Bearing
11	1	Brake/Shaft Assy	31	1	Gear Ring Housing
12	1	Roll Pin Ø4×10	32	12	Spring WasherØ5
13	1	Drum	33	11	Bolt M5×58
14	1	Cable Anchor	34	1	Cable Assy
15	1	Screw M6×10	35	1	Mount channel(optional)
16	1	Seal	36	1	Roller Fairlead Model RF22
17	1	Seal Cover	37	6	Nut M10
18	1	Clutch Handle	38	1	Screw M10×34
19	1	Retaining Screw M5×16	39	1	Hand Strap
20	1	Gear Ring-input, intermediate	40	1	Wireless Remote Control(optional)
21	1	Gear Bushing	41	1	Switch Assy(optional)
			42	1	Emergency Stop

\* When ordering parts, be sure to quote winch series numbers and model number.

\* Due to continuing improvements, actual product may differ slightly from the product described herein.

\* Item 35- 40 and 41 is optional & only obtained by special order.



## Winch Assy Drwg & Parts List for Model RS9500i,RS12000i,RS15000i

Item	Qty	Description	Item	Qty	Description
1	1	Solenoid Assy	22	1	Gear Carrier Assy - input
2	4	Washer Ø6	23	1	Gear Carrier Assy - intermediate
3	1	Spring WasherØ6	24	2	Gasket
4	1	Screw M6×12	25	1	Gear Carrier Assy - Output
5	4	Bolt M8×25	26	1	Gear Ring-output
6	2	Spring WasherØ8	27	1	Washer
7	1	Motor End	28	1	End Bearing
8	2	Tie Bar	29	2	Dry Bearing
10	1	Brake/Shaft Assy.	30	1	Gear Ring Housing
11	1	Roll PinØ4×10	31	12	Spring WasherØ5
12	1	Drum	32	11	Bolt M5×58
13	1	Cable Anchor	33	1	Cable assy
14	1	Screw M6×10	34	1	Mount channel(optional)
15	1	Seal	35	1	Roller Fairlead Model RF22
16	1	Seal Cover	36	6	Nut M10
17	1	Clutch Handle	37	6	Screw M10×34
18	1	Retaining Screw M5×16	38	1	Hand Strap
19	1	Gear Ring-input, intermediate	39	1	Wireless Remote Control(optional)
20	1	Gear Bushing	40	1	Switch Assy(optional)
21	1	Gear-input sun	41	1	Emergency Stop(optional)

\* When ordering parts, be sure to quote winch series numbers and model number.

\* Due to continuing improvements, actual product may differ slightly from the product described herein.

\* Item 34、 39 and 40 is optional & only obtained by special order.

