

120 Volt AC
ELECTRIC WINCHES

## **OWNER'S**

### **MANUAL**

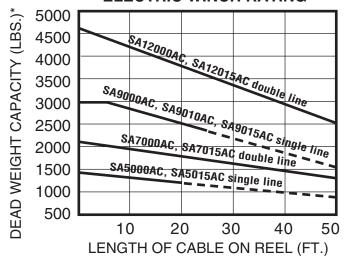
MODELS SA5000AC, SA5015AC, SA7000AC, SA7015AC, SA9000AC, SA9010AC, SA9015AC, SA12000AC & SA12015AC

ATTEMPTING TO INSTALL, OPERATE OR SERVICE THE STRONGARM ELECTRIC WINCH. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN SERIOUS OR FATAL INJURY. RETAIN INSTRUCTIONS FOR FUTURE REFERENCE.



### WINCH RATINGS

#### **ELECTRIC WINCH RATING\***



#### **DOUBLE LINE OPERATION**

Models SA7000AC, SA7015AC, SA12000AC and SA12015AC are factory equipped with a pulley block and hook and 50' of cable for double line operation. This increases the pulling capacity of the winch as shown, however, care must be taken to allow adequate motor cooling. Note that with double line, a pull of 25' requires reeling in 50' of cable.

For intermittent use only. Ratings at left are based on 10' pull. For longer pulls motor cooling periods must be allowed.

CAUTION: CONTINUOUS RUNNING IN EXCESS OF 3 MINUTES WILL DAMAGE WINCH MOTOR.

## GUIDE TO ROLLING LOAD CAPACITY\*\* Maximum weight in pounds and kilograms rolling load.

MODEL							
	5%	10%	20%	30%	50%	70%	LOAD CAPACITY*
	(3°)	(6°)	(11°)	(17°)	(26°)	(35°)	CAPACITI
SA5000AC,	8,000 lbs.	6,000 lbs.	4,000 lbs.	3,100 lbs.	2,200 lbs.	1,800 lbs.	1,200 lbs.
SA5015AC	3,629 kg	2,722 kg	1,814 kg	1,406 kg	998 kg	816 kg	544 kg
SA7000AC,	12,000 lbs.	9,000 lbs.	6,100 lbs.	4,600 lbs.	3,300 lbs.	2,700 lbs.	1,800 lbs.
SA7015AC	5,443 kg	4,082 kg	2,767 kg	2,087 kg	1,497 kg	1,225 kg	817 kg
SA9000AC, SA9010AC,	18,000 lbs.	13,500 lbs.		6,900 lbs.	5,000 lbs.	4,100 lbs.	2,700 lbs.
SA9015AC	8,165 kg	6,124 kg	4,128 kg	3,130 kg	2,268 kg	1,860 kg	1,225 kg
SA12000AC	26,700 lbs	20,100 lbs	.13,600 lbs	10,300 lbs.	7,400 lbs.	6,100 lbs.	4,000 lbs.
SA12015AC	12,111 kg	9,117 kg	6,169 kg	4,672 kg	3,357 kg	2,767 kg	1,814 kg

- (\*) Load capacity (dead weight) is a measure of actual maximum force to which the winch system may be subjected.
- (\*\*) All capacities shown are with 15' of cable on the reel and 10% rolling friction factor. For full reel of cable adjust capacities according to graph above. Note 5% incline is one-half foot rise in ten feet.

# APPROXIMATE LOAD SPEED (FT./MIN.)

	NO I	LOAD	FULL LOAD			
	Full Empty		Full	Empty		
	Reel	Reel	Reel	Reel		
SA5000AC, SA5015AC	35	16	16	9		
SA7000AC, SA7015AC	17.5	8	9.5	6		
SA9000AC, SA9010AC SA9015AC	18	6	7	3.5		
SA12000AC, SA12015AC	9	3	4	2		

WARNING: NOT TO BE USED AS A HOIST FOR LIFTING, SUPPORTING OR TRANSPORTING PEOPLE OR LOADS OVER AREAS WHERE PEOPLE COULD BE PRESENT!

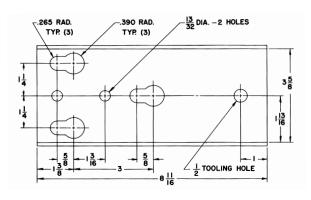
### IMPORTANT SAFETY INFORMATION

- WARNING: FAILURE TO READ AND FOLLOW INSTRUCTIONS BELOW COULD RESULT IN SERIOUS OR FATAL INJURY.
- WARNING: NOT TO BE USED AS A HOIST FOR LIFTING, SUPPORTING, OR TRANSPORTING PEOPLE OR LOADS OVER AREAS WHERE PEOPLE COULD BE PRESENT.
- This winch is not designed for movement of human beings. Do not use for scaffolding, elevators, or any other application in which persons could be positioned on or under the load at any time. Do not use as an overhead hoist.
- This electric winch should be respected as power equipment. High forces are created when using a winch, creating potential safety hazards. Never allow children or anyone who is not familiar with the operation of the winch to use it.
- Never exceed rated winch capacity. Dangerously high forces can be created if the load being moved is too large or is allowed to get in a bind, etc. Note that installing longer than normal cable results in increased load on winch. If overloaded, this winch has power enough to break the cable.
- Inspect the winch cable often and replace at the first sign of damage. Never exceed the winch capacity. When cable breaks under tension, it tends to whip toward the winch area. It is recommended that a blanket or rug be placed over the cable during winching operations to minimize this whipping action in case of cable breakage.
- Never apply load to winch with cable fully extended. Keep at least three turns of cable on the reel.

#### **MOUNTING INSTRUCTIONS**

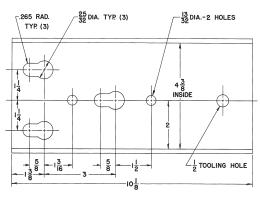
Be sure that the mounting surface is of sufficient strength to support a load well in excess of the rated winch capacity. Fasten the winch to the mounting surface with three 1/2" bolts, nuts, washers, and lockwashers. (See base hole pattern.) Be sure that the winch is positioned so that the cable does not rub the front opening of the winch. Your winch is equipped with key hole slots in the base for use with quick-mounting shoulder studs if desirable. If you wish to use guick-mount studs, they should be mounted securely into the mounting surface. After positioning the winch on the studs, a 3/8" bolt should be placed in one of the other holes available to keep the winch securely in position. For double line use, install an eye-hook on the mounting surface close to the base of the winch for fastening the stationary cable hook. Be sure the eye-hook is of sufficient strength to withstand loads in excess of the single line rating of the winch.

- A Keep the winching area free of all unnecessary personnel. Never stand between load and winch.
- When winching operation has been completed, do not depend on the winch to support the load. Always secure the load properly. Use tie down straps or chains.
- The auxiliary handle is provided for emergency use only. Never use the auxiliary handle as an assist to the motor when the motor is running. Always remove the auxiliary handle when it is not in use. Do not operate the winch motor with the handle installed.
- A Keep hands and fingers clear of the drum and cable area of the winch when operating. Do not attempt to guide the cable by hand as it rewinds on the drum.
- Special care should be taken with 120-volt AC winch, as with any other 120-volt tools. Some winch models are equipped with a ground fault circuit interrupter in the power cord. Read and follow instructions on the back of the GFCI. The winch should be used only with a three pronged grounded outlet. Do not remove the grounding prong on the power cord for any reason. Do not operate the unit in the rain or when it is wet and never operate the winch while standing in water.
- The winch must be securely attached to a structural member or frame that is capable of sustaining loads in excess of the winch capacity.
- Periodically check the power cord for wear or frays which could cause electrical shorts or shocks.



BASE HOLE PATTERN SA5000AC, SA5015AC, SA7000AC and SA7015AC

#### MOUNTING INSTRUCTIONS continued



**BASE HOLE PATTERN**SA9000AC, SA9010AC, SA9015AC,
SA12000AC and SA12015AC

#### **OPERATING INSTRUCTIONS**

All models can be powered in or out. Allowing the switch to return to the off position will automatically stop the winch and hold the load.

For units with the hand held Dynamic Brake Remote Control, press the "In/Out" switch to the desired direction and then push and hold the "Run" switch to power the winch.

CAUTION: Do not change cable direction while the motor is running. Changing directions prior to releasing the "Run" switch may result in winch or motor damage.

It is recommended that whenever the winch is not being used that it be unplugged from the power supply. The bridge is subject to damage caused by electrical storms or voltage surges if the winch is left plugged in when not in use.

**NOTE:** Some models are supplied with a GFCI cord set. To ensure protection against electrical shock, test the GFCI before each use. See back of GFCI for test procedure.

**NOTE:** It is normal for smoke to be produced during the initial power down use.

WARNING: BECAUSE THE WINCH IS NOT EQUIPPED WITH CIRCUIT BREAKER OVERLOAD PROTECTION, PARTICULAR CARE SHOULD BE TAKEN NOT TO CREATE AN OVERLOAD. PAY ATTENTION TO THE SOUND OF THE WINCH AND THE LOAD BEING PULLED. MAKE CERTAIN THAT THE CABLE TENSION DOES NOT RISE SUDDENLY BECAUSE OF A BIND IN THE LOAD.

ACAUTION: The electric motor is designed for intermittent service only. Extended use without cooling off periods will cause overheating resulting in motor damage. Maximum continuous run time is three minutes.

MARNING: NEVER ALLOW CHILDREN, OR ANYONE WHO IS NOT FAMILIAR WITH THE OPERATION OF THE WINCH, TO USE IT.

#### **AUXILIARY HANDLE**

- An emergency crank handle is provided for use in the event of a power failure. Remove the electrical power from the winch.
- Remove the plastic plug from the side of the winch housing and insert the handle so that it completely engages with the drive shaft. The handle can be cranked in either direction.

WARNING: NEVER OPERATE THE WINCH ELECTRICALLY WITH THE EMERGENCY HANDLE IN POSITION.

3. Always remove the handle from the winch after use and replace the plastic plug.

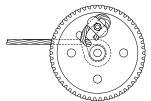
#### WINCH MAINTENANCE

For long life and trouble-free operation your winch should periodically be inspected for any required maintenance. This should be done at least once annually and more frequently in adverse conditions such as salt water areas or areas of extreme dust and dirt.

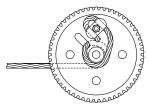
1. Carefully inspect the winch cable for any kinks, frays or abnormal stiffness and replace at the first sign of this kind of damage. Go to Dutton-Lainson website: http://www.dutton-lainson.com/ts.php for trouble shooting manual, select winch model number and click on symptom "Cable Damage" for complete diagnoses and corrective action. Periodic lubrication with a light oil will improve the life of the cable. In order to replace the winch cable, it is necessary to remove the four cover mounting bolts. Be sure that the power is disconnected from the housing and lift the housing off of the winch by gently stretching it open near the lower front corner. Rotate the winch reel so that you have access to the rope clamp. Remove the old cable and replace it with a new cable of the same size. Be sure that the cable passes under both sides of the rope clamp and that the clamp is tightened securely.

NOTE: CABLE IS WOUND OVER THE TOP OF THE DRUM ON MODELS SA5000AC, SA5015AC, SA7000AC, SA7015AC AND UNDER THE DRUM ON MODELS SA9000AC, SA9010AC, SA9015AC, SA12000AC AND SA12015AC. SEE ATTACHMENT METHOD BELOW.

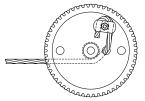
#### **CABLE ATTACHMENT METHODS**







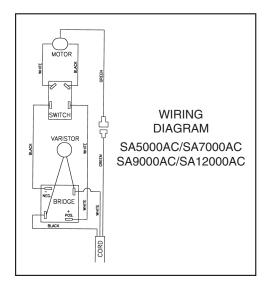
MODELS SA9000AC, SA9015AC, SA12000AC & SA12015AC

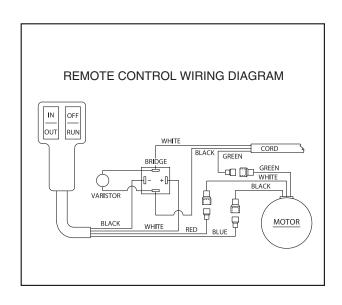


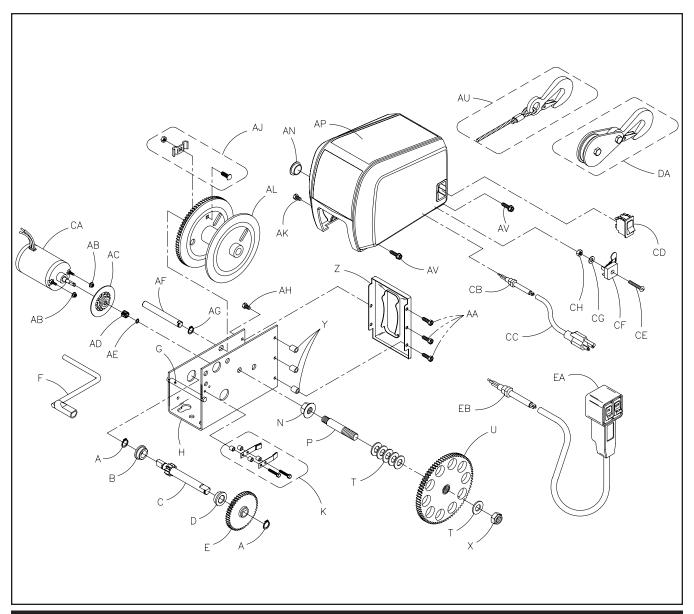
MODEL SA9010AC

- 2. With the cover removed as described above, inspect the entire gear train and all drive shafts for any significant wear or loose bearing fits. Grease all of the gears on the inside of 2. With the cover removed as described above, inspect the entire gear train and all drive shafts for any significant wear or loose bearing fits. Grease all of the gears on the inside of the winch base and apply a drop of oil on all of the bearings in the base. Also, place a drop of oil on the roller clutch. Do not over lubricate these areas and do not use grease in the roller clutch. The brake pads and brake disc must be kept clean and oil free.
- 3. Check the operation of the roller clutch. Carefully rotate the brake disc and observe the motor shaft. When the disc is turned clockwise the motor shaft should turn with it. When the disc is turned counterclockwise the motor shaft should not turn. Also, check all nuts, bolts, retaining rings, etc., to be sure that they are tight and secure.
- If a pully block and hook is used, check assembly to be sure that the pulley rotates freely on the bronze pulley spacer. Occasional greasing of these two items is recommended.

If you are having any problems with this electric winch, go to Dutton-Lainson website: **http://www.dutton-lainson.com/ts.php** to view trouble shooting manual. This manual will help diagnose most problems with this winch.

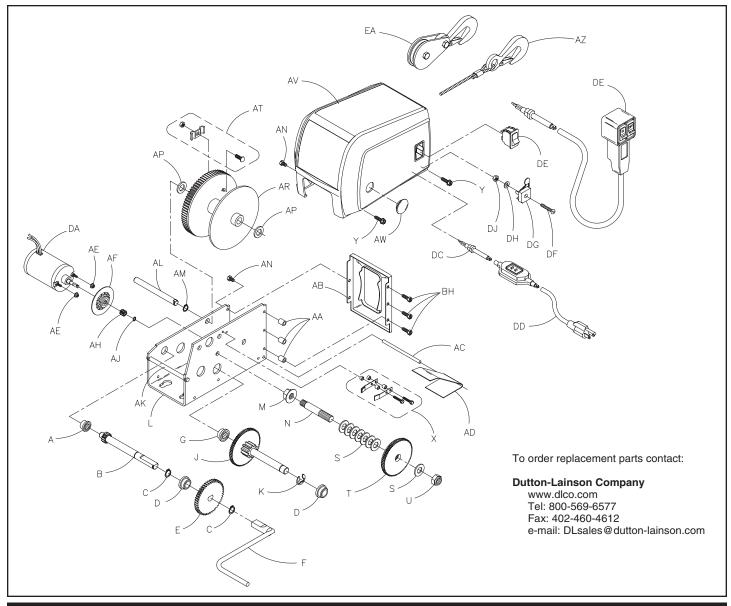






# SA5000AC, SA5015AC, SA7000AC, SA7015AC

Ref.	Part	Number	Ref.	Part	Number		REMOTE SWITCH
Α	Retaining Ring (2)	205191	AP	Cover (SA5000AC/7000AC)	404637	EΑ	Dual Switch Remote Ass'y. 5240890
В	Bushing	204012	AP	Cover (SA5015AC/7015AC)	404638	EΑ	Single Switch Remote Ass'y. 5240528
С	Drive Shaft Assy.	304813	AP	Cover (CSA) SA5000/SA7000	406019	EB	Strain Relief Bushing 206670
D	Bushing	204009	AP	Cover (CSA) SA5015/SA7015	404995		· ·
Ε	56T Gear	204703	ΑU	Cable & Hook-3/16x20'	5240692		
F	Handle Assy.	304412		(SA5000AC)			
G	Base Spacer	404557	ΑU	Cable & Hook-3/16x50'	5240445		
Η	Base	404922		(SA7000AC)			
K	Brake Spring Replacement Kit	5703210	ΑV	Screw, 1/4-20x1" (2)	205190		
N	Locknut, 7/16-20	205192	ΑW	Top Decal (Not Shown)	206628		
Ρ	Clutch Stud	404535	DA	Pulley Block & Hook	5240270	То	order replacement parts contact:
Τ	Washer (6)	204360		(Complete)			
U	120T Gear Assy.	304414				Dut	ton-Lainson Company
Χ	Nut, 1/2-20	205015		MOTOR PARTS			www.dlco.com
Υ	Front Plate Spacer (3)	404562	CA	Motor Assy.	304921	-	Tel: 800-569-6577
Ζ	Front Plate	404553	CB	Strain Relief Bushing	204912	- 1	Fax: 402-460-4612
AA	Screw, 1/4-20x5/8 (3)	205238	CC	Cord	205038		e-mail: DLsales@dutton-lainson.com
AB	Locknut, 10-32 (2)	205193	CC	Cord, GFCI	5240189		
AC	Brake Disc Assy. (Roller Clutch	304407	CD	Switch	204419		
AD	Motor Pinion	404522	EΑ	IN/OUT Rocker Switch only	204491		
ΑE	'E' Ring	205135	EΑ	OFF/RUN Rocker Switch only	204490		
AF	Reel Shaft	404559	EΑ	OUT/IN Rocker Switch only	206435		
AG	Retaining Ring	204468	CE	Cap Screw	205180		
ΑH	Screw, 1/4-20x3/8 (2)	205337	CF	Bridge Ass'y.	304426		
AJ	Cable Clamp Kit	304617	CG	Washer	205194		
AK	Screw, 1/4-20x3/4 (2)	205338	CH	Hex Nut, 8-32	205195		
AL	Reel Assy.	304812					
AN	Cover Plug	204713					



## SA9000AC, SA9010AC, SA9015AC, SA12000AC, SA12015AC

Ref.	Part	Number	Ref.	Part	Number	Ref.	Part	Number
Α	Bearing Housing Assy.	304314	AA	Spacer (3)	404513	AW	Cover Plug	204713
В	Primary Drive Shaft Assy.	304304	AB	Front Plate	404511	ΑZ	Cable & Hook (7/32x25')	5240478
С	Retaining Ring (2)	205191	AC	Level Wind Pin (Optional)	404516	ΑZ	Cable & Hook (7/32x50') (Opt.)	5240452
D	Bushing (2)	204012	AD	Level Wind (Optional)	204709	BE	Top Decal (AC) (Not Shown)	206041
Ε	56T Gear	204703	ΑE	Nut, 10-32 Locknut (2)	205193	BH	Screw 1/4-20x7/8 (3)	205242
F	Aux. Handle Assy.	304412	AF	Brake Disc Assy. (Roller Clutch)	304422	DA	Motor Assy	304921
G	Drive Shaft Bearing Housing Assy.	304313	AH	12T Pinion Gear	404522	DC	Strain Relief Bushing	206670
J	Interm. Drive Shaft Assy.	304814	AJ	"E" Ring	205135	DD	Electrical Cord, GFCI	5240189
K	"E" Ring	205116	AK	Base Spacer	404510	DD	Cord	205038
L	Base	404921	AL	Reel Shaft	404514	DE	Dual Switch Remote Ass'y	5240890
M	Nut, 7/16-20 Locknut	205192	AM	Retaining Ring	204468	DE	Single Switch Remote Ass'y	5240528
N	Clutch Stud	404535	AN	Screw, 1/4x20x1/2" (4)	205189	DE	Switch	204419
S	Washer (8)	204360	AP	Washer (2)	205109	DE	IN/OUT Rocker Switch only	204491
Τ	Gear Assy.	304319	AR	Reel Assy. (SA9010AC)	304823	DE	OFF/RUN Rocker Switch only	204490
U	Nut	205015	AR	Reel Assy.	304815	DE	OUT/IN Rocker Switch only	206435
Χ	Brake Spring Replacement Kit	5703160	ΑT	Rope Clamp Kit	5243506	DF	Screw 8-32x1" Lg.	205180
Υ	Screw, 1/4-20x1" (2)	205190	ΑV	Cover (For Remote Switch)	404915	DG	Bridge Assy.	304426
			ΑV	Cover (CSA)	404594	DH	Lockwasher - #8 Inter.	205194
			ΑV	Cover (AC)	404631	DJ	Nut, 8-32	205195
			AV	Cover (CSA - For Remote Switch)	406050	EA	Pulley Block & Hook (Complete)	5240270
	(Optional)							



A Dependable Company Since 1886

DUTTON-LAINSON COMPANY

Hastings, NE 68902 U.S.A • Tel 402-462-4141 • Fax 402-460-4612 E-mail dlsales@dutton-lainson.com • Web Site www.dutton-lainson.com

