Electric Winch Assembly and Operating MANUAL

CE

Model SE9500C
Part Number:
76-50146 for 12Volts
76-51146 for 24Volts
Pulling Capacity: 9500lbs



Model SE12000C
Part number:
76-50151 for 12Volts
76-51151 for 24Volts
Pulling Capacity: 12000lbs



Model SI9500
Part Number:
76-50147for 12Volts
76-51147 for 24Volts
Pulling Capacity: 9500lbs



Model SI12000
Part number:
76-50152 for 12Volts
76-51150 for 24Volts
Pulling Capacity: 12000lbs



* Single Line * Power In - Power Out * Series Wound DC Motor * Free Spool *

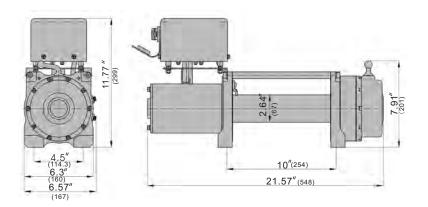


2121 Blount Road * Pompano Beach,FI 33069 * USA Toll Free: 1-800-886-8647 International & Local: 1-954-782-0604 Fax: 1-954-782-0770 Email: info@milemarker.com

Website: http://www.milemarker.com

SE9500C

12 Volt: 76-50146 24 Volt: 76-51146



Features:

- Planetary gear system for fast line speed
- Automatic load-holding brake
- Free spooling
- Power In and Power Out
- 3.6Kw(4.8Hp) heavy duty series wound DC motor
- Low electric current
- Hardened Drum

Specifications:

- Tated Line Pull-----9500lbs(4309kgs), single line
- Gear Reduction ratio----212: 1
- □ Motor(series wound)----3.6Kw(4.8Hp), 12Volt, 24volt available
- Drum Size----- 2.64"x 9"(67x228mm)
- Cable supplied(mini break force:14400lbs)

-----3/8" x100' galvanized aircraft cable

- © Overall Dimension----- 21.57" (548mm)x 6.57" (167mm) x 11.77" (299mm)
- Net Weight-----(94lbs)42.6kgs
- Mounting Bolt Pattern-- 10" x4.5" (254x114.3mm)

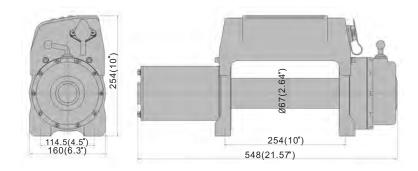
Performance of 1st layer

Line	<u>Pull</u>	<u>Line Speed</u>			Motor C	Current	
		<u>12V</u>		24			<u>24V</u>
<u>Lbs</u>	<u>kgs</u>	<u>fpm</u>	<u>mpm</u>	<u>fpm</u>	<u>mpm</u>	<u>amp</u>	<u>amp</u>
0	0	18.70	5.70	22.97	7.00	85	58
2000	907	13.12	4.00	18.37	5.60	150	110
4000	1814	10.50	3.20	13.45	4.90	210	135
6000	2722	7.90	2.41	12.80	3.90	270	185
8000	3629	5.91	1.80	10.50	3.20	320	220
9500	4309	4.32	1.32	9.02	2.75	365	240

Cable	Rated Li	ne Pull	Cable Capacity		
<u>Layer</u>	<u>lbs</u>	<u>kgs</u>	<u>ft</u>	<u>meter</u>	
1	9500	4309	15	5	
2	7500	3402	38	11.5	
3	6200	2812	64	19.5	
4	5300	2404	95	29	
5	4630	2100	100	30.5	

S19500

12 Volt: 76-50147 24 Volt: 76-51147



Features:

- Planetary gear system for fast line speed
- Automatic load-holding brake
- Free spooling
- Power In and Power Out
- 3.6Kw(4.8Hp) heavy duty series wound DC motor
- Low electric current
- Hardened Drum

Specifications:

- □ Rated Line Pull-----9500lbs(4309kgs), single line
- Gear Reduction ratio----212: 1
- □ Motor(series wound)----3.6Kw(4.8Hp), 12Volt, 24volt available
- ① Drum Size----- 2.64"x 9"(67x228mm)
- Cable supplied(mini break force:14400lbs)

-----3/8" x100' galvanized aircraft cable

- © Overall Dimension----- 21.57" (548mm)x 6.3" (160mm) x 10" (254mm)
- Net Weight-----94.8lbs (43kgs)
- ① Mounting Bolt Pattern-- 10"x4.5" (254x114.3mm)

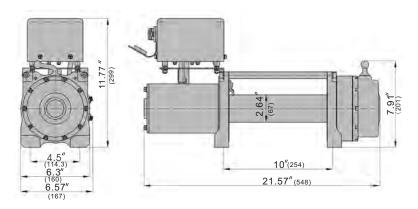
Performance of 1st layer

Line	<u>Pull</u>	<u>Line Speed</u>			Motor C	Current	
		<u>12</u>	<u>12V</u>		<u>1V</u>	<u>12V</u>	<u>24V</u>
<u>Lbs</u>	<u>kgs</u>	<u>fpm</u>	<u>mpm</u>	<u>fpm</u>	<u>mpm</u>	<u>amp</u>	<u>amp</u>
0	0	18.70	5.70	22.97	7.00	85	58
2000	907	13.12	4.00	18.37	5.60	150	110
4000	1814	10.50	3.20	13.45	4.90	210	135
6000	2722	7.90	2.41	12.80	3.90	270	185
8000	3629	5.91	1.80	10.50	3.20	320	220
9500	4309	4.32	1.32	9.02	2.75	365	240

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1	9500	4309	15	5	
2	7500	3402	38	11.5	
3	6200	2812	64	19.5	
4	5300	2404	95	29	
5	4630	2100	100	30.5	

SE12000C

12 Volt: 76-50151 24 Volt: 76-51151



Features:

- Planetary gear system for fast line speed
- Automatic load-holding brake
- Free spooling
- Power In and Power Out
- 3.6Kw(4.8Hp) heavy duty series wound DC motor
- Low electric current
- Hardened Drum

Specifications:

- Rated Line Pull------12000lbs(5443kgs)
- Gear Reduction ratio----295.75: 1
- Motor(series wound)----3.6Kw(4.8Hp), 12Volt, 24volt available
- ① Drum Size----- 2.64"x 9"(67x228mm)
- Cable supplied(mini break force:14400lbs)

-----3/8" x100' galvanized aircraft cable

- © Overall Dimension----- 21.57" (548mm)x 6.57" (167mm) x 11.77" (299mm)
- Net Weight-----(94lbs)42.6kgs
- ① Mounting Bolt Pattern-- 10"x4.5" (254x114.3mm)

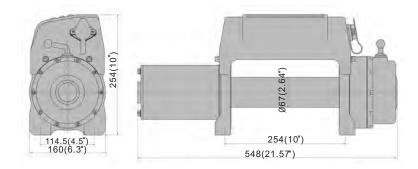
Performance of 1st layer

Line	<u>Pull</u>	<u>Line Speed</u>			Motor Current		
		<u>12</u>	<u>2V</u>	<u>2</u> 4	<u>1V</u>	<u>12V</u>	<u>24V</u>
<u>Lbs</u>	<u>kgs</u>	<u>fpm</u>	<u>mpm</u>	<u>fpm</u>	<u>mpm</u>	<u>amp</u>	<u>amp</u>
0	0	14.60	4.45	16.50	5.00	90	58
2000	907	12.81	3.90	15.10	4.60	145	95
4000	1814	9.68	2.95	13.45	4.10	185	120
6000	2722	7.90	2.41	11.11	3.39	230	160
8000	3629	7.07	2.15	9.50	2.91	270	190
10000	4536	5.06	1.54	8.26	2.52	315	230
12000	5443	4.45	1.36	7.15	2.18	375	250

Cable	Rated Li	ne Pull	Cable Capacity		
<u>Layer</u>	<u>lbs</u>	<u>kgs</u>	<u>ft</u>	<u>meter</u>	
1	12000	5443	15	5	
2	10200	4627	38	11.5	
3	8400	3810	64	19.5	
4	7300	3310	95	29	
5	6500	2948	100	30.5	

SI12000

12 Volt: 76-50152 24 Volt: 76-51152



Features:

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- Automatic load-holding brake
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- 3.6Kw(4.8Hp) heavy duty series wound DC motor
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- Hardened Drum

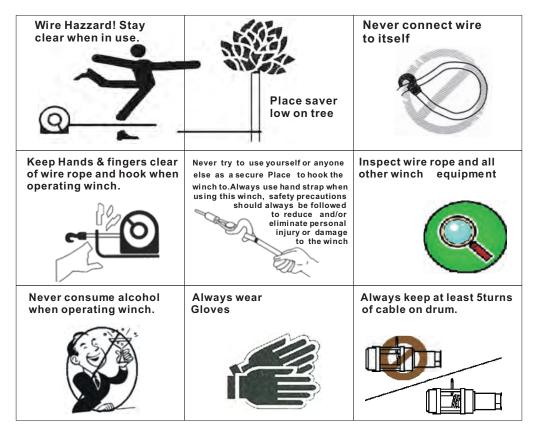
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 - -----3/8" x100' galvanized aircraft cable
- © Overall Dimension----- 21.57" (548mm)x 6.57" (167mm) x 10" (254mm)
- Net Weight-----(94.8lbs)43kgs
- Mounting Bolt Pattern-- 10"x4.5" (254x114.3mm)

Performance of 1st layer

<u>Line F</u>	<u>Pull</u>	<u>Line Speed</u>			Motor Current		
		<u>12</u>	<u>2V</u>	24	<u>4V</u>	<u>12V</u>	<u>24V</u>
Lbs	<u>kgs</u>	<u>fpm</u>	<u>mpm</u>	<u>fpm</u>	<u>mpm</u>	<u>amp</u>	<u>amp</u>
0	0	14.60	4.45	16.50	5.00	90	58
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4000	1814	9.68	2.95	13.45	4.10	185	120
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2	10200	4627	38	11.5	
3	8400	3810	64	19.5	
4	7300	3310	95	29	
5	6500	2948	100	30.5	



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 YOUR MILE MARKER 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. Do not use until repaired 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 snapped 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. Place rug, blanket, sand bag over cable in center to help absorb cable movement. This will help to prevent personal injury if cable breakage occur.

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 Mile Marker 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.

NEVER ATTEMPT TO OPERATE WINCH BEFORE READING THIS MANUAL IN ITS ENTIRETY.

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 stands.

DRUM ROPE:

Always make sure that there are at least 5 complete turns of rope left on the drum before winching. This will help insure the cable will stay connected to the drum when the winch is pulling.

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

Always use hand strap placed on hook to retrieve cable. 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 place yourself in a situation where an injury can occur. If the winch will not work correctly, DO NOT force it. Call repair technician immediately.

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. Let cool for 20 or more minutes before continuing.

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. Use a snatch block where possible to reduce winch loading.

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. This will minimize the natural wear and tear of the cable.

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. Never use winch for other than its intended application.

DISCONNECT SWITCH:

Unplug switch when not in use. Place on & off switch to "OFF" position when it is not being used.

REPLACEMENT PARTS & ACCESSORIES:

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

WINCH WARNINGS & PRECAUTIONS

- 1) Keep hands and body away from Fairlead (cable intake slot) when operating. Always use hook strap to hold the cable hook when using winch.
- 2) Secure vehicle in position before using winch. Check your anchor points for safe winching.
- 3) Do not exceed winch load weight capacity (see specifications on Page 1-4).
- **4)** Be certain 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. The winch is not a hoist.
- 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. You **MUST** replace any parts needed before using the winch.
- 13) Never fully extend cable while under load. **Keep 5 complete turns** of cable around the winch drum.
- 14) When loading a boat into a trailer without reel or side hull rollers, make sure the trailer is submerged in the water when the boat is loaded by the winch. Attempting to drag the boat onto the trailer while on land can cause winch failure and possible injury.
- **15)** Never operate winch if cable shows any signs of weakening, for example, is knotted, kinked, rusted, has broken strands, etc.
- **16)** Winch does not have a locking mechanism. Secure load after moving.

- 17) Do not cross over or under the cable while it is in process of loading. Place rug, blanket, sand bag over cable in center to help absorb cable movement. This will help to prevent personal injury should cable breakage occur.
- **18)** Do not move vehicle with cable extended and attached to load to pull it. The cable could snap. Series damage can occur.
- 19) Apply blocks (such as a wheel chock) to vehicle when parked on an incline.
- 20) It is prohibited to hit the motor housing when the winch stalls or stops during operation.
- 21) Re-spool cable properly.

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 Mile Marker at the number on the cover of this manual as soon as possible.

INSTALLATION

STEP 1 Mount electric winch to the vehicle using Cap Screw(#37) and Nut #(34), that are provided. If the provided hardware does not accommodate the installation, use no less than 3/8" diameter SAE grade 8 bolts or higher with torque of 35 ft.lbs. The winch should be aligned and secured to a solid part or the vehicle (front or rear) where the full rated load will be evenly distributed. Also remember that the winch is designed for horizontal pull, not vertical. ALWAYS remember to buy a mount based on two factors: the size of the winch and that the mount is designed to be used with a winch.

STEP 2 Mount the Solenoid Assembly(#33) and the Solenoid Bracket(#34) onto the winch. (For Model SE9500C & SE12000C only)

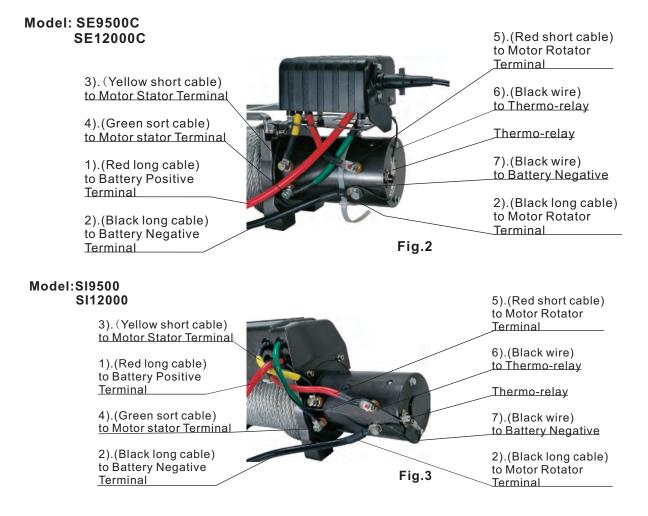


- Firstly, put the winch on a mounting channel or flat surface. To attach the supplied Solenoid Bracket(#34), remove the 2-Screws(#1) and 2-Spring Washers(#2) from the Motor End Bearing Assy(#3).(see fig.1)
- 2). Then, align the Solenoid Bracket with the 2-Tie Bar mounting holes. Resecure the Tie Bars(#4) and attach the Solenoid Bracket(#34) to the Motor

- End Bearing Assy(#3) using the 2 same Screws(#1) and 2-Spring Washers (#2) that were previously removed.
- 3). Torque the Screws tightly. Retain the Solenoid Bracket (#34) now connected to the Motor End Bearing Assy (#3) by attaching the Plastic Strap (#32) around both the Solenoid Bracket (#34) and the Motor End Bearing Assy (#3). Pull strap until tightly secured.

STEP 3 Electric Cable Connection (Refer to fig2, NOTE: Terminals are color coded)

- 1). Connect the red(positive) Battery cable from the Solenoid Assembly to the closest screw- down positive(+) terminal to 12-volt battery.
- 2). Connect the Black Cable to the closest screw- down Battery negative(-) on one end and to the Low-terminal of the Motor Rotator on the other end.



- 3). Connect the Yellow Cable from the Solenoid Assembly to Up-terminal of the Motor Stator.
- 4). Connect the Green Cable from the Solenoid Assembly to Low-terminal of the Motor Stator.
- 5). Connect the Red Cable (short) from the Solenoid Assembly to Up-terminal of the Motor rotator.

- 6). Connect the Black Wire(thin) from the Solenoid Assembly to Thermo-relay.
- 7). Connect the Black Wire (thin) from Thermo-relay to Low-terminal of the Motor rotator.
- 8) Disengage the clutch by turning the Clutch Handle(#13) to the Disengaged position. (See fig4).
- **Pull the Cable**(#4) through the Fairlead and connect the Hook and safety 9). Pin.
- 10). **Test electric winch** for proper operation. Refer to the operation section below.

CAUTION Battery cables should not be drawn taut. Leave slack for some cable movement. The Battery Cable should be secure, out of the way of moving parts, road debris, or any possibility of being damaged by operation or maintenance of the vehicle. For example, the Battery Cables maybe routed unde the vehicle attaching them to the frame using suitable fasteners (not included). Do not attach the Battery Cables to the exhaust system, drive shaft, emergency brake cable, fuel line, or any other components which may create damage to the Battery Cables through heat or motion, or create a fire hazard. If a hole is drilled through the bumper or any other part of the vehicle, make sure to install a rubber grommet (not included) in the hole to prevent fraying of the Battery Cables at that point.

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

DISENGAGED POSITION



ENGAGED POSITION



Fig.4

OPERATION

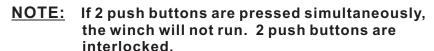
Fig.5

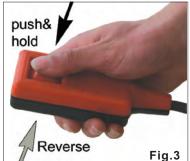
- 1) Disengage the clutch by moving the Clutch Handle(#13) to the **DISENGAGED** position.
- 2) Grab the Cable Assembly (#39) hook with hand strap and pull the cable to the desired length, then attach to item being pulled.



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

- 3) Re-engage the clutch by moving the Clutch Handle(#13) to the ENGAGED position.(see fig.5)
- 4) Lift the Female Connector Cover on the Solenoid Assy(#33) exposing the electrical switch connector.
- 5) Insert the Switch Assy(#35) into the Female Connector.
- 6) While standing aside the pulling path, press and hold the Red push button on the Switch Assy(#35). Press and hold the opposite push button to reverse directions. Wait until the motor stops before reversing directions.(see fig.6)





- Always leave at least 5 turns of cable on the drum. Review Winch Safety Warnings & Precautions on page5 through 6 before continuing. Failure to do so may break cable connection to drum.
- 7) When the pulling is complete, rewind the cable (#39) onto the drum.
- Before first using winch, to pre-load the cable, 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 and may break the cable to drum connection.
 - NOTE: If the surface temperature of the motor side plate reaches and exceeds 80 C, the Thermo-relay will act to cut off the electricity and the motor will stop running to protect the motor from overheating.
- 8) Remove the Switch Assy(#35) 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.

> If the Solenoid is stuck during pulling operation, switch off the the Red Power Kill Switch immediately to cut off the electricity.

MAINTENANCE

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 (#39) periodically using light penetrating oil.

CABLE ASSEMBLY REPLACEMENT:

- 1) Move Clutch Handle(#13) to DISENGAGED position.
- 2) Extend Cable Assembly (#39) to its full length.
 - *Note how the existing cable is connected to 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.

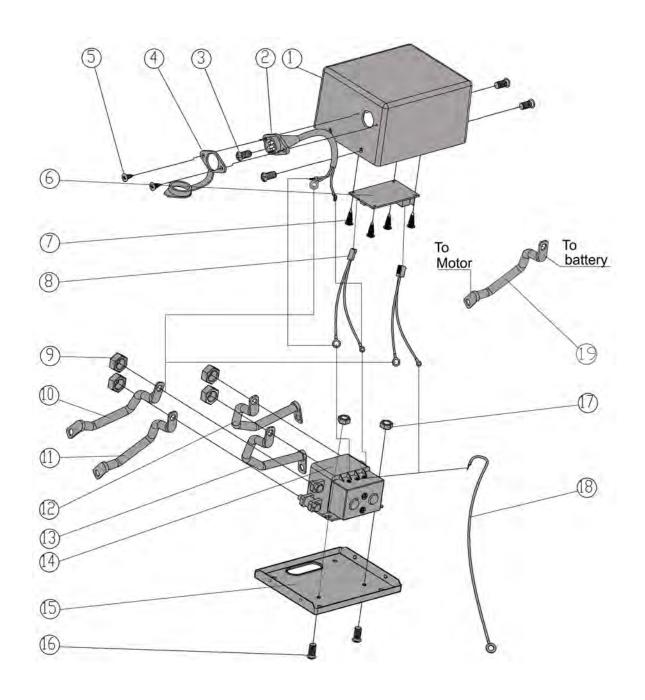
WARNING: The warnings, cautions and instructions discussed in this instruction manual cannot cover all the possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors that cannot be built into this product, but must be exercised by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

	TROUBLE SHOOTING								
SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY							
Motor does	-Switch Assy not connected properly	*Insert Switch Assy firmly to the connector.							
not turn on	-Loose battery cable connection	* Tighten nuts on cable connectors							
	-Solenoid malfunctioning	*Tap solenoid to free contact, applying 12volts to coil terminal directly. The 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	-Battery runs down	*Recharge battery by running vehicle engine.							
power	-Insufficient current or voltage	*Clean, tighten or replace the . connector.							
Motor runs but cable drum does not turn	-Clutch (or Cam Ring) not engaged	*Push Clutch Handle(or Cam Ring) 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.							

Solenoid Parts List for SE9500C & SE12000C

Item	Description	Qty	Item	Description	Qty
1	Plastic Housing	1	11	Cable 2 (red)	1
2	Female Connector	1	12	Cable 3 to Battery-positive	1
3	Screw M5x8	4	13	Cable 4 (yellow)	1
4	Rubber Dust Boot	1	14	Solenoid QJS12-500A	1
5	Self-tapping Screw ST4.8x10	2	15	Base Plate	1
6	Circuit Board	1	16	Screw M5x10	2
7	Self-tapping Screw ST3.8x10	4	17	Nut M5	2
8	Wires 22AWGx3C	2	18	Ground Cable 14AWG	1
9	Nut M8	4	19	Cable 5 to Battery	1
10	Cable 1 (red)	1			

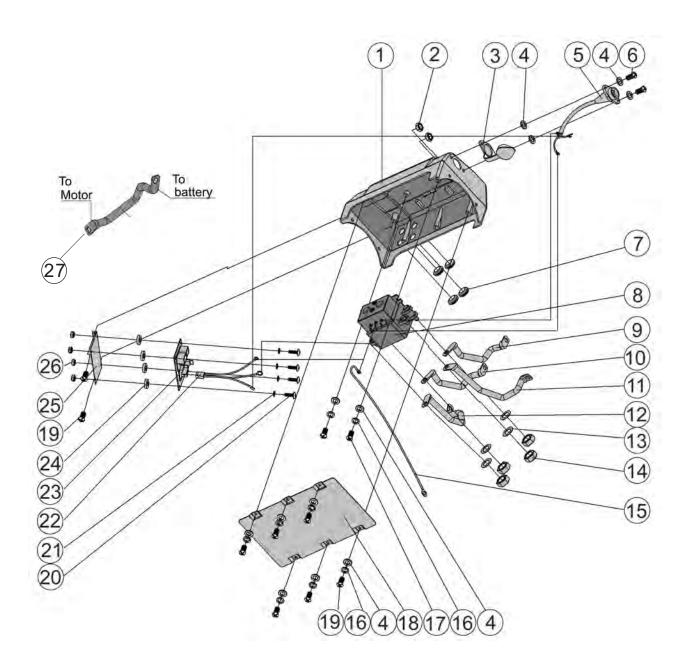
^{*} When ordering parts, be sure to quote parts numbers & winch series numbers.
* Due to continuing improvements, actual product may differ slightly from the product described herein.



Solenoid Parts List for SI9500 & SI12000

Item	Description	Qty	Item	Description	Qty
1	Housing	1	15	Ground Cable(14AWG)	1
2	Lock Nut M5	2	16	Spring washer diameter 5	8
3	Dust Boot	1	17	Screw M5x10	2
4	Washer diameter5	12	18	Base plate	1
5	Female Connector	1	19	Screw M5x8	8
6	Screw M5x16	2	20	Screw M3x10	4
7	Rubber Ring	4	21	Paper Washer diameter 3	4
8	Solenoid	1	22	Wires(22AWG.3C)	1
9	Cable 2 (output)	1	23	PCB Circuit Board	1
10	Cable 3 (output)	1	24	Nylon Washer diameter5/10x4.5	4
11	Cable 1 (output)	1	25	PCB Mounting Plate	1
12	Cable (red, to Battery)	1	26	Nut M3	4
13	Washer diameter 8	2	27	Cable 5 to Battery	1
14	Nut M8	4			

^{*} When ordering parts, be sure to quote part numbers & winch series numbers.
* Due to continuing improvements, actual product may differ slightly from the product described herein.

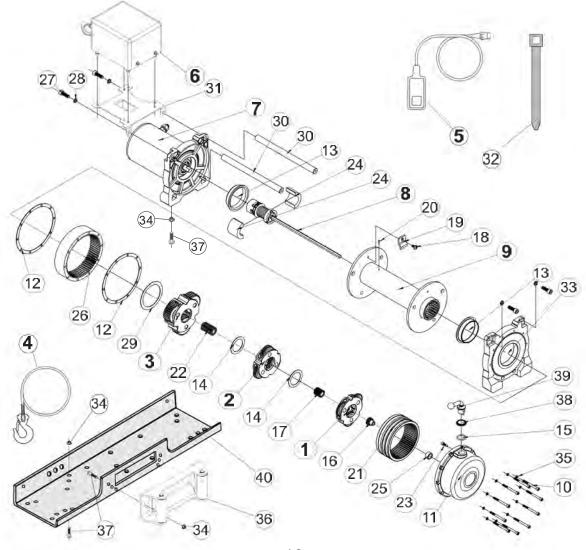


WINCH ASSY DRWG & PARTS LIST FOR SE9500C

Item	Qty	Part N0.	Description	Item	Qty	Part N0.	Description
	1	76-50146-01	Gear Carrier Assy-input	21	1	76-50151-21	Gear Ring-input,
2	1	76-50146-02	Gear Carrier Assy-intermediate				intermediate
3	1	76-50145-03	Gear Carrier Assy-Output	22	1	76-50151-22	Gear-output sun
4	1	76-50145-04	Cable assy dia. 3/8" x100'	23	1	76-50151-23	Retaining Screw M5x16
5	1	76-50140-05	Switch Assy	24	2	76-50140-24	Brake Shoe
6	1	76-50151-06	Solenoid Assy	25	1	76-50151-25	Gear Bushing
	1	76-51151-06	Solenoid Assy(24V)	26	1	76-50151-26	Gear Ring-output
7	1	76-50151-07	Motor End	27	4	76-50140-27	Bolt M8x25
	1	76-51151-07	Motor End(24V)	28	4	76-50140-28	Spring Washer diameter8
8	1	76-50151-08	Brake/Shaft Assy.	29	1	76-50151-29	Washer
9	1	76-50146-09	Drum	30	2	76-50140-30	Tie Bar
10	10	76-50151-10	Bolt M5x55	31	1	76-50151-31	Solenoid Bracket
11	1	76-50151-11	Gear Ring Housing	32	1	76-50152-32	Plastic Strap
12	2	76-50151-12	Gasket	33	1	76-50151-33	End Bearing
13	2	76-50151-13	Dry Bearing	34	6	76-50140-34	Self-locking Nut M10
14	2	76-50140-14	Thrust Washer	35	10	76-50140-35	Spring Washer diameter5
15	1	76-50151-15	Seal	36	1	76-50140-36	Roller Fairlead WH-9
16	1	76-50151-16	Gear-input sun	37	6	76-50140-37	Screw M10x34
17	1	76-50145-17	Gear-intermediate sun	38	1	76-50151-38	Seal Cover
18	1	76-50140-18	Screw M6x10	39	1	76-50151-39	Clutch Handle
19	1	76-50115-19	Cable Anchor	40	1	50-87283	*Mount Channel
20	1	76-50140-20	Roll Pin diameter3x10				

* When ordering parts, be sure to quote parts No and winch series number.

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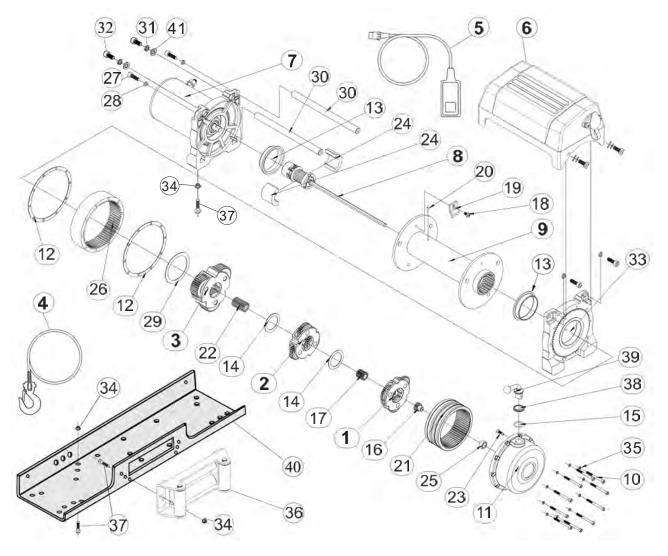


WINCH ASSY DRWG & PARTS LIST FOR SI9500

Item	Qty	Part N0.	Description	Item	Qty	Part N0.	Description
1	1	76-50146-01	Gear Carrier Assy-input	21	1	76-50151-21	Gear Ring-input,
2	1	76-50146-02	Gear Carrier Assy-intermediate				intermediate
3	1	76-50145-03	Gear Carrier Assy-Output	22	1	76-50151-22	Gear-output sun
4	1	76-50145-04	Cable assy dia.3/8"x100"	23	1	76-50151-23	Retaining Screw M5x16
5	1	76-50140-05	Switch Assy	24	2	76-50140-24	Brake Shoe
6	1	76-50152-06	Integrated Solenoid Assy	25	1	76-50151-25	Gear Bushing
	1	76-51152-06	Integrated Solenoid Assy(24V)	26	1	76-50151-26	Gear Ring-output
7	1	76-50151-07	Motor End	27	4	76-50140-27	Bolt M8x25
	1	76-51151-07	Motor End(24V)	28	4	76-50140-28	Spring Washer dia.8
8	1	76-50151-08	Brake/Shaft Assy.	29	1	76-50151-29	Washer
9	1	76-50146-09	Drum	30	2	76-50140-30	Tie Bar
10	10	76-50151-10	Bolt M5x55	31	4	76-50152-31	Spring Washer dia.6
11	1	76-50151-11	Gear Ring Housing	32	4	76-50152-32	Screw M6x12
12	2	76-50151-12	Gasket	33	1	76-50151-33	End Bearing
13	2	76-50151-13	Dry Bearing	34	6	76-50140-34	Self-locking Nut M10
14	2	76-50140-14	Thrust Washer	35	10	76-50140-35	Spring Washer dia.5
15	1	76-50151-15	Seal	36	1	76-50140-36	Roller Fairlead WH-9
16	1	76-50151-16	Gear-input sun	37	6	76-50140-37	Screw M10x34
17	1	76-50145-17	Gear-intermediate sun	38	1	76-50151-38	Seal Cover
18	1	76-50140-18	Screw M6x10	39	1	76-50151-39	Clutch Handle
19	1	76-50115-19	Cable Anchor	40	1	50-87283	*Mount channel
20	1	76-50146-20	Roll Pin dia.3x12	41	4	76-50152-35	Washer dia.6

* When ordering parts, be sure to quote parts No and winch series number.

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

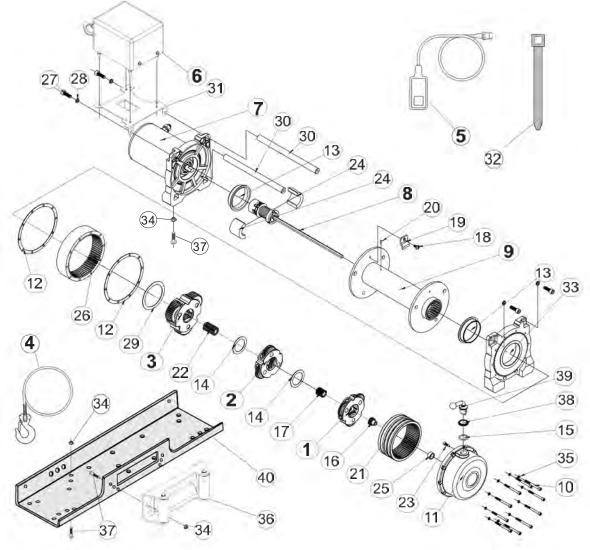


WINCH ASSY DRWG & PARTS LIST FOR SE12000C

Item	Qty	Part N0.	Description	Item	Qty	Part N0.	Description
1	1	76-50151-01	Gear Carrier Assy-input	21	1	76-50151-21	Gear Ring-input,
2	1	76-50151-02	Gear Carrier Assy-intermediate				intermediate
3	1	76-50145-03	Gear Carrier Assy-Output	22	1	76-50151-22	Gear-output sun
4	1	76-50145-04	Cable assy dia.3/8"x100"	23	1	76-50151-23	Retaining Screw M5x16
5	1	76-50140-05	Switch Assy	24	2	76-50140-24	Brake Shoe
6	1	76-50151-06	Solenoid Assy	25	1	76-50151-25	Gear Bushing
	1	76-51151-06	Solenoid Assy(24V)	26	1	76-50151-26	Gear Ring-output
7	1	76-50151-07	Motor End	27	4	76-50140-27	Bolt M8x25
	1	76-51151-07	Motor End(24V)	28	4	76-50140-28	Spring Washer diameter8
8	1	76-50151-08	Brake/Shaft Assy.	29	1	76-50151-29	Washer
9	1	76-50140-09	Drum	30	2	76-50140-30	Tie Bar
10	10	76-50151-10	Bolt M5x55	31	1	76-50151-31	Solenoid Bracket
11	1	76-50151-11	Gear Ring Housing	32	1	76-50152-32	Plastic Strap
12	2	76-50151-12	Gasket	33	1	76-50151-33	End Bearing
13	2	76-50151-13	Dry Bearing	34	6	76-50140-34	Self-locking Nut M10
14	2	76-50140-14	Thrust Washer	35	4	76-50140-35	Spring Washer diameter5
15	1	76-50151-15	Seal	36	1	76-50140-36	Roller Fairlead WH-9
16	1	76-50151-16	Gear-input sun	37	6	76-50140-37	Screw M10x34
17	1	76-50150-17	Gear-intermediate sun	38	1	76-50151-38	Seal Cover
18	1	76-50140-18	Screw M6x10	39	1	76-50151-39	Clutch Handle
19	1	76-50115-19	Cable Anchor	40	1	50-87283	*Mount channel
20	1	76-50146-20	Roll Pin diameter3x12				

* When ordering parts, be sure to quote parts No and winch series number.

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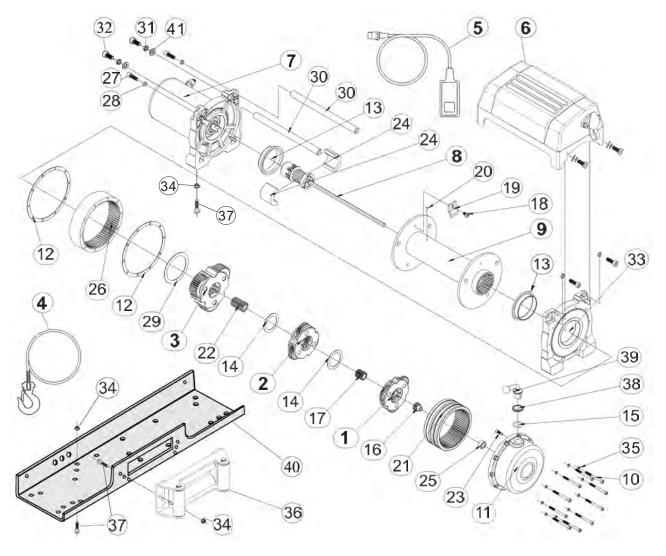


WINCH ASSY DRWG & PARTS LIST FOR SI12000

Item	Qty	Part N0.	Description	Item	Qty	Part N0.	Description
1	1	76-50151-01	Gear Carrier Assy-input	21	1	76-50151-21	Gear Ring-input,
2	1	76-50151-02	Gear Carrier Assy-intermediate				intermediate
3	1	76-50145-03	Gear Carrier Assy-Output	22	1	76-50151-22	Gear-output sun
4	1	76-50145-04	Cable assy dia. 3/8" x100'	23	1	76-50151-23	Retaining Screw M5x16
5	1	76-50140-05	Switch Assy	24	2	76-50140-24	Brake Shoe
6	1	76-50152-06	Integrated Solenoid Assy	25	1	76-50151-25	Gear Bushing
	1	76-51152-06	Integrated Solenoid Assy(24V)	26	1	76-50151-26	Gear Ring-output
7	1	76-50151-07	Motor End	27	4	76-50140-27	Bolt M8x25
	1	76-51151-07	Motor End(24V)	28	4	76-50140-28	Spring Washer meter8
8	1	76-50151-08	Brake/Shaft Assy.	29	1	76-50151-29	Washer
9	1	76-50146-09	Drum	30	2	76-50140-30	Tie Bar
10	10	76-50151-10	Bolt M5x55	31	4	76-50152-31	Spring Washer diameter6
11	1	76-50151-11	Gear Ring Housing	32	4	76-50152-32	Screw M6x12
12	2	76-50151-12	Gasket	33	1	76-50151-33	End Bearing
13	2	76-50151-13	Dry Bearing	34	6	76-50140-34	Self-locking Nut M10
14	2	76-50140-14	Thrust Washer	35	4	76-50140-35	Spring Washer diameter5
15	1	76-50151-15	Seal	36	1	76-50140-36	Roller Fairlead WH-9
16	1	76-50151-16	Gear-input sun	37	6	76-50140-37	Screw M10x34
17	1	76-50150-17	Gear-intermediate sun	38	1	76-50151-38	Seal Cover
18	1	76-50140-18	Screw M6x10	39	1	76-50151-39	Clutch Handle
19	1	76-50115-19	Cable Anchor	40	1	50-87283	*Mount channel
20	1	76-50140-20	Roll Pin diameter 3x10	41	10	76-50151-41	Spring Washer

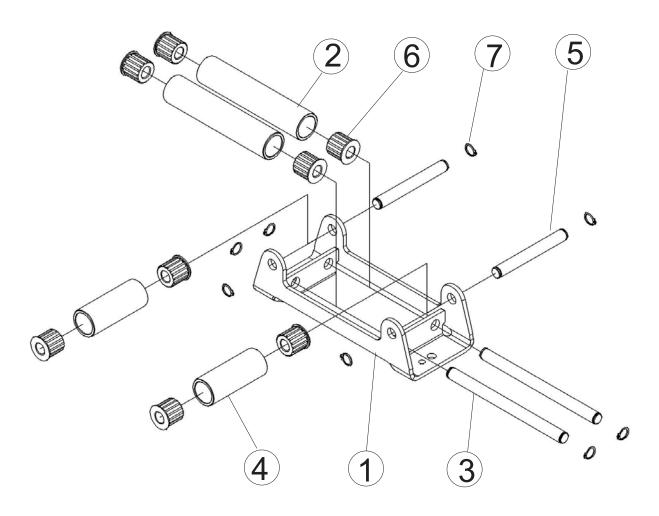
* When ordering parts, be sure to quote parts No and winch series number.

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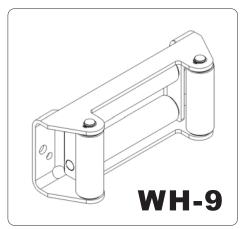
Roller Fairlead

Model	WH-9
Cable Opening	(182mm) Lx(22mm) H, (7.165"x0.866")
Roller Sizes Vertical	(40mm) D x (100mm) H, (1.575"x3.937")
Horizonta	I (40mm) D x (186mm) L, (1.575"x7.323")
Application (used on)	8000 - 12000lbs Electric Winch
Overall Dimensions	(293mm) L x (126mm) W x (84mm) H, (11.535'x4.961"x3.307")
Weight	4.2kgs(9.3lbs)



Parts List

Item No Qty		Part No	Description		
1	1 1 WH-9-01		Frame		
2	2	WH-9-02	Long Roller		
3	2	WH-9-03	Long Shaft		
4	2	WH-9-04	Short Roller		
5	2	WH-9-05	Short Shaft		
6	8	WH-9-06	Bush		
7	8	WH-9-07	Circlip		



MILE MARKER, INC. LIMITED 2-YEAR WARRANTY ELECTRIC WINCH

Mile Marker, **Inc.** offers a limited two(2) year warranty(to the original retail purchaser) for each new **Mile Marker** consumer/RV electric winch against manufacturing defects in workmanship and materials on all the mechanical components.

Electrical components consisting of motors, solenoids, wiring, wire connectors and associated parts have a limited one(1) year warranty.

New cable assemblies are warranted against defects in workmanship and materials when received by the retail purchaser. There is no applicable warranty after initial use.

Warranty registration cards for each winch must be submitted at the time of purchase or within 30 days by the end user. Warranty will only be valid for the original purchaser of the winch and installed on the vehicle for which it was originally registered.

Mile Marker electric winches are intended for recreational self recovery usage. The warranty is void if the winch is used in commercial/industrial applications.

The obligation under this warranty, statutory or otherwise, is limited to the replacement or repair at the manufacturer s factory, or at a point designated by the manufacturer, of such part(s) as shall appear to the manufacturer, upon inspection of such part(s) as shall appear to the manufacturer, upon inspection of such part(s), to have been defective in material or workmanship. This warranty does not obligate **Mile Marker**, **Inc**. to bear the cost of labor or transportation charges in connection with the replacement or repair of defective parts, nor shall it apply to a product upon which repairs or alterations have been made, unless authorized by the manufacturer, or for equipment misused, neglected or improperly installed.

IMPORTANT NOTICE:

To the fullest extend permitted by applicable law, the following are hereby excluded and disclaimed:

- 1. All warranties of fitness for a particular purpose;
- 2. All warranties of merchantability;
- 3. All claims for consequential or incidental damages.

There are no warranties that extend beyond the description that appears on the face hereof.

Some states do not allow the above exclusions or disclaimer in consumer transactions and as such this disclaimer/exclusion may not apply to you.

To the extent such warranties of fitness or merchantability are deemed to apply to this product, they exist for only so long as the express limited warranty elsewhere set forth is in existence.

Mile Marker, Inc. Reserves the right to change, alter or improve its products in design, materials or appearance without incurring any obligation to incorporate such changes in products that were previously manufactured.

This Warranty gives you specific legal rights and you may have other legal rights which vary from state to state.

To submit a warranty claim contact:

MILE MARKER, INC.
WARRANTY ADMINISTRATOR
2121 BLOUNT ROAD
POMPANO BEACH,FL,33069 USA
PHONE: 1-800 886-8647
LOCAL PHONE: 1-954-782-0604

FAX: 1-954-917-3398



Mile Marker Winch consumer Warranty Registration 2121 Blount Road, Pompano Beach, FL.33069 USA Phone: (800) 886-8647 (954) 782-0604 Fax: (954) 917-3398

E-mail: warranty@milemarker.com

First Name:	
First Name:	
Last Name:	
Age::	
Sex	
Marital Status:	
Level of Education?	
City:/Province:	
Zip Code/Postal Code:	
Country:	
Telephone Number:	
Email Address:	
Which MileMarker Winch Product did you purchase?	
Model number:	
Serial Number:	
Date of Purchase:	
Where did you purchase this product?	
Store or catalogue name:	
Store location:	
How satisfied were you with the dealer and/or slaes staff?	
Who installed or will install your Mile Marker product?	
Is this the firs time you have purchased a winch?	
If no, what brand have you bought before y?	
What type of vehicle will this Mile Marker winch be	Pickup:
installed on?	Year: Make: Model:
Is this vehicle two or four wheel drive?	
What is the vehicle's main use?	
What other accessories have you purchased	
for your vehicle?	
Do you belong to any 4-wheel drive clubs?	If so, what is the Club name:
Yes or No	in so, what is the Glab hame.
What factors most influenced the purchase of	your Mile Marker product? (Check all that apply)
☐ MileMarker reputation	☐ Price
☐ Availability	☐ Warranty
Previous experience with Milemarker	☐ Internet
☐ Friend/Relative recommendation	Advertising
☐ Quality/Durability	Compatibility with vehicle
☐ Salesperson's recommendation. Salespe	

Mile Marker Inc. Electric Winch Line



To see all of Mile Marker's Product Lines, please visit our website at: www.milemarker.com