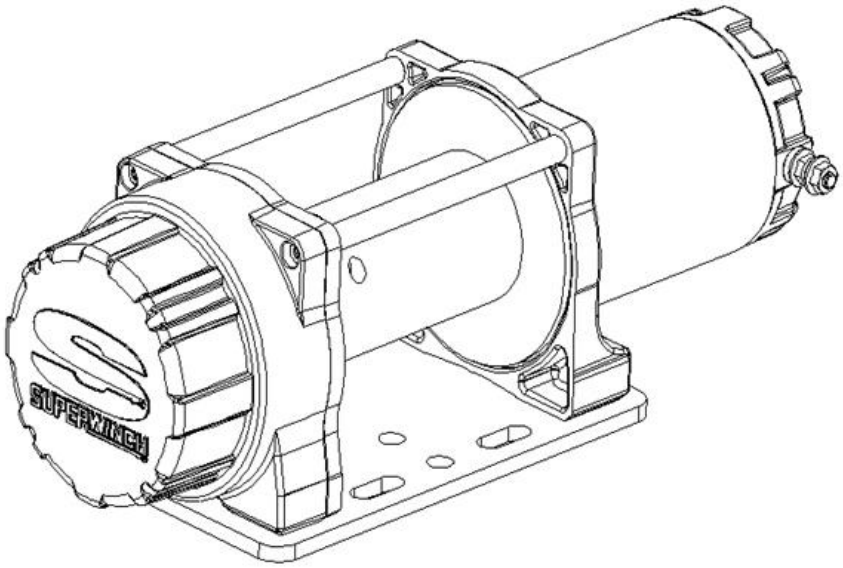
SH1000i Hoist



PART NUMBER: S104103

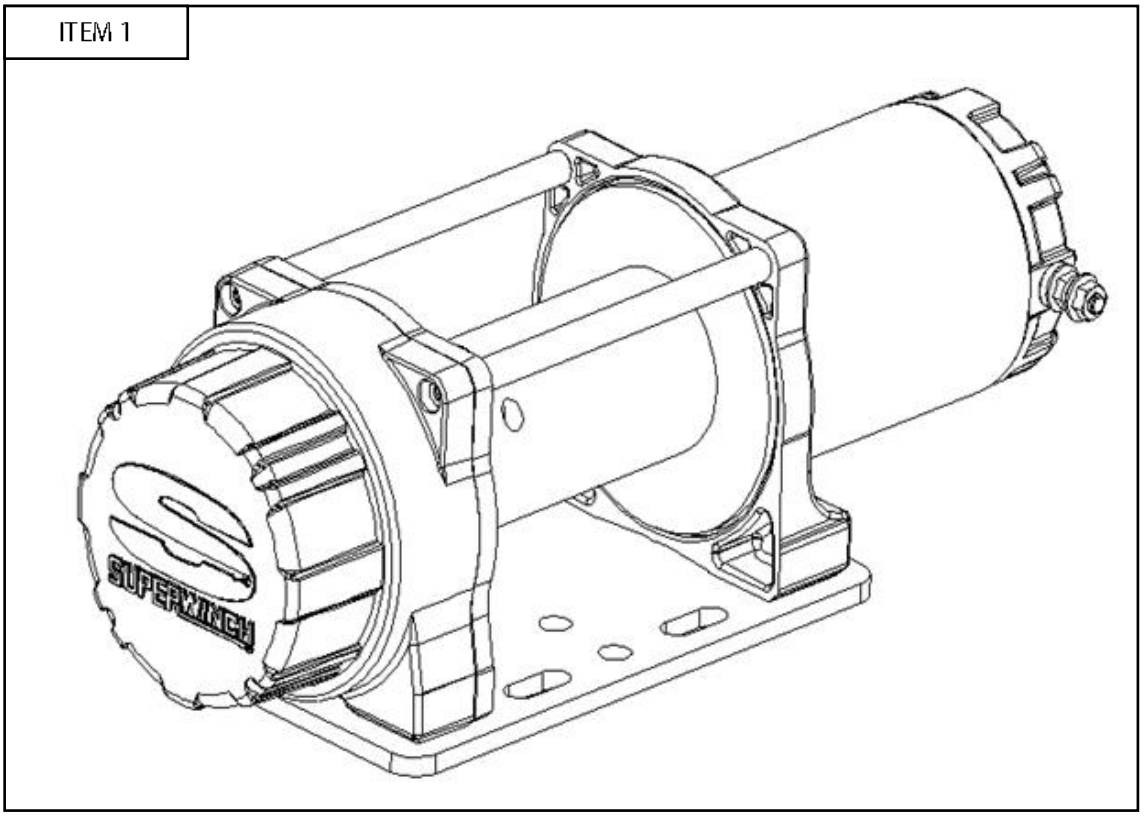
SAVE THESE INSTRUCTIONS

P.N.:75-S104103-RevB ECO #: W24-0002 Date: 2/1/2024

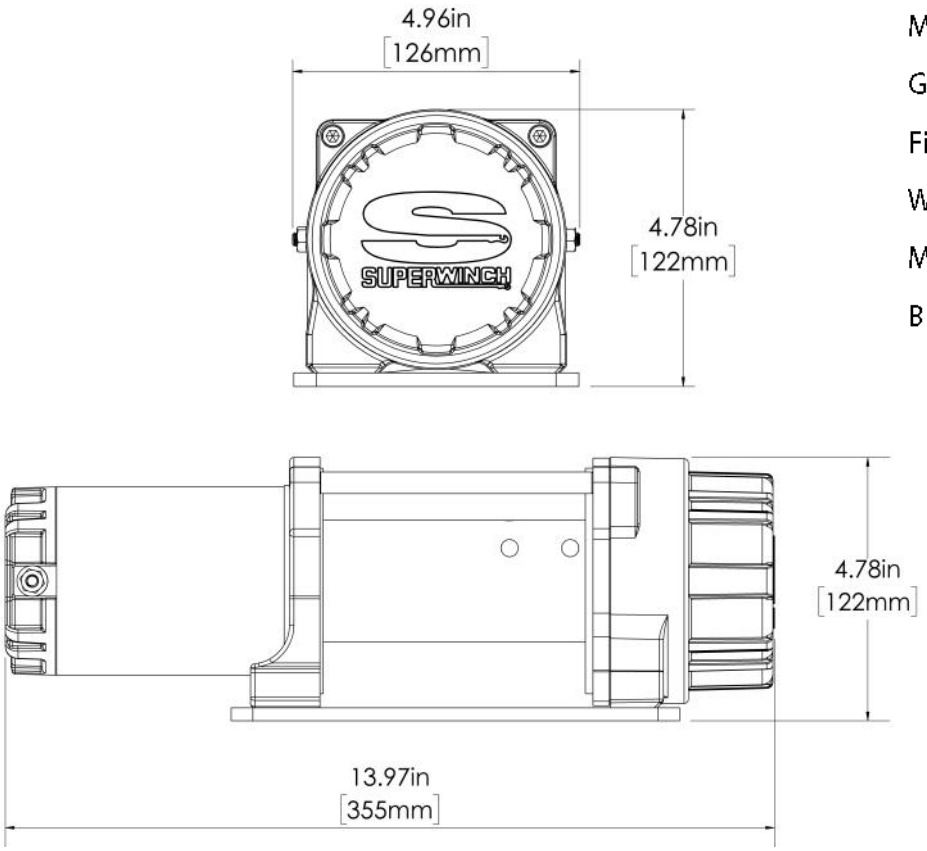
CONTENTS

ITEM	QUANTITY	DESCRIPTION
1	1	HOIST
2	3	M10 HEX HEAD CAP SCREW
3	6	M10 FLAT WASHER
4	3	M10 SPLIT LOCK WASHER
5	3	M10 HEX NUT
ANTI-SEIZE LUBRICANT MUST BE USED ON ALL STAINLESS STEEL FASTENERS TO PREVENT THREAD DAMAGE AND GALLING		

ITEM 1



PRODUCT SPECIFICATIONS



Motor: 1.8 HP/1.3 kW, Permanent Magnet 12 VDC

Gear Ratio: 138:1

First Layer Lifting Capacity: 1,000 lb/454 kg

Weight: 20 Lbs./9 kg

Mounting Pattern: 2-bolt, Slotted

Brake: Automatic

Line Speed and Motor Current (First Layer)						
Line Pull	Lbs.	0	250	500	750	1,000
	kg	0	113	227	340	454
Line Speed	ft./min.	12.7	12.3	11.6	10.8	10
	M/min.	3.87	3.75	3.53	3.3	3.06
Motor current	Amps	24	36	45	56	66

Line Pull per Layer					
Layer of Cable		1	2	3	4
Rated Line Pull per Layer	Lbs.	1,000	863	760	678
	kg	454	391	345	308

INTRODUCTION

This kit contains only the Superwinch SH1000i Hoist itself and includes no rigging, wiring, controls, or power source. To operate the hoist, connect it to a control assembly intended for the same direct current voltage, with lead wires and circuit breakers capable of supporting the amperage draw. It is your responsibility to supply cable, hooks, and rigging materials rated for the max lifting capacity of the hoist, as well as a mounting structure strong enough to bear the max lifting capacity, the weight of the hoist, and the weight of all attached equipment.

The SH1000i will not shut off on its own. Misuse may have disastrous consequences. You are responsible for understanding how to correctly install, operate, maintain, and repair the hoist, and for keeping others from interfering with its safe operation. It is extremely important that mechanics and operators be familiar with the servicing procedures of this product, or similar products, and are physically capable of performing them.

The hoist has designed this hoist to operate safely and effectively with little maintenance besides visual inspection before and after use, removal of dirt, moisture, and corrosion, and periodic verification that all fasteners and connections are tight. Do not disassemble the hoist unless directed by Superwinch.

SAFETY INFORMATION

This manual provides important information for all personnel involved with the safe installation, operation, maintenance, and repair of this product. Even if you feel you are familiar with this or similar equipment, you should read this manual before operating the hoist.

DANGER, WARNING, CAUTION, AND NOTICE

Throughout this manual there are steps and procedures that may result in an injury if not followed. The following safety warnings in this manual and on the products are divided into three sections.

The **SAFETY ALERT PICTOGRAM, the SIGNAL ALERT/ SIGNAL WORD**, and the **SAFETY MESSAGE** that identifies the hazard, the consequences if the hazard is ignored, and how to avoid the hazard.

DANGER — **Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.**

WARNING — **Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.**

CAUTION — **Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage.**

NOTICE — **Indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property.**

SUPERWINCH cannot know of or provide all the procedures by which product operations or repairs may be conducted and the hazards and/or results of each method.

If operation or maintenance procedures not specifically recommended by SUPERWINCH are performed, ensure that product safety is not endangered by the actions taken. If unsure of an operation, maintenance procedure, or step, place the product in a safe condition and contact supervisors and/or the factory for technical assistance.

SAFETY SUMMARY

- **The Superwinch SH1000i Hoist is designed to provide a 4:1 safety factor when fitted with a steel cable rated to support over four times the maximum lifting capacity of the hoist. The supporting structures and load-attaching devices used with this hoist must provide adequate support to handle all hoisting operations plus the weight of the hoist and all attached equipment. This is the customer's responsibility. If in doubt, consult a registered structural engineer.**

⚠ WARNING

- **Do not use this hoist or attached equipment for lifting, supporting, or transporting people, or lifting, supporting, or transporting loads over people.**

NOTICE

- **Read all operating instructions and warnings before use.**
- **Lifting equipment is subject to different regulations in each country. These regulations may not be specified in this manual.**
- **It is the responsibility of the operator to determine the limitations of various rigging equipment and hard-ware, as well as exercise caution, use common sense, and be familiar with proper rigging techniques.**
- **Employees who work near suspended loads, or assist in hooking on or arranging a load, must be instructed to keep out from under the load.**
- **Conduct all lifting operations in such a manner that if there were an equipment failure, no personnel will be injured. • Keep away from the line of force of any load.**
- **Final installation and use are the owner's and user's responsibility**

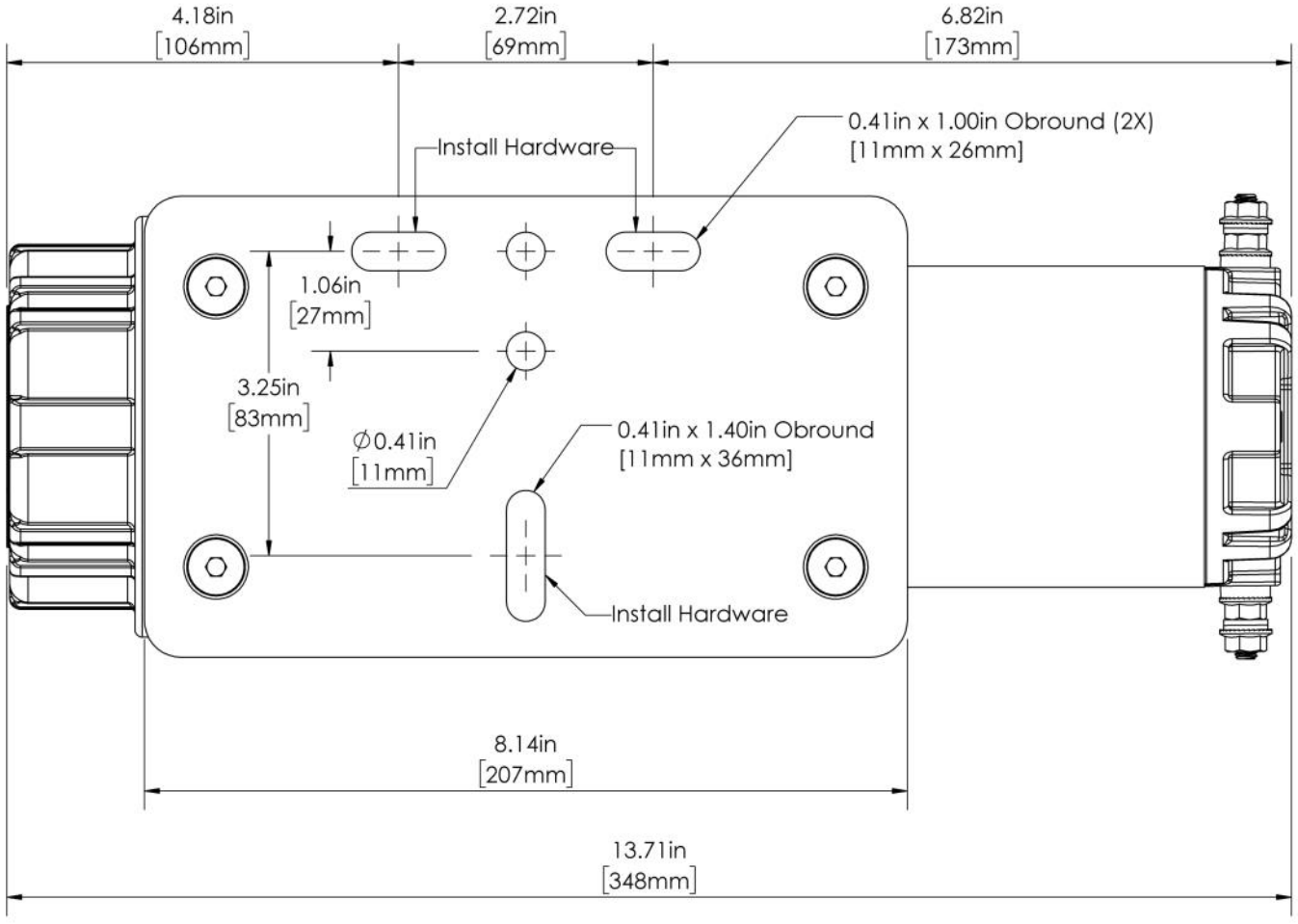
Before installing the Superwinch Compact Hoist, inspect all components for material defects.

Verify the four bolts securing the mount plate to the drum supports are tight, as well as the Allen-head screws retaining the steel bars between the motor and gearbox assemblies.

Select a mounting structure strong enough to support the maximum lifting capacity of the hoist, the weight of the hoist, and the weight of all attached equipment. This location needs to offer enough space for the control assembly that you intend to use.

Fasten the hoist to the mounting surface using the included M10 hardware (items 2-5) Insert the bolts with the heads on the hoist side of the mount plate.

Torque all M10 hardware to 35 ft-lbs.



Submerging the hoist in water may cause an electrical short circuit that can damage the hoist, the attached electrical system, and/or the power source. Select a mounting location that will prevent the hoist from being submerged.

Mount the hoist with its feet facing vertically or horizontally depending on the position of the mounting structure. If mounted with the feet facing horizontally, the line must leave the drum from the mount-plate side to evenly distribute the load throughout the hoist.

⚠ WARNING

BOLT FAILURE! Undersized fasteners may fail under load, which may cause serious injury or property damage. Use only fasteners from a reputable manufacturer class 8.8 and better, with a minimum diameter of M8.

⚠ WARNING

STRUCTURE FAILURE! A hoist mounted to an undersized mounting structure may break free under load, which may cause serious injury or property damage. Choose a mounting structure strong enough to support the full lifting capacity of the hoist, the weight of the hoist, and the weight of all attached equipment.

ELECTRICAL INSTALLATION

The Superwinch Compact Hoist includes only the hoist itself and must be connected to a control assembly before use.

Required Electrical Hardware NOT INCLUDED:

Model	Electrical Hardware
SH1000i	• 4 x 8-gauge power lead wires • 12V control assembly* • 8 x ¼ in/6.4 mm ring terminals • 2 x 40 Amp circuit breakers wired in parallel

*Use a control assembly designed for the same direct current voltage as the hoist, with lead wires and circuit breakers rated for the amperage draw. Superwinch offers control pack kits that will simplify the electrical installation of the Superwinch Compact Hoist.

Before beginning electrical installation, disconnect all lead wires from power and move them away from the battery.

Superwinch Control Packs AVAILABLE SEPARATELY:

Model	Superwinch Control Pack Part Number	Remote Part Number
SH1000i12V	S105648**	2275

**** Superwinch Control Packs include 4 lead wires, a control box, a sealed contactor, and a remote socket. They do not include remote controls or circuit breakers.**

DANGER

ELECTRIC SHOCK! PERFORMING ELECTRICAL INSTALLATION WHILE THE BATTERY IS CONNECTED WILL RESULT IN ELECTRIC SHOCK! DISCONNECT ALL LEAD WIRES FROM POWER BEFORE ELECTRICAL INSTALLATION!

Remove the outer nuts on the motor studs and place the lead wire ring terminals over them. Replace the outer nuts and tighten them down.

NOTICE

Motor terminal rotation may cause internal damage or misalignment. Use a wrench to hold the inner nut while turning the outer nut with another wrench.

Route the lead wires away from the hoist and reinforce the insulation with electrical tape wherever it touches another surface.

CAUTION

ELECTRICAL HAZARD! Damaged wires may fail to transmit power effectively and may also cause an electric shock. Keep wiring away from hot surfaces, moving parts, or sharp edges, and secure any loose lengths to hard points with cable ties.

Install the circuit breaker on the battery side of the positive power lead wire running from the control assembly to the battery. Use a short length of lead wire to connect the battery side of your circuit breaker to the positive battery terminal.

WARNING

EXPLOSIVE HAZARD! Sparks from installation can ignite gases from a leaking battery and cause an explosion, which may result in serious injury or death. Wear eye protection and remove all metal jewelry before installation. Do not place any part of your body over the battery during installation.

When all terminal connections are tight, and the entire system is wired correctly, attach the negative power lead wire from the control assembly to the negative battery terminal.

CAUTION

FIRE HAZARD! Incorrect wiring can damage your hoist and may also cause a fire. Check and double check your work against any wiring diagrams supplied with your control assembly.

The hoist is now ready to operate. Use the system controls to ensure the hoist runs normally in both directions.

STEEL CABLE INSTALLATION

When your hoist is securely mounted and properly wired to power, install the steel cable. A 3/16 in/4.8 mm IWRC or GAC with a strand pattern of 7x19 is recommended. This will support more than four times the maximum lifting capacity of the SH1000i Hoist, providing a 4:1 safety factor.

⚠ WARNING

STEEL CABLE FAILURE! An underrated steel cable may break under load and cause serious injury or property damage. Use only steel cable, nylon slings, and rigging materials rated for hoisting and holding a minimum of 4200 lb/1905 kg.

Remove the cup-point set screw near the motor-side drum flange and set it aside.

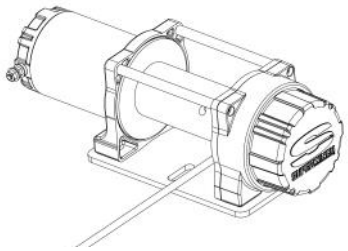
⚠ WARNING

WEAR LEATHER GLOVES! Steel cable can have razor sharp burs that may severely injure unprotected hands. Only handle steel cable while wearing heavy leather gloves.

When the blank end of the cable is flush with the surface of the drum, reinsert the cup-point set screw and tighten until hand tight.

NOTICE

Over-tightening the set screw may damage your steel cable. Use only hand tools when reinstalling the set screw and stop once snug.



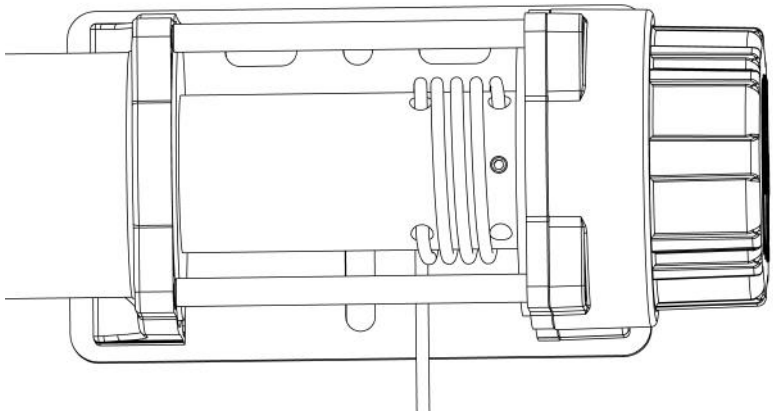
While looking at the hoist from the motor side, no matter how the feet are oriented, the drum must rotate clockwise to power in and counterclockwise to power out for the brake to function properly. Otherwise, the brake may work against the motor while lifting.

Power the hoist in under 100 lb/45 kg line tension to ensure the steel cable winds up evenly. Keep no fewer than five full wraps around the drum to prevent the steel cable from coming loose under load.

⚠ DANGER

PINCH POINT HAZARD! THE SUPERWINCH COMPACT HOIST IS INCREDIBLY POWERFUL AND WILL SEVER FINGERS CAUGHT IN BETWEEN THE CABLE AND THE DRUM! DO NOT HANDLE THE STEEL CABLE NEAR THE DRUM!

Wind the cable onto the drum by passing it between the drum and the mount plate, through the hole in the drum closer to the center, around the drum, and through the hole in the drum closer to the drum flange.



OPERATING THE SH1000i

Attach the hook to a point on the load that is rated to support the full weight of the load. If there is no place on the load to attach the hook, fasten an appropriately-rated nylon sling, or similar device, to the load and then attach the hook to the sling.

NOTICE

Hooking back onto the hoist cable will damage it. If there is no attachment point on the load, fasten an appropriately-rated nylon sling, or a similar device, to the load and then attach the hook to the sling.

Raise the load to the desired height using the system controls of the hoist.

WARNING

Swinging Load! If the load is not directly beneath the hoist, it will swing when raised, which may injure bystanders, damage property, or cause the load to break free. Only lift straight up.

WARNING

Keep Yourself/Others Out from Under Load! An equipment failure may cause serious injury or death to anyone below. Keep all personnel a safe distance from the hoist during use.

WARNING

Do Not Leave Loads Unattended! If there is an equipment failure, the load may fall and cause serious injury or property damage. Keep the full weight of the load resting on the ground and unhooked before leaving the immediate area.

NOTICE

Pulling the hook and load into the drum will damage the hoist. Stop lifting before the hook can reach the drum.

The SH1000i Hoist has the most power with only a single layer of steel cable around the drum. Each subsequent layer of cable that spools onto the drum will reduce the line speed and pulling power of the hoist.

Before lowering the load, make sure the surface below is strong enough to support the full weight of the load. Once its full weight comes to rest, the load can be unhooked.

NOTICE

When you are finished using the hoist, unplug any remote controls and store them in a clean, dry place. This will prevent the system from being activated accidentally and will help keep the remotes in good working condition.

The SH1000i Hoist is intended for intermittent duty only and requires cool down time after 2 minutes of continuous use at the max load.

If you notice the line speed slowing down or the sound of the motor changing pitch, this is an indication that the motor is overheating and requires cooling before further use.

NOTICE

Allowing the Superwinch Compact Hoist to overheat will reduce product performance and may cause a short circuit, which can damage the hoist, the attached electrical system, and/or the power source. Stop running the hoist after 2 minutes of use at max load and give it time to cool down before further use.

MAINTENANCE

Periodically check the tightness of all mounting fasteners and electrical connections. Inspect the hoist, mounting system, steel cable, control assembly, power supply, and remote control before and after each use. Remove any dirt, moisture, or corrosion you find.

If any of the components appear damaged or worn, do not use the hoist until that part has been replaced.

NOTICE

Disassembly of the SH1000i Hoist Will Void the Warranty! Superwinch does not warranty any products that have been tampered with. Do not disassemble your Compact Hoist for any reason without first contacting SUPERWINCH by phone at +1 (800) 323-2031 for US, or by email at info@superwinch.com.

Symptom	Possible Causes	Corrective Action
Motor will not turn or only turns in a single direction	Damaged contactor	Replace contactor
	Damaged switch	Replace switch
	Broken circuit	Check for bad connection or damaged wiring
	Damaged motor	Replace motor
	Contactor ungrounded	Check wiring; check connection
Motor will not shut off	Damaged contactor	Replace contactor
Motor extremely hot	Long period of use	Allow to cool
	Damaged motor	Replace motor
	Damaged brake	Replace brake
Motor runs weakly or with slow line speed	Weak battery	Recharge or replace battery; check charging system
	Lead wire gauge too small in length	Use larger-gauge lead wires
	Poor battery connection	Check battery terminals for corrosion
	Poor ground	Check connections
	Damaged brake	Replace brake
Motor runs back-wards	Motor lead wires reversed	Check Wiring
	Contactor wired incorrectly	Check Wiring
Will not hold load	Excessive load	Reduce load
	Worn or damaged brake	Replace brake

WARNINGS

Failure to follow these instructions could lead to death, personal injury, and / or property damage.

FASTENERS:

All SUPERWINCH supplied fasteners must be utilized and installed in accordance with the installation instructions and apply torque to the specifications as defined. DOUBLE CHECK ALL FASTENERS BEFORE INITIAL USE, AND PERIODICALLY IN THE FUTURE TO ENSURE PROPER FUNCTION AND SAFETY.

EYE PROTECTION:

ALWAYS WEAR SAFETY GLASSES OR GOGGLES DURING THE INSTALLATION PROCESS TO AVOID PERSONAL INJURY.

FOR CALIFORNIA RESIDENTS ONLY-PROP 65 WARNING:

Some products may contain chemicals such as DEHP, which can cause cancer, birth defects or other reproductive harm. For more info go to www.p65warnings.ca.gov

For more information on this and other products, or to be put in contact with a Superwinch sales rep or distributor, call (800) 323- 2031 or email info@superwinch.com

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