



ELECTRIC WINCH

TH1000

TH1000SD

PLEASE READ CAREFULLY BEFORE OPERATE THE WINCH



202112

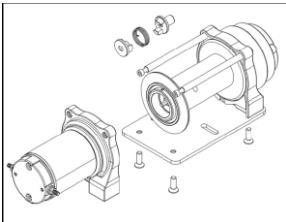


1689 Xianyuan Road, Jinhua, Zhejiang, China
Tel: 0086-579-82262697
Fax: 0086-579-82262706
<http://www.nowawinch.com>
E-mail: info@nowvow.net

TROUBLESHOOTING

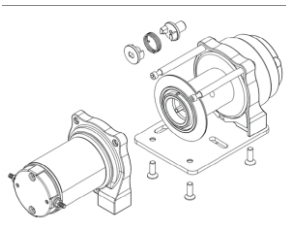
Symptom	Possible Causes	Corrective Action
Motor runs backwards	Motor lead wires reversed Contactor wired incorrectly	Check wiring Check wiring
Will not hold load	Excessive load Worn or damaged brake	Reduce load Replace brake

EXPLODED VIEWS



TH1000 12 & 24 V

1. Brake Spring
2. 12 V Permanent Magnet Motor
24 V Permanent Magnet Motor



TH1000SD 12 & 24 V

1. Brake Spring
2. 12 V Permanent Magnet Motor
24 V Permanent Magnet Motor

INTRODUCTION

This kit contains the Novawinch TH-Series Compact Hoist itself and mounting hardware, rigging, wiring, controls. 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 Novawinch Compact Hoist 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.

NOVAWINCH 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 NOVAWINCH.

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.

NOVAWINCH 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 NOVAWINCH 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.

TROUBLESHOOTING

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

TH1000/1000SD Part list

NO.	Part list	Qty
0		1
1	Motor assembly	1
2	Inside hexagon cylindrical screw M5*20	5
3	Cupling I	1
4	Rectangular spring	1
5	Cupling	1
6	X-ring	1
7	Drum barrel	1
8	Drum	1
9	Hexagon socket set screw flat point M6*10	1
10	Hexagonal drive shaft	1
11	Tie bar	2
12	Gearbox cover	1
13	O-ring	1
14	3rd stage planetary gear assembly	1
15	2nd stage planetary gear assembly	1
16	2nd stage gear ring	1
17	1st stage planetary gear assembly	1
18	1st stage sun gear	1
19	Bearing 605-2S	1
20	Gearbox housing	1
21	hexagon socket set screw with dog point M8*20	3
22	Square nut M8	4
23	Elastic cylindrical pin $\phi 3$	4
24	Hexagon socket countersunk head screws M8*25	4
25	Prevailing torque type hexagon nuts M5	1
26	Mounting plate	1
27	Hexagon nut M10	5
28	Spring Washer $\phi 10$	5
29	Flat Washer $\phi 10$	5
30	Roller fairlead	1
31	Cup head square neck bolts M10*25	2
32	Wire rope/ $\phi 4.8 \times 18.3m$	1
33	Hook/1/4"	1
34	Hand saver	1
35	Remote control	1
36	Control box	1

SAFETY SUMMARY

- The Novawinch TH-Series Compact 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.

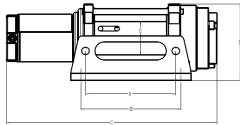
⚠ WARNING

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

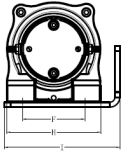
NOTICE

- 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 hardware, 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.

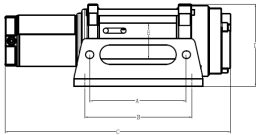
PRODUCT SPECIFICATIONS



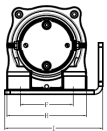
A=5.9" (151mm) B=6.6" (168mm)
C=14" (355mm) D=5.1" (129mm)
E=2.2" (56mm)



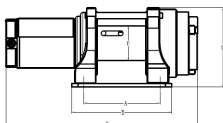
F=3" (76mm) H=4.5" (115mm)
I=5.6" (142mm)



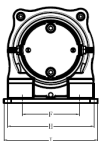
A=5.9" (151mm) B=6.6" (168mm)
C=14" (355mm) D=5.1" (129mm)
E=2.2" (56mm)



F=3" (76mm) H=4.5" (115mm)
I=5.6" (142mm)



A=4.9" (124mm) B=6" (152mm)
C=12.3" (312mm) D=5.1" (129mm)
E=2.2" (56mm)



F=3" (76mm) H=4.5" (115mm)
I=4.6" (116mm)

TH1000 12V

Motor: 1.6 HP/1.2 kW, Permanent Magnet 12V DC
Gear Ratio: 140:1
First Layer Lifting Capacity: 1000 lb/454 kg
No Load Amperage Draw: 30 Amps
Max Load Amperage Draw: 75 Amps
Weight: 24 lb/11 kg
Dimensions: 14.0 in/355 mm × 5.6 in/142 mm × 5.1 in/129 mm
Mounting Pattern: 2-bolt, Slotted
Brake: Automatic
Handheld Control: Waterproof rubber remote, 12.7'(3.9m) cord

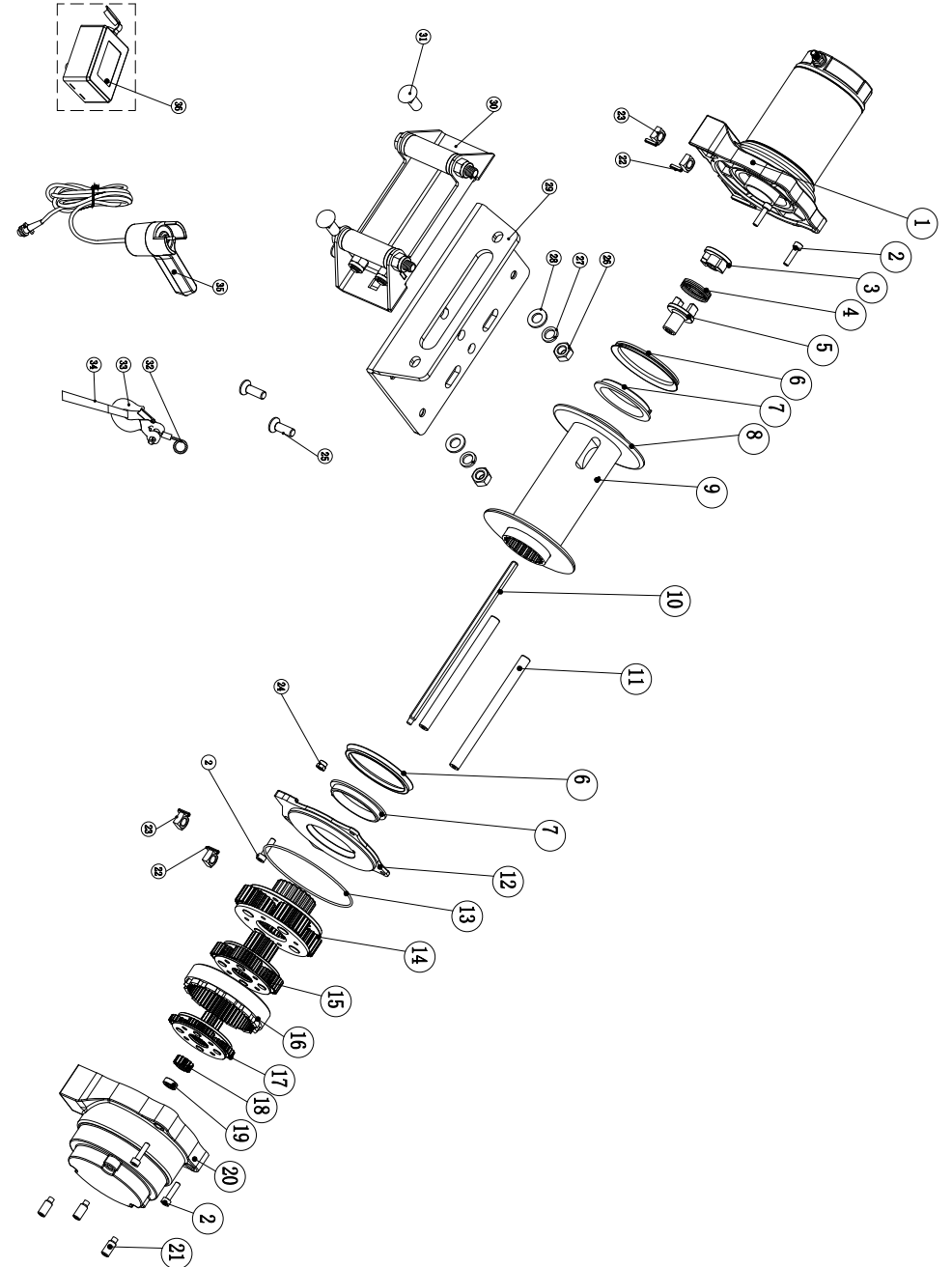
TH1000 24V

Motor: 1.3 HP/1.0 kW, Permanent Magnet 24V DC
Gear Ratio: 140:1
First Layer Lifting Capacity: 1000 lb/454 kg
No Load Amperage Draw: 15 Amps
Max Load Amperage Draw: 38 Amps
Weight: 24 lb/11 kg
Dimensions: 14.0 in/355 mm × 5.6 in/142 mm × 5.1 in/129 mm
Mounting Pattern: 2-bolt, Slotted
Brake: Automatic
Handheld Control: Waterproof rubber remote, 12.7'(3.9m) cord

TH1000SD 12V

Motor: 1.6 HP/1.2 kW, Permanent Magnet 12V DC
Gear Ratio: 140:1
First Layer Lifting Capacity: 1000 lb/454 kg
No Load Amperage Draw: 30 Amps
Max Load Amperage Draw: 75 Amps
Weight: 22 lb/10 kg
Dimensions: 12.3 in/312 mm × 4.6 in/116 mm × 5.1 in/129 mm
Mounting Pattern: 2-bolt, Slotted
Brake: Automatic
Handheld Control: Waterproof rubber remote, 12.7'(3.9m) cord

Explosion Drawing With 1000



OPERATING THE NOVAWINCH COMPACT HOIST

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 Novawinch Compact 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 Novawinch 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

The Novawinch Compact Hoist is permanently lubricated with extreme pressure lithium gear grease and requires no lubricant maintenance.

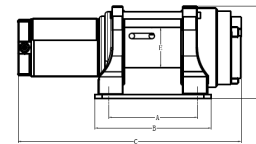
Periodically check the tightness of all mounting fasteners and electrical connections. Inspect the hoist, mounting system, steel cable, control assembly, power supply, and remote control before and after each use. Remove any dirt, moisture, or corrosion you find.

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

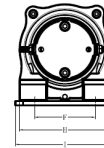
NOTICE

Disassembly of the Novawinch Compact Hoist Will Void the Warranty! Novawinch does not warranty any products that have been tampered with.

PRODUCT SPECIFICATIONS



A=4.9" (124mm) B=6" (154mm)
C=12.3" (312mm) D=5.1" (129mm)
E=2.2" (56mm)



F=3" (76mm) H=4.5" (115mm)
I=4.6" (116mm)

TH1000SD 24V

Motor: 1.3 HP/1.0 kW, Permanent Magnet 24V DC
Gear Ratio: 140:1
First Layer Lifting Capacity: 1000 lb/454 kg
No Load Amperage Draw: 15 Amps
Max Load Amperage Draw: 38 Amps
Weight: 22 lb/10 kg
Dimensions: 12.3 in/312 mm x 4.6 in/116 mm x 5.1 in/129 mm
Mounting Pattern: 2-bolt, Slotted
Brake: Automatic
Handheld Control: Waterproof rubber remote, 12.7'(3.9m) cord

MOUNTING INSTALLATION

Before installing the Novawinch 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.

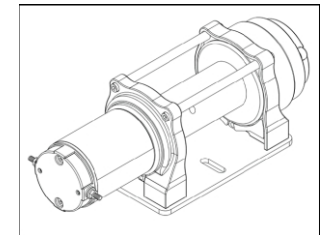
Required Mounting Hardware
NOT INCLUDED:

2 x M8 Class 8.8 Bolts (mounting structure thickness determines length)
4 x M8 Class 8.8 Flat Washers
2 x M8 Class 8.8 Lock Washers*
2 x M8 Class 8.8 Nuts

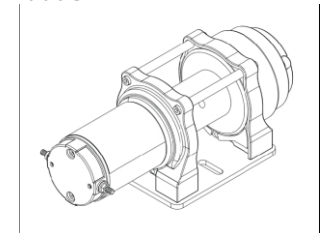
* If M8 class 8.8 nyloc nuts are used, no M8 lock washers are required.

NOTE: 5/16 grade 5 hardware may be substituted for M8 class 8.8

TH1000



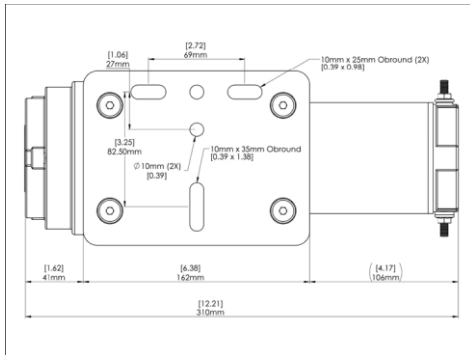
TH1000SD



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.

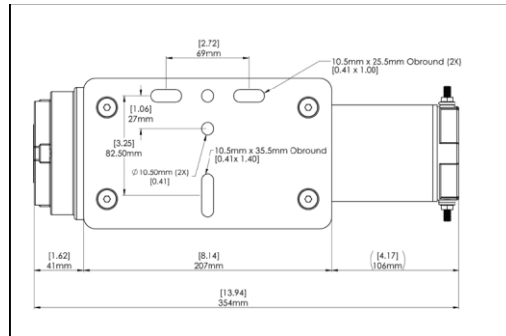
MOUNTING INSTALLATION

TH1000



NOTICE

TH100SD



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.

Using the centered top hole and the centered bottom slot in the mount plate, fasten the hoist to the mounting surface with two M8 bolts. Insert the bolts with the heads on the hoist side of the mount plate.

Install the mounting hardware in the following order: M8 bolt, M8 flat washer, mount plate, mounting structure, M8 flat washer, M8 lock washer, M8 nut.

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.

OPERATING THE NOVAWINCH COMPACT HOIST

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 Novawinch Compact Hoist has the most power with only a single layer of steel cable around the drum. Each subsequently 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.

STEEL CABLE INSTALLATION

While looking at the hoist with the motor to the left and the gearbox to the right, pass the cable behind the drum and back towards you, guiding it through the small hole running across the length of the drum near the flange.

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.

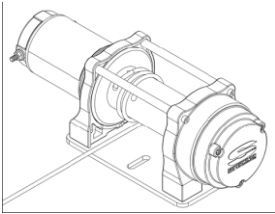
NOTICE

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.

PINCH POINT HAZARD! THE NOVAWINCH 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!



DANGER

ELECTRICAL INSTALLATION

The Novawinch 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
TH1000 12V	<ul style="list-style-type: none"> • 4 x 8-gauge power lead wires • 12V control assy* • 8 x 6.4 mm ring terminals • 2 x 40 Amp circuit breakers wired in parallel
TH1000 24V	<ul style="list-style-type: none"> • 4 x 10-gauge power lead wires • 24V control assy* • 8 x 6.4 mm ring terminals • 1 x 40 Amp circuit breaker
TH1000SD 12V	<ul style="list-style-type: none"> • 4 x 8-gauge power lead wires • 12V control assy* • 8 x 6.4 mm ring terminals • 2 x 40 Amp circuit breakers wired in parallel
TH1000SD 24V	<ul style="list-style-type: none"> • 4 x 10-gauge power lead wires • 24V control assy* • 8 x 6.4 mm ring terminals • 1 x 40 Amp circuit breaker

*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. Novawinch offers control pack kits that will simplify the electrical installation of the Novawinch Compact Hoist. Before beginning electrical installation, disconnect all lead wires from power and move them away from the battery.

ELECTRICAL INSTALLATION

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.

ELECTRICAL INSTALLATION

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

Novawinch Control Packs AVAILABLE SEPARATELY:

Novawinch 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.

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.

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 all Novawinch Compact Hoist models, 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.