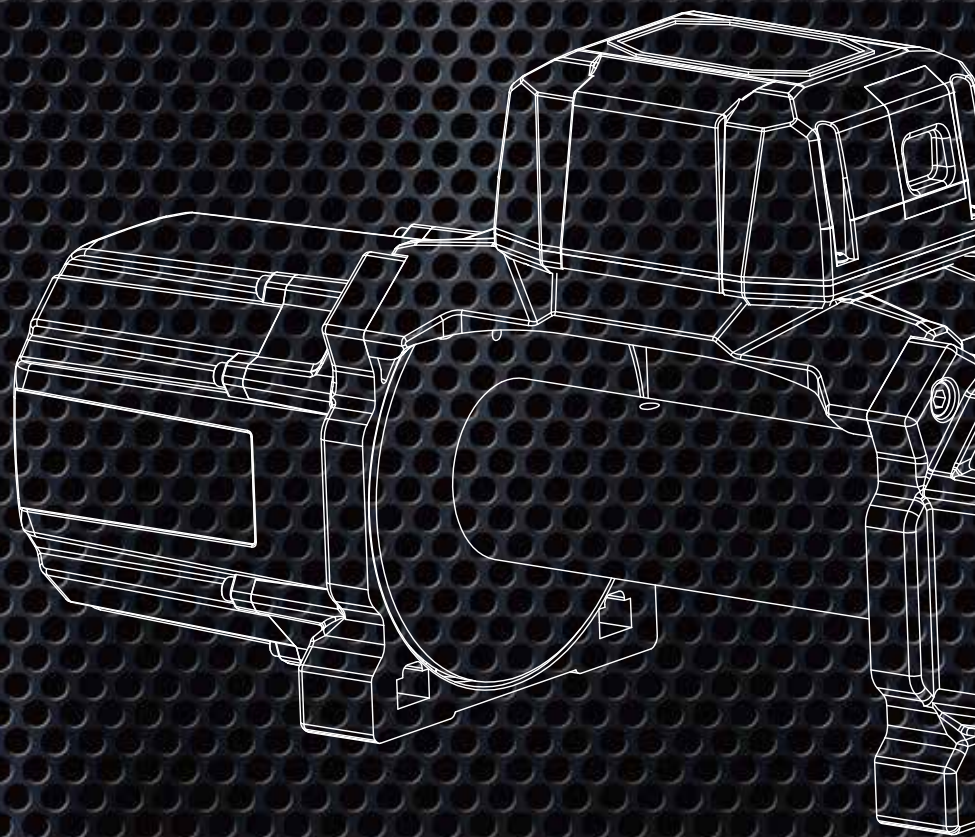


TANK

SERIES



INSTALLATION AND OPERATION GUIDE

Winch Operation Manual



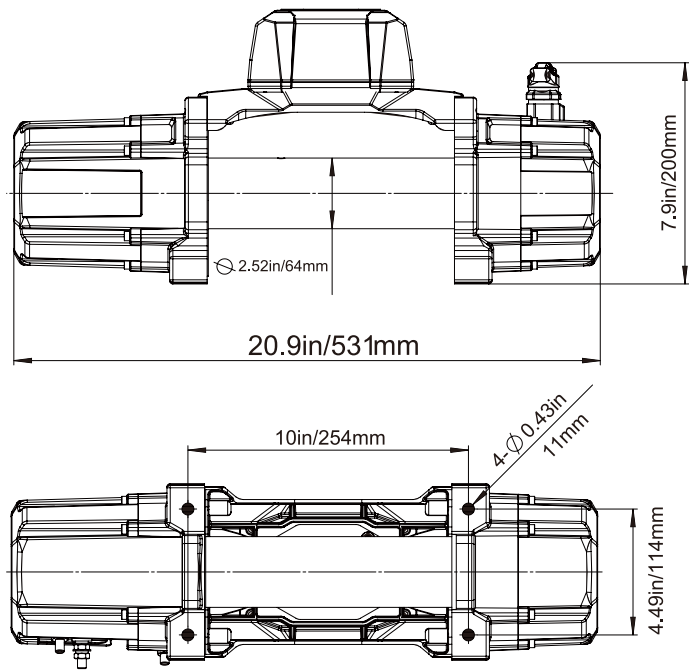
Every winching situation has the potential for personal injury. In order to minimize that risk, it is important to read ALL instructions and safety information regarding your product. Please familiarize yourself with the operation of your winch before using it and be constantly safety oriented. These instructions provide important safety information and instructions on how to install and operate your winch.

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TANK 12000LB/13500LB/15000LB			
Power	12VDC		
Motor	12000LB: 7.0HP(5.2KW),Series Wound		
	13500LB&15000LB:7.2HP(5.4KW),Series Wound		
Hand Control	Wireless Remote - Range 30.0m (100ft)		
Gear Train	3 Stage Planetary		
Gear Reduction Ratio	234:1(12000LB) 265 :1(13500LB&15000LB)		
Synthetic Rope	26m of 10mm	25 of 11mm	24m of 12mm
	12000LB	13500LB	15000LB
Battery	650CCA - minimum for winching		
Weight	N.W.29kg (64lbs)		N.W.30kg (66lbs)
	12000LB&13500LB		15000LB

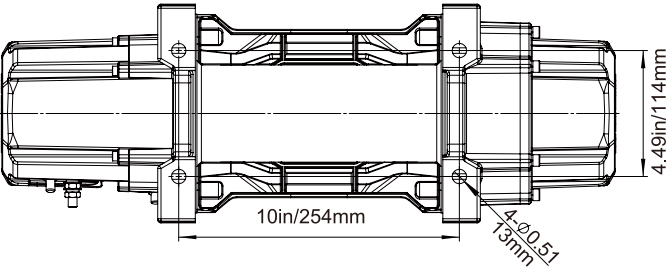
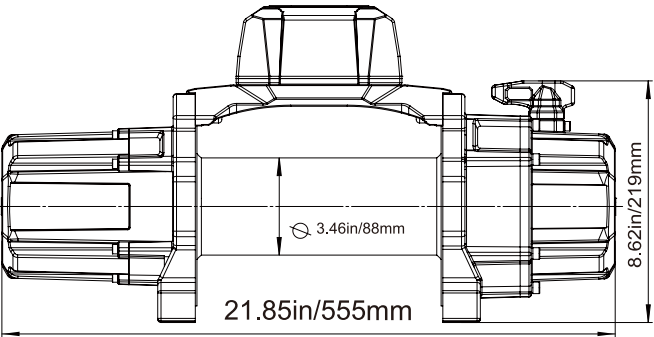
DIMENSIONS AND SPECIFICATIONS 12000LB/13500LB/15000LB



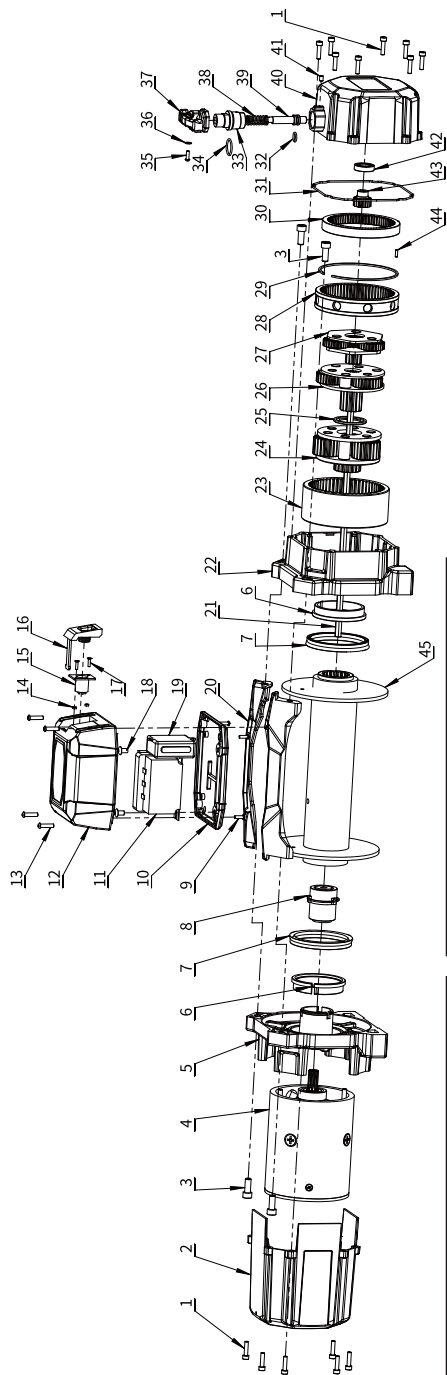
TANK 20000LB	
Power	12VDC
Motor	7.8HP / 5.4KW, Series Wound
Hand Control	Wireless Remote - Range 30.0m (100ft)
Gear Train	4 Stage Planetary
Gear Reduction Ratio	440:1
Synthetic Rope	21m of 14mm Diameter
Battery	650CCA - minimum for winching
Weight	N.W 37.7kg(83lbs)

DIMENSIONS AND SPECIFICATIONS

20000LB

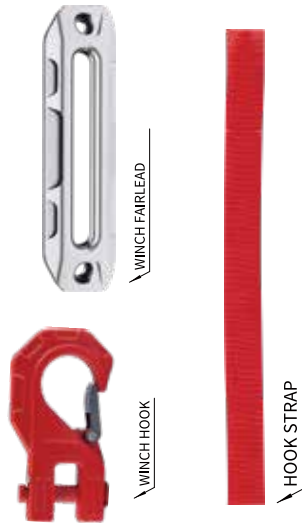


PARTS LIST AND DIAGRAM

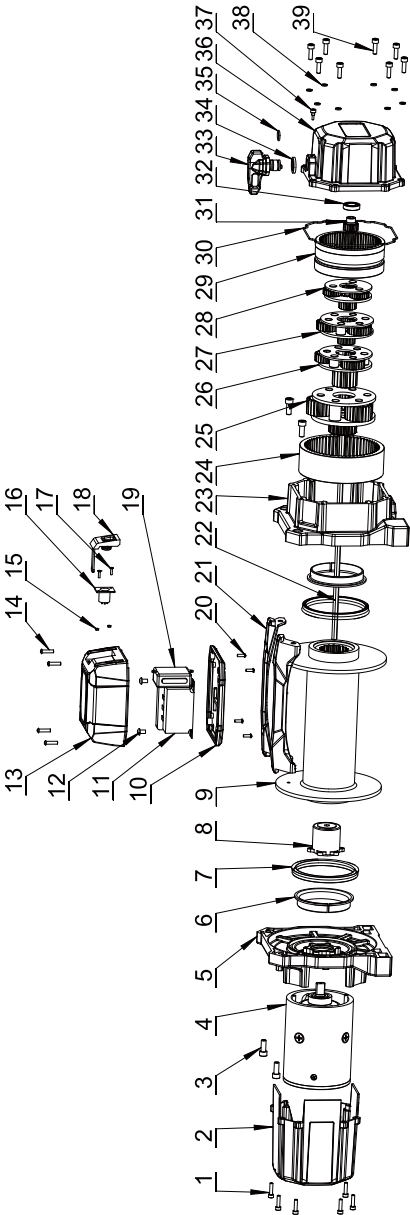


Item No.	Description	Qty
24	Gear Carroer Asm.(Output)	1
25	Washer	1
26	Gear Carrier Asm.(Intermediate)	1
27	Gear Carroer Asm.(Input)	1
28	Movable gear	1
29	Retainer ring	1
30	Ring gear	1
31	Washer	1
32	O-rings 10X2	1
33	Clutch Handle Assembly	1
34	O-rings 20X2	1
35	M4X12 Hex Socket FH Screw	1
36	Gasket	1
37	Clutch Handle	1
38	Clutch Handle Spring	1
39	Clutch Handle Assembly	1
40	Gear Box housing	1
41	M5X8 Hex socket set screw	1
42	61902 bearing	1
43	Center Wheel	1
44	3X10 Cylindrical Pin	1
45	Drum Assembly	1

Item No.	Description	Qty
1	M5X20 Hex Socket FH Screw	14
2	Motor housing	1
3	M8X20Hex Socket FH Screw	4
4	Motor Assembly	1
5	Motor Base	1
6	Nylon Bearing	2
7	Seal Kit	2
8	Brake Assembly	1
9	M4X12 Pan head screw	4
10	Control box Base	1
11	Winch Relay	1
12	Control box housing	1
13	M5X20 Pan head screw	4
14	M3 Nut	2
15	Socket	1
16	Waterproof cover	1
17	M3X12 Countersunk head screws	2
18	M6X10 Hex socket screw	2
19	Signal receiver	1
20	Stents	1
21	Shaft	1
22	Gear Box Base	1
23	Clutch Gear	1



TANK
12000LB/13500LB/15000LB



Item No.	Description	Qty
24	Clutch Gear	1
25	Gear Carroer Asm.(Output)	1
26	Gear Carrier Asm.(Intermediate)	1
27	Gear Carrier Asm.(Intermediate)	1
28	Gear Carroer Asm.(Input)	1
29	Movable gear	1
30	Washer	1
31	Center Wheel	1
32	61902 bearing	1
33	Clutch Handle	1
34	Gasket	1
35	O-rings 20X2	1
36	O-rings 20X2	1
37	Limit Screw	1
38	Gasket	8
39	M6X20 Hex Socket FH Screw	8

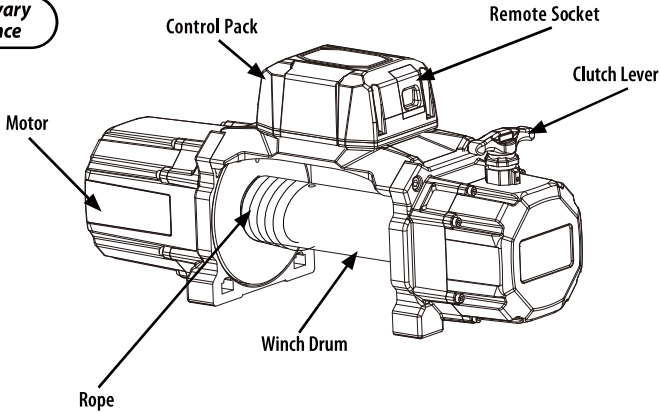
Item No.	Description	Qty
1	M5X20 Hex Socket FH Screw	6
2	Motor housing	1
3	M8X20Hex Socket FH Screw	4
4	Motor Assembly	1
5	Motor Base	1
6	Bearing Sleeve	2
7	Seal Kit	2
8	Brake Assembly	1
9	Drum Assembly	1
10	Control box Base	1
11	Winch Relay	1
12	M6X10 Hex socket screw	2
13	Control box housing	1
14	M5X20 Pan head screw	4
15	M3 Nut	2
16	Socket	1
17	M3X12 Countersunk head screws	2
18	Waterproof cover	1
19	Signal receiver	1
20	M4X12 Pan head screw	4
21	Stents	1
22	Shaft	1
23	Gear Box Base	1

TANK 20000LB

KNOW YOUR WINCH

Before you begin, you should familiarize yourself with your winch and each of its components:

*Models will vary
in appearance*



Motor: The winch motor is powered by the vehicle's battery. The motor provides power to the gear mechanism, which turns the winch drum and winds the winch rope.

Winch Drum: The winch drum is the cylinder onto which the winch rope feeds. The drum is driven by the motor and drive train. Its direction can be changed using the Advanced Wireless Remote Control.

Winch Rope: The winch rope's diameter and length are determined by the winch's load capacity and design. Wrapped around the winch drum and fed through the fairlead, the winch rope is looped at the end to accept the hook's clevis pin.

Clutch Lever*: The clutch allows the operator to manually disengage the spooling drum from the gear train, enabling the drum to rotate freely (known as "freespooling"). Engaging the clutch "locks" the winch drum back onto the gear train.

Control Pack: Using electrical power from the vehicle's battery, the control pack's contactor switches power to the motor, enabling the operator to change the direction of the winch drum rotation.

Remote Socket* : The remote socket is where the operator plugs in the wired remote control or optional wireless remote receiver, in order to control the winch.

*** Specific to certain models.**

FIRST TIME OPERATING INSTRUCTIONS



BEFORE YOU BEGIN, take time to fully read all instructions and safety information before installing and operating your winch.

Step 1: Install Your Winch

WARNING Always choose a mounting location that is sufficiently strong to withstand the maximum pulling capacity of your winch.

Refer to your product specific installation guide for mounting and wiring instructions.

Step 2: System Check

Perform system check:

1. Check fasteners and make sure they are tight and to proper torque.
2. Verify all electrical wiring to all components is correct and be certain that all connections are tight.
3. Verify there is no exposed/bare wiring, terminals or cable insulation damage.
4. Read The Basic Guide to Winching Techniques completely before operating your winch

Once you have performed a system check, you are ready to perform "First Time Operating Instructions".

Step 3: First Time Operating Instructions

In this section, we'll show you the first time operating instructions for effective basic winching.

WARNING Never use winch as a hoist or to suspend a load.



WARNING Never use winch to lift or move persons.



Remote Control:

WARNING Always keep wired remote control lead and power cord clear of the drum, rope, and rigging. Inspect for cracks, pinches, frayed wires or loose connections.

Damaged components must be replaced before operation.

WARNING Never leave remote control where it can be unintentionally activated.

WARNING Never leave the winch remote control plugged in when installing, freespooling, rigging, servicing or when the winch is not being used.

The remote control provides control of the power-out (forward) or power-in (reverse) rotation of the spooling drum.

Do not leave the remote plugged into the winch when not in use. Leaving the remote plugged in, may result in accidental activation and/or battery drain.

Clutch Operation:

WARNING Never engage or disengage clutch if winch is under load, winch rope is in tension or drum is moving.

NOTICE Always ensure the clutch is fully engaged or disengaged when operating winch.

When the clutch is engaged, the gear train is coupled to the winch drum and power can be transferred from the winch motor.

When the clutch is disengaged the drum is in the freespool position and the gear train and winch rope drum are uncoupled allowing the drum to rotate freely.

The clutch lever (*specific to certain models*), is typically located on the winch housing opposite the motor and controls the clutch position. To prevent damage, always fully engage or fully disengage the clutch lever.

Spooling Out

WARNING Never operate winch with less than 5 wraps of wire rope or 10 wraps of synthetic rope around the drum. Rope could come loose from the drum.

WARNING Always keep hands clear of winch rope, hook loop, hook and fairlead opening during installation, operation, and when spooling in or out.



WARNING Always wear heavy leather gloves when handling winch rope.

Freespooling is generally the quickest and easiest way to spool out winch rope. Before freespooling winch rope out from the winch, power-out enough rope to remove any tension the winch rope might be under. Disengage the

FIRST TIME OPERATING INSTRUCTIONS

clutch. Then freespool by manually spooling out enough winch rope for the winching operation.

NOTICE Do NOT power out more than 30ft without allowing the winch to cool for 20 minutes before powering rope back in. Instead, place the clutch in freespool and pull the rope out by hand.

WARNING Always use supplied hook strap whenever spooling winch rope in or out.



Spooling In Under Load

WARNING Never exceed winch or winch rope rated capacity.

Power-in the winch rope evenly and tightly on the drum. This prevents the outer winch wraps from sinking into the inner wraps, binding, and damaging the winch rope.

Avoid shock loads when spooling, by pulsing the control switch to take up winch rope slack. Shock loads can momentarily far exceed the winch and rope ratings.

Spooling In Under No Load

WARNING Never touch winch rope or hook while someone else is at the control switch, when winch rope is under load or during winching operation.

Spooling with an Assistant: Have the assistant hold the hook strap putting as much constant tension on the winch rope as possible. While keeping tension, the assistant should walk toward the winch while you operate the control switch spooling in the winch rope. Release the switch when the hook is a minimum of 6 ft. (2m) from the fairlead opening.

Spool in the remainder for storage as directed below.

Spooling Alone: Arrange the winch rope to be spooled so it will not kink or tangle when spooled. Be sure any winch rope on the drum is tightly and evenly layered. Spool enough winch rope to complete the next full layer on the

drum. Tighten and straighten the layer. Repeat process until the hook is a minimum of 6 ft. (2 m) from the fairlead opening.

Spooling Remainder for Storage

When the hook is within 6 ft. (2 m) of the fairlead, disconnect the hook from the anchor or load. Hold onto the supplied hook strap and hold tension on the winch rope. Slowly power-in the winch by “pulsing” the power-in switch on the remote control until the hook is within 3 ft. (1 m) of the fairlead.

Stop winching in and attach the hook to a suitable anchor point on the vehicle.

NOTICE Do not power the hook into the fairlead. This could cause damage to the fairlead.

Once the hook is suitably attached to the vehicle, power-in the remaining slack in the winch rope by “pulsing” the power-in switch on the remote control until there is minimal slack in the winch rope.

Overloading/Overheating

WARNING Always be aware of possible hot surfaces at winch motor, drum or rope during or after winch use.

This winch is rated for intermittent duty. When the motor approaches stall speed, very rapid heat buildup occurs which may cause motor damage.

Double-line rigging (see The Basic Guide to Winching Techniques) will reduce the amperage draw, and reduce heat buildup in the motor. This allows longer continual use.

FIRST TIME OPERATING INSTRUCTIONS

STRETCHING WINCH ROPE

⚠ WARNING Always prestretch rope and respool under load before use.

⚠ WARNING Always inspect winch rope, hook, and slings before operating winch. Frayed, kinked or damaged winch rope must be replaced immediately. Damaged components must be replaced before operation. Protect parts from damage.

Stretching (tensioning) the winch rope is critical to ensure a long product life. Tensioning the winch rope will prevent outer layers of winch rope from pinching and deforming the inner layers.

During its first use, a new winch rope must be spooled onto its drum under a load of at least 1000 lbs. (454 kg).

Use the following instructions to properly stretch the winch rope onto the winch drum.

⚠ WARNING Always wear heavy gloves when handling winch rope.



1. Choose a **FLAT AND LEVEL** location that is large enough to run out almost the entire length of winch rope.

2. Disengage clutch.

⚠ WARNING Always keep hands clear of winch rope, hook loop, hook and fairlead opening during installation, operation, and when spooling in or out.

3. Grasp hook strap and spool out the winch rope to the last 5 wraps on the drum (10 wraps if synthetic rope).
4. Be sure to check that the winch rope is winding off the bottom of the drum or the automatic load holding brake will not function properly. *NOTE: If the winch rope is winding off the top of the drum, you have powered the winch "out" instead of "in". Be sure you are powering in.*

⚠ WARNING Always wind the winch rope on bottom (mountside) of drum.



NOTICE For proper function of the winch brake, the winch rope must be spooled onto the drum in the specified direction. *See drum rotation label located on winch.

5. Once the winch rope is spooled out, engage clutch.

⚠ WARNING Always ensure hook latch is closed.

⚠ WARNING Always apply load only to the center of hook.

⚠ WARNING Never apply load to hook tip or use hook that is bent or twisted.



6. Attach the hook end of the rope to a suitable anchor point.

⚠ WARNING Always remove any obstacle that may interfere with safe operation of the winch.

⚠ WARNING Never wrap winch rope back onto itself. Use a chain or strap on the anchor.

⚠ WARNING Always be certain the anchor you select will withstand the load and the strap or chain will not slip.



7. Return to your vehicle.
8. Back the vehicle away from the anchor point until there is very little slack in the winch rope.
9. Set the parking brake, place the vehicle in gear or park and turn the vehicle off.

⚠ WARNING Always stand clear of winch rope and load and keep others away while winching.

10. Exit vehicle. **WARNING! Never exit the vehicle with a load on the winch rope.** While standing approximately 8 ft. (2.44 m) away from the winch, power-in the winch until all of the slack is wound onto the winch drum.

⚠ WARNING Never touch winch rope or hook while someone else is at the control switch, when winch rope is under load or during winching operation.

⚠ WARNING Never let winch rope slip through your hands.

11. With gloves on, hold tension on the winch rope with one hand; carefully push the winch rope to the side of the drum the winch rope is attached to so there are no gaps between each coil on the drum.
12. The following steps should be done using two people for proper safety. If you attempt to tension your winch rope alone be sure to always set the parking brake, place the transmission in gear or park and turn the vehicle off every time you exit the vehicle to inspect the winch rope. **NOTICE** Use care to evenly wrap each layer to prevent damage to the rope.

FIRST TIME OPERATING INSTRUCTIONS

 **WARNING** Never use remote when vehicle is not in line of sight of operator.

13. The driver of the vehicle should operate the winch.
14. Instruct your assistant to stand to the side of the vehicle and away from the winch rope. **NOTE: Your assistant should signal you if the winch rope is winding correctly or incorrectly by watching it move across the fairlead as the winch rope is powered in.**
15. Start the vehicle and place the transmission in neutral. Then release the parking brake while applying moderate brake pedal pressure.
16. Power-in the winch rope to start winching in.
17. After winching in for approximately 6 ft. (2m), stop winching.
18. Slowly let up off of the brake pedal and then apply the parking brake. This will ensure that there is no load on the winch rope.
19. Place the transmission in park or in gear and turn the vehicle off.
20. Exit the vehicle and inspect the winch to make sure that the winch rope is being evenly wound onto the winch drum and not sinking into the lower layer. If the winch rope is sinking, power-out the winch rope by pushing the power-out button on the remote control and repeat this step from the beginning with more brake pedal pressure.
21. When you are convinced the winch rope is winding onto the winch drum properly, repeat steps until the vehicle is within 6 ft. (2 m) of the winch anchor. Once within 6 ft. (2 m), slowly let up off of the brake pedal and then apply the parking brake. This will ensure that there is no load on the winch rope. Then place the transmission in park or in gear and turn the vehicle off.
22. Exit the vehicle. Disconnect the hook from the anchor.
23. While holding onto the supplied hook strap, hold tension on the winch rope and

slowly power-in the winch by “pulsing” the power-in button on your remote control until the hook is within 3 ft. (1 m) of the fairlead.

24. Stop winching in and attach the hook to a suitable storage point on the vehicle.
25. Once the hook is suitably attached to the vehicle, power-in the remaining slack in the winch rope by “pulsing” the power-in button on your remote control until there is minimal slack in the winch rope.

NOTICE Do not power the hook into the fairlead. This could cause damage to the fairlead.

TROUBLESHOOTING

Problem	Possible Causes	Likely Solutions
Motor overheats.	1. Incorrect power cable . 2. Winch running time too long.	1. Use only supplied power cable . 2. Allow winch to cool down periodically.
Motor does not turn on.	1. Switch Assembly not connected properly. 2. Loose battery cable connections. 3. Vehicle battery needs charging. 4. Solenoid malfunctioning. 5. Defective Switch Assembly. 6. Defective motor. 7. Water has entered motor. 8. Internal damage or wear.	1. Insert Switch Assembly all the way into connector. 2. Tighten nuts on all cable connections. 3. Fully charge battery. 4. Tap solenoid to loosen contacts. Apply 12 volts to coil terminals directly. A clicking indicates proper activation. 5. Replace Switch Assembly. 6. Check for voltage at armature port with Switch pressed. If voltage is present, replace motor. 7. Allow to drain and dry. Run in short bursts without load until completely dry. 8. Have technician service winch.
Motor runs but Wire Rope drum does not turn.	Clutch not engaged.	Move the Clutch Handle to the Engaged position. If problem persists, a qualified technician needs to check and repair.
Motor runs slowly or without normal power.	1. Insufficient current or voltage. 2. Loose or corroded battery cable connections. 3. Incorrect power cable .	1. Battery weak, recharge. Run winch with vehicle motor running. 2. Clean, tighten, or replace. 3. Use only supplied power cable .
Motor runs in one direction only.	1. Defective or stuck solenoid. 2. Defective Switch Assembly.	1. Tap solenoid to loosen contacts. Repair or replace solenoid. 2. Replace Switch Assembly.



Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power supply before service.

**⚠ WARNING**

- Always position fairlead with warning readily visible on top.
- Always use class 8.8 metric (grade 5) or better hardware.
- Never weld mounting bolts.
- Never use bolts that are too long.
- Always confirm required bolt length to ensure proper thread engagement.
- Always complete the winch installation and hook attachment before installing the wiring.

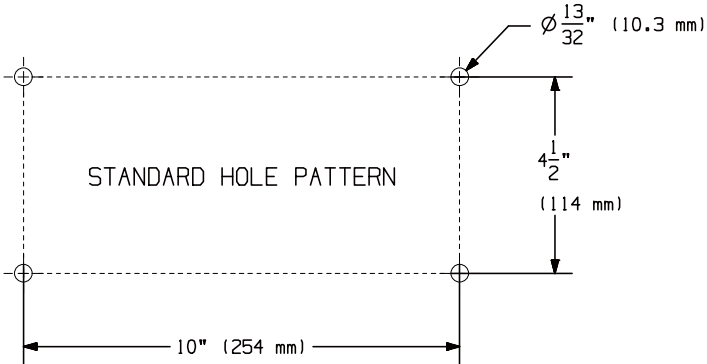
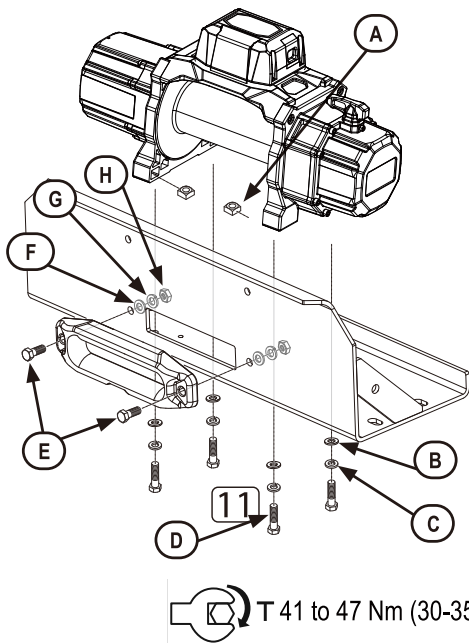
Mounting

Plate Thickness	Bolt Length
7 mm (1/4")	32 mm
10 mm (3/8")	10 mm
13 mm (1/2")	13 mm

Your winch needs a suitable mounting plate to install, please make sure that your mounting plate hole spacing is suitable

MOUNTING

- To prevent accidental activation of the winch and serious injury, complete the winch installation and attach the hook before installing the wiring.
- Always choose a mounting location that is sufficiently strong enough to withstand the maximum pulling capacity of your winch.
- Never use bolts that are too long.
- Always spool the winch rope onto the drum in the direction specified by the drum rotation labels on the winch and/or in the documentation. This is required for the automatic brake (if so equipped) to function properly.
- Always wind the winch rope on the bottom (mount side) of the drum.



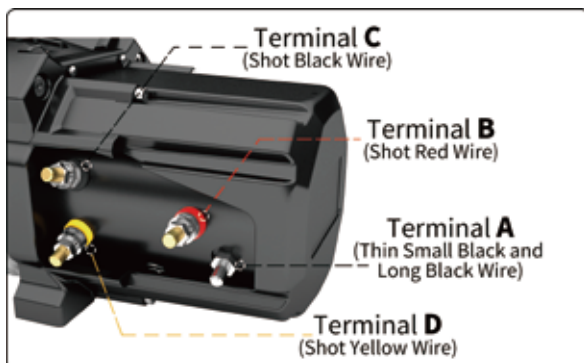
Item	Qty	Description
A,B,C	4	M10*
D	4	M10* x 30
E	2	M12 x 35
F,G,H	2	M12 x 35

*Bolt size of winch with a capacity of 17,500 to 20,000 LB is M12

WIRING



- **Always** remove jewelry and wear eye protection when making battery connections.
- **Never** route electrical cables across sharp edges.
- **Never** route electrical cables near parts that get hot.
- **Never** route electrical cables over battery terminals.
- **Never** route electrical cables through or near moving parts.
- **Always** insulate and protect all exposed wiring and electrical terminals.
- **Always** place the supplied terminal boots on wires and terminals.



Wiring Instructions (refer to Diagram)

1. A to A' & a 2. B to B' 3. C to C' 4. D to D'



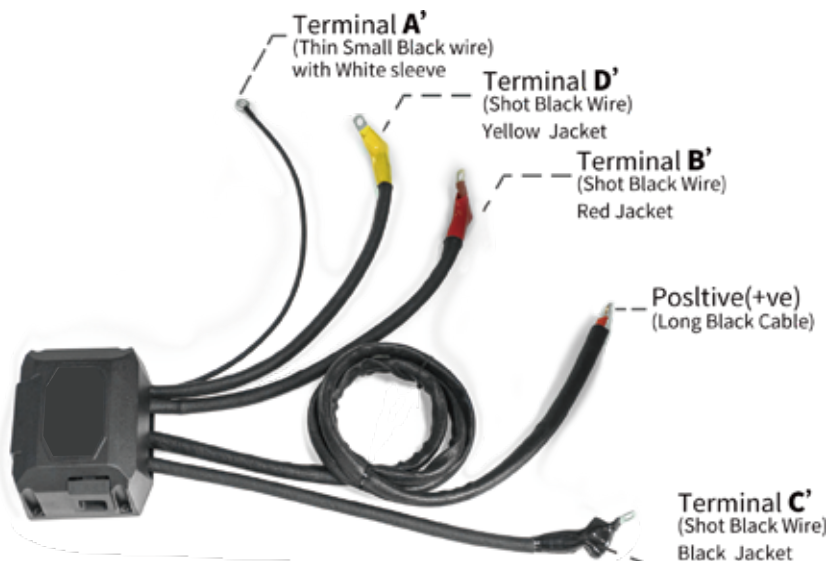
--- Terminal A

--- Negative(-ve)
(Long Black cable)



POWER SWITCH

One section is connected with the Positive, and the other end of the switch is connected with the positive pole of the power supply with a short wire

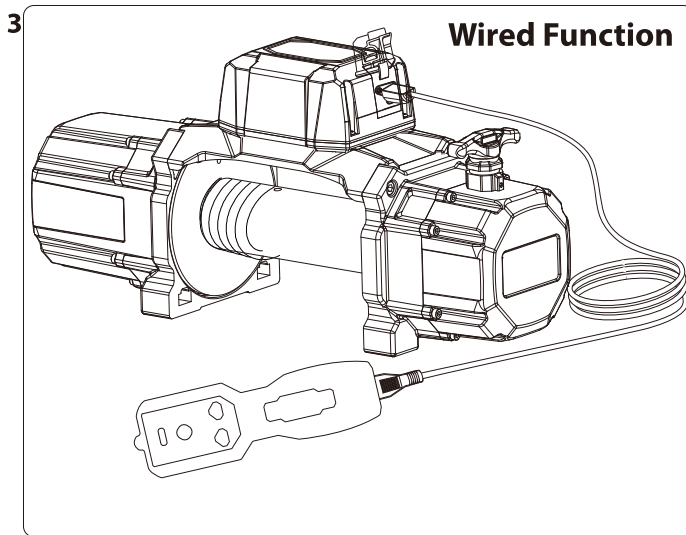


WINCH Wireless Controller Instructions:

- Press ON/OFF button of the wireless controller to Switch the Standby mode and Power Off mode.
- When the indicator lights on (Standby mode), Press the Left Button for Winch Rolling IN. Press the Right Button for Winch Rolling OUT
- When you finish winching, make that you switch to Power Off mode(indicator lights off) of the wireless controller.
- You can use Connection Wire between the winch and wireless controller to achieve the traditional winch control mode. The connection Wire is especially necessary when the wireless controller battery has been exhausted.
- A rechargeable battery has been built in. It will be recharged when wireless controller connected to the winch via the Connection Wire.



Wireless Function







POWER SWITCH

One section is connected with the Positive, and the other end of the switch is connected with the positive pole of the power supply with a short wire

We have equipped each winch with a Power Switch. Please install it correctly on your winch.

Please disconnect the Switch of the Power Switch when the winch is not in use. Doing so can prevent the winch from being accidentally started and avoid potential safety hazards



Electric Winch Warranty Agreement

Dear Customer,

Thank you for purchasing our electric winch! To protect your rights and ensure excellent service, we have established the following warranty policy.

Warranty Period

The warranty period is one year, starting from the date the product is shipped by our factory.

Services During Warranty Period

- Within the warranty period, we will repair or replace any components that are damaged due to material defects or manufacturing faults under normal use conditions, free of charge.

Post-Warranty Service

- After the warranty period, we provide a lifetime paid warranty service, which includes:

- 1.Repair services, with the customer responsible for all associated costs.
- 2.Replacement parts provided at reasonable market prices.

Exclusions from Warranty

- The following situations are not covered under warranty:
 1. Any unauthorized modifications or alterations to the product that compromise its original design and structure will void the warranty.
 2. Breakage, fraying, or other damage to the winch rope is not covered under the warranty.
 3. Any damage or issues arising from failure to comply with warning labels or safety instructions are excluded from the warranty.
 4. Normal noise, vibration, fading, or natural deterioration due to usage are not covered.
 5. Failures caused by neglecting regular maintenance or using non-genuine parts are excluded from the warranty.
 6. Damage resulting from external impact, overloading, crushing, twisting, extreme use, or natural disasters such as floods, earthquakes, and typhoons will not be covered.

*The warranty is considered void if the item has been modified, altered or tampered with by the person not authorized to provide service (not including standard periodic maintenance).

Warranty Process

- Contact our customer service team and provide the following details:
 1. Proof of purchase (e.g., invoice number).
 2. Description of the issue along with photos/videos of the malfunction.
 - Upon confirmation, our customer service team will guide you through the repair or replacement process and provide the relevant shipping address and instructions.
-