TRUCK WINCH

SET FREE YOUR DREAMS

ALL-NEW

TRUCK WINCH

OPERATION MANUAL

APPLICABLE MODELS: 12000/13500/20000LBS

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ALL-NEW WINCH

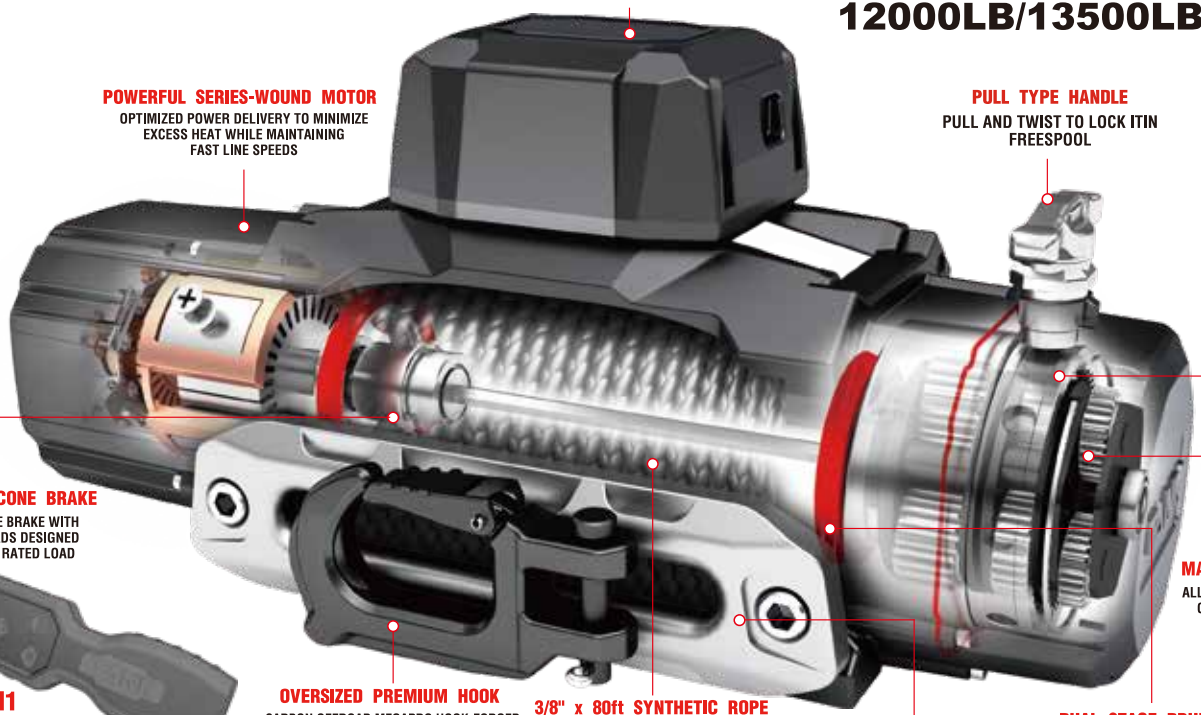
This winch was a chance for us to do a new design from the ground up blending our real-world experience and feedback from our staff, customers and dealers, along with input from our world class engineering consultants to use the latest in design technology to meet the changing needs and requests from our dedicated customer network.

STRONGER Now feel even more confident on the toughest trails.

FASTER Get un-stuck, respooled, and back on the trail in no time.

EASIEST TO USE Packed with intuitive new features that make recovery a no-brainer.

12000LB/13500LB WINCH



REMOVABLE CONTROL PACK
MULTIPLE MOUNTINGOPTIONS

POWERFUL SERIES-WOUND MOTOR
OPTIMIZED POWER DELIVERY TO MINIMIZE EXCESS HEAT WHILE MAINTAINING FAST LINE SPEEDS

PULL TYPE HANDLE
PULL AND TWIST TO LOCK ITIN FREESPOOL

FREESPOOL CLUTCH
ROTATING RING GEAR FOR SMOOTH CLUTCH OPERATION AND LOW FREESPOOL DRAG

AUTOMATIC CONE BRAKE
DURABLE CONE BRAKE WITH COMPOSITE PADS DESIGNED TO HOLD MAX RATED LOAD

MACHINED STEEL GEARS
ALL HARDENED STEEL PLANETARY GEARS FOR FAST, QUIET AND RELIABLE PULLING POWER

2IN1
WIRELESS/WIRED REMOTE
100 FT WIRELESS RANGE FOR EASY, CABLE-FREE WINCHING

OVERSIZED PREMIUM HOOK
CARBON OFFROAD MEGAPRO HOOK.FORGED STEEL FOR UNBEATABLESTRENGTH,PULLS FLAT INTO FAIRLEAD

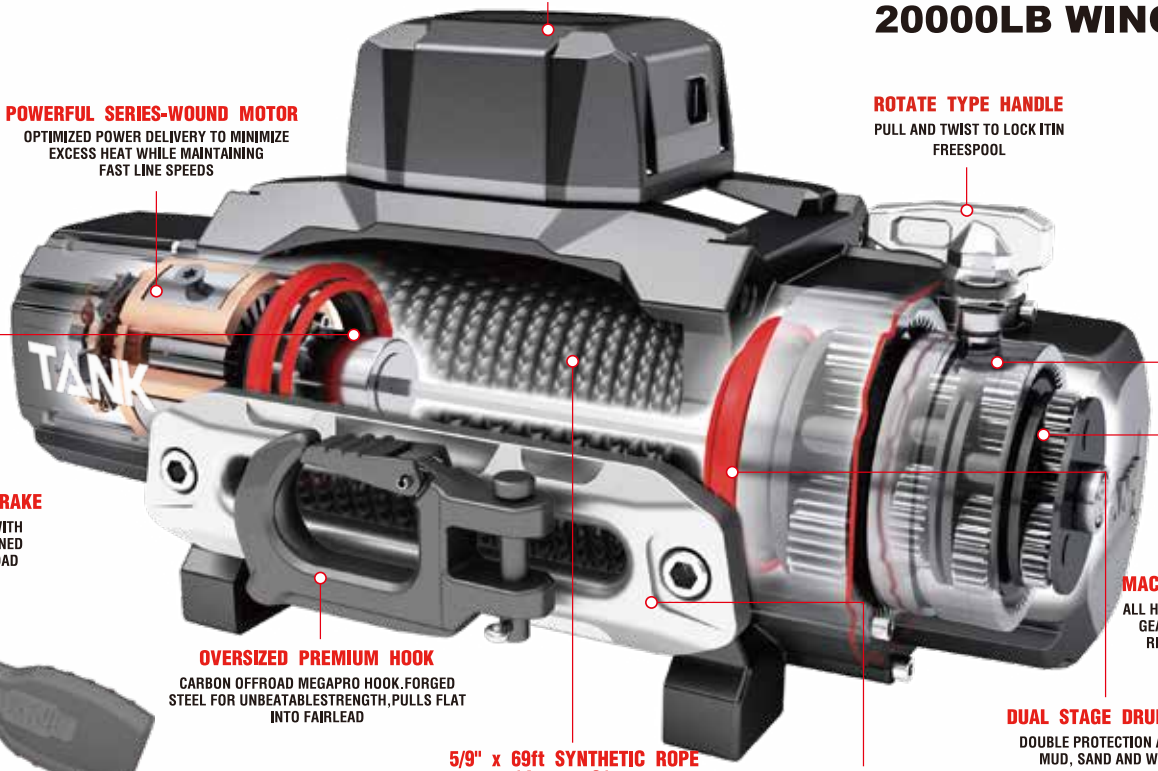
3/8" x 80ft SYNTHETIC ROPE
BOTH STRONGER AND SAFER, SYNTHETIC ROPE IS 80%LIGHTER THAN STANDARD STEEL ROPE

ALUMINUM HAWSE FAIRLEAD
OPTIMIZED TO EXTEND SYNTHETIC ROPE LIFE

DUAL STAGE DRUM SEAL
DOUBLE PROTECTION AGAINST MUD, SAND AND WATER

POWER SWITCH
Battery disconnect switch can disconnect the battery safely, eliminate any power draw from the battery when vehicle or boat is not in use.

20000LB WINCH



REMOVABLE CONTROL PACK
MULTIPLE MOUNTINGOPTIONS

POWERFUL SERIES-WOUND MOTOR
OPTIMIZED POWER DELIVERY TO MINIMIZE EXCESS HEAT WHILE MAINTAINING FAST LINE SPEEDS

ROTATE TYPE HANDLE
PULL AND TWIST TO LOCK ITIN FREESPOOL

FREESPOOL CLUTCH
ROTATING RING GEAR FOR SMOOTH CLUTCH OPERATION AND LOW FREESPOOL DRAG

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2IN1
WIRELESS/WIRED REMOTE
100 FT WIRELESS RANGE FOR EASY, CABLE-FREE WINCHING

5/9" x 69ft SYNTHETIC ROPE
14mm x 21m
BOTH STRONGER AND SAFER, SYNTHETIC ROPE IS 80%LIGHTER THAN STANDARD STEEL ROPE

ALUMINUM HAWSE FAIRLEAD
OPTIMIZED TO EXTEND SYNTHETIC ROPE LIFE

POWER SWITCH
Battery disconnect switch can disconnect the battery safely, eliminate any power draw from the battery when vehicle or boat is not in use.

PLAYING IT SAFE

WARNING: *For personal safety and the safety of others please read and fully understand these safety instructions before operating your winch. Failure to do so could cause personal injury or damage to equipment. After installing the winch, practice using your winch before the need arises.*

CLOTHING

- Don't wear loose fitting clothing or jewellery as they can get caught in moving parts
- Always wear leather gloves when handling the winch rope. It is recommended to wear gloves whilst handling the winch rope and components to avoid injuries.
- Non-skid footwear should be worn. Open toed footwear is not recommended.
- Protective hair covering should be worn to protect long hair.

CONDITION

- Inspect wire cable or rope and winch components frequently for damage.
- A flattended, frayed or damaged winch rope could fail under load and needs to be replaced immediately.
- Periodically check winch mounting bolts and cable terminals to ensure they are tight.

KEEP A SAFE DISTANCE

- Always keep hands clear of rope or cable, hook loop, hook and fairlead opening during installation, operation or when spooling in or out.
- Always use extreme caution when handling hook, rope or cable during spooling operation.
- Ensure that all persons stand well clear of winch cable and load during winch operation. 1.5 times the cable length is recommened as a safe distance. If a cable pulls loose or breaks under load it can lash back and cause serious injury or death.
- Never step over or stand on cable.
- All on lookers should be kept well away from work area.

OPERATION

- Never allow persons unfamiliar with this product to operate it.
- Your winch is not designed or intended to be used for over head lifting or hoisting operations.
- Never use your winch for lifting or moving people.
- Never use your winch while under the influence or alcohol or drugs.
- Never allow your winch to be operated by any person under the age of 16.

The winch has a clutch handle mounted on the gearbox that is used to engage and disengage the cable drum from the gearbox. The handle can only be moved when there is no load on the cable. Because the clutch is a rotating ring gear assembly, sometimes the drum might need to be rotated slightly to align the clutch pin with the circular recess on the clutch ring gear to engage properly. The clutch pin will click into gear when fully engaged.

Disengage

With the clutch handle in the disengage position the cable drum will free spool enabling the cable to be pulled out by hand.

Engage

With the clutch handle in the engage position the cable drum is connected to the gearbox. This allows the cable to be powered in and out using the winch motor.

NOTE

When pulling the cable out it is preferable to free spool the cable rather than powering the cable as powering the cable out can build up heat in the internal brake of the winch unnecessarily.

Your winch can either be operated using the plug in hand controller or the cordless function.

To use the plug in option, connect the cord to the hand controller and plug the controller into the socket on top of the control box. Push the button on the handle to illuminate the (wired LED). The winch can now be powered in and out using the direction switch.

Brake

Your winch has a one directional cam lock brake inside the cable drum. The purpose of the brake is to prevent the vehicle rolling backwards when winching up a hill and the power is released from the motor. For this reason the cable can only be wound onto the drum in one direction. If the cable is wound onto the drum in the wrong direction the brake will not work, and will engage whilst winching the cable in which will over heat the brake and possibly the motor. This will not be covered by warranty.

Spooling Out

Always leave at least 5 wraps of cable on the drum. Although the end of the cable is attached to the drum with a lug, it is not designed to hold any load and will tear off the end of the cable or may damage the cable lug if less than 5 wraps remain on the drum. If this happens it will not be covered by warranty.

⚠ WARNING

Do not over tension cable or damage may occur to fairlead, winch bar or recovery hook on vehicle. Care must be taken not to get hands caught in cable, fairlead or any other moving parts of winch. Always use the hook strap and gloves when re-spooling the cable never use bare hands. Always make sure that cable for hand controller is kept well away from cable or any other moving parts to prevent it from becoming tangled.

Winching Tips

IMPORTANT

Before winching under load please refer to the safety section of this manual.

It is very important to select an anchor point strong enough to hold while winching. If using a tree, it is important to use a tree trunk protector to prevent damage to the tree and also to prevent kinking the cable, and always make sure that the anchor point is as low as possible. Ideally choose an anchor point that is as straight as possible in the direction that the vehicle needs to travel. If winching on an angle it is important to make sure that the cable spools onto the drum evenly and does not bunch up at one end of the drum, if this happens the cable can run out of room and break the tie rods that hold the winch together, this will render the winch inoperable. This will not be covered by warranty.

If a natural anchor point such as a tree or tree stump can't be found then a sand anchor, or similar can be used. In some circumstances a spare wheel or log can be buried deeply in the ground and used as an anchor point, but extreme caution must be used.
Never hook the winch rope back onto itself. This will damage it. Always use a tree trunk protector on the anchor.

The further the cable is spooled off the drum the more pulling power the winch will have. Always leave it least 5 wraps if cable on the drum. Never exceed the rated pulling capacity of the winch, if the winch will not recover the vehicle using a single line pull then a snatch block will be required to perform a double or even triple line pull.
Before winching always ensure your winch is mounted securely and check the condition of the winch rope / cable and hook. If your rope / cable is damaged, kinked or frayed replace it immediately.

Finding A Suitable Anchor Point

When choosing an anchor point it is crucial that it will be strong enough to hold while winching. Always try to winch in a straight line away from the winch to prevent the cable bunching up at one end of the drum causing damage to the winch.

Always connect the winch cable to the anchor point as low to the ground as possible.

Never hook the cable back onto its self around an anchor point, as this will kink the cable.

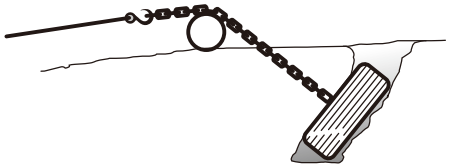
Always attach the winch cable to the anchor point using the appropriate rigging equipment, such as a tree trunk protector, choker chain or cable connected to a bow shackle rated for winching.

If anchoring to another vehicle make sure that the cable is only attached to a rated recovery point. If unsure refer to the owners manual of your vehicle.

An anchor point as far away as practical is preferable because the winches pulling power in increased the less cable there is on the drum. Always make sure that there is at least 5 wraps of cable left on the drum.

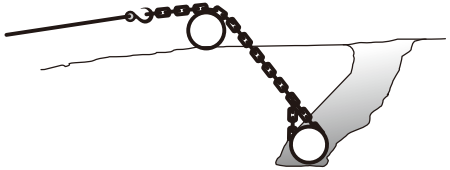
If no suitable anchor point can be found, other options can be used with extreme caution. The following options are shown below:

SPARE WHEEL



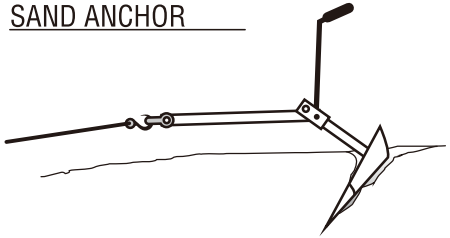
Your spare wheel and tyre can be used as an anchoring device by burying it deeply into the ground and securing to a chain or winch extension strap.

LOG



A sturdy log can be used as an anchoring device by burying it deeply into the ground and securing to a chain or winch extension strap.

SAND ANCHOR

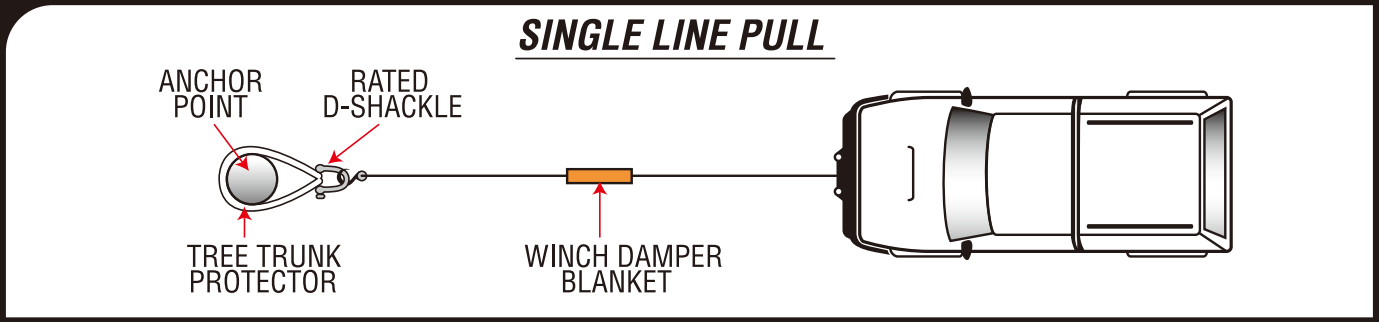


Winching - Single Line Pull

Using your hand controller, un-spool winch rope slightly to release the tension on the winch rope and turn the clutch handle to the disengage position.

Pull the winch rope out to the chosen anchor point and attach it using a tree trunk protector. Never hook the winch rope back onto itself as this will kink the winch rope. Always attach the winch rope as low to the ground as possible. The further the winch rope is spooled of the drum the more pulling power the winch will have, but always leave at least 5 wraps on the drum. Always try to choose an anchor point as straight as possible in the direction the vehicle needs to travel.

Re-engage the clutch handle on the winch. Using your hand controller spool the winch rope in slightly to take up the slack. Drape the winch blanket supplied with your winch over the winch rope and attach the hook and loop tabs.



Always make sure when winching under load that the winch dampening blanket supplied with your winch is draped over your cable or rope. For wire cable, the blanket should be draped roughly two thirds of the way towards the hook. For synthetic rope the blanket should be at the hook end of the cable.

Synthetic Rope

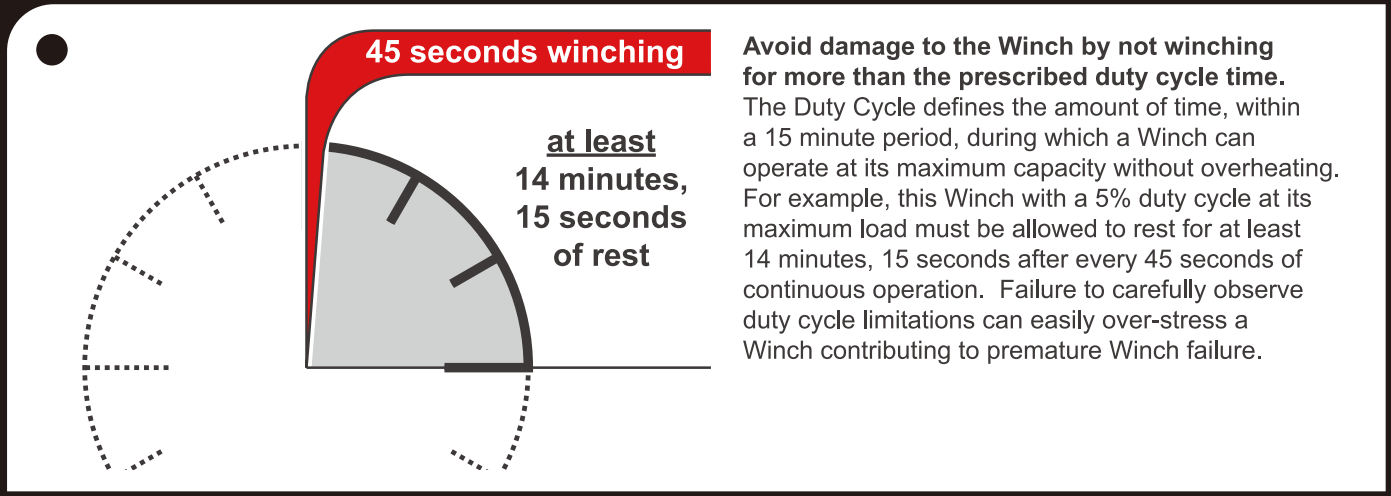
Wire Cable

Making sure that all onlookers are a safe distance away you are now ready to start recovering your vehicle. When recovering the vehicle someone should always be in the drivers seat.

It is important that all people around you know that you are winching and that clear communication is kept with the person in the vehicle.

Start the vehicles engine and release the vehicles hand brake. Begin winching using the hand controller. The vehicle can be driven slowly to assists the winch. If the winch stalls release the switch on the hand controller as this will over heat and burn the motor out. This will not be covered by warranty. In this instance it might be necessary to perform a double line pull using a snatch block.

While winching, stop periodically to touch the motor with your bare hand. If the motor is uncomfortably hot to touch you will need to wait for it to cool down before you continue winching. Also check that the cable is spooling on evenly and not bunching up at one end of the drum. If this happens the cable can run out of room and break the winch tie-rods.



Avoid damage to the Winch by not winching for more than the prescribed duty cycle time. The Duty Cycle defines the amount of time, within a 15 minute period, during which a Winch can operate at its maximum capacity without overheating. For example, this Winch with a 5% duty cycle at its maximum load must be allowed to rest for at least 14 minutes, 15 seconds after every 45 seconds of continuous operation. Failure to carefully observe duty cycle limitations can easily over-stress a Winch contributing to premature Winch failure.

If the cable is not evenly and tightly wound onto the drum the outer wraps of the cable can be drawn into the inner wraps binding and damaging the cable. If this happens, engage the hand brake on the vehicle and spool the cable off the drum slightly to a point where it can be respooled neatly until the cable has tension and winching can recommence.

As you winch in, avoid shock loading the cable by switching the controller intermittently. Shock loads can momentarily far exceed the load rating of the winch and the cable.

Once the vehicle has been winched clear of the obstacle, engage the hand brake and spool the cable out slightly to release the load. Disconnect the cable from the anchor point.

With an assistant holding as much tension as possible onto the hook, using the hook strap provided, re-spool the cable neatly onto the drum.

Winching is now complete.

MAINTAINING YOUR WINCH

Cleaning, Maintenance, and Lubrication

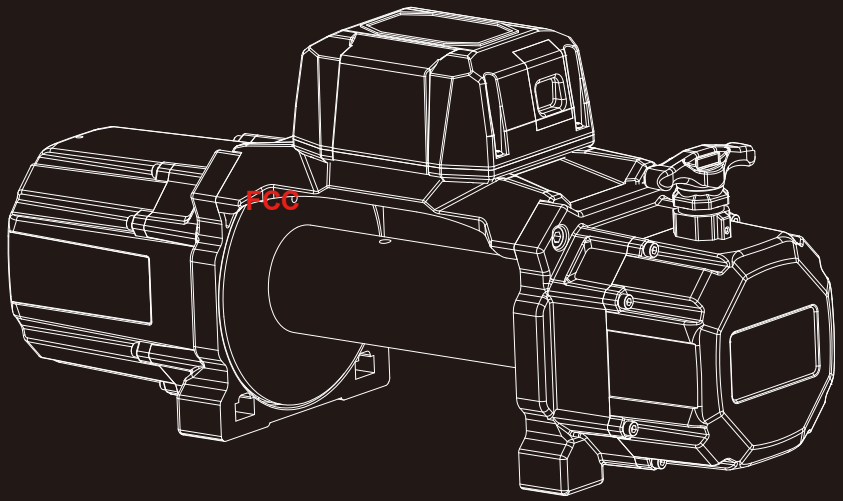
1. **BEFORE EACH USE,** inspect the general condition of the winch. Check for loose hardware, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, corroded or loose terminals, and any other condition that may affect its safe operation. Examine the winch rope. Do not use the winch is the winch rope is damaged or frayed.
2. **AFTER USE,** wipe external surfaces of the winch with clean cloth.
3. If dirty, hose the winch rope with normal fresh water at tap pressure (not high pressure cleaner) until the water runs clean. Hang rope to dry before respooling.
4. The winch's internal mechanism is permanently lubricated. Do not open the housing. However if the winch is submerged for any period of time, to ensure ongoing reliability of your winch, it should be opened, checked for water ingress, dried and re-lubricated by a qualified technician as soon as possible to prevent corrosion damage.

Winch Rope Replacement

1. Move Clutch Handle to the Released position.
2. Extend the Winch Rope to its full length, noting how the existing Wire Rope is connected to the inside of the drum.
3. Remove old Winch Rope and attach new assembly

CAUTION: Do not replace with inferior Winch Rope.Only use a winch rope rated to the same rating cited on the specification chart or better.

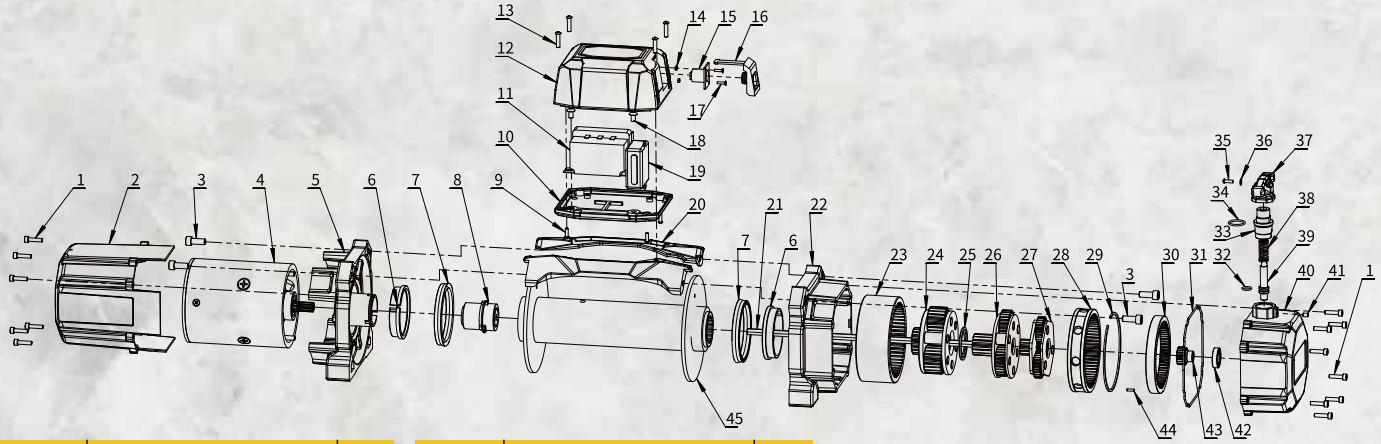
4. Retract Winch Rope onto Wire Rope drum being careful not to allow kinking.
5. Test Electric Winch for proper operation.



TROUBLESHOOTING

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

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



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

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

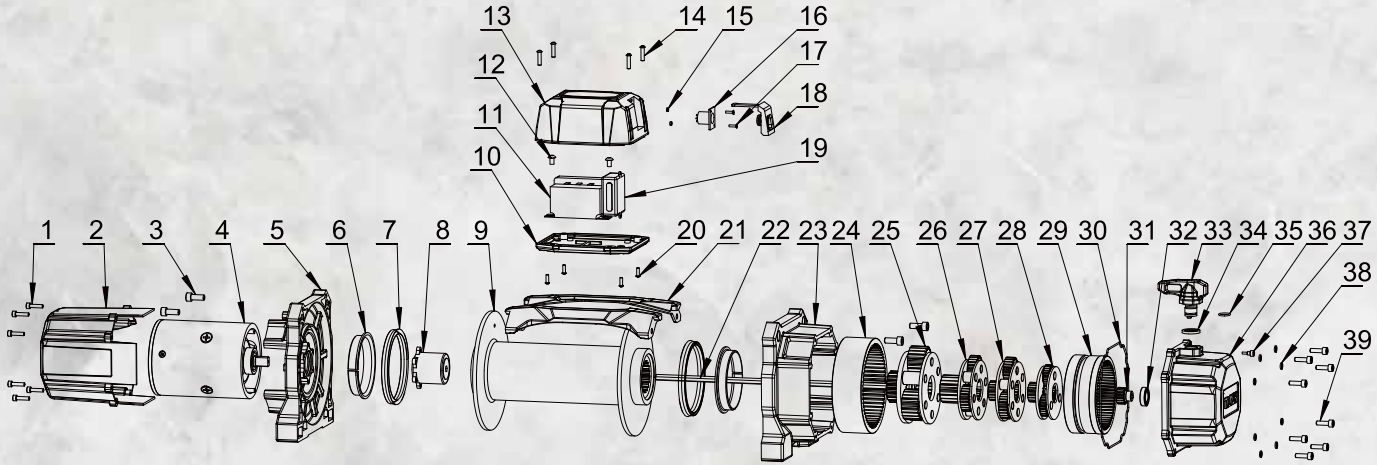
WINCH HOOK

WINCH FAIRLEAD

HOOK STRAP

12000LB/13500LB

Parts List and Diagram



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

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

WINCH HOOK

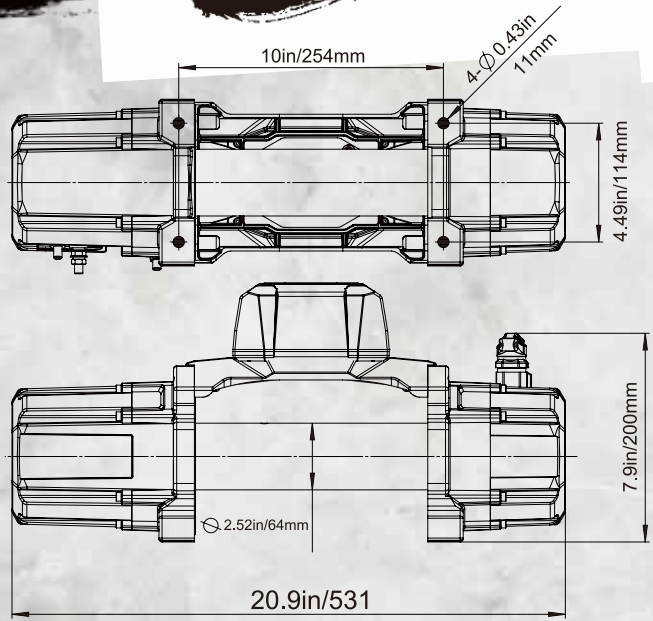
WINCH FAIRLEAD

HOOK STRAP

20000LB

Parts List and Diagram

TECH SPECIFICATIONS

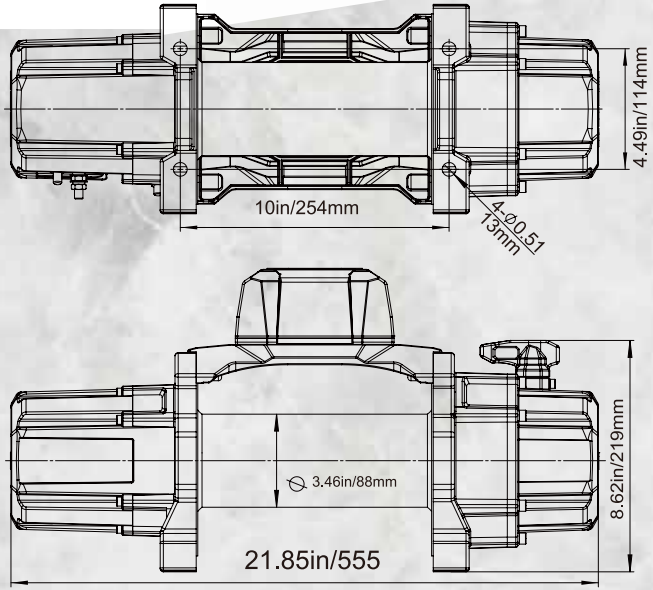


12000LB/13500LB

Dimensions and specifications

ALL-NEW WINCH 12000LB	
Power	12VDC
Motor	7.0HP / 5.2KW, Series Wound
Hand Control	Wireless Remote - Range 30.0m (100ft)
Gear Train	3 Stage Planetary
Gear Reduction Ratio	234:1
Synthetic Rope	26m of 10mm Diameter
Battery	650CCA - minimum for winching
Weight	N.W. 29kg (64lbs)

ALL-NEW WINCH 13500LB	
Power	12VDC
Motor	7.2HP / 5.4KW, Series Wound
Hand Control	Wireless Remote - Range 30.0m (100ft)
Gear Train	3 Stage Planetary
Gear Reduction Ratio	265:1
Steel Rope	26m of 10mm Diameter
Synthetic Rope	25m of 11mm Diameter
Battery	650CCA - minimum for winching
Weight	N.W. 29kg (64lbs)



ALL-NEW WINCH 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)

20000LB

Dimensions and specifications

TECH SPECIFICATIONS

Layer	Rated Line Pull	Wire Rope	Capacity
1	12000 lb. (5443 kg.)	16′	(4.9m)
2	9210 lb. (4186 kg.)	37′	(11.m)
3	6894 lb. (3127 kg.)	83′	(25m)

12000LB WINCH

First Layer of Wire Rope Performance

Line Pull lb. (kg.)		Line Speed fpm (mpm)		Amp Draw (@ 12V)
0	(0)	16.4	(5)	85
3000	(1361)	9.75	(3)	137
6000	(2722)	7.5	(3.3)	191
9000	(4082)	5.76	(1.76)	249
12000	(5443)	4.88	(1.49)	300

Layer	Rated Line Pull	Wire Rope	Capacity
1	13500 lb. (6123 kg.)	16′	(4.9m)
2	10600 lb. (4818 kg.)	37′	(11.m)
3	7755 lb. (3525 kg.)	83′	(25m)

13500LB WINCH

First Layer of Wire Rope Performance

Line Pull lb. (kg.)		Line Speed fpm (mpm)		Amp Draw (@ 12V)
0	(0)	16.4	(5)	85
3000	(1361)	9.75	(3)	137
6000	(2722)	7.5	(3.3)	191
9000	(4082)	5.76	(1.76)	249
13500	(6123)	4.43	(1.35)	380

Layer	Rated Line Pull	Wire Rope Capacity	
1	20000 lb.(6804 kg.)	16'	(4.9m)
2	16216 lb.(7371 kg.)	36'	(11m)
3	13636 lb.(6198 kg.)	69'	(21m)

13500LB WINCH

First Layer of Wire Rope Performance

Line Pull lb. (kg.)		Line Speed fpm (mpm)		Amp Draw
0	(0)	16.4	(5)	85
6000	(2721)	7.4	(2.25)	185
10000	(4536)	5.1	(1.55)	275
15000	(6803)	3.3	(1.0)	425
20000	(9072)	2.62	(0.8)	430

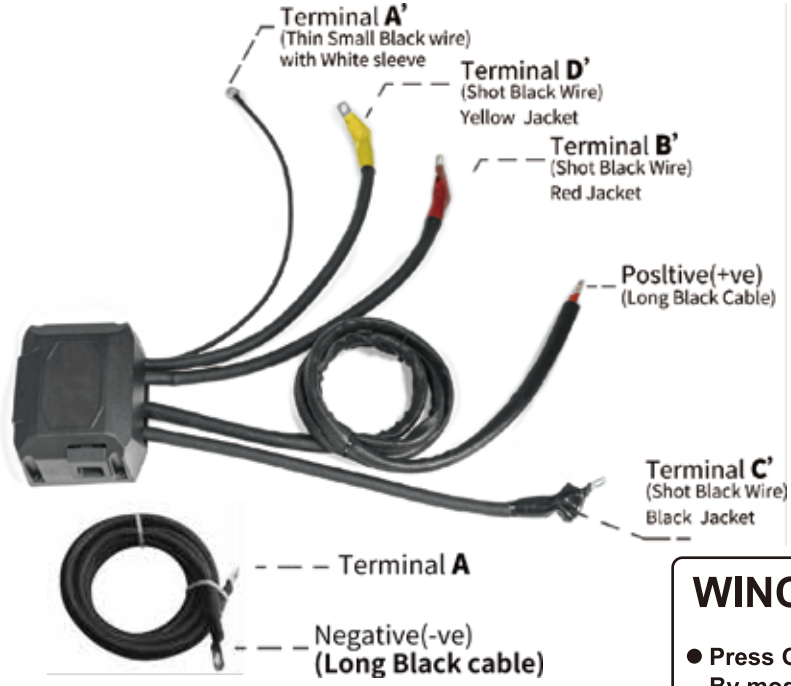
FCC Caution.

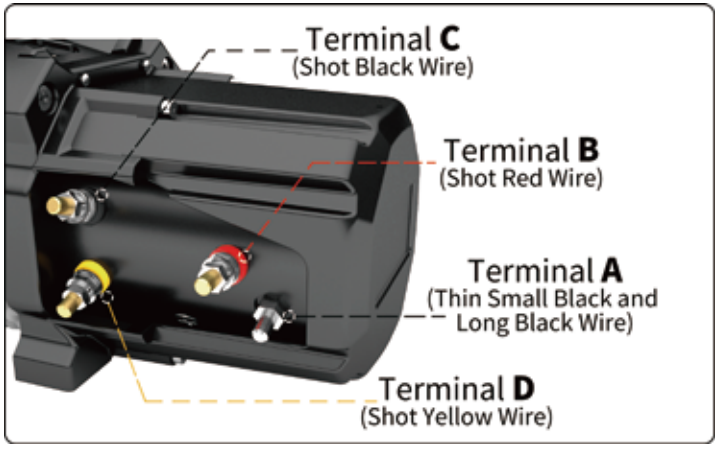
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

***RF warning for Mobile device:**
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.





Wiring Instructions (refer to Diagram)

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

POWER SWITCH

One section is connected with the Posltive, 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 Stand By mode and Power Off mode.**
- **When the indicator lights on (Stand By mode), Press the Left Button for Winch Rolling IN. Press the Right Button for Winch Rolling OUT**
- **When finished winch operating, make sure switch to Power Off mode(indicator lights off) of the wireless controller.**
- **You can use Connection Wire between the winch and wireless controller to be traditional winch control mode. Connection Wire is especial 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 by Connection Wire.**

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-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.
The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.