



ELECTRIC WINCH OWNER'S MANUAL

for
KT2500/KT2500C/KT3000/KT3000C
12 Volt DC

Designed for use on ATV, Utility Vehicle (UTV),
Vehicle Trailer and General Winching Applications.

Assembly & Operating Instructions

⚠ CAUTION ⚠

PLEASE READ ALL SAFETY PRECAUTIONS AND WARNINGS
BEFORE INSTALLING AND USING THE WINCH! IF YOU HAVE ANY QUESTIONS
PLEASE CONTACT OUR CUSTOMER SERVICE DEPARTMENT LISTED BELOW.



Introduction

Thank you for purchasing your TraKker™ Winch.

PLEASE READ ALL INSTRUCTIONS, PAYING SPECIAL ATTENTION TO THE SAFETY INSTRUCTIONS.

Your TraKker™ Winch has been designed and manufactured to provide years of trouble-free operation. If you are not satisfied, for any reason. When requesting information in regard to this winch, please give the following information:

Winch Part # _____ and Serial number _____
(Please write down this information here for future reference.) (Found on Motor Housing)

Please read and understand this Owner's Manual prior to installing and operating this product. **PAY PARTICULAR ATTENTION TO THE GENERAL SAFETY INFORMATION.** Your Winch is a powerful machine. If used unsafely or improperly, there is a possibility that property damage and/or personal injury can result. Your safety ultimately depends on your caution when using this product.

General Description

Each TraKker™ Winch is equipped with a permanent magnet motor and is designed for INTERMITTENT GENERAL DUTY USE.

This Winch is not intended for use in industrial or hoisting applications and the manufacturer does not warrant it to be suitable for such use.

The Freespool Clutch disengages the gearbox to allow the wire rope to be pulled out without using electric power. Remote Switch allows a wide variety of mounting options.

Wire Cable Assembly length is 50 feet. Usable length is 47 feet. Mini rocker switch wire length is 15 feet. Wiring harness to battery length is 6 feet. Solenoid to motor leads are 6 feet.



Performance

KT2500/KT2500C

Line speed and Motor current (first layer)

Line Pull	Lbs	0	1000	1500	2000	2500
	Kgs	0	454	680	907	1134
Line speed	FPM	27	20	14	10	7
	MPM	8.3	6.1	4.3	3	2.1
Motor Current	Amps	15	60	100	130	160

Line pull & cable capacity	Layer of cable		1	2	3	4	5
	Rated line pull per layer	Lbs	2500	2134	1861	1650	1483
		Kgs	1134	968	844	748	673
	Cable capacity per layer	Ft.	8.85	10.37	11.89	13.41	14.92
M		2.7	3.16	3.62	4.1	4.55	

Rolling Load Capacities (first layer)	Slope*	10% (4.5°)	20%(9°)	40%(18°)	100%(45°)
	Lbs	12563	8503	5388	3213
	Kgs	5699	3857	2444	1457

KT3000/KT3000C

Line speed and Motor current (first layer)

Line Pull	Lbs	0	500	1000	2000	3000
	Kgs	0	227	454	907	1361
Line speed	FPM	27	20	16	9	5
	MPM	8.3	6.1	4.9	2.7	1.5
Motor Current	Amps	15	40	60	130	190

Line pull & cable capacity	Layer of cable		1	2	3	4	5
	Rated line pull per layer	Lbs	3000	2561	2234	1981	1779
		Kgs	1361	1162	1013	899	807
	Cable capacity per layer	Ft.	8.85	10.37	11.89	13.41	14.92
M		2.7	3.16	3.62	4.1	4.55	

Rolling Load Capacities (first layer)	Slope*	10% (4.5°)	20%(9°)	40%(18°)	100%(45°)
	Lbs	15075	10251	6428	3854
	Kgs	6838	4650	2916	1748

*Slope: a one foot rise in 10 foot length is a 10% slope. Above information is based on a vehicle with its rolling abilities in good condition and the surface is hard and smooth. Performance data and specifications may vary.

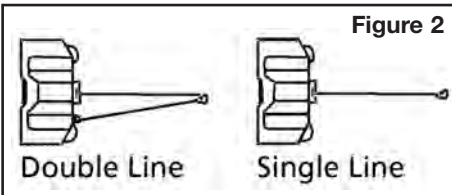
General Safety Information

! WARNING !

Your TraKker™ Winch is a very powerful machine. If used unsafely or improperly, serious personal injury and/or property damage can result.

1. READ AND UNDERSTAND THIS MANUAL BEFORE OPERATING YOUR WINCH. After installing the Winch, practice using it before the need arises. NEVER ALLOW PERSONS UNFAMILIAR WITH THIS PRODUCT TO OPERATE IT. ALWAYS WEAR SAFETY GLASSES WHILE WORKING WITH MACHINERY.

2. DO NOT EXCEED RATED CAPACITY OF THE WINCH. DO NOT OVERLOAD! DO NOT ATTEMPT PROLONGED PULLS OF HEAVY LOADS! Overloads can damage the Winch and/or the wire rope and create unsafe operating conditions. FOR LOADS OVER 75% OF THE RATED WINCH CAPACITY, WE RECOMMEND THE USE OF A PULLEY BLOCK (not included) TO DOUBLE LINE THE WIRE ROPE. (Figure 2). This reduces the load on the Winch, the strain on the wire rope, and electrical system.



3. THE VEHICLE ENGINE SHOULD BE RUNNING DURING WINCH OPERATION. If winching is performed with the engine turned off, the battery may be too weak to restart the engine.

4. DO NOT operate your vehicle to assist the Winch in pulling the load. The combination of the Winch and vehicle pulling together could overload the wire rope and the Winch.

5. WHEN IN USE, ALWAYS STAND CLEAR OF WIRE ROPE, HOOK AND WINCH.

6. INSPECT WIRE ROPE AND EQUIPMENT FREQUENTLY. A FRAYED, KINKED OR FLATTENED WIRE ROPE NEEDS TO BE REPLACED IMMEDIATELY. Periodically check the Winch installation to ensure that all bolts are tight.

7. USE HEAVY LEATHER GLOVES when handling wire rope. DO NOT LET WIRE ROPE SLIDE THROUGH YOUR GLOVED OR UNGLOVED HANDS. ALWAYS USE THE HAND-SAVER STRAP when guiding the wire rope in or out. (Figure 3)

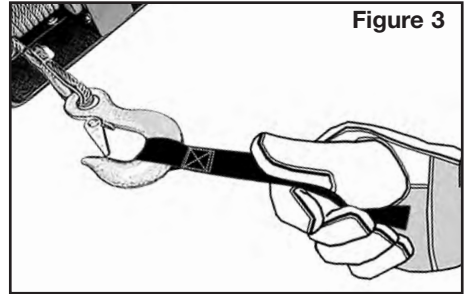


Figure 3

8. NEVER WINCH WITH LESS THAN 5 WRAPS OF WIRE ROPE AROUND THE WINCH DRUM since the wire rope end fastener may NOT withstand full load.

9. KEEP CLEAR OF WINCH, TAUT WIRE ROPE AND HOOK WHEN OPERATING WINCH. NEVER STEP OVER TAUT WIRE ROPE.

10. NEVER HOOK THE WIRE ROPE BACK ONTO ITSELF. This could damage the wire rope. Use a nylon sling for this type connection. (Figure 4)

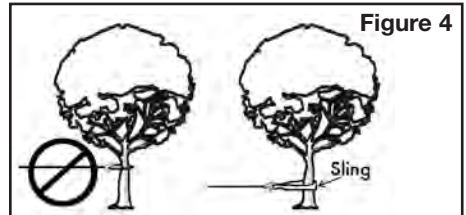


Figure 4

11. It is a good idea to lay a heavy cloth (such as a blanket or tarp) over the wire rope near the hook end when pulling heavy loads (Figure 5). If a wire rope failure should occur, the cloth will act as a damper and help prevent the wire rope from whipping.

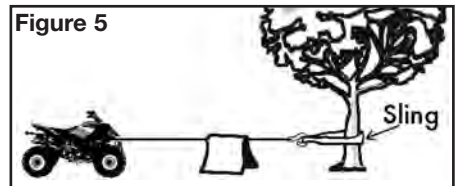
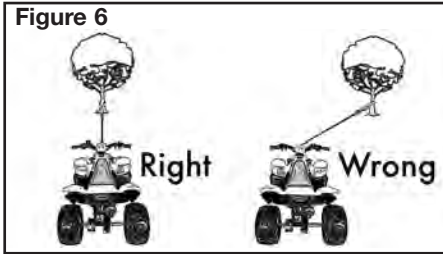


Figure 5

12. NEVER USE YOUR WINCH FOR LIFTING OR MOVING PEOPLE!

13. YOUR WINCH IS NOT INTENDED FOR OVERHEAD HOISTING OPERATIONS.

14. AVOID CONTINUOUS PULLS FROM EXTREME ANGLES. This will cause the wire rope to pile up on one end of the drum (Figure 6). This can jam the wire rope in the Winch, causing damage to the wire rope or Winch.



15. NEVER OBSCURE THE WARNING INSTRUCTION LABELS ON THE WINCH.

16. Always operate Winch with an unobstructed view of the Winching operation.

17. Equipment such as hooks, pulley blocks, straps, etc. should be sized for winch capacity and periodically inspected for damage that could reduce their strength.

18. NEVER RELEASE FREESPOOL CLUTCH WHEN THERE IS A LOAD ON THE WINCH.

19. NEVER WORK ON OR AROUND THE WINCH DRUM WHEN WINCH IS UNDER LOAD.

20. DO NOT OPERATE WINCH WHEN UNDER THE INFLUENCE OF ANY DRUGS OR ALCOHOL.

21. ALWAYS DISCONNECT WINCH POWER LEADS TO BATTERY BEFORE WORKING ON OR AROUND THE WINCH DRUM so that Winch cannot be turned on accidentally.

22. When moving a load, slowly take up wire rope slack until it is taut. Stop, recheck all Winching connections. Be sure the hook is properly seated. If a nylon sling is used, check the attachment to the load.

23. When using your Winch to move a load, place the vehicle transmission in neutral, set vehicle hand-brake, and chock all wheels.

24. DO NOT USE THE WINCH TO HOLD LOADS IN PLACE. Use other means of securing loads such as tie-down straps.

25. USE ONLY FACTORY APPROVED SWITCHES, REMOTE CONTROLS AND ACCESSORIES. Use of non-factory approved components may cause injury or property damage and could void your warranty.

26. DO NOT MACHINE OR WELD ANY PART OF THE WINCH. Such alteration may weaken the structural integrity of the Winch and could void your warranty.

27. This is a 12 Volt DC Winch. CONNECT ONLY TO ATV, UTV OR CAR 12 VOLT BATTERY. DO NOT CONNECT WINCH TO EITHER 110V OR 220V AC CURRENT AS WINCH WILL BURNOUT OR FATAL SHOCK WILL OCCUR.

28. NEVER ALLOW SHOCK LOADS TO BE APPLIED TO WINCH OR WIRE ROPE.

29. USE EXTREME CAUTION WHEN PULLING OR LOWERING A LOAD UP AND DOWN A RAMP OR INCLINE.

30. KEEP PEOPLE, PETS, AND PROPERTY CLEAR OF WINCHING PATH, FRONT, REAR AND SIDES.

Freespool Operation

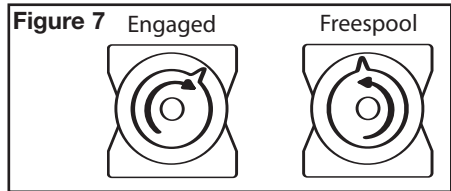
Turn the clutch dial to the disengage position as shown in Figure 7. NEVER RELEASE FREESPOOL CLUTCH WHEN THERE IS A LOAD ON THE WINCH. DO NOT FORCE THE DIAL.

Release tension on the clutch by joggling out some of the wire rope. Release the clutch and

pull out the wire rope and secure to anchor or load. Check that there are at least five (5) wraps of wire rope left on the drum. Re-engage the drum by returning the clutch dial to the engaged position. (Figure 7)

⚠ CAUTION ⚠

Clutch must be fully engaged before Winching. NEVER ENGAGE CLUTCH DIAL WHILE DRUM IS TURNING.



⚠ CAUTION ⚠

The clutch dial has been adjusted and permanently locked in place with a thread locking compound at the factory. Do not attempt to re-adjust the dial.

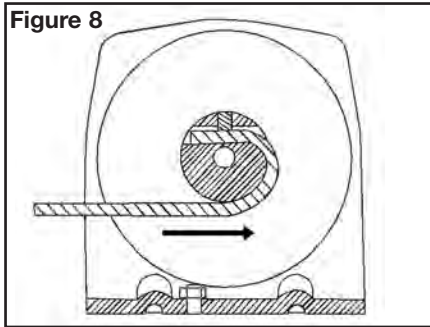
Winch Installation

Correct installation of your Winch is required for proper operation.

Mounting kits are available for most popular ATV, UTV and trailer applications.

Detailed mounting instructions are provided with each mounting kit. Read and follow directions carefully to ensure proper Winch alignment and trouble free operation.

This Winch **MUST** be mounted with the wire rope in the under-wind direction (Figure 8)



▲WARNING▲

Improper mounting could damage your Winch and void your warranty.

Step 1. Install mounting kit or structural support for Winch (not included) to ATV or other vehicle or surface.

Step 2. Mount the Winch to the mounting kit base plate or to the mount that you have designed. Mount must be a flat surface capable of handling winch loads. The mounting bolts supplied are the correct length for use with a 1/4" (6mm) thick mounting plate. If mounting plate is thicker than 1/4" (6mm) adjust bolt length accordingly. Use only metric M8 diameter, grade 8.8 bolts.

▲WARNING▲

DO NOT SUBSTITUTE ANY STRENGTH GRADE BOLT AND NUTS LESS THAN ISO GRADE 8.8.

Step 3. Before making electrical connections disconnect the vehicle battery leads.

▲WARNING▲

Batteries contain gases, which are flammable and explosive. WEAR EYE PROTECTION DURING INSTALLATION AND REMOVE ALL METAL JEWELRY. Do not lean over battery while making connections.

▲WARNING▲

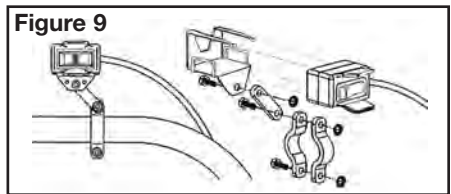
Ensure that the wiring harness does not interfere or come in contact with any hot or moving engine, suspension, steering, braking or exhaust parts.

Step 4. Follow electrical connection diagram (Figure 10). Mount solenoid near the battery on a solid surface.

IMPORTANT: When connecting ring terminals to the solenoid post use two wrenches. Use one wrench to hold the bottom nut when tightening the top nut. This will prevent the solenoid post from turning and breaking free of its connections internally.

Step 5. Feed the Yellow and Blue wire from winch motor blue and yellow terminals to the corresponding yellow and blue post on the solenoid. Connect the red wire from the solenoid red post terminal to the circuit protector and then attach the circuit protector to the POSITIVE (+) battery terminal. Connect black wire from the solenoid black post to the NEGATIVE (-) terminal of the battery. (See Figure 10).

Step 6. Determine mounting location for the handle bar mounted Mini Rocker Switch. (See Figure 9) Feed switch pendent from switch location back to the solenoid and attach to the solenoid screws per Figure 10, paying particular attention to wire colors.



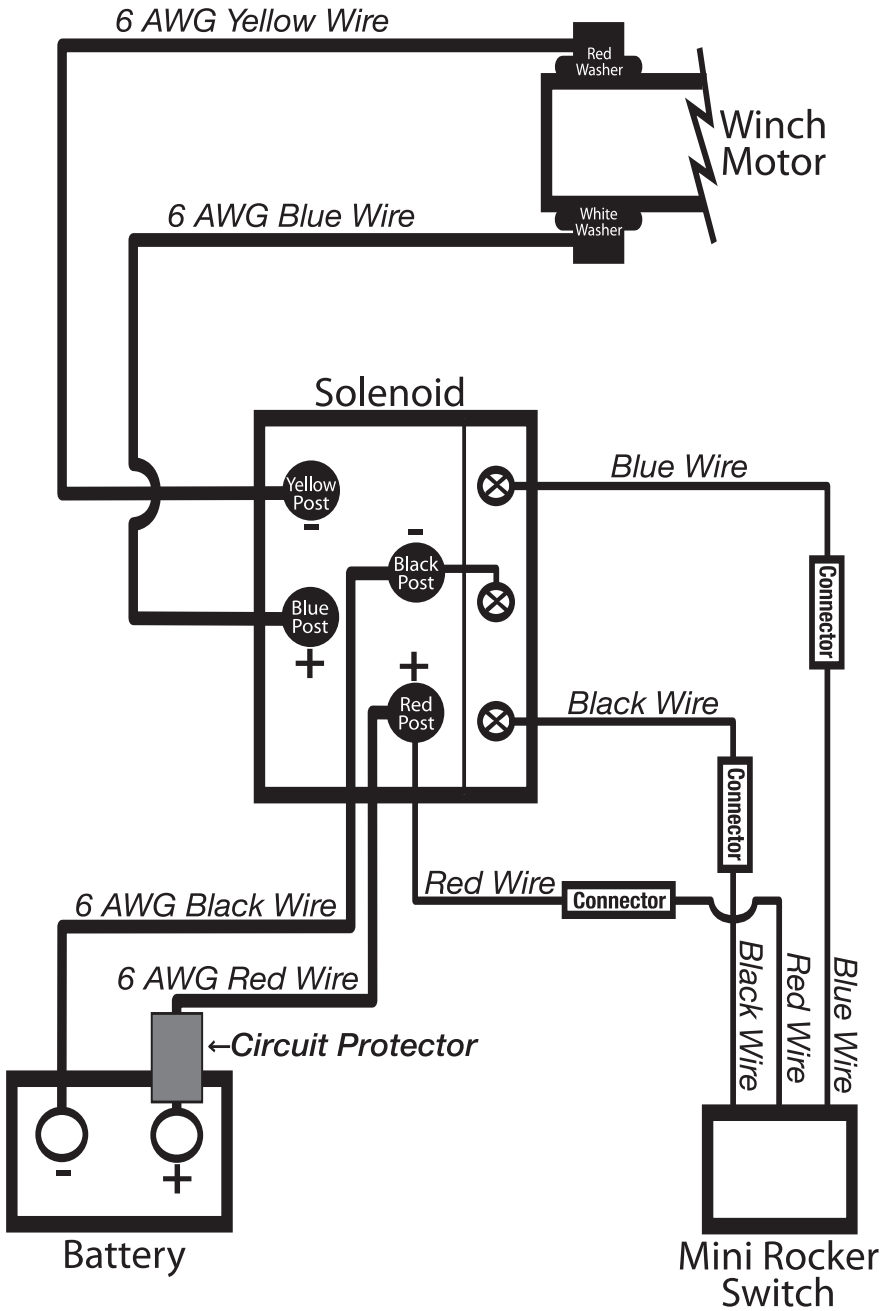
Step 7. Reconnect the battery.

Step 8. Turn the freespool clutch dial to the disengage position (See Figure 7). Pull several feet of wire rope off the drum. Return the freespool clutch dial back to engaged position. Activate the Winch cable in and out by momentarily pressing the mini rocker switch to check drum rotation direction. If the drum rotates in the wrong direction, recheck your wiring. If not working in the correct position you may have reversed the yellow and blue wires at either end. If still running in reverse direction check the red and black wires to make sure they are not reversed at either end. Then check the switch wires to make sure they are connected properly to the solenoid screws.

Figure 10

⚠ CAUTION ⚠

Pay close attention to wire colors



Extending the Life of Your Winch

1. KEEP A TIGHTLY WOUND WIRE ROPE DRUM. Keep the wire rope tightly and evenly wound on the drum all the time. Do not allow the wire rope to become loosely wound. A loosely wound drum allows a wire rope under load to work its way down into the layers of wire rope on the drum. When this happens, the wire rope may become wedged within the body of the windings damaging the wire rope. A good practice is to rewind the wire rope under tension after each use. Apply tension using hand saver strap (Figure 3) and ALWAYS wear gloves.

2. DO NOT ALLOW WINCH MOTOR TO OVERHEAT. Keep the duration of pulls as short as possible. If the motor becomes uncomfortably hot by touching, stop winching and allow the motor to cool down. KEEP THE VEHICLE ENGINE RUNNING TO RECHARGE THE BATTERY during the cooling break.

3. USE A PULLEY BLOCK FOR HEAVY LOADS. To maximize Winch and wire rope life, use a pulley block (*not included in KT2500/KT2500C*) to double line heavier loads (See Figure 2). (See www.trakkerwinch.com) Always use a pulley block that is rated twice the capacity of the winch.

⚠ CAUTION ⚠

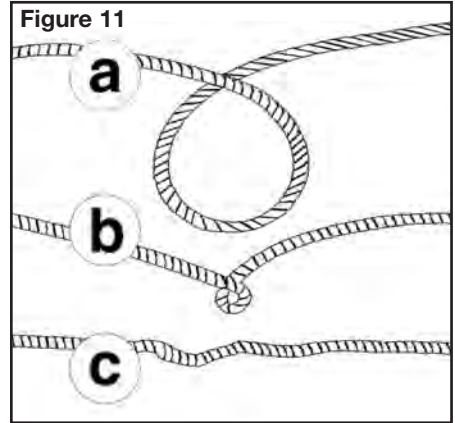
IF THE WINCH MOTOR STALLS, DO NOT CONTINUE TO APPLY POWER.

4. The pull required to start a load moving is often much greater than the pull required to keep it moving. AVOID FREQUENT STOPS AND STARTS DURING THE PULL.

5. PREVENT KINKS BEFORE THEY OCCUR. (Figure 11)

- This is the start of a kink. Wire rope should be straightened.
- Wire rope was pulled and loop has tightened into a kink. Wire rope is now permanently damaged and MUST be replaced
- Result of kinking is that each strand pulls a different amount causing strands under greatest tension to break and reduce load

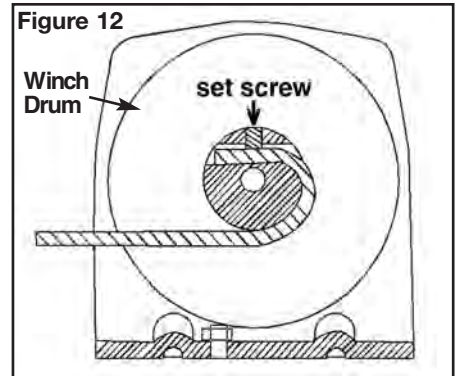
capacity of wire rope. The wire rope MUST be replaced.



REPLACING THE WIRE ROPE

⚠ WARNING ⚠

NEVER SUBSTITUTE A HEAVIER OR LIGHTER WIRE ROPE. Never use rope made of any other materials other than wire. Use only 3/16" diameter 7x19 Galvanized Wire Rope. Attach wire rope to the drum. When inserting the wire rope into the drum, insert it into the correct end of the opening provided (Figure 12). Tighten set screw securely.



Maintenance & Repair

⚠ WARNING ⚠

Before each use, check mounting bolts for tightness, inspect cable for damage. Inspect remote control assembly for any damage. Periodically use a clean, dry towel to remove dirt and debris.

LUBRICATION: The gear box is permanently lubricated.

DO NOT ATTEMPT TO DISASSEMBLE THE GEAR BOX. THIS WILL VOID YOUR WARRANTY.

Troubleshooting

Symptom	Possible Causes	Corrective Action
Motor will not operate or runs in one direction only	<ol style="list-style-type: none"> 1. Broken wires or bad battery connection 2. Switch inoperative 3. Damaged winch 4. Damaged solenoid 5. Circuit breaker blown 	<ol style="list-style-type: none"> 1. Check for poor connection(s) and that all wiring is tight and clean 2. Check that switch wires are connected properly to the solenoid 3. Replace or repair 4. Replace solenoid 5. Replace circuit breaker
Motor runs extremely hot	<ol style="list-style-type: none"> 1. Long period of operation 2. Damaged during operation 	<ol style="list-style-type: none"> 1. Allow to cool 2. Replace or repair
Motor runs but with insufficient power or line speed	<ol style="list-style-type: none"> 1. Weak/Low battery 2. Battery to Winch wire too long 3. Poor battery connection 4. Poor ground 5. Damaged motor 	<ol style="list-style-type: none"> 1. Recharge or replace battery Check charging system 2. Use only supplied wires. If increase in length is needed, drop down wire size to 2 or 3 AWG. 3. Check battery terminals for corrosion. Clean as required 4. Check and clean connections 5. Replace or repair
Motor runs but drum does not turn	Clutch not engaged	Engage clutch
Winch runs backwards	<ol style="list-style-type: none"> 1. Battery wires reversed 2. Switch wires reversed 3. Switch installed incorrectly 	<ol style="list-style-type: none"> 1. Recheck wiring 2. Recheck wiring 3. Check switch installation
Winch coast	Excessive load	Reduce load or double line

All information contained herein is subject to change and/or correction without notice.
