SAFETY WARNING & PRECAUTIONS

Read the entire technical and safety information in this manual before set up or use of this winch. Observe safety precautions for personal safety and the safety of others. The instructions that follow are basic guidelines only and can not cover all situations encountered during use. The operator and assistants must carefully plan usage to prevent accidents.

1. Do not operate winch under influence of drugs or alcohol.
2. Read manual before using this winch.
3. Always use heavy gloves when handling wire rope.
4. Never hook the cable back upon itself. The cable can break under tension and cause injury and damage.
5. Stay clear of wire rope and keep others away when in operation or with load on wire.
6. Inspect winch and wire rope before each use. Do not use winch if wire rope or winch shows wear or damage.
7. Replace any parts as needed before using the winch.
8. Do not exceed the winch capacity.
9. Do not use the winch as a hoist or to move people.
10. Do not use winch to secure a load or tow vehicles.
11. This winch is designed for intermittent use only.
12. Look to see where the frill bit will come through before drilling holes for installation.
13. Never drill into the gas tank or electrical wiring.
14. Place towel or sandbag over wire while winch is in use. Fig.1
15. Keep hands clear of wire rope, hook and fairlead opening during operation. Fig.2
    Always use handsaving belt to hold hook when spooling.Fig.3

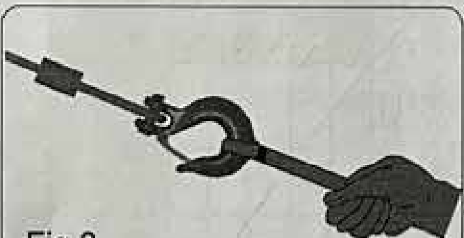


Fig.3

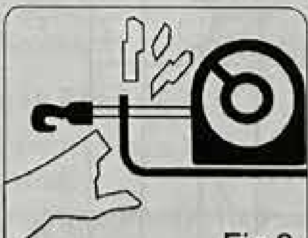


Fig.2

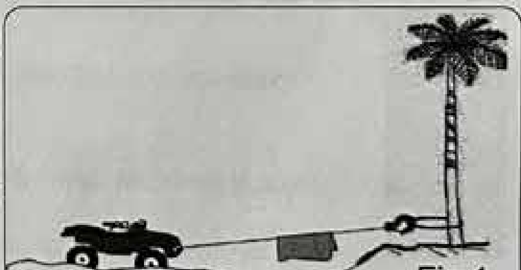


Fig.1

INSTALLATION INSTRUCTIONS

When installing a winch, your installation may vary from the manual diagrams and instructions included here due to vehicle and mounting operation in the structure. Always disconnect the battery from the vehicle to remove the electric hazard.

CAUTION:

If you choose not to use an ATV mounting kit, You may be required to drill holes in a structural support on the ATV. Be sure the location will be strong enough to support the rated pulling force of the winch. Do not drill into wiring or gas tank! If the mounting bolts needed are different in length from that supplied, use a bolt of equal or better quality to that supplied by the manufacturer. Tight the mounting bolts to required torque.

1. Install the mounting kits or prepare a flat and secure location on the vehicle for the winch.
2. Position teh winch over the mount and check for operation of the clutch lever to frame clearance. Check for tire to winch clearance. If ok, continue on to the next step.
3. Secure the winch to the mounting bracket or surface chosen with the correct hardware.

NOTE: ***Make sure the winch mounting bolts and winch hardware have been checked for proper torque.***

INSTALLATION INSTRUCTIONS-WIRING

1. For RP2000 & REW2000

RP2000 REW2000(stainless steel)

1) Option 1- solenoid and wireless remote control (see Fig.4)

1). Plan a route for the wiring from the point of the vehicle where the winch will be mounted, or used, to the battery. This route must be secure, out of the way of moving parts, road debris, or any possibility of being damaged by operation or maintenance of the vehicle. For example, you may wish to route the wires under the vehicle, attaching it to the frame using suitable fasteners. Do not attache the wires to the exhaust system, drive shaft, emergency brake cable, fuel line, or any other components which may create damage the wiring through heat or motion, or create a fire hazard.

2). If you drill through the bumper or any part of the body to route the wires, be sure to install a rubber grommet in the hole to prevent fraying of the wires at that point.

3). Route the Cables from the Solenoid to the battery and from the Solenoid to the Winch, following the precautions discussed earlier.

4). Attach the wires from the Solenoid to the terminals on the Winch.

5). Attache the Circuit Breaker(supplied to special order) to the positive terminal on the battery.

6). Attach the red Battery Cable to the Circuit Breaker.

7). Attach the black Battery Cable directly to the negative terminal of the battery.

2) Option 2- switch control (see Fig.5)

1). Connect 2 short cables to motor terminals.Red cable to motor terminal marked in red. Black cable to motor terminal marked in black.

2). Connect 2 long cables to 2 battery terminals. Red cable to battery positive terminal. Black cable to battery negative terminal.

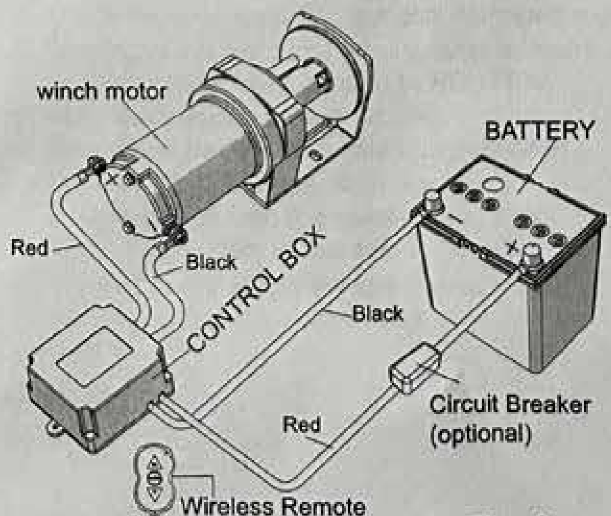


Fig. 4

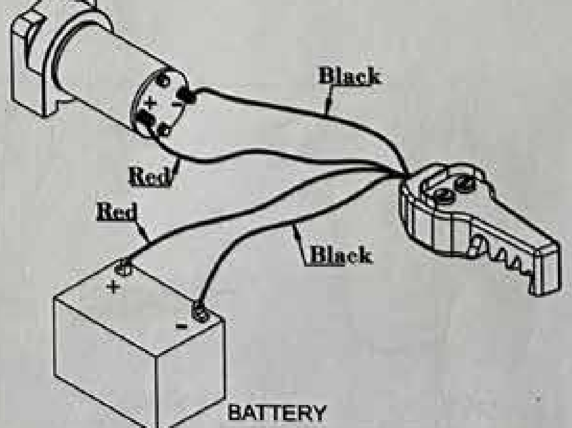


Fig.5

CLUTCH OPERATION

CAUTION: Do not adjust the clutch unless there is no load on the wire rope.

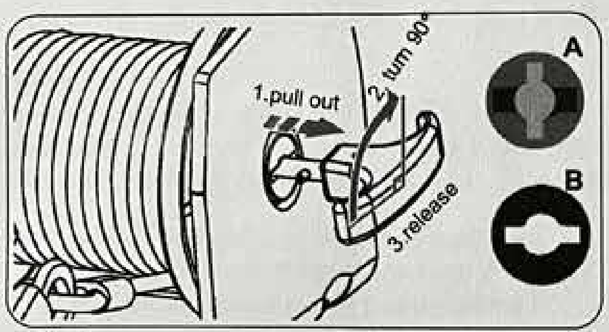


Fig.8

For model RP2000,REW2000(Fig.8)

A. Disengage the clutch to free spool position
1. Pull out the knob.
2. Turn the knob 90° clockwise.
3. Release the knob.

B. Engage the clutch
1. Pull and hold the knob.
2. Turn the knob 90° counter-clockwise.
3. Release the knob and let it sit in the groove

For model RP3500, RP5000, RES4000

1.To engage the clutch,
turn Clutch Knob clockwise completely until it stops. Fig.9

2.To release the clutch (freespool),
turn Clutch Knob counterclockwise completely until it stops. Fig.10

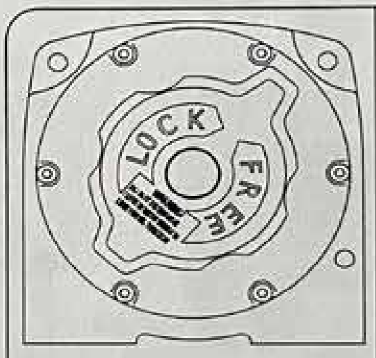


Fig.9

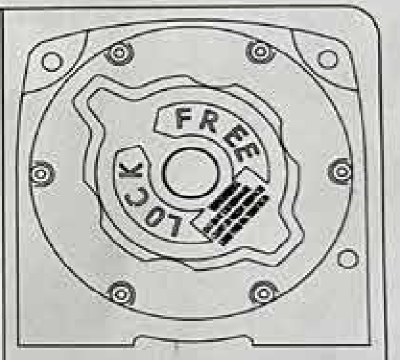


Fig.10

WINCH OPERATION

NOTE:
If a winch is to be used to pull a vehicle, it should optimally be rated to a single line pull at least twice the vehicle's weight.

1. Check the wire rope. Do not use damaged rope.
2. Check the the electrical connections to make sure all are tight and clean.
3. Put the vehicle transmission in NEUTRAL.
4. Keep the vehicle battery running.
5. Disengage the clutch to free spool position. Refer to CLUTCH operation above.
6. Grab the hook with the hand-saving strap and pull the cable to the desired length. Hook onto the object using a pulling point, tow strap, tree protection strap, or chain. Fig.11

WARNING:
Always leave at least 5 full turns of the cable on the drum.

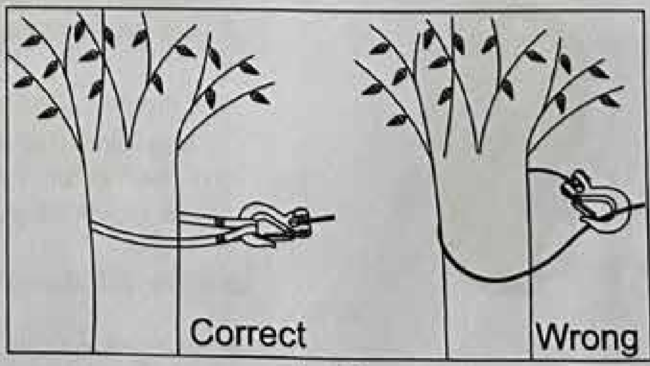


Fig.11

WINCH OPERATION-continue

7. Reengage the clutch by turning the Clutch Knob till it sits to the ENGAGE position.
8. Place a heavy rag or carpet(not inclucded) over the wire rope span,1.8 m from the hook to help absorb the force released if the wire rope breaks.

WARNING:
Do not allow anyone to stand near the wire rope, or in line with the wire rope behind the winch while it is under power. If the wire rope should slip or break, it can suddenly whip back towards the winch, causing a hazard for anyone in the area. Stand well aside while winching.

9. Operate the control briefly to ensure they work properly and in right direction. If operation is reversed, the power cables may be connected backwards. Make correction before use.
10. While standing aside of the tow path, press(and hold) the push button on the remote control to pull the load. If the load does not move, stop pulling and check for obstacles blocking the load or check to see if the load is too heavy for winch capacity.Do not power the hook all the way into the fairlead to prevent damage.
11. Do not operate the winch at extreme angle. Fig.12

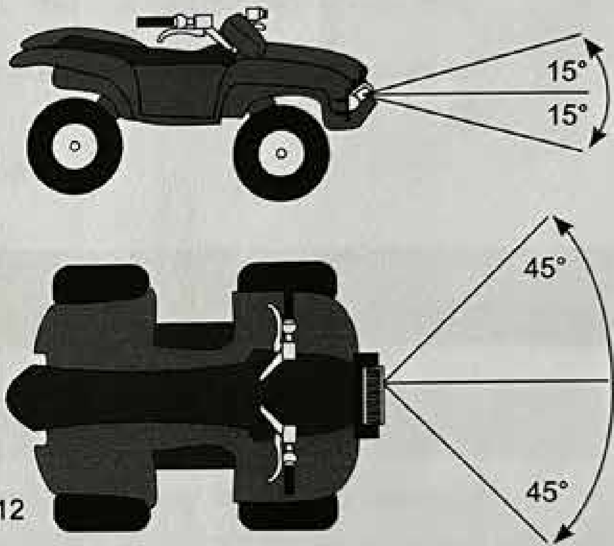


Fig.12

CAUTION:
The winch is designed for intermittent use only, and should not be in a constant duty application. The duration of the pulling job should be kept as short as possible. If the winch motor becomes very hot to touch, stop the winch and let it cool down for several minutes. Never pull for more than one minute at or near the rated load. Do not maintain power to the winch if the motor stalls as it can damage the motor or gears.

12. When pulling is complete, secure the load so it cannot move in either direction. Reverse the direction of the winch to release the tension on the rope so that the hook can be unfastened from the load.

WIRELESS REMOTE CONTROL OPERATION

1. Follow the winch wiring and operation instruction on pages in front.
2. Activate the Remote: Press and hold both IN and OUT buttons on the Remote Controller simutaneously for 3 seconds till the red LED on the Remote lights up and stays on.
3. Press "OUT" or "IN" button on the Remote Controller. Watch the steel cable (or wire rope) feeding out or retracting in accordingly.
4. If the steel cable (or wire rope) movement does not match "OUT" or "IN" action on Remote Cotrol, check and correct winch wiring. Make test again after correction.
5. If Wireless Remote Control operates the winch correctly, the winch is ready for use.
6. Deactivate Wireless Remote Control by pressing and holding both IN and OUT button for 3 seconds simultaneously till the red LED in Remote Controller turns off.

NOTE: Remote Controller can automatically turn off in 2 minutes standby to save battery.

MAINTENANCE & SERVICE

WARNING:
TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:
Disconnect the Battery Cables before performing any inspection, maintenance, or cleaning procedures.

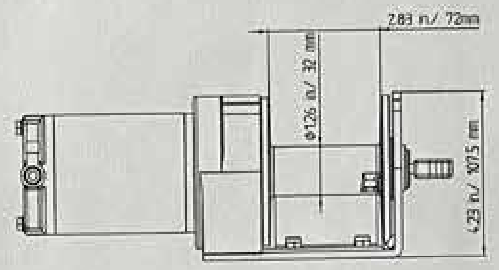
LUBRICATION:
1. All moving parts within the winch have been lubricate using high temperature lithium grease at the factory. No internal lubrication is required.
2. Lubricate wire rope periodically using a light penetrating oil.

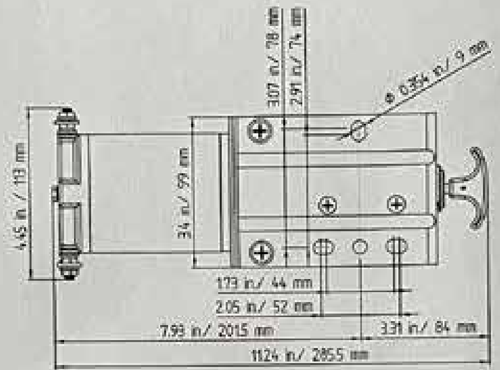
CABLE ASSEMBLY REPLACEMENT(to be performed only by a qualified service tech):
1. Move Clutch Knob to the OUT position.
2. Extend Cable Assembly to its full length. Note how the existing Wire Rope is connected to the inside of the drum.
3. Remove old Cable Assembly and attach new one.
4. Retract Cable onto Drum being carefull not to allow kinking.
5. Test the Winch for proper operation.

TROUBLE SHOOTING

SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY
Motor does not turn on	*Switch Assy not connected properly	*Insert Switch Assy firmly to the connector
	*Loose battery cable connection	*Tighten nuts on cable connectors
	*Solenoid malfunctioning	*Tap Solenoid to free contact, applying 12V (for 12V motor) or 24V(for 24V motor) to coil terminal directly. Solenoid will make an audible clicking when activating.
	*Defective Switch Assy	
	*Defective Motor	*Check for voltage at amature port with switch pressed. If voltage is present, replace motor.
	*Water has entered motor	*Drain and dry. Run in short bursts without load until completely dry.
Motor runs too hot	*Long period of operation	*Let winch cool down periodically.
Motor runs slowly or without normal power	*Battery runs down	*Recharge battery by running vehicle engine.
	*Insufficient current or voltage	*Clean, tighten or replace the connector.
Motor runs but cabledrum does not turn	*Clutch not engaged	*Push clutch Handle(13) into **IN** position. If that does not work, ask a qualified technician to check and repair.
Motor runs in one direction only	*Defective or stuck Solenoid	*Tap solenoid to free contacts. Repair or replace solenoid.
	*Defective Switch Assy	*Replace Switch Assy.

SPECIFICATIONS-RP2000 & REW2000(stainless steel)





Model	RP2000	REW2000
Rated line pull	2000lbs(907kgs) single line	
Motor(permanent magnet)	12V DC input power:1.9Hp(1.4Kw)	
Gear Ratio	153:1	
Gear train	Single-stage planetary	
Brake	Automatic load-holding brake	
Power in and power out	Yes	
Free Spooling	Yes	
Drum	Ø1.26"x2.8" (Ø32mmx72mm)	
Drum material	Aluminum	Stainless steel
Rope material	Steel cable	Stainless steel cable
Rope dia. & length	Ø5/32"x50'(Ø4mmx15m)	
Hook(with safety latch)	3/16"	3/16" stainless steel
IP rating	IP65，winch and controls(resistant to water jets)	
N.W.(kgs)	6.8	6.9

Performance (1st layer of the drum)

Line pull		Line speed		Amp
Lbs	kgs	Ft/min	m/min	Draw
0	0	14.0	4.3	14
1000	454	9.0	2.7	60
1500	680	7.5	2.3	90
2000	908	5.9	1.8	115

	Line pull by layer		Cable Capacity	
Layer	lbs	kgs	ft	m
1	2000	908	6	1.8
2	1636	740	13	4.0
3	1385	625	22	6.7
4	1200	540	33	10.0
5	1059	480	44	13.4
6	947	426	50	15.2