

To preserve original appearance, wax periodically.

Spool the cable properly on the drum when storing between each usage.

Check the oil level in the gear boxes every six months.

At the same time, check electrical connections and mounting bolts – tighten if necessary.

Corrosion on electrical connections will reduce performance or may cause a short. Clean all connections, especially in remote switch receptacle. In salty environments use a silicone sealer to protect from corrosion.

Be sure the winch has plenty of battery power available.

Replace oil annually or more often if winch is used frequently.

For RE 8000: Fill the worm gear box with 3/4 pint of Phillips SMP 80W-90, Mobil HD 80W-90, or Shell Spirax HD 80W-90. For RE 10000, RE 12000, and RE 12000X: Use 3/4 pint of SAE 140 EP.

Use 1/2 pint of SAE 20 for spur gear box. Apply cup grease to lube fitting at top of clutch housing. Should winch be submerged for a brief period, drain oil, flush and replace oil in gear boxes, and grease all fittings (see Troubleshooting Guide below).

To minimize corrosion of the internal motor components that may occur due to condensation, power the winch in or out periodically. Energizing the motor will generate heat, which will dissipate any moisture buildup in the motor. This should be performed at periodic intervals (such as with each oil change to your vehicle).

Lubricate cable periodically using light penetrating oil. Inspect for broken strands and replace if necessary with Ramsey part number listed in Parts List. Install new cable per "Cable Installation" page 4.

## Ramsey Electric Winches Troubleshooting Guide

CONDITION	POSSIBLE CAUSE	CORRECTION
MOTOR RUNS IN ONE DIRECTION ONLY	(1) Inoperative solenoid or stuck solenoid (2) Inoperative remote control switch	(1) Jar solenoid to free contacts. Check by applying 12 volts to coil terminal (it should make an audible click when energized). (2) Disengage winch clutch, remove remote control switch plug from the socket and jump pins at 8 and 4 o'clock. Motor should run. Jump pins at 8 and 10 o'clock. Motor should run.
MOTOR RUNS EXTREMELY HOT  MOTOR RUNS, BUT WITH INSUFFICIENT POWER, OR WITH LOW LINE SPEED	(1) Long period of operation (2) Insufficient battery  (3) Electrical cable from battery to winch or ground strap from engine block to vehicle chassis too small. (4) Bad electrical connections (5) Insufficient charging system	(1) Cooling-off periods are essential to prevent overheating. (2) Check battery terminal voltage under load. If 10 volts or less, replace or parallel another battery to it. (3) Must be No. 2 equivalent (or larger if longer than 15 ft.).  (4) Check all connections for looseness or corrosion; tighten, clean and grease. (5) Replace with larger capacity charging system.
MOTOR RUNS, BUT DRUM DOES NOT TURN	(1) Clutch not engaged (2) Sheared drum shaft key (3) Stripped bronze gear (4) Parted shaft	(1-4) If clutch engaged but symptom still exists, it will be necessary to disassemble winch to determine cause and repair.
MOTOR WILL NOT OPERATE	(1) Inoperative solenoid or stuck solenoid (2) Inoperative remote control switch  (3) Inoperative motor (4) Loose connections	(1) Jar solenoid to free contacts. Check by applying 12 volts to coil terminal (it should make an audible click when energized). (2) Disengage winch clutch, remove remote control switch plug from the socket and jump pins at 8 and 4 o'clock. Motor should run. Jump pins at 8 and 10 o'clock. Motor should run. (3) If solenoids operate, check for voltage at armature post; replace motor. (4) Tighten connections on bottom side of hood and on motor.
MOTOR WATER DAMAGED	(1) Submerged in water or water from high pressure car wash	(1) Allow to drain and dry thoroughly, then run motor without load in short bursts to dry windings
CLUTCH INOPERATIVE OR BINDS UP	(1) Dry or rusted shaft (2) Dog point setscrew too tight  (3) Bent yoke (4) Keys pulled out of shape by overload	(1) Clean and lubricate (2) Remove rubber plug from clutch housing and rotate setscrew outward until clutch operates smoothly. Replace rubber plug. (3) Replace yoke or shifter assembly (4) If drum shaft keyways are rounded or damaged replace shaft and keys. If not, file off burrs and replace keys.
CLUTCH SPRING DOES NOT OPERATE	(1) Broken spring	(1) Replace
CLUTCH DOES NOT LOCK AT DISENGAGED POSITION	(1) Setscrew loose or worn	(1) Remove rubber plug from clutch housing, tighten setscrew or replace. Replace plug.
OIL LEAKS FROM HOUSING	(1) New seal (2) Seal damaged or worn (3) Too much oil (4) Damaged gasket	(1) New seals sometimes leak until seated to shaft. (2) Replace. (3) Drain excess oil per lubrication instructions. (4) Replace.