DNA Knowledge Base

Winch trouble shooting guide

-1. **Winch Trouble Shooting Guide** The following Trouble Shooting Tips [with thanks to our friends at Warn] are a collection of the 10 most frequent problems that we encounter. Most of these are electrical problems and are easily solved.
Problem #1
Winch will not operate in either direction when the remote control is activated, no sound from the solenoids.
Cause:
The solenoids are not properly grounded. The electrical wire terminals or the battery terminals are corroded. The motor brush holder is not grounding to the motor housing.

- Corrective Action:
Attach the solenoid ground wire to the motor housing. On older control packs with out a ground wire attach the solenoid mounting plate to a good ground location. Clean all electrical wire terminals and battery terminals. All contact surfaces should be shiny. Remove motor brush plate and clean corrosion from edge of motor housing. Install shims in repair kit p/n 66552.

-1. Problem #2
Winch will not operate in the Power “IN” mode.
Cause:
The pins inside the remote control plug have been pushed out of position or bent, preventing contact with the corresponding receptacle in the control box. One of the power “IN” solenoids is sticking or is damaged from prolonged use, which has overheated the solenoid. The thermal protective switch is defective, or has tripped because the motor has over heated (old M-10000’s and industrial winches)

- Corrective action:
Replace the remote control receptacle or plug, or complete unit. Replace the defective solenoid. Allow the winch motor to cool for about 20 minutes. The thermal switch will reset automatically.

-1. Problem #3
When the remote control switch is activated there is only a “clicking sound”, and the winch does not operate in either mode.
Cause:
The battery is: Not fully charged or terminals are corroded, Battery is defective or worn out. Electrical grounding wire is not attached to the motor housing. The motor armature is damaged or shorted, possible from incorrect wiring of the control pack to the motor, or overheating of the motor. Water in the motor, caused by submersion or improper installation of the motor, or the motor was not allowed to drain properly, causing an electric short. Worn or damaged brushes, caused by damaged armature commutator or normal wear.

- Corrective action:

Clean the battery terminals and wire terminals. Attach the electric ground wire to the motor housing. Recharge battery Replace the motor brushes. Replace the motor armature. Replace the motor.

-1. Problem #4
Winch does not have the same “pulling power” as when new.
See causes and corrective action for Problem 3.
Problem #5
Winch runs very slow and lacks power when pulling a load, won’t pull a load, or stalls easily.
Cause:
See cause and corrective action for problems 3 and 4. Check the wire rope. If it is spooling onto the drum in the wrong direction, it will be working against the automatic brake.

- Corrective Action: Remove all the wire rope and respool onto the drum in the proper direction. Note: be sure to observe the drum rotation decal.

-1. Problem #6
Electrical sparks are seen from around the motor adapter or screw heads.
Cause:
Electric ground is not sufficient. Either the ground wire has not been installed, or the battery wires and wire terminals are corroded.

- Corrective action:
Install the ground wire that was supplied with the winch to the motor housing, and attach to the negative terminal of the battery. Also see Cause and Corrective Action for problems 3,4 and 5.

-1. Problem #7
Winch motor gets Hot very quickly.
Cause:
Motor bushing in the motor end cap is tight. Motor armature is damaged or shorted, possibly from incorrect wiring of the control box, or overheating the motor on a previous pull.

- Corrective Action:
Use emery cloth on the bushing and motor shaft. Replace the motor.

-1. Problem #8
Winch does not freespool, or is very difficult to freespool.
Cause:
8274 Models only: The brake locks up as the wire rope is pulled out. For all planetary gear models only: The sliding clutch ring gear may have a burr on the outside diameter which is interfering with the inside diameter of the gear housing. The can be caused from disengaging and engaging the clutch while the winch is under a load. Grease, rust of dirt has gotten between the outside diameter of the clutch ring gear and the inside diameter if the gear housing. The drum flanges are bent outward from the wire rope, stacking up on one end of the drum and forcing outward against the drum flange.

- Corrective action:

For M8274, try pulling the wire rope off the drum slowly and with even pressure, don’t jerk it. Remove the burr and lightly oil the surfaces. Do not grease. Remove all the grease, rust and dirt from surfaces and lightly oil. Straighten drum flanges or replace drum.

-1. Problem #9
Kinks and/or broken strands in the wire rope.
Cause:
Kinks and broken strands are caused by improper use, and can usually be prevented or at least minimized by following the suggestions in the winch manual.

- Corrective action:
It is virtually impossible to prevent the wire rope from sustaining damage during use. It is possible to minimize the damage by rewinding the wire rope carefully, under a load of approximately 500 pounds after each use. Refer to the winch owner’s manual for proper procedure.

-1. Problem #10
Clutch won’t operate.
Cause:
There is grease, dirt or rust between the outside of the sliding ring gear and the inside of the gear housing.

- Corrective action:
Clean the surfaces of the sliding ring gear and gear housing. Coat the surfaces lightly with oil. Do not grease. Check the splines on the end housing for burrs (mid-range winches only)

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