

**RED
WINCHES**

the ultimate high performance winch



Operating Instructions:

Single Speed Winches

This document is not designed to be a substitute for a formal winch training course, but rather used in conjunction with one. It merely outlines the idiosyncrasies of the RED winch single speed models.

Important note

The winches supplied by RED Winches are not designed as a hoist and should not be used as such; they are designed for a pulling action only. There are no commercial Safe Working Load (SWL) margins applied to any of the components within the winch system.

Gear Selection

The Challenger and Warrior winches are fitted with a single speed pulling gear. This gear can be used for all pulling operation using any hydraulic pump system. The maximum this gear and winch can pull depends on the pump setup on the vehicle. As a guide the maximum you should pull on your defender is 5000kg even though the winch is capable of 7000kg without too much trouble.

Gear Changing

The RED Winch single speed gearbox is very simple in its construction and selecting the gear should be carried out as follows to avoid jamming and eventual damage.

1. Rotate the lever to the "FREE" position or until 'F' is shown on the face of the lever. Pull the rope out by hand until you reach the desired length. If this is not possible press the "IN" and "OUT" winch controls momentarily to free the locking pin and allow free-spooling.
2. Engage gear by rotating the lever until the letter 'D' is shown on the face of the lever.
3. Pull the rope out until the drive pin engages, the lever drops into the winch and a click is heard.
4. Begin winching.

Pulling.

Ensure a straight pull at all times.

Never allowing the wire rope to become bunched on one side as this could damage the winch and will definitely damage the rope. Stand in a safe place at all times and follow the teachings of the training course and good winching practice.

Steep Gradients.

The RED Winches are not designed as a hoist, they are not to be used as such, nor used for any lifting action at all. However, there may be instances where the winch is used to pull a vehicle up an incline, during which time extra care must be taken (assuming the worst) in case of a component failure, such as the wire or rope breaking.

If winching has stopped, under load for more than momentarily then under no circumstance should the gear selection lever be forced from its drive position into the free position. It will be very hard almost impossible to move as it will be under load.

No mechanical aid must ever be used to release the lever when the vehicle is winching itself or others.

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Operating Instructions: Twin Speed Winches

This document is not designed to be a substitute for a formal winch training course, but rather used in conjunction with one. It merely outlines the idiosyncrasies of RED Winch twin speed models.

Important note

The winches supplied by RED Winches are not designed as a hoist and should not be used as such, they are designed for a pulling action only. There are no Safe Working Load (SWL) margins applied to any of the components within the winch system.

Gear Selection

The warrior winch is fitted with 2 speeds, the high speed is designed only for line retrieval and fast low level pulling and as such has reduced pulling power over the main low gear. It should not be used for lowering the vehicle down a steep slope, nor is attempting to pull up a steep slope regardless of its length. Since changing gear under load is not possible the right gear must be selected before attempting the pull. Low speed depending on the pump arrangement has a considerable amount of pulling power (10,000Kg) and should be used with great care, following a formal winch-training course.

Gear Changing

The Warriors gearbox is very simple in its construction and gear changing should be carried out as follows to avoid jamming and eventual damage.

1. Rotate selection levers upwards until the letter 'F' is shown on the face of the levers. If this is not possible press the "IN" and "OUT" winch control momentarily to free the locking pins and allow free movement of the levers and free-spooling.
2. Engage the gear you would like to use by rotating the corresponding lever downwards until either 'H' or 'L' is shown on the lever face. High gear is the lever on the left and low gear is the lever on the right. There is a safety function in the selection levers to stop both gears being selected at the same time. Under no circumstance must the winch be modified or forced to select both gears at the same time.
3. Pull the rope out until the corresponding drive pin engages, the lever drops into the winch and a click is heard.
4. Begin winching.

Pulling.

Ensure a straight pull at all times.

Never allowing the wire rope to become bunched on one side as this will damage the winch. Stand in a safe place at all times and following the teachings of the training course.

Step Gradients.

The RED Winches are not designed as a hoist, they are not to be used as such, nor used for any lifting action at all. However, there may be instances where the winch is used to pull a vehicle up an incline, during which time extra care must be taken (assuming the worst) in case of a component failure, such as the wire or rope breaking. If winching has stopped, under load for more than momentarily then under no circumstance should the gear selection lever be forced from its drive position into the free position. It will be very hard almost impossible to move as it will be under load.

No mechanical or physical aid must ever be used to release the gear lever when the vehicle is winching itself or others.

The logo for RED WINCHES, with 'RED' in a large, bold, red font and 'WINCHES' in a smaller, bold, black font below it.

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RED Winches - Do's and Don'ts

1. Always leave the drum and rope neatly spooled after use
2. Do not use the drive of the vehicle's wheels to assist the winch; it is normally unnecessary and dangerous.
3. Never attempt to disengage the driving gear whilst the winch is under load.
4. Do not operate the winch with the engine off and the winch is under load.
5. Store the winch in gear when not in use.
6. If the winch overloads, i.e. it stops, release the control button immediately and assess the situation

Troubleshooting

1. The winch will only operate if the engine is running and there is no need to rev the engine during use.
2. If the "IN" or "OUT" button is pressed and the winch does not follow the command, especially following a gear change, it is because the gear has not been engaged properly. Wiring must also be checked to the control valve solenoids.
3. If the winch will free-spool but not operate when one gear is correctly selected, check the solenoid valve operation. With the engine off and hand controller plugged in, press "IN" and "OUT" in turn and listen for quiet clunk at the solenoid valve, which will confirm it is working in both modes.

Equipment Damage

Report any damage immediately it is noticed, especially damage to the rope, which should be replaced at once. In the interim do not use the winch.

Replacement Ropes

Can be ordered from our reputable distributors and shipped on a next-day carrier. See www.red-winch.com for a list of our distributors close to you.

Fitting a New Rope

Always ensure that the rope spools from the bottom of the drum and that it is wound on under load (approximately 500Kg) starting from the left hand end (opposite end to the hydraulic motor).

Once the bottom layer of rope is wound onto the drum (min 8 full wraps), tape the whole layer in position using ducting tape, this will help maintain the rope in position when it is being used on the last layer. The wire rope is held on the drum by its tightening or capstan effect around the drum, so always have a minimum of 8 full wraps of rope on the drum when winching.