

# RDX WINCH

USER MANUAL



**ULTRA**  
WINCH

## SAFETY INFORMATION



## OPERATING SAFETY PRECAUTIONS

Before installing and operating the winch for the first time, please ensure to fully read and familiarise yourself with all safety precautions set out within this section as well as the correct operating procedures set out within the 'Operation' section of this user manual.

Failure to follow the correct safety precautions or winch operating techniques can result in serious injury or death as well as damage to the winch.

The essential safety precautions that must be taken when operating the winch are set out below.

## CLOTHING

- Do not wear loose fitting clothing or jewelry as it can be caught in moving parts.
- Ensure long hair is contained by a protective head covering or tied so it can not get caught in moving parts.
- Protect your hands by wearing leather gloves when handling the winch rope and hook.
- We recommend always wearing non-skid, closed toe footwear.

## KEEP A SAFE DISTANCE

- Always keep hands clear of the winch, winch rope and recovery gear during operation.
- Use the hook strap supplied to handle the hook when spooling out the winch rope to protect your hands and fingers.
- Do not stand on or walk over the winch rope.
- Everyone must keep clear of the winch rope and load during winching operations.
- A minimum of 1.5 times the length of the rope is recommended as a safe distance during operation to avoid whiplash if the rope breaks or cuts loose. Contact with the rope if it lashes back can cause serious injury or death.
- Use of recovery damper blankets will also reduce the risk of whiplash.
- Everyone not directly involved in the winching operation should remain clear of the area.

## OPERATION

- The winch is only to be operated by people familiar with the winch's operation and the correct winching techniques.
- The winch is only to be used for its intended purpose and never used for lifting or moving people or lifting items vertically.
- Conduct regular checks of the winch and winch rope as outlined in the maintenance section of this user guide.
- Do not operate the winch under the influence of alcohol or drugs.
- Do not disengage the clutch when the winch is under load.
- Engage the clutch before winding the rope in or out when a load is attached.
- Do not connect the winch hook back onto the winch rope. Only attach the hook to a suitable anchor point that can bear the load.
- Do not drive over the winch rope after the recovery is complete.
- At a minimum, keep 8 full turns of the winch rope on the drum. The rope's connection to the drum is not intended to sustain a load.
- The last section of the rope is covered to protect it from the heat generated from the motor and to notify the user that the rope is down to its last 5 turns.
- We recommend leaving your vehicles engine running during operation as the winch draws a large amount of power from the battery.

## MOUNTING INSTALLATION REQUIREMENTS

Before mounting the winch ensure that the baseplate is rated to the winch's maximum capacity.

Universal winch-ready bull bars are generally designed with enough space to accommodate the RDX Winch, as well as pre drilled bolt holes for fitment.

The winch is designed to be fitted and operated with the rope winding in an underwind orientation.

Ensure there are no sharp edges on any surfaces along the rope path that the rope can come into contact with during operation. If the rope scrapes along a sharp edge, it will wear through the rope and cut it. Damage to the rope from sharp edges will not be covered under warranty.

## MOUNTING POSITIONS

The RDX may be installed with mounting feet facing downwards or forwards. This will depend upon the bull bar/winch cradle design. As the winch rotates 90° for a feet forward installation, the clutch handle can be rotated so it is most accessible with your bar.

Feet down installation utilises four feet mounting bolts and two fairlead mounting bolts.

Feet forward installation utilises four mounting bolts, of which two longer bolts will sandwich the fairlead into place. Utilise fairlead offset holes where necessary for a straight and level line pule.

### FEET DOWN

- Six bolts.



### FEET FORWARD

- Four bolts.
- Clutch rotated to desired position.

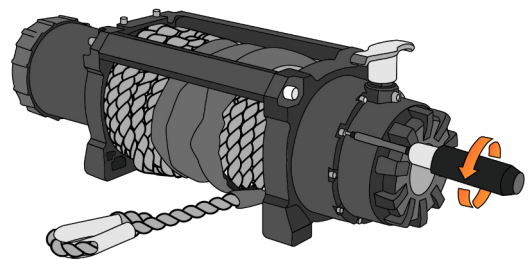


## CLUTCH HANDLE POSITIONS

Depending on your vehicles bull bar, the gearbox side of the winch containing the clutch handle may need to be rotated so the clutch handle is easily accessible.

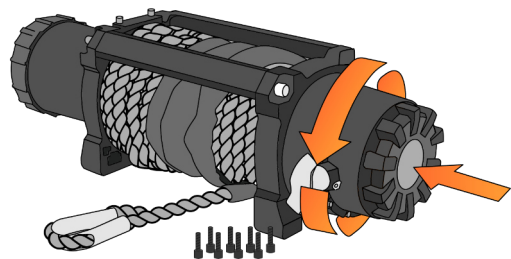
This gearbox side of the winch can be fully rotated to ten different positions as outlined in the diagram on the previous page.

We recommend rotating the gearbox component on a flat workbench before the winch is fitted to your vehicle.



### STEP 1

Remove the ten 3mm hex bolts from the gearbox case.



### STEP 2

Apply light pressure to the gearbox case to prevent separation from the winch body.

### STEP 3

While maintaining light pressure on the gearbox case, rotate to one of the 10 possible positions based on your needs.

### STEP 4

Reinstall the ten 3mm hex bolts.

### WARNING

Allowing the gearbox case to separate from the winch body will cause the gears to unmesh. If the case separates and is pushed back on, gear misalignment may occur, leading to grinding, binding, or catastrophic motor failure.

Consult a mechanic or call Ultra Winch support if significant separation occurs.

## CONTROL BOX MOUNTING

The increased control box wire length allows the control box to be mounted both on and off the winch. The in-built wireless receiver makes access to the control box mostly unnecessary apart from maintenance. We recommend mounting the control box adjacent to the winch in one of the bull bar wings. Commonly, two self-tapper screws can be used for external control box mounting.

## DIELECTRIC GREASE

Dielectric grease will create a shield layer between the surface of the electric connections and the outside environment, providing protection from unwanted particles such as water and dirt.

We recommend applying dielectric grease on all electrical connections to ensure maximum protection.

## IN-CABIN ROCKER SWITCH

The plug 'n' play in-cabin rocker switch allows easy operation of the winch from the comfort of inside the cabin. The universal sized rocker switch will integrate seamlessly into most vehicles switch panels eliminating the need of mounting a separate control switch.

The rocker switch has the function of winch rope IN and OUT.

## INSTALLATION STEPS

### STEP 1

First, confirm that the dimensions of the supplied universal rocker switch are compatible with the switch panel in your vehicle.

### STEP 2

Select a blank switch in your vehicles switch panel and remove or cut out the plastic cover.

### STEP 3

Plug the wire into the socket located under the rubber cover on the side of the winch's control box.

### STEP 4

Select a pathway of the wire from the control box to the cabin that is secure and can not come into contact with any moving parts.

### STEP 5

Ensure the rocker switch is securely fitted within the control panel inside the cabin.

## WINCH MAIN INSTALLATION STEPS

### STEP 1

Mount the winch to the bullbar with four or six bolts depending on orientation.

### STEP 2

Feed rope through fairlead and connect heavy duty hook.

### STEP 3

If applicable, mount control box adjacent to winch.

### STEP 4

Route breather valve kit.

### STEP 5

Route in cabin switch and Y splitter.

### STEP 6

Connect control box outputs to winch terminals. A, B and C. Torque the 13mm nut to 12nm and make sure the contacts are not pinching heatshrink or rubber boot. Slide rubber insulating boot to cover all metal contact of terminal and terminal post. Connect small gauge solenoid negative to negative post on rear of motor.

### STEP 7

Turn isolator to OFF position. Connect positive wire from control box to isolator switch, torque to 12nm. Fit rubber insulating boot.

### STEP 8

Connect shorter positive wire to isolator switch, torque nut to 12nm, fit rubber insulating boot. Connect other end terminal to battery.

### STEP 9

Connect negative to rear ground on winch motor. Connect other end to battery.

### STEP 10

Turn isolator switch on and test.

**WARNING** - Negative post is on rear of winch motor assembly - do not cross wire with black terminal A on top of motor.

## REPLACEMENT OF THE WINCH'S ROPE

To replace the winch's rope, follow the steps setout below:

1. Rotate the clutch handle to the free spool position.
2. Extend rope to its full length. Note how the existing rope is connected to the inside of the drum.
3. Remove the bolt to remove rope from drum. Fit new rope and replace bolt.
4. Rotate the clutch handle to the engage position.
5. Coil winch rope back onto the drum and pre-tension after.

Make sure you have read operating safety precautions in the safety section before operating the winch. Do not use if any items are damaged.

We recommend cleaning the winch rope after use, especially if the terrain was dirty, dusty or wet. Information about cleaning the rope is outlined in the 'Maintenance' section of this user manual.

## **FREESPOOL ROPE OPERATION**

To pull out the winch rope, rotate the clutch to the 'Free Spool' position as shown in the diagram below.

Rope tension may cause binding. Winch out until the line is free.

Once the rope has been pulled out and connected to the anchor point, re-engage the clutch by rotating it to the 'Engage' position.

## **WIRELESS REMOTE OPERATION**

Switch on the remote by pressing the ON/OFF button. The red light will flash when remote is on.

Operate the winch rope in either direction using the WINCH IN and WINCH OUT buttons.

The red light will flash on the remote when in operation.

When finished operating, switch off the remote using the ON/OFF button.

The wireless remote will automatically switch off after 3 minutes when not in use to conserve the battery and eliminate accidental operation of the winch.

## **WIRELESS REMOTE BATTERY**

The wireless remote is powered by 1 x A23 battery.

If the red light on the remote is not flashing when buttons are pressed, the battery may need replacing.

To access and replace the battery:

Remove the cover by unscrewing and removing the three screws located on the back of the wireless remote with a philips head screwdriver.

## **WIRED REMOTE OPERATION**

Plug the socket at the wire end of the remote cord into the socket located on the side of the winch's control box.

Operate the winch rope in either direction using the WINCH IN and WINCH OUT buttons.

Disconnect wired remote when not in use.

Improper maintenance will void the warranty of your Ultra Winch product. Please ensure you follow the correct cleaning procedure and periodically undertake regular checks of the winch. Never operate a damaged or defected winch.

## CLEANING

We recommend cleaning your winch rope after each use, especially if the terrain was dirty, dusty, or wet which can cause debris buildup on the rope's fibres.

## METHOD

### STEP 1

Unroll And Inspect The Winch Rope

You have two options for unspooling the winch rope:

- Engage free-spool mode by disengaging the clutch and pulling the rope out by hand.
- Pressing 'WINCH OUT' on your controller and lightly guiding the rope out by hand.

Either option is fine, but we'd recommend powering the winch out. It's an excellent opportunity to check the function of almost all components at the same time: isolator switch, wireless transmitter & receiver, solenoid, wired connections, electric motor, gearbox and drum seals.

This acts as a testing phase of the winch so we know it's in working order for the next trip. Any abnormal sounds, inaction, stuttering etc will warrant further inspection.

You may also remove the winch rope from the drum, for the RDX winch, it's a single bolt. This can make cleaning and drying easier as the car can be driven or parked separately during the cleaning process.

### STEP 2

Clean The Winch Rope

All you need is some PH neutral soapy water and your hands. Most car washes are safe, but avoid heavy duty truck washes. Don't use a wired brush or any abrasive scrubbing material since these could irritate or fray the fibres in the rope.

With your bucket of soapy water, bathe the winch rope, a small section at a time. Manipulate it underwater to adjust the strands and fibres, releasing any trapped particles.

Use your hands to clean it as thoroughly as possible. We're looking to expand the weaves and shake the particles out. The weave will naturally contract and elongate.

Once you've washed the rope, it's time to rinse the soap off by either dunking it in a clean bucket of water or rinsing it with the hose.

### STEP 3

Drying

Removing as much moisture as possible will make tensioning the rope easier, cleaner and more effective. Ringing the rope out and a quick shake will get most water out in a minute. Avoid hanging your rope out in the sun for days as UV light exposure will fasten discolouration and may decrease strength and longevity.

### STEP 4

Installing the rope and tensioning.

Fitting the rope back on is the final step but most importantly it's tensioning it to ensure a confident spool for your next recovery.

Firstly, guide the anchor of the rope through the fairlead and reinstall the bolt.

When rewinding the winch rope, the most important things are tension and a neat coil. Without these, the layers will begin to pinch against each other. Neatness is also vital for reducing the number of layers.

Keep the rope taught by utilising a slight hill or incline. Attach the winch rope to an anchor point higher up the slope. Turn on the vehicles ignition and put the vehicle transmission in neutral. Now, wind the winch in, carefully guiding the rope into neat coils using the steering wheel.

If you don't have a hill, create a similar anchor point for the winch rope. The vehicle should still be in neutral, but this time half-apply the brakes. The extra opposing force creates tension for winding the winch rope back in.

You might finish winding the rope in and decide it needs to be neater or tighter. Don't be afraid to undo it and restart. It'll mean you avoid more problems in the future. Having a second person with you, either in the car or inspecting the winch rope, can make the process easier.

## REGULAR CHECKS

Winches are designed to be used. If they sit doing nothing for months or years, they'll start to struggle. The planetary gears could suffer from a lack of lubrication and possible moisture exposure. The motor may build up some moisture from ambient humidity through the breather valve kit - a necessary venting system to prevent pressure build up may allow atmospheric moisture ingress.

Operating your winch periodically will keep things dry and well lubricated through mechanical movement and heat induced by the electric motor. A basic, 10 meter pull on level ground every couple of months is enough to keep things moving.

Ensure to also regularly check that

1. The winch's connections are clean, free from corrosion and securely fitted in place. Low resistance is key as we're dealing with such high current.
2. All bolts and fittings are secure and tight.

## LUBRICATION

The gearbox assembly has molybdenum grease from factory and only requires re-greasing and servicing after heavy usage and usage under water. As a general rule, inspect grease every 100 pulls or if you hear a change in gearbox sound.

Remove the 10 outer gearbox case hex bolts, degrease the gears with brake cleaner or degreaser, allow to dry and apply automotive molybdenum grease. Avoid overpacking the assembly which may result in hydrolocking.

Do not proceed with this step unless you are confident, as incorrect re-assembly can result in at best, the winch not working when you need it to, and at worst, the gearbox catastrophically failing.

Consult a professional if you are unsure.



**ULTRA**  
WINCH

**ULTRA**  
WINCH

**ULTRA**  
WINCH



(03) 7020 0740  
sales@ultrawinch.com.au  
ULTRAWINCH.COM.AU