



Wireless Connection

Activating the Wireless Connection

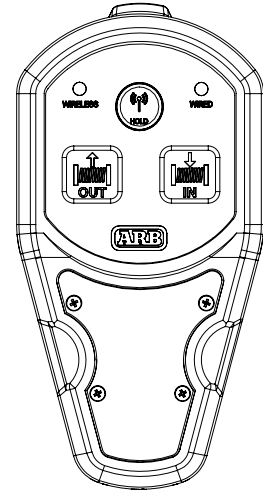
Press and hold the Wireless Power Button  for 3 seconds to activate the Wireless Control.

The WIRELESS light will illuminate to indicate you are in WIRELESS mode. To turn off, press and hold the Wireless Power Button  for 3 seconds until the WIRELESS light turns off. The controller is also equipped with an automatic power off function. If the hand controller is not operated for 2 minutes it will turn off automatically to conserve battery power.

To “Winch - Out”, Press and hold the “OUT” Button

To “Winch - In”, Press and hold the “IN” Button

To stop winching, release the button.



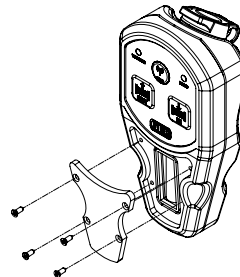
Pairing of New Hand Controller

In the case that a replacement winch hand controller is required;

1. Ensure the pre-connected, old hand controller is turned off. Ensure the power to the winch and wireless receiver is turned OFF via the isolation switch.
2. Turn on the new hand controller to Wireless Mode by pressing the  button for 3 seconds until the Wireless Light flashes green.
3. Press and hold the IN and OUT buttons simultaneously. Both the green wireless and red wired lights will turn solid. Continue to HOLD for 6 seconds until both lights flash slowly – Do not release.
4. Whilst still holding the IN and OUT buttons – Turn ON power to the winch and wireless receiver via the isolation switch.
5. The green and red lights will start flashing quickly for 2 seconds, then the green light will flash slowly indicating that pairing is complete.
6. Release the IN and OUT buttons and test the functionality of the new hand controller to operate the winch.

Changing Battery in the Hand Controller

To replace the battery, remove the screws in the front panel of the hand controller. Replace the A23 battery and reassemble the hand controller. When reassembling the hand controller, ensure that the rubber seal is aligned and not pinched.



Wired Connection

The wireless hand controller can also be used with a wired connection. Connect the winch hand controller cable to the control plug and the hand controller. When the cable is plugged in, the “Wired” light will illuminate RED.





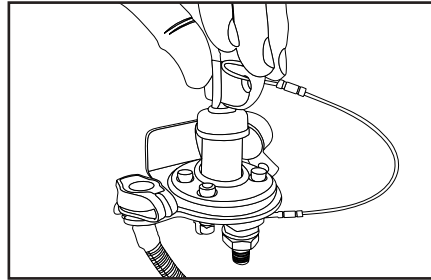
Basic Winching Process

1) Establish an Anchor Point

When choosing an anchor point, select a firm point such as a tree, stump or rocks. **DO NOT WRAP THE ROPE AROUND THE ANCHOR POINT AND BACK ONTO ITSELF.** Always use a tree trunk protector strap to prevent ring barking the tree and damage to the rope. If using a winch to retrieve another stranded vehicle, the rescue vehicle is considered the anchor point and should be made secure. The anchor point must be strong enough to hold the gross weight of the vehicle and be positioned to keep the fleet angle between the centre of the anchor point and the wire rope maintained at less than 15°.

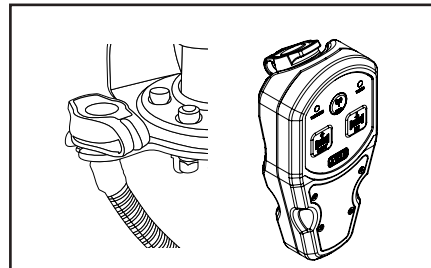
2) Turn on Power to the Winch

Turn power ON to the winch via the red isolation switch, located close to your vehicles battery. Insert the red key and turn 90° to enable the electrical connection.



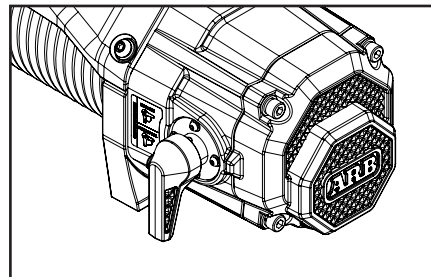
3) Turn on the Hand Controller

Connect the hand controller either wirelessly (see page 18) or via the control plug lead. Always disconnect the hand controller when not in use.



4) Disengage the Clutch (for freespool operation)

Turn the clutch handle in a clockwise direction to the “Disengaged” position. The rope is now free to be unwound from the drum by hand. Never disengage the clutch while the rope is under load. Do not disengage the clutch if powering out in Step 5.



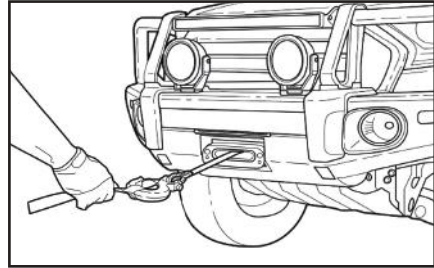
Please note: The ARB Winch winch can be powered out under no load, and in most situations it may be faster. Pay careful attention not to allow the rope to become “over wound” on the drum when powering out.





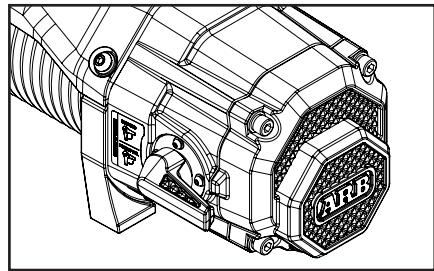
5) Pull or Power Out the Rope to the Anchor Point

Wear appropriate gloves when handling rope. Hold the Pull Strap and pull or power out enough rope to reach the anchor point. Keep tension on the rope when unspooling.



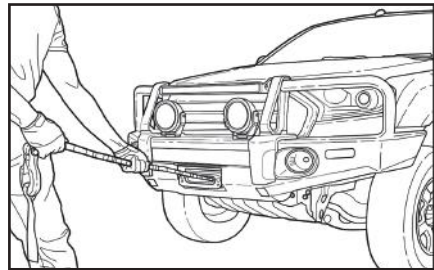
6) Engage the Clutch (if freespooled)

To engage, turn the clutch handle in a counter-clockwise direction to the “Engaged” position. Never engage the clutch while the drum is rotating. The drum may need to be rotated slightly by hand to ensure proper engagement.



7) Check the Rope

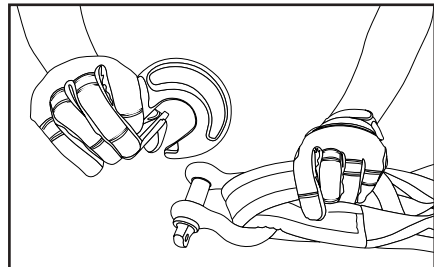
Before winching, ensure the rope is wound on the drum evenly. If unevenly wound, there is a possibility of damaging the rope when under load. Visually check rope for any signs of damage.



8) Attach the Shackle and Hook

Use a shackle to lock both ends of the tree trunk protector and then attach to the hook.

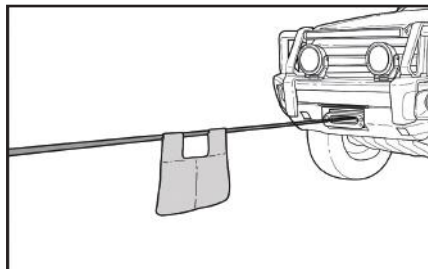
Please note: The winch line is now live. Do not step over or cross the rope.





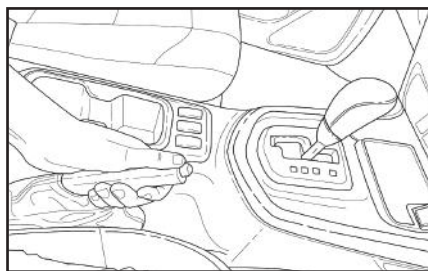
9) Use a Recovery Damper

Lay a recovery damper or heavy blanket over the rope in the middle third of its length. If a rope failure occurs, the damper can prevent the rope from whipping.



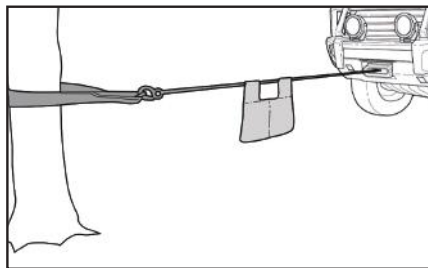
10) Prepare the Vehicle

The recovery vehicle's engine should be running to provide maximum power to the winch. The transmission should be set in neutral and the hand brake applied to prevent the vehicle from moving.



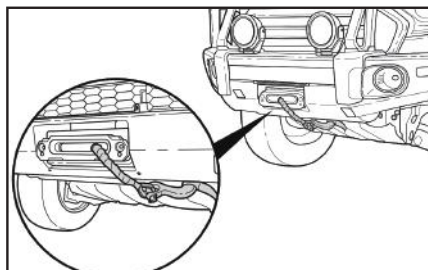
11) Begin Winching

Keep tension on the rope to ensure it winds onto the drum tightly and evenly and does not sink into the lower layers. Release Hand brake and continue pulling until the vehicle is recovered.



12) After Winching

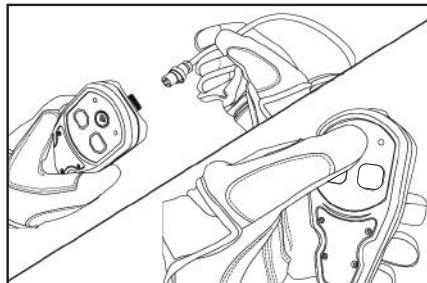
Once the vehicle is recovered and safely secured, wind the remaining rope back onto the drum tightly and evenly and secure the hook firmly. Check rope/parts for wear or damage.





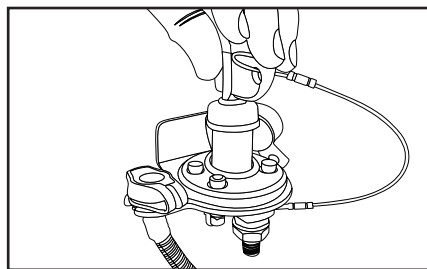
13) Disconnect the Hand Controller

Disconnect the wireless mode (See page 18), or unplug the hand controller cable at both ends. Store the hand controller in a safe, dry and easily accessible place.



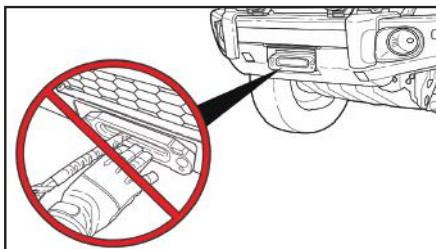
14) Turn off Power to the winch

Turn power OFF to the winch via the red isolation switch, located close to your vehicles battery.



Precautions Whilst Winching

- Make sure the rope is wound onto the drum tightly and evenly. Allowing the rope to become loosely wound can result in binding, pinching and wedging between layers, ultimately damaging the rope, shortening its life and increasing the risk of injury and failure under load.
- Always keep clear of the winch, rope, hook and fairlead while winching.

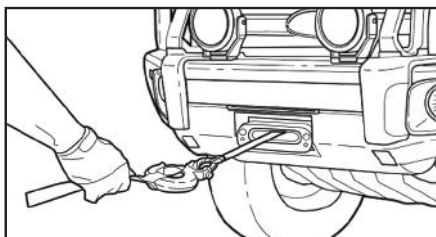




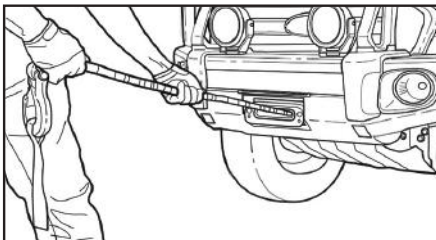
- Keep winching area clear. Do not allow people to remain in the area while winching. Never step over a live rope whilst under load.



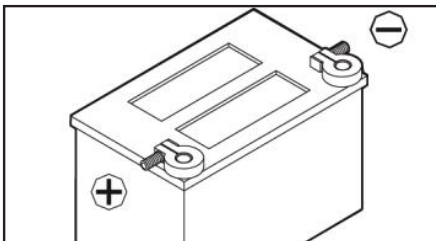
- Never guide a rope onto the drum with your hand. Use the supplied Pull Strap.



- Avoid the hand controller cable from coming in to contact with the winch, rope or fairlead, as damage to the cable may result.



- A winching operation requires extra consumption of battery power, so always maintain your battery and ensure it is in good condition.





Maintenance

Cleaning

Only use low pressure water to clean the synthetic rope. Do not use any chemicals. We recommend using low pressure water and a soapy sponge to clean the winch. If high pressure water is used, do not direct it at the drum area or the clutch handle. Using high pressure water in these areas can force water past seals and lead to internal water build up which can damage the winch.

Tips for Prolonging the Life of Synthetic Rope

1. Periodically check the rope for damage or wear. Frayed, kinked or damaged winch rope must be replaced immediately.
2. When the rope is used for the first time, the outer filaments may fray. This is a result of the outer filaments breaking. The roughened surface will actually protect the inner fibres.
3. Inspect both inner and outer fibres. Open the strands and look for powdered fibre. This is a sign of internal wear.
4. Protect your rope from rubbing against sharp or abrasive objects.
5. Keep your synthetic rope clean and dry. To clean it after use in muddy conditions, spool out the rope, rinse it with fresh water and let it dry completely before re spooling.
6. All synthetic ropes are affected by UV rays, chemicals, abrasion and heat. Once the synthetic rope has begun to deteriorate the breaking strength is compromised. It is recommended that synthetic rope is replaced every 12 months once fitted or UV exposed

Servicing

Servicing and repairs should only be carried out by an authorised dealer. Unauthorised repairs or servicing will void warranty. The maintenance scheduled should be followed to ensure reliable operation for the life of the winch.

The winch should be used regularly to ensure components are kept in good working order. At a minimum, it is recommended that the rope is powered out and then powered back in on a monthly basis by following the correct winching operations (Page 17). The drum support seals are a wearing item and are critical to retaining the sealed design of the winch. These should be inspected and greased or replaced as required depending on the frequency of use and the operational environment.

All moving parts in the winch are permanently lubricated at the time of assembly. Under normal conditions, factory lubrication will suffice. If re-lubrication of the gear box is necessary after repair or disassembly, use Shell EP2 or equivalent grease. The clutch handle can be lubricated regularly with light oil.





Maintenance Schedule

1. Ensure that a responsible person carries out all inspections as per schedule.
2. Inspections are divided into Daily, Monthly and Three Months.

Classification of check			Item		Checking Method	Checking Reference
Daily	Periodical					
	One month	Three months				
☐			Installation	Mounting bolts & alignment	Bolt tension & wear	Existence of abnormalities
☐			Remote control	Correct operation	Manual	Reasonable actuation
☐			Wire rope	Broken strands	Visual, measuring	Less than 10%
☐	☐			Decrease in rope diameter	Visual, measuring	7% of nominal diameter max
☐				Deforming or corrosion	Visual	Existence of abnormalities
☐				Fastening to hook and drum assemblies	Visual	Existence of abnormalities
☐			Synthetic rope	Broken strands	Visual, measuring	Two or more adjacent strands are cut
☐	☐			Decrease in rope diameter	Visual, measuring	25% of nominal diameter max
☐				Fused or melted fibres	Visual	Existence of abnormalities
☐				Fastening condition of end	Visual	Existence of abnormalities
		☐	Clutch assembly	Damaged clutch assembly	Visual evidence of wear	Free of wear or damage
		☐	Motor	Staining, damage	Visual evidence of wear	Existence of abnormalities
☐			Brake	Ability to hold loads	Visual	Reasonable actuation
		☐	Gears	Smooth operation	Visual, auditory	Reasonable actuation
		☐	Seals	Damaged or worn seals	Visual evidence of wear	Free of wear or damage



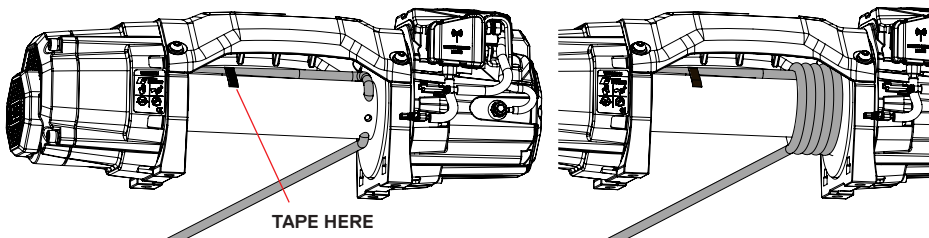


Synthetic Rope Replacement | ARWA004/ARWA011

Always use a replacement rope that is correctly rated for the capacity of the winch. Use the following method to replace the synthetic rope:

1. Disengage the clutch handle.
2. Spool out the entire synthetic rope, loosen the set screw and then remove rope from the drum and replace the hawse fairlead if necessary.
3. If the end of the rope is not shrink wrapped, cut the lateral side of the end of the rope at a 45° angle and apply 2-3 wraps of electrical tape to the end to hold cut strands in place.
4. Thread the rope through the hawse fairlead and under the drum, then insert the rope all the way through the hole in the end of the drum with 15-20cm protruding out.
5. Place the protruding section of rope across the drum and tape the end down to hold it in place. Lightly tighten the set screw to squeeze the rope. Do not over tighten.
6. Fit the clevis hook to the thimble end of the rope and ensure the split/cotter pin is correctly installed to secure the pin.
7. Wind the red section of rope onto the drum tightly and evenly (under hand tension) to have a minimum of ten (10) wraps of synthetic rope on the drum.
8. Follow the procedure outlined in the previous sections “Rope Preparation” (Page 13) and “Winch Operation” (Page 17-23) to complete the installation of the replacement synthetic rope.
9. A minimum of ten (10) wraps of synthetic rope around the drum is necessary to support the rated load.
10. A red coloured section of the rope warns the operator that there is 3 meters of rope left on the drum. Do not wind out past this point.

View from REAR of winch





Troubleshooting

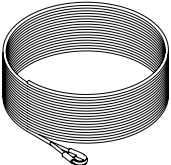
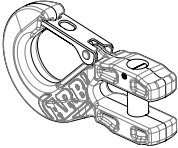
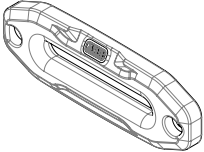
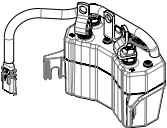
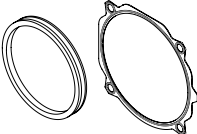
If the winch fails to operate after several attempts, or if there is any fault whilst operating:

Symptom	Possible Cause	Remedy
Winch will not operate	Cut circuit	Check battery lead
	Weak battery	Recharge or replace battery (at least 650CCA)
	Bad connection of wirings	Reconnect tightly
	Damaged contactor	Replace contactor
	Cut circuit on switch	Replace switch
	Damaged motor or worn brushes	Replace motor assembly
	Faulty motor wirings	Replace motor assembly
Motor runs in only one direction	Broken wirings or bad connections	Check connections & replace the motor assembly
	Damaged or stuck contactor	Replace contactor
	Switch inoperative	Replace switch
	Faulty wiring	Replace wiring
Drum will not free spool	Clutch does not disengage	Check or replace clutch assembly
	Damaged 1st stage shaft	Replace gearbox assembly
	Damaged brake	Replace brake assembly
	Damaged motor output shaft	Replace motor assembly
Brake fails to operate	The gear train is mechanically binding up	Check to insure the winch is mounted on a flat, rigid surface
	Damaged brake	Replace brake assembly
	Damaged gear box	Replace gearbox assembly
Braking distance is too long	Worn brake	Replace brake assembly
Brake jam	Proportional mechanism is damaged or worn	Replace brake assembly
Damaged gear box	Hit by certain exterior force	Replace gearbox assembly
	Damaged gear train	Replace gearbox assembly
	Over load operation	Stop the winch operation and reduce a load
Motor runs extremely hot	Long period of operation	Allow to cool
	Damaged motor	Replace motor assembly
	Damaged or inoperative brake	Replace brake assembly



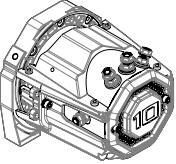
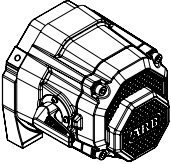
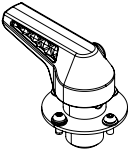
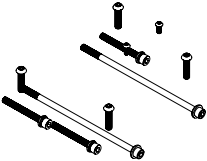
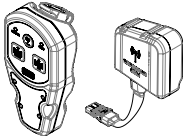
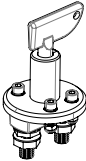


Spare Parts List

	Description	Part Number
	10mm x 28m Synthetic Rope 10K Suits ARW100S 11mm x 24m Synthetic Rope 12K Suits ARW120S	ARWA004 ARWA011
	Winch Hook Suits all ARW models	ARWA006
	Hawse Fairlead Forged Aluminium Suits all ARW models	ARWA005
	Albright BR88-2P Contactor Suits all ARW models	ARWA007
	Winch Seal Kit Suits all ARW models	ARWA013
	Brake Assembly Kit Suits all ARW models	ARWA014

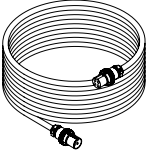
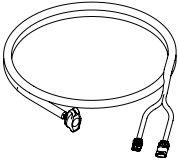




	Description	Part Number
	ARB Winch 10K Motor & Cover Assembly Suits ARW100S	ARWA015
	ARB Winch 12K Motor & Cover Assembly Suits ARW120S	ARWA016
	ARB Winch Gearbox Assembly Suits all ARW models	ARWA017
	ARB Winch Clutch Handle Assembly Suits all ARW models	ARWA018
	Winch Fastener Kit (Black) Suits all ARW models	ARWA019
	Wireless 2.4Ghz Hand Controller & Receiver Suits all ARW models	ARWA009
	Winch Isolation Switch Kit Suits all ARW models	ARWA008





	Description	Part Number
	Hand Controller 5M Lead Suits all ARW models	ARWA021
	Control Plug T-Harness 2.0m Suits all ARW models	ARWA020





ARB Product - Warranty Policy

Refer to your local ARB 4×4 Accessories website or arb.com.au for the “ARB Products and ARB Service Warranty Policy”.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.





USA - FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC CAUTIONS

Changes or modifications made to this device that are not expressly approved by ARB Corporation Ltd may void the user's authority to operate the equipment. This device must not be co-located or operated in conjunction with any other antenna or transmitter.

FCC RADIATION EXPOSURE STATEMENT

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.





4X4 ACCESSORIES

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