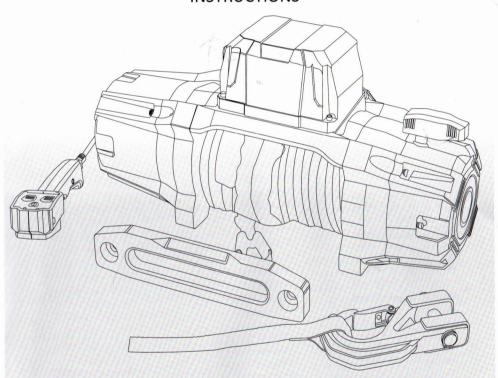


# SCAR Winch INSTRUCTIONS



CAREFULLY READ INSTRUCTIONS PRIOR TO THE FIRST USE OF THE WINCH

# **GET TO KNOW YOUR WINCH**

We recommend you check all parts are included prior to first use.

#### Each SCAR Winch Includes:

10,000 LB or 12,000 LB Winch Assembly **Hawse or Roller Fairlead** Synthetic Rope Line or Steel Cable

**Forged Winch Hook** Wireless Remote with Optional Wired Lead

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## SCAR Winch

**BEFORE EACH USE** 

**INSPECT PRIOR TO USE** 

SET-UP & CARE INSTRUCTIONS

Inspect the general condition of the winch.

Check for loose hardware, misalignment or binding of

wiring, corroded or loose terminals, and any other

condition that may affect its safe operation.

rope is frayed, kinked, or damaged.

a clean cloth.

moving parts, cracked or broken parts, damaged electrical

Examine the wire rope. Do not use the winch if the wire

AFTER EACH USE, wipe external surfaces of the winch with

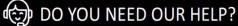
19119901 - 12.000 LB SCAR WINCH STEEL CABLE

# **⚠ WARNINGS**

**READ THIS MATERIAL BEFORE USING THIS** PRODUCT. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY. SAVE THIS MANUAL.

- DO NOT WEAR LOOSE CLOTHING OR JEWELRY, AS THEY CAN BE CAUGHT IN MOVING PARTS.
- NON-SKID FOOTWEAR IS RECOMMENDED.
- WEAR RESTRICTIVE HAIR COVERING TO CONTAIN LONG HAIR.
- WEAR ANSI-APPROVED SAFETY GOGGLES AND HEAVY-DUTY LEATHER WORK GLOVES DURING INSTALLATION.
- BEFORE INSTALLATION CONFIRM THAT AREA IS CLEAR OF FUEL LINES, BRAKE LINES, ELECTRICAL WIRES, GAS TANKS OR ANY OTHER COMPONENT WHICH COULD BE DAMAGED DURING DRILLING.
- USE SUPPLIED POWER CORDS AND WIRE ROPE LISTED IN MANUAL ONLY, DO NOT USE THINNER/LONGER CABLES OR LINK MULTIPLE CABLES TOGETHER.
- DO NOT ROUTE ELECTRICAL CABLES NEAR SHARP EDGES OR PARTS THAT WILL MOVE OR BECOME HOT.
- •ONLY CONNECT TO A CLEAN, CORROSION FREE BATTERY
- REMOVE ALL METAL JEWELRY BEFORE WORKING NEAR THE BATTERY.
- INSTALL WINCH AND FAIRLEAD IN UNDERWIND ORIENTATION, SO THAT THE WIRE ROPE ENTERS AND EXITS THE WINCH AT THE BOTTOM OF THE DRUM.







**CUSTOMER SUPPORT 833-226-4863** 



WANT TO SHOW US YOUR RIG? **CHECK OUT OUR SOCIAL!** 









SET-UP & CARE INSTRUCTIONS

**IP68 RATED** 

IP ( Ingress Protection ) Rating Guide			
SOLIDS	WATER		
Level Of Ingress Protection			
Level of ingress Protection	Level of ingress Protection		
1. Protected against a solid Object	Protected against vertically falling drops of water for 10 min at rate of 1mm/min		
greater that 50mm ( such as a hand ) ( 50N of force )	2. Protected against diagonally falling ( up to 15") drops of water at rate of 3mm / Min		
2. Protected against a solid Object greater than 12.5mm ( such as a finger ) ( 10N of force ).	3. Protected against diagonally falling ( up to 60 " ) sprays of water for 5 mins at 0.7 LPM at 80-100kpa		
3 Protection against a solid object greater than 12.5 mm (such as a screwdriver ) ( 3N of force )	4. Protected against water splashed from all directions for 5 mins at 10 Rpm at 80-100 kPa.		
4. Protected against a solid object greater that 1mm such as a wire ) ( 3N of force )	5.Protected against a 6.3mm water nozzle for 3 min at 12.5 LPM at 30 KPA at a distance of 3 meters		
5 Dust Protected. Limited Ingress of dust permit- ted. Will not interfere with operation of equip- ment	6. Protected against a 12.5mm Water nozzle for 3 mins at 100 LPM at 100 KPA at a distance of 3 meters		
6. Dust Tight. No Ingress of dust.	7. Protected against 30 mins submersion at a depth 1 meter		
	8. Protected against continuous subversion for long periods at a depth of 3 meters.		
	9K Protected against powerful high temperature water jets.		

# **Safety Precautions**













**GLOVES** 

**PULL TAB KEEP AWAY** FROM HOOK WHILE OPERATING

DO NOT USE WINCH IN OVERWIND ORIENTATION. (WIRE ROPE ENTERS/ EXITS AT THE TOP.)

DONT STAND IN FRONT OF WINCH WHILE **OPERATING** 

Improper installation and/or operation may cause damage to the equipment and could lead to serious personal injury. Observe all safety precautions for your personal safety and the safety of others. Failure to follow proper safety precautions may cause death or seriously bodily injury.

Read the following carefully before installing or attempting to operate your winch. Always keep the instructions for future reference.

#### **Dress Properly and Be Cautious:**

Do not operate or stand next to an operating winch wearing loose clothing or jewelry. Loose items can get caught in moving parts of the winch during operation.

Always wear protective gloves when operating the winch. Leather gloves are recommended. Do not operate the winch or handle the winch cable with bare hands. Winch components can get hot and winch cable can have brokewires.

Always wear closed toe shoes when operating the winch. It is highly recommended to wear non skid footwear.

#### Operate and Keep Bystanders at a Safe Distance

Ensure that all people stand clear of the winch and winch cable during operation. It is recommended that during winch operation bystanders are standing at least 1.5 times the winch cable length. If the winch cable were to come loose or break under load, it can snap back and cause serious injury and/or death. Do not stand in front of the winch during operation. All bystanders should be kept away from the work area and operating winch.

Never step over the winch cable

Keep proper footing and balance and always be mindful of the winch line.

#### Handle Winch Remote with Care

Note that the winch remote is not IP68 rated. It should be stored securely inside the vehicle away from any moisture when not in use. Over exposure to moisture can lead to damage or failure to the remote.

When using the winch remote wire lead, ensure proper alignment of the pin and socket at the control box. Inspect both connections before each operation. Damaged pins can cause winch failure.

Do not vank the cord to disconnect it from the receptacle.

The remote must be kept free of dirt and moisture to ensure safe operation.

Keep both remote and remote wire lead away from heat, moisture, oil and sharp edges.

#### Do Not Overwork the Winch

During operation, if the motor becomes uncomfortable to touch during heat, stop operation and allow the winch to cool for a few minutes.

If the winch stalls during operation, DO NOT maintain power to the winch. Turn off at the control box and allow the winch to cool before resuming operation.

NEVER exceed the maximum line pull ratings. Shock loads must always be avoided.

For loads over ½ of the rated capacity, it is recommended to use a snatch block or double line arrangement.

#### **Avoid Unintentional Winch Operation**

Winch power switch on the control box should be on the off position when not in use.

Clutch handle should be in the disengaged or free spool position and the winch line hook should be secured when not in use.

Prior to use, make sure that the clutch handle is fully engaged.

#### **Check for Damaged Components**

Before each use, carefully check all components before operating. Do not use if any component appears to be damaged.

Any damaged part should be properly repaired or replaced prior to continued use.

When repairing or replacing damaged parts, only use identical replacement parts provided by the manufacturer to prevent the risk of damage or potential danger to the user.

#### Respooling the Winch Line

Protective gloves such as leather gloves must be worn when handling the winch line. To re-spool correctly, a slight load on the line is necessary. Refer to re-spooling directions in the operation manual.

Avoid allowing the winch line to slide through your hand and never allow hands or loose clothing too close to the moving parts of the winch or winch line.

Power the winch line in until there is approximately 3 feet of winch line remaining.

If using winch power to fully re spool the line, Keep hands clear

### SCAR Winch

19119901 - 12,000 LB SCAR WINCH STEEL CABLE

19129901 - 12,000 LB SCAR WINCH SYNTHETIC ROPE 19099901 - 10,000 LB SCAR WINCH SYNTHETIC ROPE

For Technical Support/Warranty Information: 833-226-4863

OVS 9830 Norwalk Blvd Unit 130 Santa Fe Springs CA 90670

6 V 3 3636 NOT Walk Biva. Office 136 Santa Te Springs, ext 3007 6	
OVS WARRANTY REGISTRATION	
Please fill out this form, make a copy and return to OVS 9830 Norwal	k Blvd. Unit 130 Santa Fe Springs, C
90670	
Note: Keep this original for yourself.	
First Name:	-
Last Name:	_
Address:	
Zip Code:	_
Telephone Number:	
Email Address:	_
Winch Model Number:	
Winch Serial Number:	
Date of Purchase:	
Where did you purchase this product?	
Who installed or will install your OVS Winch?	
Is this the first time you have purchased a winch? If no, what brand h	ave you purchased before?
On what type of vehicle will this winch be installed?	
Year: Make: Model:	_ 2WD or 4WD?
What is the vehicle's main use?	

# WARRANTY

Overland Vehicle Systems (OVS) warrants to the original purchaser that (a) the mechanical components (e.g., gears, clutch, spools, etc.) of any OVS winch will be free of defects in material and workmanship for the lifetime of the winch, and (b) the electrical components (e.g., electric motor, wires, solenoid, etc.) will be free of defects in material and workmanship for a period of seven (7) years from the original date of purchase.

This Warranty applies only to the original purchaser of the winch. To obtain any warranty service, you must provide OVS with proof of purchase and date of purchase, such as a copy of your purchase receipt. This warranty only covers the replacement parts. This warranty does not cover the removal or re-installation of the winch, or any labor incurred in doing so.

OVS will, at its sole option, repair, replace or refund the purchase price of a defective winch or component, provided you return the defective winch or component during the warranty period, transportation charges prepaid, to OVS.

When submitting a warranty claim, the preferred method is phone or email. Attach your name, address, telephone number, a brief description of the problem, and a copy of your receipt and original bill of sale bearing the OVS serial number of the defective winch and date of purchase.

The OVS winch warranty does not apply (i) to finish, paint or the wire rope / synthetic cable; or (ii) if the winch has been damaged by accident, abuse, misuse, collision, overloading, modification, misapplication, improper installation, or improper service; or

This Warranty is void if any OVS serial number has been removed or defaced. The OVS winch is designed for recreation vehicle self-recovery. Commercial or industrial use or application, or any hoisting application of the winch voids the Warranty.

This Warranty is good only for winches bought, sold and used in the United States unless otherwise specifically agreed in writing by OVS.

THE WARRANTY SET FORTH ABOVE IS THE ONLY WARRANTY. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ANY IMPLIED WARRANTY WHICH BY LAW MAY NOT BE EXCLUDED IS LIMITED IN DURATION TO ONE (1) YEAR FROM THE DATE OF THE ORIGINAL RETAIL PURCHASE OF THE PRODUCT. No OVS dealer, agent or employee is authorized to make any modification, extension, or addition to this warranty.

OVS SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, DOWN TIME, OR LOSS OF USE) UNDER ANY LEGAL THEORY, EVEN IF OVS WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Some states do not allow the exclusion of implied warranties or the exclusion or limitation of liability for incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights. You may also have other rights that vary from state to state.

OVS reserves the right to change product design, material, finish, or specifications without notice. In situations in which OVS has changed a product design, OVS shall have no obligation to upgrade or otherwise modify previously manufactured products. OVS reserves the right to discontinue product lines and substitute products or provide other remedies than those listed in this limited warranty for those discontinued products. OVS products, nor the warnings contained herein, are not a substitute for your own safe product operation.

#### Winch Operation Warnings

Read the following carefully before installing or attempting to operate your winch. Always keep the instructions for future reference. Overland Vehicle Systems electric winches are designed and intended for recreational self-recovery usage only.

Store the remote control and control lead inside your vehicle where it will not become damaged or exposed to the elements. Inspect the controller, lead and connection before you plug it in.

Be sure the winch line is in good condition. Do not use winch if line shows signs of wear (frayed, cut or torn for example).

Never move the vehicle to assist pull a load using the winch line. This can overload the winch or cause a damaging shock load.

Avoid sudden loads on the winch. Shock loads can occur by vehicle movement placing a sudden load on the winch line.

Never replace the cable line with a line of lesser strength.

If replacing the line, make sure to use Loctite or similar compound to the clamp to secure the line to the drum.

When respooling, make sure there is at least 500lbs of load on the line. The load will allow a proper and tight wind on the drum preventing the outer layers of line to draw into the inner layers potentially causing damage to the line.

When pulling a load in, monitor how the line is spooling on the drum. Try to avoid uneven spooling. To do so, reverse the line to relieve the load and try to anchor to a point that is more center to the winch. If slight uneven spooling occurs, once the pulling task is complete, take the time to properly and neatly respool the line. Slight uneven spooling while under load is ok but watch for bunching of the line on one end or the other of the drum and clearance of the line and the winch housing.

Monitor the winch while in use. Stand at a safe distance. Stop winching every 3-4 feet and inspect the line is not piling up. Uneven piling of the line can jam the line and winch potentially leading to a failure.

Avoid winch line binding. Binding can occur when winching in under load and the line is pinched between the others. If binding occurs, alternate powering in and out. Do not attempt to unbind the line while under load.

When ready to operate and winch a load in, prior to plugging in the winch remote, make sure the winch clutch handle is in the free spool or disengaged position. Do not attempt to engage the clutch while the winch motor is running.

DO NOT connect the winch line hook back to the winch line. This will damage the line. Always use properly rated recovery accessories to properly anchor or secure the line.

SCAR Winch

If using a vehicle tow hook, make sure it is frame mounted and rated as a recovery point. Do not secure a tow hook to the winch mounting plate.

Ensure all other recovery items used in conjunction with the winch have adequate load ratings.

When using a snatch block or other pully configuration during stationary winching, the winch hook should be attached to the chassis of the vehicle.

When winching, always maintain a minimum or 5 wraps for steel cable and 10 wraps of synthetic line around the drum. Failure to do so can result in the line parting with the drum under load and can cause serious personal injury and property damage.

When pulling heavy loads, it is recommended to use a snatch block or double line arrangement.

Always use a weighted winch dampener or heavy blanket draped over the winch line. It will help dampen back lash in the result of a cable or line failure.

Be sure that the battery is in good condition and always wear eye protection around the battery.

When using the winch, have the vehicle running to provide consistent power and avoid draining the battery.

DO NOT use the winch for hoisting applications.

DO NOT use the winch to support, lift or move personnel.

DO NOT exceed the pulling limits of the winch.

DO NOT rotate clutch handle to free spool when there is a load on the winch line.

The winches described in this manual were designed and intended for vehicle self-recovery and are not intended for industrial use.

#### **Mounting Your Winch**

Warning: The installation of winches and/or a winch suitable bumper or carrier may affect the triggering of SRS airbags. Check that the mounting system has been tested and approved for winch fitment in the airbag-equipped vehicle. Failure to comply may cause death or severe personal injury.

The winch is to be mounted into a suitable steel mounting frame using the 4-pont foot mounting system either a horizontal or vertical plane. It is very important that the winch be mounted on a flat surface so that the three sections (motor, cable drum and gear housing) are properly aligned.

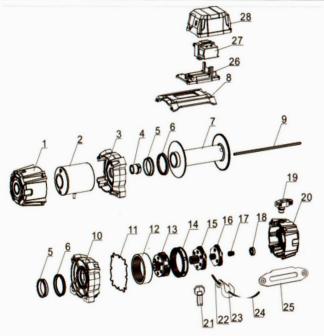
The winch should be secured to the mounting with the included bolts and washers provided. The winch plate must be at least 6mm thick. Thicker winch plates may require longer bolts (not included). Ensure winch mounting bolts protrude past the top surface of the square nut for proper thread engagement. If longer hardware is needed to mount to your specific location, replacement hardware must be grade 8.8 or greater.

# **TROUBLESHOOTING**

ISSUE	CAUSE POSSIBLE	CORRECTIVE ACTION	
Motor runs hot	Long operation without pause	Let winch cool down periodically during pulls	
Motor operating slowly or lack of	Low Battery	Recharge operating battery by running vehicle	
power	Insufficient current or voltage	Inspect all connections. Clean and tighten connections	
Motor runs but will not power in or out	Clutch level not fully engaged	Rotate clutch handle to engaged position.	
Motor only operates in one direction	Stuck or defective solenoid	Tap solenoid to free contacts. Check solenoid connections.	
	Solenoid switch is in off position	Turn solenoid switch to on position	
	Remote cable not properly connected Re-insert remote cable making pins align and push firmly		
	Defective control box switch	Replace solenoid switch	
Motor will not turn on	Water has entered the motor	Check voltage at terminal port while trying to power in/out with remote. If voltage is present, replace motor.	
Wotor will not turn on	Damaged Motor	Check voltage at terminal port while trying to power in/out with remote. If voltage is present, replace motor.	
	Solenoid Malfuntioning	Tap solenoid to free contact. Apply 12v to coil terminal. Solenoid will make an audible clicking sound if functioning.	
	Loose wiring	Inspect all connections. Clean and tighten connections	

#### PARTS LIST AND ASSEMBLY DIAGRAM

Part	Description	Quantity	Part	Description	Quantity
1	Motor cover	1	15	The 2nd planetery gear assy	1
2	Motor	1	16	The 1st planetery gear assy	1
3	Motor base	1	17	Sun gear	1
4	Brake	2	18	bearing	1
5	Bushing	2	19	clutch	1
6	Drum seal	1	20	Gearbox house	1
7	Drum	2	21	Remote	1
8	Integrated tie bar	1	22	Rope	1
9	Drive shaft	1	23	Hook	1
10	Gearbox base	1	24	Strap	1
11	seals	1	25	Aluminum hawse	1
12	Drive gear	1	26	Solenoid plate	1
13	The 3rd planetery gear assy	1	27	Solenoid	1
14	Drive ring gear	1	28	Control box	1



### **SCAR Winch**

SET-UP & CARE INSTRUCTIONS

19129901 – 12,000 LB SCAR WINCH SYNTHETIC ROPE 19119901 – 12,000 LB SCAR WINCH STEEL CABLE 19099901 - 10,000 LB SCAR WINCH SYNTHETIC ROPE 19089901 - 10,000 LB SCAR WINCH STEEL CABLE

The roller or hawse fairlead is to be mounted to guide the rope onto the drum evenly.

Improper use, inadequate fairlead to bumper clearances, abuse, neglect, and chafing damage are not covered by any warranty.

SYNTHERIC ROPE OR STEEL CABLE IS NOT COVERED UNDER THE MANUFACTURER WARRANTY. THIS IS A NORMAL WEAR AND TEAR ITEM.

Installation Instructions

#### Mounting the control box

The SCAR control box was designed to be mounted center over the drum using the provided 4 hex bolts tightening with the provided hex key.

If your application calls for more clearance, the control box can be offset and mounted over the motor using 2 of the provided hex bolts. This orientation will provide additional clearance for power wires when mounting the winch close to a grille.

#### Winch Clocking

The SCAR Winch can be clocked on the gearbox side for easier clutch handle access for certain mounting solutions. **WARNING:** Improper reassembly of the winch can affect its function and waterproofness. Take great care and ensure that the gasket is not damaged and is properly in place upon reassembly.

Disconnect the winch from the power supply.

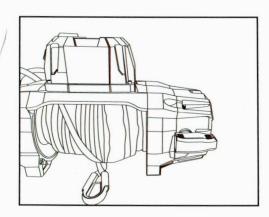
Rotate the clutch handle to the free spool position.

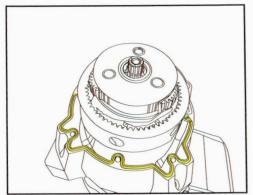
Secure the winch upright on the motor end.

Remove the 7 hex head bolts and lock washers securing the control box.

Using even pressure, carefully slightly lift up the gear box making sure to keep the gasket seated on the winch itself.

Rotate the gear box to the desired orientation. Note, the clocking must be in 90 degree increments.





**SCAR Winch** 

SET-UP & CARE INSTRUCTIONS

**SET-UP & CARE INSTRUCTIONS** 

When seating the gear box ensure that the gasket is properly aligned and seated in the machined groove. If the gasket is ripped or damaged it must be replaced.

Once properly seated and aligned secure the gear box with the previously removed 7 hex head bolts tightening in a star pattern making sure the gear case is properly seated.

Place the winch down and rotate the clutch lever to ensure that the winch drum operates correctly in the free spool and engaged positions.

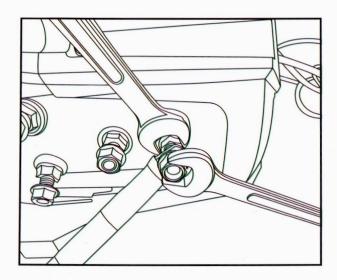
#### **Electric Connection**

WARNING: Batteries contain gasses which are flammable and explosive. Wear eye protection during installation and remove all metal jewelry. DO NOT lean over battery while making connections.

For normal self-recovery usage, a normal vehicle electrical system is adequate. The operating battery must be in good working condition and is essential to the proper function of the winch. Always have the operating vehicle running during all winch operations to provide constant power and prevent the battery from draining during use.

Pay close attention to proper cable connection and make sure that all wires are free from crimping or potential abrasion.

Note: When connecting the wires to the winch, DO NOT screw wire nuts too tight. Place a 13mm wrench on the bottom base nut when tightening to prevent the terminal nut from moving. This will help prevent damaging the terminal bolt during installation. The wire should be between the bottom nut and top nut of the winch terminal when properly installed.



# 12,000 LBS

Winch	Steel cable	Synthetic Cable		
Part Number	19119901	19129901		
Single line rated pull	12,000lb (5,443kg)	12,000lb (5,443kg)		
Motor	12V 6.5hp Series Wound			
Control	Remote Switch, 3.6m lead & wireless remote			
Gear Ratio	21	218:1		
Clutch	Rotating Ring gear			
Braking Action	Automatic in the motor bracket. No he	Automatic in the motor bracket. No heat on drum when winch works		
Drum Size	Dia 2.5"xL8.8"(64mmx224mm)			
Mounting bolt pattern	10"x4.5"(254 x 114.3mm)	10"x4.5"(254 x 114.3mm)		
Overall Dimensions	L21.3"xW6.3"xH7.9"(540 x 160x 200m	nm)		
Steel cable & Rope	Steel cable 3/8"x85'(8.5mmx26m	Synthetic rope 3/8"x85'(8.5mmx26m)		
Fairlead	Roller fairlead	Aluminum Hawse		
Electric cable	3x40mm 2x1.8m 25mm2			
	500A			
Solenoid	SUUA			

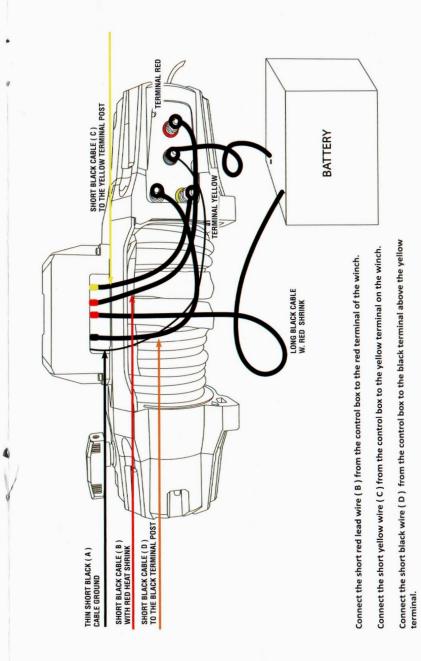
Line Pull	Line Speed	Motor	Pull by layer
Lbs.(Kgs.)	FT/min(M/min)	Current	layer/Lbs(Kgs.)
0	30.5(9.3)	60amps	1/12000 (5443)
2000 (910)	13.1(4.4)	110 amps	2/9525(4325)
4000 (1810)	10.2(3.1)	160 amps	3/7890 (3583)
6000 (2720)	8.9(2.7)	220 amps	4/6730 (3056)
9000 (3630)	6.9(2.1)	295 amps	
12000 (5450)	4.9(1.5)	375 amps	

# SET-UP & CARE INSTRUCTIONS

# 10,000 LBS

Winch	Steel cable	Synthetic Cable
Part Number	19089901	19099901
Single line rated pull	10,000lb (4,540kg)	
Motor	12V 6.5hp Series Wound	
Control	Remote Switch, 3.6m lead & wireless remote	
Gear Ratio		181:1
Clutch	Rotating Ring gear	
Braking Action  Drum Size	Automatic in the motor bracket. No heat on drum when winch works  Dia 2.5"xL8.8"(64mmx224mm)	
	10"x4.5"(254 x 114.3mm)	
Mounting bolt pattern	10 x4.5 (254 x 114.5mm)	
Mounting bolt pattern Overall Dimensions	L21.3"xW6.3"xH7.9"(540 x 160x	200mm)
,		200mm) Synthetic rope 11/32"x85'(8.7mmx26m)
Overall Dimensions	L21.3"xW6.3"xH7.9"(540 x 160x Steel cable	Synthetic rope
Overall Dimensions Steel cable & Rope	L21.3"xW6.3"xH7.9"(540 x 160x Steel cable 11/32"x85'(8.7mmx26m)	Synthetic rope 11/32"x85'(8.7mmx26m)
Overall Dimensions Steel cable & Rope Fairlead	L21.3"xW6.3"xH7.9"(540 x 160x Steel cable 11/32"x85'(8.7mmx26m) Roller fairlead	Synthetic rope 11/32"x85'(8.7mmx26m)
Overall Dimensions Steel cable & Rope Fairlead Electric cable	L21.3"xW6.3"xH7.9"(540 x 160x Steel cable 11/32"x85'(8.7mmx26m)  Roller fairlead 3x40mm 2x1.8m 25mm²	Synthetic rope 11/32"x85'(8.7mmx26m)

Line Pull	Line Speed	Motor	Pull by layer
Lbs.(Kgs.)	FT/min(M/min)	Current	layer/Lbs(Kgs.)
0	42(12.8)	60 amps	1/10000 (4540)
2000 (910)	15.4(4.7)	120 amps	2/7935 (3605)
4000 (1810)	12.8(3.9)	180 amps	3/6300(2860)
6000 (2720)	10.5(3.2)	240 amps	4/5000(2270)
8000 (3630)	8.2(2.5)	295 amps	
10000 (4540)	6.2(1.9)	350 amps	



Connect the long black negative ( - ) wire to the center terminal on the winch on top of the thin ground wire. The other end of the long black wire will route directly and connect to the negative ( - ) terminal of the battery source.

Connect the thin black ground wire ( A ) to the bottom of the center terminal left of the red terminal on the winch.

Connect the long red positive ( + ) cable from the control box to the positive terminal of the battery source.

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It is highly recommended to get familiar with your winch prior to when you actually need it in a self-recovery situation. Take time to get acquainted with the winch, its components and general use with testing prior to needed use.

When using the winch, both listen and watch out for any issues. Pay attention to the sound difference of pulling no load, a light load and a heavy load. This will get you familiar with what to expect when operating the winch.

The more practice you have in a controlled situation, the more confidence and likelihood of successful use when you actually need the winch for a recovery situation. The key to safe operations is to slow down, take your time, observe, double check and become familiar with the winch.

### **General Operating Procedure**

Make sure that the vehicle with the winch properly mounted is secure by applying the parking break and checking the wheels.

With the winch power off at the control box and the winch clutch in the free spool position, pull out the winch line to the desired length to connect to an anchor point.

You should always free spool the winch outward.

Once the line is properly secured to the anchor point, rotate the clutch handle to the engaged position.

Recheck all rigging prior to operating the winch.

The remote is wireless but it is recommended to use the remote lead and connect directly to the control box unless it is unsafe to do so.

Turn on the winch power at the control box then plug in the remote making sure that the pins and socket is aligned. Take special care that the pins and socket are aligned not to damage the connectors.

Turn the remote power on

To start winching, start the vehicle then place it in neutral and maintain engine speed at idle.

Push the desired switch on the control to operate the winch line either in or out.

Operate the winch but regularly check the winch to make sure the line is winding around the drum evenly.

Continue this process until the vehicle is retrieved.

Note:

Never work on or around the winch drum when winch is under load.

Never winch with your vehicle in gear or park. This can damage your vehicles transmission.

Never hook back to the winch line when winching.

### SCAR Winch

SET-UP & CARE INSTRUCTIONS

19129901 - 12.000 LB SCAR WINCH SYNTHETIC ROPE 19119901 - 12,000 LB SCAR WINCH STEEL CABLE

19099901 - 10,000 LB SCAR WINCH SYNTHETIC ROPE 19089901 - 10,000 LB SCAR WINCH STEEL CABLE

Never use the winch if the line shows signs of fraying, kinked, or appears damaged.

Never allow anyone to stand in front or near the winch when operating.

Never use the winch as a hoist.

Never use winch to hold loads.

Never use to drop loads (Example: unloading vehicles)

#### Winch Maintenance

We highly recommend using and inspecting your winch monthly. A regularly used winch will keep all components in good working condition. Follow all safety precautions when operating the winch.

To Keep winch in best working condition, cycle the winch once a month using the following steps, always following the proper safety precautions:

- 1. With the clutch handle in the engaged position, power out the steel cable or synthetic rope 15 ft.
- 2. Rotate the clutch handle to the free spool position and pull out another 30-40 feet. Always make sure there are at least 10 wraps of line around the drum for synthetic lines or 6 wraps for steel
- 3. Rotate the clutch handle to the engaged position and re-spool the line evenly on the drum.
- 4. Inspect the winch line and hook as you re-spool to look for any signs of damage.
- 5. It is recommended to have at least 1,000lbs of tension on the line when respooling to prevent the rope or cable from pinching itself during recovery.

It is also advised to inspect the winch mounting and all connections making sure they are secure and in good working order. This routine will not only keep you familiar with the safety handling and precautions but will also keep your winch in the best possible working order to be relied on when you need to use it in a self-recovery situation.

