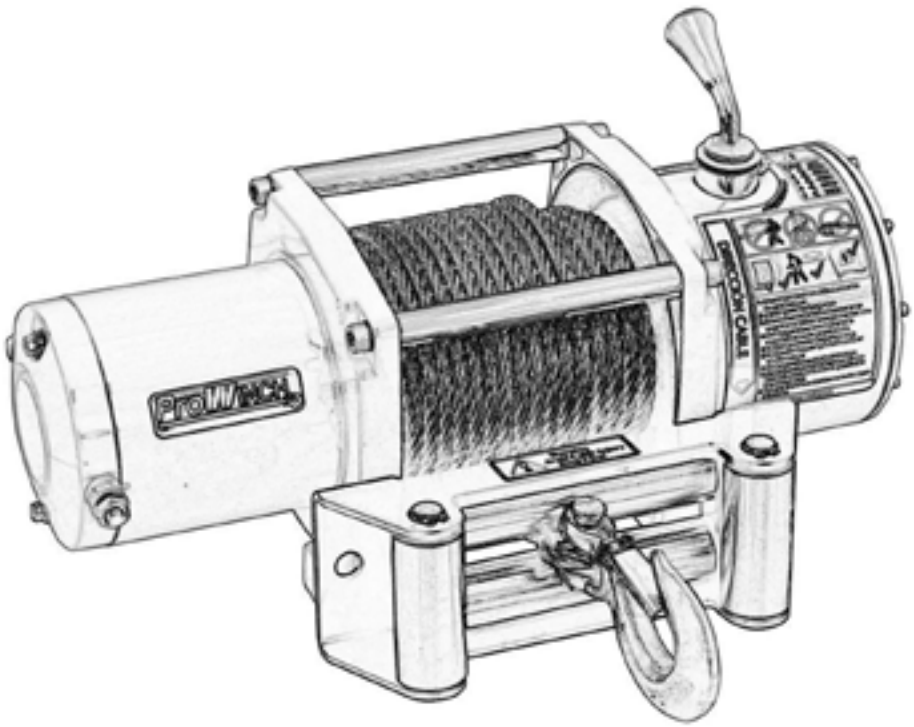
PWLD
Powered Electric Winch Waterproof

User's Manual / Manual de usuario
Safety Warnings / Advertencias de Seguridad



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PROWINCH® DISCLAIMER

Prowinch® LLC declares that it has made available to the Customer each and every one of the security warnings related to the purchased product and that, as a result, it does not assume any responsibility for any damages or losses that may be suffered by the client or third parties. cause or as a direct or indirect consequence of the breach or omission of any of the instructions or safety warnings contained in the User Manual and Security Warnings corresponding to the unit purchased.
In this sense, Prowinch® LLC will not be liable for accidents and / or damages to persons and / or property resulting from the negligent use of the product. In no case does Prowinch® LLC assume any liability arising from the use of these voluntary recommendations, and does not offer any guarantee in relation to them. These recommendations do not take precedence over the current safety regulations of the plant. For purposes of enforcing the Warranty of the product purchased, Prowinch® LLC, will only be liable for any damage when it is possible to prove that the user has followed each and every one of the warnings contained in the User Manual and Safety Warnings.

1. It is the sole responsibility of the Client / User to verify that the acquired equipment, products and accessories comply with the characteristics, capacities, requirements, components, accessories and other conditions for the use that the Client / user intends to give it.

2. It is also the sole responsibility of the Client / User to ensure that the equipment and products purchased are operated and maintained with adequate safety standards and by personnel duly trained in the use thereof. The Client / User is also responsible for implementing all the security measures necessary to prevent accidents or damages to people or property and for following the indications and warnings of the corresponding manual.

3. Any assistance provided by Prowinch® LLC in the selection of the equipment, the capacities and characteristics required by the clients is delivered free of charge and based on the information about the application, use and requirements indicated by the Client itself. It does not correspond to Prowinch® LLC to verify the accuracy of the given information. It is the sole and exclusive responsibility of the Client -or who will use the equipment and products acquired- to ensure that the specifications comply with the capabilities, characteristics, up-to-date maintenance and everything necessary for a correct and safe operation in relation to the intended use.

4. Prowinch® LLC recommends the use of winches with 4 brakes for personnel lifting. The use of winches of 3 brakes or less or safety features lower than the best available for personnel lifting, is the sole responsibility of the customer in order to guarantee the safety of the personnel and users of the equipment it is necessary to carry out the inspections and maintenance of the equipment according to the recommended frequency in relation to its work cycle. It is mandatory to keep record and evidence the written and photographic reports of: Maintenance, Start-up, Load Tests, Training, Certifications, Inspections and Reports of failures and accidents.

5. The aforementioned reports must be sent by email to registros@prowinch.com within the first 7 calendar days after the occurrence of an event.

6. Compliance with the timely implementation of the mandatory activities described in points 6 and 7 in addition to all the activities mentioned in the corresponding rules applied are the sole responsibility of the user. Failure to comply with the foregoing conditions releases Prowinch® LLC from any type of Liability and Warranty to the team, customer, staff or user, or any other liability that could be attributed to Prowinch® LLC.

7. The information contained in this manual may contain technical errors or inaccuracies. Prowinch® LLC is not responsible for typing errors, omission or incorrect information.

8. This manual is subject to change without prior notice. Download the latest version available at www.prowinch.com.

9. Always check www.prowinch.com for the latest information regarding this product.

PWLD1500 12V

1.500 lbs
Powered Electric Winch
Waterproof 12V DC

PWLD3000Ai 12V / PWLD3000Ai 24V

3.000 lbs
ATV Winche
12V/24V Wire Rope

PWLD4000A 12V

4.000 lbs
ATV Winche
12V Wire Rope

PWLD8500 12V PWLD8500 24V

8.500 lbs
ATV Winch
12V / 24V Wire Rope

PWLD12000 12V
PWLD12000 24V

12.000 lbs
Powered Electric Winch
Waterproof 12V/24V DC

PWLD20000 12V
PWLD20000 24V

20.000 lbs
Electric Winch
Wire Rope
12V/24V DC

PWLX20000i 12V
PWLX20000i 24V

20.000 lbs
Electric Winch
Waterproof
12V / 24V DC Wireless

WARNING

Hoists, Cranes and other Lifting and material-movement related equipment USERS, must be knowledgeable about the safe and proper use of this equipment and be aware of their responsibilities as outlined in all applicable standards and regulations.

The ASME/ANSI B30 Standard contains provisions that apply to the construction, installation, operation, inspection, testing, maintenance, and use of cranes and other lifting and material-movement related equipment.

As OSHA's, ASME and ANSI standards state, the installation, setup and operation of these units and equipment shall be performed by a qualified person.

OSHA requires rated load tests for new and altered cranes, OSHA's standard at 29 CFR 1910.179(k) states:

Operational tests.
Prior to initial use all new and altered cranes shall be tested to insure compliance with this section including the following functions:
Hoisting and lowering.
Trolley travel.
Bridge travel.
Limit switches, locking and safety devices.
The trip setting of hoist limit switches shall be determined by tests with an empty hook traveling in increasing speeds up to the maximum speed. The actuating mechanism of the limit switch shall be located so that it will trip the switch, under all conditions, in sufficient time to prevent contact of the hook or hook block with any part of the trolley.
Rated load test. Test loads shall not be more than 125 percent of the rated load unless otherwise recommended by the manufacturer.
Once a rated load test is performed, paragraph 1910.179(k)(2) requires that "[t]he test reports shall be placed on file where readily available to appointed personnel."

In order to ensure Safety and installation requirements Prowinch requires Load Tests to be performed prior to initial use for all Hoists, Winches and Cranes, as well as other related components. Not fulfilling this requirement is dangerous, could lead to equipment failure and will automatically void the warranty.

The B30 Standard is intended to:

(a) Prevent or minimize injury to workers, and otherwise provide for the protection of life, limb, and property by prescribing safety requirements.

(b) Provide direction to manufacturers, owners, employers, users, and others concerned with, or responsible for, its application.

WARNING

(c) Guide governments and other regulatory bodies in the development, promulgation, and enforcement of appropriate safety directives.
The equipment covered by the B30 Standard is subject to hazards that cannot be abated by mechanical means, but only by the exercise of intelligence, care, and common sense. It is therefore essential to have personnel involved in the use and operation of equipment who are competent, careful, physically and mentally qualified, and trained in the proper operation of the equipment and the handling of loads. Serious hazards include, but are not limited to, improper or inadequate maintenance, overloading, dropping or slipping of the load, obstructing the free passage of the load, and using equipment for a purpose for which it was not intended or designed.

Failure to Read, Understand and Follow the information in the corresponding ASME B30 Standard for your Hoist and Lifting equipment may result in severe INJURY or DEATH. It is YOUR RESPONSIBILITY to consider all risk factors and follow all the equipment related ASME B30 standard, which comprises the following volumes:

B30.1 Jacks, Industrial Rollers, Air Casters, and Hydraulic Gantries.
B30.2 Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist).
B30.3 Tower Cranes.
B30.4 Portal and Pedestal Cranes.
B30.5 Mobile and Locomotive Cranes.
B30.6 Derricks.
B30.7 Winches.
B30.8 Floating Cranes and Floating Derricks.
B30.9 Slings.
B30.10 Hooks.
B30.11 Monorails and Underhung Cranes.
B30.12 Handling Loads Suspended From Rotorcraft.
B30.13 Storage/Retrieval (S/R) Machines and Associated Equipment.
B30.14 Side Boom Tractors.
B30.15 Mobile Hydraulic Cranes.
B30.16 Overhead Hoists (Underhung).
B30.17 Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist).
B30.18 Stacker Cranes (Top or Under Running Bridge, Multiple Girder With Top or Under Running Trolley Hoist).
B30.19 Cableways.
B30.20 Below-the-Hook Lifting Devices.
B30.21 Lever Hoists.
B30.22 Articulating Boom Cranes.
B30.23 Personnel Lifting Systems.
B30.24 Container Cranes.
B30.25 Scrap and Material Handlers.

WARNING

B30.26 Rigging Hardware.
B30.27 Material Placement Systems.
B30.28 Balance Lifting Units.
B30.29 Self-Erecting Tower Cranes.
B30.30 Ropes.

DO NOT

WARNING

1. DO NOT Operate, install, or repair the hoist unless trained and authorized.
2. DO NOT Operate the hoist unless you have first read the operator's manual.
3. DO NOT Operate the hoist without appropriate PPE and without performing a pre-shift inspection.
4. DO NOT Operate the hoist if not complying with all required OSHA regulations.
5. DO NOT Lift more than the rated load.
6. DO NOT Lift people or lift loads over people.
7. DO NOT Wrap the hoisting rope or chain around the load.
8. DO NOT Operate with the chain/rope not properly seated in the sprockets, drum, or sheave.
9. DO NOT Operate unless the direction of the hook travel agrees with the direction shown on the control.
10. DO NOT Operate the hoist unless the hook travel limit devices function properly. (Test without a load PRE-SHIFT)
11. DO NOT Operate the hoist with twisted, kinked, damaged, dirty, or unlubricated chain or rope.
12. DO NOT Operate a damaged or malfunctioning hoist.
13. DO NOT Operate the hoist when the hook is not centered under the hoist
14. DO NOT Remove or obscure this tag or other WARNING & SAFETY LABELS.

DAILY CHECKLIST

WARNING

TAGGED HOIST: Ensure the crane or hoist is not tagged out of order.

CONTROL DEVICES: Test Run. Ensure all motions agree with control device marking.

BRAKES: Check all motions for excessive drift and abnormal stopping distances.

HOOK: Check for damage, cracks, nicks, gouges, deformations on throat opening, wear on saddle or load-bearing point, and twist.

HOOK LATCH: Check for proper operations.

WARNING

WIRE ROPE: Check for broken wires, broken strands, kinks, and deformation or damage to the rope structure.

CHAIN: Check for corrosion, wear, elongation, twist, nicks, or gouges. Keep Chain/ Wire Rope Clean and Lubricated.

REEVING: Check the rope for proper reeving and that rope parts are not twisted.

LIMIT SWITCHES: Ensure that all limit devices stop lifting motion before the load block or chain/rope stop strikes the hoist.

OIL LEAKAGE: Check for any signs of oil leakage on the crane/hoist and the floor.

UNUSUAL SOUNDS: Check for unusual sounds from the hoist while operating.

WARNING & SAFETY LABELS: Ensure that labels are not missing and they are legible.

Index

Thank you for purchasing our Prowinch®Winch. This User Manual provides important information for personnel involved with installation, operation, and maintenance of this product. Read this User Manual before installing, operating, or maintaining product.

SAFETY PRECAUTIONS

Prowinch® winches deliver safe and reliable service if operated according to this User Manual.
This User Manual contains important information to install, operate, and maintain winch for maximum performance, economy, and safety.
Understand contents thoroughly before putting winch into operation. Correct operating procedures and recommended preventive maintenance suggestions result in dependable and safe service.
After completely understanding contents of this User Manual, store in accessible location for future reference Applications for PWLD Prowinch® winches
Choose Prowinch® winch according to needs.
PWLD series offers top of the line models from 1,500 lb up to 20,000 lb, featuring standard and optional accessories for recovery applications. Specially designed for recovery applications, Prowinch® winches are equipped with durable wound motor for long life and extra pulling power, featuring a tough three stage planetary gearbox delivering power and reliability. The body and frame of winch are corrosion resistant stainless steel to enhance durability and longevity.

Mandatory use of:

Hard Hat

Safety Glasses

Safety Gloves

Safety Shoes

Safety Precautions

WARNING:
This symbol indicates unsafe practices or situations which may cause damage to the property and even injuries to the personnel.

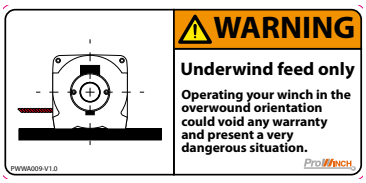
DANGER:
This symbol indicates a potentially dangerous situation which if not avoided may cause severe injuries or death

DANGER

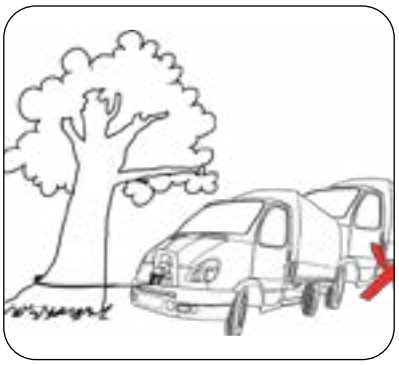
All operators and other users who are near the steel chain or its load must wear required safety equipment: gloves, safety helmet / hard hat, safety shoes and eye protection.

WARNING

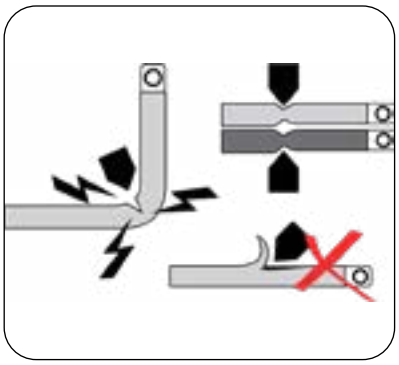
Before installing, removing, inspecting, or performing any maintenance on the winche, the unit must be unplugged, locked out, and tagged out. Do not use this equipment in hazardous locations.



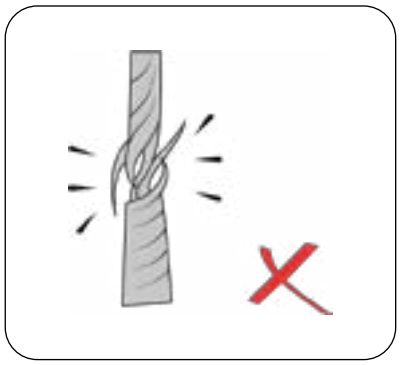
Read and understand the contents of this User Manual thoroughly before handling the product. Practicing correct and safe operating procedures and carrying out the recommended preventative maintenance will ensure a long, reliable, and safe service.
After carefully reading and understanding the User Manual, store it for future reference.



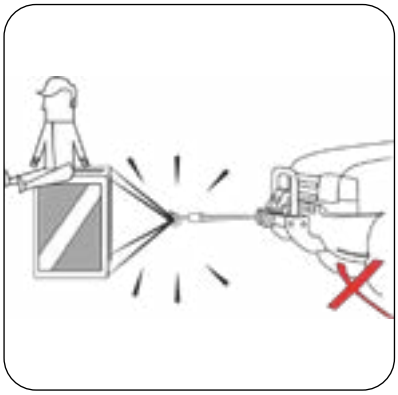
1. Do not exceed winch or winch rope rated capacity. Check the quality of the electrical



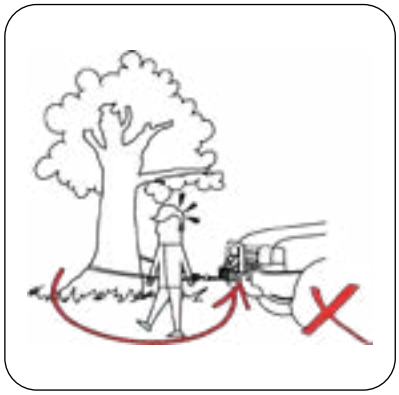
2. Do not route electrical cables across sharp edges, near parts that get hot and/ or through or near-moving parts.



3. Always inspect winch rope, hook, and slings before operating winch. Frayed, kinked or damaged winch rope must be replaced\ immediately.



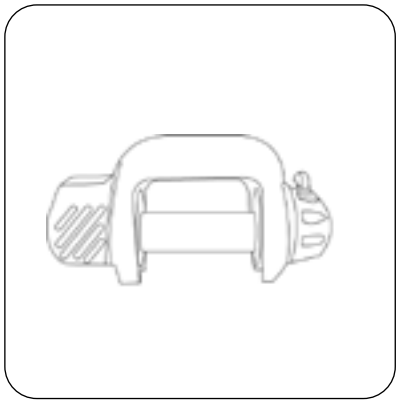
4. Do not use the equipment to lift or move people.



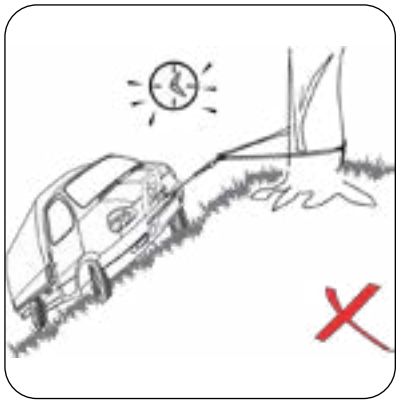
5. During winching operation always be aware of stability of vehicle and load during winching, keep others away. Alert all by standers of an unstable condition.

6. Do not submerge winch in water. Always store the remote control in protected, clean, dry area.

7. Perform preventive checks as part of a regular maintenance schedule to keep your winch operating properly.



8. Always verify installation before operating.



9. Do not leave loads unattend-ed,wire rope could come loose from the drum, as the wire rope attachment to the drum is not designed to hold a load.

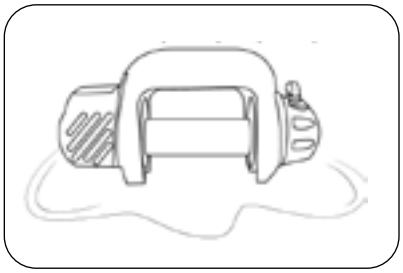
GENERAL ENVIRONMENTAL PRECAUTIONS


WARNINGS

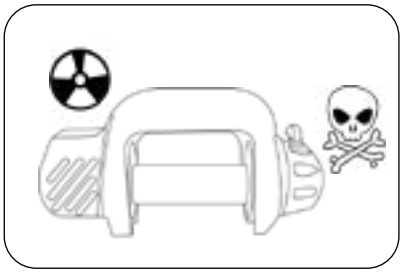
DANGER:

The following environmental conditions can cause malfunction of the winch.

The following environmental conditions may cause malfunctions in the equipment. When operated outdoor, a shelter should be used for extreme weather conditions: below -10º C or above 40º C



Avoid exposure to rain or snow. It may cause rusting of the equipment.



If used near chemicals, corrosive gas or explosives may cause an explosion. Exposure to salt or acids may cause malfunctioning.

Exposure to sand may cause malfunctioning.

GENERAL SAFETY PRECAUTIONS

1. Take time to fully read the instructions from this User's Manual, in order to understand your winch and its operations.

2. Do not exceed winch or winch wire rope rated capacity. Double line using a snatch block to reduce winch load.

3. Do not use winch or winch wire rope for towing. Shocks can damage, overload and break wire rope.

4. Do not use a winch to secure a load.

5. Don not operate this winch when under the influence of drugs, alcohol or medication.

DANGER:

Failure to observe these instructions could lead to serious injury or death.

6. Always wear heavy leather gloves when handling winch wire rope.

7. Always remove jewelry and wear eye protection.

8. Always be aware of possible hot surfaces at winch motor, drum or wire rope during or after winch use.

9. Inspect equipment regularly, replace damaged or worn parts, and keep appropriate records of maintenance.

10. Use only PROWINCH®'s recommended parts for replacement. Any modifications or repairs without the approval from PROWINCH® will void to warranty.

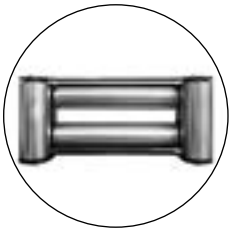
1.Motor

Powered by vehicle's battery. Motor provides power to gear mechanism, which turns winch drum and winds IWRC wire rope (synthetic rope for S models).

2.Control Box (Solenoids)

Uses vehicle battery electric power to engage winch motor, allowing operator to change direction of drum rotation.

2



3.Heavy Duty Winch Roller

Fair lead acts to guide wire rope onto spooling drum, minimizing damage to wire rope while it goes through winch mount or bumper. There are two types: 4-way roller and aluminum haws for S models.

1

3

4

9

4.Hook

Clevis Slip Hook High Test Zinc Plated

Wireless Remote Control

Allows operator to control winch direction from safe distance. (100Ft.)

5.Clutch

Using frees pool lever, operator can manually disengage spooling drum from gear box, enabling drum to rotate freely. Never engage or disengage clutch if winch is under load, wire rope is in tension or moving.

6.Winch Drum

Using frees pool lever, operator can manually disengage spooling drum from gear box, enabling drum to rotate freely. Never engage or disengage clutch if winch is under load, wire rope is in tension or moving.

7.Gear Box

Reduction gear, three stage planetary gearbox, converts winch motor power into large pulling force making winch lighter and more compact.

8

Brake System

Automatically applied to winch drum when winch motor is stopped with load on wire rope, preventing winch from releasing line

9.Wire Rope

Installed on drum. Wire rope diameter and length are determined by winch load capacity and design. Wire rope is looped at end to accept hook's clevis pin. Wire rope can be easily changed or direction adjusted using remote control. There are two types of ropes according to model of winch: IWRC or synthetic wire rope.

Installation

INSTALLING CONTROL BOX (recommended before installing winch to vehicle)

Control box can be mounted in various ways depending on application.
Control box can be mounted in two positions:

On Cross Bars

1. Install two included aluminum brackets on bottom of control box by removing four nuts on bottom of box, then place brackets over bolts and secure brackets by re-installing nut. Note: hooks on brackets go toward front of winch.

2. When installing brackets DO NOT push bolts up into control box. To prevent this, install brackets with control box on its side instead of laying it flat on a table.

3. Secure screw on rear of each bracket and add red lock nut. Decide location for control box over drum (left, center, right), then secure it using included screw, L bracket and nut on rear.

4. Screw through aluminum bracket and into L bracket with bottom of L bracket placed into slot of rear tie bar and finally further secure with included lock nut.

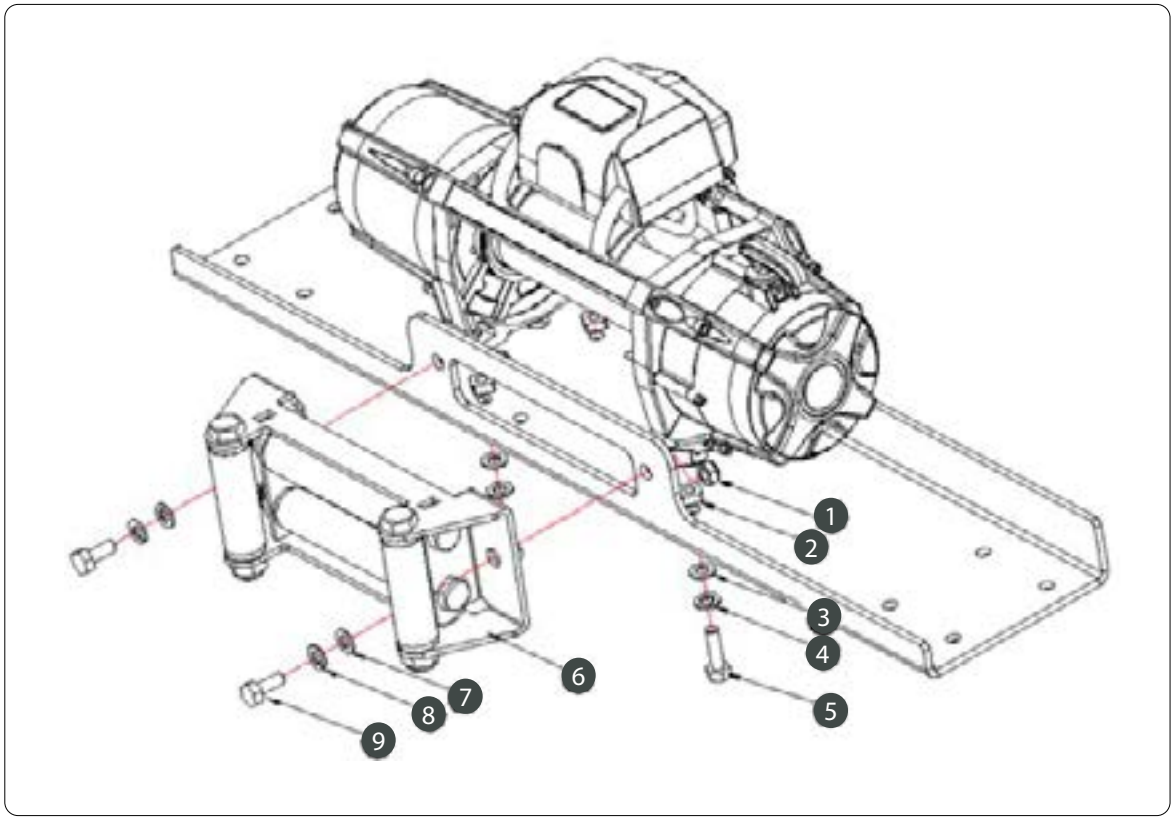
Over winch motor

1. Install two black motor mount brackets on bottom of control box by removing four nuts on bottom of box, then placing brackets over bolts and secure brackets by re-installing nut.

Note: End of brackets point outward. Be careful when installing brackets not to push bolts up into control box. To prevent this, install brackets with control box on its side instead of laying it flat.

2. Install control box by lining it up with two holes on motor side upright, then secure with included hardware

Mounting Winch



1. 1) Install suitable mounting bumper or mounting plate in required position. Winch must be mounted with direction of pull perpendicular to mounting bolt fixings. Steel plate should be at least 6mm thick.

2. 2) Attach fairlead (4-way roller type for wire rope or aluminum hawse for synthetic rope) to mounting plate using two nuts (9) and bolts (1) with flat (7) and spring washers (8).

3. Insert four square nuts (2) into pockets at base of winch frame.

4. Thread four high tensile bolts (5) with flat (3) and spring (4) washers up through mounting plate and into square nuts in winch. Tighten mounting bolts to torque setting of 60 nm.

5. Supplied bolts are correct length for installation on 6-7mm plate. Other thicknesses may require bolts of different length. Use at least 8.8 grade high tensile bolts. Thread length should be sufficiently long to fully engage square nut but must not bottom out on top of pocket in winch frame.

6. Feed end of wire rope through roller fair lead (6) and attach clevis hook with a synthetic rope with fixed hook. Feed drum end of synthetic rope through hawser from front and attach to drum using Allen head cap. Screw finger tight only. Ready spooling onto drum.

Electrical Installation

Electric winches require power from a battery to be operational. Verify that battery is in good condition and can provide a minimum of 650 CCA. Power can be provided to winch through a vehicle battery or through separate auxiliary battery that powers winch only.
ALWAYS practice GENERAL SAFETY PRECAUTIONS described in this User Manual before performing electrical installation. After properly mounting winch and verifying every nut is adjusted at recommended torque, plan a route for wiring from point of vehicle where winch is mounted. Route wiring from winch to battery. Be careful to avoid contacting hot or sharp surfaces that may damage wiring, tangle it in moving equipment, or cause a tripping hazard.
According to winch model, electrical installation may vary.

PWLD150012V/24V

PWLD3000Ai12V/24V

PWLD4000

PWLD8500

PWLD12000

PWLD20000

These models are mainly used in ATV's, UTV's and SxS's. They are equipped with wired control switch, mini switch (only PWLD4000A), solenoid, battery positive and negative leads and all wiring and hardware necessary to complete installation.

Avoid installing electrical cables around pinch and wear/abrasion points.

Mounting Solenoid

Find a location for solenoid. It is recommended that solenoid be mounted close to battery in a clean dry location. Make sure location allows sufficient clearance from all metal components. Drill mounting holes if required. Once location is found do not install until all wiring is completed.

Mounting Mini Switch (only PWLD4000A included)

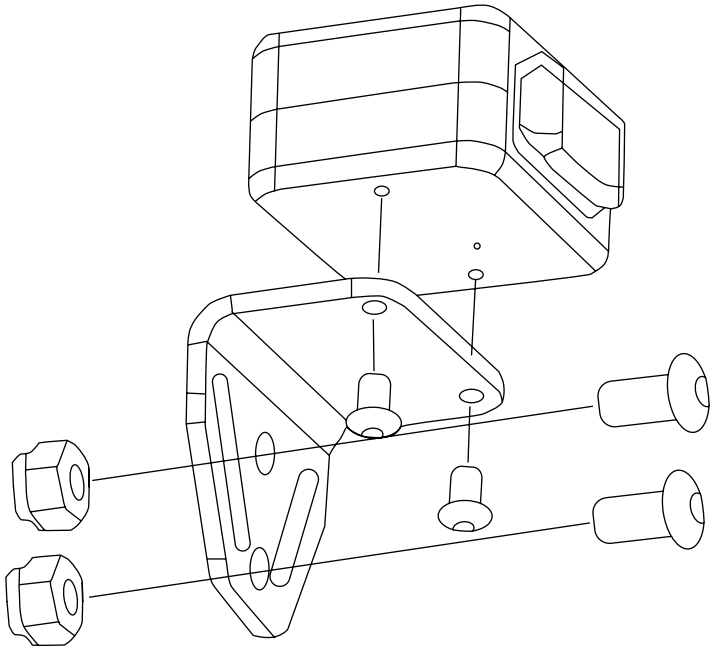


Fig. 4

1. Switch is usually installed on left handlebar on ATVs. If installing on UTV or SxS, use supplied bracket and hardware as shown in Fig. 4. This bracket can be placed in any location that is convenient.

2. If mounting to handlebars of an ATV use electrical tape around handlebar to prevent rotation of mount on handlebar. Do NOT tighten over any hoses or cables.

3. Once switch is mounted route wires back to contactor.

4. Splice end of red wire to ignition (keyed) controlled power source using supplied wire splice. Operator may need to use a test light to locate suitable wire. Wire should only have power when key is in ON position.

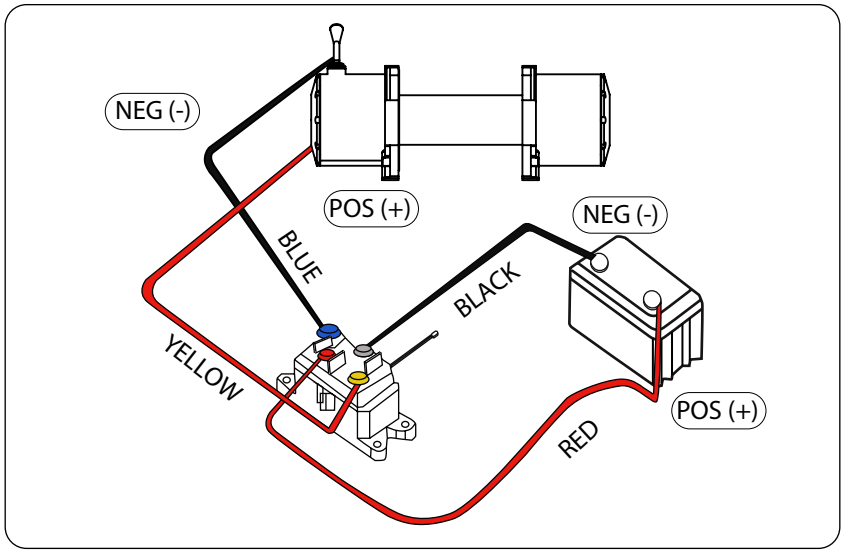
5. If mounting to handlebars of ATV, make sure handlebars have full range of motion and then secure switch cable with supplied cable ties.

Mounting Hand Remote Socket

1. Determine mounting location for hand remote socket. Make sure area behind selected location is clear.
2. Drill three holes as shown in figure on Page 6 and install using supplied hardware. Use rubber cap as template.
3. Once remote socket is mounted, route wires back to contactor.
4. Splice end of red wire to ignition (keyed) controlled power source using supplied wire splice. Operator may need to use a test light to locate a suitable wire. Wire should only have power when key is in ON position.
5. Secure cable with supplied cable ties.

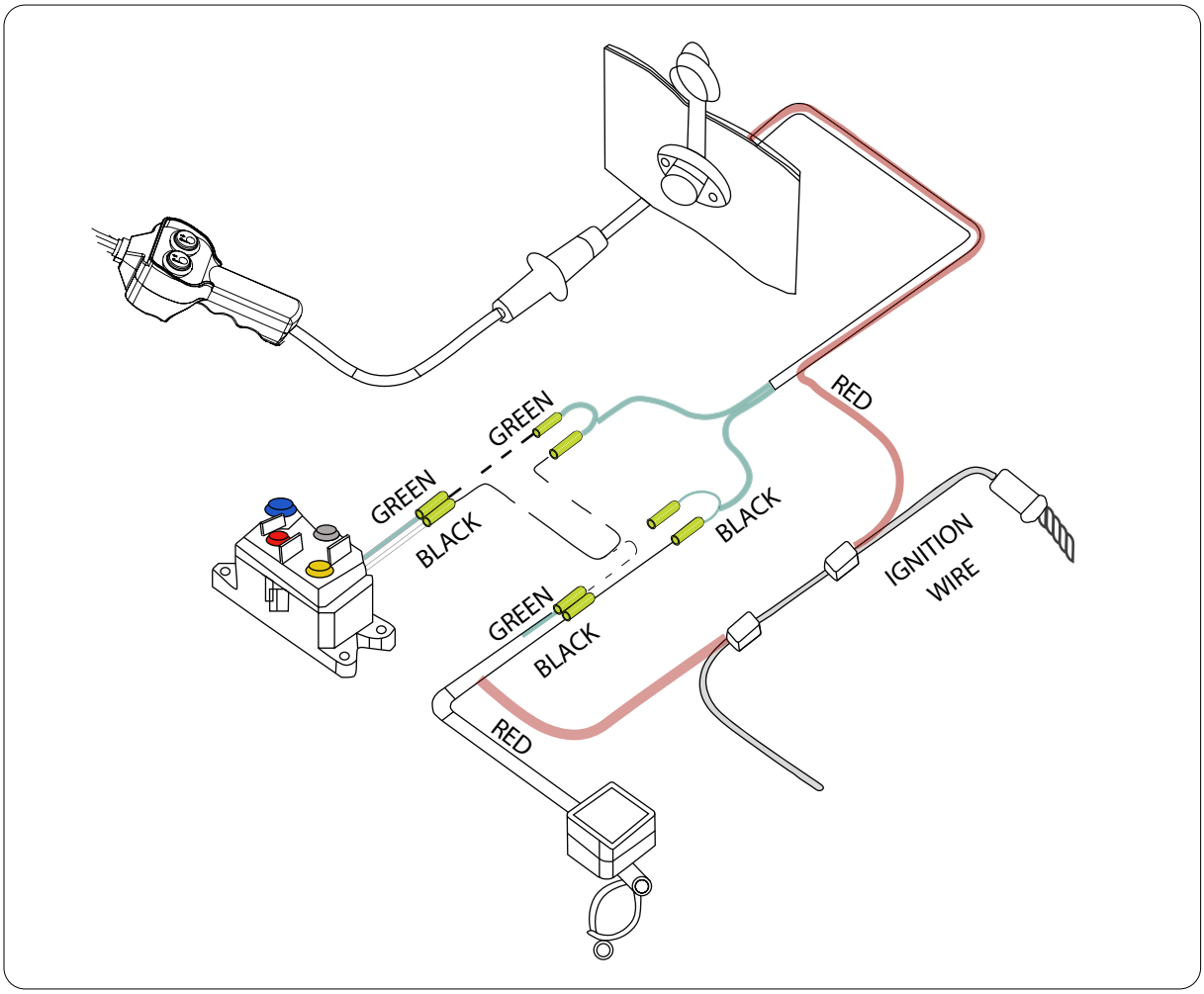
Wiring Winch

1. Place boots onto pertinent cables and make electrical connection in accordance with wiring diagram. Place boots onto all electrical connections made.
2. Run battery power cables carefully under hood of vehicle. Avoid interference with moving parts and abrasion points which could potentially cause electrical short.
3. Attach black cable to negative battery terminal (-), followed by red cable to positive battery terminal (+). Refer to Winch Operation Section of this User Manual for proper functioning. If drum rotates in incorrect direction when control switch is pressed, check Wiring Diagram A.



Never connect cables to battery until unit is completely wired to control box and installed on vehicle.
Reserve for last step of installation.

Switching Wiring Diagram



PWLD850012V/24V – PWLD1200012V/24V – PWLD12000i PWLD2000012V/24V – PWLDX2000024V

Winch models from 8,500 lb up to 20,000 lb are equipped with solenoid box for best protection and safety operation. PROWINCH® solenoid box can either be mounted to winch or in a remote location, according to vehicle and/or personal preference. PROWINCH® recommends direct mount to winch following instructions below. If remote location chosen, ensure:

- Location does not interfere with any vehicle's moving/functioning parts.
- Use of electrical cables with similar or better specifications as that provided by PROWINCH®.

Mounting Solenoid Box Over Drum

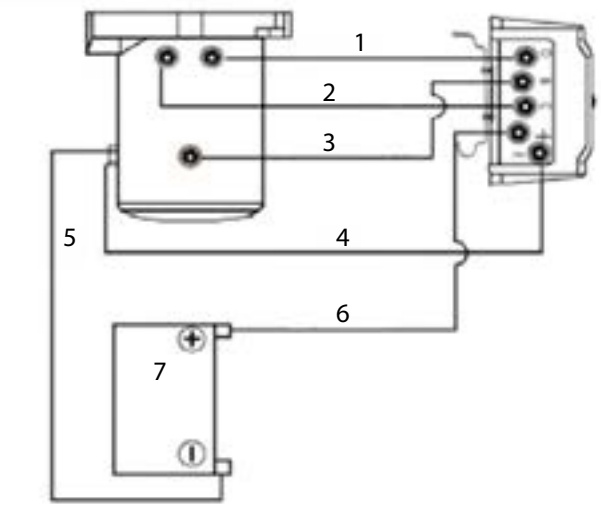
1. Select appropriate bracket hardware for installation. Operator will determine which bracket choice to use depending on bumper, winch plate, or application.
2. Configure and attach brackets for mounting of solenoid box over drum.
3. Attach solenoid box to tie bars over spool by hooking mounting bracket around front tie bar and securing at rear with 2 screws provided. Ensure all cables are located between solenoid box and tie bar.
4. Consult Switch Wiring Diagram before securing solenoid box to vehicle battery wiring. Solenoid Box Wiring

Connect

1. Short red cable (B) from solenoid box to red terminal (B) of motor.
2. Black cable with yellow jacket (C) to yellow terminal (C) of motor.
3. Short black cable with black jacket (D) to black terminal (D) of motor.
4. Thin black cable (E) to bottom terminal (A) of motor.

Winch Motor to Battery Connections

1. Ground motor by connecting long/thick black cable to bottom terminal (-) of motor and other terminal to negative (-) post of battery.
2. Power motor by connecting long/thick red cable (+) from control box to positive terminal (+) of battery.



1. Short Black Wire Rope
2. Yellow packet
3. Short red wire rope
4. Thin black wire rope
5. Long black wire rope
6. Long red wire rope
7. Battery

ATTENTION: Corrosion on electrical connections and battery terminals reduces power and winch performance.
Keep battery charged, all connections clean and sealed with silicone-based sealer.

Electric Diagram for PWLD3000Ai12/24V - PWLD4000A12V - PWLD600012V.

Connect

1. Red short cable from solenoid to red terminal from motor.
2. Black short cable from solenoid to black terminal from motor.
3. A cable from remote control to negative terminal (-).
4. B cable from remote control to positive terminal (+).

Connect Remote Control

1. Red cable to ground.
2. Black cable to black terminal.
3. Green cable to green terminal from solenoid.

When all other connections are correctly installed, connect battery leads to battery via isolator switch and over-load cut out (if being used).

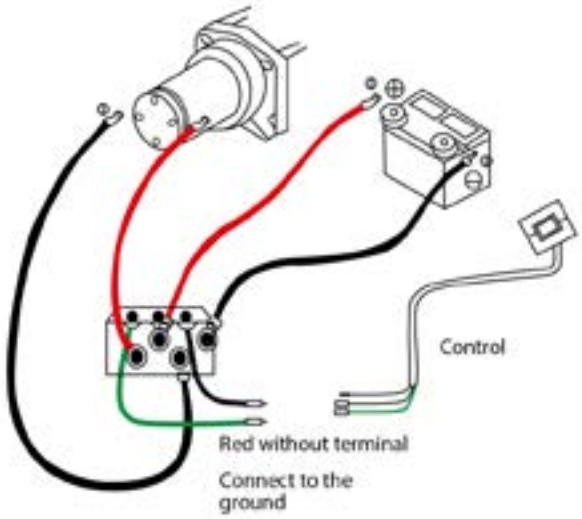
Electric Diagram for PWLD3000Ai12/24V - PWLD4000A12V - PWLD600012V.

Connect

1. Red short cable from solenoid to red terminal from motor.
2. Black short cable from solenoid to black terminal from motor.
3. A cable from remote control to negative terminal (-).
4. B cable from remote control to positive terminal (+).

Connect Remote Control

1. Red cable to ground.
2. Black cable to black terminal.
3. Green cable to green terminal from solenoid. When all other connections are correctly installed, connect battery leads to battery via isolator switch and overload cut out (if being used).



Solenoid box for PWLD3000Ai12/24V - PWLD4000A12V - PWLD600012V (refer to Fig. 9)

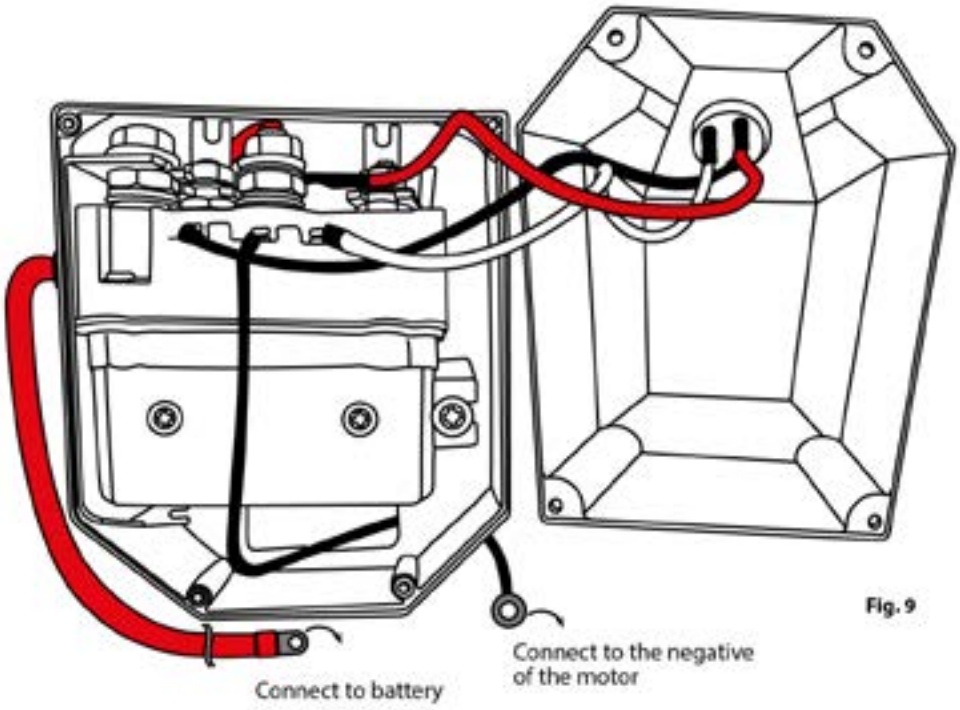


Fig. 9

Do not leave remote plugged into winch when not in use. Failure to comply in may result in a dangerous condition and/or battery drain.

Solenoid box for PWLD850012/24V - PWLD1200012V/24V - PWLD2000012V/24V (refer to Fig. 10)

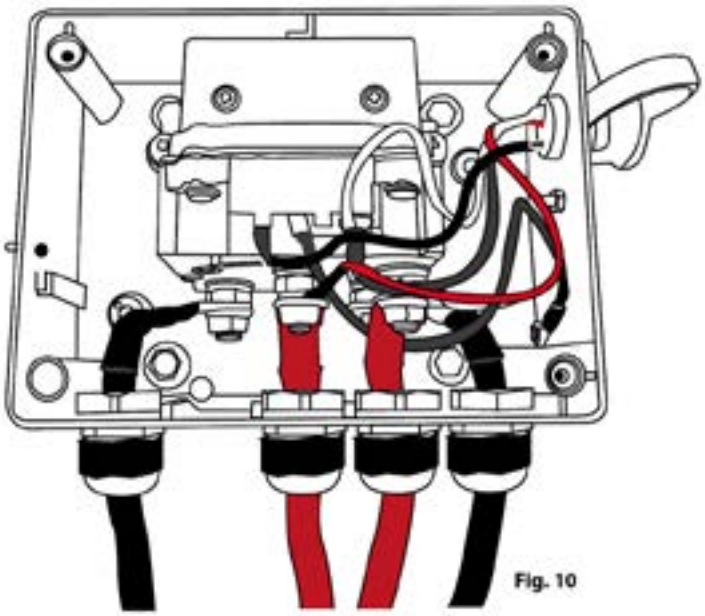


Fig. 10

Do not leave remote plugged into winch when not in use. Failure to comply in may result in a dangerous condition and/or battery drain.

Wireless Remote Control - Optional

Technical Parameters

This remote allows operator to control winch movement from a distance.

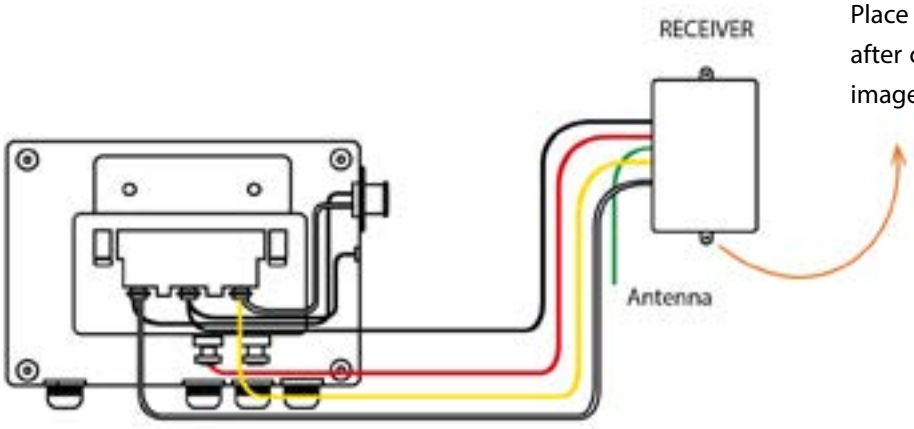
PWLD7

12v Two button Remote Control	
Total Weight	0.5 kg
Voltage	12v / 24
Functional Range	30m / 100 ft
Protection	IP54
Water Resistance:	NO

PWLD8

24v Two button Remote Control	
Total Weight	0.5 kg
Voltage	12v / 24
Functional Range	30m / 100 ft
Protection	IP54
Water Resistance:	NO

Installation

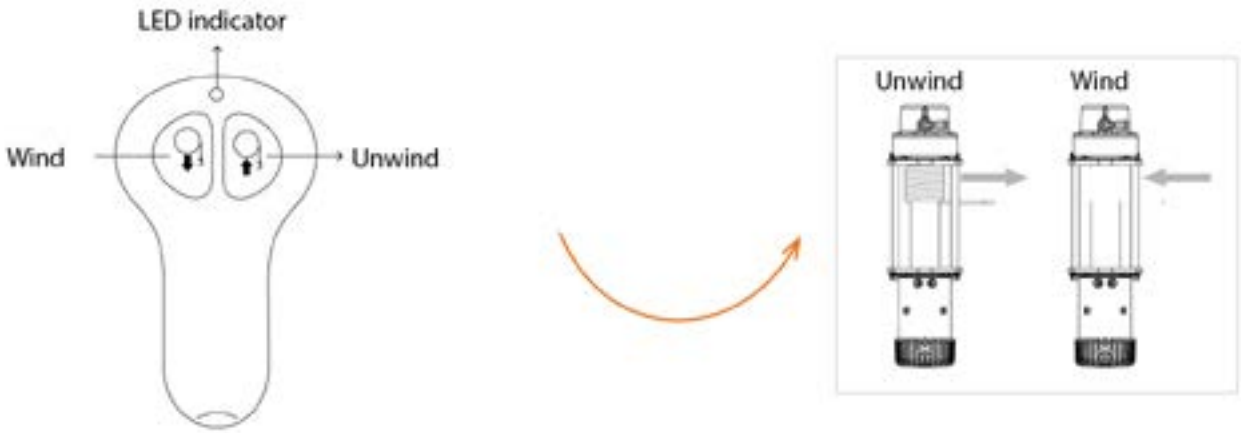


Installation Diagram of Remote

Place receiver inside solenoid box after completing wiring steps (see image).

Steps

1. De-energize winch, disconnect battery or use circuit breaker (if available)
2. Open control box
3. Connect receiver red cable to battery input
4. Connect black cable to negative
5. Connect white cable to control terminal
6. Connect yellow cable to control terminal
7. Turn on remote control by pressing both buttons at same time
8. Connect battery or circuit breaker
9. Test operation
10. Mount cover of control box



Use

Start Sequence

1. Press both buttons at same time for 1 second to turn on remote
2. Remote is ready for operation when LED light turns on
3. Press WIND or UNWIND button as necessary

Shutdown Sequence

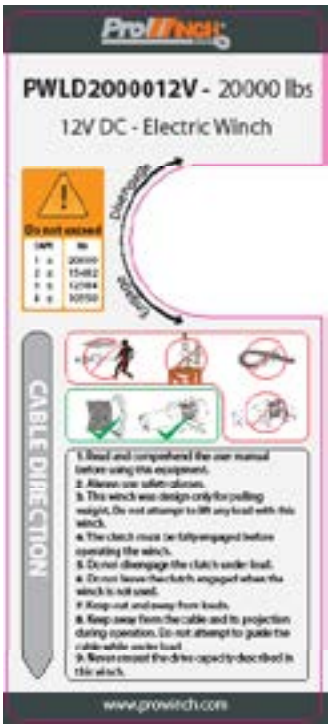
Press both buttons until LED light turns off

Winch Operation

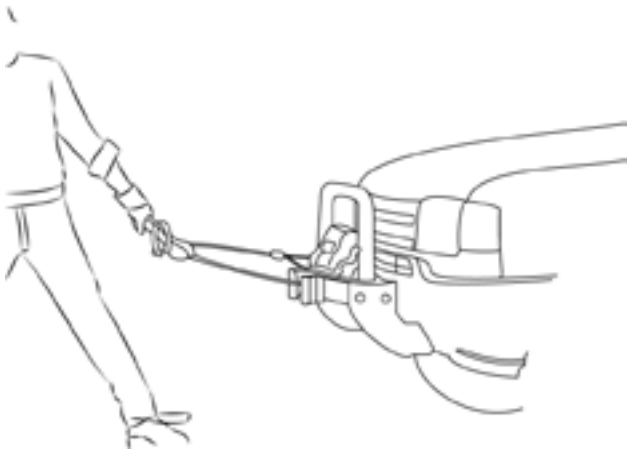
Inspect winch and all components carefully before using and follow steps below

Step 1: Set vehicle in secure position.
Step 2: Put on protective gloves.
Step 3: Pull wire rope by hook (use ribbon provided) to anchor point.

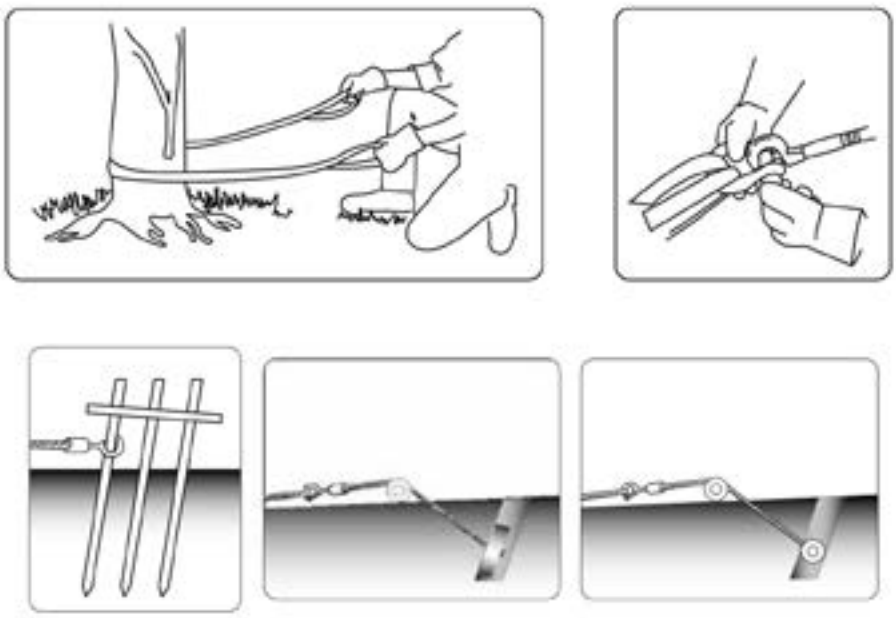
Clutch allows drum to roll free in order to pull wire rope to anchor point. To release clutch move lever to DISENGAGE position.



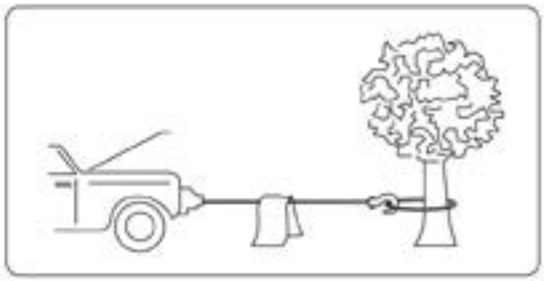
Step 4: Pull rope to anchor point.



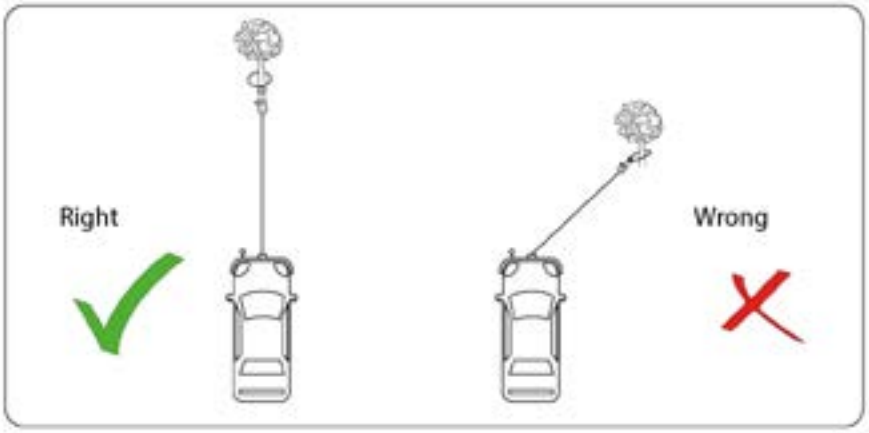
Step 5: Couple hook to anchor point. If unable to find anchor point, make one using accessory.



Step 6: Move lever to ENGAGE position.
Step 7: Check all anchor points before continuing.
Step 8: Plug in winch control. Proceed with operation from driver seat.
Step 9: To begin operation, run engine, put in neutral and hold engine speed at idle.
Step 10: Press IN button on remote. Start pulling with winch until wire rope is tensioned.
Step 11: Put blanket or specialized accessory (see Accessories Chapter) over wire rope.



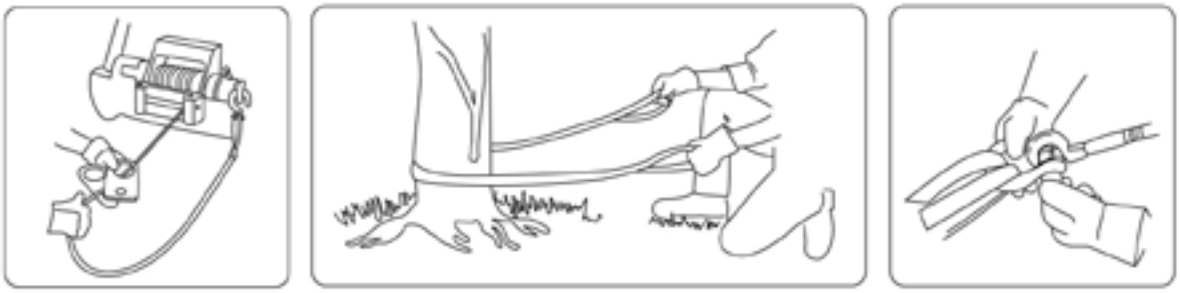
Step 12: Operate winch and pull. Check winch regularly to ensure that wire rope is wrapping evenly onto drum. If necessary unroll cable again and roll evenly. Repeat until vehicle is recovered. Avoid pulling in sharp angles.



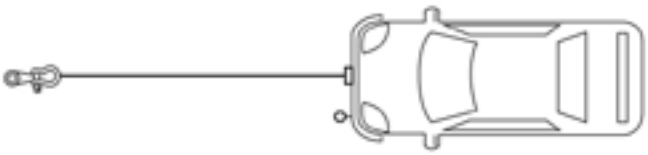
Step 13: Secure vehicle.
Step 14: Disengage hook.
Step 15: Roll up wire rope after use.
Step 16: Unplug remote.

Use of unauthorized accessories may cause damage, injury, and death.

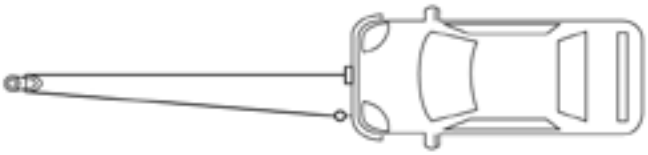
How to use pulley



Increasing Pulling Force:



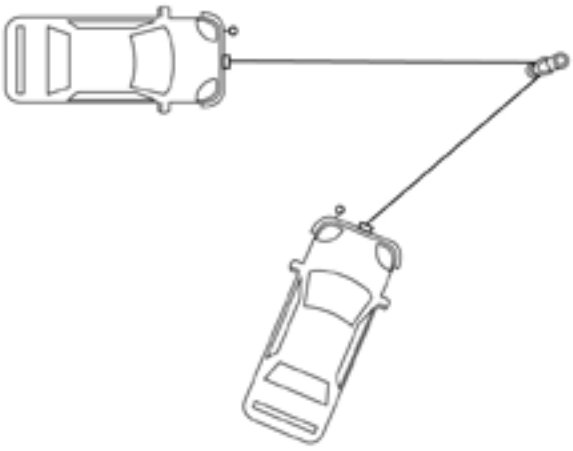
Single Line



Double Line

Triple Line

How to change Direction



Signaling

Pull: With forearm in vertical position and forefinger pointing up, move hand in small horizontal circles.

Pull slowly: With forearm in vertical position and forefinger pointing up, move hand in small horizontal circles while other hand stays horizontal motionless.

Unwind: With arm extended downward and forefinger pointing down, move hand in small horizontal circles.

Use main winch: Give fist touch on head, then use regular signals.

Emergency stop: Both arms outstretched, palm down and move again and again horizontally.

Stop all: Grab hands in front of body..

Maintenance Instructions

- Winch should be operated at least once a month.
- Unwind wire rope 50ft, roll back other 15ft.
- Replace remote control batteries every 12 months or when depleted (control optional).
- Keep a protective cover in place when not in use.
- With normal use, greasing is not necessary for life of winch. If winch is used excessively or in severe conditions, lubricate all moving parts with grease at least once a year.
- Clean winch after use. Apply only low pressure water and brush to rinse off dirt. Once dry, use light spray oil to coat winch and wire rope before installing winch cover.

Check	Before first operation	After each use	Every 90 days
User Manual to understand winch and its operation.	X		
Fasteners and ensure they are tight and properly torqued. Replace damaged fasteners.	X	X	X
Wiring to all components correct and all connections tight.	X		X
No exposed/bare wiring or terminals. Cover exposures with terminal boots, head shrink tubing, or electrical tape	X		X
Wire rope for damage. Replace immediately if damaged.	X	X	X
Winch, wire rope, and switch control are free from contaminants. X Use clean rag or towel to remove dirt and debris.		X	

Service Factor

SERVICE	LOAD	TIME	MAINTENANCE
NORMAL	<65%	<25%	6 ~ 12
HEAVY	>65%	>25%	3 ~ 6
SEVERE	<100%	Duty clicle limit	1 ~ 3

Troubleshooting

Symptom	Probable Cause	Suggested Solution
Motor does not run	Circuit breaker off battery or CB cable loose	Energize circuit breaker. Attach cable and tighten nuts/bolts.
	Solenoid not working	Give a touch to solenoid and connect 12/24v directly. Coil makes a "Tac" sound when it starts. If it doesn't, replace solenoid.
Motor too hot	Operating period of time too long	Rest winch until cool
Motor works too slow or lacks power	Insufficient battery charge, current, or voltage	Charge battery. Clean, tighten and/or replace battery or other connections.
Motor starts but drum does not rotate	Clutch is not engaged	Engage clutch
Motor works in only one direction	Solenoid is broken	Replace solenoid

Any modification or repair by personnel not authorized or Trained by Prowinch® will automatically invalidate warranty.

PROWINCH® WARRANTY

LIMITED WARRANTY COVERAGE PROWINCH products are warranted to the original purchaser for a period of three (3) years after the date of purchase only to be free from defects in material and workmanship when subjected to normal, proper and intended use.

Within this period, PROWINCH will only repair or replace free of charge any part on a product, after examination, is determined by PROWINCH to be defective in material or workmanship and was not caused or substantially contributed to by other factors or circumstances beyond PROWINCH control, including (but not limited to) defective installation, maintenance or repair, product modification or alteration, any neglect misuse or excessive use, mishandling, product exposure to extreme or unsuitable conditions, normal wear and tear or failure to follow manufacturer's instructions.

This warranty does not apply to damage that PROWINCH determines to be from repairs made or attempted by anyone other than PROWINCH authorized personnel.

Return of the product with a copy of proof of purchase to PROWINCH, freight prepaid and insured, are required for this warranty to be effective. If more than one year has elapsed from purchase date, proof of periodic and regular maintenance by an authorized service must also be provided for this warranty to be effective. PROWINCH does not cover freight or labor charges associated with the inspection and testing of products which are found by PROWINCH not to be a valid warranty claim.

Actions that void the warranty:

- Improper or inadequate installation.
- Improper or insufficient maintenance.
- Repairs completed by unauthorized individuals.
- Intentional removal or defacement of any labels, warnings, or serial numbers.
- Product modification or alteration.
- Installation or unauthorized accessories.
- Neglect, misuse or, excessive use.

Items not covered under the warranty:

- Normal wear and tear.
- Product finish.
- Removal or installation of the product.

To initiate a warranty claim:

1. Call Prowinch customer service at 800-971-8061 or send an email to info@prowinch.com.
2. Ensure that you are within the Warranty period.
3. Return the Product with prepaid postage to 2901 NW 21st Terrace, Miami, FL, 33142
4. Include the original invoice, your name, address, phone number, and a description of the problem with the shipment.
5. Prowinch is not responsible for shipping costs related to warranty claims.

The warranty period is not extended once a product is repaired or replaced.
In no event shall Prowinch be liable for any labor, loss of time, manufacturing costs, transportation, materials, loss of profits, incidental, special, consequential or punitive damages, or for any costs, attorney fees, expenses, losses or delays, direct or indirect, alleged to be as a consequence of any damage to, failure of, or defect in any product. Prowinch disclaims any implied warranties, including without limitation, any implied warranty of merchantability or fitness for a particular use or purpose.

PWLD1500

Code		PWLD1500
Wire Rope Capacity	Lb	1500
Speed /min	ft	4.9~10.4
Duty Class		Recovery
Motor/Engine Power	HP	1.2
Voltage	VDC	12
Control		Wired Remote Control
Gear Ratio		153:1
1st Layer Load Capacity	Lb	1500
Number of Speeds		1 Speed
Wire Rope Included		Steel ø3/16 in x 40 ft | ø4.8mm x 12 m
Total Weight	Lb	11

Warranty 3 year included

Accessories

Included

Wire Rope
SKU: PWCA9X26

Steel Forged Hook
SKU: PW-Z41104101

Roller Fairlead 4 way
SKU: PWCA9X26

Hardware
SKU: PWLD600017

Remote Control
SKU: PWHP11

Power Cord

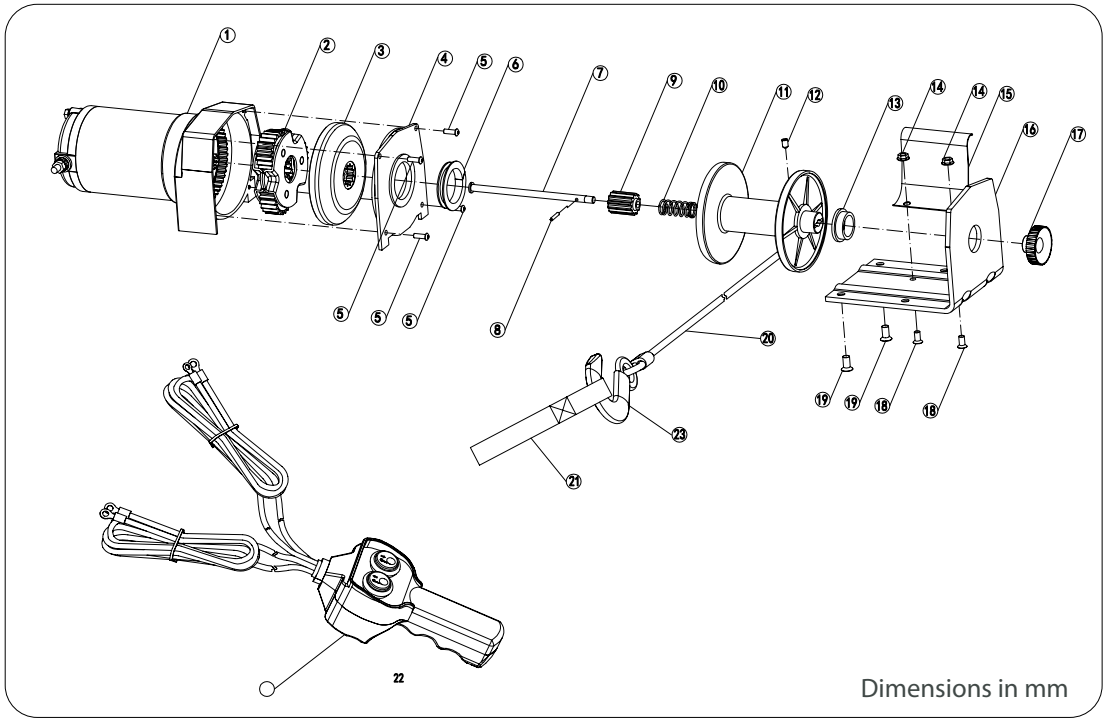
Optional

Synthetic Rope
SKU: PWSY3712

Winch protector Cover
SKU: PWTR070

Wireless Control
SKU: PWLD7

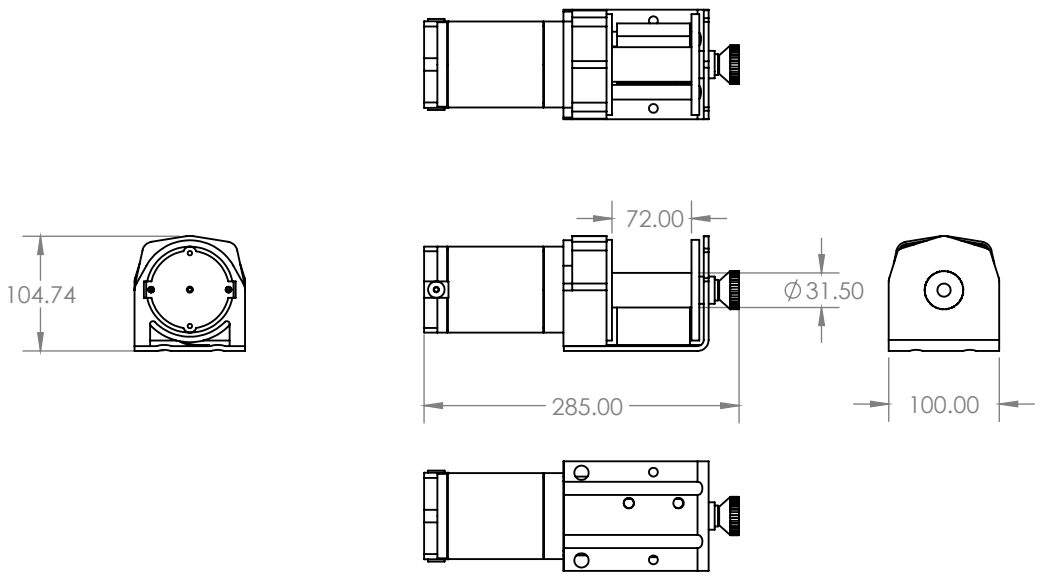
Part List



Dimensions in mm

N	Part	Qty
1	2000-A Motor assembly	1
2	Planetary gear set	1
3	2000-A Inner gear plate	1
4	2000-A cover	1
5	M4X12	4
6	2000-A Graphite nylon sleeve	1
7	2000-A Drive shaft	1
8	Elastic cylindrical pin 3X11	1
9	2000-A Splined tooth	1
10	2000-A Spline spring	1
11	2000-A Drum	1
12	M5 Tightening screw	1
13	2000-A Bearing	1
14	M5 Hex flange nut	2
15	2000-A Spring plate	1
16	2000-A Bottom plate	1
17	Plastic knob	1
18	M5X10 Countersunk	2
19	M6X16 SH Screw	2
20	Steel cable assembly	1
21	Safety belt	1
22	Large switch assembly	1
23	Hook	1

Technical Specifications



Dimensions in mm

PWLD3000Ai 12V / 24V

Code		PWLD3000Ai 12V	PWLD3000Ai 24V
Wire Rope Capacity	Lb	3000	3000
Speed /min	Ft	6~23	6~23
Duty Class		Recovery	Recovery
Motor/Engine Power	HP	1	1
Voltage	VDC	12	24
Control		Wired Remote Control	Wired Remote Control
Gear Ratio		166:1	166:1
1st Layer Load Capacity	Lb	3000	3000
Number of Speeds		1 Speed	1 Speed
Wire Rope Included		Steel ø3/16 in x 50 ft | ø4.8mm x 15 m	Steel ø3/16 in x 50 ft | ø4.8mm x 15 m
Total Weight	Lb	17	17

Warranty 3 year included

Accessories

Included

Wire Rope
SKU: PWCA9X26

Steel Forged Hook
SKU: PW-Z41104101

Roller Fairlead 4 way
SKU: PWCA9X26

Hardware
SKU: PWLD600017

Remote Control
SKU: PWHP11

Power Cord

Solenoid Box
PWLD3000Ai12V19

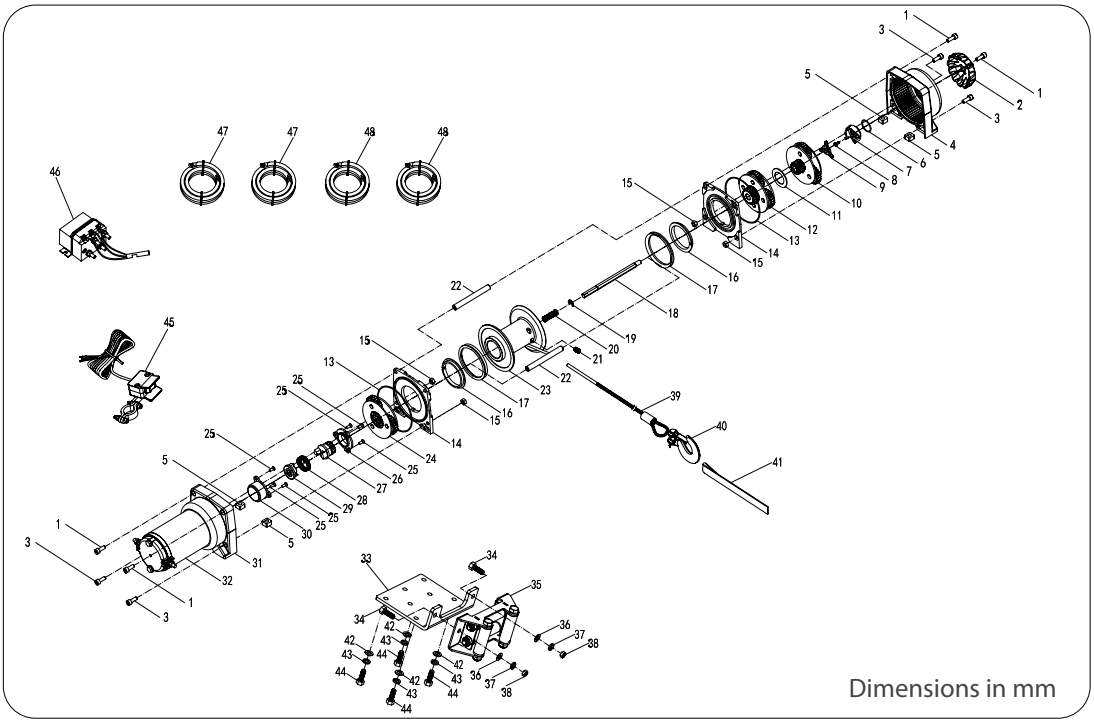
Optional

Synthetic Rope
SKU: PWSY3712

Wireless Control
SKU: PWLD7

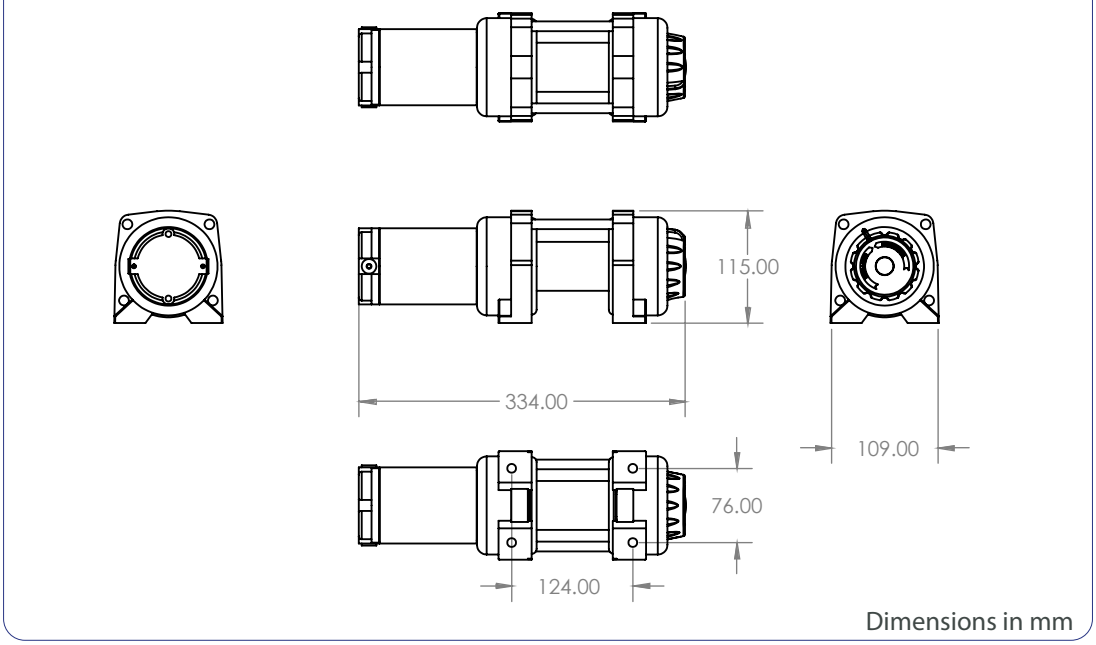
Winch protector Cover
SKU: PWTR070

Part List



N	Part	Qty
1	Socket head screw	4
2	Clutch knob1	1
3	Socket head screw	4
4	Gear box	1
5	Nut	4
6	O ring	1
7	Clutch knob base	1
8	Screw	1
9	Fork pin	1
10	2nd stage planetary gear	1
11	Spacer	1
12	3rd stage planetary gear	1
13	O ring	2
14	Gear box cap	2
15	Nut	4
16	Nylon bearing	2
17	Seal	2
18	Drive shaft	1
19	Clip	1
20	Spring	1
21	Screw	1
22	Tie bar	1
23	Drum	1
24	1st stage planetary gear	1
25	Screw	6
26	Locating ring	1
27	Brake caliper	1
28	Spring	1
29	Brake base	1
30	Brake house	1
31	Gearbox (motor side)	1
32	Motor ASSY	1
33	Mounting plate	1
34	Bolt	2
35	Roller fair lead	1
36	Washer	2
37	Lock washer	2
38	Nut	2
39	Wire rope	1
40	1/4 hook	1
41	Hand strap	1
42	Washer	4
43	Lock washer	4
44	Bolt	4
45	Mini rock switch	1
46	Solenoid	1
47	Power lead black	2
48	Power lead red	

Technical Specifications



PWLD4000ATV 12V

Code		PWLD4000Ai 12V
Wire Rope Capacity	Lb	4000
Speed /min	Ft	4~24
Duty Class		Recovery
Motor/Engine Power	HP	1.3
Voltage	VDC	12
Control		Wired Remote Control
Gear Ratio		166:1
1st Layer Load Capacity	Lb	4000
Number of Speeds		1 Speed
Wire Rope Included		Steel ø1/4 in x 50 ft | ø5.5 mm x 15.2 m
Total Weight	Lb	61

Warranty 3 year included

Accessories

Included

Wire Rope
SKU: PWCA9X26

Steel Forged Hook
SKU: PW-Z41104101

Roller Full Drum
SKU: PWTR950099

Hardware
SKU: PWLD600017

Remote Control
SKU: PWHP11

Power Cord

Solenoid Box
PWLD3000Ai24V19

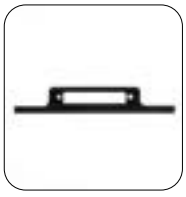
Optional

Synthetic Rope
SKU: PWSY3712

Wireless Control
SKU: PWLD7

Winch protector Cover
SKU: PWTR070

Aluminum Hawse Fairlead
SKU: PWBHAW2



Mounting Plate
SKU: PWLD013

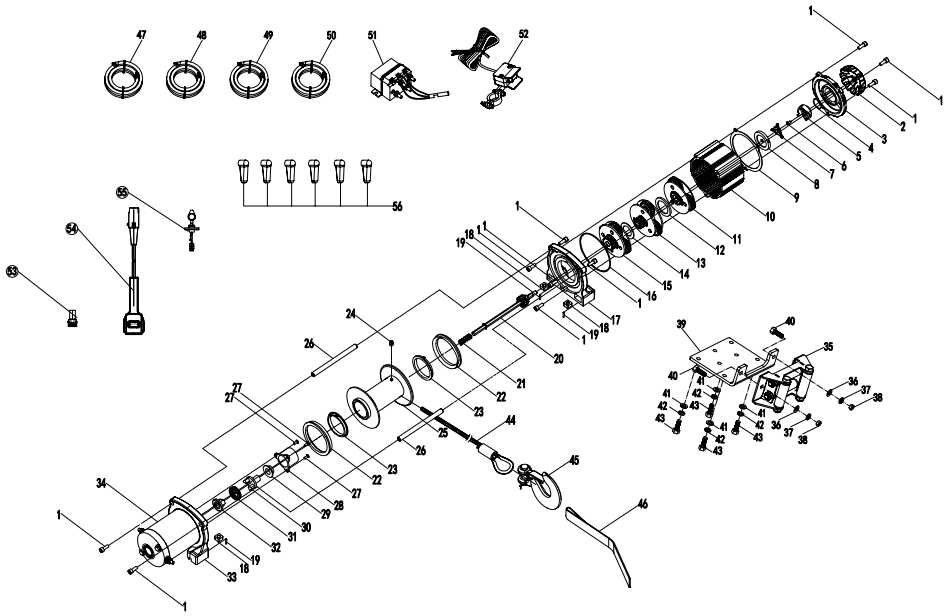
Winch Pulley
SKU: PWLD004

Quick Connector
PWQC77

Winch Portable
SKU: PWLD011

Universal Switch
SKU: PWLD2

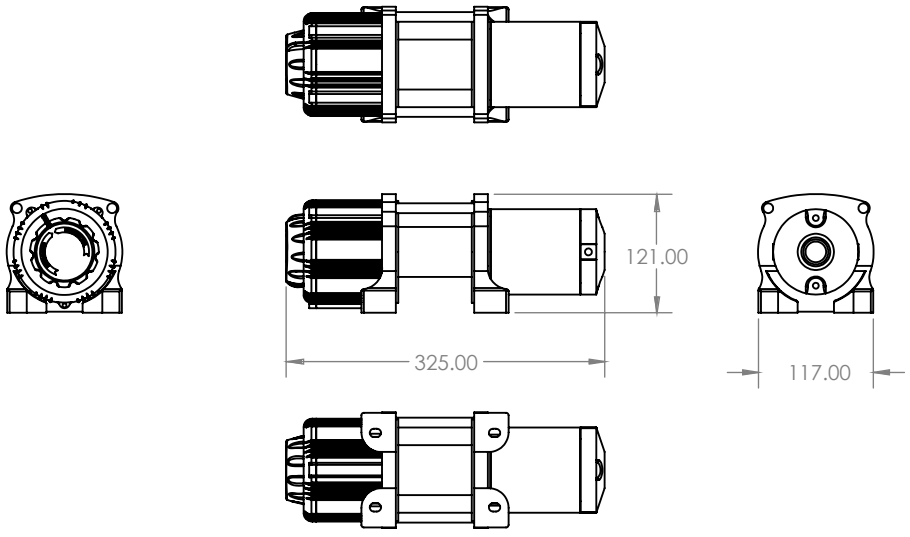
Part List



Dimensions in mm

N	Part	Qty
1	Socket head screw	10
2	Clutch knob	1
3	Cover of gear box	1
4	O ring	1
5	Clutch knob base	1
6	Screw	1
7	Fork pin	1
8	Inner Supporter	1
9	Gasket ring	1
10	Ring gear	1
11	1st Stage planetary gear	1
12	Bulkhead	1
13	2nd Stage planetary gear	1
14	Bulkhead	1
15	3rd Stage planetary gear	1
16	O ring	1
17	Gear box base	1
18	Nut	4
19	Elastic Pin	4
20	Shaft Assy	1
21	Spring	1
22	Gastec ring	2
23	Nylon bearing	2
24	Screw	1
25	Drum	1
26	Tie Bar	2
27	Crew	3
28	Brake house	1
29	Brake caliper	1
30	Locating ring	1
31	Spring	1
32	Brake base	1
33	Gearbox (motor side)	1
34	Motor ASSY	1
35	Roller fair lead	1
36	Washer	2
37	Lock washer	2
38	Nut	2
39	Mounting plate	1
40	Bolt	4
41	Washer	4
42	Lock washer	4
43	Bolt	4
44	Wire rope	1
45	Hook 1/4	1
46	Hand Strap	1
47	Power lead red	1
48	Power lead black	1
49	Power lead blue	1
50	Power lead yellow	1
51	Solenoid	1
52	Mini rock switch	1
53	Plug-in components	1
54	Control Handle	1
55	Connector Assey	1
56	Bush	6

Technical Specifications



Dimensions in mm

PWLD8500

Accessories

Included

Wire Rope
SKU: PWCA9X26

Steel Forged Hook
SKU: PW-Z41104101

Roller Full Drum
SKU: PWTR950099

Hardware
SKU: PWLD600017

Remote Control
SKU: PWHP11

Power Cord

Solenoid Box
PWLD3000Ai24V19

Code		PWLD4000Ai 12V
Wire Rope Capacity	Lb	8500
Speed /min	Ft	1.7~20
Duty Class		Recovery
Motor/Engine Power	HP	5.5
Voltage	VDC	12
Control		Wired Remote Control
Gear Ratio		230:1
1st Layer Load Capacity	Lb	8500
Number of Speeds		1 Speed
Wire Rope Included		Steel ø21/64 in x 92 ft | ø8.3 mm x 28 m
Total Weight	Lb	72

Warranty 3 year included

Accessories

Optional

Synthetic Rope
SKU: PWSY3712

Wireless Control
SKU: PWLD7

Winch protector Cover
SKU: PWTR070

Quick Connector
PWQC77

Aluminum Hawse Fairlead
SKU: PWBHAW2

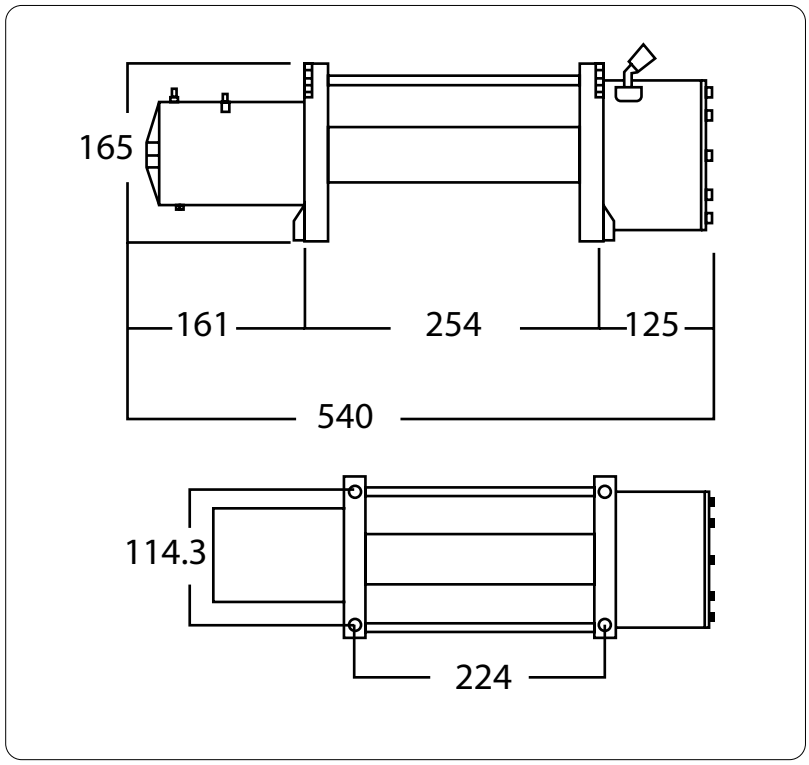
Mounting Plate
SKU: PWLD013

Winch Pulley
SKU: PWLD004

Universal Switch
SKU: PWLD2

Winch Portable
SKU: PWLD011

Technical Specifications



Dimensions in mm

PWLD12000Ai 12V / 24V

Code		PWLD12000Ai 12V	PWLD12000Ai 24V
Wire Rope Capacity	Lb	12,000	12,000
Speed /min	Ft	1.7~20	1.7~20
Duty Class		Recovery	Recovery
Motor/Engine Power	HP	1	1
Voltage	VDC	12	24
Control		Wired Remote Control	Wired Remote Control
Gear Ratio		232:1	232:1
1st Layer Load Capacity	Lb	12,000	12,000
Number of Speeds		1 Speed	1 Speed
Wire Rope Included		Steel ø3/8 in x 85 ft | ø9.5 mm x 26 m	Steel ø3/8 in x 85 ft | ø9.5 mm x 26 m
Total Weight	Lb	77	77

Warranty 3 year included

Accessories

Included

Wire Rope
SKU: PWCA9X26

Steel Forged Hook
SKU: PW-Z41104101

Roller Full Drum
SKU: PWTR950099

Hardware
SKU: PWLD600017

Remote Control
SKU: PWHP11

Power Cord

Solenoid Box
PWLD3000Ai24V19

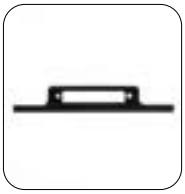
Optional

Synthetic Rope
SKU: PWSY3712

Wireless Control
SKU: PWLD7

Winch protector Cover
SKU: PWTR070

Aluminum Hawse Fairlead
SKU: PWBHAW2



Mounting Plate
SKU: PWLD013

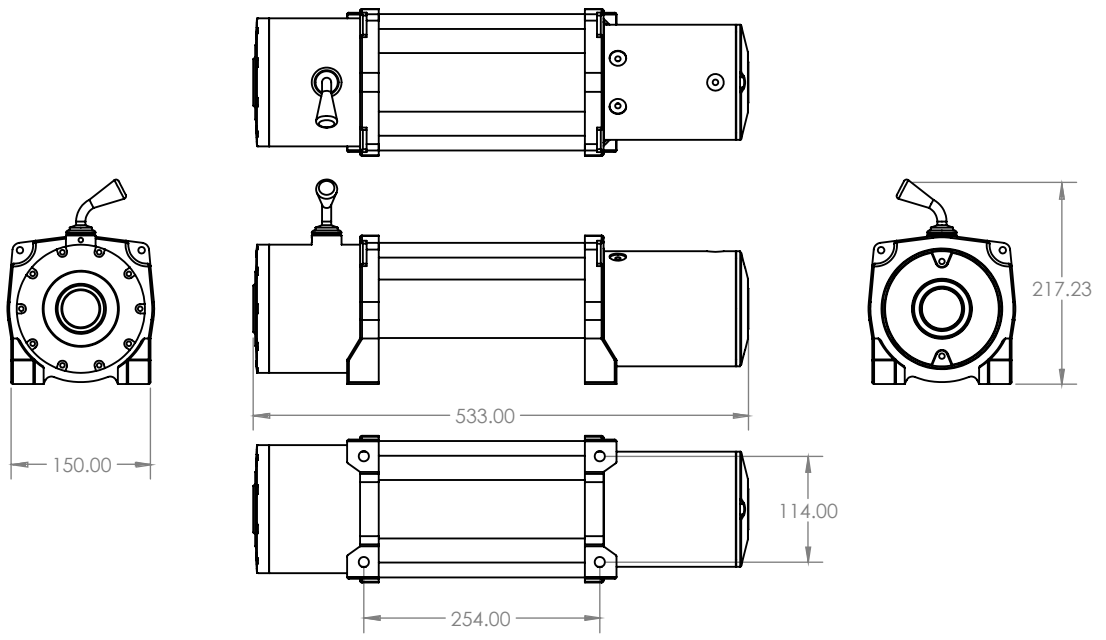
Winch Pulley
SKU: PWLD004

Quick Connector
PWQC77

Winch Portable
SKU: PWLD011

Universal Switch
SKU: PWLD2

Technical Specifications



Dimensions in mm

PWLD20000Ai 12V / 24V

Code		PWLD12000Ai 12V	PWLD12000Ai 24V
Wire Rope Capacity	Lb	20,000	20,000
Speed /min	Ft	3.4~17	3.4~17
Duty Class		Recovery	Recovery
Motor/Engine Power	HP	6.6	6.6
Voltage	VDC	12	24
Control		Wired Remote Control	Wired Remote Control
Gear Ratio		544:1	544:1
1st Layer Load Capacity	Lb	12,000	12,000
Number of Speeds		1 Speed	1 Speed
Wire Rope Included		Steel ø1/2 in x 72 ft | ø13 mm x 22 m	Steel ø1/2 in x 72 ft | ø13 mm x 22 m
Total Weight	Lb	138	138

Warranty 3 year included

Accessories

Included


Wire Rope
SKU: PWCA9X26


Steel Forged Hook
SKU: PW-Z41104101


Roller Full Drum
SKU: PWTR950099


Hardware
SKU: PWLD600017


Remote Control
SKU: PWHP11


Power Cord


Solenoid Box
PWLD3000Ai24V19

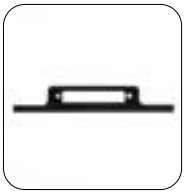
Optional


Synthetic Rope
SKU: PWSY3712


Wireless Control
SKU: PWLD7


Winch protector Cover
SKU: PWTR070


Aluminum Hawse Fairlead
SKU: PWBHAW2


Mounting Plate
SKU: PWLD013

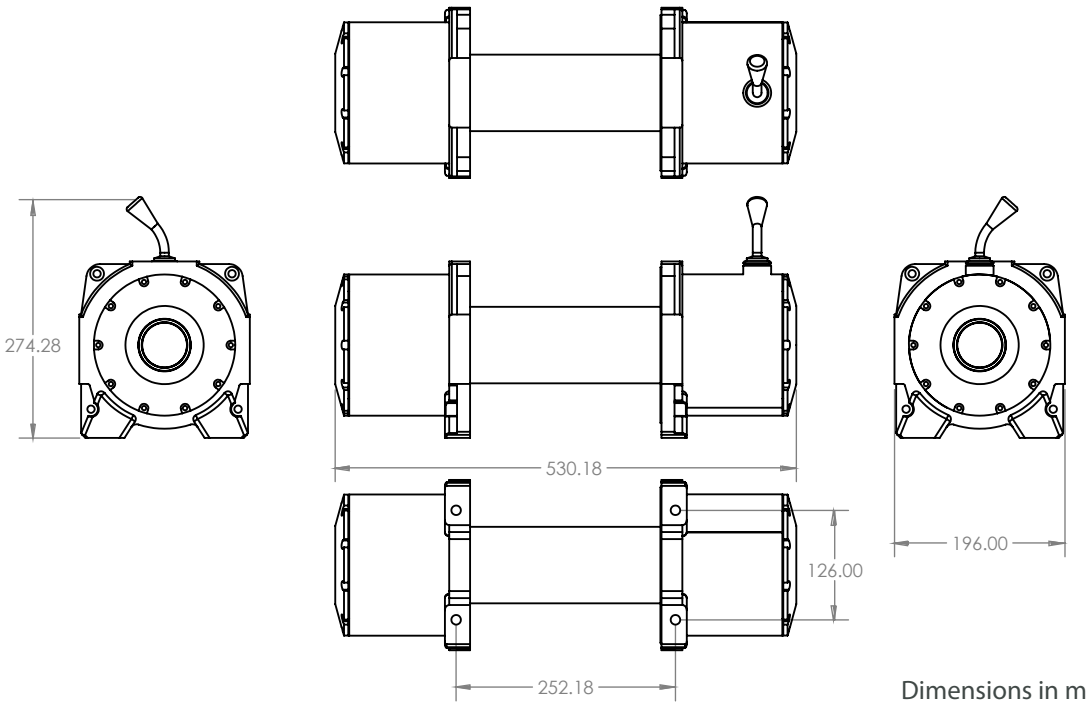

Winch Pulley
SKU: PWLD004


Quick Connector
PWQC77


Winch Portable
SKU: PWLD011


Universal Switch
SKU: PWLD2

Technical Specifications



Dimensions in mm

PWLX20000i 12V / 24V

Code		PWLX20000i 12V	PWLX20000i 24V
Wire Rope Capacity	Lb	20,000	20,000
Speed /min	Ft	3.4~17	3.4~17
Duty Class		Recovery	Recovery
Motor/Engine Power	HP	6.6	6.6
Voltage	VDC	12	24
Control		Wired Remote Control	Wired Remote Control
Gear Ratio		544:1	544:1
1st Layer Load Capacity	Lb	20,000	20,000
Number of Speeds		1 Speed	1 Speed
Wire Rope Included		Steel ø9/16 in x 85 ft | ø14 mm x 26 m	Steel ø9/16 in x 85 ft | ø14 mm x 26 m
Total Weight	Lb	182	182

Warranty 3 year included

Accessories

Included

Wire Rope
SKU: PWCA9X26

Steel Forged Hook
SKU: PW-Z41104101

Roller Full Drum
SKU: PWTR950099

Hardware
SKU: PWLD600017

Remote Control
SKU: PWHP11

Power Cord

Solenoid Box
PWLD3000Ai24V19

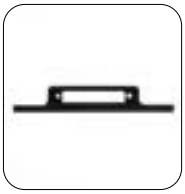
Optional

Synthetic Rope
SKU: PWSY3712

Wireless Control
SKU: PWLD7

Winch protector Cover
SKU: PWTR070

Aluminum Hawse Fairlead
SKU: PWBHAW2



Mounting Plate
SKU: PWLD013

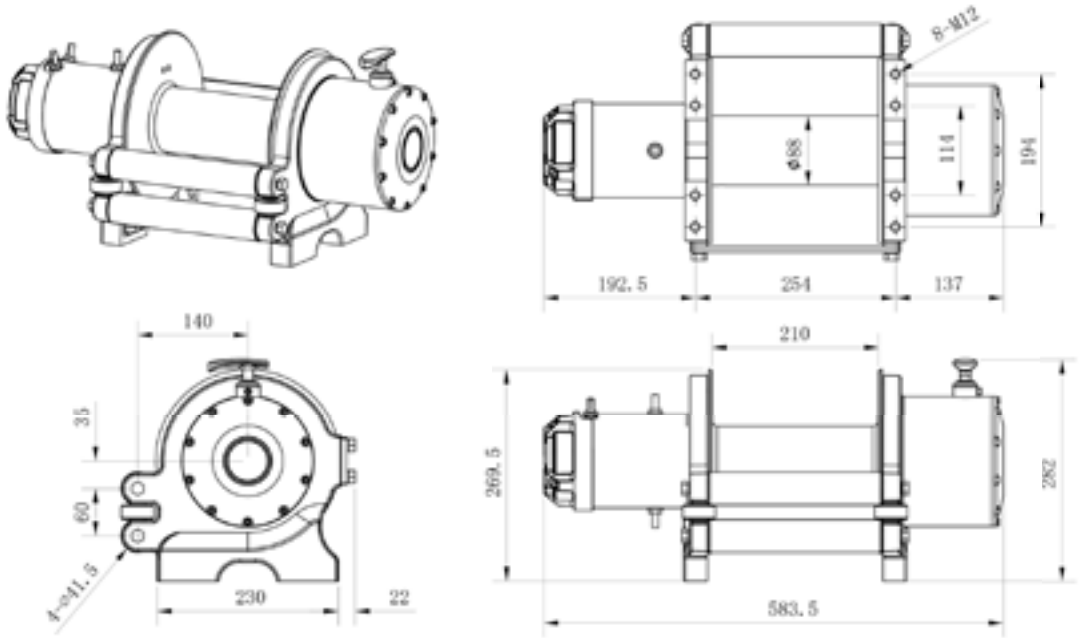
Winch Pulley
SKU: PWLD004

Quick Connector
PWQC77

Winch Portable
SKU: PWLD011

Universal Switch
SKU: PWLD2

Technical Specifications



Dimensions in mm