

Vehicle Recovery Electric Winch DC

FITTING INSTRUCTIONS

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😊 Thanks for purchasing our winch. We hope you have a pleasant experience during the winch operations, and the performance of the winch will make you to be proud of the owning of it.

ABBREVIATIONS

The winch from us has some features that are particular from the similar winches existing in the market. A full understanding of these features is very important, and helpful to your operations. These features are described collectively as below Abbreviations:

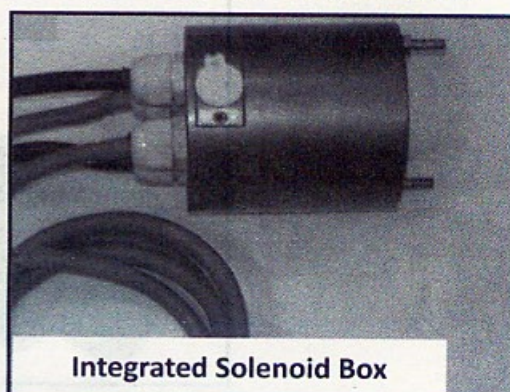
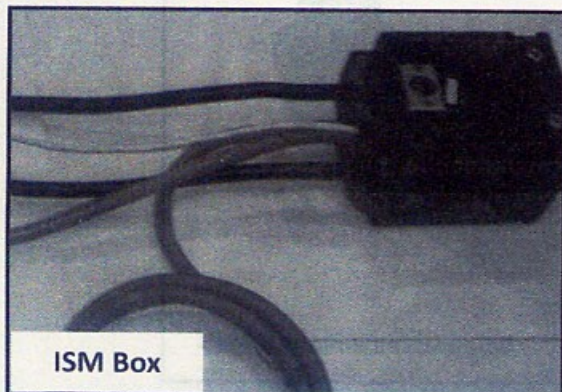
1. **The Permanent Pressure Carbon Brush Structure (PPCB).** PPCB is the description of the improved structure of the carbon brush frame. Based on this improved carbon brush frame, the carbon brushes will always touch the motor rotor fully even in case of being worn out after a certain period of use. If the carbon brushes cannot touch the motor rotor fully in case of being worn out, it may cause a power lose to the winch motor. While power lose leads to a pulling capacity decrease.
2. **Bi-directional Electromagnetic Braking System (BE Braker).** BE Braker is the automatic braking system inside winch motor. BE Braker functions automatically either pulling IN or pulling OUT (with the clutch fully engaged).

When BE Braker functions, the braking force is always fixed as set, which is different from the situation of the similar winches that have the normal automatic braking system inside winch drum. For example, when a 9500lbs winch with BE Braker (max. rated pulling capacity: 9500lbs) is pulling a load of 9500lbs, the braking force is 9500lbs numerically as set when the BE Braker functions. When this winch is pulling a load of 6000lbs, the braking force is still 9500lbs numerically as set when the BE Braker functions.

For the winches having the automatic braking system inside winch drum, normally the braking force numerically equals to the load the winch is working. For example, when a 9500lbs winch with the automatic braking system inside winch drum (max. rated pulling capacity: 9500lbs) is pulling a load of 9500lbs, the braking force is 9500lbs numerically when the braking system functions; When this winch is pulling a load of 6000lbs, the braking force however is 6000lbs numerically when the braking system functions.

Since BE Braker is NOT inside winch drum, it will NOT heat winch drum. The heating of winch drum by the normal braking system inside winch drum can be a problem to the winch fiber ropes.

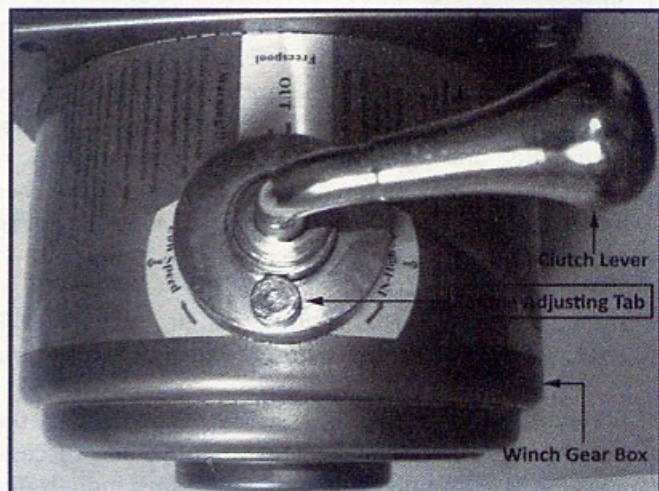
3. **Clutch System 100%.** This is the description of the improved clutch system that allows full gears engagement or disengagement smoothly and successfully by shifting the clutch lever each time. Clutch System 100% is only available to the winch models from "Top-Value Series".
4. **Solenoid Box with ISM inside (ISM Box).** ISM is an Integrated Solenoid specially developed for vehicle recovery winch, to switch ON, switch OFF and to changeover motor running directions. ISM Box has the ISM inside and a higher efficiency can be achieved due to less electrical connections inside. Also, half part of ISM is left outside the control box, which helps to radiate heat caused to ISM to ensure a longer life span.



5. **Integrated Solenoid Box.** Integrated Solenoid Box is another specially developed solenoid box for vehicle recovery winch with complete metal structure. This Integrated Solenoid Box works like four solenoids inside (actually there is no special solenoid inside) to ensure the utmost reliability under different conditions.
6. **Free of Solenoid Box.** There is no special external solenoid Box to some winch models. For example, the 7000lbs winch from the "Top-Value Series". The remote control can be connected directly to the receptacle on the winch motor for controls.
7. **Intelligent Handheld Controller.** This remote control offers the function of monitoring the vehicle battery conditions and let the operator know by the indicators.
8. **Adjustable Torque Limiter (ATL).** Torque Limiter is a part works like some kind of mechanical protector. In case the winch is over-loaded, the torque limiter (if the winch has it) will function immediately, when the winch motor will keep turning, not being stalled, and the gears will stop. Being stalled means the state that the winch motor will not turn in case of being over-loaded, when extra current may be raised, which is easy to get the motor or the solenoid burnt out.

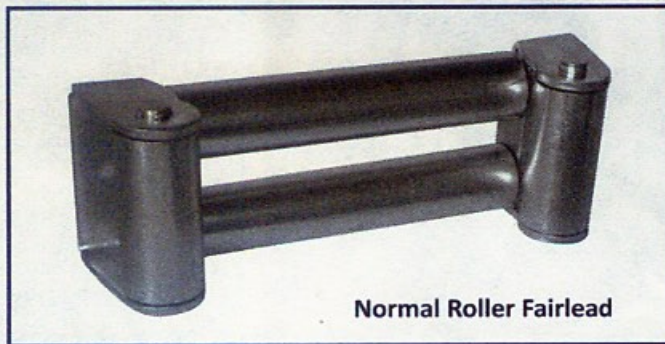
However, the max. rated capacity of the winch will decrease due to the decrease of the torque set to the winch Torque Limiter if it functions too frequently, or functions for long each time. In this case, normally the best solution is to replace the Torque Limiter by a NOT used one.

ATL offers the improved solutions. In case obviously the winch pulling capacity decreases, and the decrease is found to be caused by the torque limiter, it's possible for the operator to move the **torque adjusting tab** slightly to recover the torque of the torque limiter so as to recover the pulling capacity of the winch, not to change a new torque limiter.



9. **Compressed 4-way roller fairlead.** One of the most important features of the compressed 4-way roller fairlead is the minimum thickness, which is very important to the fairlead mount sometimes due to the space limitation.





Normal Roller Fairlead

10. **Top-Value Series.** Top-Value Series is the collective name for the winches carrying the common features as below:

- a) 6.0HP Series Wound Motor;
- b) PPCB;
- c) BE Braker;
- d) Clutch System 100%;
- e) There are only two movements for the Clutch System, one is "IN" and the other is "OUT".
- f) ISM Box
(Note please: the current 7000lbs is Free of Solenoid Box.);
- g) Intelligent Handheld Controller;
- h) ATL;
- i) Compressed 4-way roller fairlead;



7000lbs, 12V winch (model Name: X7.0) from Top-Value Series, which is Free of Solenoid Box.

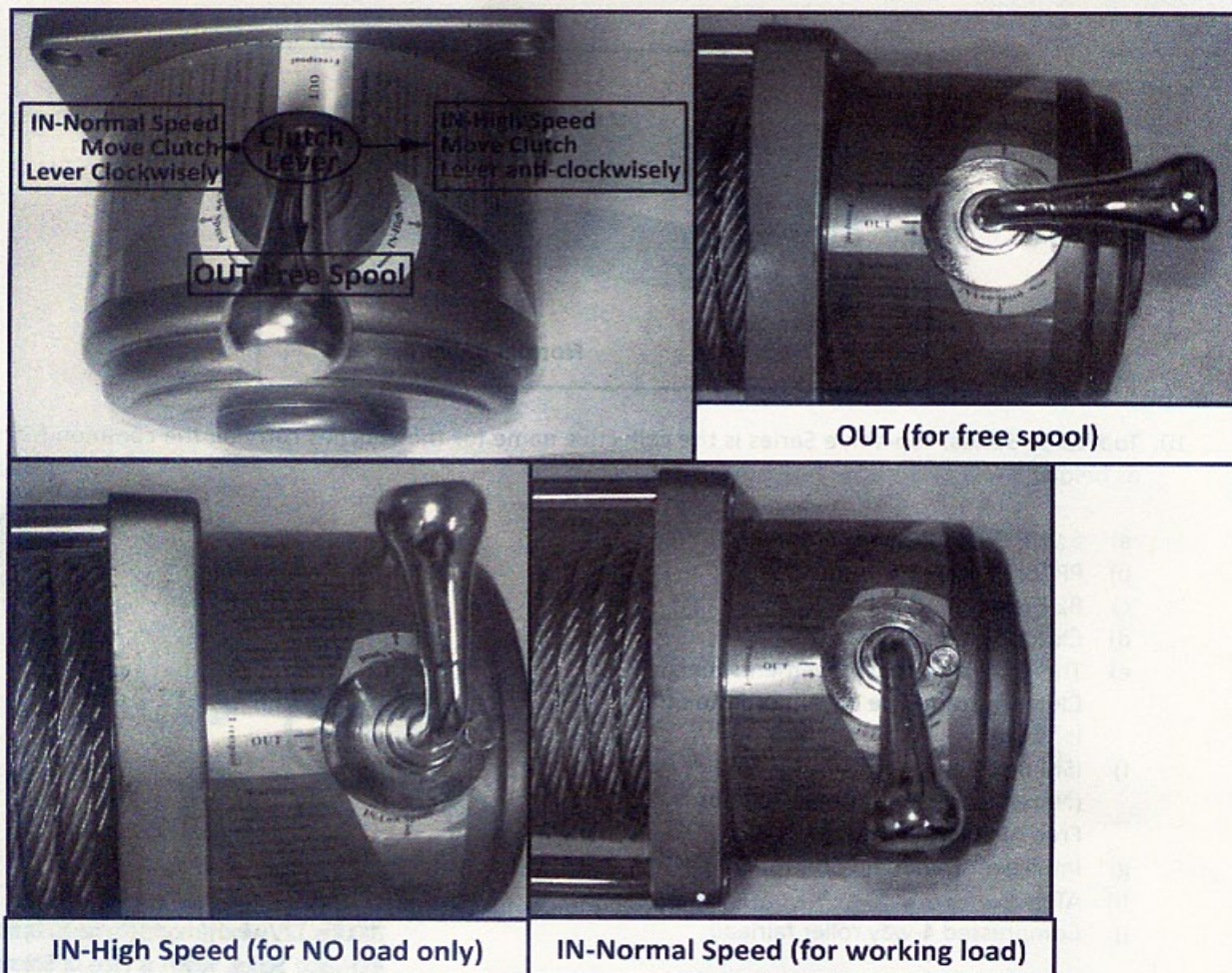
The available pulling capacity varies from 7000lbs to 12000lbs currently.

Note please: the common features stated here is for reference only. Change may happen accordingly due to various conditions without prior notice by the manufacturer. For detail information, please kindly check with the agent/distributor from whom you purchase the winch. Thank you.

11. **Two-Speed Series.** Two-Speed Series is the collective name for the winches carry the common features as below:

- a) 6.0HP Series Wound Motor;
- b) PPCB;
- c) BE Braker;
- d) ISM Box
- e) Intelligent Handheld Controller;
- f) ATL;
- g) Compressed 4-way roller fairlead;
- h) Two gear ratios and two available speed system. One is for high speed at **No Load**. The other is for normal speed Under Load. For a quick rope spool in or pay out **under no load**, the operator can move the clutch lever to the position "**IN-High Speed**". (Also, the clutch lever can be moved to the position "**OUT**" for a quick rope pay out **under no load**.)





Warning! To work a load by your winch, the clutch lever **MUST** be moved to the position "IN-Normal Speed" and the clutch must be fully engaged.

The available pulling capacity varies from 8500lbs to 12000lbs presently.

Note please: the common features stated here is for reference only. Change may happen accordingly due to various conditions without prior notice by the manufacturer. For detail information, please kindly check with the agent/distributor from whom you purchase our winch. Thank you.

GENERAL SAFETY PRECAUTIONS

Warning! Observe the General Safety Precautions for personal safety and the safety of others. Improper equipment operation may lead to personal injury and equipment damage. Read the followings carefully before your attempt to operate your winch, and keep the Fitting Instructions for future reference.

1. Dress Properly
 - Do NOT wear loose clothing or jewelry, which can be caught in moving parts.
 - Wear leather gloves when handling winch rope. Do NOT handle rope by bare hands as broken wires can cause injuries.
2. Keep a Safe Distance
 - Make sure that all persons stand well clear of winch cable and the load during winch operations. 1.5 times of the cable length is recommended. If a cable pulls loose or breaks under load, it can lash back

and cause serious personal injury or death.

- Never step over the cable.
 - All visitors and onlookers should be kept away from the work area.
 - Keep proper footing and balance at all times.
3. Do NOT abuse the cord
- Never carry the winch by the cord or yank it to disconnect it from the receptacle.
 - Keep cord from heat, oil and sharp edges.
4. Do NOT overwork the winch
- If the winch motor becomes uncomfortably hot to touch, stop and let it cool for a few minutes.
 - Do NOT maintain power to the winch in case the motor stalls.
 - Do NOT exceed maximum line pull ratings shown in the Specifications. Shock loads must not exceed these ratings.
5. Avoid Unintentional Starting
- Winch clutch should be DISENGAGED when not in use while fully ENGAGED when in use.
6. Check Damaged Parts
- Before any operation, you should check your winch carefully. Any part damaged should be properly repaired with identical part by the competent technical.
 - When repairing, bear in mind that only identical replacements can be used. Otherwise, it may cause considerable danger to the operator.
7. Re-spool the Cable
- Leather gloves must be worn while re-spooling. To re-spool correctly, it is necessary to keep a slight load on the cable. Hold the cable with one hand and hold the remote control switch with the other. Start as far back and in the center as you can. Walk up by keeping load on the winch cable as the winch is powering in.
 - Do NOT allow the cable to slip through your hand and do NOT approach the winch too closely.
 - Turn off the winch and repeat the above stated procedures until all the cable except one (1) meter is in.
 - Disconnect the remote control switch and finish spooling in cable by rotating the drum by hand with clutch disengaged.
 - For hidden winches, spool in cable under power but keep hands clear.

Warning! The use of any other accessory or attachment other than those recommended in the Fitting Instruction may present a risk of personal injury.

WINCH OPERATION WARNINGS

Warning! Observe the Winch Operation Warnings for personal safety and the safety of others. Improper operation may lead to personal injury and equipment damage. Read the followings carefully before your attempt to operate your winch, and keep the Fitting Instructions for future reference.

- The uneven spooling of cable, while pulling a load, is not a problem, unless there is a cable pile up on one end of the drum. If this happens, reverse the winch to relieve the load and move your anchor point further to the center of the vehicle. After the job is done, you can unspool and rewind for a neat layer of the cable.
- Store the remote control switch inside your vehicle where it will not become damaged. Inspect it before you plug it in.
- When ready to begin spooling in, plug in remote control switch with clutch disengaged. Do NOT engage

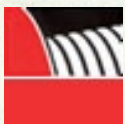


clutch with motor running.

- Never connect the hook back to the cable. This will cause cable damage. Always use a sling or chain of suitable strength.
- Observe your winch while winching if possible and stand at a safe distance. Stop the winching process every meter or so assure the cable is not piling up in one corner. Jamming the cable can break your winch.
- Do not attach tow hooks to winch mounting apparatus. They must be attached to vehicle frame.
- The use of a snatch block will aid recovery operations by providing a doubling of the winch capacity and a halving of the winching speed, and the means to maintain a direct line pull to the center of the rollers. When double load during stationary winching, the winch hook should be attached to the chassis of the vehicle.
- Ensure rated "D" or Bow shackles are used in conjunction with an approved tree trunk protector to provide a safe anchor point.
- When extending winch cable, ensure that at least five (5) wraps of cable remain on drum at all times. Failure to do this could result in the cable parting from the drum under load. Series personal injury or property damage may result.

Warning! If you are going to replace the steel wire rope by any kind of winch fiber rope, please make sure firstly this fiber rope can withstand the maximum capacity of your winch. And be sure to observe the instructions offered by the winch fiber rope manufacturer. Closest attention should be paid to the wraps should be remained on winch drum, and the connection of the fiber rope with the winch drum.

- The winches from us are provided with a Red Cable marking to identify that five (5) cable wraps remain on the winch drum when this mark appears at the rollers. No recovery should be attempted beyond this marking.
- Since the greatest pulling power is achieved on the inner most layer of your winch, it is desirable to pull off as much line as you can for heavy pulls. However, you must leave at least five (5) wraps minimum on the drum. If this is not practical, use a snatch block and double line arrangement to assist.
- Draping a heavy blanket or similar object over the extended winch cable is recommended as it will dampen any lash-back should a failure occur.
- Neat, tight spooling avoids cable blinding, which is caused when a load is applied and the cable is pinched between the rollers. If this happens, alternatively power the winch in and out. Do NOT attempt to work a bound cable under load free by hand.
- Apply blocks to wheels when vehicles are on an incline.
- Battery:
 - Be sure that the battery is in good condition. Avoid contacting with battery acid or other contaminants.
 - Always wear eye protection when working around a battery.
 - Have the engine running when using the winch to avoid flattening the battery.
- Winch Cable:
 - Be sure that the cable is in good condition and is attached properly.



- Do NOT use the winch if the cable is frayed.
- Do NOT move the vehicle to pull a load.
- Do NOT replace the cable with a cable of less strength.
- The life of the cable is directly related to the use and care it receives. Following its first and subsequent uses, a cable must be wound on to the drum under a load of at least 500lbs (230kgs) otherwise the outer wraps will draw into the inner wraps and severely damage the cable during winching. The first winch use should be a familiarization run while in a relaxed, non-recovery situation. Spool out the cable until the red cable mark appears (around **five** wraps on the drum), then rewind the cable onto the drum under a load of 500lbs (230kgs). This will slightly tension and stretch the cable and create a tight cable wrap around the drum. Failure to do so may result in cable damage and reducing cable life.

- Do NOT attempt to exceed the pulling limits of this winch.
- Do NOT drive your vehicle to assist the winch in any way. Vehicle movement in combination with winch operation may overload the cable, the winch itself or cause damaging shock loads.
- Shock loads when winching are dangerous. A shock load occurs when an increased force is suddenly applied to the cable. A vehicle rolling back on a slack cable may induce a damaging shock load.
- The winches shown in this Fitting Instructions are solely for vehicle and boat, non-industrial applications.
- NEVER use winch in hoisting applications due to required hoist safety factors and features.
- Do NOT use the winch to lift, support or transport personnel.
- Do NOT attempt to move the winch by lifting the clutch handle.
- The Clutch System 100% is not used for Two-Speed Series winches. In case occasionally it is difficult to make the gears engaged by shifting the clutch lever, please press the button "IN" and "OUT" on the remote control switch by one hand, and move the clutch lever by the other hand on the meanwhile, trying to find the place to get the gears engaged fully. **But bear in mind please the operations stated here should be made without any load to the winch.**

INSTALLATION

Mount Your Winch

The winch is to be mounted into a suitable steel mounting frame using the 4 point foot mounting system in either a horizontal or vertical plane. It's 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. Before commencing installation, ensure the mounting facility being used is capable of withstanding the winches' maximum rated capacity. The fitment of winches and / or a frontal protection system may affect the triggering of SRS air bags. Check that the mounting system has been tested and approved for winch fitment in the air bag equipped vehicle.

Should you manufacture your own mounting plate, the winch dimensions and mounting bolts pattern will assist, which are shown in the Features and Specifications. A steel mount plate of 6mm thick is recommended. Fasteners should be steel high tension grade 5 or better. A poor designed mount may cause danger and void warranty.

The winch should be secured to the mounting bolt with the steel bolts and spring washers provided. The fairlead is to be mounted so as to guide the rope onto the drum evenly.



Lubrication

All moving parts in the winch are permanently lubricated with high temperature lithium grease at the time of assembly. Under normal conditions, factory lubrication will suffice.

Lubricate cable periodically using light penetrating oil. Inspect for broken strands and replace if necessary. Warning! If cable becomes worn or damaged, it must be replaced.

Cable Installation

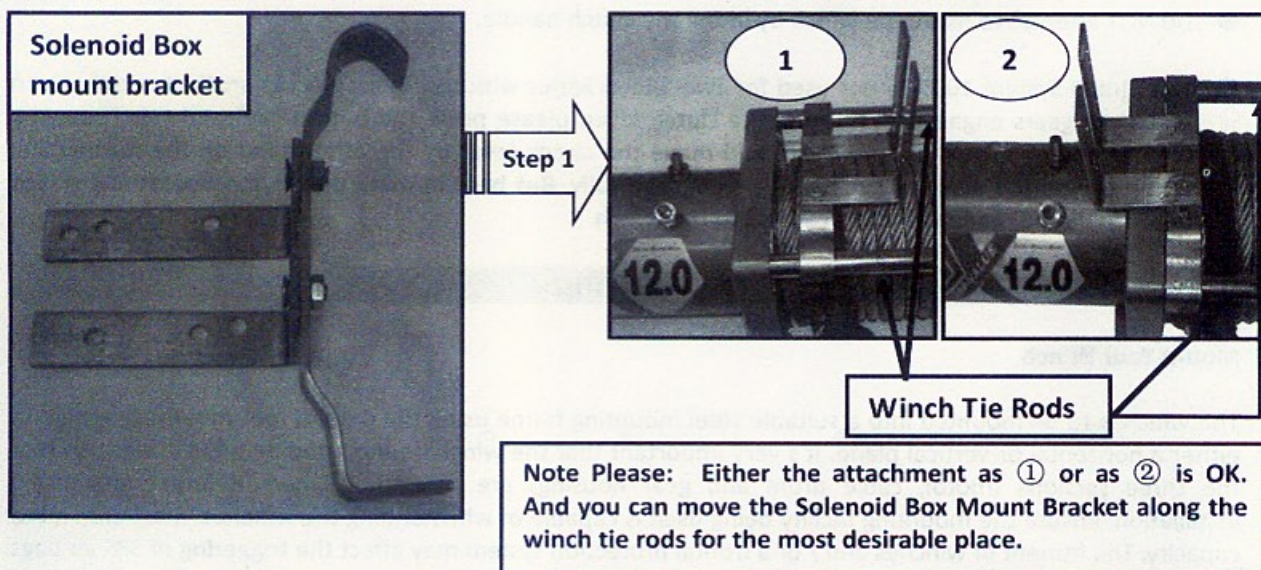
Unwind the new cable by rolling it along the ground, to prevent kinking. Remove old cable and observe the manner in which it is attached to the cable drum flange.

Warning! If you are going to replace the steel wire rope by any kind of winch fiber rope, please make sure firstly this fiber rope can withstand the maximum capacity of your winch. And be sure to observe the instructions offered by the winch fiber rope manufacturer. Closest attention should be paid to the wraps should be remained on winch drum, and the connection of the fiber rope with the winch drum.

Mount the Solenoid Box

Note please: The Solenoid Box can be attached to the winch, or the vehicle in various ways. The way offered in this Fitting Instructions is only one of them. The most practical and desirable solutions should be decided according to the actual situations during winch mount, and maybe a suitable solenoid box mount bracket needs to be found by yourself.

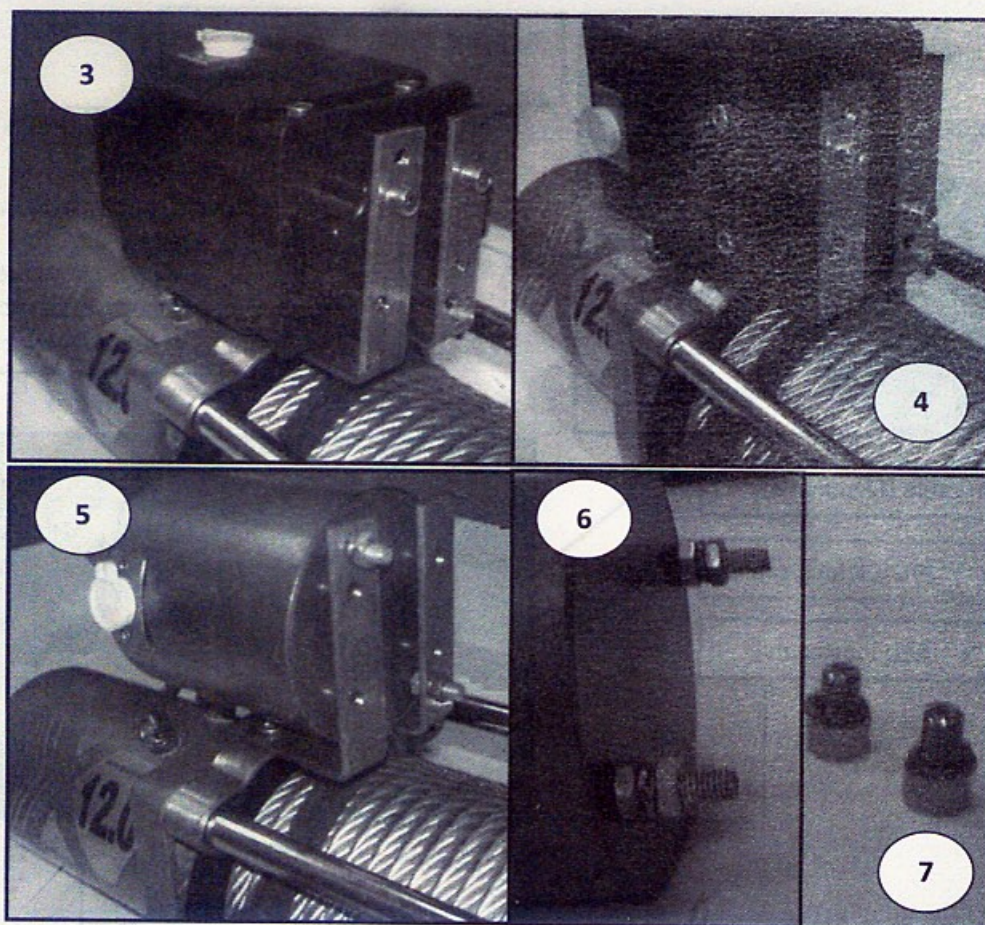
Step 1. Attach the solenoid box mount bracket to the desirable place on the winch tie rods.



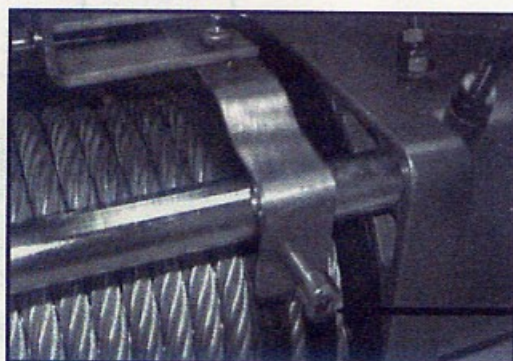
Step 2. Attach the solenoid box (the **ISM Box**, or the **Integrated Solenoid Box**, or the **Universal Wireless Control Box Unit**) to the solenoid box Mount Bracket by the bolts or screws offered.

Picture ③ and ④ in the below indicate the attachment between the **ISM Box** and Mount Bracket. Both of these two attachments are OK. The way to attach the **Universal Wireless Control Box Unit** is as same as the way to attach the ISM Box. Picture ⑤ in the below indicates the attachment between the **Integrated Solenoid Box** and Mount Bracket. Picture ⑥ in the below shown the screws to secure the Integrated Solenoid Box to the Mount Bracket. These screws are provided together with the Integrated Solenoid Box. Picture ⑦ in the below shown the bolts to secure ISM Box (or the Universal Wireless Control Box Unit) to the Mount Bracket. These bolts are provided together with ISM Box (or the Universal Wireless Control Box

Unit).



Step 3. Secure the mount bracket to the tie rods by the bolt.



the bolt to secure the mount bracket to winch tie rods.

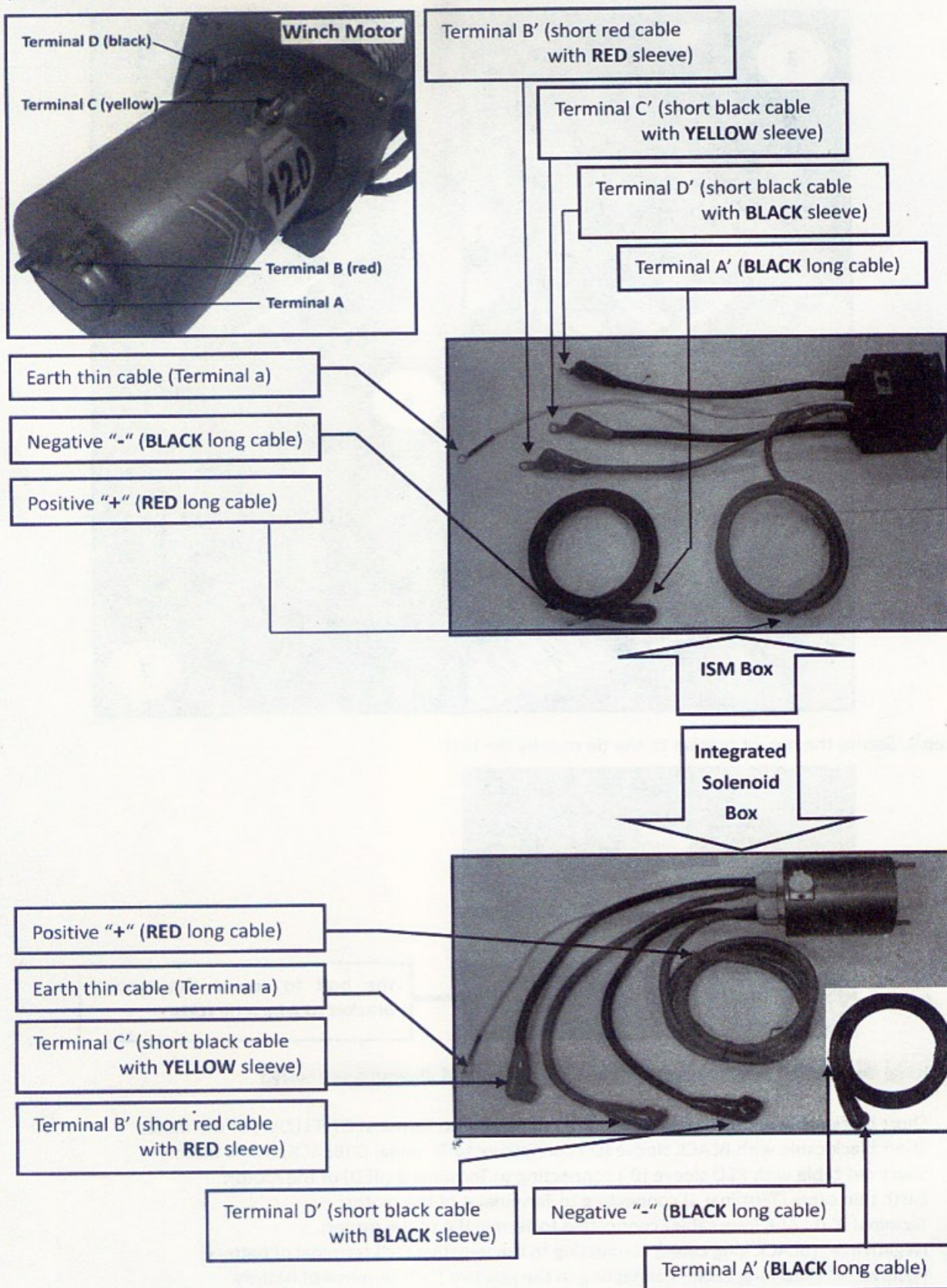
Electrical Connection (Please refer to below literatures and diagrams seriously.)

1. Short black cable with YELLOW sleeve (C') connecting to Terminal C (YELLOW) of the motor;
2. Short black cable with BLACK sleeve (D') connecting to Terminal D (BLACK) of the motor;
3. Short red cable with RED sleeve (B') connecting to Terminal B (RED) of the motor;
4. Earth thin cable (Terminal a) connecting to Terminal A of the motor;
5. Terminal A' (BLACK long cable) connecting to Terminal A of the motor;
6. Negative "-" (BLACK long cable) connecting to the negative ("-") terminal of battery;
7. Positive "+" (RED long cable) connecting to the positive ("+") terminal of battery.

Warning! All the connections should be fastened enough with the screws and washer springs tightly. A



poor connection may cause spark or even short during winch operations.



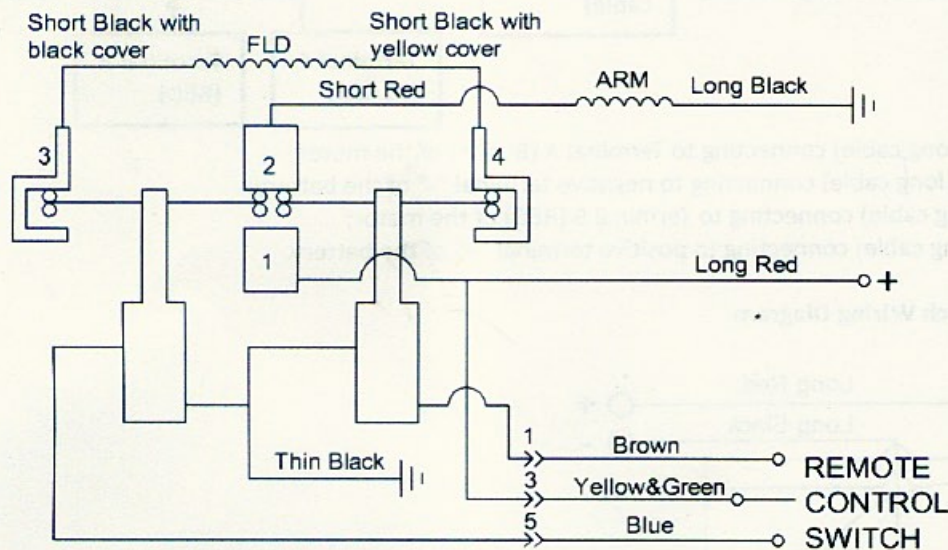
The electrical connection for the Universal Wireless Control Box Unit is as the same way as which for ISM

Box.

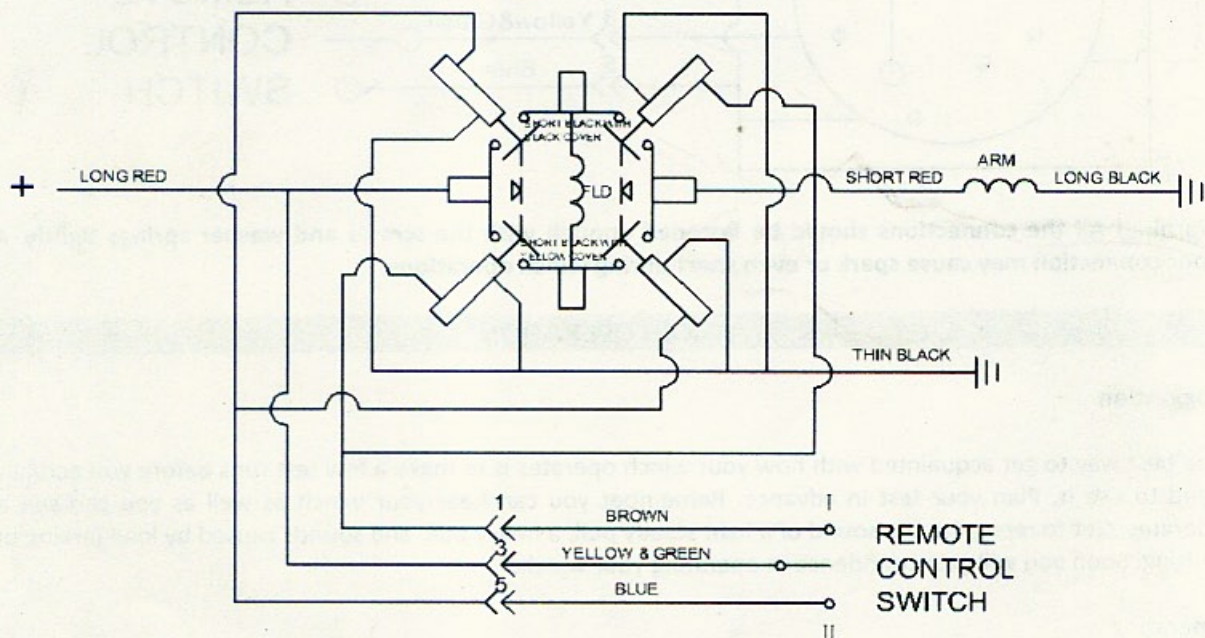
Note:

- Your battery must be kept in good condition.
- Be sure battery cables are not drawn taught across any surfaces, which could possibly damage them.
- Corrosion on electrical connections will reduce performance or may cause a short.
- Clean all connections especially in remote control switch and receptacle.
- In salty environments use a silicon sealer to protect from corrosion.
- Attach the winch /adaptor plate assembly to your trailer hitch, by inserting the trailer hitch ball through the shaped hole in the adaptor plate.

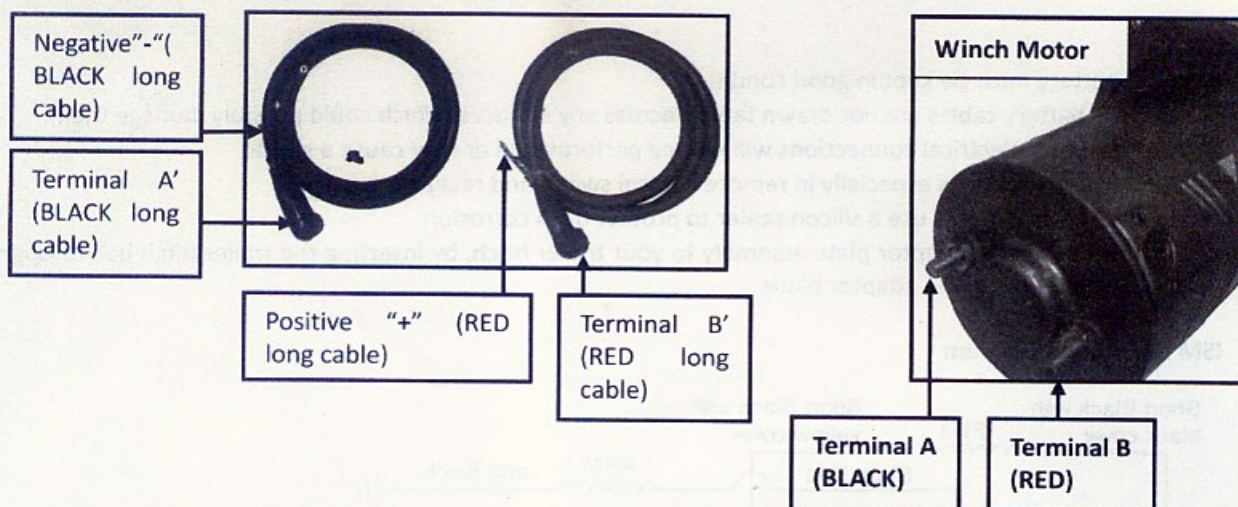
ISM Box Wiring Diagram



Integrated Solenoid Box Wiring Diagram

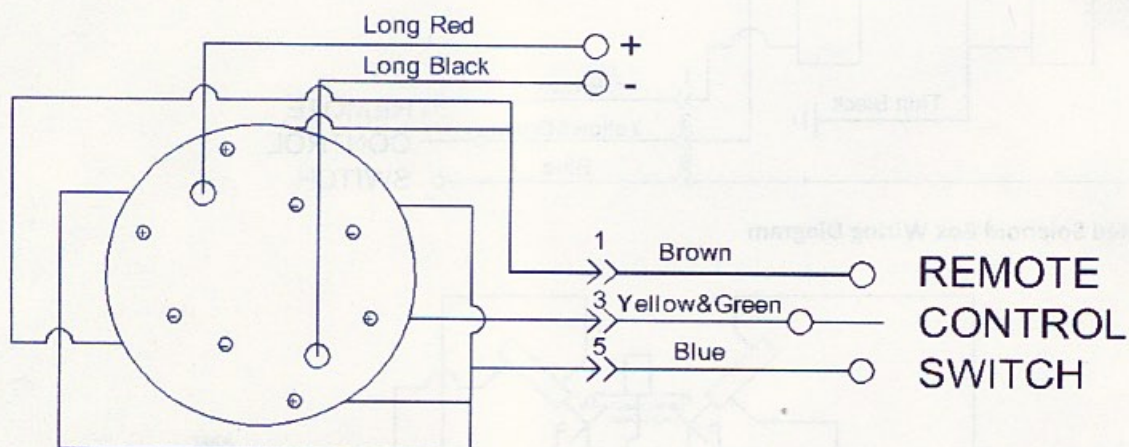


Electrical Connection for the winch (7000lbs,12V, model name: X7.0) Free of Solenoid Box.



1. Terminal A' (BLACK long cable) connecting to Terminal A (BLACK) of the motor;
2. Negative "-" (BLACK long cable) connecting to negative terminal "-" of the battery;
3. Terminal B' (RED long cable) connecting to Terminal B (RED) of the motor;
4. Positive "+" (RED long cable) connecting to positive terminal "+" of the battery.

7000lbs, 12V (X7.0) Winch Wiring Diagram



Warning! All the connections should be fastened enough with the screws and washer springs tightly. A poor connection may cause spark or even short during winch operations.

WINCH OPERATION

Suggestion

The best way to get acquainted with how your winch operates is to make a few test runs before you actually need to use it. Plan your test in advance. Remember you can hear your winch as well as you can see it operates. Get to recognize the sound of a light steady pull, a heavy pull, and sounds caused by load jerking or shifting. Soon you will gain confidence in operating your winch.

Operating

1. Ensure the vehicle is secured by applying the parking brake or chocking the wheels.

2. Pull out desirable length of winch cable and connect to an anchor point. **Warning! You must leave at least five (5) wraps minimum on the drum.** The winch clutch allows rapid uncoiling of the cable for hooking onto the load or anchor point. The clutch lever is located on the gear box housing of the winch. Operate the clutch as follows:

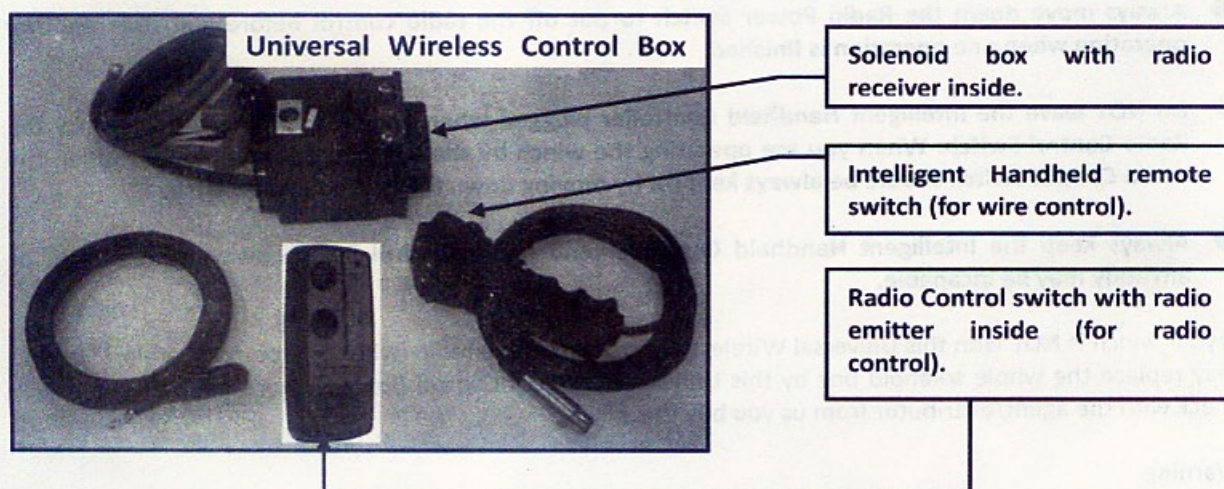
- a) To disengage the clutch, move the clutch lever to the "OUT" position. Cable can be freely pulled off the drum by hand.
- b) To engage the clutch, move the clutch lever to the "IN" position. The winch is now ready for pulling. **Warning! The clutch must be engaged fully for pulling.**

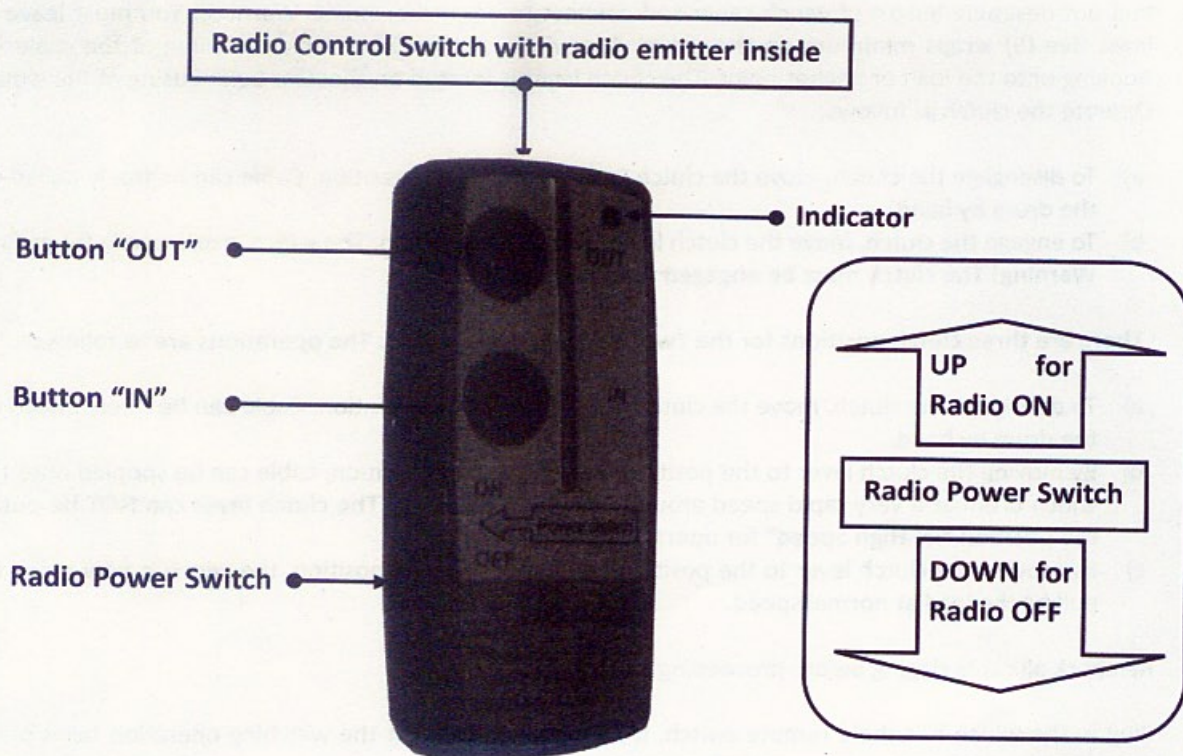
There are three clutch positions for the Two-Speed Series winches. The operations are as follows:

- a) To disengage the clutch, move the clutch lever to the "OUT" position. Cable can be freely pulled off the drum by hand.
 - b) By moving the clutch lever to the position "IN-High Speed" position, cable can be spooled onto the winch drum at a very rapid speed around 28m/min. **Warning! The clutch lever can NOT be put in the position "IN-High Speed" for operations under load.**
 - c) By moving the clutch lever to the position "IN-Normal Speed" position, the winch is now ready for pulling the load at normal speed.
3. Re-check all cable rigging before proceeding.
 4. Plug in the winch handheld remote switch. It's recommended that the winching operation takes place from the driver's position to ensure safe operation.
 5. To commence winching operation, start vehicle engine, select neutral in transmission, maintain engine speed at idle.
 6. Operate the handheld remote switch to IN or OUT until the vehicle has been retrieved. Regularly check the winch to ensure cable is winding onto the drum evenly. **Warning! A safe distance must be kept during operations for your safety.**

Radio (Wireless) Control Operation

The Universal Wireless Control Box Unit offers a radio (wireless) control as well as a wire control. If your winch is with this Universal Wireless Control Box Unit already, please refer to **Electric Connection** in this Fitting Instructions for proper electrical connection, and the wireless operations are as follows:





Step 1. Get the Universal Wireless Control Box well connected with the winch motor and the battery. Please refer to Electric Connection in this Fitting Instruction for the electrical connection.

Step 2. Move the Radio Power Switch to UP position for radio on.

Step 3. Get the winch gears engaged or disengaged, then press Button "IN" or "OUT" on the Radio Control Switch for power in or power out.

Warning!

- Always move down the Radio Power Switch to put off the radio control when your winch is not in use to avoid unintentional starting your winch, which will cause big danger to your property or person.
- Always move down the Radio Power Switch to put off the radio control before you start another operation when one operation is finished.
- Do NOT leave the Intelligent Handheld Controller plugged when you're operating the winch by the Radio Control Switch. When you are operating the winch by the Intelligent Handheld Controller, the Radio Control Switch should be always kept off by moving down the Radio Power Switch.
- Always keep the Intelligent Handheld Controller and Radio Control Switch away from a child or anybody may be incapable.

If your winch is **NOT** with this Universal Wireless Control Box and a radio (wireless) control is preferable, you may replace the whole solenoid box by this Universal Wireless Control Box. For more information, please check with the agent/distributor from us you buy the winch.

Warning

- Never winch your vehicle in gear or in park, which would damage your vehicle's transmission.

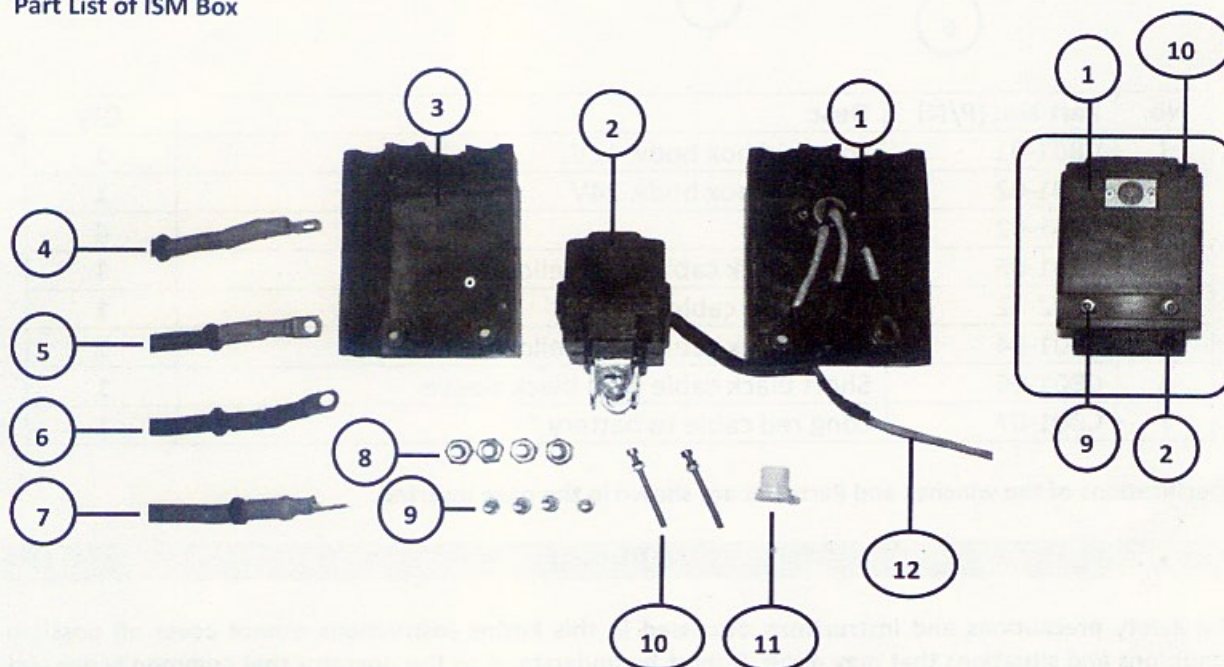
- Never wrap the cable around the objective and hook onto the cable itself. This can cause damage to the objective being pulled, and kink or fray the cable.
- Keep hands, clothing, hair and jewelry clear of the drum area and cable when winching.
- Never use the winch if the cable is frayed, kinked or damaged.
- Never allow anyone to stand near the cable, or in line with the cable behind the winch while it is under power. If the cable should slip or brake, it can suddenly whip back towards the winch, causing a hazard to anyone in the area. Always stand well to the side while winding.
- Do NOT leave the switch plugged in and take off power from battery when winch is not in use.

MAINTENANCE

It's strongly recommended that the winch be used regularly (around once a month). Simply power the cable out 15m, freely spool 5m and then power back in. This will keep all components in good working condition so that the winch can be relied on when needed. Contact the agent/distributor from whom you buy your winch for technical assistance and repairs.

A comprehensive range of spare parts is available. For further information, please contact the agent/distributor from whom you buy your winch.

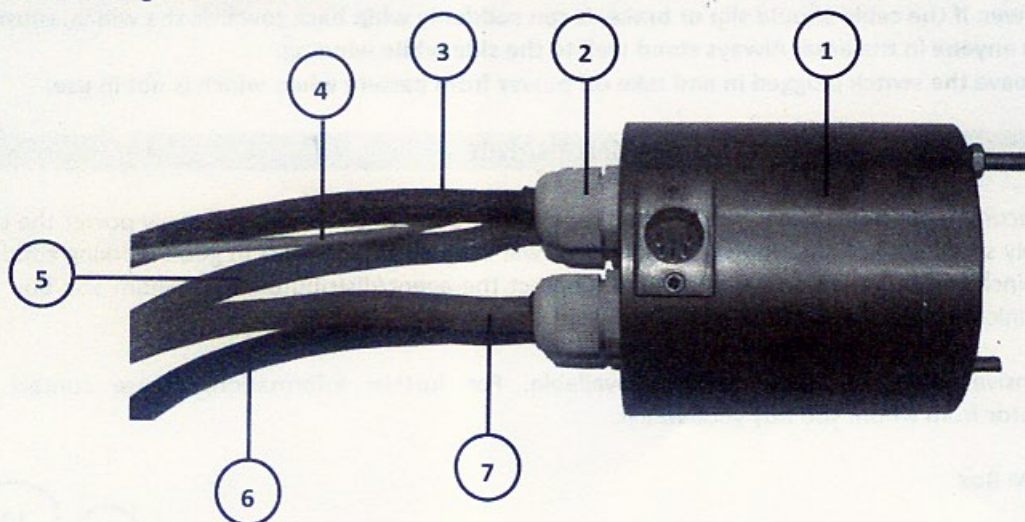
Part List of ISM Box



| No. | Part No. (P/N) | Desc | Qty |
|-----|----------------|---------------------------------------|-----|
| 1 | CB02-01 | Nylon cover + socket | 1 |
| 2 | ISM12 | ISM, 12V | 1 |
| | ISM24 | ISM, 24V | 1 |
| 3 | CB02-03 | Nylon Cover | 1 |
| 4 | CB02-04 | Short red cable with red sleeve | 1 |
| 5 | CB02-05 | Short black cable with yellow sleeve | 1 |
| 6 | CB02-06 | Short black cable with black sleeve | 1 |
| 7 | CB02-07 | Long red cable to battery "+" | 1 |
| 8 | CB02-08 | Bolts + Screw + Spring washer for ISM | 4 |
| 9 | CB02-09 | Bolts + Screw + Spring washer | 4 |

| | | | |
|----|---------|-------------------------------|---|
| 10 | CB02-10 | Bolts + Screw + Spring washer | 2 |
| 11 | CB02-11 | Dust Cover | 1 |
| 12 | CB02-12 | Earth thin cable | 1 |

Part List of Integrated Control Box



| No. | Part No. (P/N) | Desc | Qty |
|-----|----------------|--------------------------------------|-----|
| 1 | CB01-01 | solenoid box body, 12V | 1 |
| | CB01-02 | solenoid box body, 24V | 1 |
| 2 | CB01-02 | fastener | 4 |
| 3 | CB01-05 | Short black cable with yellow sleeve | 1 |
| 4 | CB02-12 | Earth thin cable | 1 |
| 5 | CB01-04 | Short black cable with yellow sleeve | 1 |
| 6 | CB01-06 | Short black cable with black sleeve | 1 |
| 7 | CB01-07 | Long red cable to battery "+" | 1 |

Specifications of the winches and Parts List are shown in the page inserted.

WARNING!

The safety precautions and instructions discussed in this Fitting Instructions cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors, which cannot be built into this product, but must be applied by the operator.



Thanks again.

Features & Specifications

| | |
|--------------------------------|---|
| Rated Line Pull | 12000lbs (5442kgs) Single-line |
| Motor | 6.0hp, 12V (24V) Series-Wound |
| Carbon Brush Ass'y | Permanent Pressure Carbon Brush Structure(PPCB) |
| Control | Intelligent Handheld Controller, 12' (3.7m) lead |
| Wireless Control | Not Included; Optional |
| Gear Train and Reduction Ratio | 3 stage planetary, 246.8:1 |
| Clutch | Sliding ring gear, Clutch System 100% |
| Torque Limiter | Included, Adjustable Torque Limiter (ATL) |
| Braking | Automatic, BE Braker in Motor |
| Drum Size | Diameter 2.5" (63.5mm); Length 8.82" (224mm) |
| Wire Rope | Diameter 3/8" (9.5mm); Length 94' (28.5m) |
| Fairlead | Compressed 4-way roller fairlead |
| Recommended Battery | 650CCA minimum for winching |
| Battery Leads | 25mm ² ; Length 72" (1.83m) |
| Control Box | ISM Box |
| Finish | Dark Grey |
| Weight | 84lbs(38kgs) |
| Overall Dimensions | (LxWxH)22.8" x 6.4" x 8.5" (580mmx162mmx216mm) |
| Mounting Bolt Pattern | 254mm x 114.3mm |

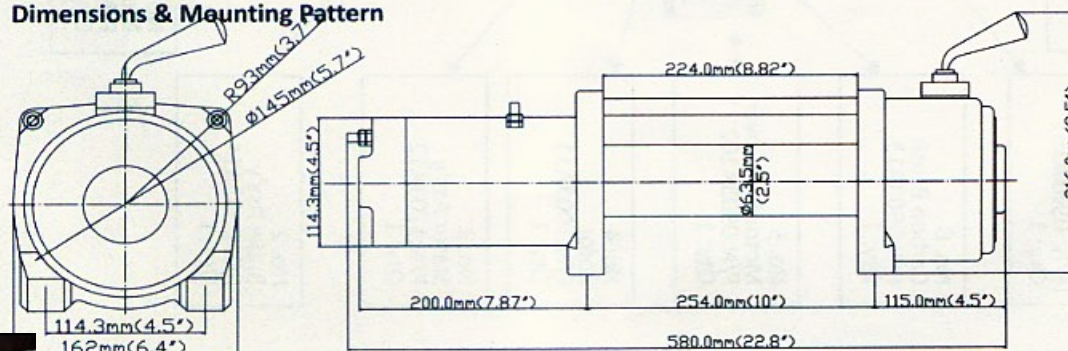
Line Speed & Amp Draw –First Layer

| Line pull | Lbs Kgs | | NO Load | 1500 | 3000 | 6000 | 9000 | 12000 |
|---------------|------------|-----|------------|------|------|------|------|-------|
| | | | | 680 | 1360 | 2718 | 4082 | 5442 |
| Line Speed | Ft/min | 12V | 23.6 | 13.8 | 11.8 | 9.2 | 6.9 | 4.6 |
| | | 24V | 26.6 | 16.7 | 14.1 | 11.5 | 9.2 | 6.9 |
| | M/min | 12V | 7.2 | 4.2 | 3.6 | 2.8 | 2.1 | 1.4 |
| | | 24V | 8.1 | 5.1 | 4.3 | 3.5 | 2.8 | 2.0 |
| Motor Current | Amps | 12V | 80 | 120 | 155 | 220 | 310 | 415 |
| | | 24V | 45 | 80 | 105 | 130 | 175 | 205 |

Line Pull & Cable Capacity

| Layer of cable | | 1 | 2 | 3 | 4 |
|----------------|-----|-------|------|------|------|
| Rated line | Lbs | 12000 | 9520 | 7890 | 6740 |
| Pull per | Kgs | 5442 | 4310 | 3570 | 3050 |
| Cumulative | Ft | 14.1 | 36.4 | 63.3 | 94 |
| Cable capacity | m | 4.3 | 11.1 | 19.3 | 28 |

Dimensions & Mounting Pattern



Part List

