





## **INSTRUCTION MANUAL**

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#### INSTALLATION INSTRUCTIONS

#### **APPLICATION:**

**PART NUMBER:** 401-89501 / 401-81201

ITEM	QUANTITY	DESCRIPTION	TOOLS NEEDED			
1	1	WINCH				
ANTI-SEIZE I LIBRIC ANT MUST BE USED ON ALL STAINLESS STEEL EASTENEDS TO DREVENT TUPEAD DAMAGE AND GALLING						

#### **General Safety Precautions**

Warning! Observe safety precautions for personal safety and the safety of others. Improper equipment operation may cause personal injury and equipment damage. Read the following carefully before attempting to operate your winch and keep the instructions for future reference.

#### 1. Dress Properly:

- Don't wear loose clothing or jewelry. They can get caught in moving parts.
- Wear leather gloves when handling winch cable. Do not handle cable with bare hands as broken wires can cause injuries.
- Non-skid footwear is recommended.
- Wear protective hair covering to contain long hair.

#### 2. Keep a Safe Distance:

- Be sure to stand well clear of the winch cable during winch operation; 1.5 times 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.
- Don't step over the cable.
- All visitors and onlookers should be kept away from the winching area.
- Keep proper footing and balance at all times.

#### 3. Don't Abuse the Cord:

- Never carry your winch by the cord or yank it to disconnect it.
- Keep cord from heat, oil and sharp edges.

#### 4. Don't Overwork the Winch

- If the motor becomes uncomfortably hot to touch, stop and let it cool for a few minutes.
- Don't maintain power to the winch if the motor stalls.
- Don't exceed the maximum line pull ratings shown in tables. Shock loads must not exceed these ratings.

#### 5. Avoid Unintentional Starting:

— Winch clutch should be disengaged when not in use and fully engaged when in use.

#### 6. Check Damaged Parts:

— Before using, you should check your winch carefully. Any part that is damaged should be properly repaired or replaced by an authorized service center.

#### 7. Repairing your Winch:

When repairing, use only identical replacement parts or it may cause considerable danger to the user.

#### 8. Re-spooling 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 the remote control switch with the other. Start as far back and in the center as you can.
   Walk up keeping load on the cable as the winch is powered on.
- Do not allow the cable to slip through your hand and do not approach the winch too closely.
- Disconnect the remote control switch and finish spooling in the cable by rotating the drum by hand with the clutch disengaged.
- On hidden winches, spool in the cable under power but keep hands clear.

Warning: The use of any other accessory or attachment other than those recommended in the Installation Instructions may present a risk of personal injury.

#### Winch Operation Warnings

Never operate the winch with less than 10 wraps of synthetic rope or 6 wraps of steel cable around the drum. The terminal end is to prevent the rope from unraveling, it is NOT a load bearing attachment point. Improper spooling out to the last layer will put a load on the terminal end and the rope will release from the terminal.

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

- 1. The uneven spooling of cable, while pulling a load, is not a problem unless the cable piles 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. After the job is done, you can un-spool and rewind to even out the cable layers.
- 2. Store the remote control switch inside your vehicle where it will not become damaged. Inspect it before you plug it in.
- 3. When ready to begin spooling in, plug in the remote control switch with clutch disengaged, do not engage the clutch with the motor running.
- 4. Never connect the hook back to the cable. This causes cable damage. Always use a sling or chain of suitable strength.
- 5. Observe your winch while winching. Stop the winching process every yard or so to assure the cable is not piling up in one corner. Jamming the cable can break your winch.
- 6. Do not attach tow hooks to the winch mounting apparatus. They must be attached to vehicle frame.
- 7. 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 loading during stationary winching, the winch hook should be attached to the chassis of the vehicle.
- 8. Ensure rated "D" or bow shackles are used in conjunction with an approved tree trunk protector to provide a safe anchor point.
- 9. When extending the winch cable, ensure that at least 6 wraps of steel cable or 10 wraps of synthetic rope remain on the drum. Failure to do this could result in the cable parting from the drum under load. Serious personal injury or property damage may occur.
- 10. All steel cable winches are provided with a red cable marking to identify that 6 cable wraps remain on the winch drum when this mark appears at the rollers. No recovery should be attempted beyond this marking.

- 11. Since the greatest pulling power is achieved on the innermost layer of your winch, it is desirable to pull off as much line as you can for heavy pulls (you must leave 6 wraps of steel cable or 10 wraps of synthetic rope minimum on the drum-red cable). If this is not practical use a snatch block and double line arrangement.
- 12. Draping a heavy blanket or similar object over the extended winch cable is recommended as it will dampen any back lash should failure occur.
- 13. Neat, tight spooling avoids cable binding, which is caused when load is applied and the cable is pinched between the others. If this happens, alternatively power the winch in and out. Do not attempt to work a bound cable under load, free it by hand.
- 14. Apply blocks to wheels when vehicles are on an incline.

#### 15. Battery:

- Be sure that the battery is in good condition. Avoid contact with battery acid or other containments.
- Always wear eye protection when working around a battery.
- Have the engine running when using the winch, to avoid draining the battery.

#### 16. Winch Cable:

- NEVER operate winch with less than 10 wraps of synthetic rope or 6 wraps of steel cable around the drum. The terminal end is to prevent the rope from unraveling, it is NOT a load bearing attachment point. Improper installation and/or spooling out to last layer will put a load on the terminal end and the rope will release from the terminal.
- Always re-spool winch rope under a minimum 1000 lb load before each use.
- 17. Do not attempt to exceed the load rating of the winch.
- 18. 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.
- 19. 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.
- 20. The winches shown in this manual are solely for vehicle and boat use. Do not use
- 21. Do not use the winch in hoisting applications due to required hoist safety factors and features.
- 22. Do not use the winch to lift, support or otherwise transport personnel.
- 23. Never operate your electric winch near flammable liquids.
- 24. Power out only enough to relive slack, excessive powering out can cause damage to internal parts.
- 25. Do not use to drop loads (example-unloading vehicles).
- 26. Only DC power can be applied to the winch.

#### To keep your winch in working order please:

#### Once a month cycle the winch by:

- 1. Power out steel cable/synthetic rope 15ft. Then free spool out another 50+ ft of steel cable/synthetic rope. Always make sure you have at least 6 wraps of steel cable or 10 wraps of synthetic rope around winch drum.
- 2. Put winch into gear and re-spool the winch line. Inspect winch line as you re-spool winch line. It is recommended that you have at least 1000 lbs of tension when re-spooling cable. This prevents the rope from pinching itself during recovery.

  \*Keep instructions in glove box for reference.
  - Winching is dangerous and potentially fatal.

Use caution when winching:

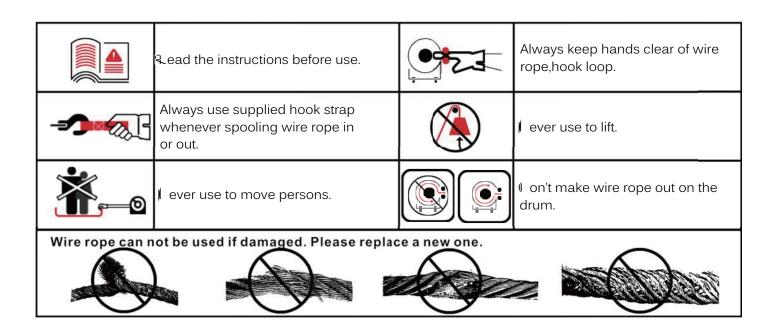
- Be sure that the cable is in good condition and is attached properly.
- Do not use the winch if the cable is frayed.

- Do not move the vehicle when pulling a load.
- Do not replace the cable with a cable of lesser strength.
- The life of a cable is directly related to the use and care it receives. Following its first and subsequent uses, a cable must be wound onto the drum under a load of at least 1000 lbs or the outer wraps will draw into the inner wraps and severely damage the cable during winching. The first winch use should be a familiar run while in a relaxed, non-recovery situation. Spool out the cable until the rad cable mark appears (about 6 wraps on the drum), when rewind the cable onto the drum under a load of 1000 lbs or more. This will slightly tension and stretch the new cable and create a tight cable wrap around the drum. Failure to do so may result in cable damage and reduce cable life.

When replacing the steel wire rope or the fiber rope, be sure to disconnect the winch cable from the "+" (positive) of the battery, and disengage the clutch by moving the clutch handle to the "OUT" position.

#### Should you choose a fiber rope to take the place of the steel cable:

- Please make sure the chosen fiber rope can withstand the maximum capacity of your winch. Always bear in mind the working load limitation of the fiber rope, and never exceed the working load limitation or shock load of your rope.
- Fiber rope should be attached to winch drum properly, always keep a minimum of 10 wraps on the winch drum. Failure to do this could result in rope parting from the drum. Serious personal injury or property damage may result.
- Please make sure the fiber rope is in good condition, without cuts or pulled strands. Fiber rope will fail if worn, damaged, overloaded, or not properly maintained.
- Use a Hawse style fairlead only.
- Do not use over rough surfaces without chafe protection.
- Do not bend around unprotected sharp corners.



#### **PROCEDURE**

1. Remove contents from box, verify if all parts listed are present and free from damage.

Carefully read and understand all instructions before attempting installation.

Failure to identify damage before installation could lead to a rejection of any claim.

#### **INSTALLATION**

#### MOUNTING YOUR WINCH

- 1. A) 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.
  - B) It is very important that the winch is mounted on a flat surface so that the three sections (motor, cable drum and gear housing) are properly aligned.
  - C) Before commencing installation, ensure the mounting facility being used is capable of withstanding the rated capacity of the winch.
- 2. Should you wish to manufacture your own mounting plate the dimensions below will assist. A steel mount plate of at least 1/4" thickness is recommended. Fasteners should be steel class 8.8 or better. A poorly designed mount may void warranty.
- 3. When installing the winch tighten the M10 hardware to 35-40 ft-lbs.
- 4. The roller 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 the cable periodically using light penetrating oil. Inspect for broken strands and replace if necessary. If the cable becomes worn or damaged, it must be replaced.

#### SOLENOID MOUNTING SUPPLEMENT

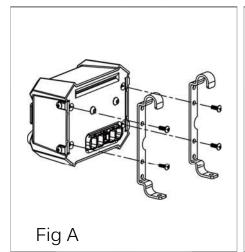
#### Horizontal over cable spool

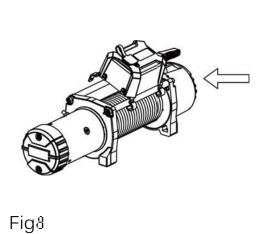
#### **Step 1**:

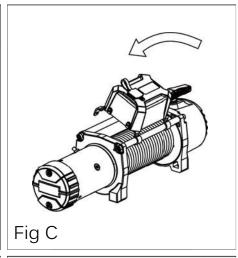
Install the long mounting brackets with spacers (hooks facing forward) on the solenoid box and tighten the bolts. (Fig A)

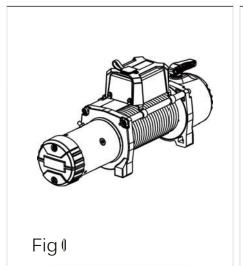
#### **Step 2**:

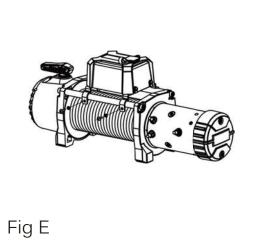
Place solenoid on top of winch tie-rods with hooks facing forward in desired location. Secure by tightening the screws in the rear. (Fig B,C,D,E,F) Installation is now complete. Use the wiring diagram in the instruction manual for further assembly.

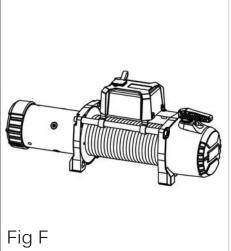












#### SOLENOID MOUNTING SUPPLEMENT

#### Vertical over cable spool

#### **Step 1**:

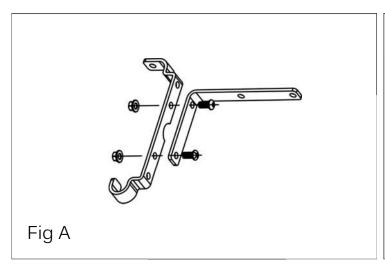
Connect the long mounting brackets and L shaped mounting bracket with the supplied hardware. (Fig A)

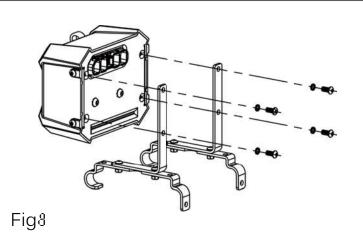
#### **Step 2**:

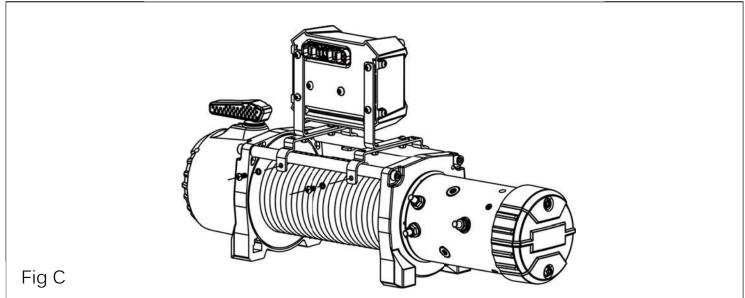
Install the mounting bracket assembly (hooks facing forward) on the solenoid box and tighten the bolt. (Fig B)

#### **Step 3**:

Place the solenoid on top of the winch tie-rods with hooks facing forward in desired location. Secure by tightening the screws in the rear. (Fig C) Installation is now complete. Use the wiring diagram in instruction manual for further assembly.







#### SOLENOID MOUNTING SUPPLEMENT

#### **Over Motor Mounting**

#### **Step 1**:

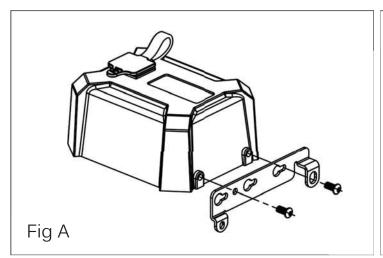
Loosen the fasteners on the side of the solenoid box and place the small mounting bracket at the side of the solenoid box. (Fig A) Slide the bracket over the screw heads and tighten them.

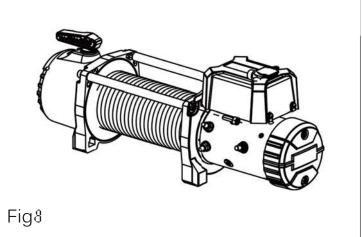
#### **Step 2**:

Loosen the winch tie rod bolt at the motor side, and place the control box in the desired location, and then tighten the bolt. (Fig B) Use the supplied screws to further secure the bracket to the winch body.

#### **Step 3:**

Tighten the logo bar bolt at the motor side. Installation is complete. Use the wire diagram in the instruction manual for further assembly. (Fig C)





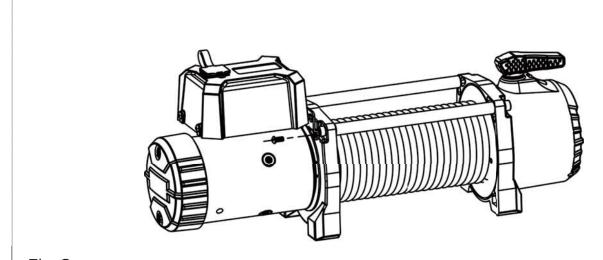


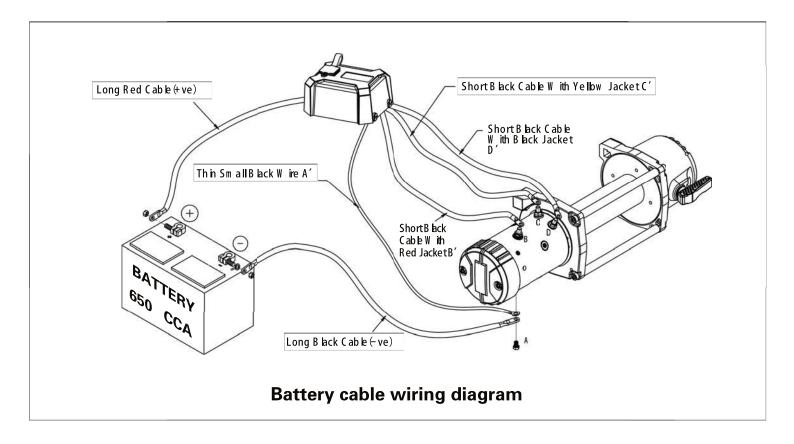
Fig C

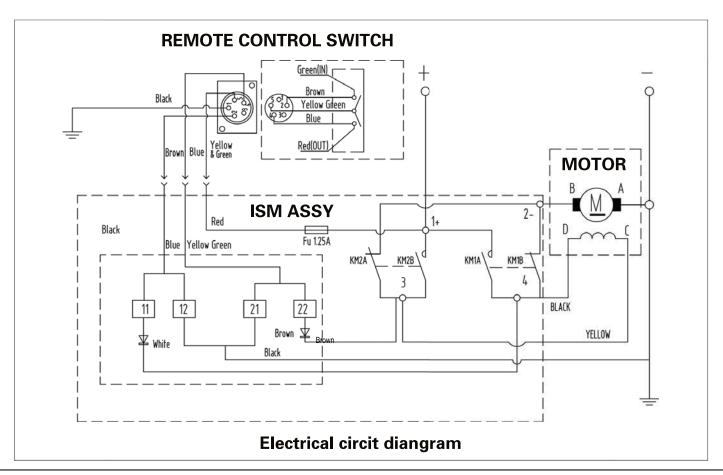
#### **ELECTRICAL CONNECTIONS**

For normal self-recovery work, your existing electrical system is adequate. A fully charged battery and proper connections are essential. Run the vehicle engine during winching operations to help retain a charged battery.

Attach the electrical cables as follows: (Refer to Diagram)

- 1. Short black cable with red jacket (B') connect to the red terminal (B) of the motor.
- 2. Short black cable with yellow jacket (C') connect to the yellow terminal (C) of the motor.
- 3. Short black cable with black jacket (D ') connect to the black terminal (D) of the motor.
- 4. Thin black cable connecting to bottom terminal (A) of the motor.
- 5. Long thick black cable, one terminal (A') connecting to the bottom terminal (A) of the motor, and the other terminal negative (-) connecting to negative (-) terminal of battery.
- 6. Long red cable positive (+) connecting to positive (+) terminal of battery.





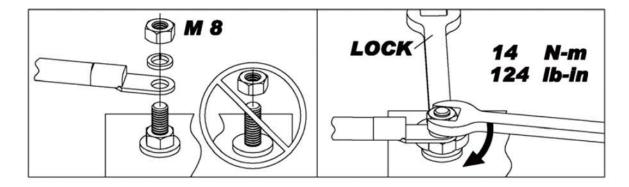
#### NOTE:

- 1. Your battery must be kept in good condition.
- 2. Battery cables should not rub or chafe across any surfaces, this could possibly damage them.
- 3. Corrosion on electrical connections will reduce performance or may cause excessive heat.
- 4. Clean all connections, especially the remote control switch and receptacle.
- 5. In harsh weather environments use a silicone sealer to protect from corrosion.

#### **Motor Wire Nuts Mounting Instruction**

**Step 1**: Do not overtighten the nuts that secure the cables.

<u>Step 2</u>: Use a wrench on bottom nut when installing cable nuts to prevent movement of terminal stud. See pictures below:



#### WINCH OPERATION

Be sure to test your winch at home before you actually need to use it. Plan your test in advance. Remember you can hear your winch as well as watch it operate. Learn 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 and its use will become second nature to you.

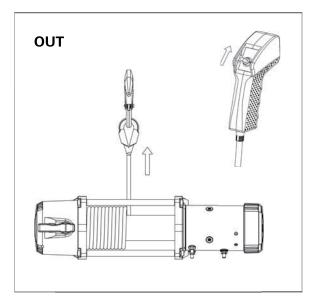
#### **OPERATING:**

Pre/post op check list:

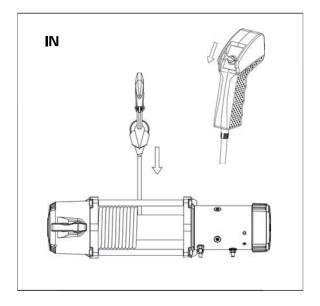
- 1. Check fasteners for adequate torque before each outing.
- 2. Inspect wiring and make sure connections are tight. Verify that there is no chafing or damage to wires.
- 3. Inspect rope for damage before and after each use.
- 4. Inspect remote for damage and function. Check the range on the wireless remote, if applicable, replace battery if necessary.
- 5. Keep winch clean, remote socket covered and steel cable lightly lubricated.
- 6. Synthetic rope needs to be kept clean and free from any chemicals or dirt.

NEVER operate the winch with less than 10 wraps of synthetic rope or 6 wraps of steel cable around the drum. The terminal end is to prevent the rope from unraveling, it is NOT a load bearing attachment point. Improper installation and/or spooling out to the last layer will put a load on the terminal end and the rope will release from the terminal.

- 1. Ensure the vehicle is secured by applying the parking brake or chocking the wheels.
- 2. Pull out the winch cable to the desired length and connect it to an anchor point. The winch clutch allows rapid uncoiling of the cable for hooking onto the load or anchor point. The shifter tab located on the gear housing of the winch operates the clutch as follow:
  - (A) To disengage the clutch, move the clutch shifter tab to the "OUT" position. Cable may be free spooled off the drum.
  - (B) To engage the clutch, move the clutch shifter tab to the "IN" position. The winch is now ready for pulling.
- 3. Recheck all cable rigging before proceeding.
- 4. Plug in the winch hand control. It is recommended that the winching operation takes place from the driver's position to ensure safe operation.
- 5. To commence winching operation, start vehicle engine, put the transmission in neutral, maintain engine speed at idle.



Remote Control Switch



6. Operate the remote control switch to IN or OUT until the vehicle has been retrieved. Regularly check the winch to ensure cable is winding onto the drum evenly.

#### Note:

- 1. Never winch with your vehicle in gear or in park, this can damage your vehicle's transmission.
- 2. Never wrap the cable around the object and hook onto the cable when winching.
- 3. Keep hands, clothing, hair and jewelry clear of the drum area and cable when winching.
- 4. Never use the winch if the cable is frayed, kinked or damaged.
- 5. 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 for anyone in the area. Always stand well to the side while winding.
- 6. Don't leave the switch plugged in when winch is not in use.
- 7. Do not use as a hoist.
- 8. Power out only to relieve slack on cable or rope. Excessive powering out can cause damage to internal components.
- 9. Do not use to hold loads.
- 10. Do not use to drop loads (example-unloading vehicles).

#### CHECK THE WINCH CAREFULLY AND THOROUGHLY BEFORE OPERATING!

#### **SPARE PARTS:**

A comprehensive range of spare parts are available. For further information please contact the distributors from whom you purchased the winch.

**NOTE:** The safety precautions and instructions discussed in this manual can't 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.

#### **Part Number:** 401–89501–X D –9500 /401–81201–X D –9500

Rated Line Pull:	9500lbs single-line
Motor:	6.6hp Series Wound
Control:	Remote Switch, 12' lead
Gear Train	3-State Planetary
Gear Ratio:	161.28
Clutch:	Sliding Ring Gear
Brake:	Automatic In The Drum
Drum Size:	Diameter 2.5" Length 8.75"
Wire / Synthetic Rope:	94' Long 5/16" Diameter (Wire Rope) / 94' Long 3/8" Diameter (Synthetic Rope)
Fairlead:	4-Way Roller (Wire Rope) / Hawse (Synthetic Rope)
Remote Control:	Included
Recommended Battery:	650CCA minimum for winching
Battery Leads:	72"
Finish:	Black
Weight:	77lbs (Wire Rope) / 57lbs (Synthetic Rope)
Overall Dimension:	(LxWxH) 20.83" x 6.3" x 7.8"
Mounting Bolt Pattern:	10.00±0.015IN x 4.50±0.010IN

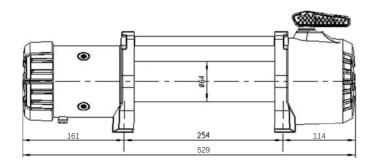
#### **Line Pull & Cable Capacity**

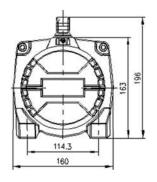
Layers Of Cable		1	2	3	4
Rated Line pull per	lbs	9500	8435	7640	7086
layer	kg	4309	3822	3460	3212
Cable capacity per	ft	16	42	72	94
Layer	m pm	5	12	21	28

#### Line Speed & Amp Draw-First Layer

Line Pull	lbs	No	2000	4000	6000	8000	9500
Line run	kg	Load	907	1814	2721	3628	4309
Line Speed	ft/min	35.42	20.34	15.09	11.15	9.68	6.89
	m/min	10.8	6.2	4.6	3.4	2.95	2.1
Motor	Amps	80	155	224	303	365	415

#### **Dimension Of The Winch**





**Part Number:** 401–89501–X D –12500 /401–81201–X D –12500

Rated Line Pull:	12500lbs single-line
Motor:	6.6hp Series Wound
Control:	Remote Switch, 12' lead
Gear Train	3-State Planetary
Gear Ratio:	193.2
Clutch:	Sliding Ring Gear
Brake:	Automatic In The Drum
Drum Size:	Diameter 2.5" Length 8.75"
Wire / Synthetic Rope:	85' Long 3/8" Diameter (Wire Rope) / 88' Long 7/16" Diameter (Synthetic Rope)
Fairlead:	4-Way Roller (Wire Rope) / Hawse (Synthetic Rope)
Remote Control:	Included
Recommended Battery:	650CCA minimum for winching
Battery Leads:	72"
Finish:	Black
Weight:	83lbs (Wire Rope) / 61lbs (Synthetic Rope)
Overall Dimension:	(LxWxH) 21.2" x 6.3" x 7.8"
Mounting Bolt Pattern:	$10.00\pm0.015$ IN x $4.50\pm0.010$ IN

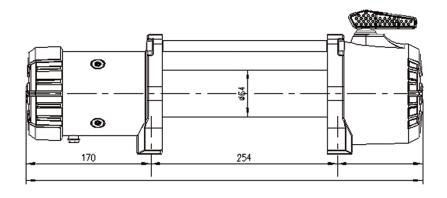
Line Pull & Cable Capacity

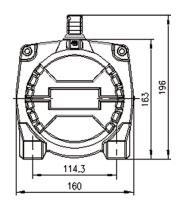
Layers Of Cable		1	2	3	4
Rated Line pull per	lbs	12500	10700	9575	8800
layer	kg	5670	4853	4343	3991
Cable capacity per	ft	17.1	36.7	60.6	85
Layer	mpm	5.27	11.2	18.5	26

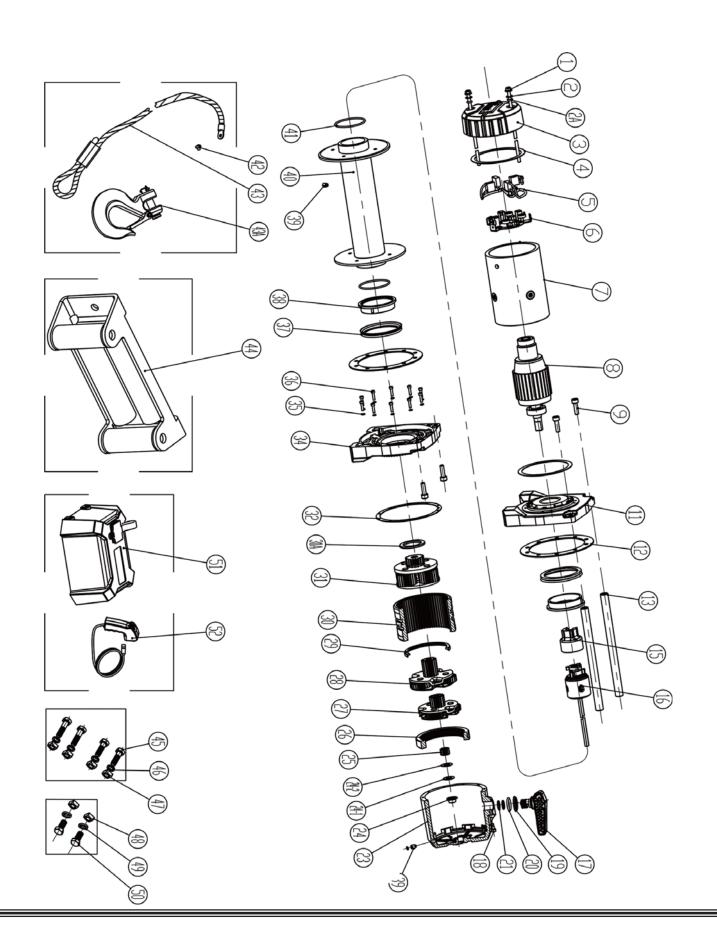
### Line Speed & Amp Draw-First Layer

	lbs kg		No	2000	4000	6000	8000	10000	12000	12500
Line Pull			Load	907	1814	2721	3629	4536	5443	5670
	ft/min	12V	28.208	13.45	9.84	8.856	7.872	6.888	5.904	5.412
*		24V	33.456	17.06	14.43	12.14	10.82	9.02	8.2	8.036
Line Speed	m/min	12V	8.6	4.1	3.0	2.7	2.4	2.1	1.8	1.65
		24V	10.2	5.2	4.4	3.7	3.3	2.75	2.5	2.45
Motor	Amps	12V	68	122	174	226	278	330	385	395
		24V	38	70	94	122	151	178	203	206

#### **Dimension Of The Winch**







#### Part List

Item	Par	t No.	Description	Qty
NO.	9500	12500		
1	XD9500 -01	XD12500 -01	Long Bolt Hardware set	2
2	XD9500 -02	XD12500 -02	Motor Fixed Bolt Seals Ring	2
2A	XD9500 -03	XD12500 -03	Seals Ring	2
3	XD9500 -04	XD12500 -04	Motor End Cover	1
4	XD9500 -05	XD12500 -05	Motor Seal Ring	2
5	XD9500 -06	XD12500 -06	4.5" Carbon Bracket	1
6	XD9500 -07	XD12500 -07	4.5" Carbon	1
7	XD9500 -08	XD12500 -08	Stator	1
8	XD9500 -09	XD12500 -09	Rotor	1
9	XD9500 -10	XD12500 -10	Link Screw M8*25	4
11	XD9500 -11	XD12500 -11	Motor Base	1
12	XD9500 -12	XD12500 -12	Drum Anti Friction Sheet	2
13	XD9500 -13	XD12500 -13	Tie Bar	2
15	XD9500 -14	XD12500 -14	Coupling Joint	1
16	XD9500 -15	XD12500 -15	Brake Assembly	1
17	XD9500 -16	XD12500 -16	Clutch Handle	1
18	XD9500 -17	XD12500 -17	Clutch Pin	1
19	XD9500 -18	XD12500 -18	Clutch Handle Cover	1
20	XD9500 -19	XD12500 -19	O Ring	1
21	XD9500 -20	XD12500 -20	O Ring	2
22	XD9500 -21	XD12500 -21	Bolt M10*12	1
23	XD9500 -22	XD12500 -22	Gear Box	1
24 -1	XD9500 -23	XD12500 -23	Sun Gear -Input Washer	1
24 -1	XD9500 -24	XD12500 -24	Sun Gear -Input Washer	1
24	XD9500 -25	XD12500 -25	-	1
25	XD9500 -26	XD12500 -26	Sun Gear -Input	1
26	XD9500 -27	XD12500 -27	Inner Gear I	1
27	XD9500 -28	XD12500 -28	Gear Carrier Assembly -Input	1
28	XD9500 -29	XD12500 -29	Gear Carrier Assembly -Intermediate	1
29	XD9500 -30	XD12500 -30	Planet Carrier Cushion	1
30	XD9500 -31	XD12500 -31	Inner Gear II	1

Item Par		t No.	Description	Qty
NO.	9500	12500		
31	XD9500 -32	XD12500 -32	Gear Carrier Assembly -Output	1
31A	XD9500 -33	XD12500 -33	Spline Cushion	1
32	XD9500 -34	XD12500 -34	Gear Box Seals Ring	1
34	XD9500 -35	XD12500 -35	Gear Box Base	1
35	XD9500 -36	XD12500 -36	Spring Washer 4	10
36	XD9500 -37	XD12500 -37	Bolt M4*16	10
37	XD9500 -38	XD12500 -38	Dust Ring	2
38	XD9500 -39	XD12500 -39	Nylon Bearing	1
39	XD9500 -40	XD12500 -40	Bolt M8*10	1
40	XD9500 -41	XD12500 -41	Drum Assembly	1
41	XD9500 -42	XD12500 -42	Seals Ring	2
42	XD9500 -43	XD12500 -43	Hexagon Socket Cap Screws M6*8	1
42	XD9500 -44	XD12500 -44	Wire Rope Assembly	1
43	XD9500S -44	XD12500S -44	Synthetic Rope Assembly	1
43A	XD9500 -45	XD12500 -45	Hook	1
4.4	XD9500 -46	XD12500 -46	Fairlead Assembly	1
44	XD9500S -46	XD12500S -46	Aluminum Fairlead	1
45	XD9500 -47	XD12500 -47	High-Strength Bolt M10*32 10.9	4
46	XD9500 -48	XD12500 -48	Heavy Type Spring Washer 10	4
47	XD9500 -49	XD12500 -49	Square Nut 10	4
48	XD9500 -50	XD12500 -50	Hexagon Nut 12	2
49	XD9500 -51	XD12500 -51	Heavy Type Spring Washer 12	2
50	XD9500 -52	XD12500 -52	High-Strength Bolt M12*25 10.9	2
51	XD9500 -53	XD12500 -53	NEW Control Box Assembly(12V)	1
52	XD9500 -54	XD12500 -54	NEW Handle Control Assembly	1

#### Winch Motor Clocking:

- **Step 1:** The winch motor can be clocked to change the cable mount positions.
- Step 2: Loosen the long bolts and pull them out from the winch motor.
- **Step 3:** Rotate the motor to the required position. **Note:** The rotation of the winch motor must be 90 degrees, 180 degrees, and/or 270 degrees clockwise or counter-clockwise, due to the fixed holes on motor base.
- **Step 4:** Re-install long bolts to complete. To maintain the IP67 waterproof rating it is best to have this done professionally and replace the sealing components.

#### **Gear Box Clocking Instructions:**

- **Step 1:** Loosen the tie rods and remove them from the gear box.
- **Step 2:** Take off the 10 remaining bolts.
- **Step 3:** Rotate the gear box to the desired location, then connect the gear box with the gear box base again, and then reattach all hardware. After that connect the gear box with the tie. **Note:** The rotation of the gear box must be 36 degree, or a degree which is the multiple of 36 degree clockwise or counter clockwise due to the fixed holes that receive the connection with the retaining bolts.
- **Step 4:** Re-install the long bolts.

To maintain the IP67 waterproof rating it is best to have this done professionally and to replace the sealing components.

#### **Control Box Fuse**

**WARNING:** Only replace fuse with the same amp rating.

Westin winches are equipped with a fuse inside the control box. This fuse provides protection in the case of an internal failure or overload.

If winch fails to function, you may need to inspect the fuse.

- **Step 1:** Remove the control box cover bolts. Carefully remove control box cover. There will be remote plug wires attached to the cover. Figure 1 & 2.
- Step 2: Unscrew fuse holder halves.
- Step 3: Remove fuse by unscrewing the fuse case halves and inspect for breakage, replace if necessary.
- **NOTE:** If the replaced fuse blows immediately, please contact a winch distributor.
- Step 4: Carefully re-assemble control box, taking care to avoid damage/pinching of wires.

# WARNINGS & NOTICES FOR THE INSTALLATION OF MAX WINCH TRAY & SPORTSMAN—WINCH MOUNTS

#### **NOTICE**

The Iconic XD Max Winch Trays are designed to accommodate a winch bolt pattern of 10"X4.5". Closely follow all Westin Installation Instructions for the proper installation of product. Improper installation can result in death, serious injury, and/or product and vehicle damage. In the operation of these products, it is imperative to observe precautions for your personal

## **AWARNING**

Failure to follow these instructions could lead to death, personal injury, and / or property damage.

#### **FASTENERS**:

All Westin supplied fasteners must be utilized and installed in accordance with the installation instructions and apply torque to the specifications as defined. DOUBLE CHECK ALL FASTENERS BEFORE PRODUCT USE TO ENSURE PROPER FUNCTION AND SAFETY.

#### **DRILLING:**

Most Westin products do not require drilling for installation. If drilling is defined as required, use caution when drilling a vehicle. FAILURE TO REVIEW AN AREA TO BE DRILLED MAY RESULT IN PERSONAL INJURY AND OR INJURY TO OTHERS AS WELL AS VEHICLE DAMAGE.

#### **EYE PROTECTION:**

ALWAYS WEAR SAFETY GLASSES OR GOGLES DURING THE INSTALLATION PROCESS TO AVOID PERSONAL INJURY.

#### TOW HOOKS—TOW ATTACHMENT:

During product use, Tow Straps, Tow Cables, and Tow Hooks must only be attached to the Westin Tow Hook Loops as attached to the Max Winch Tray, (sold separately). **DO NOT ATTACH TO ANY OTHER AREA OR SERIOUS PERSONAL INJURY OR INJURY TO OTHERS MAY OCCUR.** 

#### **WINCH SIZING & MAX WINCH TRAY CAPACITY:**

The Max Winch Tray is designed for a maximum Winch size rating of 12,000 Lbs. Use of Winch size ratings above this limit will void the Westin warranty and MAY RESULT IN PERSONAL INJURY AND OR INJURY TO OTHERS AS WELL AS VEHICLE DAMAGE.