



## **XRC 2 (2,000lb) Utility Winch**

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## **XRC 2 (2,000lb) Utility Winch**

### **Winch Packing List**

<b>Description</b>	<b>Quantity</b>
1. Winch Assembly with Wire Rope .....	1
2. Bolt 8MM x 35... ..	6
3. Lock Washers .....	8
4. Flat Washers .....	8
5. M8 Nuts .....	8
6. Bolt 8MMx20 .....	2
7. Clevis Hook with Pin .....	1
8. Roller Fairlead.....	1
9. Hook Strap.....	1
10. Remote .....	1
11. Winch Plate .....	1

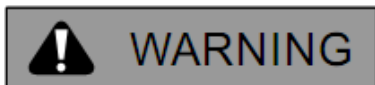
# Safety Warnings & Precautions

## Warnings and Cautions



**As you read these instructions**, you will see WARNINGS, CAUTIONS, NOTICES and NOTES.

Each message has a specific purpose. WARNINGS are safety messages that indicate a potentially hazardous situation, which, if not avoided could result in serious injury or death. CAUTIONS are safety messages that indicate a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. A CAUTION may also be used to alert against unsafe practice. CAUTIONS and WARNINGS identify the hazard, indicate how to avoid the hazard, and advise of the probable consequence of not avoiding the hazard. NOTICES are messages to avoid property damage. NOTES are additional information to help you complete a procedure. **PLEASE WORK SAFELY!**

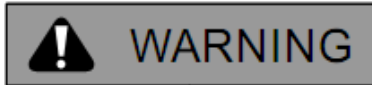


### **MOVING PARTS ENTANGLEMENTHAZARD**

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

To avoid injury to hands or fingers:

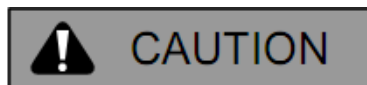
- **Always** keep hands clear of rope, hook loop, hook and fairlead opening during installation, operation and when spooling in or out.
- **Always** use extreme caution when handling hook and rope during spooling operations.
- **Always** use supplied hook strap whenever spooling rope in or out, during installation, and during operation.
- **Always** wear heavy leather gloves when handling rope.



### CHEMICAL AND FIRE HAZARD

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

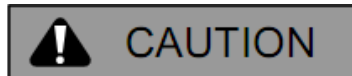
- **Always** remove jewelry and wear eye protection.
- **Never** lean over battery while making connections.
- **Always** verify area is clear of fuel lines, fuel tank, brake lines, electrical wires, etc. when drilling.
- **Never** route electrical cables:
  - Across any sharp edges.
  - Through or near moving parts.
  - Near parts that become hot.



### MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to minor or moderate injury.

- **Always** keep wired remote control lead clear of the drum, rope and rigging. Inspect for cracks, pinches, frayed wires or loose connections. Replace remote control if damaged.
- **Always** pass wired remote control through a window to avoid pinching lead in door, when using remote inside a vehicle.
- **Never** leave remote control where it can be activated during freespooling, rigging, or when the winch is not being used.
- **Always** require operator and bystanders to be aware of vehicle and or load.



### MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to minor or moderate injury.

#### General Safety:

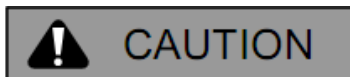
- **Always** know your winch. Take time to fully read the Installation Guide and the Basic Guide to Winching Techniques in order to understand your winch and

its operation.

- **Never** operate this winch if you are under 16 years of age.
- **Never** operate this winch when under the influence of drugs, alcohol or medication.
- **Never** exceed winch or rope capacity listed on product data sheet. Double line using a snatch block to reduce winch load.

#### **Installation Safety:**

- **Always** choose a mounting location that is sufficiently strong to withstand the maximum pulling capacity of your winch.
- **Always** use factory approved mounting hardware, components, and accessories.
- **Always** use grade 5 (grade 8.8 metric) or better mounting hardware.
- **Never** weld mounting bolts.
- **Always** use care when using longer bolts than those supplied from factory. Bolts that are too long can damage the base and/or prevent the winch from being mounted securely.
- **Always** mount the winch and attach the hook to the rope's end loop before connecting the electrical wiring.
- **Always** position fairlead with WARNING label on top.
- **Always** spool the rope onto the drum in the direction specified by the winch warning label on the winch and/or documentation. This is required for the automatic brake (if so equipped) to function properly.
- **Always** prestretch wire rope and respool under load before use. Tightly wound wire rope reduces chances of "binding", which can damage the rope.



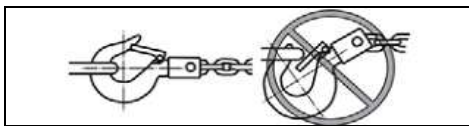
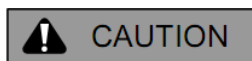
#### **MOVING PARTS ENTANGLEMENT HAZARD**

Failure to observe these instructions could lead to minor or moderate injury.

- **Always** inspect, rope, hook, and slings before operating winch. Frayed, kinked or damaged rope must be replaced immediately. Damaged components must be replaced before operation. Protect parts from damage.
- **Never** leave remote control plugged into winch when free spooling, rigging, or when the winch is not being used.
- **Never** hook rope back onto itself. This damages the rope.
- **Always** use a choker chain, choker rope, or tree trunk protector on the anchor.
- **Always** remove any element or obstacle that may interfere with safe operation of the winch.
- **Always** take time to use appropriate rigging techniques for a winch pull.
- **Always** be certain the anchor you select will withstand the load and the strap

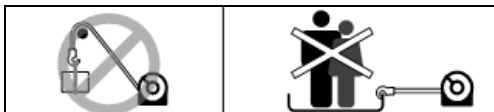
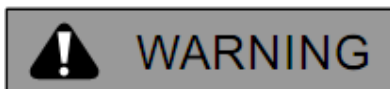
or chain will not slip.

- **Never** engage or disengage clutch if winch is under load, rope is in tension or drum is moving.
- **Always** select an anchor point as far away as possible. This will provide the winch with its greatest pulling power.
- **Never** winch with less than 5 wraps of rope around the drum. The rope could come loose from the drum.
- **Never** touch rope or hook while in tension or under load.
- **Never** touch rope or hook while someone else is at the control switch or during winching operation.
- **Always** stand clear of rope and load and keep others away while winching.
- **Always** be aware of stability of vehicle and load during winching, keep others away. Alert all bystanders of any unstable condition.
- **Never** use winch to secure a load.



#### MOVING PARTS ENTANGLEMENT HAZARD

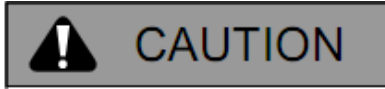
- **Always** use a hook with a latch
- **Always** insure hook latch is closed and not supporting load.
- **Never** apply load to hook tip or latch. Apply load only to the center of hook.
- **Never** use a hook whose throat opening has increased, or whose tip is bent or twisted.



#### FALLING OR CRUSHING HAZARD

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

- **Never** use winch to lift or move persons.
- **Never** use winch as a hoist or to suspend a load.

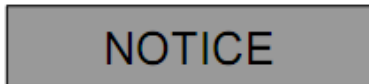


### CUT AND BURN HAZARD

Failure to observe these instructions could lead to minor or moderate injury.

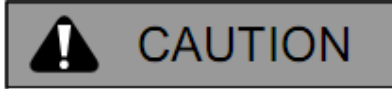
To avoid injury to hands and fingers:

- **Always** wear heavy leather gloves when handling a rope.
- **Never** let rope slip through your hands.
- **Always** be aware of possible hot surface at winch motor, drum or rope during or after winch use.

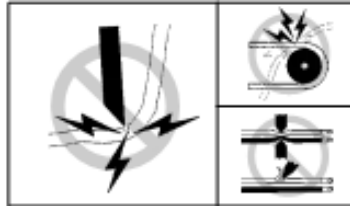


### AVOID WINCH AND EQUIPMENT DAMAGE

- **Always** avoid side pulls which can pile up rope at one end of the drum. This can damage rope or winch.
- **Always** ensure the clutch is fully engaged or disengaged.
- **Never** use winch to tow other vehicles or objects. Shock loads can momentarily exceed capacity of rope and winch.
- **Always** avoid “powering out” for extended distances. This causes excess heat and wear on the winch motor and brake.
- **Always** use care to not damage the vehicle frame when anchoring to a vehicle during a winching operation.
- **Never** “jog” rope under load. Shock loads can momentarily exceed capacity of rope and winch.
- **Never** use winch to secure a load during transport.
- **Never** submerge winch in water.
- **Always** store the remote control in a protected, clean, dry area.
- **Always** double line or pick distant anchor point when rigging. This maximizes pulling power and avoids overloading the winch.



- To prevent accidental activation of the winch and serious injury, complete the winch installation and attach the hook before installing the wiring.
- **DO NOT** leave controller hooked/wired up to winch when not in use.



#### **TO PREVENT SERIOUS INJURY OR DEATH FROM ELECTRICAL FIRE:**

- Do NOT route electrical cables across sharp edges.
- Do NOT route electrical cables through or near moving parts.
- Do NOT route electrical cables through or near any high heat parts.
- Avoid pinch and wear/abrasion points when installing all electrical cables.

## **Installation**

### **Step 1 - Mount the winch**

To secure the winch, always use:

- A flat, secure mounting location at least 4.8 mm (3/16 in.) thick.
- Lock washers.
- Hex head cap screws when using a one-piece winch mount plate.
- Torque the mounting bolts to 16 N-m (12 lb-ft)
- Attach the clevis hook to the wire rope.
- Put clutch in freespool position.
- Manually feed cable loop through fairlead.
- Attach hook to cable loop and re-engage clutch.

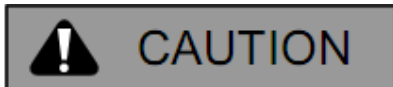


## Step 2 - Install the wiring

- Connect short red cable from remote control to the positive terminal (+) on the motor.
- Connect short black cable from remote control to the negative terminal (-) on the motor.
- Connect long red cable from the remote control to the positive terminal (+) of the battery.
- Connect long black cable from the remote control to the negative terminal (-) of the battery.



(Wiring Diagram)

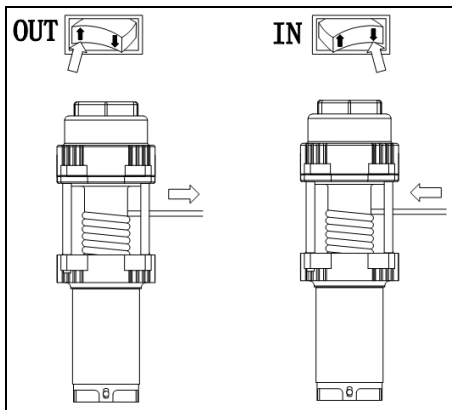


- To avoid accidental operation **DO NOT** leave controller hooked/wired up to winch when not in use.

### Step 3 - Check the system

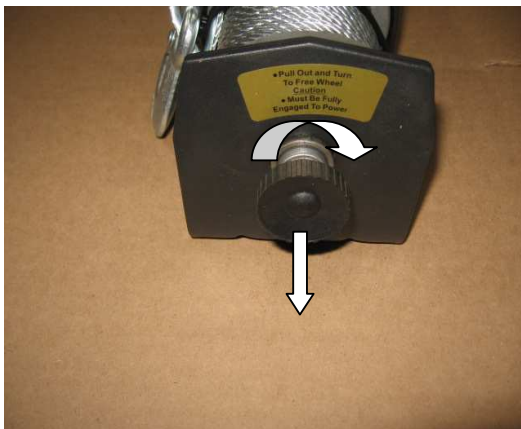
Before using the winch, verify the following:

- Wiring to all components are correct. All loose wires are tight.
- There are no exposed wiring or terminals.
- Check winch for proper operation. The wire rope should spool in and out in the direction indicated on the switch.



### Step 4 – Winch operation

- To free spool pull knob out and twist approx  $\frac{1}{2}$ " (Fig A)
- When powering in make sure winch is engaged (twisting knob back and knob is all of the way back in.
- Push "IN" button on remote. (Fig B)



(Fig A)



(Fig B)

## Winch Maintenance

No further internal lubrication is required for the life of the winch. The winch should not be emerges in water (waterproof winch should not be soaked in water for a long time).

If the winch immersions in water by accident, you should loosen the screws, tilt the winch to drain out the water as soon as possible. You should not use the winch within (3) three days. After three days, turn on the winch and keep the motor running until hands can feel it hot on the motor to vaporize any water in the motor.

Lubricate the cable periodically. Replace a new cable as soon as possible if glitch, fracture, and/or crease were to occur.

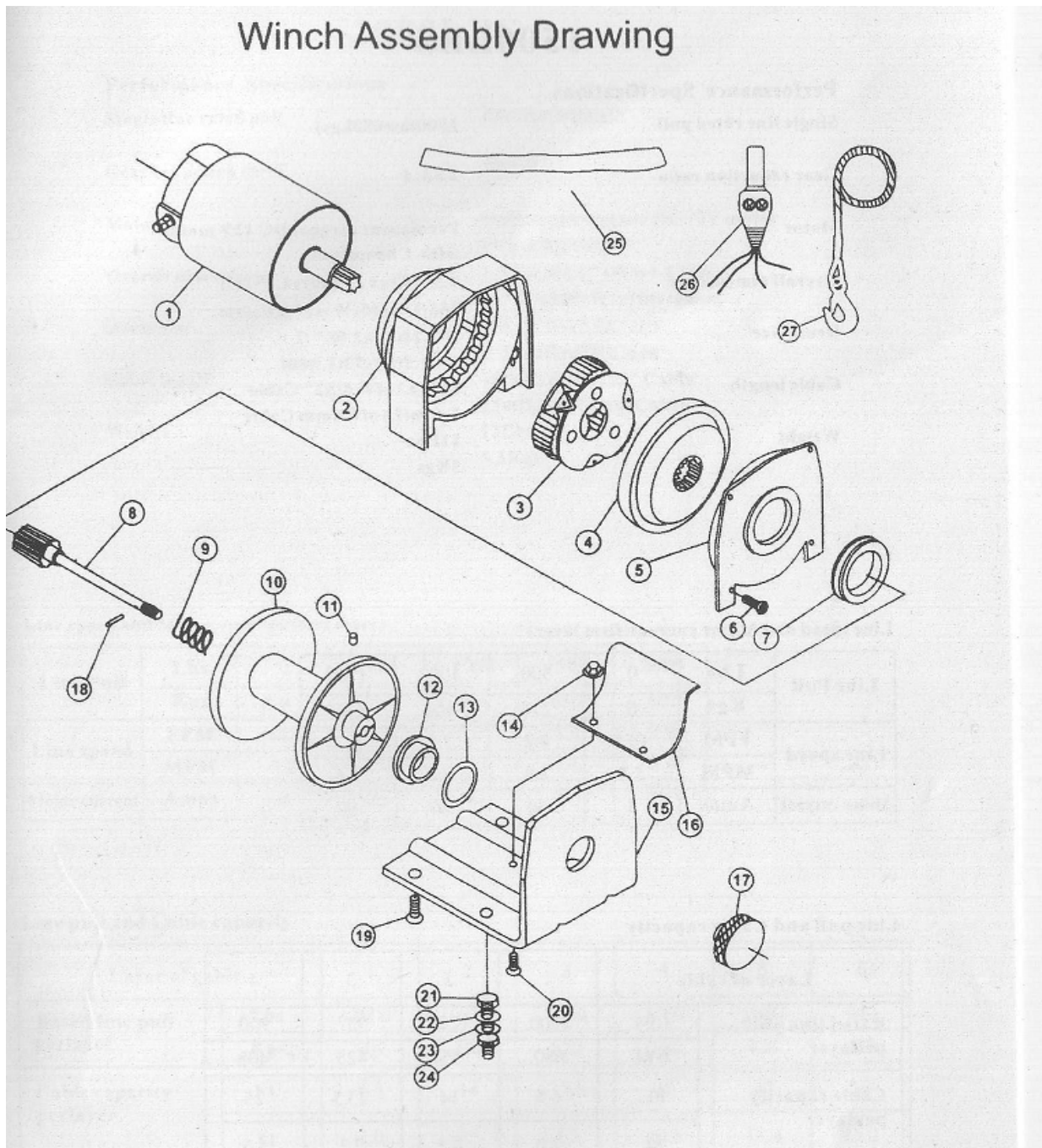
You should clean and lubricate after use; always store the winch in a dry place, disengage the clutch, and out of reach for children.

Check each assembly or connection screw; if loosen or corrode, please repair and replace before use.

## Troubleshooting

NO.	Symptom	Possible Cause	Suggested solution
1	Motor does not turn on	<ul style="list-style-type: none"><li>- Switch Assembly not connected property</li><li>- Loose battery cable Connections</li><li>- Defective motor</li></ul>	<ul style="list-style-type: none"><li>- Insert Switch Assembly all the way into the connector.</li><li>- Tighten nuts on all cable connections.</li><li>- Replace Switch Assembly</li><li>- Check for voltage at armature port with Switch pressed. If voltage is present replace motor.</li></ul>
2	Motor runs but cable drum does not turn	<ul style="list-style-type: none"><li>- Clutch not properly engaged</li></ul>	<ul style="list-style-type: none"><li>- Engage clutch knob .</li></ul>
3	Motor runs slowly or without normal power	<ul style="list-style-type: none"><li>- Insufficient current or voltage, weak battery</li><li>- Defective Motor</li></ul>	<ul style="list-style-type: none"><li>- Battery weak, recharge. Run winch with vehicle motor running.</li><li>- Loose or corroded battery cable connections. Clean, tighten, or replace.</li></ul>
4	Motor runs too hot	<ul style="list-style-type: none"><li>- Long period of operation</li></ul>	<ul style="list-style-type: none"><li>- Let winch cool down periodically</li></ul>

# Winch Assembly Drawing



## Winch Parts List

Ref	SB part#	QTY	Description
1	97202-01	1	XRC2 Motor
2	97202-02	1	Stationary Gear Housing Assembly
3	97202-03	1	T-Series Carrier Assembly
4	97202-04	1	T-Series Rotator Gear
5	97202-05	1	Drum Support Plate
6	97202-06	4	Pan Head Screw
7	97202-07	1	Drum Support Bushing
8	97202-08	1	Clutch Assembly
9	97202-09	1	Spring
10	97202-10	1	Drum Assembly
11	97202-11	1	Screw
12	97202-12	1	T-Series Bushing
13	97202-13	1	Thick Flat Washer
14	97202-14	2	Hex Flange Nut
15	97202-15	1	T-Series Base plate Assembly
16	97202-16	1	Tension Plate
17	97202-17	1	T-Series F/W Knob Assembly
18	97202-18	1	Elastic Pin
19	97202-19	2	Hex Socket Screw
20	97202-20	2	Screw
21	97202-21	2	Screw
22	97202-22	2	Flat Washer
23	97202-23	2	Lock Washer
24	97202-24	2	Nut
25	97202-25	1	Red Strap
26	97202-50	1	Switch Assembly (Remote)
27	97202-32	1	Cable Assembly

# Winch Specifications

## 97202 - XRC 2.0 (2,000lb) Winch

Rated line pull: 2,000lbs (960kgs) single line  
 Motor: Permanent magnetic DC 12V ,1.0Hp  
 Gear train: 3-stage planetary  
 Gear ratio: 153:1  
 Wire rope: 5/32" x 49'  
 Drum size: 1.24" (D) x 2.88" (L)  
 Dimensions: 11.25" (L) x 4" (W) x 4.1" (H)  
 Net weight: 12lbs

### Line speed and motor current (first layer)

Line pull	LBS	0	500	1,000	1,500	2,000
	KGS	0	227	454	680	907
Line speed	FPM	13	10.7	7.7	5.6	3.3
	MPM	3.9	3.2	2.3	1.7	1
Motor current	Amps	9	30	58	81	110

### Line pull and cable capacity

Layer of cable		1	2	3	4	5	6
Rated line pull per layer	LBS	2,000	1630	1380	1190	1050	940
	KGS	907	740	620	540	470	420
Cable capacity per layer	Ft.	6.5	14	23.5	35	47	50
	M	2.0	4.3	7.2	10.6	14.4	15.2

# Warranty

## SMITTYBILT *ADVANTAGE* WARRANTY

### LIMITED LIFETIME WARRANTY FOR MECHANICAL COMPONENTS

### LIMITED ONE (1) YEAR WARRANTY FOR ELECTRICAL COMPONENTS

Smittybilt Automotive Products, LLC (SAP) warrants to the original purchaser that (a) the mechanical components (e.g., gears, clutch, spools, etc.) of any SAP winch will be free of defects in material and workmanship for the lifetime of the winch, and (b) the electrical components (e.g., electric motor, wires, solenoid, etc.) will be free of defects in material and workmanship for a period of one (1) year from the original date of purchase. This Warranty applies only to the original purchaser of the winch. To obtain any warranty service, you must provide SAP with proof of purchase and date of purchase acceptable to SAP, such as a copy of your purchase receipt.

This warranty does not cover the removal or reinstallation of the winch. SAP will, at its sole option, repair, replace or refund the purchase price of a defective winch or component, provided you return the defective winch or component during the warranty period, transportation charges prepaid, to SAP. Attach your name, address, telephone number, a brief description of the problem, and a copy of your receipt and original bill of sale bearing the SAP serial number of the defective winch and date of purchase.

This warranty does not apply (i) to finish, paint or the wire rope; (ii) if the winch has been damaged by accident, abuse, misuse, collision, overloading, modification, misapplication, improper installation, or improper service; or (iii) any normally wearable part such as the break mechanism. This Warranty is void if any SAP serial number has been removed or defaced. Commercial or industrial use or application, or any hoisting application of the winch voids the Warranty. This Warranty is good only for winches bought, sold and used in the United States unless otherwise specifically agreed in writing by SAP.

THE WARRANTY SET FORTH ABOVE IS THE ONLY WARRANTY. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ANY IMPLIED WARRANTY WHICH BY LAW MAY NOT BE EXCLUDED IS LIMITED IN DURATION TO ONE (1) YEAR FROM THE DATE OF ORIGINAL RETAIL PURCHASE OF THE PRODUCT. No SAP dealer, agent or employee is authorized to make any modification, extension or addition to this warranty. SAP SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, DOWN TIME OR LOSS OF USE) UNDER ANY LEGAL THEORY, EVEN IF SAP WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Some states do not allow the exclusion of implied warranties or the exclusion or limitation of liability for incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights. You may also have other rights that vary from state to state. SAP reserves the right to change product design without notice. In situations in which SAP has changed a product design, SAP shall have no obligation to upgrade or otherwise modify previously manufactured products. To submit a warranty claim please contact Smittybilt at 1-888-717-5797.

**Smittybilt electric winches are intended for recreational self-recovery usage. The warranty is void if the winch is used in commercial/industrial applications.**

The obligation under this warranty, statutory or otherwise, is limited to the replacement or repair at the manufacturer's factory, or at a point designated by the manufacturers, of such part(s) as shall appear to the manufacturer, upon inspection of such part(s), to have been defective in material of workmanship. This warranty does not obligate Smittybilt, Inc. to bear the cost of labor or transportation charges in connection with the replacement or repair of defective parts, nor shall it apply to a product upon which repairs or alterations have been made, unless authorized by the manufacturer, or for equipment misused, neglected or improperly installed.

#### IMPORTANT NOTICE

To the fullest extent permitted by applicable law, the following are hereby excluded and disclaimed:

- 1) All warranties of fitness for a particular purpose.
- 2) All warranties of Merchantability.
- 3) All claims for consequential or incidental damages.

There are no warranties that extend beyond the description that appears on the face hereof.

Some states do not allow the above exclusions or disclaimers in consumer transactions and as such this disclaimer /exclusion may not apply to you.

To the extent such warranties of fitness or merchantability are deemed to apply to this product, they exist for only so long as the express limited warranty elsewhere set forth is in existence.

Smittybilt, Inc. reserves the right to change, alter or improve its products in design, materials or appearance without incurring any obligation to incorporate such changes in products that were previously manufactured.

This warranty gives you specific legal rights and you may have other legal rights, which vary from state to state to submit a warranty claim contact.



# Warranty Information Card

**Smittybilt**  
**400 West Artesia Blvd.**  
**Compton, CA 90220**  
**1-888-717-5797**

First name:

Last name:

Age:

Sex:

City/Province

Zip/Postal Code:

Country:

Telephone Number:

Email Address:

Which Smittybilt winch did you purchase?

Model Number:

Date of Purchase:

Where did you purchase this product?

Store or catalog name:

Store Location:

How satisfied were you with the dealer and /or sales staff?

Who installed or will install your Smittybilt product?

Is this the first time you have purchase a winch?

If no, what brand have you brought before?

What type of vehicle will this Smittybilt winch be installed on?

Year:

Make:

Model:

☐2WD

☐4WD

What is the vehicles main use?

What other accessories have you purchased/installed for your vehicle?