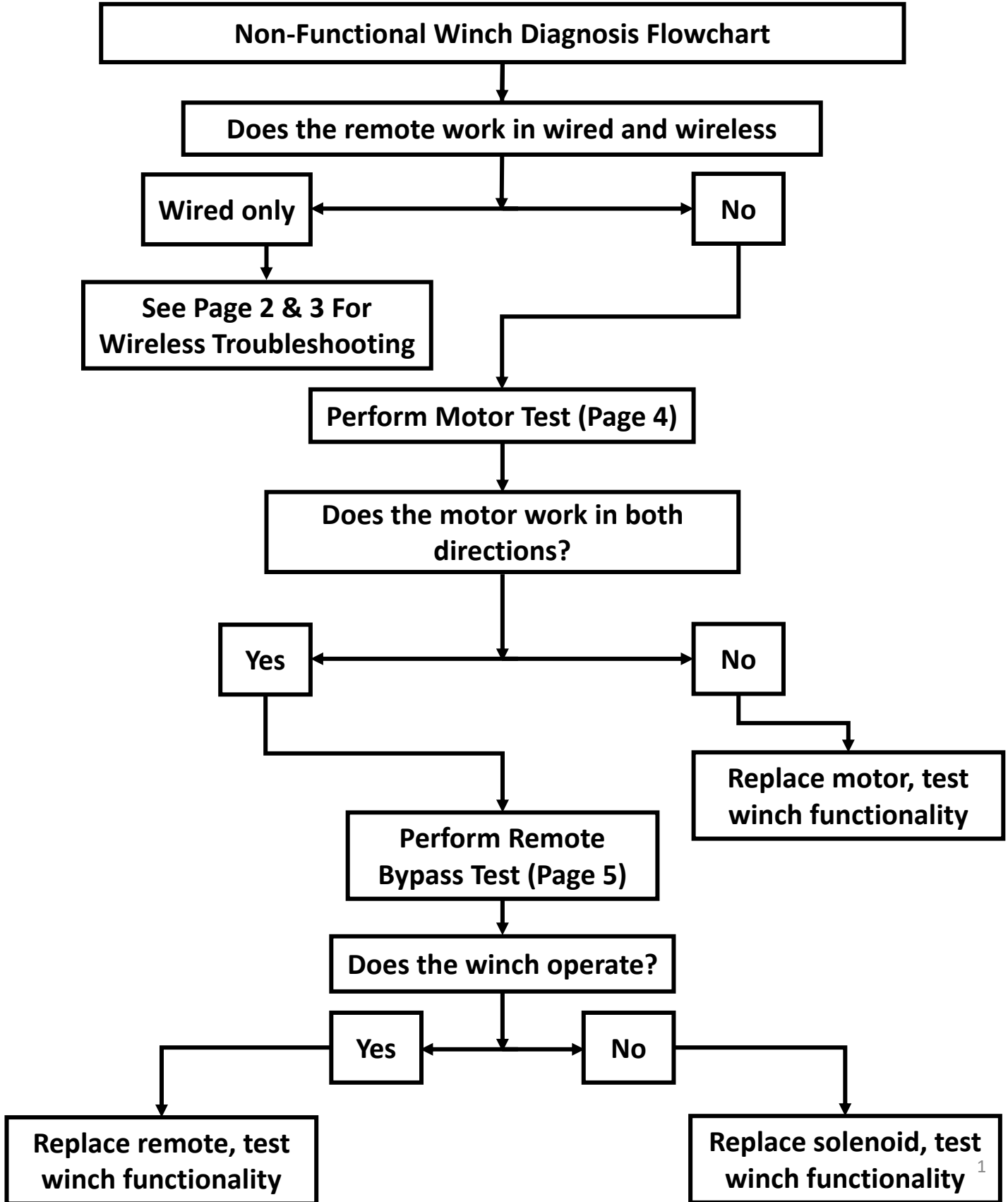




**X20 Gen 2 Winch
Diagnosis Flowchart**

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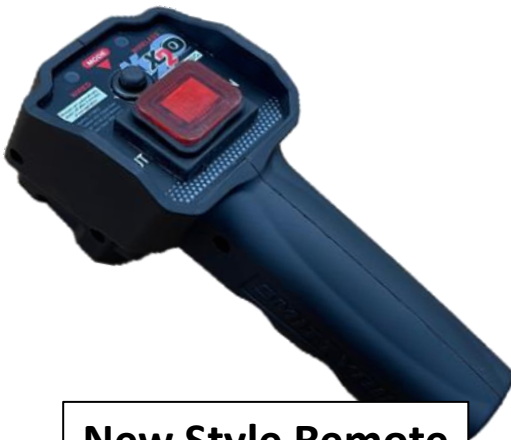
X20 Gen 2 Winch Wireless Troubleshooting

Wireless Testing

1. Battery Replacement

Depending on the age of your winch you will have one of two remotes.

Note: This step should still be performed first even if the LED is lighting up on the remote. It takes much less power to light up an LED than to power a wireless transmitter. The battery should always be replaced if experiencing wireless issues. Battery replacement instructions on Page 4 for new style and Page 5 for old style.



New Style Remote



Old Style Remote

2. On/Off Switch Bypass

1. Detach the control box from the winch while leaving all wires hooked up.
2. Remove 4 screws on the bottom of the control box holding cover to control box base plate.
3. Carefully lift the cover off the control box and disconnect the two red wires from on/off switch and connect them together with a suitable jumper wire.
4. Attempt to spool out the winch with the controller set to wireless mode.
5. If the winch works wirelessly replace the on/off switch. If not, continue through these tests.

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X20 Gen 2 Winch Wireless Troubleshooting

Wireless Testing (Continued)

3. Wireless Receiver Match

If you purchased this winch second hand it is possible the remote was replaced with out the wireless receiver being replaced. The wireless receiver can be found under the plastic cover of the control box. The number on the receiver should match the one on the remote as shown in Figure A.

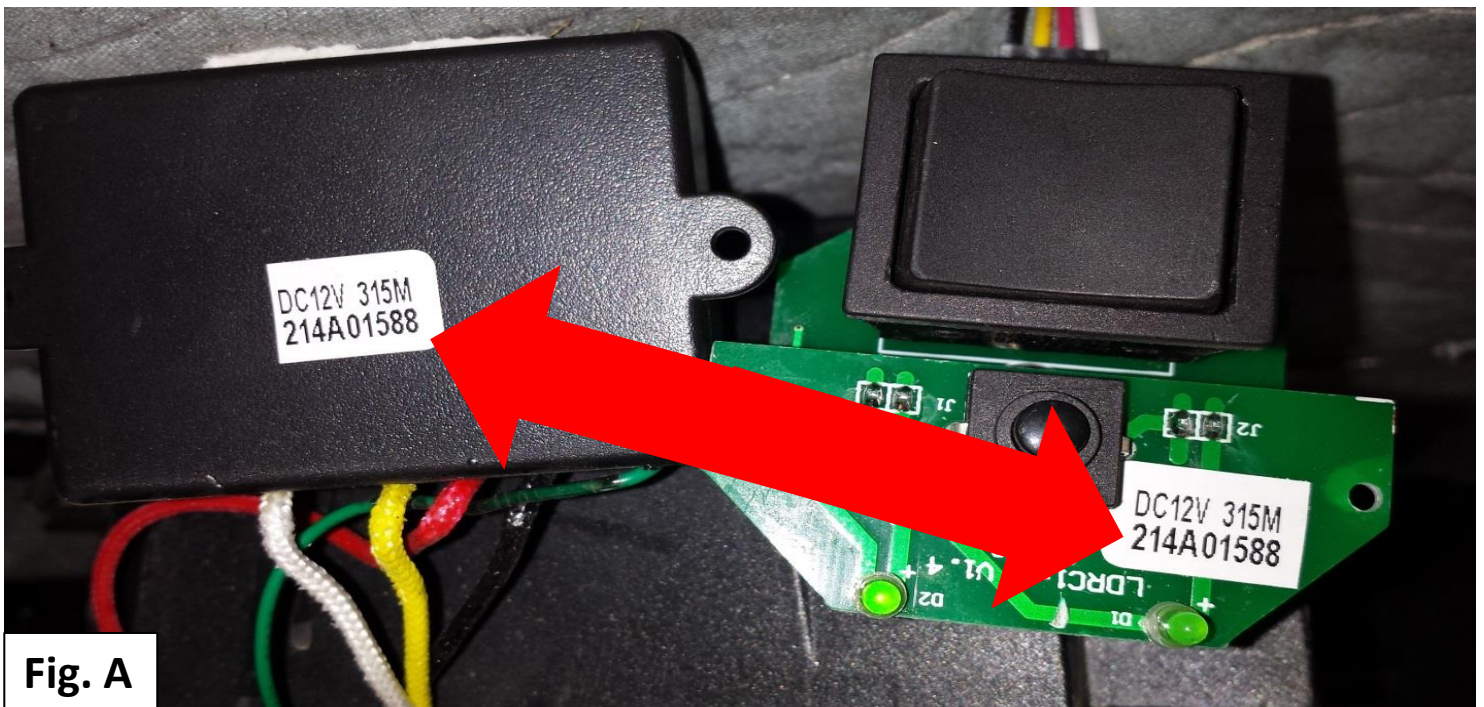


Fig. A

Note: If none of these tests are successful, please contact our Technical Support team. Most likely you will need a replacement remote and receiver (these cannot be purchased independent from each other as they are paired from the factory and cannot be repaired). Be sure to read the warranty policy on Page 9 for warranty information and what's covered.

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**X20 Gen 2 Winch
New Style Battery Replacement**

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1. Opening the battery compartment cover

Using a Philips screwdriver remove the screw from the battery compartment door (Figure A). Then open the door by pulling upwards (Figure B).



Fig. A

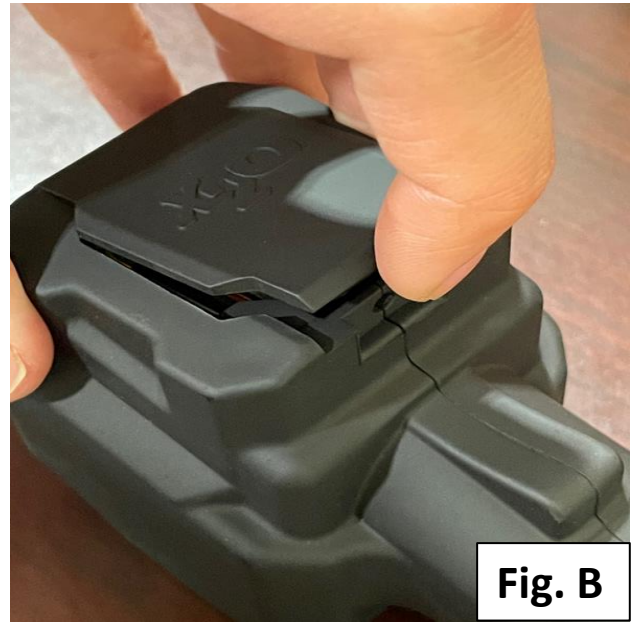


Fig. B

2. Replace the battery

Replace the battery using a suitable A23 style battery. (Figure C & D)



Fig. C



Fig. D

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X20 Gen 2 Winch Old Style Battery Replacement

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1. Opening the remote

Using a Philips screwdriver remove the 4 screws from the side of the remote (Figure A). Then pull the remote apart from the two sides. (Figure B).



Fig. A

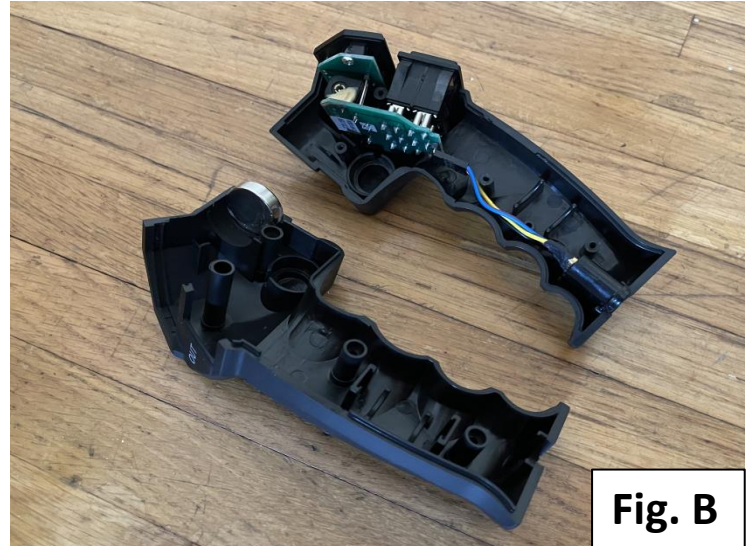


Fig. B

2. Replacing the battery

Remove the motherboard from the remote (Figure C). Remove the battery as shown in Figure D. Replace using a suitable A23 style battery.

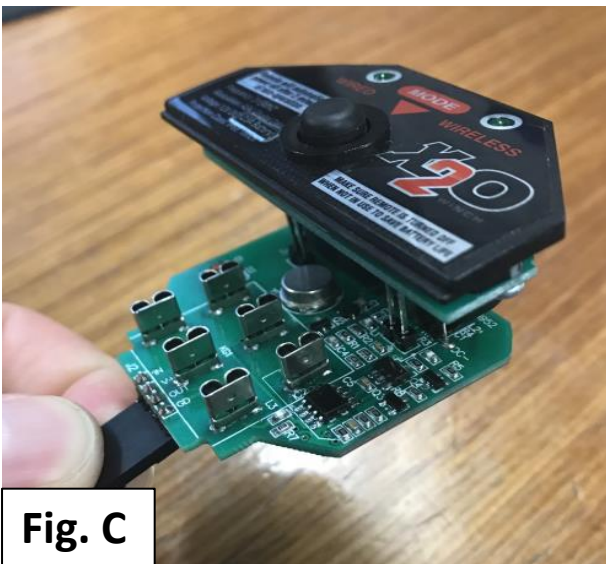


Fig. C

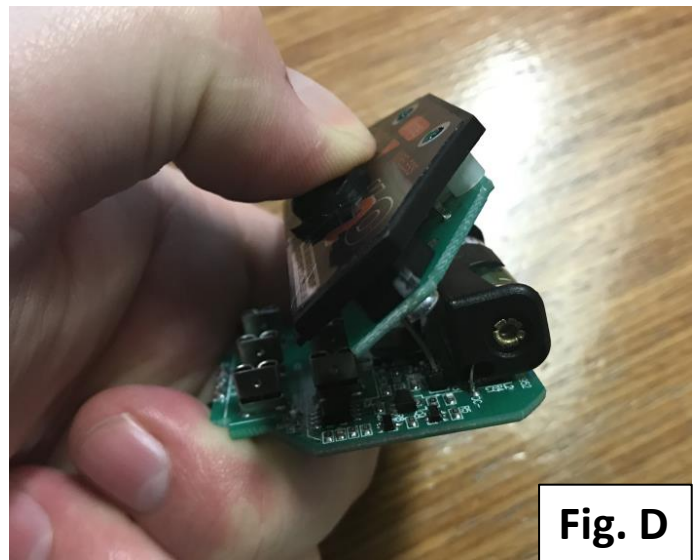


Fig. D

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X20 Gen 2 Winch Motor Test

Winch Motor Testing

1. Put gearbox lever into free spool position.
2. Disconnect positive lead from the battery. Leave ground cable connected to motor (terminal A) & battery (long black cable).
3. The three post on the motor are color coded (**RED** (B), **YELLOW** (C), and **BLACK**(D))

You MUST disconnect all 3 cables from the motor prior to beginning this test. Run a jumper wire from the YELLOW terminal to the RED terminal. Use a jumper cable from the POSITIVE terminal on your charged battery and tap it on the BLACK terminal. Winch motor should run in one direction.

4. Remove the jumper wire from the YELLOW terminal and attach it to the BLACK terminal. Use a jumper cable from the POSITIVE terminal on your charged battery and tap it on the YELLOW terminal. Winch motor should run in the opposite direction.

If these steps are followed correctly and the motor runs in both directions, then the motor is GOOD. If not, the motor must be replaced.



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X20 Gen 2 Winch Remote Bypass Test

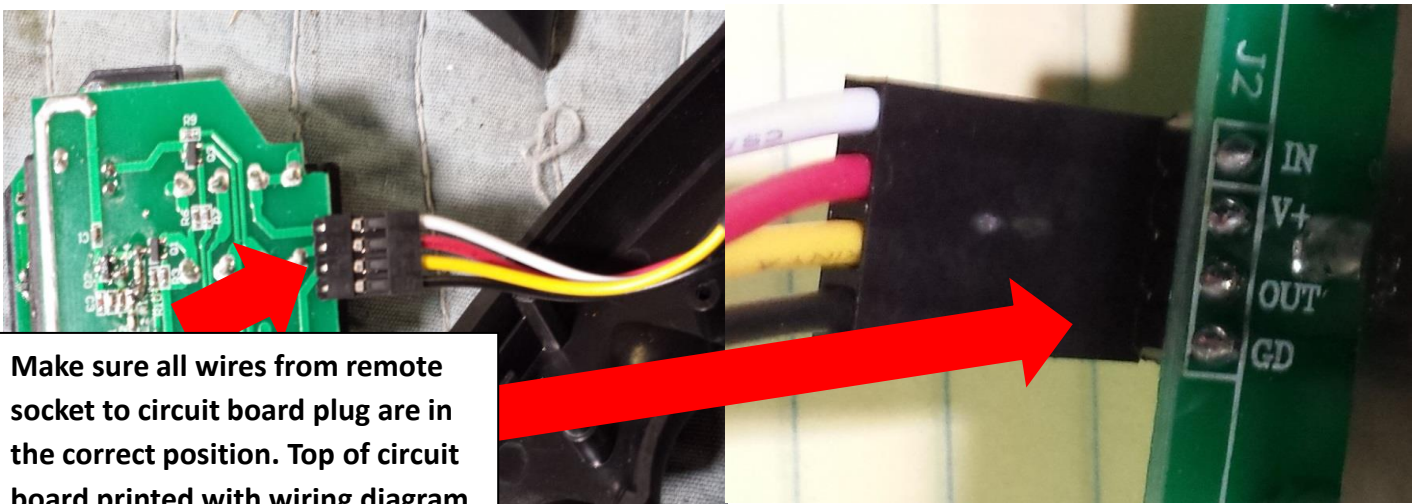
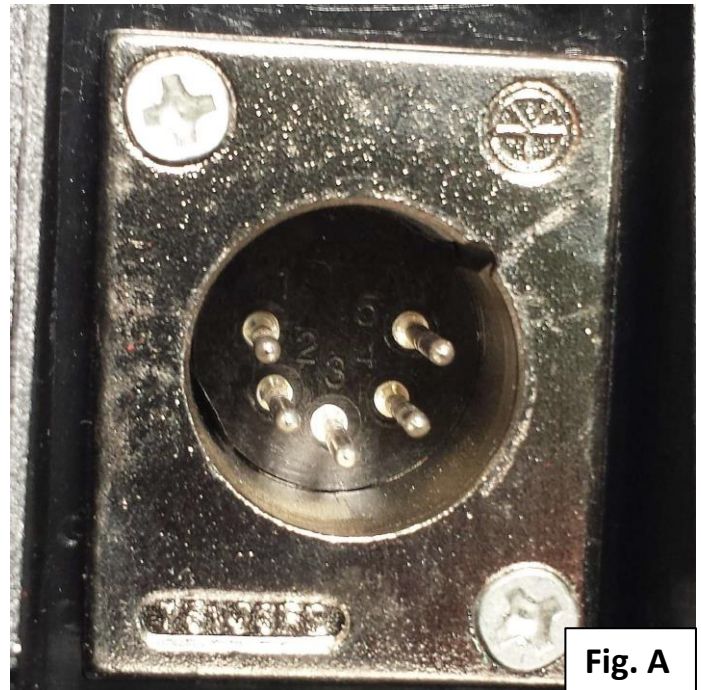
Remote Bypass Test

1. Using a suitable jumper wire, test the 'OUT' functionality by jumping **Pin #1** to **Pin #2**. **Note: The pins in the socket are numbered. As shown in (Fig. A)**
2. To test the 'IN' functionality, using a suitable jumper wire, jump **Pin #1** to **Pin #4**

Plug socket on control box. Notice the numbered pins.

1. Red (+)
2. Blue (OUT)
3. Not used
4. White (IN)
5. Not used

Always use a suitable jumper wire when performing this test. A piece of insulated wire that is stripped on both side is recommended.



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**X2O Gen 2 Winch
Replacement Part Guide**

Replacement Part Guide

Depending on the results of your testing you may or may not need replacement parts. Please contact Technical Support with any questions. These part numbers are for reference, if you are still within your warranty period and can provide the necessary documentation, you do NOT need to purchase these parts. If you can provide Smittybilt Tech Support with a proof of purchase, you are covered under a 5-Year electrical warranty and a limited-lifetime mechanical warranty. For more information see Page 9 for warranty information.

S/B97510 (10K)

Part Description	Part Number
Remote	97510-50
Solenoid	97510-52
Motor	97510-57
Remote Socket	97510-59

S/B97512 (12K)

Part Description	Part Number
Remote	97510-50
Solenoid	97510-52
Motor	97512-57
Remote Socket	97510-59

S/B97515 (15K)

Part Description	Part Number
Remote	97510-50
Solenoid	97510-52
Motor	97515-57
Remote Socket	97510-59

S/B97517 (17K)

Part Description	Part Number
Remote	97510-50
Solenoid	97510-52
Motor	97517-57
Remote Socket	97510-59

Note: Replacement parts for comp series winches are the same as their steel counterparts. Ex: 98510 winch will use the same parts as a 97510

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X20 Gen 2 Winch Warranty Policy

SMITTYBILT ADVANTAGE WARRANTY

LIMITED LIFETIME WARRANTY FOR MECHANICAL COMPONENTS

LIMITED 5-YEAR WARRANTY FOR ELECTRICAL COMPONENTS

Smittybilt Automotive Products, LLC (SAP) warrants to the original purchaser that (a) the mechanical components (e.g., gears, clutch, spool, 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 5-years from the original date of purchase. This warranty applies only to the original purchase of the winch and is non-transferable. To obtain any warranty service, you must provide SAP with a proof of purchase and date of purchase that is acceptable to SAP, such as a copy of your purchase receipt.

This warranty does not cover the removal or reinstallation of the winch and/or labor. SAP will, at its sole discretion, provide replacement part(s) for a defective winch or component, provided this is done within the warranty period. To request assistance under warranty, one must call or email using the phone number or email at the bottom of this page. This warranty does not apply (1) to finish, paint, or synthetic rope; (2) if the winch has been damaged by accident, abuse, misuse, collision, overloading, modification, misapplication, improper installation, or improper service; or (3) any normally wearable part such as, but not limited to, the brake assembly. This warranty is void if any SAP serial number has been removed or defaced; or if the winch is used for any commercial, industrial, or rental applications. This warranty only applies to winches bought, sold, and used within 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, EXPRESSED 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 TO A DURATION OF 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. For warranty inquiries contact SAP at:

Smittybilt Automotive Products, LLC
Customer Service Department
Call 1-800-776-0767 or Email info@smittybilt.com

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