

Owner's Manual



X2O 5K ATV/UTV Winch Owner's Manual Part # S/B97205 & S/B98205



Introduction

Thank you for choosing Smittybilt accessories for your off-roading needs! If you would like to view our full range of available accessories, please visit us at www.smittybilt.com



Overland Chairs



Overland Tents



Trail Bag

Important Notes Before Starting



IMPORTANT NOTE

Carefully read through this entire instruction manual thoroughly before attempting to operate this winch.



WARNING

- READ ALL WARNINGS AND NOTICES PRIOR TO ATTEMPTING TO OPERATE THIS WINCH!
- WARNING - KEEP THIS PRODUCT AWAY FROM CHILDREN! THIS IS NOT A TOY!
- PINCH HAZARD - KEEP BODY PARTS AND LOOSE ARTICLES OF CLOTHING AWAY FROM THE WINCH DURING OPERATION
- RISK OF ELECTRICAL FIRE - ONLY USE THE INCLUDED WIRING AND OTHER ELECTRICAL COMPONENTS TO PREVENT DAMAGE OR PERSONAL INJURY
- MINIMUM OF 300 CCA BATTERY RECOMMENDED
- FOLLOW ALL WARNING PRINTED IN THIS GUIDE AND ON THE WINCH
- PROFESSIONAL INSTALLATION RECOMMENDED
- DO NOT USE THE WINCH AS A LIFT OR HOIST
- USE THE WINCH ONLY AS INTENDED, FAILURE TO DO SO WILL VOID WARRANTY AND MAY RESULT IN DAMAGE, INJURY, OR DEATH.
- READ AND FOLLOW ALL WARNINGS PRINTED IN THIS GUIDE PRIOR TO USE.



For Technical Support / Warranty Information please call 800-776-0767
Smittybilt, 1017 W 600 N STE 4, Ogden, UT 84404

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: - Do not wear loose clothing or jewelry, as it can be caught in moving parts. - Wear gloves when handling the winch rope. - Non-skid footwear is recommended.
2. Keep a safe distance: - Ensure that all persons stand clear of the winch line and load during winch operation, 1.5 times the cable length is recommended. If a rope pulls loose or breaks under load, it can lash back and cause serious personal injury or death. - Do not step over the winch line. - All visitors and onlookers should be kept away from the work area. - Always keep proper footing and balance.
3. Do not overwork the winch: - If the motor becomes uncomfortably hot to touch, stop and let the winch rest for a few minutes. - Do not maintain power to the winch motor if it stalls. - Do not exceed the maximum line pull rating, specified in the tables, for your winch.
4. Avoid unintentional starting: - Winch clutch should be disengaged when not in use and fully engaged when in use.
5. Check for damaged parts: - Before use, you should check your winch carefully. Any part that is damaged should be properly repaired or replaced by an authorized service center.
6. Repairing your winch: - If repairs are necessary, use only identical Smittybilt brand replacement parts. Failure to do so may cause damage to the winch and/or injury to the user.
7. **Re-spooling the synthetic rope:** - Gloves should be worn to protect the user. To re-spool your winch line, it is necessary to keep a slight load (1000lbs) on the synthetic rope. Hold the rope with one hand and the remote-control 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 in. - Do not allow the rope to slip through your hand and do not approach the winch too closely. - Perform this procedure until all the cable except 1 meter is in. This should be done when the winch is new and done each time you use the winch. Failure to do so may cause damage to the rope or winch.
8. Disconnect the remote-control switch and finish spooling in the rope by rotating the drum by hand with the clutch disengaged.
9. On hidden winches, spool in the rope under power, but keep hands clear.
10. Never operate the winch with less than 10 wraps of rope 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 past the last layer will put a load on the terminal end and the rope will release from the terminal.
11. Always re-spool winch rope with at least 1000lbs of resistance to prevent damage to the winch line during the next recovery.
12. Synthetic ropes must be properly cared for to prevent damage. Only use an aluminum fairlead for a synthetic rope. Keep the rope clean and clear of debris.
13. Always store your remote in a safe and dry place. The remote is IP65 rated and should not be submerged.



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Read the following carefully before attempting to operate your winch and keep these instructions for future reference. Smittybilt electric winches are intended for recreational self-recovery usage only. Not designed for industrial or commercial use. Not recommended for trailer use.

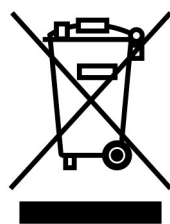
1. The uneven spooling of rope, while pulling a load, is not a problem, unless there is a cable pile up on one end of the drum. If this happens, reverse the winch to relieve the load and move your anchor point further to the center of the vehicle. After the job is done, you can unspool and rewind the rope for a neat lay of cable.
2. Store the remote-control switch inside your vehicle where it will not be lost or damaged. Inspect the remote before each use.
3. When ready to begin spooling in, plug in the remote-control switch with the clutch disengaged. Do not engage the clutch while the motor is turning.
4. Never connect the clevis hook back to the synthetic rope, this will cause damage to the rope. Always use a strap or chain of a suitable strength.
5. Observe your winch while winching, if possible while standing at a safe distance. Stop the winching process every meter or so to assure the rope is not stacking up in one corner. Stacking the rope can break your winch.
6. Do not attach tow hook to winch mounting plate, they must be attached to the vehicles frame
7. The use of a snatch block will aid recovery operations by doubling the winch capacity and reducing the winching speed by half. This will also provide the means to maintain a direct line pull to the center of the fairlead.
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 line, ensure that at least ten wraps of rope always remains on the drum. Failure to do so can cause the rope to detach from the drum. Serious personal injury and/or property damage may result.
10. Draping a heavy blanket or similar item over the extended winch rope is recommended as it will dampen any back lash should a failure occur.
11. Neat and tight spooling will help avoid cable binding, which is caused when a load is applied, and the rope is pinched between the others. If this happens, alternatively power the winch in and out. Do not attempt to work out a bound rope under load, free by hand.
12. Apply blocks to wheels when vehicles are on an incline.
13. Do not attempt to exceed the pulling limits of this winch
14. Do not drive your vehicle to assist the winch in any way. Vehicle movement in combination with winch operation may overload the rope or the winch itself. Doing so may cause damage.
15. Battery:
 - Be sure that the battery is in good condition. Avoid contact with battery acid or other contaminants.
 - Always wear eye protection when working around a battery.
 - Have the engine running when using the winch. - Do not use on a stand-alone battery. This winch requires a constant charge from a vehicles charging system.
 - Failure to do so will cause damage to the winch.
 - Be sure your battery is rated for at least 650 CCA - Do not use this winch on a trailer unless wired directly to a vehicle. (No stand-alone batteries)



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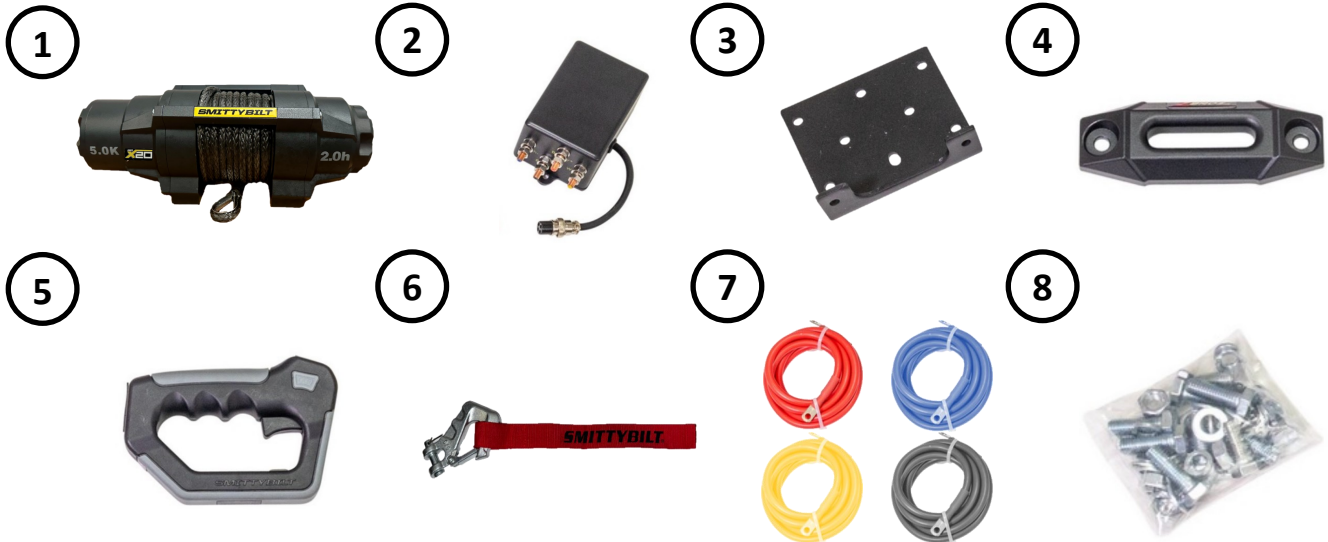
Safety Precautions

16. Do not use in hoisting applications due to required hoist safety factors and features.
17. Do not use the winch to lift, support, or otherwise transport personnel.
18. Winch is not designed to hold or lower loads. Not recommended for trailer use
19. Winch must be connected directly to a battery and the battery must be under a constant charge when operating the winch. A battery with a minimum of 300 CCA is required to run this winch. Inadequate, weak battery, and/or charging system may cause damage to the winch and/or to the vehicle. Many OEM batteries do not have enough capacity for winch use and will need to be upgraded. Check your battery, if inadequate, find the highest CCA and MRC (minute reserve capacity) battery you can fit. Higher MRC ratings mean that your battery can power the winch for longer periods without losing performance.
20. Winch amp draw can deplete a fully charged battery rapidly if not connected to an adequate source of charge. This may cause reduced performance and/or winch failure.
21. If power leads need to be extended, 3 gauge or thicker must be used. If winch is used in a remote location, battery must be as close to the winch as possible. Battery must receive a 90 amp or higher charge when winching.
22. Winch in small increments to allow battery amperage to recover. When winching, the battery discharges faster than your alternator can charge it. Take a break every minute to reduce the load on the battery and keep up the charge. Low battery voltage will damage the winch and may damage the electrical system and battery.
23. **Failure to comply will not only void the warranty on your winch but can also cause serious property damage or personal harm. Follow all installation instructions and obey all warnings.**
24. Winch Rope:
 - Be sure that the synthetic rope is in good condition and is properly attached.
 - Do not use the winch if the rope is frayed.
 - Do not move the vehicle to pull a load.
 - Do not replace the rope with a rope of lesser strength.
 - **The life of the rope is directly related to the use and care it receives. Following its first and subsequent uses, the rope must be wound on to the drum under a load of at least 1000lbs (460kgs) or the outer wraps will draw into the inner wraps and severely damage the rope during winching. The first use of the winch should be a familiarization run while in a relaxed, non-recovery situation. Spool out the rope until there are between 10-12 wraps around the drum (No less than 10). Then rewind the rope while under a load of 1000lbs or more. This will slightly tension and stretch the new rope and create a tight wrap around the drum. Failure to follow this process may result in damage to the synthetic rope and reduce its lifespan.**
25. Wireless Remote:
 - Remote Battery: User Replaceable 14505 (3.7V 500-2400mah) Lithium-Ion Rechargeable Battery
 - Charge Time: About 2 Hours
 - Battery Life: 10 Hours (w/o Flashlight) 30 Minutes (w/ Flashlight)
 - Charging: Recharge though any USB-A port
 - Built-In magnet to keep the remote in place



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Box Contents



ID	Part Description	QTY
1	X20 5K ATV/UTV Winch	1
2	Contactor Box	1
3	Mounting Plate	1
4	Fairlead	1

ID	Part Description	QTY
5	Wireless Remote	1
6	Clevis Hook w/ Hook Tag	1
7	Contactor Wires	1
8	Mounting Hardware	1

Technical Information

Description	Specification
Rated Line Pull (Single Line)	5,000lbs (2268kg)
Motor	2.4HP / 12V DC
Gear Train	3-Stage Planetary
Gear Ratio	166:1
Wire Rope (S/B97205)	0.217" x 40' (5.4mm x 15.2m)
Synthetic Rope (S/B98205)	0.217" x 40' (5.4mm x 15.2m)
Drum Size	2.03" x 2.95" (52.5mm x 75mm)
Dimensions	14.3" x 4.8" x 4.8"
Bolt Pattern	124mm x 76mm
Brake	Automatic Friction - Load-Holding
Clutch	Sliding Ring Engagement
Net Weight	28lbs

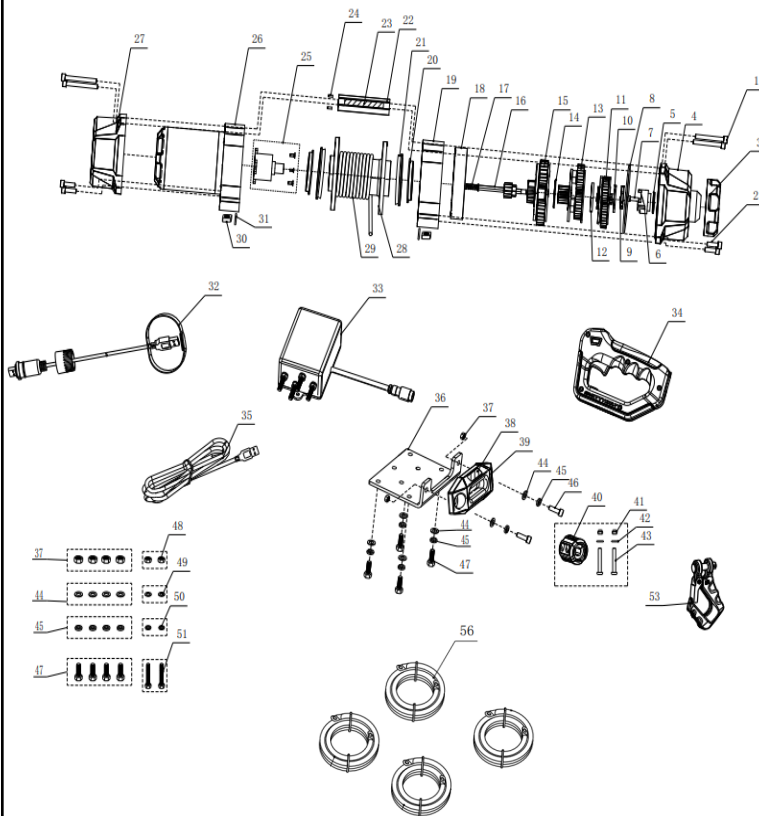
Line Pull Speed						
Line Pull	LBS	0	1250	2500	3750	5000
	KGS	0	568	1136	1704	2268
Line Speed	FPM	24.11	15.41	11.48	8.59	5.9
	MPM	7.35	4.7	3.5	2.62	1.8
Motor Current	AMPS	29	94	150	219	278

Layer of Cable		1	2	3	4
Rated Line Pull (Per Layer)	LBS	5000	4081	3447	2984
	KGS	2268	1851	1563	1353
Cable Capacity (Per Layer)	Feet	9.79	21.7	35.8	49.8
	Meters	2.98	6.62	10.9	15.2



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Parts Diagram



ID	Part Number	Description	ID	Part Number	Description
1	97205-01	Tie Bar Bolt	28	97205-28	Drum
2	97205-02	Gearbox Bolt	29	97205-29	Cable/Rope
3	97205-03	Clutch Knob	30	97205-30	Square Nut
4	97205-04	Gearbox	31	97205-31	2.5mm Pin
5	97205-05	Gearbox O-Ring	32	97205-32	USB-A Remote Adapter
6	97205-06	Gear Mount	33	97205-33	Contact Box
7	97205-07	M4-0.7x8mm CS Bolt	34	97205-34	Wireless Remote
8	97205-08	Large O-Ring	35	97205-35	USB-A Remote Cable
9	97205-09	Clutch Gear	36	97205-36	Mounting Plate
10	97205-10	Support Washer	37	97205-37	Fairlead Nut
11	97205-11	Planetary Gear Assembly	38	97205-38	Fairlead Logo Plate
12	97205-12	Gasket	39	97205-39	Fairlead
13	97205-13	Planetary Gear Assembly 2	40	97205-40	Safety Catch
14	97205-14	Gasket	41	97205-41	Safety Catch Nut
15	97205-15	Planetary Gear Assembly 3	42	97205-42	Safety Catch Washer
16	97205-16	Planetary Gear Assembly 4	43	97205-43	Safety Catch Bolts
17	97205-17	Clutch Spring	44	97205-44	Fairlead Flat Washer
18	97205-18	Inner Gear Ring	45	97205-45	Fairlead Lock Washer
19	97205-19	Gear Holder	46	97205-46	Fairlead Bolt
20	97205-20	Sliding Bearing	47	97205-47	Winch Mounting Bolt
21	97205-21	Seal	48	97205-48	Winch Mounting Nut
22	97205-22	Tie Bar	49	97205-49	Winch Mounting Flat Washer
23	97205-23	Tie Bar Logo	50	97205-50	Winch Mounting Lock Washer
24	97205-24	3mm Tie Bar Pin	51	97205-51	Winch Plate Mounting Bolt
25	97205-25	Brake Assembly	53	97205-53	Winch Hook
26	97205-26	Motor Assembly	56	97205-56	Winch Wiring Kit
27	97205-27	Motor Cover			

Troubleshooting

Issue	Possible Cause	Corrective Action
Motor Overheats	1. Incorrect power cords 2. Winch running time too long	1. Use only supplied power cords 2. Allow winch to cool down
Motor does not run	1. Remote not properly connected 2. Loose battery cable 3. Battery low	1. Disconnect and fully re-connect remote 2. Tighten all connections 3. Fully charge or replace battery
Motor runs, but rope/drum does not move	1. Clutch not engaged	1. Move the clutch handle to the engaged position
Motor runs slowly	1. Insufficient voltage	1. Charge or replace vehicle battery



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Step 1 - Installation - Mounting Your Winch



Step 1:

Install the winch onto your ATV/UTV winch mount (sold separately) or custom frame. Use the included mounting bracket between your mounting base and the winch. Mounting will vary from depending on your vehicle/application. Mounting may require assistance from a local off-road shop. Secure the winch to your winch mount using the included **Mounting Hardware** kit. Tighten this hardware to **12 ft-lbs**.



Step 2:

Install the **Fairlead** to the **Mounting Plate** using the included hardware in the **Mounting Hardware** kit.



Step 3:

Feed the synthetic rope or steel cable through the **Fairlead**. Install the **Clevis Hook w/ Hook Tag** to the synthetic rope or steel cable eyelet using the clevis hook's shear pin and cotter pin.



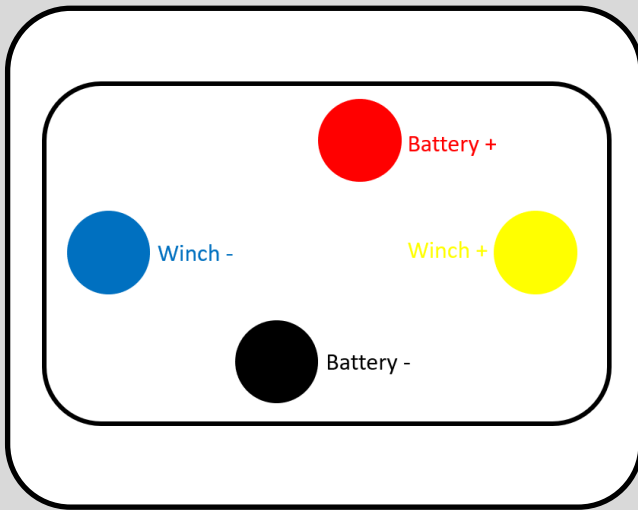
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Step 2 - Wiring - Wiring Your Winch



Step 1:

Find a secure mounting location for the **Contactor Box**. Verify the battery and winch cables will reach the mounting location before continuing. Once ready, drill and mount the **Contactor Box** with the included hardware in the **Mounting Hardware kit**.



Step 2:

Use the included **Contactor Wires** and wire the **Contactor Box** to the winch and battery using the wiring guide on the left. The wiring guide can also be found on the **Contactor Box** for easy install.

To prevent damage, do NOT overtighten the terminals on the Contactor Box or winch.



Step 3:

Determine where you would like to operate the remote and route the provided USB cable to the **Contactor Box**. Connect the included remote cable to the pigtail on the contactor. Route the cable so it is out of the way of hot engine parts and pinch points. Wiring is now complete.



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Step 3 - Operation - Operating Your Winch



Step 1:

Plug the USB cable from the contactor into the remote. Start your vehicle and allow it to sit at idle.

You can also use this remote wirelessly. Just press and hold the power button on the remote until it slowly flashes blue. Then, follow the steps below to use the remote. Be sure the remote is charged.

Note: Your vehicle should always be running when the winch is in use to prevent the winch from draining the battery.



Step 2:

To power the rope in:

Press the 'IN' button

A red light will illuminate under the 'IN' button to confirm your selection

Use the trigger on the remote to pull line inwards towards the winch.



Step 3:

To power the rope out:

Press the 'OUT' button

A red light will illuminate under the 'OUT' button to confirm your selection

Use the trigger on the remote to power line outwards away from the winch.

Note: The line should normally be pulled out by hand with the winch in freespool. Powering the winch out should only be done if necessary as it can cause wear to the brake and motor.



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Warranty

SMITTYBILT ADVANTAGE WARRANTY

LIMITED 2-YEAR WARRANTY

Smittybilt Automotive Products, LLC (SAP) warrants to the original purchaser that (a) the physical components (e.g., motor, gearbox, remote, etc.) of any SAP **X2O 5K ATV/UTV Winch** will be free of defects in material and workmanship for 2-years from the date of purchase of the winch. This warranty applies only to the original purchaser 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 labor of part replacement of the winch. 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 or paint; (2) if the winch has been damaged by accident, abuse, misuse, collision, modification, misapplication, improper installation, changes to the factory set parameters, or improper service; or (3) any normal-wearable part. 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 or Canada 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 MERCHANT ABILITY 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:

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WARNING: Cancer and Reproductive Harm
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