

POWERHOUSE

XM-100 Chainsaw Winch

OWNER'S MANUAL



Congratulations!

You have made the right choice by choosing the Powerhouse XM-100 Chainsaw Winch!

Before you do anything else, read the XM-100 Owner's Manual from cover to cover to learn how to operate your new Chainsaw Winch safely and efficiently.

If you have any photos, movies and comments that you would like to share regarding your experience with the Powerhouse Chainsaw winch, please feel free to send them to us. If you have any questions about your new Powerhouse Chainsaw Winch, its accessories and anchoring systems, definitely get in touch and we will help you with any issues or concerns you may have.

One of the first things you should do is to choose the right chainsaw for your intended purpose:

GENERAL PERFORMANCE CHART			
Expected Use	Engine Size (bhp)	Pulling Capacity (lbs) Straight-Line	Pulling Capacity (lbs) Using 1 Snatch Block
Light Duty	3-4	2,000-2,500	4,000 -5,000
General Duty	5-6	3,000- 3,500	6,000- 7,000
Heavy Duty	7*	Up to 4,000	Up to 8,000
* THE OPERATOR ACCEPTS ALL RISK WHEN USING AN ENGINE WITH MORE THAN 100 cc's OR 7 bhp			

- In general, a chainsaw should have a minimum of 3 horsepower (with 48 cc's, 18"+ bar w/ 3/8" chain). It has a commercial-grade clutch, and though it may sometimes slip, it will not burn up under heavy loads.
- You can make do with electric and gas chainsaws with less than 3 HP if you only work with lighter loads.
- Like any tool, chainsaws must be maintained and serviced regularly. Consult your chain saw owners' manual or check with your local chainsaw dealer for the best way to care for your chainsaw.

Servicing & maintaining your Powerhouse Winch

- For optimal performance and your safety, always check to make sure that your Powerhouse Chainsaw Winch's throttle and clutch are in proper working order.
- Maintain 5 oz of oil in the Powerhouse Chainsaw Winch gearbox at all times.
- To check oil level in the gearbox, stand your winch vertically on its spool. Remove the oil fill-plug. Oil level must be the level of the fill-plug.
- Re-fill oil if necessary. Do not overfill.
- Never let the gearbox run dry. Nearly all gear damage occurs due to a dry gearbox.
- The gearbox has been pre-filled at the factory with 5 oz. of 80/90 weight gear oil.
- Make sure that the chain-guard is in place before operating the Powerhouse Chainsaw Winch.
- Check that all nuts, bolts and set screws tight before using the Powerhouse Chainsaw Winch.

Cable Management

- **Replace cable when it shows signs of wear** (frays, bends, kinks, etc.).
- Use either 1/8" or 3/16" cables. Your new Powerhouse Chainsaw Winch comes with 150 feet of 3/16" aircraft cable.
- For safety reasons, **keep at least 10-20 wraps on the drum** at all times.
- Ensure that there is **no slack on the cable** before starting up your chainsaw. This prevents sudden jerking on the cable that could break the shear-pins of your Powerhouse Chainsaw Winch. This can cause the spool to free wheel.
- If your load comes up against an obstacle, **do not force the winch to pull it free**. This can damage the winch, especially if you are using the larger chainsaw engines. Instead, stop the engine, and check on the unknown load. Remove it if possible before you start pulling again.

Out of the Box



Operating Tips

- You have to make sure that the Powerhouse Chainsaw Winch is anchored to something heavier and more solid than the object that you are trying to move.
- To anchor your Powerhouse Chainsaw Winch to a tree, use a belt. Connect it directly to the winch, or use another cable or chain, as needed.
- You can also use a vehicle as an anchor. Attach a cable or chain attached securely to the vehicle's frame. If your vehicle happens to have a 2" receiver hitch, you can use a trailer-hitch mount (not included).
- If you have a hard time releasing the clutch because there is still a lot of tension on the cable, try using a chain-binder in your anchor set-up. This will let you to release the cable tension easily.

WARNING: Always engage the hand brake before releasing the clutch under load.

- Use a bungee cord on the brake handle to keep tension on the brake when unspooling the cable to prevent "birdnesting."

BE SAFE

This Powerhouse Chainsaw Winch owners' manual serves only as a general guide. If you have any questions or concerns, call us for more information.

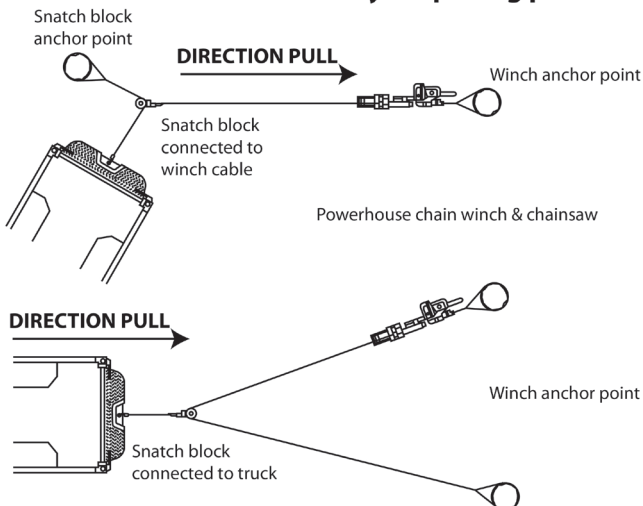
Do not take chances with your safety!

NOISE LEVELS

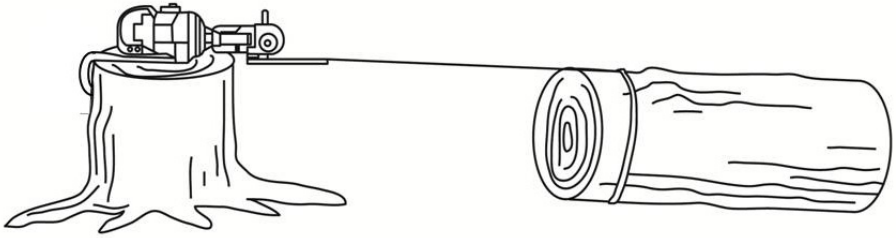
The sound level produced by a Powerhouse Chainsaw Winch is very low. Most of the noise and vibrations come from the chainsaw itself. In some instances, the Powerhouse Chainsaw Winch may even help to reduce noise and vibration levels. To find out how much noise you can expect while operating the winch, consult your chainsaw's owner's manual.

Increase speed by 50%

Double your pulling power

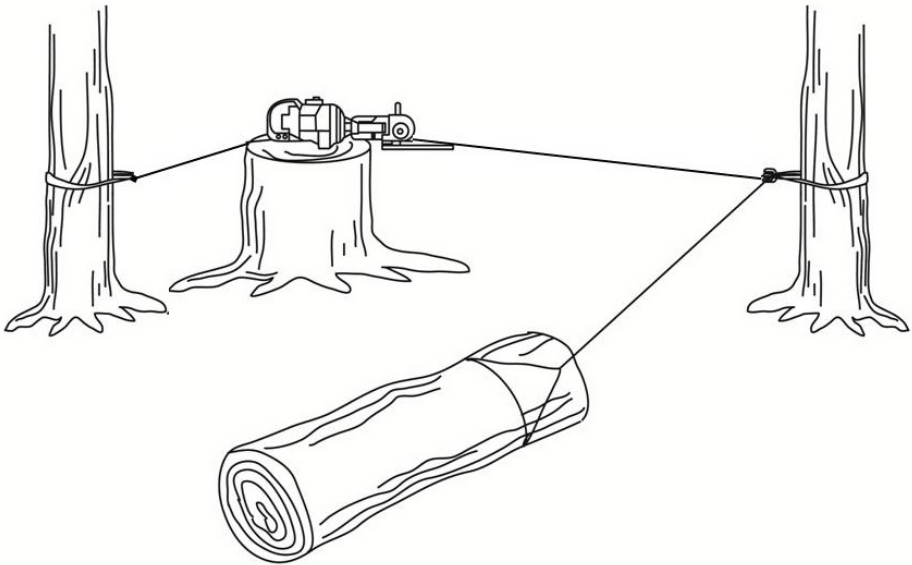


Using a Peavey Hook (not included) to anchoring your Powerhouse Chainsaw Winch



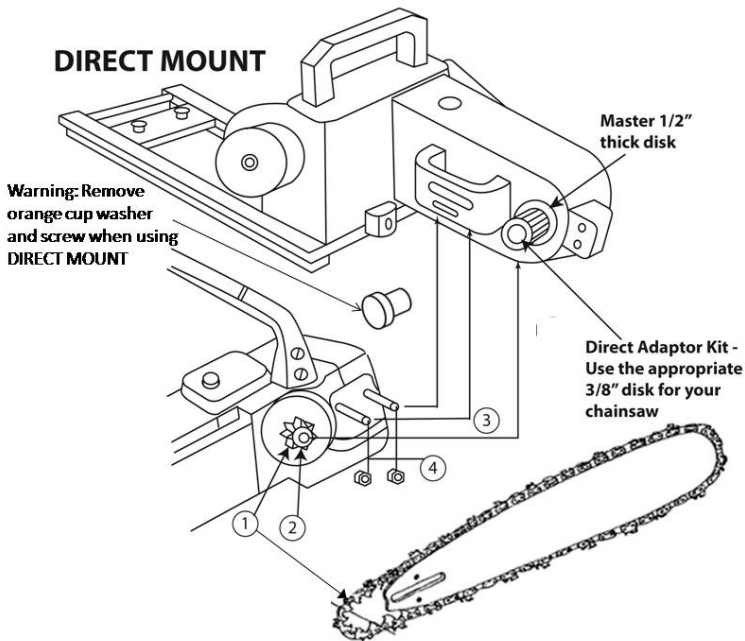
Find a secure tree stump and put the Powerhouse Chainsaw Winch on top. Make sure the Peavey Hook can get a good grip on the tree stump. As soon as you operate the Powerhouse Chainsaw Winch, the load will generate an increase in tension on the cable and will result in a stronger anchoring of the Peavey Hook on the stump.

Using a Tree-Saver Belt to anchor your Powerhouse Chainsaw Winch



You can also use a tree saver belt to anchor the Powerhouse Chainsaw Winch. For safe operation, make sure that the winch is put on a solidly anchored object. Also, make sure to set the anchor points on the trees lower than the position of the winch. This is to ensure that winch will not be lifted up into the air when the cable is under tension when throttling the engine.

ASSEMBLY & MOUNTING INSTRUCTIONS

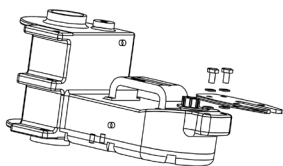


DIRECT MOUNT

1. Detach the bar and chain from the chain saw, leave the bar-mounting nuts.
2. Detach the spring-clip from the output shaft of the chainsaw
3. Detach the large washer from the output shaft of the chainsaw. If the chainsaw has a rim-sprocket, this must also be removed.
4. Re-attach the spring-clip, but do not re-attach the large washer.
5. Detach the washer from the input shaft of the Powerhouse Chainsaw Winch. Failure to do so when using the "direct mount" method could result in gear damage. Locate the appropriate adaptor for the chain saw. Bolt and screw the 1/2" thick master-disk to the corresponding 3/8" disk for your chain saw using the supplied 3 screws.
TIP : To make sure the screws stay tight, we recommend using "Loctite". Slip the assembled adaptor onto the input shaft of the Powerhouse Chainsaw Winch. Make sure that the studs of the chainsaw and the slot in the winch are aligned. This is to make sure that the adaptor is fully engaged and set straight with the output shaft of the chainsaw. The Direct Drive Adaptor must have a back-and-forth float of about 3/8".
TIP : Make sure that the bar-adjustment stud on the chainsaw fits snugly into the lower slot of the Powerhouse Chainsaw Winch. To adjust the position, turn the bar-adjustment screw of the chainsaw until aligned.
6. Re-attach the bar-mounting nuts on the bar studs of the chainsaw, then tighten the nuts. (use Loctite)
TIP : We recommend emptying the chain-oiler tank of the chainsaw if you will use the Direct Mount Method.

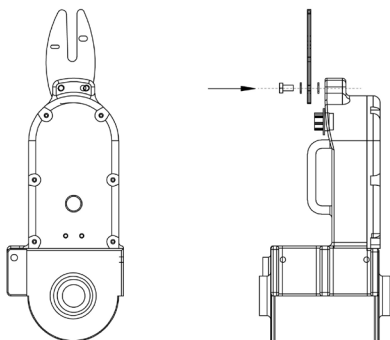
Alternate UNIVERSAL MOUNT

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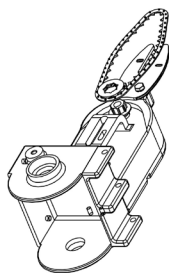


Detach the bar and chain of the chain saw.
Leave the bar-mounting nuts.

Using 5/16" cap screws and washers, attach
the universal adaptor to the Powerhouse
Chainsaw Winch.

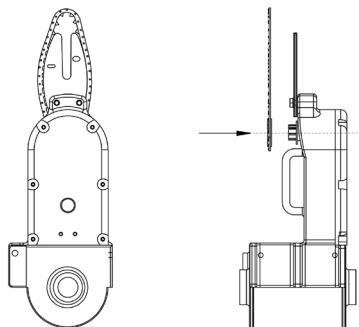


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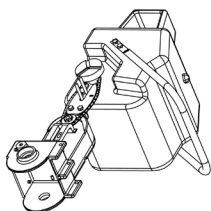


Slip the rim-sprocket onto the output shaft
of the Powerhouse Chainsaw Winch. Do not
remove the orange cup washer.

Using the retained barmounting nuts, attach
the Powerhouse Chainsaw Winch Adaptor
to the bar studs of the chainsaw.

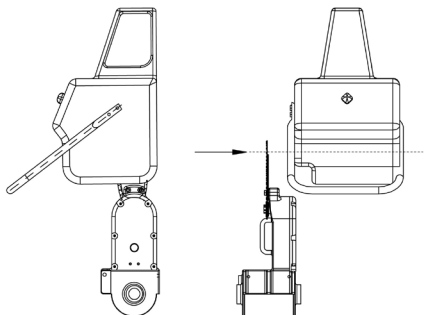


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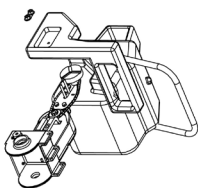


Attach the supplied cutter-less chain around the sprocket of the chainsaw and the winch.

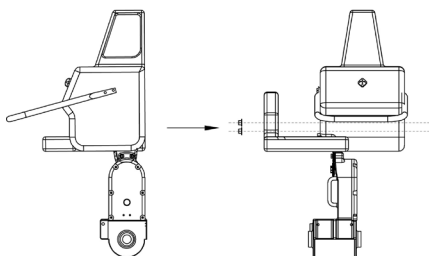
Attach the chain using the supplied connecting link.



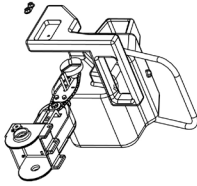
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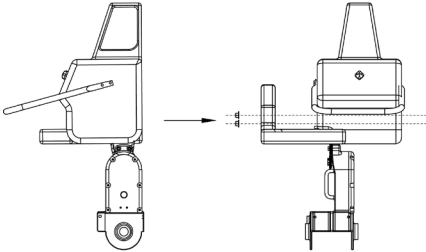
Hammer pins or attach spring clips to securely install side-plate.



5



Use the chain adjustment screw on the chain saw to adjust the chain tension.



CABLE INSTALLATION

1. Using a gloved hand, firmly press the clutch handle then turn counter-clockwise to disengage the clutch. This will let the spool free wheel. Fully unwind the cable.
2. Pass the end of the cable through the fair lead then the hole in the spool. Wind the cable manually.
TIP : For added safety, wrap a few coils of cable around the spool with duct-tape.
3. Turn the clutch handle clockwise to reconnect the clutch.
TIP : Make sure the clutch shaft is connected and fully engaged to the drive sprocket.
4. Turn on the chainsaw to wind up the remaining cable back to the spool.
TIP : Attach a fairly heavy weight at the other end of the cable to keep it taut. This is to make sure the cable winds tightly on the spool.
5. To prevent the cable from creating a "bird's nest" when unspooling, use a bungee cord to maintain a constant pressure on the brake.

BRAKE HANDLE INSTALLATION

- Level the brake handle attachment bolt with the brake handle by pulling it back using a 5/16" Hex key.
- Slip the brake handle on top of the brake drum. Align the attachment bolt with the threaded hole on the Powerhouse Chainsaw Winch. Tighten the bolt with a hex key while tightly holding the brake-handle.
TIP : To avoid having a stiff brake handle, do not over tighten the attachment bolt.

Cable Care

Purchase and use of wire rope and aircraft cable

WARNING

Please take note that the Breaking Strength indicated for wire ropes or aircraft cables apply only to brand new and unused products. To find out the Maximum Working Load of a product, check the CAUTION section below. Also, take note that these products must be used only for what they were designed for and for equipment they were built for. They must be used only under normal working conditions and within OSHA safety standards. Always follow the instructions indicated regarding their use in terms of design, maintenance, and operation. Aircraft cables are not rated to be used with aircraft controls.

Definitions

Breaking Strength - Is the minimum pressure exerted on a product that will cause it to break. The amount of pressure is based on test results made using standard testing machine. The testing machine applies direct tension to the product at a constant rate of speed. The products used for the tests must be in the same condition as it left the manufacturer.

KINKING



Kinking – This is a condition of the rope or wire where in the strands and fibers are skewed from their normal twist. This occurs when the rope or wire takes on a spiral shape. This condition

compromises the strength and integrity of the product. It causes uneven tension and excessive wear on the affected area. Kinking usually occurs when the wire or rope is reeled, rolled or coiled improperly. To avoid kinking, always reel, coil or roll the wire or rope properly. Once kinking occurs, it can no longer be fixed or undone. Unrolling and straightening the kinked area cannot undo the damage. Because of this, kinked wires or ropes must not be used and must be replaced immediately.

CAUTION

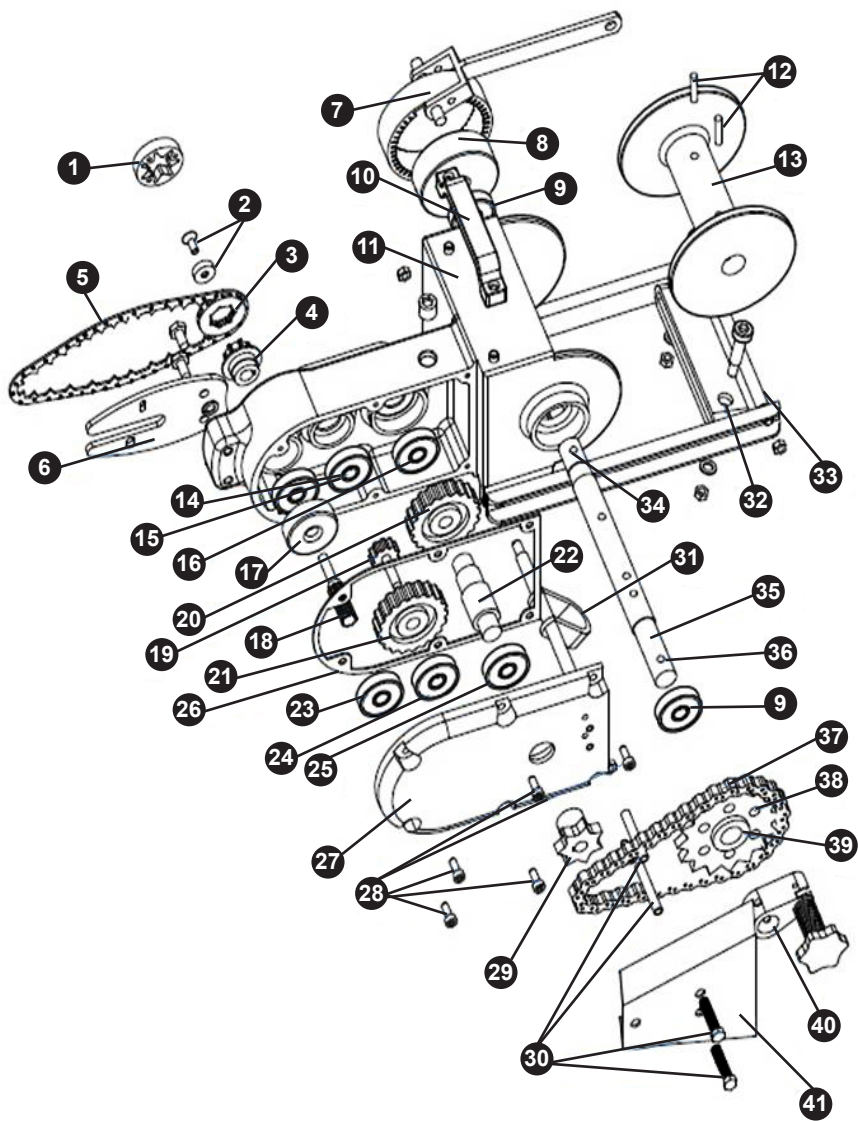
It is very important to note that there are several factors that need to be considered in determining the maximum working load for every application. These factors include but are not limited to the following:

- Applied Load
- Operating Speed
- Acceleration/Deceleration
- Cable Length
- Shock Load
- Abrasion
- Corrosion
- Quantity, quality, design, and location of drums and sheaves
- Inspection Facilities
- Safety Risks to life and property

During coiling or winding of the cable onto the spool, make sure that tightness of the layers is consistent all throughout the coiling or winding. Do not coil a tight layer of cable over a loose layer. This may cause the outer tight layers to exert additional force between the layers and cause a jam. When unspooling the cable, put tension on the brake to make sure the spool speed is lower than the cable speed.

*Always store, maintain and handle the products properly before and after each use. **Do not use linked or knotted cable.** Regularly inspect your product and its parts.*

POWERHOUSE XM-100 WINCH PARTS LIST



#	PART	DESCRIPTION
1	L906	Direct Drive Adaptor Kit 4 pcs c/w 3 screws
1	L906A	3/16" Spacer for Adaptor Kit c/w 3 longer screws
1	L906B	7 Tooth Mini Spline Adaptor for small Stihl saw
1	L906D	6 Tooth Adaptor for Electric saw & small Stihl
1	L906E	* Master Adaptor for Powerhouse Winch 1/2" thick w 3 screws
1	L906F	* 7 Tooth Standard Spline Adaptor
1	L906G	* 7 Tooth Spur Adaptor 3/8" pitch
1	L906H	* 7 Tooth Small Spline Adaptor
1	L906J	3 Adaptor screws (std length)
1	L906M	Special 1 pc Adaptor 1" long std spline to 8 tooth .325
2	not in parts list	Orange Cup Washer
3	E504C	* Rim Sprocket 3/8" Pitch
4	E504B	Adaptor
5	L902	* Cutterless Chain 3/8" Pitch c/w Connector
6	L901	* Bar Adaptor (mounting bar) c/w 2 Bolts & Lock Washers
7	A401	Brake Handle
8	A400	Brake Drum (complete)
9	B402	Bearing (2)
10	B403A	Main Handle
11	B403	Drum Housing c/w Gearbox (1 casting)
12	B404A	Retainer Pins (2)
13	B404	Cable Drum
14	E506	Bearing
15	E507	Bearing
16	E508	Bearing
17	E506A	Oil Seal for Input Shaft (units 2004 & later)
18	E601	Gear 1st Shaft small (input shaft)
19	E602	Gear 2nd Shaft small
20	E600	Gear 3rd Shaft Large
21	E509	Gear 2nd Shaft Large
22	G700	Shaft Gearbox (output shaft)
23	F606	Bearing
24	F607	Bearing
25	F608	Bearing
26	E605	Gasket
27	E604	Gearbox Cover
28	E605A	Socket Head Cap Screws 1/4" (6)
29	H702	Sprocket 40 Pitch
30	C501	Bolt c/w Spacer (2)
31	B409	Shackle & Bolt c/w Locknut
32	B409B	Hardened Shoulder Bolt c/w Locknut (2)
33	B409A	Cable Roller & Bolt c/w Locknut
34	B407	Retainer Pin (1)
35	B406	Drum Shaft (pre-drilled)
36	B407A	Hardened Dowel Pin (for clutch)
37	C409	40 Pitch Chain c/w Connector
38	D503	Sprocket with 6 Holes (for clutch units 2003 & later)
39	D503A	Bronze Bushing
40	D502	Clutch c/w Handle (for new sprocket #15)
41	C500	Chain Guard

WARRANTY

Limited Warranty for the Powerhouse XM-100

What is covered

Your Chainsaw Winch is warranted against original defects in material and workmanship for a period of one (1) year from the date of purchase, when used for purposes in accordance with this User's Guide. This warranty provides for the repair or replacement of the unit. Replacement product or parts may include re-manufactured or refurbished parts or components.

Effectivity

The one (1) year warranty for all parts and labor applies to the date of first purchase. This is valid only for the first purchaser.

What is not covered

- Units purchased from unauthorized dealers.
- Units with defaced, modified, or removed serial numbers.
- Damage, deterioration, or malfunction due to:
 - a. Accident, misuse, neglect, fire, water, lightning, or other acts of nature.
 - b. Unauthorized modification of unit.
 - c. External sources such as power fluctuation and weather.
 - d. Repair or attempted repair and alteration by unauthorized parties.
 - e. Any damage to product due to shipment.
 - f. Removal or installation of product.
 - g. Use of parts and supplies other than those produced or recommended by Powerhouse Chainsaw Winch.
- Removal, installation, and set-up service charges.

Warranty Service

- Contact Powerhouse, the helpline for more information regarding obtaining warranty service 503.575.9407.
- To obtain warranty service, be ready to provide the following: serial number, date and place of purchase, original dated sales slip, your name and address, and a description of the problem.
- All repair work will be done by Powerhouse or its authorized agents.
- Any replaced defective parts will not extend this warranty period.
- Service under warranty will not extend this warranty period.

Warranty Limitations and Exclusions

- There are no warranties, express or implied, which extend beyond the description contained herein including the implied warranty of merchantability and fitness for a particular purpose.

- Powerhouse' liability is limited to the cost of repair or replacement of the product. Powerhouse', Inc. will not be liable for any consequential damages or incidental damages you incur in connection with your purchase and use of your unit. This limitation is not allowed by some states and so this limitation may not apply to you.
- This warranty gives you specific legal right. You may also have other rights that vary by state.

Sales outside the U.S.A.

For Powerhouse' products sold outside the U.S.A, contact your dealer for warranty information and service.

Powerhouse Logsplitters
16520 SW 72nd Ave.
Portland, OR 97224
Phone: 503.575.9407
Fax: 503.296.2865
E-mail: sales@powerhouselogsplitters.com

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