

9.6V CORDLESS CHAINSAW SHARPENER



MODEL #CS-96V

IMPORTANT: READ THESE INSTRUCTIONS CAREFULLY TO ENSURE SAFE OPERATION OF THIS PRODUCT.

GENERAL INFORMATION

Read all instructions before operating this product. Save these instructions for future reference. This manual contains the intention for which the product has been designed and necessary information to ensure correct and safe use. It is recommended to read ALL instructions before any operation, any kind of adjustment, or any assembly/maintenance to this product. Following all general safety instructions contained in this manual will provide product and operator safety, and a longer usage life for this product.

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SPECIFICATION

Stock No: CS-96V

Battery:

Type: Ni-Cad

Rated Voltage: 9.6V

Rating: 750mAh

Transformer:

Type: Fail-Safe Safety Isolating

Rated Supply Voltage: 110V

Rated Supply Frequency: 60Hz

Rated Output Voltage: 9.6V

Rated Output: 6.0VA

Rated Output Current: 500mA

Revolutions Per Minute (no load): 8,000-20,000min⁻¹

Sound Pressure Level: 88.5dB(A)

Sound Power Level: 99.5dB(A)

Vibration Level: <2.5m/s²

Weight (machine only): 0.75 lbs

GENERAL SAFETY INSTRUCTIONS

WARNING:

Read all instructions. Failure to follow instructions listed below may result in electric shock, fire and/or serious injury. The term "Power Tool" in all of the warnings listed below refers to hand operated power tool(corded) or battery operated(cordless) power tool.

SAVE THESE INSTRUCTIONS

1. Work Area

- a. Keep work area clean and well lit. Cluttered and dark areas invite accidents.
- b. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- c. Keep children and bystanders away from work area while operating a power tool. Distractions can cause you to lose control.

2. Electrical Safety

- a. Power tool (corded) plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- b. Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- c. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- d. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cords away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

3. Personal Safety

- a. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. Any in-attention while operating power tools may result in serious personal injury.
- b. Use safety equipment. **ALWAYS** wear ANSI approved eye protection. Safety equipment such as gloves, dust mask, non-skid safety shoes, hard hat, and hearing protection used for appropriate conditions will reduce risk of personal injuries.
- c. Avoid accidental starting. Ensure the switch is in the off position before plugging in. Carrying power tools with your finger on the switch or plugging

in power tools that have the switch on invites accidents.

- d. Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f. Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- g. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust related hazards.

4. Power Tool Use and Care

- a. Do not force any power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer for which it was designed.
- b. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c. Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d. ALWAYS Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g. Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from intended may result in serious or hazardous situations.

5. Battery Tool Use and Care

- a. Ensure the switch is in the OFF position before inserting battery pack. Insert the battery pack into power tools that have the switch on invites accidents.
- b. Recharge only with the charger specified by the manufacturer. A charger for one type of battery pack can create risk of fire when used with a different battery pack.
- c. Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- d. When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that

can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.

- e. Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, seek medical help immediately. Liquid ejected from the battery may cause irritation or burns.

6. Service

Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure the safety of the power tool is maintained.

ADDITIONAL SAFETY INSTRUCTIONS

Specific to Battery Chargers

- Before charging, read any additional instructions for charger.
- Designed for indoor use ONLY. Do not expose charger to rain or wet conditions.
- NEVER charge non-rechargeable batteries. This can cause dangerous situations.
- The battery charger is only for re-chargeable Ni-Cad batteries having 8 cells + (9.6V). Any other application is considered misuse.

PARTS INFORMATION FOR 9.6V SHARPENER



Spare parts No		Description	QTY
Product no	Position		
CS-96V	1	Sharpening stones pack (5/32", 3/16", 7/32")	1
CS-96V	2	Battery pack(2pcs)	1
CS-96V	3	AC/DC Adapter	1
CS-96V	4	Chain Saw Sharpening Attachment	1
CS-96V	5	Charger Base	1
CS-96V	6	On/Off switch/Variable speed dial	1
CS-96V	7	Hook	1
CS-96V	8	Spindle Lock	1
CS-96V	9	Collar	1
CS-96V	10	Collet Nut	1



Contact Customer Service: phone 218-943-6290 or fax 218-943-6292 for:

- (1) If any missing or broken parts when unpacking, please have original receipt and purchase date

(2) To purchase additional grinding wheels or spare parts.

ASSEMBLY

NOTE: Always remove battery pack before making any adjustments, servicing, or maintenance to this product.

ACCESSORY INSTALLATION/ REPLACEMENT (FIG.1):

This product is designed for use with 3.2mm shank accessories.

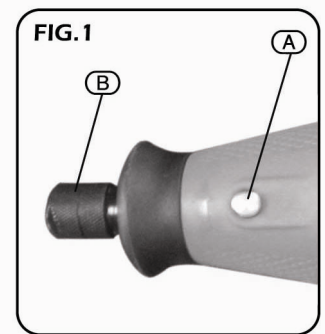
WARNING: Selection of the correct accessory, suitable for the intended application is vital. Seek guidance if uncertain of selection.

Press the spindle lock button **A** and unscrew the collet nut **B**.

Slide the grinding stone inward as far as possible before tightening the collet nut. Press spindle lock button **A** and tighten the collet nut to secure. If the grinding stone appears loose, remove and try again to ensure the bit is secured correctly.

NOTE: Do not over tighten the collet nut.

IMPORTANT!: Never press lock button A while the spindle is rotating.



OPERATION AND USE:

WARNING: ALWAYS Wear ANSI approved eye protection when operating this product.

BATTERY CHARGING (FIG.2&3)

To charge the battery, first remove from the sharpener.

To release battery pack, squeeze the grips located on both sides of battery casing and gently pull battery pack from the tool housing (Fig.2). Plug the AC/DC Adapter cord into the charger base, then into standard 110V outlet. Slide battery into the charger base as shown in Fig.3 **NOTE** Be sure the arrows marked on the charger base and battery housing line up.

Do not force, be sure battery is inserted correctly. The green LED light **D** on charger base will illuminate to show the battery is charging. The battery fully charges in 3-5 hours. Do not charge the battery for more than 6 hours. After 3-5 hours, remove battery pack. Insert battery pack back into the sharpener by firmly pushing until battery pack locks into place.

NOTE: The battery is discharged after manufacturing; after five to ten charges battery pack will reach its full capacity.

It is helpful to use battery until completely uncharged, before re-charging again.



VARIABLE SPEED DIAL (FIG.4)

NOTE: Be sure the switch is in the "off" position before connecting the battery pack.

STARTING TOOL: Rotate dial **E** round to one of the five speed settings

STOPPING TOOL: Rotate dial **E** to the "0" position (off) to stop
Variable speed dial allows you to alter speed of rotation.

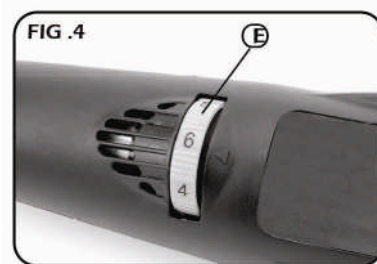
Position 2-SLOW

Position 4-SLOW/MEDIUM

Position 6-MEDIUM

Position 8-MEDIUM/FAST

Position 10-FAST



OPERATION-SHARPENING CHAINS

WARNING: ALWAYS Wear ANSI approved eye protection when operating this product.

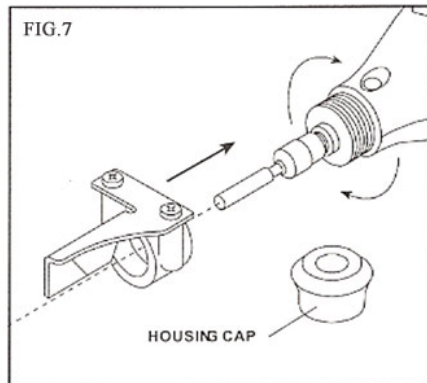
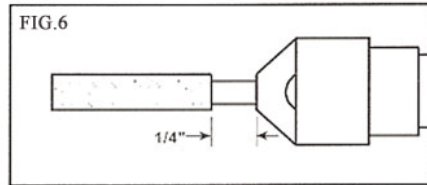
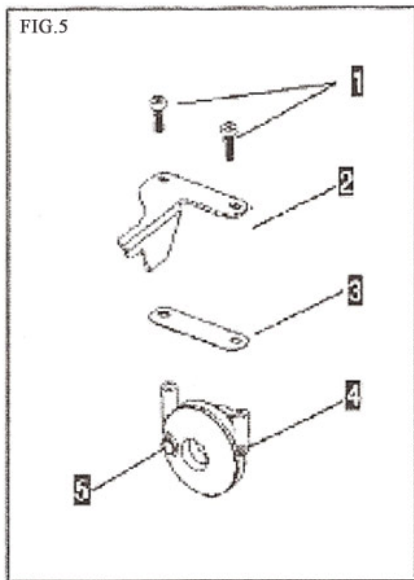
ADJUST SHARPENING ATTACHMENT (SEE FIG.5,6,7)

Due to many different sizes and types of chain, adjustment to the sharpener attachment may be needed. Follow these below steps to determine adjustments:

1. Determine the size and pitch of saw chain to sharpen.
Refer to your Chainsaw Owner's manual, or contact the chain manufacturer to find your chain size and pitch.
2. Next, refer to below chart for grinding stone sizes.

CHAIN SIZE	GRINDING STONE SIZE
1/4" Pitch	5/32" (diameter) stone
3/8" Pitch	7/32" (diameter) stone
3/8" Pitch Low Profile (LP)	5/32" (diameter) stone
5/16" Pitch	3/16" (diameter) stone

3. After determining correct grinding stone, refer to below figure #5, then adjust sharpening attachment accordingly. Separate metal guide and plastic guide using a phillips screwdriver by removing 2 screws in top of sharpener attachment. Then use appropriate number of spacer.
If grinding stone size:
7/32" grinding stone, use ONE spacers between metal guide and plastic guide
5/32" grinding stone, use ONE spacer between metal guide and plastic guide
3/16" grinding stone, use ZERO spacers between metal guide and plastic guide
4. Next, insert correct grinding stone into sharpener tool, leaving approx. 1/4" of shank between the grinding stone and chuck cap. SEE figure #6 below.
5. Now remove housing cap, and replace with adjusted sharpener attachment. SEE Figure #7.



Ref. Number	Description
1	Screws
2	Metal Guide
3	Spacer
4	Plastic Guide
5	Led worklight

SHARPENING SAW CHAIN (SEE FIG. 8, 9, 10)

1. Set your saw on a flat, solid surface so it will not slip while you are sharpening the chain. The chain tension should be adjusted as specified in the Chain Saw Owner's Manual. If it is too loose, the teeth will move, resulting in a poor sharpening.

BEST RESULTS are accomplished by sharpening on flat area of the saw bar-somewhere near the middle of the bar.

2. Position saw so you are looking at the side of the chain bar with the motor to your right. Cutter teeth on the far side of the chain are sharpened, from inside to outside, or away from you, as shown in figure 8. The metal guide (B) should be laid flat on the tooth with the 30 degree index line (L) parallel with the chain. Align by eye with the chain.

Two or three light strokes are usually enough, unless the cutters have been damaged. Sharpen all cutters equal. Start with the cutter with the most visual damage (i.e. nicks or gouges) and sharpen all cutters back equally. Do not remove excessive metal material while sharpening, as this can shorten the life of the chain.

NOTE: Sharpen cutter teeth (J) only, not the depth gauge/raker (K).

3. When all of the teeth on the top of the bar have been sharpened, advance the chain using a glove or a rag to protect your hand, by pulling the chain toward the end of the bar. Repeat until all the teeth on the far side of

the chain have been sharpened.

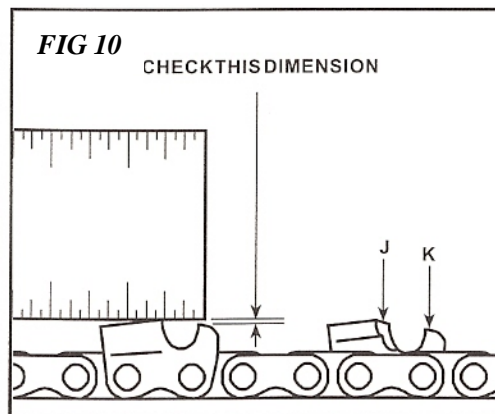
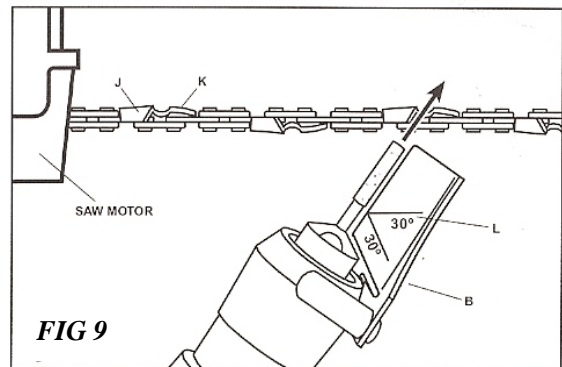
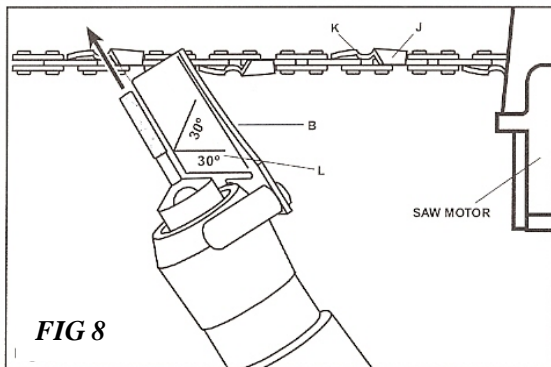
4. Next, turn the saw around so that you are looking at the side of the chain bar with the motor to your left. Sharpen the cutter teeth on the far side of the chain, from inside to outside, or away from you, as shown in figure. The guide should be laid flat on the tooth with the 30 degree index line parallel with the chain.

Repeat the process above to sharpen all of the cutter teeth on the far side of the chain.

CHECK DEPTH GAUGE - (also called RAKER)

5. After sharpening one chain several times, you may find that it does not cut as fast. Each cutter on the chain has a depth gauge or raker (see figure 9 letter **(K)** below) just ahead of the cutting edge (**(J)**) that determines how big of bite the chain will take. To check for proper depth of the cut, lay a metal straight edge across the tops of the cutting edges, as shown in figure 10, and check the dimension between straight edge and depth guide/raker. **CHECK** your chain mfg. info or chainsaw owner manual for exact depth gauge relating to your size chain. As a guide, this dimension should be approximately equal to the height or thickness of end/tip on the metal gauge of the chain saw sharpening attachment. If the difference is very thin, or the depth gauge/raker is taller than cutter teeth, file or grind the depth gauge (raker) until the clearance is approximately equal to the height/thickness of the metal end of sharpening attachment or per mfg. specification. Be careful to maintain depth gauge shape. Do not remove more material than necessary or you will overload your saw.

NOTE: Be careful to keep this depth gauge setting uniform on all cutter teeth or you will not be able to make a straight cut.



MAINTENANCE & PARTS REPLACEMENT

Regular inspection and cleaning reduces the necessity for maintenance operations and will keep your tools in good working condition.

Motors must be ventilated during operation, avoid blocking any air inlets. After use remove the battery pack and clear any ventilation slots if applicable.

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- If any missing or broken parts when unpacking, please have original receipt and purchase date
- To purchase additional grinding wheels or spare parts.

DISPOSAL OF TOOL

At the end of the tool working life, or when it can no longer be repaired, dispose of according to any local regulations.

Contact local authority for details of collections in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not abandon in the environment.



HEALTH AND SAFETY FOR BATTERIES

General: Do not burn/dispose in fire or mutilate; cells may burst and release toxic materials.

Do not short circuit cells, this may cause burns.

Batteries must be removed from the appliance before disposal.

DISPOSAL

Do not mutilate batteries, corrosive electrolyte will be released.

Do not incinerate-danger of explosion and release of toxic fumes.

Do not dispose of batteries or cells in a charged condition.

Expired nickel-cadmium batteries must be recycled / disposed of in accordance with the appropriate regulation or legislation.

EXPLANATION OF SYMBOLS/PICTURES



Do not dispose of with unsorted municipal waste.



Class II construction (Double insulated).



For indoor use only. Do not expose to rain.



Non-Self-Resetting protective device.



Short-circuit-proof safety isolating transformer



Battery must be recycled or disposed of properly. Contains heavy metal-separate collection.

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