

# MCSSP

## CHAIN SHARPENER INSTRUCTION MANUAL

**READ ALL INSTRUCTIONS AND WARNINGS BEFORE USING THIS PRODUCT.**

This manual provides important information on proper operation & maintenance. Every effort has been made to ensure the accuracy of this manual. These instructions are not meant to cover every possible condition and situation that may occur. We reserve the right to change this product at any time without prior notice.

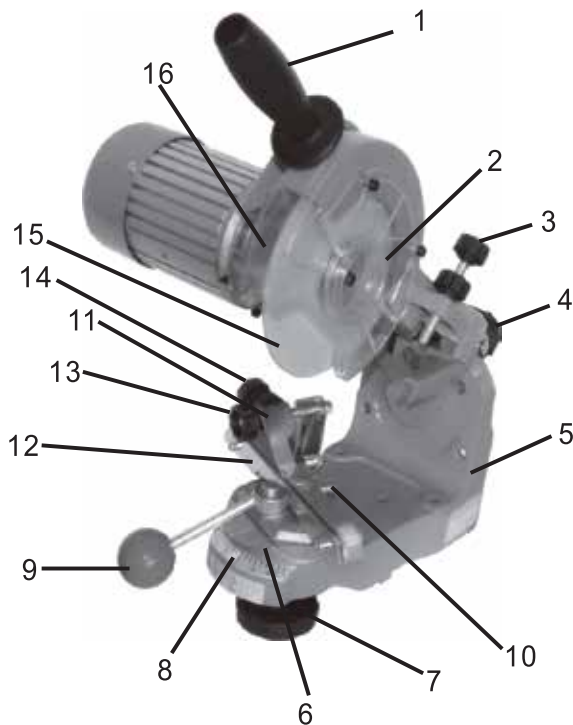
**IF THERE IS ANY QUESTION ABOUT A CONDITION BEING SAFE OR UNSAFE,  
DO NOT OPERATE THIS PRODUCT!**

**DO NOT RETURN THIS PRODUCT TO THE RETAILER - CONTACT CUSTOMER SERVICE.**

If you experience a problem, have questions or need parts for this product, call Customer Service at 1-888-287-6981, Monday-Friday, 8 AM - 4 PM Central Time. A copy of the sales receipt is required.

**FOR CONSUMER USE ONLY – NOT FOR PROFESSIONAL USE.**

**KEEP THIS MANUAL, SALES RECEIPT & APPLICABLE WARRANTY FOR FUTURE REFERENCE.**



### PARTS DESCRIPTION


1. Handle
2. Grinding disk lateral guard
3. Depth of grind set screw
4. Cutting edge angle set-up wheel
5. Base
6. Screw clam cradle
7. Cutting angle setting wheel
8. Scale
9. Clamping lever
10. Mean distance set screw
11. Guide flap valve
12. Screw clamp
13. Guide position set screw
14. Setting screw
15. Grinding disk
16. Grinding disk protective Guard

<b>TECHNICAL DATA</b>			
<b>Supply voltage:</b>	110v-120v/60Hz	<b>Noise level:</b>	<b>&lt;85 dB (A)</b>
<b>Motor input power:</b>	230W	<b>Maximum speed:</b>	<b>3600 RPM</b>
<b>Includes 2 Grinding Wheels :</b>	1/8" & 3/16" (5.7" in diameter)	<b>Hex Wrench</b>	<b>CE</b>
<b>Dressing Brick</b>		<b>Orange Template</b>	

## SAFETY RULES AND PRECAUTIONS

**1. Keep children away.** All bystanders should be kept at a safe distance from work areas.

**2. Wear proper apparel.** Never wear loose clothing, neck-ties, bracelets, rings or any other jewelry that could come into contact or get caught in the grinding wheel or any other moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.

 **3. Always use safety glasses or face screen.** Always wear gloves and protective eye wear while operating the grinder and while profiling the wheel using the dressing stone. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses do not have impact resistant lenses, they are not safety glasses.

**8. Operate the grinder within its indicated design specification.** It will do the job better and safer at the rate for which it was designed. Your grinder has a plate indicating:

Size of arbor.

No-load speed in revolutions per minute. Proper grinding wheel. Also, make sure that the voltage and frequency indicated on the plate applied to the grinder correspond to those of the power outlet.

**9. Reduce the risk of unintentional starting.** Always make sure that the start-up switch is in the off position before connecting the plug to the outlet.

**10. Never use cables, plugs or extension cords that are defective or non-standard.**

**11. Remove the plug** from the outlet immediately if the power cable/cord is damaged or cut. For cable/cord repair or replacement, contact your authorized dealer or service center.

**Note:** The power supply cable/cord comes complete with terminals and circuit protection. Connecting the power supply cable/cord terminals directly into the switch completes the electrical system for the grinder. The final electrical connection to the outlet should be made in such a way as to prevent damage by individuals or passing vehicles that could endanger both them and the operator.

**12. Keep work area clean.** Cluttered areas and benches invite accidents. Make sure that the working area of the grinding wheel is free of tools or other objects before starting up the grinder. Frequently clean grinding dust from beneath the grinder.

**13. Don't use in a dangerous environment.** Don't use power tools in damp or wet locations or expose them to rain. Be sure to keep the work area well lighted.

**14. Check the position of the power cord during operation** making sure that it remains outside the range of action of the grinding wheel and is not under tension. Never operate in the vicinity of other electrical cables/cords.

**15. Make workshop child proof** with padlocks and master switches. Also, do not allow anyone but the operator to touch the power cord or remain in the close vicinity of the grinder while operating.

**16. Always keep the hand-grips clean and dry.**

**17. Before starting the grinder, make sure that the grinding wheel is correctly secured** and positioned in the up, rest position. Do not over-tighten the wheel mounting flange nut.

**18. Secure work.** Use the vise to hold the chain. It frees both hands for moving the grind head/wheel down to grind the chain.

**4. Never stop the wheel with your hands.** Never attempt to stop the rotation of the grinding wheel with your hands.

**5. Disconnect tools before servicing.** Make sure the plug is disconnected when fitting or changing the grinding wheel and during any other maintenance operation or transport.

**6. Keep guards in place and in good working order.** Never start the grinder without the wheel guards in place.

**7. Remove adjusting keys and wrenches.** Always make sure that keys and adjusting wrenches are removed before turning the grinder to the "on" position.

**19. Don't overreach.** Keep proper footing and balance at all times.

**20. Never stand on an unstable platform.**

Always work in a stable and safe position. Serious injury could occur if the grinder is tipped or if the cutting tool is unintentionally contacted.

**21. Check for damaged parts.** Before using the grinder, check to make sure that all the devices, those for safety and others, are in good working order and free from any obvious damage that could affect performance and safety/reliability during use.

**22. Use recommended accessories.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury. Use only flanges furnished with the grinder. To guarantee the efficient and consistent operation of your grinder, remember that any worn or broken parts must be replaced using only original spare parts.

**23. Use only recommended grinding wheels.**

**24. Check your grinder.** Never work with a damaged, poorly repaired, incorrectly fitted, or modified grinder. Do not remove, damage, or disable any safety devices.

**25. Always use the right tool for the job.** Never use the grinder to cut or grind objects other than saw chains. Don't force grinder or attachment to do a job for which it was not designed.

**26. Maintain tools with care.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

**27. Never let your grinder be exposed to rain or dampness.**

**28. Never use the grinder in an explosive or flammable atmosphere.**

**29. Always consult your dealer** for any clarification or important maintenance or repair operation.

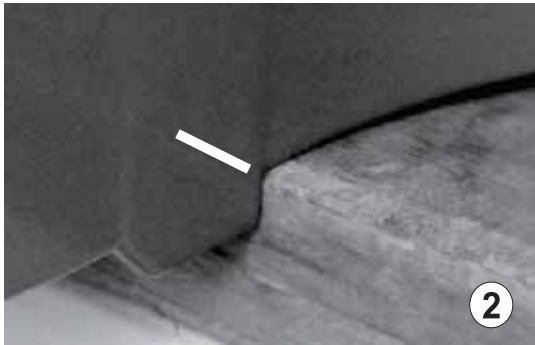
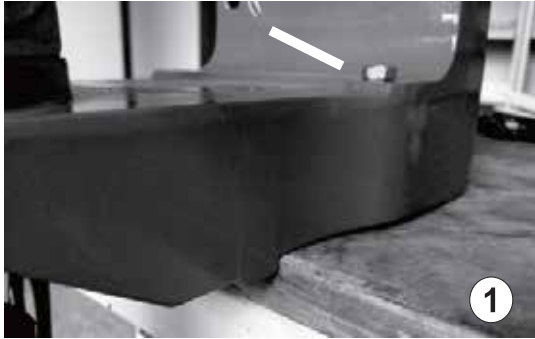
**30. Never jerk the cable to disconnect it from the outlet.** Keep the cable/cord away from heat, oil, and sharp objects.

**31. Use proper extension cord.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current you will need to perform your grinding operation. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.

## ASSEMBLY INSTRUCTIONS

### A. Mount Base Unit to Bench:

1. **Mount base assembly** on a bench top or post, using two lag bolts or nuts and bolts (not provided). Mount machine at chest height for best visibility and ease of operation.
2. **For bench mounting**, be sure the base unit extends out from the bench edge clearing the extending tabs of the base unit as shown (see Figure 1 and Figure 2)



### B. Mounting Motor/Head Assembly to Base Unit

1. **Mount pivot point** on the motor/head assembly into the pivot hole located in the center of the base assembly back (see Figure 3).



2. **Insert bolt** into holder at base of motor/head assembly into base assembly back (see Figure 3).

3. **Attach washer and knob** onto bolt on the back side of the base assembly back (see Figure 4).



### C. Mount Operating Handle

1. Attach operating handle to motor/head (see Figure 5).

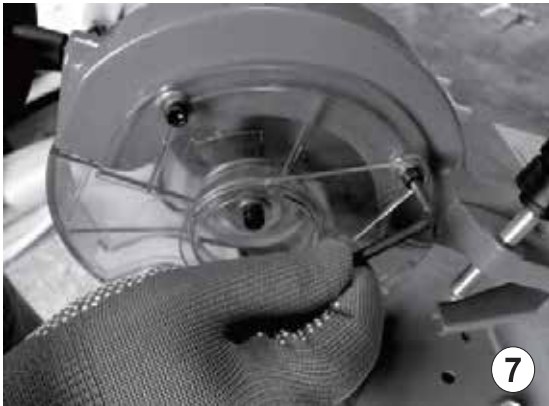


### D. Mount the Grinding Wheel:

1. **Make sure that the grinding wheel is in perfect condition.** Hang the wheel by the center hole and tap it lightly with a metal object on one side near the perimeter. If a flat tone is heard it may be cracked or broken. **Do not use!** (see Figure 6).



3. Insert the bolt through the arbor (see Figure 7).



4. Position the desired grinding wheel inside the shield guard assembly onto the motor flange and insert arbor bolt, with washer, through the wheel center hole into motor shaft. Tighten the arbor bolt, with the large 5.5mm Allen wrench, to a snug fit (see Figures 8 and 9). Do not over-tighten this bolt, as doing so may cause damage to the wheel, rendering it unusable.



## E. Dressing The Grinding Wheel:

1. Set the motor/head to the 90-degree position.
2. With the grinder in the "OFF" position. Check the profile of the wheel using the special template (provided with this unit). If the wheel profile is not correct according to the template, the wheel will need to be dressed until it does fit the proper profile.
3. Connect the plug correctly to a serviceable electrical outlet, then turn the grinder to the "ON" position.
4. From a safe distance at the side of the unit, observe the grinding wheel as it turns to make sure it does not oscillate either laterally or transversally. If wheel turns in a true and even rotation, allow wheel to turn for one minute before wheel is dressed.

**Note:** If the wheel does not run true, turn the unit off, troubleshoot and correct the problem before proceeding.

5. Begin dressing the full radius of the wheel with the use of the dressing brick provided with this unit (see Figure 11). For best results use quick, light strokes with the brick to form the desired profile (see Figure 10).



6. Turn the unit off and use the special orange template to re-check the profile of the wheel (see Figure 11).

**Note:** If necessary, turn electrical power on and repeat steps 5 and 6 until desired profile of the wheel is obtained.



### **▲ WARNING**

TO AVOID PERSONAL INJURY TO YOU AND TO BYSTANDERS, READ AND FOLLOW THESE SAFETY RULES.

### **▲ WARNING**

The grinder must be used only in a place that is protected from dust and dampness, that is well-lighted, out of the reach of children, and away from gases or other flammable or explosive liquids. The grinder must be situated near a normal electrical outlet equipped with earth (grounded).

## GRINDING A CHAIN

**▲ WARNING** There is risk of serious personal injury for chainsaw operators or bystanders from improperly sharpened saw chain. Read and follow all manufacturer's instructions for your saw chain.



**▲ WARNING** Immediately unplug the power cord if the motor does not turn the wheel when the grinder power switch is in the "on" position.

1. For best results it is recommended that the chain be clean before grinding.
2. Always wear approved eye protection during all steps of the grind operation and when the grinding wheel is in motion.
3. Grind all cutters of the same type (left or right) before positioning the grinding wheel to the opposite side.
4. When changing the grind position, make sure the unit is turned to the "off" position (white on/off switch or toggle on/off switch located on the top of the motor support arm) and the wheel has come to a full stop before making any adjustments.
5. To avoid overloading the motor and to prevent damage to the saw chain, remove only the minimum amount of material necessary and do not grind any one tooth for too long a period. Using 2-3 light strokes per cutter will help avoid the possibility of any cutter burns.
6. Do not use cooling liquids while grinding.
7. Replace worn grinding wheels when the diameter of the wheel reaches 70mm (2.8").

### Grinding for Bench Mounted Workstations:

**Note:** All adjustments must be made prior to applying power to the unit.

1. **Position the saw chain** to be ground onto the vise (see Figure 12).



### 2. Setting top-plate cutting angle.

Set grinder head angle to correct degree (see Figure 13). Adjustment is made by loosening adjustment knob, at the back end of the grinder and rotating the grinder head to the desired angle. (see Figure 14).



3. **Setting Vise for top-plate angle.** To set left-hand cutter top-plate grind angle, rotate vise assembly to right of center (0°) (see Figure 15).



4. To set right-hand cutter top-plate grind angle, rotate vise assembly to left of center (0°) (see Figure 16).



**5. Setting vise-tilt angle.** The cutting chain vise assembly has a tilting feature, (see Figure 17), that is used to control the side plate hook angle on some chains. Use center mark for chains requiring 90°



**6. Tilt vise to INWARD position** for lefthand cutters (see Figure 18).



**7. Tilt vise to OUTWARD position** for righthand cutters (see Figure 19).



**8. Set the chain stop.** Using the cutting chain stop centering knob, center the chain stop behind the cutter as shown (see Figure 20). Make final adjustments to the chain stop by adjusting the knob at the back of the chain stop support.



**9. Center the cutting chain in the vise.**

Loosen lock nut with 10 mm wrench (see Figure 21). Center chain by using 5.5 allen wrench (see Figure 22). Once centered, retighten nut.



**10. Set grind depth.** Locate the chain cutter for grinding. Lower the grinding wheel (with motor off) into the gullet (see Figure 23). Set depth of grind by using the depth adjustment knob (see Figure 24).





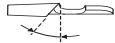




**11. Grind the cutters.** Grind all right-hand cutters, rotate vise and grind all left-hand cutters.

**▲ WARNING**

PROP 65: This product contains or emits chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.

# PARTS LIST

Item No.	Part No.	Description	Item No.	Part No.	Description
2	00902	KNOB	26	00926	MOTOR FLANGE (INNER)
3	00903	SCREW	27	00927	MOTOR FLANGE (OUTER)
4	00904	WASHER	28	00928	SPRING AND BALL
5	00905	BOLT	29	00929	SCREW
7	00907	BOLT	30	00930	NUT*
8	00908	SPRING	31	00931	RUBBER WASHER
9	00909	JAW SPRING	32	00932	CHAIN STOP SPRING
10	00910	KNOB (LONG)	33	00933	WASHER
11	00911	KNOB (SHORT)	34	00934	BUSHING
12	00912	DRESSING BRICK	35	00935	BOLT
13	00913	WHEEL-CONTOUR TEMPLATE	36	00936	CHAIN VISE SPACER
14	00914	NUT	37	00937	PAWL CENTERING SPRING
15	00915	CHAIN STOP	38	00938	PLASTIC SHIELD
16	00916	CAM LOCK HANDLE	39	00939	PAWL ADJUSTMENT KNOB
17	00917	CHAIN STOP HOLDER	40	00940	SHIELD KIT
18	00918	CHAIN STOP SHAFT	41	00941	END MOTOR BELL
19	00919	NUT	42	00942	CAPACITOR ?115 VOLT
20	00920	RETAINER RING	43	00943	CAM POST
21	00921	MOTOR	44	00944	BRONZE BUSHING
22	00922	LIGHT SOCKET W/WIRES	45	00945	HANDLE KIT
23	00923	POWER SWITCH	47	00947	WISE JAW PLATE
24	00924	SOCKET COVER	48	00948	LIGHT BULB
25	00925	MOTOR FLANGE KIT (OUTER & INNER)			

 CHAIN PITCH	 GAUGE	 VISE ANGLE	 TOP PLATE ANGLE	 TILT ANGLE	 DEPTH GAUGE	 WHEEL WIDTH
1/4"	0.050"/1.3mm	30°	55° / 60°	10°	.025"/0.63mm	1/8"/3.2mm
0.325"	0.050"/1.3mm	30°	55° / 60°	10°	.025"/0.63mm	1/8"/3.2mm
0.325"	0.058"/1.5mm	30°	55° / 60°	10°	.025"/0.63mm	1/8"/3.2mm
0.325"	0.063"/1.6mm	30°	55° / 60°	10°	.025"/0.63mm	1/8"/3.2mm
0.325"	0.050"/1.3mm	25°	55° / 60°	10°	.025"/0.63mm	1/8"/3.2mm
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0.325"	0.063"/1.6mm	25°	55° / 60°	10°	.025"/0.63mm	1/8"/3.2mm
0.325"	0.050"/1.3mm	5°	50°	0°	.025"/0.63mm	1/8"/3.2mm
3/8"	0.058"/1.5mm	25°	60°	10°	.025"/0.63mm	1/8"/3.2mm - 3/16"/4.8mm
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3/8"	0.050"/1.3mm	5°	60°	0°	.025"/0.63mm	1/8"/3.2mm - 3/16"/4.8mm
3/8" (90)	0.043"/1.1mm	30°	60° / 55°	0°	.025"/0.63mm	1/8"/3.2mm - 3/16"/4.8mm
3/8"	0.050"/1.3mm	30°	55° / 60°	0°	.025"/0.63mm	1/8"/3.2mm - 3/16"/4.8mm
3/8"	0.050"/1.3mm	30°	60°	0°	.025"/0.63mm	1/8"/3.2mm - 3/16"/4.8mm
3/8"	0.050"/1.3mm	30°	60°	0°	.025"/0.63mm	1/8"/3.2mm - 3/16"/4.8mm
0.404"	0.058"/1.3mm	35°	60°	10°	.030"/0.76mm	3/16"/4.8mm
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0.404"	0.063"/1.6mm	35°	60°	10°	.050"/0.76mm	3/16"/4.8mm
0.404"	0.080"/2.0mm	35°	60°	10°	.050"/0.76mm	3/16"/4.8mm
3/4"	0.122"/3.1mm	30°	50°	0°	.050"/0.76mm	S/16"/8mm
3/4"	0.122"/3.1mm	35°	60°	0°	.070"/1.77mm	S/16"/8mm

# PARTS DIAGRAM

