Polymak®

Polymak Tools(India)Pvt.Ltd

186/187, P.H Road, Alsa Towers, Kilpauk,

Chennai – 600 010,

Tel. : +91-44-48631869 E-mail : info@polymak.co.in Visit us at : www.polymak.co.in

Polymak[®] CHOP SAW

355mm

INSTRUCTION MANUAL



Read and follow all safety precautions in instruction manual.

SPECIFICATIONS:

Model No	PM355CS		
Voltage/Frequency	220V~50Hz		
Input Power	2400W		
No load speed	4100r/min		
Max. cutting disc Dia.	⊄ 355;cutting workpiece Diameter ⊄ 95(max);		
Saw Angle(Max)	+/-45°		
Weight	19Kg		
Accessories	Carbon Brush 2pcs; socket wrench 1pc; Operation Instruction 1pc; Service card 1pc		

- . Manufacturer reserves the right to change specifications without notice.
- . Specifications may differ from country to country.

GENERAL SAFETY RULES

(For All Tools)

WARNING:

Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire and / or serious personal injury.

SAVE THESE INSTRUCTIONS

Work Area

- 1. **keep your work area clean and well it.** Cluttered benches and dark areas invite accidents.
- 2. 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.
- 3. Keep bystanders, children, and visitors away while operating a power tool. Distractions can cause you to lose control.

ELECTRICAL SAFETY

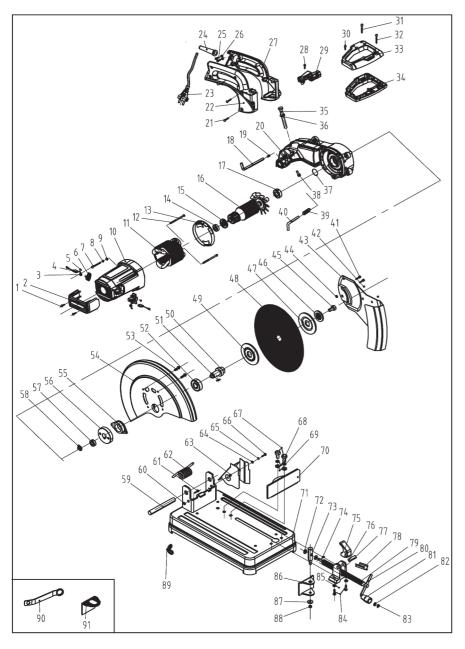
- 4. Power tool plugs must match the outlet. Never modify the plugs in any way. Do not use any adapter plugs with earthed power tools. Unmodified plugs and matching outlets will reduce risk of electric shock. Do not change the plug in any way. Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system.
- 5. Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. These is a increased risk of electric shock if your body is grounded.

- 6. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- 7. Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cord increase the risk of electric shock.
- 8. When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W". These cords are rated for outdoor use and reduce the risk of electric shock.

PERSONAL SAFETY

- 9. Stay alert, watch what you are doing and use common sense when operating a power
- **tool**. Do not use tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- 10. Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes , jewelry, or long hair can be caught in moving parts.

PM355CS EXPLODE DRAWING



- 11. Avoid accidental starting. Be sure switch is off before plugging in. Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.
- 12. Remove adjusting keys or wrenches before turning the tool on. A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
- 13. Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
- 14. Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions. Ordinary eye or sun glasses are NOT eye protection.

TOOL USE AND CARE

- 15. Use clamps or other practical way to secure and support the workpiece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.
- 16. Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.
- 17. **Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- 18. Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.

- 19. Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.
- 20. Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.
- 21. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
- 22. Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool, may become hazardous when used on another tool.

SERVICE

- 23. Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
- 24. When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of the manual. Use of unauthorized parts or failure to follow Maintenance instructions may create a risk of electric shock or injury.

SPECIFIC SAFTETY RULES

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to cut-off machine safety rules. If you use this tool unsafely or incorrectly, you can suffer serious personal injury.

- Wear hearing protection during extended period of operation.
- 2. Secure the wheel carefully.

3.Use only wheels having a maximum operating speed at least as high as "No Load RPM" marked on the tool's nameplate. Use only fiberglass-reinforced cut-off wheels, the

- wheel's Diameter must less than 355mm.
- 4. Check the wheel carefully for cracks or damage before operation. Replace cracked or damaged wheel immediately. Run the tool (with guard) at no load for about a minute, keeping tool away from others. If wheel is flawed, it will likely separate during this test.
- 5. Use only flanges specified for this tool
- 6. Be careful not to damage the spindle, the flange (especially the installing surface) or the bolt. Damage to these parts could result in wheel breakage.
- 7. Do not operate the tool without guards in place. Check wheel guard for proper closing before each use. Do not operate the tool if wheel guard does not move freely and close instantly. Never clamp or tie the wheel guard into the open position.
- 8. Hold the handle firmly.
- 9. Keep hands away from rotating parts.
- 10. Make sure the wheel is not contacting the workpiece before the switch is turned on.
- 11. Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
- 12. Always use safety glasses or goggles. Ordinary eye or sun glasses are NOT safety glasses.

- 13. Before using the tool on an actual workpiece, let it run for a while. Watch for vibration or wobbling that could indicate poor installation or a poorly balanced wheel.
- 14. Watch out for flying sparks when operating. They can cause injury or ignite combustible materials.
- 15. Remove material debris from the area that might be ignited by sparks. Be sure that others are not in the path of the sparks. Keep a proper charged extinguisher closely available.
- 16. Use the cutting edge of the wheel only. Never use side surface.
- 17. Do not attempt to keep the trigger in the ON position.
- 18. If the wheel stops during operation,
- makes an odd noise or begins to vibrate, switch off the tool immediately.
- Turn off the tool and wait for the wheel to stop before moving workpiece or changing settings.
- 20. Do not touch the workpiece immediately after operation; it is extremely hot and could burn your skin.
- 21. Store wheels in a dry location only.
- **22** Always use proper guard with wheel. A guard protects operator from broken wheel fragments.

SAVE THESE INSTRUCTIONS

WARNING:

MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

SYMBOLS

The following show the symbols used for t	he tool.	
Vvoltage	n。	no load speed.
Aampere	/min	revolutions or reciprocation per minute
Hzhertz	回	class II construction

PM355CS spare parts list

No	Name of parts	Units per machine	No	Name of parts	Units per machine
1	ScrewST4x15	2	47	Outer flange	1
2	Back cover	1	48	Cutting wheel	1
3	Coil spring	2	49	Inner flange	1
4	Carbon brush	2	50	Spindle	1
5	Pan head screwST3.5x12	2	51	Square key	1
6	Brush frame	2	52	Bearing (6204-2z)	1
7	ScrewM5x45	4	53	Inner six corner	4
8	Spring washerφ5	4	54	Wheel cover	1
9	Flat washerφ5	4	55	Cover	1
10	Motor housing	1	56	Gear	1
11	Filed Coil 65H	1	57	Bearing (6000-2z)	1
12	Bearing sleeveST5x80	2	58	External criclips	1
13	Baffle	1	59	Torsion spring	1
14	Bearing (6000-2z)	1	60	Hex nut M6x17	1
15	Washer	1	61	Screw M6X16	1
16	Armature (65H)	1	62	Torsion spring	1
17	Bearing (6202-2RS) C&U	1	63	Dust cover	1
18	Pin	1	64	Flat washerφ6	1
19	Rubber pin	1	65	Spring washerφ6	1
20	Rocker arm	1	66	Screw M6x15	1
21	ScrewST4x14	3	67	External six angle	2
22	Left handle	1	68	Spring washerφ10	2
23	Cable	1	69	Flat washerφ10	2
24	Sheath	1	70	Vice B	1
25	ScrewST4x14	3	71	Base	1
26	Tension disc	1	72	Flat washerφ8xφ	2
27	Right handle	1	73	Pin	1
28	Screw ST4*10	1	74	Spring round pin	1
29	Switch	1	75	Vice nut	1
30	Screw ST4X12	1	76	Pin	1
31	Screw ST5X40	4	77	Support bracke	1
32	Screw ST4x20	2	78	Washer	1
33	D handle A	1	79	Screw rod	1
34	D handle B	1	80	Screw rod handle	1
35	Hexagon boltM10x80	1	81	Handle sleeve	1
36	Hexagon nutM10	1	82	Flat washer φ8x φ	1
37	O rubber ring	1	83	Elastic washer for	1
38	ScrewM6x16	1	84	ScrewM8x20	2
39	Spring	1	85	Spring washerφ8	2
40	Lock pin	1	86	Vice A	1
41	Round-headed screwM5x8x08xT3	2	87	Flat washer φ 8x φ	1
42	Rubber rails	3	88	Inner six corner	1
43	Moveable guard	1	89	Shockproof foot pad	4
44	NutM5	2	90	Wrench	1
45	Six angle locking boltM10x25	1	91	Non-slip mat	1
46	Clamp sheet	1			

◆ Replacing carbon brushes.(Fig9)

- Remove and check the carbon brushes regularly.
 Replace when the tool occurs obvious sparks or wear down to the limit mark.
- 2. Both carbon brushes should be replaced at the same time. Use only HI-SPEED brushes provided.
- 3. Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps (Fig 9)

△CAUTION:

Be sure to re-install the knob after inserting new carbon brush.

After replacing brushes, plug in the tool and break in brushes by running tool with no load for about 10 minutes. Then check the tool while running, when releasing the switch trigger. If the tool is not working well , ask your local HI-SPEED service center for repair.

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by HI-SPEED Authorized or Factory service centers, always using HI-SPEED replacement parts.

FUNCTIONAL DESCRIPTION

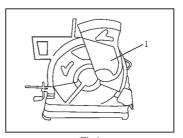


Fig1
1 .safety guard cover

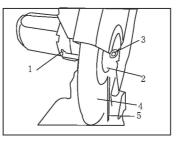


Fig2

1. shaft lock2 outer flange3 small flange4 cut-off wheel5 socket wrench

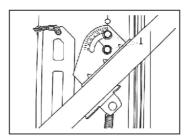


Fig3

1. Hex bolt

■ Operation instruction

♦ Installing or removing cut-off wheel

∆Caution:

- Always be sure that the tool is switched off and unplugged before exchanging cut-off wheel.
- Be sure to tighten the hex bolt securely. Insufficient tightening of the hex bolt may result in severe injury.
- 1. install cut-off wheel, raise the safety guard cover, and then fit the cut-off wheel, outer flange, small flange, hex bolt onto the spindle in turn. Press the shaft lock so that the wheel cannot revolve and use the socket wrench to tighten the hex bolt by turning it clockwise, and then release the shaft lock to come back the original position. (Fig1&2)
- 2. To remove cut-off wheel, follow the installation procedures in reverse.

♦ Setting for desired cutting Angle

To change the cutting angle, loosen the two hex bolts which secure the guide plate. Move guide plate to the desired angle $(0^{\circ} - 45^{\circ})$ and tighten the hex bolts securely, at that time be Sure to align the "0" line with desired angle number. Revolve the moving thread pole to align the vise plate with the graduation plate. (Fig3)

♦ Interval between vise and guide plate

△Caution:

 Remember that narrow workpieces may not be secured safely when using the two, wider interval settings.

The original spacing or interval between the vise and the guide plate is 0 - 170 mm (0 - 6-11/16"). If your work requires wider spacing or interval, proceed as follows to change the spacing or interval.

Remove the two hex bolts which secure the guide plate. Move the guide plate back to one or two holes distance and secure it using the hex bolts so that can get more wider between the vise and guide plate.

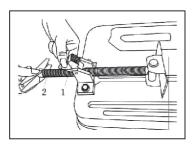
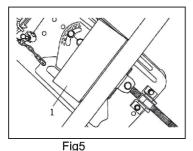


Fig4
1.quick feed nut 2. vice screw



1.Spacer block

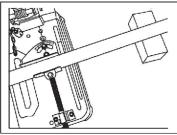
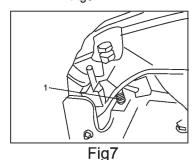


Fig6

1.Stopper Bolt



◆ Securing workpiece(Fig4)

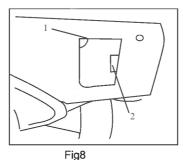
By turning the vise handle counterclockwise and then flipping the vise nut to the up, the vise is released from the shaft threads and can be moved rapidly in and out. To grip workpieces, push the vise handle until the vise plate contacts the workpiece. Flip the vise nut to the down and then turn the vise handle clockwise to securely retain the workpiece.

∆Caution:

- Always set the vise nut to the down fully when securing the workpiece. Failure to do so may result in insufficient securing of the workpiece. This could cause the workpiece to be ejected or cause a dangerous breakage of the wheel.
- **When the cut-off wheel has worn down considerably, use a spacer block of sturdy, non-flammable material behind the workpiece as shown in the Fig.5. You can more efficiently utilize the worn wheel by using the mid point on the periphery of the wheel to cut the workpiece.
- X Long workpieces must be supported by blocks of non-flammable material on either side so that it will be level with the base top.(Fig6)

◆ Stopper device (Fig7)

The stopper plate prevents the cut-off wheel from contacting the workbench or floor. You can adjust the stopper bolt according to the Cut-off wheel diameter dimension.



Trigger of switch
 Lock button

♦ Effective and safe for cutting

- Operate the tool smoothly ,Do not force the cut by applying excessive pressure on the handle. Reduced cutting efficiency premature wheel wear, as well as, possible damage to the tool, cut-off wheel or workpiece may result.
- 2. Hold the handle firmly. Switch on the tool and wait until the wheel attains full speed before lowering gently into the cut. When the wheel contacts the workpiece, gradually bear down on the handle to perform the cut. When the cut is completed, switch off the tool and WAIT UNTIL THE WHEEL HAS COME TO A COMPLETE STOP before returning the handle to the fully elevated position.
- 3. When cutting, you should reduce the pressure for the handle if detect the wheel is lowering.
- Store the tool in a dry, non-causticity gas location. Should wipe off the chip and dust of tool. Also lubricate the moving parts including spindle, vise, etc.

♦ Switch action(Fig8)

∧Caution:

- Before plugging in the tool, always check to see that the tool is switched off.
- Switch can be locked in "ON" position for ease of operator comfort during extended use. Apply caution when locking tool in "ON" position and maintain firm grasp on tool.
- 1. To start the tool, simply pull the switch trigger, Release the switch trigger to stop.
- For continuous running, simply pull the switch trigger and depress the switch lock button. Release the switch trigger to stop slowly, the button will come back the original position.

♦ Effective and safe for cutting

Must store the wheel in a dry location. Otherwise the wheel cannot be used due to absorb the air water result in the wheel's tension is getting worse.

◆Maintenance & Daily Check.

△CAUTION

- Always be sure that the tool is switch off and unplugging before attempting to perform inspection and maintenance.
- The tool and its air vents have to be keep clean, regularly clean the tool's air vents or whenever the vents start to become obstructed
- 2. Check the all screws if be loosened or not periodically.