

Benchtop Oscillating Spindle Sander

SPS-375P MANUAL

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THANK YOU FOR CHOOSING **carbatec**.

Carbatec has been a trusted brand for woodworking enthusiasts and professionals across Australia and New Zealand, since 1987.

Our quality woodworking products are designed and built to offer value and performance, making the latest features and technological advancements more accessible to Aussie woodworkers.

Backed by our no-fuss after-sales care and warranty support, you can trust Carbatec to keep you woodworking, as promised.

We look forward to sharing in your woodworking journey!

If you have any questions about our products or service, please call us on **1800 658 111** or email us at info@carbatec.com.au

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WHAT'S IN THE BOX



SPINDLE SANDER SPS-375P

- A. 1 spindle sander
- B. 5 sanding spindles & 100G sleeves:
- C. 1 spindle storage plate (pre-installed)
- D. 3 open end wrenches (1 x 10–12 mm & 2 x 14–17mm)
- E. 2 oblong opening inserts (3/4" and 2")
- F. 2 round opening inserts (3/4 & 2")
- G. 1 insert storage plate (pre-installed)

This spindle sander will require a minimal amount of assembly.

- 1. Remove parts from all of the cartons and lay them on a clean work surface.
- Remove any protective materials and coatings from all of the parts and the spindle sander. The protective coatings can be removed by spraying WD-40 on them and wiping it off with a soft cloth. This may need to be redone several times before all of the protective coatings are removed completely.
- 3. Compare the items above to verify that all items are accounted for before discarding the shipping box.



DO NOT USE ACETONE, gasoline or lacquer thinner to remove any protective coatings.



If any parts are missing, do not attempt to plug in the power cord and turn "ON" the spindle sander. The spindle sander can only be turned "ON" after all the parts have been obtained and installed correctly.

IMPORTANT

DUST COLLECTION: All woodworking machines require effective dust extraction to ensure quality work and longevity of the machine itself. Failure to connect your machine to a suitable dust collector may affect your warranty. The collector required for your machine will depend on several factors including the type of machine and its dust port connection, distance between collector and machine, type and frequency of use and the material being worked. We recommend a dust collector that will provide you a minimum airflow of 500-CFM when measured at the machine connection.

Key information can be found on the inspection panel, found on the rear of the machine.

Carbatec. QUALITY INSPECTED

Model:
Voltage
Freq:
Phase:
Amp:
kW:
Speed:
Lot No.:
Serial No.:
Date:

Made in for: CARBATEC PTY LTD Brisbane - Australia



Record the serial number and date of purchase in your manual for future reference.

SERIAL NUMBER:

DATE OF PURCHASE:

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NOTE: The specifications, photographs, drawings and information in this manual represent the current machine model when the manual was prepared. Changes and improvements may be made at any time, with no obligation on the part of Carbatec to modify previously delivered units. Reasonable care has been taken to ensure that the information in this manual is correct, to provide you with the guidelines for the proper safety, assembly and operation of this machine.

SAFETY INSTRUCTIONS

IMPORTANT! Safety is the single most important consideration in the operation of this equipment. The following instructions must be followed at all times. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury. There are certain applications for which this tool was designed. We strongly recommend that this tool not be modified and/or used for any other application other than that for which it was designed. If you have any questions about its application, do not use the tool until you have contacted us and we have advised you.

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols and the explanations with them deserve your careful attention and understanding. The symbol warnings do not, by themselves, eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

Be sure to read and understand all safety instructions in this manual, including all safety alert symbols such as "**DANGER**," "WARNING," and "CAUTION" before using this tool. Failure to following all instructions listed below may result in electric shock, fire, and/or serious personal injury.

SYMBOL MEANING



FOR TECHNICAL SUPPORT CALL 1800 658 111

GENERAL SAFETY

Operating a power tool can be dangerous if safety and common sense are ignored. The operator must be familiar with the operation of this machine. Read this manual to understand this machine. **DO NOT** operate this machine **if you do not fully understand** the limitations of this tool.

DO NOT modify this machine in any way.

BEFORE USING THIS MACHINE

To avoid serious injury and damage to the tool, read and follow all of the Safety and Operating Instructions before operating the machine.

- SOME DUST CREATED BY USING POWER TOOLS CONTAINS CHEMICALS known to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:
- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

- READ this entire manual. LEARN how to use the tool for its intended applications.
- 3. GROUND ALL TOOLS. If the tool is supplied with a 3-prong plug, it must be plugged into a 3-contact electrical receptacle. The third prong is used to ground the tool and provide protection against accidental electric shock.
- AVOID A DANGEROUS WORKING ENVIRONMENT. Do not use electrical tools in a damp environment or expose them to rain.
- DO NOT USE electrical tools in the presence of FLAMMABLE liquids or gases.
- ALWAYS KEEP THE AREA CLEAN, well lit, and organized. Do not work in an environment with floor surfaces that are slippery from debris, grease, and wax.
- KEEP VISITORS AND CHILDREN AWAY. Do not permit people to be in the immediate work area, especially when the electrical tool is operating.
- DO NOT FORCE THE TOOL to perform an operation for which it was not designed. It will do a safer and higher quality job by only performing operations for which the tool was intended.

GENERAL SAFETY

9. WEAR PROPER CLOTHING.

Do not wear loose clothing, gloves, neckties, or jewellery. These items can get caught in the machine during operations and pull the operator into the moving parts. The user must wear a protective cover on their hair, if hair is long, to prevent it from contacting any moving parts.

 CHILDPROOF THE WORKSHOP AREA by removing switch keys, unplugging tools from the electrical receptacles, and using padlocks.

11. ALWAYS UNPLUG THE TOOL FROM THE ELECTRICAL RECEPTACLE when making adjustments, changing parts or performing any maintenance.

12. KEEP PROTECTIVE GUARDS IN PLACE AND IN WORKING ORDER.

- AVOID ACCIDENTAL STARTING. Make sure that the power switch is in the "OFF" position before plugging in the power cord to the electrical receptacle.
- 14. REMOVE ALL MAINTENANCE TOOLS from the immediate area prior to turning "ON" the machine.

15. USE ONLY RECOMMENDED

ACCESSORIES. Use of incorrect or improper accessories could cause serious injury to the operator and cause damage to the tool. If in doubt, check the instruction manual that comes with that particular accessory.

- NEVER LEAVE A RUNNING TOOL UNATTENDED. Turn the power switch to the "OFF" position. DO NOT leave the tool until it has come to a complete stop.
- 17. DO NOT STAND ON A TOOL. Serious injury could result if the tool tips over, or you accidentally contact the tool.
- DO NOT STORE ANYTHING ABOVE OR NEAR the tool where anyone might try to stand on the tool to reach it.
- MAINTAIN YOUR BALANCE. Do not extend yourself over the tool. Wear oil resistant rubber soled shoes. Keep floor clear of debris, grease, and wax.
- 20. MAINTAIN TOOLS WITH CARE. Always keep tools clean and in good working order. Keep all blades and tool bits sharp, dress grinding wheels and change other abrasive accessories when worn.
- 21. EACH AND EVERY TIME, CHECK FOR DAMAGED PARTS PRIOR TO USING THE TOOL. Carefully check all guards to see that they operate properly, are not damaged, and perform their intended functions. Check for alignment, binding or breaking of moving parts. A guard or other part that is damaged should be immediately repaired or replaced.
- 22. DO NOT OPERATE TOOL WHILE TIRED, OR UNDER THE INFLUENCE OF DRUGS, MEDICATION OR ALCOHOL.

- 23. SECURE ALL WORK. Use clamps or jigs to secure the work piece. This is safer than attempting to hold the work piece with your hands.
- 24. STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE WHEN OPERATING A POWER TOOL. A moment of inattention while operating power tools may result in serious personal injury.
- 25. ALWAYS WEAR A DUST MASK TO PREVENT INHALING DANGEROUS DUST **OR AIRBORNE PARTICLES, including** wood dust, crystalline silica dust and asbestos dust. Direct particles away from face and body. Always operate tool in well ventilated area and provide for proper dust removal. Use dust collection system wherever possible. Exposure to dust may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing dust, and avoid prolonged contact with dust. Allowing dust to get into your mouth or eyes, or lay on your skin may promote absorption of harmful material. Always use properly fitting AS/NZS approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.
- 26. USE A PROPER EXTENSION CORD IN GOOD CONDITION. Use of extension cords should be avoided where possible. When using an extension cord, be sure to have a cord heavy enough to carry the current your product will draw, and with compatible pin configuration and connections (NEVER use an extension cord rated at less than your machine). Longer run extensions will need heavier duty extension cords. Only connect your extension cord or machine to a receptacle that accepts your plug and never modify your plug to suit a receptacle.

ELECTRICAL SAFETY



This tool must be grounded while in use to protect the operator from electric shock. IN THE EVENT OF A MALFUNCTION OR BREAKDOWN, grounding provides the path of least resistance for electric current and reduces the risk of electric shock. This tool may be equipped with an electric cord that has an equipment grounding conductor and a grounding plug. The plug MUST be plugged into a matching electrical receptacle that is properly installed and grounded in accordance with ALL local codes and ordinances.

DO NOT MODIFY THE PLUG PROVIDED.

If it will not fit the electrical receptacle, have the proper electrical receptacle installed by a qualified electrician.

IMPROPER ELECTRICAL CONNECTION

of the equipment grounding conductor can result in risk of electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. DO NOT connect the equipment grounding conductor to a live terminal if repair or replacement of the electric cord or plug is necessary.

CHECK WITH A QUALIFIED ELECTRICIAN or

service personnel if you do not completely understand the grounding instructions, or if you are not sure the tool is properly grounded.

Use only a 3-wire extension cord that has a 3-prong grounding plug and a 3-pole receptacle that accepts the tool's plug. Replace a damaged or worn cord immediately.

Power tools and machinery are intended for use on a circuit that has an electrical receptacle as shown in **FIGURE A** that shows a 10 Amp 3-wire electrical plug and corresponding electrical receptacle that has a grounding conductor.

If this particular tool has been designed and fitted with a two prong electrical plug, ensure it displays the 'Double Insulated' logo shown in **FIGURE B**, before connecting to a 3- wire receptacle.



Never modify the standard fitted electrical plugs to fit your receptacle.







BENCHTOP OSCILLATING SPINDLE SANDER OVERVIEW

- A. Insert plate
- B. Spindle & spindle sleeve
- C. Dust port
- D. Spindle storage

- E. ON / OFF switch
- F. Insert plate storage
- G. Table tilt locking knob

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SPECIFICATIONS

BRAND	Carbatec
WARRANTY	2 years
MOTOR	375 W (1/2 HP)
ECCENTRIC STROKE MOVEMENT	25 mm-30 oscillations per minute
SPEED	1420 RPM
WORKSHOP FOOTPRINT (WxDxH)	380 mm x 380 mm x 600 mm
SHIPPING WEIGHT	37 kg
NETT WEIGHT	35 kg

Oscillating spindle sanders or 'bobbin sanders' are designed primarily for sanding inside and outside curves, rounded edges and intricate designs. The interchangeable spindle diameters, various sanding grits and tilting table also allows complex curve sanding. The oscillating action of the sanding spindle exposes the workpiece to more abrasive, so that heat generated from the sanding process is not concentrated on a single point and is therefore less likely to burn the edge of the workpiece, as well as prolonging the life of the sandpaper.



Any uses beyond its designed purpose may be dangerous.



Always wear applicable AS/NZS approved PPE.

ASSEMBLY INSTRUCTIONS

The unit is shipped from our factory in a basic assembled form. All that is required is removal from the packaging, cleaning of factory rust inhibitors, fitting of spindle and alignment.

A. SPINDLE AND INSERT STORAGE

- Store the insert plates into the dedicated storage on the LEFT side of the spindle sander.
 Fig. A
- Place unused spindles in the rightside storage holes.
 Fig. A

B. INSTALLING SPINDLES

- Ensure that all surfaces are wiped clean prior to inserting the spindle into the housing. Clean the threads prior to installation, and protect these base metal threads with suitable rust inhibitor or light machine oil (WD40, CRC etc.)
- 2. Thread the spindle counterclockwise into the spindle housing.
- Use the supplied wrenches to tighten the spindle nut counterclockwise while holding the spindle housing flat with the other wrench.
 Fig. B

NOTICE

Over-tightening the spindle will make it hard to remove after sanding.





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ASSEMBLY

C. INSTALLING SANDING SLEEVES ONTO SPINDLES

- Select desired sanding sleeve grit and match sleeve to spindle diameter.
- Loosen top spindle nut (or bottom locking clip-on smaller spindles).
 Fig. C1
- Slide sanding sleeve onto spindle until it is flushed with top of rubber spindle.
 Fig. C2
- 4. Tighten top spindle nut (or bottom locking clip) to retain sanding sleeve.

D. CHOOSING INSERT PLATE

Ensure you always use an insert plate. This helps prevent smaller workpieces from getting jammed and supports the work being sanded.

Included with the spindle sander are two oblong and two round insert plates. Choose an insert plate that offers the smallest gap between spindle sleeve and plate. Oblong plates are used for bevel sanding when the table is in the tilted position. The plates have notches on their outer edges to ensure that they are correctly inserted. **Fig. D1 & D2**









E. SETUP FOR 90°

- Loosen both knobs and place the table in the 0° position.
 Fig. E1
- Place a square on the table resting the long part of the square against the spindle.
 Fig. E2
- 3. Loosen both knobs and tilt the table so that the square is flat against both the table and the spindle.
- 4. Tighten knobs once spindle and table are square.
- The pointer should read 0°. If it requires adjusting, loosen the screw to adjust.
 Fig. E3
- Loosen the lock nut and adjust the 90° stop bolt so that it is resting against the bottom side of the table. Re-tighten the lock nut.
 Fig. E3







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F. SET UP FOR BEVEL SANDING

 Loosen both knobs (F1A) and adjust the table to the approximate angle as shown on the tilt angle guide.
 Fig. F1

NOTE: Always use a digital angle gauge if specific and very accurate angles are required.

2. Tighten both knobs.

G. DUST COLLECTION

This unit is designed to be used with effective dust collection connected. Removing the dust from the point at which it is created ensures long life for your sanding sleeves and the machine. DO NOT operate this machine without dust collection connected. The dust port (G1A) can be attached to a 2" hose for dust collection.

H. TURNING THE SANDER ON & OFF

The sander can be turned on by pressing the **green** ON button (F1B). Turn the machine off by pressing the **red** OFF button. This machine is fitted with an NVR (No Volt Release) power switch for your protection. If mains power is interrupted, the machine will not automatically restart. Simply press the **green** button on to restart your machine. This machine is not designed to be switched on or off remotely.



Disconnect the machine from its power source before changing spindles, inserts or performing any maintenance.





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I. BASIC OPERATION

- 1. Select a spindle that is smaller than the curve to be sanded.
- 2. Select an insert plate that is closest to the spindle without touching it.
- Ensure that the spindle is properly seated in the taper sleeve socket. Using the supplied wrenches, tighten the nut, remembering not to overtighten.
- With the table set to 90° against table stop, sanding may be done at any location on the table around the spindle.
 Fig. I1
- If the table is set at any angle other than 90°, it is necessary to position the workpiece over the centreline as displayed on the table surface, as this is the true angle position.
 Fig. I2
- When form sanding thin pieces, it is recommended to use a backing board. A backing board is easily made by using a piece of timber that is the width of the table and pushing it into the spindle until a half circle is formed. Then clamp each end of the board to the table and proceed to sand the thin material.
 Fig. I3







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- Prior to sanding, it is recommended to mark the workpiece so that you can follow the template.
 Fig. I3
- Make sure the table and immediate work area are clear of tools and other obstructions.
- Start the machine, and allow it to run at full speed prior to starting the sanding.
- Hold the workpiece firmly against the table to compensate for both the rotation and oscillation of the spindle.
 Fig. I4
- When sanding free-hand (not using the table), it is necessary to hold the workpiece with both hands.
- For very small or delicate workpieces, clamp the workpiece in small hand clamp or broad jaw pliers.
- **13.** Turn off the machine and wait for it to completely stop before leaving it unattended.
- Before leaving the machine, remove any jigs, return the table to the stop angle 90° and remove the unit from mains power.





WIRING DIAGRAM



I. MAINTENANCE

- Keep the machine and all attachments clean.
- · Protect the spindle sleeves from nicks.
- · Clean sleeves threads and threaded socket before use.
- Apply a small amount of rust inhibitor to the table frequently to avoid excessive corrosion.
- All bearings are permanently lubricated and require no further service.
- Apply light grease to and exposed threaded parts and tilting mechanism.
- After approx 800 hours of operation, please change the lubricant oil in the sealed gearbox.

PARTS DIAGRAM



Benchtop Oscillating Spindle Sander SPS-375P

FOR TECHNICAL SUPPORT CALL 1800 658 111

PARTS LIST

PART Ref	DESCRIPTION	PART Ref.	DESCRIPTION	PART Ref	DESCRIPTION
101	Base	223	Crank shaft	334	Sanding spindle 1/2
101A	Top plate	224	Spring washer	335	Sanding spindle 1/4
102	Switch	225	Кеу	337	1/2" Clamp
103	Strain relief	226	Bearing	344	5/8" Clamp
104	Power cord	227	C ring	345	1/4" Clamp
105	Philips head screw	228	C ring	401	Table
106	Rubber feet	229	Spring washer	402	2" Lower follower plate
107	Flat washer	230	Flat washer	403	1-1/2" Upper follower plate
108	Hex. nut	231	Oil cap	404	2" Upper follower plate
109	Philips head screw	232	Storage plate for drums	405	Flat washer
110	Philips head screw	233	Storage plate for table inserts	406	Hex. nut
111	Gear washer	234	Oil cap	407	2" Table insert (oval)
112	Hex. nut	235	Philips head screw	408	2" Table insert (round)
114	Switch box	301	Housing	409	3/4" Table insert (round)
201	Motor	304A	Bracket (right)	410	3/4" Table insert (oval)
202	Кеу	304B	Bracket (left)	411	3" Table insert (round) / optional
203	Flat head screw	305	Hex. screw	412	Spring pin
204	Worm shaft	306	Top plate	413	Wrench
205	Set screw	308	Hex. screw	414	Wrench
206	Transmission rod	310A	Support trunnion (right)	415	3" Upper/lower follower plate /
207	Hex. nut	310B	Support trunnion (left)		optional
208	Connecting rod	311	Lock knob		-
209	Flat washer	312	Hex. socket cap screw		* * * * *
210	Locking nut	313	Set screw		
211	Bearing	314	Pointer		-
212	Transmission	315	Gear washer		
213	Bearing	316	Philips head screw		
214	C ring	317	Dust cover		•
215	Bushing	319	Main spindle		• • • •
216	Set screw	320	Switch cover		-
217	E ring	321	Philips head screw		-
218	Connecting shaft	322	C ring		- - - - - -
219	Bracket	323	Sanding spindle 5/8		- - - - - -
220	Worm	324	Кеу		-
221	Hex. socket cap screw	331	2in sanding spindle assy	•	
222	Shaft	332	1-1/2in sanding spindle assy		

2 YEAR WARRANTY

WARRANTY

- A. We warrant that this Carbatec product will be free from defects caused by faulty workmanship or faulty materials for a period of 2 years from date of sale.
- B. This warranty is in addition to other rights and remedies you may have under a law in relation to the goods.
- C. This warranty does not apply in any of the following cases:
 - i. Defects arising from:
 - 1. fair wear and tear;
 - 2. corrosive atmosphere;
 - damage or injury caused by deliberate act, lack of care or failure to comply with the recommended care and maintenance for the goods;
 - 4. improper use of the goods;
 - alterations or repairs (not made by us) to the goods;
 - defects arising from an event outside of our control such as fire, flood, earthquake or other natural calamity, motor vehicle or other accident, strike, civil unrest, terrorism or war;
 - to accessory items such as after-market jigs, accessories or other items which are not sold or serviced by us and which are not sold with or were not included with the main unit purchased; or
 - iv. to wearable parts such as drive belts/shafts, bearings, bandsaw tyres, motor brushes, blades or abrasive belts/discs or other cutting or machining implements.
 - v. damage caused to any electrical component, where connected to a power supply outside the country for which it was designed (namely Australia or New Zealand).
- D. If this warranty applies and you have complied with the procedure below for making a claim, we will, at our election, either repair the goods (or those parts of the goods recognised as defective) or will provide a replacement within a reasonable time at our expense.
- E. If this warranty applies, the procedure for making a claim is:
 - i. you must contact us by email;

- ii. you must include in the email the following information:
 - 1. a copy of the order or receipt for the goods;
 - 2. the serial or batch number printed on the machinery manufacturing plate; and
 - 3. a detailed description of the fault and how and when it arose; and
 - 4. If the fault is a type covered by this warranty, we will then make arrangements with you for the return of the goods to us (for repair or replacement) at our cost using our transport providers or we may decide to attend at your premises to repair or replace the goods.
- F. Our liability (and that of our resellers) under this warranty is wholly limited to repair or replacement of the goods (or those parts of the goods recognised as defective) in accordance with the procedure above and you have no right to other compensation, costs or damages under this warranty. But this does not mean that you may not have other rights under a law in relation to the goods.
- G. If following our inspection of goods returned by you under this warranty it is found that this warranty does not apply and you are not otherwise entitled to repair or replacement by us, you must, if requested by us, reimburse our costs including parts, labour and freight.
- H. This warranty is not transferable and only the person who purchased the goods may make a claim.
- Where the goods have been exported outside Australia or New Zealand, the Company may not require the Purchaser to return any allegedly faulty or defective Product for evaluation. However, the Company has the right to request the return for evaluation at purchasers cost.

STATUTORY NOTICE

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

TROUBLESHOOTING

TO PREVENT INJURY TO YOURSELF or damage to the spindle sander, turn the switch to the "OFF" position and unplug the power cord from the electrical receptacle before making any adjustments.

PROBLEM	LIKELY CAUSE(S)	SOLUTION(S)		
The machine does not work when switched on.	1. No power supply.	 Check all plug connections. Check the cable for breakage. Check the fuse, or reset circuit breaker. 		
	2. Defective switch.	2. Return machine to your local dealer for repair.		
Sanding drum does not come up to	 Extension cord too light or too long. 	 Replace with adequate size and length cord. 		
speed.	2. Low current.	2. Contact a qualified electrician.		
Machine vibrates excessively	 Stand or base on uneven surface. 	 Adjust stand or base so that it rests evenly on the floor. 		
	2. Bearings worn.	2. Replace bearings.		
Sanded edge not square.	1. Table not square to sanding drum.	 Use a square to adjust table to sanding drum. 		
Sanding marks on timber.	1. Wrong grit sanding sleeve.	 Use coarser grit for stock removal and fine grit for finish sanding. 		
	2. Feed pressure too great.	 Do not force workpiece against spindle or drum. 		



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