

Bäumr-AG®



Metal Cut-Off Saw BCS-355 Series II

User Manual

[Revision 1.0 January 2018]

READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.

Safety

Safety messages are designed to alert you to possible dangers or hazards that could cause death, injury or equipment or property damage if not understood or followed. Safety messages have the following symbols:

	You WILL be KILLED or SERIOUSLY INJURED if you do not follow instructions.		You CAN be KILLED or SERIOUSLY INJURED if you do not follow instructions.		You CAN be INJURED if you do not follow instructions or equipment damage may occur.
<p>It is vital that you read and understand this user manual before using the product, including safety warnings, and any assembly and operating instructions. Keep the manual for future reference.</p> <p>Safety precautions and recommendations detailed here must be fully understood and followed to reduce the risk of injury, fire, explosion, electrical hazard, and/or property damage.</p> <p>Safety information presented here is generic in nature – some advice may not be applicable to every product. The term "equipment" refers to the product, be it electrical mains powered, battery powered or combustion engine powered.</p> <ul style="list-style-type: none"> Before Use - If you are not familiar with the safe operation/handling of the equipment, or are in any way unsure of any aspect of suitability or correct use for your application, you should complete training conducted by a person or organization qualified in safe use and operation of this equipment, including fuel/electrical handling and safety. Do NOT operate the equipment in flammable or explosive environments, such as in the presence of flammable liquids, gases or dust. The equipment may create sparks or heat that may ignite flammable substances. Keep clear of moving parts. Equipment may be a potential source of electric shock or injury if misused. Do NOT operate the equipment if it is damaged, malfunctioning or is in an excessively worn state. Do NOT allow others to use the equipment unless they have read this manual and are adequately trained. Keep packaging away from children – risk of suffocation! Operators must use the equipment correctly. When using the equipment, consider conditions and pay due care to persons and property. <p>General Work Area Safety</p> <ul style="list-style-type: none"> Work areas should be clean and well lit. Do not operate the equipment if bystanders, animals etc are within operating range of the equipment or the general work area. If devices are provided for connecting dust extraction / collection facilities, ensure these are connected and used properly. Dust collection can reduce dust-related hazards. 	<p>General Personal Safety</p> <ul style="list-style-type: none"> Wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect from eye and ear injury, poisoning, burns, cutting and crush injuries. Protective equipment such as safety goggles, respirators, non-slip safety footwear, hard hat, hearing protection etc should be used for appropriate equipment / conditions. Other people nearby should also wear appropriate personal protective equipment. Do not wear loose clothing or jewellery, which can be caught in moving parts. Keep hair and clothing away from the equipment. Stay alert and use common sense when operating the equipment. Do not over-reach. Always maintain secure footing and balance. Do not use the equipment if tired or under the influence of drugs, alcohol or medication. This equipment is not intended for use by persons with reduced physical, sensory or mental capabilities. <p>General Fuel Safety</p> <ul style="list-style-type: none"> Petrol/fuel/gasoline is extremely flammable – keep clear of naked flames or other ignition sources. Do not spill fuel. If you spill fuel, wipe it off the equipment immediately – if fuel gets on your clothing, change clothing. Do NOT smoke near fuel or when refuelling. Always shut off the engine before refuelling. Do NOT refuel a hot engine. Open the fuel cap carefully to allow any pressure build-up in the tank to release slowly. Always refuel in well ventilated areas. Always check for fuel leakage. If fuel leakage is found, do not start or run the engine until all leaks are fixed. <p>General Carbon-Monoxide Safety</p> <ul style="list-style-type: none"> Using a combustion engine indoors CAN KILL IN MINUTES. Engine exhaust contains carbon-monoxide – a poison you cannot smell or see. Use combustion engines OUTSIDE only, and far away from windows, doors and vents. 	<p>General Equipment Use and Care</p> <ul style="list-style-type: none"> The equipment is designed for domestic use only. Handle the equipment safely and carefully. Before use, inspect the equipment for misalignment or binding of moving parts, loose components, damage or any other condition that may affect its operation. If damaged, have the equipment repaired by an authorised service centre or technician before use. Prevent unintentional starting of the equipment - ensure equipment and power switches are in the OFF position before connecting or moving equipment. Do not carry equipment with hands or fingers touching any controls. Remove any tools or other items that are not a part of the equipment from it before starting or switching on. Do not force the equipment. Use the correct equipment for your application. Equipment will perform better and be safer when used within its design and usage parameters. Use the equipment and accessories etc. in accordance with these instructions, considering working conditions and the work to be performed. Using the equipment for operations different from those intended could result in hazardous situations. Always keep equipment components (engines, hoses, handles, controls, frames, housings, guards etc) and accessories (cutting tools, nozzles, bits etc) properly maintained. Keep the equipment clean and, where applicable, properly lubricated. Store the equipment out of reach of children or untrained persons. To avoid burns or fire hazards, let the equipment cool completely before transporting or storing. Never place or store the equipment near flammable materials, combustible gases or liquids etc. The equipment is not weather-proof, and should not be stored in direct sunlight, at high ambient temperatures or locations that are damp or humid. Do not clean equipment with solvents, flammable liquids or harsh abrasives. For specific equipment safety use and care, see Equipment Safety. 			

General Electrical Safety

- Inspect electrical equipment, extension cords, power bars, and electrical fittings for damage or wear before each use. Repair or replace damaged equipment immediately.
- Ensure all power sources conform to equipment voltage requirements and are disconnected before connecting or disconnecting equipment.
- When wiring electrically powered equipment, follow all electrical and safety codes.
- Wherever possible, use a residual current device (RCD).
- High voltage / high current power lines may be present. Use extreme caution to avoid contact or interference with power lines. Electrical shock can be fatal.

General Electrical Safety

- Electrically grounded equipment must have an approved cord and plug and be connected to a grounded electrical outlet.
- Do NOT bypass the ON/OFF switch and operate equipment by connecting and disconnecting the electrical cord.
- Do NOT use equipment that has exposed wiring, damaged switches, covers or guards.
- Do NOT use electrical equipment in wet conditions or in damp locations.
- Do NOT use electrical cords to lift, move or carry equipment.
- Do NOT coil or knot electrical cords, and ensure electrical cords are not trip hazards.

General Service Information

- The equipment must be serviced or repaired at authorised service centres by qualified personnel only.
- Replacement parts must be original equipment manufacturer (OEM) to ensure equipment safety is maintained.
- Do NOT attempt any maintenance or repair work not described in this manual.
- After use, the equipment and components may still be hot – allow the equipment to cool and disconnect spark plugs and/or electrical power sources and/or batteries from it before making adjustments, changing accessories or performing repair or maintenance.
- Do NOT make adjustments while the equipment is running.
- Perform service related activities in suitable conditions, such as a workshop.
- Replace worn, damaged or missing warning/safety labels immediately.

Safety Symbols

The product may have safety warning labels attached to it, explained below. Understand the symbols on your product and their meanings. If any stickers become unreadable, unattached etc, replace them.

Flammable Material Hazard Flammable liquids, gases or substances etc may present. Avoid ignition sources and open flames. Danger of fire.	Read User Manual Read and fully understand product safety warnings, operation, procedures etc before using the product.	Use Hand Protection Wear appropriate hand protection and take due care as the product or use of the product may present hand hazards.	Carbon-Monoxide Hazard Do not use the product in confined areas or without adequate ventilation. Carbon-monoxide poisoning can be fatal.
 Electrocution / Electrical Shock Hazard High voltage or high current electricity may be present or required by the product. Take due care when handling electrical products, cables, plugs and leads. Electrical shock can be fatal.	 Toxic Fumes / Dust Hazard Using the product or by-products from use may produce fumes, smoke or particles that could be harmful if inhaled. Wear appropriate breathing protection and have adequate ventilation.	 Explosive Material Hazard Combustible liquids, gases or substances etc may be present. Avoid ignition sources and open flames. Danger of explosion.	 Cutting / Amputation Hazard The product may have blades, edges or mechanical devices that can cause severe cut injury to fingers, limbs etc. Take due care when handling and using the product.
 Crush Hazard The product may have blades, edges or mechanical devices that can cause severe crush injury to fingers, limbs etc. Take due care when handling and using the product.	 Single Operator Only The product must be operated by a single person only. More than one person operating the product may introduce additional hazards.	 Use Face Protection Wear appropriate full-face protection and take due care as the product or use of the product may present face and eye hazards.	 Use Foot Protection Wear appropriate foot protection and take due care as the product or use of the product may present foot hazards.
 Use Eye / Ear / Head Protection Wear appropriate eye and / or ear and / or head protection and take due care as the product or use of the product may present eye, hearing and head hazards.	 Running Hazard Do not run on or near the product as doing so may present a fall hazard.	 Diving Hazard Do not dive into the product as doing so may present a neck / head injury hazard.	 Adult Supervision Required Always supervise children and other users of a product to prevent drowning or injury.
 Skin Penetration / Puncture Hazard The product may produce pressure, emit liquids or objects that can cause severe injury to fingers, limbs, blood etc. Take due care when handling and using the product.	 Hot Surface Hazard Be aware that the product may produce high temperatures and hot surfaces that can cause burn injuries.	 Flying Debris Hazard Be aware that the product or use of the product may present hazards produced by flying debris. Wear appropriate clothing and protective devices.	 Moving Parts Hazard Be aware that the product contains or uses mechanical devices that move or rotate. Always wait for moving parts to stop fully before handling the product, adjusting, maintenance etc.

Carbon-Monoxide Hazard Do not use the product in confined areas or without adequate ventilation. Carbon-monoxide poisoning can be fatal.	Pull Hazard Be aware that the product contains or uses mechanical devices that can pull in objects and can cause severe injury to fingers, limbs etc. Take due care when handling and using the product.	Slope / Fall Injury Hazard Be aware that using the product on sloping surfaces or in slippery conditions may present additional dangers from falls and contact with blades, moving parts, hot surfaces etc.	"Slam Dunk" Warning Do NOT attempt "slam dunk" manoeuvres as this may result in severe injury due to falling, product breakage or collapse etc.
Electrocution / Electrical Shock Hazard - Outdoor High voltage or high current electricity may be present or required by the product. Do NOT use in rain, damp or wet conditions. Electrical shock can be fatal.	Electrocution / Electrical Shock Hazard - Disconnect High voltage or high current electricity may be present or required by the product. Always disconnect the product from the electrical supply before handling the product, adjusting, maintenance etc.	Power Line Electrocution Hazard High voltage / high current power lines may be present. Use extreme caution to avoid contact or interference with power lines. Electrical shock can be fatal.	"Kick-Back" Hazard High level of "kick-back" hazard that can cause the machine to suddenly rotate towards operator. Kick-back injury can be fatal.
Winch Operator Position Hazard Do NOT stand between winch and load. Do NOT use winch to move people.	Winch Lift Hazard Do NOT LIFT load vertically. Use machine to PULL only.	Cable Hazard Ensure that load bearing cable is not kinked or knotted.	Winch Cable Hazard Ensure that there is a minimum number of cable coils on winching mechanism.
Winch Hook Hazard Carry hook to load – do NOT throw or run.	Flash / Blinding Hazard Wear appropriate eye protection for welding. Direct exposure to weld arcs may cause permanent eye injury.	Laser Hazard Laser may be in use – do NOT look directly at laser, or allow others to.	Corrosive Substance Hazard The product may contain corrosive substances that can harm or otherwise cause damage. Take due care when handling and using the product.
Explosion Hazard The product may contain substances that can explode under certain conditions or misuse. Take due care when handling and using the product.			

Equipment Safety



Cut-off saws are high-speed, fast-cutting equipment with exposed blades that can cause serious or fatal injury if not used correctly or without taking proper safety precautions. **It is extremely important that you read and fully understand the information in this section and all other safety warnings / recommendations and usage instructions before using the equipment.**

Operator

- The equipment is designed for domestic use only.
- If you are untrained in the use of a cut-off saw, it is highly recommended that you be trained/instructed by a suitably qualified or experienced user before using the machine.
- Fully understand how to safely operate the machine and the various attachments. See [Operation](#).
- NEVER operate the machine when tired, or under the influence of any substance (medication, alcohol, drugs etc) that may impair your judgement, alertness, physical strength, vision or dexterity.
- Maintain sure-footing and balance always when using or handling the machine and have full awareness of your surroundings and any possible hazards.
- Prolonged use may lead to health complications, such as carpal tunnel syndrome, due to vibration. To help reduce the possibility of such conditions, wear gloves, take breaks frequently, keep fingers and hands warm, and maintain the equipment for optimal operation and minimal vibration. It is recommended to seek medical advice if you feel numbness or burning sensations in fingers/hands.

Clothing and Protective Equipment – All Operators and Assistants

- Wear approved safety goggles, or safety glasses with adequate top and side protection.
- Wear suitable hearing protection.
- Wear a suitable respirator.
- Wear approved heavy-duty safety boots, with steel toe-caps and non-slip soles.

Work Area Safety

- The machine must use a properly earthed mains electrical socket. A residual current device (RCD) must also be used.
- Ensure that the machine is used on a flat and level surface.
- Operation of the machine in confined spaces is permissible only if a suitable dust extraction system is used.

Operational Safety

- Do NOT use the machine if the ON/OFF switch or any safety guard or mechanism is not installed or is not operating correctly – have the machine inspected and repaired at an authorised service centre before using it again.
- Do NOT cracked or damaged cutting wheels. Use only cutting wheels supplied by the manufacturer and rated for the correct speed and type of material to be cut.
- Fully understand how to safely operate the machine and the various attachments. See [Operation](#).
- Always hold the machine firmly during operation. Always use the machine handles.
- Do not use the equipment for purposes it is not designed for, such as cutting incompatible materials.
- Do NOT attempt to support the workpiece using your hands only – use clamps or other mechanical means etc to securely hold the workpiece, and adequately support large workpieces.
- Do NOT cut more than one item at a time.
- Do NOT apply side-pressure to the cutting wheel.
- Ensure that the amount being cut off is large enough not to be pulled down into the cutting slot.

- Allow the cutting wheel to reach full speed before starting the cut.
- Do NOT remove the workpiece or any scraps etc until after the cutting wheel has fully stopped.

Transportation Safety

- Always STOP the machine and ensure all cutting devices have fully stopped before transporting or working on the machine (loading a tile, adjusting etc).
- When transporting the machine in a vehicle, ensure that the cutting head is locked to the carriage. It is recommended to remove the legs and drain any coolant before transporting. Secure the machine in an upright position to prevent tip-over, or machine damage.

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Parts Identification



No.	Name	No.	Name
1	Machine Body	6	Motor Housing
2	Table	7	Safety Button
3	Cutting Wheel	8	ON / OFF Trigger
4	Guard	9	Carry Handle
5	Protractor / Fence	10	Locking Chain

Operation

The machine is for cutting metals, and depending on the type of wheel used, the type of metal, For example, ferrous (steel, iron etc) metals, stainless steel, non-ferrous metals such as aluminium etc.

Starting / Stopping: To start the saw, press and hold the safety button (A), then squeeze the trigger (B). To stop the saw, release the trigger.



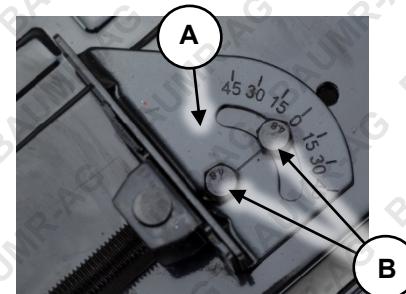
Always use a residual current device (RCD).



Overload Protection: the motor is equipped with overload protection. If the motor is overloaded, too hot or the current draw is excessive, the circuit-breaker will stop the machine automatically. If this occurs, wait several minutes before using the tool again.

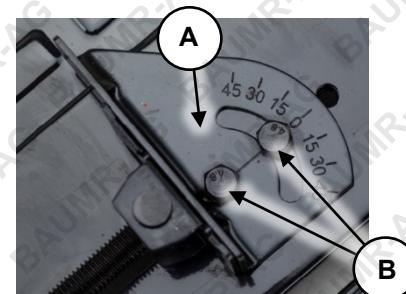
Straight Cuts

1. Using a suitable spanner, loosen the protractor/fence nuts (B) and rotate the protractor/fence (A) until it is aligned with the "0" (zero) mark – this is the straight cut position. Firmly tighten the protractor/fence nuts.
2. Position the workpiece on the cutting table and up against the protractor/fence, then secure it firmly using the clamp.
3. Ensure that the cutting wheel is not contacting the workpiece, then switch the machine ON. Once the cutting wheel is running at full speed, proceed with the cut – rotate the cutting head down and into the workpiece. Cut slowly and smoothly, allowing the cutting wheel to determine the speed of the cut – do NOT force the cutting wheel into the workpiece or apply unnecessary pressure to it.



Mitre Cuts

1. Using a suitable spanner, loosen the protractor/fence nuts (B) and rotate the protractor/fence (A) until it is at the required angle. Firmly tighten the protractor/fence nuts.
2. Position the workpiece on the cutting table and up against the protractor/fence, then secure it firmly using the clamp.
3. Ensure that the cutting wheel is not contacting the workpiece, then switch the machine ON. Once the cutting wheel is running at full speed, proceed with the cut – rotate the cutting head down and into the workpiece. Cut slowly and smoothly, allowing the cutting wheel to determine the speed of the cut – do NOT force the cutting wheel into the workpiece or apply unnecessary pressure to it.



Maintenance and Troubleshooting



Disconnect the tool from the electrical supply before performing any maintenance. • The tool should be cool enough to touch before performing maintenance activities. • Wear suitable gloves when handling blades. • Some maintenance activities described may be beyond the scope of some users. For procedures that you are not comfortable with or have the knowledge, tools or experience for, have the unit serviced by a service centre or qualified technician.

- Clean the tool regularly with a soft cloth – do NOT use water, solvents, abrasives etc. Remove any debris from the guards and tool ventilation slots using a soft brush.

Replacing the Cutting Wheel



Replace the cutting wheel when its diameter wears down significantly or if any damage to it (chips, cracks etc) can be seen. Use only cutting wheels recommended by the manufacturer.

1. Loosen the wing-nut (**B**) securing the spindle cover (**A**), then rotate the cover to expose the spindle.



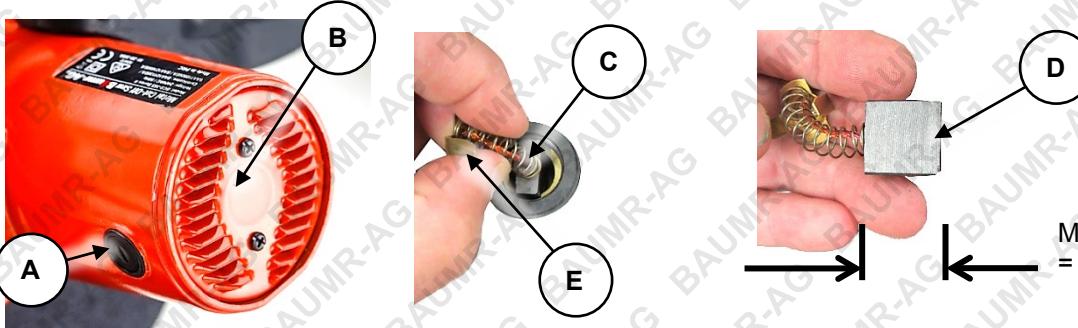
2. Behind the cutting guard, push the spindle lock pin (**C**) toward the guard to prevent the spindle rotating. You may have to rotate the cutting wheel by hand until the spindle lock engages.
3. Use the supplied spanner to remove the spindle nut. Rotate the nut left (anti-clockwise) to unscrew and remove it, followed by the washer, outer flange, cutting wheel, spacer, and inner flange.
4. Clean all parts, including the spindle area of the tool of any dust or particles etc – it is essential that this area is clean, so when the new cutting wheel is installed it will run true.
5. Install the inner flange, then spacer, then cutting wheel onto the spindle. Ensure that the bore of the cutting wheel is sitting correctly on the spindle.
6. Re-install the outer flange, washer onto the spindle.
7. Re-install the spindle nut, rotating right (clockwise). Use the spanner to firmly tighten the nut.
8. Disengage the spindle lock, then rotate the spindle cover to the closed position and secure it with the wing-nut (firmly tighten by hand).

Motor Brushes

The electric motor uses 2 carbon "brushes" in order to function. The brushes wear as a result of use – this is normal, and some tools may come with replacement brushes. If the brushes are allowed to wear past the acceptable limit, the motor may produce less power, operate intermittently, or not operate at all. Check the brushes after each 40 hours of use. To check brushes:

1. Clean the tool in the area around the brush caps (**A**) on both sides of the motor housing (**B**) to help prevent any dirt or other material entering the motor housing.
2. Use a coin or wide flat blade screwdriver to remove the brush caps. Ensure that any seals (O-rings etc) are retained.

3. Pull the brush (C) from the cavity and check the length of the carbon section (D). If the brush length is close to the minimum acceptable limit (6mm), replace the brush – always replace both brushes at the same time.



4. Insert the brush into the cavity – the brush has 2 prongs on the electrical conductor (E) – ensure these sit in the slots in the cavity.
 5. Re-install the brush cap (rotate right. Do not over-tighten) and any seals etc.

After fitting new brushes, run the tool for 10 minutes without any load, to "wear in" the brushes.

Troubleshooting

The following information may assist in identifying a problem and rectifying it.

Tool will not operate.

Possible Fault	Action
No voltage	Ensure the machine is properly connected to the mains electrical supply and that an electrical supply is available
Brushes worn	Replace brushes.

Cutting is poor.

Possible Fault	Action
Cutting wheel dull or damaged	Replace cutting wheel.
Material not compatible	Cut only compatible materials.
Brushes worn	Replace brushes.

Excessive vibration.

Possible Fault	Action
Cutting wheel dull, bent or damaged	Replace cutting wheel.

Specifications

Electrical Requirements	240VAC / 50Hz
Cutting Speed	3800 RPM (no load) / 80m/s
Cutting Wheel	355mm (14") x 3.5mm width / 1" (25.4mm) bore
Maximum Cut Depth	130mm



Some experts believe the incorrect or prolonged use of almost any product could cause serious injury or death. For information that may reduce your risk of serious injury or death, consult the points below and additionally, the information available at www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature online documentation which should be printed and kept with the product.
- Check product for loose / broken / damaged / missing parts, wear or leaks (if applicable) before each use. Never use a product with loose / broken / damaged / missing parts, wear or leaks (if applicable).
- Products must be inspected and serviced (if applicable) by a qualified specialist every 6 months assuming average residential use by a person of average weight and strength, above average technical aptitude, on a property matching average metropolitan specification. Intended use outside these guidelines could indicate the product is not suitable for intended use or may require more regular inspection or servicing.
- Ensure all possible users of the product have completed an industry recognized training course before being given access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or your description of the application. Be sure to attain third-party approval for your application from a qualified specialist before use regardless of prior assurances by the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (take an automobile, aircraft, computer or ball point pen for example), there is always a small chance of technical issues that needs to be repaired or may require replacement of the product or a part. If the possibility of such failure and the associated time it takes to rectify could in any situation inconvenience the user, business or employee then the product is not suitable for your requirements. This product is not for use where incorrect operation or a failure of any kind, including but not limited to a condition requiring product return, replacement, service by a technician or replacement of parts could cause a financial loss, loss of employee time or an inconvenience requiring compensation.
- If this item has been purchased in error after considering the points above, simply contact the retailer directly for details of their returns policy, if required.

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