

Excalibur 16" X 24" CNC Carving Machine with FlashCut **Controller User Manual**

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THANK YOU for choosing this Excalibur by General International model EC-617 M1 16" x 24" CNC carving machine with FlashCut™ controller. This machine has been carefully tested and inspected before shipment and if properly used and maintained, will provide you with years of reliable service. For your safety, as well as to ensure optimum performance and trouble-free operation, and to get the most from your investment, please take the time to read this manual before assembling, installing and operating the unit.

The manual's purpose is to familiarize you with the safe operation, basic function, and features of this CNC carving machine as well as the set-up, maintenance and identification of its parts and components. This manual is not intended as a substitute for formal woodworking instruction, nor to offer the user instruction in the craft of woodworking. If you are not sure about the safety of performing a certain operation or procedure, do not proceed until you can confirm, from knowledgeable and qualified sources, that it is safe to do so.

Once you've read through these instructions, keep this manual handy for future reference.

DISCLAIMER: The information and specifications in this manual pertain to the unit as it was supplied from the factory at the time of printing. Because we are committed to making constant improvements, General International reserves the right to make changes to components, parts or features of this unit as deemed necessary, without prior notice and without obligation to install any such changes on previously delivered units. Reasonable care is taken at the factory to ensure that the specifications and information in this manual corresponds with that of the unit with which it was supplied. However, special orders and "after factory" modifications may render some or all information in this manual inapplicable to your machine. Further, as several generations of this model of CNC carving machine and several versions of this manual may be in circulation, if you own an earlier or later version of this unit, this manual may not depict your machine exactly. If you have any doubts or questions contact your retailer or our support line with the model and serial number of your unit for clarification.

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RULES FOR SAFE OPERATION

To help ensure safe operation, please take a moment to learn the machine's applications and limitations,

as well as potential hazards. General® International disclaims any real or implied warranty and holds itself harmless for any injury that may result from improper use of its equipment.

- 1. Be sure to read and understand owner's manual before operating.
- 2. Do not operate the CNC carving machine when tired, distracted, or under the effects of drugs, alcohol or any medication that impairs reflexes or alertness.
- 3. The work area should be well lit, clean and free of debris.
- 4. Keep children and visitors at a safe distance when the CNC carver is in operation; do not permit them to operate the CNC Carver.
- 5. Childproof and tamper proof your shop and all machinery with locks, master electrical switches and switch keys, to prevent unauthorized or unsupervised use.
- 6. Stay alert! Give your work your undivided attention. Even a momentary distraction can lead to serious injury.
- 7. Fine particulate dust is a carcinogen that can be hazardous to health. Work in a well-ventilated area and whenever possible use a dust collector and wear eye, ear and respiratory protection devices.
- 8. Do not wear loose clothing, gloves, bracelets, necklaces or other jewelry while the CNC carving machine is in operation. Wear protective hair covering to contain long hair and wear non-slip footwear.
- 9. Be sure that adjusting wrenches, tools, drinks and other clutter are removed from the machine before operating.
- 10. Keep hands well away from the spindle, cutting tools, and all moving parts. Use a brush, not hands, to clear away chips and dust.
- 11. Before turning on the CNC carving machine, make sure the piece is properly secured.
- 12. Use of parts and accessories NOT recommended by GENERAL® INTERNATIONAL may result in equipment malfunction or risk of injury.
- 13. Never stand on machinery. Serious injury could result if the tool is tipped over.
- 14. Always disconnect the tool from the power source before servicing, changing accessories, performing any maintenance or cleaning, or if the machine will be left unattended.
- 15. Make sure that switch is in the "OFF" position before plugging in the power cord.
- 16. Make sure the tool is properly grounded. If equipped with a 3-prong plug it should be used with a three-pole receptacle. Never remove the third prong.
- 17. Do not use this CNC carving machine for any purpose other than its intended use. If used for other purposes, GENERAL® INTERNATIONAL disclaims any real or implied warranty and holds itself harmless for any injury, which may result from that use.
- 18. To reduce the risk of electric shock, do not operate the machine with wet hands.
- 19. Respect the rated limits of this machine.
- 20. To ensure safety, all maintenance should be performed by a qualified technician.
- 21. To avoid electrical shock, do not touch the transformers, motors or control box when the power is on.
- 22. Make sure to always have full unimpeded access to the emergency stop button at all times.
- 23. To ensure safety, do not tamper with the safety cover, limit switch or any other accessories.
- 24. Be sure to keep a record before changing any settings on the machine.
- 25. Place the unit on a sturdy surface, in a dry area.
- 26. Avoid exposing the machine to extremely high temperatures.
- 27. Unplug the unit from the power source before replacing fuses. Use only recommended fuses.
- 28. Be sure to turn off the machine when the power source is unstable.

ELECTRICAL REQUIREMENTS

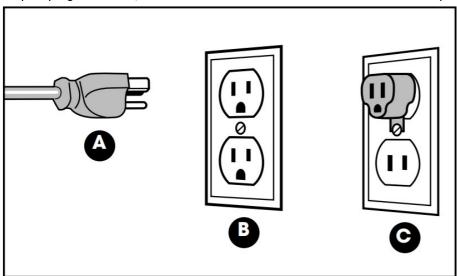
BEFORE CONNECTING THE MACHINE TO THE POWER SOURCE, VERIFY THAT THE VOLTAGE OF YOUR POWER SUPPLY CORRESPONDS WITH THE VOLTAGE SPECIFIED ON THE MOTOR I.D. NAMEPLATE. A POWER SOURCE WITH GREATER VOLTAGE THAN NEEDED CAN RESULT IN SERIOUS INJURY TO THE USER AS WELL AS DAMAGE TO THE MACHINE. IF IN DOUBT, CONTACT A QUALIFIED ELECTRICIAN BEFORE CONNECTING TO THE POWER SOURCE.

THIS TOOL IS FOR INDOOR USE ONLY. DO NOT EXPOSE TO RAIN OR USE IN WET OR DAMP LOCATIONS.

GROUNDING INSTRUCTIONS

In the event of an electrical malfunction or short circuit, grounding reduces the risk of electric shock. The motor of this machine is wired for 110V single phase operation and is equipped with a 3-conductor cord and a 3-prong grounding plug **A** to fit a grounded type receptacle **B**.

Do not remove the 3rd prong (grounding pin) to make it fit into an old 2-hole wall socket or extension cord. If an adaptor plug is used **C**, it must be attached to the metal screw of the receptacle.



Note: The use of an adaptor plug is illegal in some areas. Check your local codes. If you have any doubts or if the supplied plug does not correspond to your electrical outlet, consult a qualified electrician before proceeding.

CIRCUIT CAPACITY

Make sure that the wires in your circuit are capable of handling the amperage draw from your machine, as well as any other machines that could be operating on the same circuit. If you are unsure, consult a qualified electrician. If the circuit breaker trips or the fuse blows regularly, your machine may be operating on a circuit that is close to its amperage draw capacity. However, if an unusual amperage draw does not exist and a power failure still occurs, contact a qualified technician or our service department.

EXTENSION CORDS

If you find it necessary to use an extension cord with your machine, use only 3 wire extension cords that have 3-prong grounding plug and a matching 3-pole receptacle that accepts the tool's plug. Repair or replace a damaged extension cord or plug immediately.

Make sure the cord rating is suitable for the amperage listed on the motor I.D. plate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. In some cases this may cause the machine to

stop its cutting operation and an error message will appear on your controller. The accompanying chart shows the correct size extension cord to be used based on cord length and motor I.D. plate amp rating. If in doubt, use the next heavier gauge. The smaller the number, the heavier the gauge.

		EXTENSIO	N CORD LENGTH	
AMPERES	50 feet	100 feet	200 feet	300 feet
< 5	18	16	16	14
6 to 10	18	16	14	12
10 to 12	16	16	14	12
12 to 16	14	12	*NR	*NR

FEATURES

New! Renowned Excalibur by General International design expertise now available in CNC technology. Steel stand and built-in dust collector included*

FlashCut[™] controller** and FlashCut[™] programming software included <u>www.FlashCutcnc.com</u>
FlashCut[™] CNC is the only Windows CNC solution offering a dedicated CNC controller ensuring smooth and uninterrupted motion using 32 or 64-bit Windows 10, 8 or 7 with a USB connection on a laptop or desktop computer – includes phone and e-mail support.

Powerful 550 watt variable frequency motor for excellent performance and low maintenance. Smooth and accurate ball screw transmission on all axis.

Positional accuracy up to +/- 0.004 inches.

Variable cutting speeds up to 118 inches per minute. Spindle speeds up to 24,000 rpm with automatic spindle on/off control.

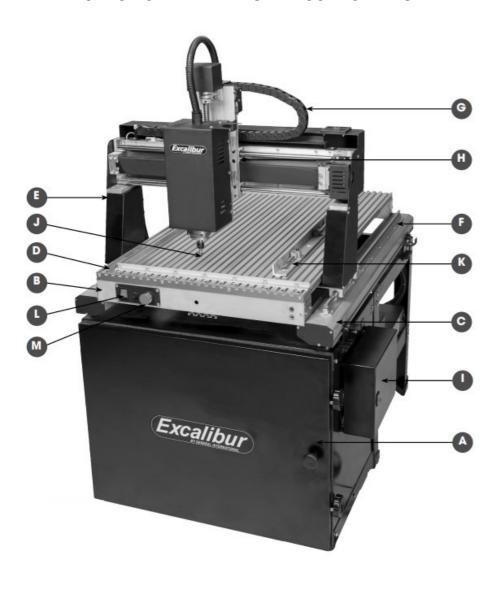
Aluminum table with integrated hold down clamps.

- 1 year limited warranty
- * Optional safety enclosure also available #EC617X ideal for educational users.
- ** FlashCut™ controller options: EC-617FSB Basic or EC617FSS Standard (with tethered remote)

SPECIFICATIONS

- Cutting capacity (X, Y Z axis): 16", 24", 4"
- Positional accuracy: ±0.004"
- · Assembled dimensions
 - **EC-617 M1 only:** 27 3/4" x 38 1/2" x 27 1/2" (704 x 980 x 700 mm)
 - With stand: 40 1/8" x 31 ½" x 55 1/8" (1020 x 800 x 1400 mm
 - With stand & optional enclosure (EC617X): 32 1/4" x 43 1/4" x 56 1/4" (820 x 1100 x 1430 mm)
- Spindle speed / Cutting speeds: 0 24,000 rpm / variable up to 118" per minute
- **Spindle**/ **motor type:** 550 W variable frequency motor
- Table surface material: Aluminium
- Programming software included: FlashCut™ CNC4
- Input power requirements: 110/115v 9 A
- ColletL 1 x 1/4" (6 mm)
- Weight (shipping/net) EC-617 M1 without enclosure: 308/264 lbs (140/120kg)

IDENTIFICATION OF MAIN PARTS AND COMPONENTS



- A. BASE CABINET
- B. FRAME
- C. SIDE RAIL
- D. WORK TABLE
- E. GANTRY
- F. Y AXIS SYSTEM
- G. CABLE CHAIN
- H. Z AXIS SYSTEM
- I. CONTROL BOX
- J. CUTTING TOOL (BIT)
- K. WORKPIECE CLAMPS
- L. POWER ON/OFF SWITCH
- M. EMERGENCY STOP BUTTON

UNPACKING AND PREPARATION FOR SET-UP INSTALLATION



THE MACHINE IS HEAVY (132 LBS – 60 KG). DO NOT OVEREXERT. ARRANGE TO HAVE HELP NEARBY AND READY FOR UNPACKING AND SET UP. THE SOUND LEVEL OF THIS MACHINE IS RATED AT APPROXIMATELY 85-95 DB DURING OPERATION. MAKE SURE THAT ADEQUATE

HEARING PROTECTION IS USED AND THAT THE OVERALL SOUND LEVEL WITHIN THE WORKING ENVIRONMENT IS TAKEN INTO CONSIDERATION.

UNPACKING

Depending on the model ordered, your EC-617 M1 is supplied as a standard version CNC Carving machine with stand and dust collection included, and a choice of two control systems: FlashCut™ Basic (Model EC-617FSB), or FlashCut™ Standard (Model EC-617FSS) which includes a tethered hand-held remote control.

NOTE: A safety enclosure with auto lock-out switch #EC-617X is also available as an optional accessory (see the section "Optional accessories").

The standard unit is shipped in two cartons. The machine with controller in one carton and the stand and dust collection in the second.

Carefully unpack and remove the Carver and its components from the cartons and check for damaged or missing items as per the parts list in this manual.

NOTE: Please report any damaged or missing items to your General International distributor immediately.





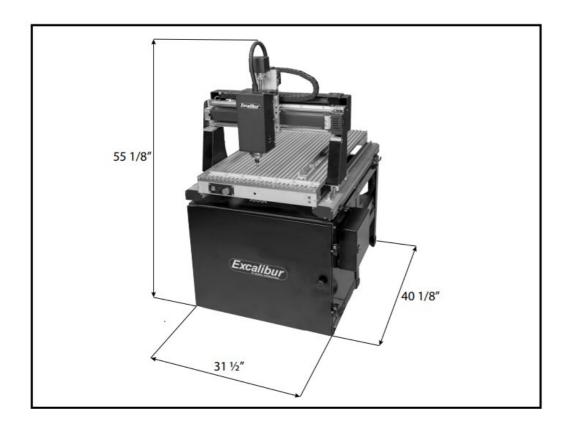
PLACEMENT WITHIN THE SHOP / SAFETY ZONE

THIS MODEL EC-617 M1 CNC CARVING MACHINE IS HEAVY – 264 LBS (120 KG), WITH STAND. DO NOT OVER-EXERT. THE HELP OF AN ASSISTANT WILL BE NEEDED FOR THE INSTALLATION. SERIOUS PERSONAL INJURY COULD OCCUR IF YOU CONNECT THE MACHINE TO THE POWER SOURCE BEFORE YOU HAVE COMPLETED THE INSTALLATION AND ASSEMBLY STEPS. DO NOT CONNECT THE MACHINE TO THE POWER SOURCE UNTIL INSTRUCTED TO DO SO.

PLACEMENT WITHIN THE SHOP

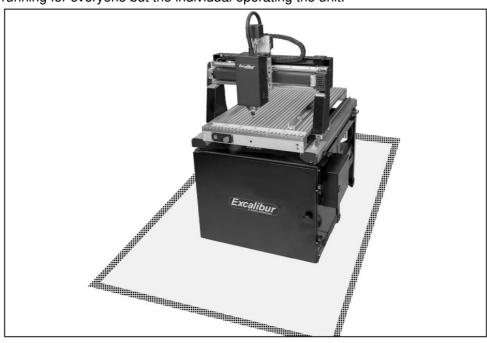
This machine should be installed and operated only on a solid, flat and stable work surface that is able to support the weight of the i Carver and the workpiece.

Using the dimensions shown as a guideline, plan for placement within your shop that will allow the operator to work unencumbered and unobstructed by foot traffic (either passing shop visitors or other shop workers) or other tools or machinery. (use coverpage pics and dims as follows: L-40 1/8" x W-31 ½" x H-55 1/8")



ESTABLISHING A SAFETY ZONE

For shops with frequent visitors or multiple operators, it is advisable to establish a safety zone around shop machinery. A clearly defined "no-go" zone on the floor around each machine can help avoid accidents that could cause injury to either the operator or the shop visitor. It is advisable to take a few moments to either paint (using non-slip paint) or using tape, define on the floor the limits or perimeter of each machines safety zone. Take steps to ensure that all operators and shop visitors are aware that these areas are off limits whenever a machine is running for everyone but the individual operating the unit.



ASSEMBLY AND INSTALLATION INSTRUCTIONS

SERIOUS PERSONAL INJURY COULD OCCUR IF YOU CONNECT THE MACHINE TO THE POWER SOURCE BEFORE YOU HAVE COMPLETED THE INSTALLATION AND ASSEMBLY STEPS. DO NOT CONNECT THE MACHINE TO THE POWER SOURCE UNTIL INSTRUCTED TO DO SO

For your convenience this CNC Carver is shipped from the factory partially assembled and requires only minimal assembly for the stand, and minor set up before being put into service.

ASSEMBLING THE STAND

Using the parts diagram in the section "Parts and diagrams" as a guide, assemble the stand with the supplied fasteners.

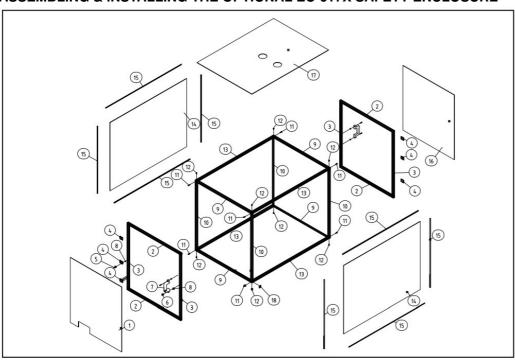
Attach the dust collection/controller cabinet and secure the CNC carver to the stand and cabinet as shown. Then connect the end of dust hose to the dust port on the cabinet and the other end of the dust hose with mounting bracket to the spindle head.





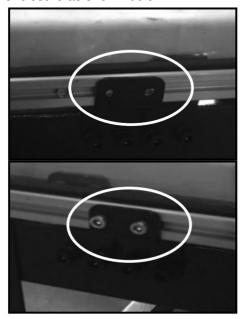
Note: If ordered with the optional EC-617X safety enclosure, proceed with enclosure installation before connecting the dust hose.

ASSEMBLING & INSTALLING THE OPTIONAL EC-617X SAFETY ENCLOSURE



Using the parts diagram below as a guide, assemble the enclosure with the supplied fasteners.

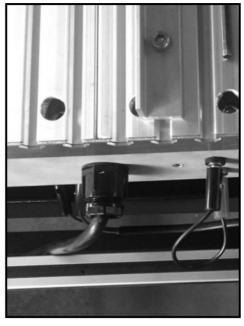
Secure the enclosure to the base. Install two flat washers between the cut-off swtich and the frame of the safety enclosure as shown below.





Connect the wires from the cut-off switch on the enclosure in place of ones supplied with the basic unit. **Note:** Take care during installation that the main power cable does not to obstruct the rear door.



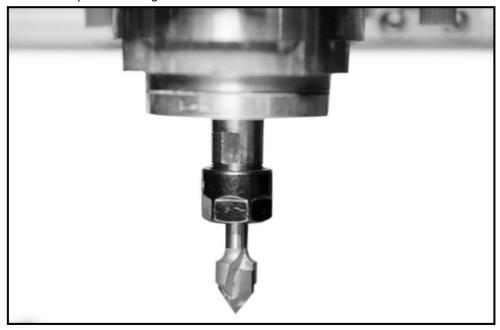


CUTTING TOOL INSTALLATION / REMOVAL

TO AVOID SERIOUS PERSONAL INJURY AND/OR DAMAGE TO THE SPINDLE, ALWAYS MAKE SURE THAT THE MACHINE HAS BEEN TURNED OFF AND UNPLUGGED BEFORE INSTALLING /REMOVING A CUTTING TOOL. KEEP HANDS WELL AWAY FROM THE SPINDLE, CUTTING TOOL, AND ALL MOVING PARTS AT ALL TIMES.

The spindle's collet on this unit is designed to accept standard 1/4" or 6mm bits. A wide range of bits in various cutting shapes can be used based on the project and type of cutting tool needed. See your retailer for details of the various bits that may be available in your area.

To install a cutting tool (bit), insert the cutting tool in the collet and use the supplied 13 mm and 17mm wrenches to hold the spindle and tighten the collet onto the bit.

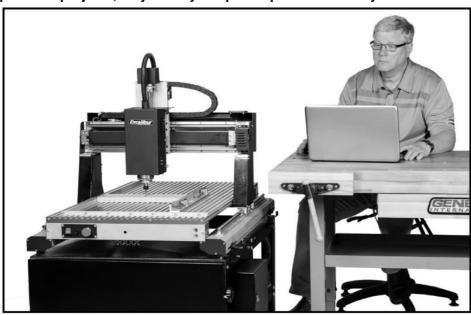


LOADING PROJECTS AND OPERATING THE CONTROLLER

Carving projects can be created from most commonly used image file formats. The FlashCut™ controller and FlashCut™ CNC4 programming software are fully compatible with Windows™ 7, 8, and 10, 32 bit or 64 bit operating systems.

For full details on creating, loading, and running projects with FlashCut™ CNC4 software, as well as complete operating instructions for the controller, please refer to the detailed instruction manuals supplied with your FlashCut™ controller.

Personal liability reminder: Be aware that images copie from the internet or from other sources may be subject to copyrights and that the use of any copyrighted images or logos for commercial and even personal projects, may leave you open to personal liability.



In particular, do not use copyrighted images for commercial (for pay) projects without first securing specific written permission from the owner of the image or logo. Sports teams and leagues as well as trademarked brands can be quite aggressive about protecting their copyrights.

CONNECTING TO A POWER SOURCE

TO REDUCE THE RISK OF SHOCK OR FIRE DO NOT OPERATE THE UNIT WITH A DAMAGED POWER CORD OR PLUG. REPLACE DAMAGED CORD OR PLUG IMMEDIATELY. TO AVOID UNEXPECTED OR UNINTENTIONAL START-UP, MAKE SURE THAT BOTH OF THE POWER SWITCHES ARE IN THE OFF POSITION BEFORE CONNECTING TO A POWER SOURCE.

Once the assembly steps have been completed and the unit is safely secured to its stand, uncoil the power cord and plug the power cord into an appropriate outlet. Refer back to the section entitled "Electrical Requirements" and make sure all requirements and grounding instructions are followed. When carving operations have been completed unplug the CNC Carver from the power source.

SPEED SELECTION

Selecting the appropriate feed rate is dependent on a variety of factors: type and density of the material to be machined, depth of cut per pass, type of bit or cutting tool being used, required finish quality, as well as the amount of fine detail in the image being machined. There are no hard and fast rules. Practice and experience will be your best teacher. There are however some general guidelines to consider and the following information will help you in selecting the correct feed rate:

- SLOWEST SPEED Recommended for projects designed with small/fine detailing in the image to be machined.
- SLOW TO MEDIUM SPEED For projects where material density is extremely high not commonly used.
- **MEDIUM TO HIGH SPEED** Best speed for simpler less detailed designs when using dense woods, or where machining depths exceed 1/4" per pass.
- **HIGHEST SPEED** For simpler less detailed designs in less dense woods with machining depths of 1/4" or less per pass.

PERIODIC MAINTENANCE

MAKE SURE THE MACHINE HAS BEEN TURNED OFF AND UNPLUGGED FROM THE POWER SOURCE BEFORE PERFORMING ANY MAINTENANCE.

- Inspect/test the ON/OFF switch before each use. Do not operate the CNC Carver with a damaged switch; replace a damaged switch immediately.
- Keep the machine clean and free of saw dust, woodchips, pitch or glue. Vacuum or brush off any loose debris after each use, and wipe down the machine and table occasionally with a damp rag.
- Periodically inspect the power cord and plug for damage. To minimize the risk of electric shock or fire, never
 operate the CNC Carver with a damaged power cord or plug. Replace a damaged power cord or plug at the
 first visible signs of damage.
- Regularly inspect carved workpieces for signs of cutting tool damage or wear and replace damaged or worn cutting tools immediately.
- After a prolonged period without being used (1 month or more) run the spindle at 10% speed for 30 minutes to warm the unit up before cutting/carving.

LUBRICATION

The only part of the CNC carver that requires regular lubrication is the ball screw rod. Apply a liberal amount of a #2 lithium-based grease to the rod at least once every 90 days.

OPTIONAL ACCESSORIES

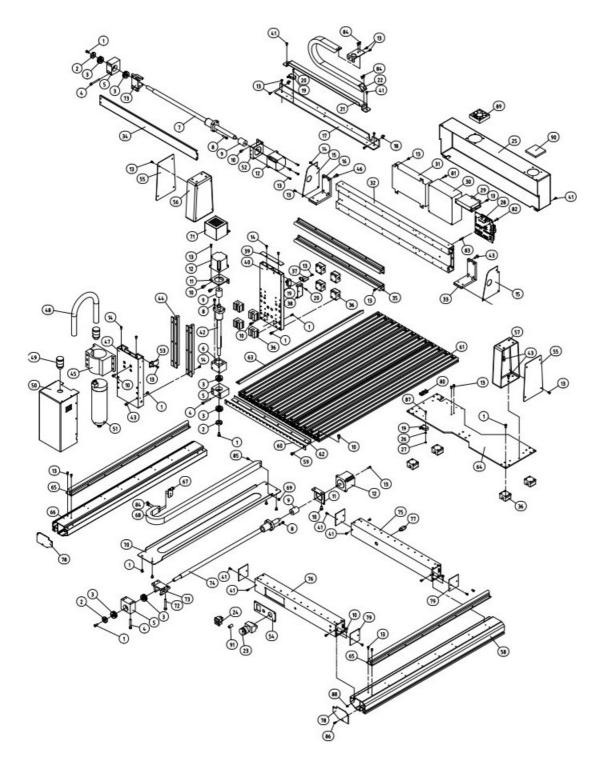
Recommended optional accessories are available from your local General International dealer. For more information about our complete line of products, please visit our website at www.general.ca

SAFETY ENCLOSURE # EC-617X

ISee-through impact resistant enclosure with safety inter-lock doors (auto-shut off). Designed specifically for Model EC-617 M1 only.



DIAGRAM



PARTS LIST

IMPORTANT: When ordering replacement parts, always give the model number, serial number of the machine and part number. Also a brief description of each item and quantity desired.

P A R T	REFERENCE #	DESCRIPTION	SPECIFICATIONS	QTY
1	EC617-01	SOCKET HEAD CA P SCREW	GB/T70.1 M5 × 10	57

2	EC617-02	LOCK NUT	SWT/R M12 × 1.25	3
3	EC617-03	THRUST BEARING	GB/T301 51201	6
4	EC617-04	SOCKET HEAD CA P SCREW	GB/T70.1 M6 × 45	12
5	EC617-05	BEARING MOUNTI NG BLOCK	DK162403007A	3
6	EC617-06	BASE	DK162403008	2
7	EC617-07	X-AXIS BALL SCRE W	DK162403001	1
8	EC617-08	SOCKET HEAD CA P SCREW	GB/T70.1 M5 × 16	12
9	EC617-09	COUPLING	GL26×31-6.35-10	3
1 0	EC617-10	SOCKET HEAD CA P SCREW	GB/T70.1 M6 × 10	64
1	EC617-11	STEPPER MOTOR BRACKET	DK162404001	2
1 2	EC617-12	STEPPER MOTOR	57BYG/3A	3
1 3	EC617-13	PAN HEAD SCREW	GB/T818 M4 × 8	95
1 4	EC617-14	SELF-TAPPING PA N HEAD SCREW	GB/T845 ST4.8 × 13	8
1 5	EC617-15	END COVER	DK162402011	2
1 6	EC617-16	LEFT BRACKET	DK162402004	1
1 7	EC617-17	L-BRACKET	DK162402010	1
1 8	EC617-18	MOUNTING BLOCK	DK162401006	10
1 9	EC617-19	LIMIT SWITCH	DA7-6/1	3
2 0	EC617-20	PAN HEAD SCREW	GB/T818 M3 × 12	4
2	EC617-21	CABLE COVER BA SE	DK162404005	1

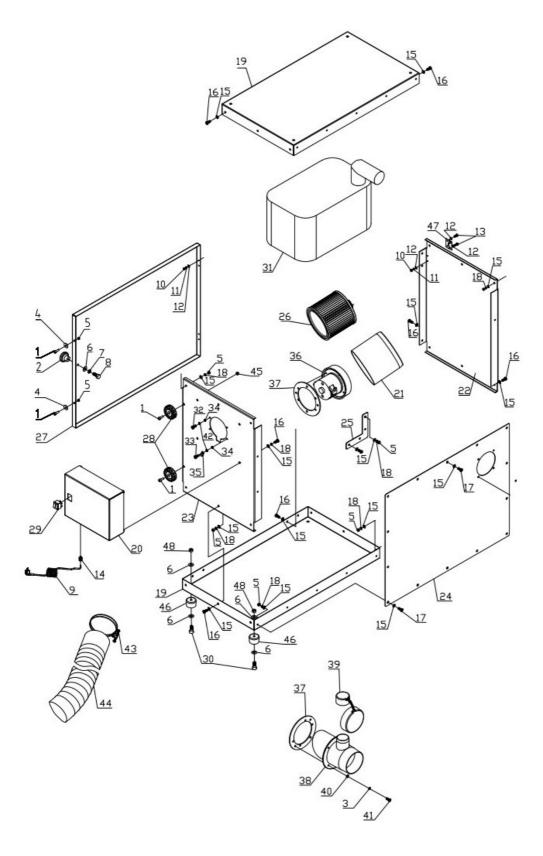
2 2	EC617-22	CABLE COVER	15.20.F.12PZ-600	1
2 3	EC617-23	EMERGENCY STO P BUTTON	HY57B-3-2	1
2 4	EC617-24	MAIN SWITCH	XCK-019-141	1
2 5	EC617-25	WIRING COVER	DK162404004	1
2 6	EC617-26	SPROCKET LOCK WASHER	GB/T862.2 3	2
2 7	EC617-27	NUT	GB/T6170 M3	2
2 8	EC617-28	CONTROL BOARD	57CNC	1
2 9	EC617-29	STEPPER MOTOR CONTROLLER	HM-2H2A128K	3
3	EC617-30	VARIABLE FREQU ENCY DRIVE	YNBP-YF6510B	1
3	EC617-31	POWER SWITCH	LRS-200-24	1
3 2	EC617-32	GANTRY	DK162402005	1
3	EC617-33	RIGHT BRACKET	DK162402004A	1
3 4	EC617-34	BALL SCREW COV ER	DK162404010	1
3 5	EC617-35	X-AXIS GUIDERAIL	DK162403004	2
3 6	EC617-36	SLIDE BLOCK	SBR12	12
3 7	EC617-37	X-AXIS LIMIT SWIT CH CONTACT PLAT E	DK162404009/	1
3 8	EC617-38	MICRO SWITCH C OVER	DK162404008	1
3 9	EC617-39	END PLATE	DK162402012	2
4 0	EC617-40	Z-AXIS SLIDE BLO CK BASE	DK162402006	1

4	EC617-41		PAN HEAD SCREW	GB/T823/M4 × 5/	22	
4 2	EC617-42		Z-AXIS BALL SCRE W	DK162403003	1	
4 3	EC617-43	EC617-43		GB/T70.1 M6 × 16	4	
4 4	EC617-44		Z-AXIS GUIDERAIL	DK162403006	1	
4 5	EC617-45		SPINDLE MOTER B RACKET	DK162402014	1	
4 6	EC617-46		SOCKET HEAD CA P SCREW	GB/T70.1 M6 × 16	4	
4 7	EC617-47		SPINDLE MOTOR B ASE	DK162402007	1	
4 8	EC617-48	FLEXIBLE	HOSE	AD18.5-400		1
4 9	EC617-49	FLEXIBLE	HOSE CONNECTOR	AD18.5-M20 X 1.5		2
5 0	EC617-50	SPINDLE MOTOR COVER		DK162402013		1
5	EC617-51	SPINDLE	MOTOR	800W		1
5 2	EC617-52	STEPPER	MOTOR SEAT	DK162404001		1
5	EC617-53	Z-AXIS LIN T PLATE	MIT SWITCH CONTAC	DK162404007		1
5 4	EC617-54	SWITCH F	PANEL	DK162404014		1
5 5	EC617-55	COVER		DK162402003		2
5 6	EC617-56	GANTRY SUPPORT – LEFT		DK162402002		1
5 7	EC617-57	GANTRY SUPPORT – RIGHT		DK162402002A		1
5 8	EC617-58	MAIN RAIL RIGHT		DK162401001A		1
5 9	EC617-59	SELF-TAP	PING SCREW	ST5.5 × 16		4

6 0	EC617-60	END PLATE	DK162401004	2
6	EC617-61	WORK TABLE	DK162401003	6
6 2	EC617-62	CROSS RAIL	DK162405005	1
6	EC617-63	LONG RAIL	DK162405006	1
6 4	EC617-64	Y-AXIS SLIDER BLOCK BASE	DK162402001	1
6 5	EC617-65	Y-AXIS GUIDERAIL	DK162403005	2
6	EC617-66	MAIN RAIL LEFT	DK162401001	1
6 7	EC617-67	LINKAGE PLATE	DK162404006	1
6 8	EC617-68	WIRING ENCLOSURE	15.20.F.12PZ-700	1
6 9	EC617-69	NUT	GB/T889.1 M4	1
7	EC617-70	WIRING ENCLOSURE BASE P LATE	DK162404003	1
7	EC617-71	NUT	QY-20-M5	10
7 2	EC617-72	SOCKET HEAD CAP SCREW	GB/T70.1/M5 × 45	4
7	EC617-73	BRACKET	DK162403008	1
7	EC617-74	Y-AXIS BALL SCREW	DK162403002	1
7 5	EC617-75	REAR RAIL	DK162401002A/	1
7 6	EC617-76	FRONT RAIL	DK162401002	1
7 7	EC617-77	STRAIN RELIEF	31505010A	1
7 8	EC617-78	END PLATE	DK162401007	2

7	F0047 70	OANTDV OOVED	DIVAGGAGAGG	
9	EC617-79	GANTRY COVER	DK162401005	4
8	EC617-80	CABLE CLAMP	16102014A	1
8	EC617-81	SELF-TAPPING PAN HEAD SC REW	GB/T845 ST3.5 × 9.5	12
8 2	EC617-82	PAN HEAD SCREW	GB/T818 M3 × 6	4
8	EC617-83	NUT	M3 X 15+6	4
8	EC617-84	PHILLIPS HEAD SCREW	GB/T819.1 M4 × 8	6
8 5	EC617-85	PHILLIPS HEAD SCREW	GB/T819.1 M4 × 12	1
8	EC617-86	PAN HEAD SCREW	GB/T818 M4 × 16	4
8 7	EC617-87	PAN HEAD SCREW	GB/T818 M3 × 16	4
8	EC617-88	NUT	GB/T6170 M6	8
8	EC617-89	FAN/24V	1000037579	1
9	EC617-90	FAN COVER	1000037585	1
9	EC617-91	FUSE	10A	1
9	EC617-92	LASER POINTER	RLM08022	2
9	EC617-93	LASER POINTER HOLDER	DK162404013	2

DIAGRAM - BASE



PARTS LIST

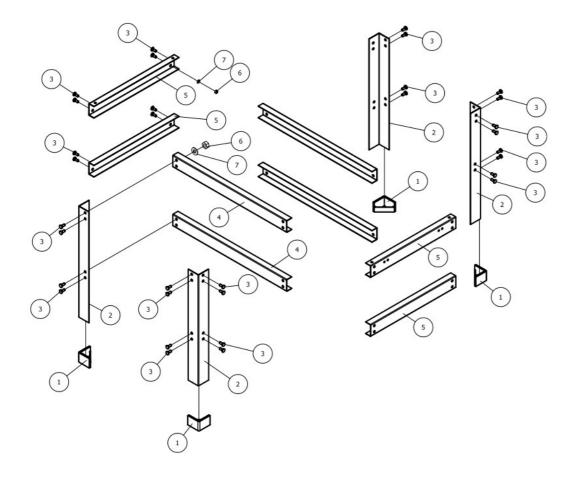
IMPORTANT: When ordering replacement parts, always give the model number, serial number of the machine and part number. Also a brief description of each item and quantity desired.

PART#	REFERENCE #	DESCRIPTION	SPECIFICATIONS	QTY
1	EC617-DC01	SOCKET HEAD CAP SCREW	GB/T70.1 M6×16	4
2	EC617-DC02	HANDLE	DJ35001010	1

3	EC617-DC03	LOCK WASHER	GB/T93 5	8
4	EC617-DC04	WASHER	GB/T96.2 6	2
5	EC617-DC05	NUT	GB/T6170 M6	30
6	EC617-DC06	FLAT WASHER	GB/T97.1 8	9
7	EC617-DC07	LOCK WASHER	GB/T93 8	1
8	EC617-DC08	BOLT	GB/T5781 M8×12	1
9	EC617-DC09	CABLE	DLC3KEE1R-J-HHS	1
10	EC617-DC10	NUT	GB/T6170 M4	8
11	EC617-DC11	LOCK WASHER	GB/T93 4	8
12	EC617-DC12	WASHER	GB/T97.1 4	16
13	EC617-DC13	PAN HEAD SCREW	GB/T818 M4×12	8
14	EC617-DC14	STRAIN RELIEF	31505010A	1
15	EC617-DC15	WASHER	GB/T97.1 6	78
16	EC617-DC16	PAN HEAD SCREW	GB/T818 M4×12	32
17	EC617-DC17	PAN HEAD SCREW	GB/T818 M6×10	14
18	EC617-DC18	LOCK WASHER	GB/T93 6	34
19	EC617-DC19	TOP COVER PANEL	RDC100HA01001	2
20	EC617-DC20	MOTOR COVER	RDC100HA01100	1
21	EC617-DC21	FILTER BAG	RDC100H00007	1
22	EC617-DC22	LEFT COVER	RDC100HA01002	1
23	EC617-DC23	RIGHT COVER	RDC100HA01003	1
24	EC617-DC24	REAR COVER	RDC100HA01004	1
25	EC617-DC25	CONNECTING PLATE	RDC100HA01005	4
26	EC617-DC26	CANISTER FILTER	RDC100H04000	1
27	EC617-DC27	DOOR	RDC100HA01006	1
28	EC617-DC28	DOOR LOCKING KONB	DJ350A03002	2
29	EC617-DC29	SWITCH	KND2/12-D1-F1-T1-V	1

30	EC617-DC30	HEX HEAD BOLT	GB/T5781 M8×25	1
31	EC617-DC31	DUST COLLECTION BAG	RDC100HA01011	1
32	EC617-DC32	PAN HEAD SCREW	GB/T818 M5×10	3
33	EC617-DC33	PAN HEAD SCREW	GB/T818 M5×12	1
34	EC617-DC34	SPROCKET WASHER	GB/T862.1	4
35	EC617-DC35	WIRE CLIP	UC-0	1
36	EC617-DC36	MOTOR	HC10120A/	1
37	EC617-DC37	RUBBER GASKET	RDC100H00008	2
38	EC617-DC38	DUST PORT	RDC100HA01008	1
39	EC617-DC39	DUST PORT CAP	RDC100HA01009	1
40	EC617-DC40	FLAT WASHER	GB/T97.1 5	4
41	EC617-DC41	PAN HEAD SCREW	GB/T818 M5×16	4
42	EC617-DC42	LOCK WASHER	GB/T93 5	8
43	EC617-DC43	HOSE CLAMP	Ø60MM	2
44	EC617-DC44	DUST HOSE	Ø60MM-3.5M	1
45	EC617-DC45	NUT	GB/T889.1 M6	2
46	EC617-DC46	RUBBER FOOT	ROC1510B01008	4
47	EC617-DC47	HINGE	DJ315S02011-06/	2
48	EC617-DC48	NUT	GB/T6170 M8	4

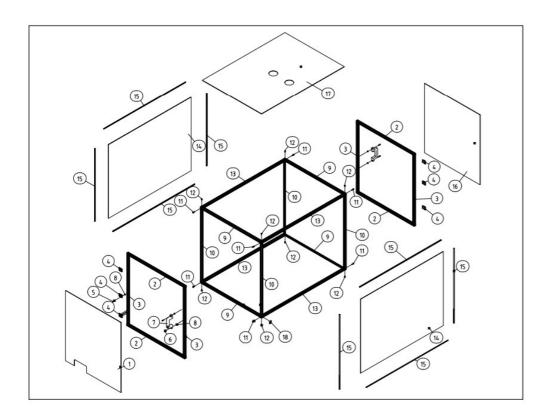
DIAGRAM - STAND



IMPORTANT: When ordering replacement parts, always give the model number, serial number of the machine and part number. Also a brief description of each item and quantity desired.

PART #	REFERENCE #	DESCRIPTION	SPECIFICATIONS	QTY
1	EC617-S01	FOOT	DT/01-009	4
2	EC617-S02	LEG	DK162407103	1
3	EC617-S03	CARRIAGE BOLT	GB/T801 M8×20	32
4	EC617-S04	LONG TIE BAR	DK162407101	4
5	EC617-S05	SHORT TIE BAR	DK162407102	4
6	EC617-S06	NUT	GB/T6170 M8	24
7	EC617-S07	FLAT WASHER	GB/T97.1 8	24

DIAGRAM – OPTIONAL ENCLOSURE



IMPORTANT: When ordering replacement parts, always give the model number, serial number of the machine and part number. Also a brief description of each item and quantity desired.

PART #	REFERENCE #	DESCRIPTION	SPECIFICATIONS	QTY
1	EC617X-01	FRONT COVER	698 X 758	1
2	EC617X-02	DOOR FRAME - SHORT	20 X 20-688	4
3	EC617X-03	DOOR FRAME – LONG	20 X 20-782	4
4	EC617X-04	HINGES	HM2020-6	6
5	EC617X-05	SCREW	HM4 X 10	24
6	EC617X-06	BOLT	HM5 X 10	4
7	EC617X-07	HANDLE	M26	2
8	EC617X-08	NUT	HM20-M4	40
9	EC617X-09	RAIL – SHORT	20 X 20-764	4
10	EC617X-10	STILE	20+C46 X 20 -790	4
11	EC617X-11	BOLT	GB/T 70.1 M6 X 30	16
12	EC617X-12	SCREW	GB/T 70.2 M6 X 16	8
13	EC617X-13	RAIL – LONG	20 X 20-1025	4
14	EC617X-14	SIDE PANNEAU	800 X 1035 X 3	2
15	EC617X-15	FOAM GASKET	HM-6	12M
16	EC617X-16	REAR COVER	698 X 758 X 3	1
17	EC617X-17	TOP COVER	740 X 1035 X 3	1
18	EC617X-18	END CAP	HM2020	1

GENERAL® INTERNATIONAL WARRANTY

All component parts of Excalibur by General International products are carefully inspected during all stages of production and each unit is thoroughly inspected upon completion of assembly.

Standard 1-Year Limited Warranty

Because of our commitment to quality and customer satisfaction, General International agrees to repair or replace any part or component which upon examination, proves to be defective in either workmanship or material to the original purchaser for a period of 1 year (12 months) from the date of purchase, subject to the "conditions and exceptions" as listed below.

To file a Claim

To file a claim under our Standard 1-year Limited Warranty, all defective parts, components or machinery must be returned freight or postage prepaid to General International or to a nearby distributor, repair center or other location designated by General International.

For further details call our technical support department at 1-888-949-1161. Along with the return of the product being claimed for warranty, a copy of the original proof of purchase and a "letter of claim" must be included (a warranty claim form can also be used and can be obtained, upon request, from General International or an authorized distributor) clearly stating the model and serial number of the unit (if applicable) and including an explanation of the complaint or presumed defect in material or workmanship.

CONDITIONS AND EXCEPTIONS:

This coverage is extended to the original purchaser only. Prior warranty registration is not required but documented proof of purchase i.e. a copy of original sales invoice or receipt showing the date and location of the purchase as well as the purchase price paid must be provided at the time of claim.

Warranty does not include failures, breakage or defects deemed after inspection by General International to have been directly or indirectly caused by or resulting from; improper use, or lack of or improper maintenance, misuse or abuse, negligence, accidents, damage in handling or transport, or normal wear and tear of any generally considered consumable parts or components.

Repairs made without the written consent of General® International will void all warranty.

Support

8360 Champ-d'Eau, Montreal (Quebec) Canada H1P 1Y3

Tel.: (514) 326-1161 **Fax:** (514) 326-5565

Parts & Service: (514) 326-5555 – Order Desk

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References

- CNC Solutions & Controls | FlashCut CNC
- General Woodworking & Metalworking Commercial Machinery

Manuals+,