MODLE : AS-EX16-U-3

AS-EX21-U-3

Vision: 1

To help ensure safe operation, please take a moment to learn the machine's applications and limitations, as well as potential hazards. EXMAC disclaims any real or implied warranty and holds itself harmless for any injury that may result from the improper use of its equipment.

Rules for Safe Operation

1. Be sure to read, understand and follow all safety warnings and instructions in the supplied Operator's Manual.
2. Do not operate the saw when tired, distracted, or under the effects of drugs, alcohol or any medication that impairs reflexes or alertness. Stay alert! Give your work your undivided attention.
3. Keep the work area well lit, clean and free of debris. Cluttered areas and benches invite injuries.
4. Keep children and shop visitors at a safe distance while operating the saw; do not permit them to operate the scroll saw.
5. Childproof and tamper proof your shop and all machinery with locks, master electrical switches and switch keys, to prevent unauthorised or unsupervised use. Fine particulate dust is a carcinogen that can be hazardous to health. Work in a well ventilated area and use a dust collector whenever possible.
6. Wear approved safety glasses, dust mask and nonskid footwear. Do not wear loose clothing, gloves, bracelets, necklaces or jewellery while operating the saw. Keep long hair contained by wearing protective hair covering.
7. Be sure all adjustment tools, wrenches or other clutter are removed from the machine and/or the table surface before operation. When not in use, tools should be locked-up in a dry place, out of children's reach and away from flammable substances.
8. Keep hands well away from saw blade and all moving parts. Use a brush, not hands, to clear away chips and sawdust.

9. Be sure that the saw blade is properly installed, and in the correct cutting direction, before operation. Always use a clean, properly sharpened blade.

   Dirty or dull blades are unsafe and can lead to accidents. Also, be sure the blade has gained full operating speed before beginning to cut.

10. Do not push or force wood into the blade. The saw will perform better and more safely when working at the rate for which it was designed. Do not use for purposes not intended.

11. Avoid working from awkward or off balance positions. Do not overreach while cutting; keep both feet on floor. Never lean over or reach behind the blade and never pull the work piece through the cut from behind.

12. Never stand or lean on the saw. Serious injury could occur if the unit is tipped over or if the blade is unintentionally contacted.

13. Use of parts and accessories NOT recommended by EXMAC may result in equipment malfunction or risk of injury.

14. Never leave the machine unattended while running or with the power "ON".

15. Always turn off and disconnect from power source before servicing or changing accessories, blades, bits, and cutters, or before performing any maintenance or adjustments.

16. Make sure that switch is in the "OFF" position before plugging in the power cord. Do not use the saw if the power switch is defected, have defective switches replaced by an authorized service centre.

17. Make sure saw is properly grounded. If equipped with a three prong plug it should be used with a three-pole receptacle. Never remove the third prong. Avoid body contact with grounded surfaces (e.g. pipes, radiators, stoves, refrigerators).

18. Repairs to the saw should only be carried out by qualified people using original spare parts. A guard or other damaged part should be properly repaired or replaced by an authorized service centre.

19. Inspect power cords and extension wires periodically. If damaged, have them repaired by an authorized service facility. Never yank cords and wires and keep away from heat, oil, and sharp edges.

20. This tool is for indoor use only. Do not expose to rain or use in wet or damp locations.

Additional Safety Instructions Specific to this Scroll Saw

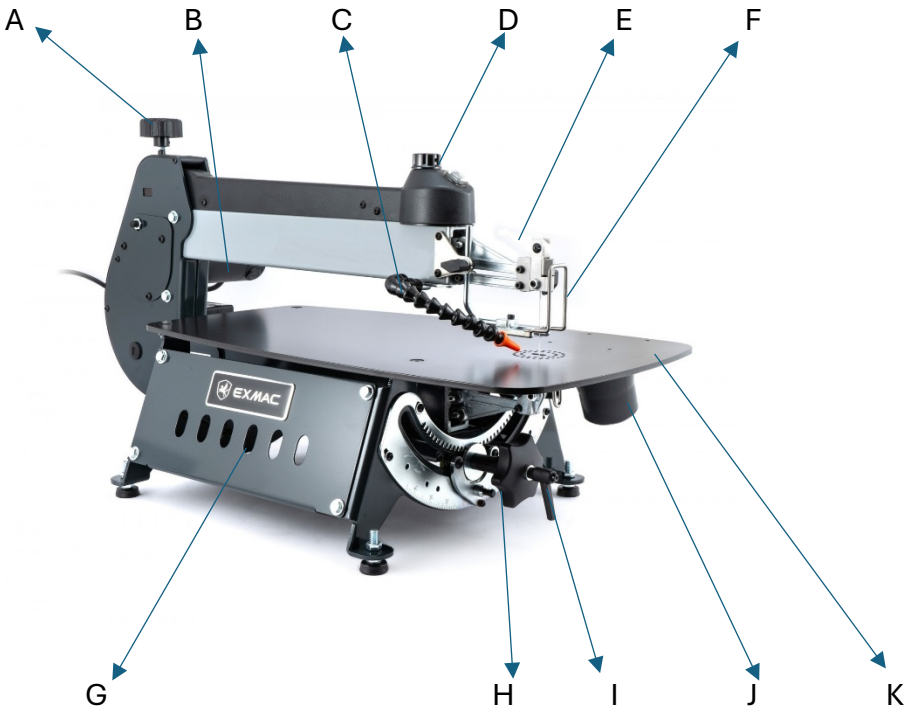
Because each shop situation is unique, no list of safety guidelines can ever be complete. The most important safety feature in any shop is the knowledge and good judgement of the user. Use common sense and always keep safety considerations, as they apply to your individual shop situation first and foremost in mind. If you have any doubts about the safety of an operation you are about to perform: STOP! Do not perform the operation until you have validated from qualified individuals if the operation is safe to perform and what is the safest method to perform it.

1. Material hold-down must be properly set and remain in position during use.
2. Never reach under the table when operating or make any adjustments while the scroll saw is running.
3. Secure the saw to the work bench with clamps or mounting hardware.
4. Where possible, use clamps or a vice to secure your workpiece. It is safer than using your hand.
5. Do not lift or carry the saw by the upper arm.
6. Make sure blade tension is properly adjusted.
7. Avoid awkward hand positions where a sudden slip could cause a hand to move into the saw blade. Do not place fingers or hands in the path of the saw blade.
8. When removing short workpieces, or cleaning up around the table, be sure that the switch is in the OFF position and that the blade has come to a complete stop.
9. Never turn the saw ON before making sure that the table is clear except for the workpiece and related feed or support devices for the operation planned.
10. Check for proper blade size and type.
11. Do not attempt to saw stock that does not have a flat surface unless a suitable support is used.
12. Turn off motor if the material resists being backed out of an incomplete cut. Use appropriate speed for applications.
13. CAUTION: Some wood contains preservatives such as copper chromium arsenate (CCA) which can be toxic. When cutting these materials, extra care should be taken to avoid inhalation and to minimize skin contact.
14. Always use a dust mask and safety glasses when sawing.
15. Keep guards in place and in working order.
16. Make sure your fingers do not contact the terminals of the power cord plug when plugging in or unplugging the saw.
17. Never overfeed or force work into the blade.
18. Check for alignment and binding of all moving parts, broken parts, mounting and any other conditions that may affect the saw's operation.
19. Keep handles dry and free from oil and grease.

To avoid electrical shock, ensure machine is properly grounded. Do not operate in damp conditions. Disconnect from power supply before servicing. Replace fuse with the same type and rating only - 3 Amp.

Be sure to read and understand owner's manual before operating.

Identification of Main Parts & Components



A. ADJUST UP ARM TENSIONER
B. MOTOR
C. AIR BLOWER
D. VARIABLE SPEED CONTROL KNOB
E. BLADE TENSION LEAVER
F. GUARD
G. BLADE HOLDER SCOKETS
H. TILT HANDLE
I. LOCKING LEAVER
J. DUST PORT
K. TABLE

Specifications

Model :	AS-EX16-U-3	AS-EX21-U-3
Power :	120V	
Throat :	16”	21”
Stroke	0.7”	
Cuts per Minute	400 -1,400	400 -1,550
Max Depth of Cut	2”	
Noise Level dB(A)	67dB(A)	
Table Size	12” x 18.5”	13.58 “x 23.5”
Arm Tilt	Left 35° Right -45°	
Overall L x W x H	27” x 14.96” x 17”	31.9” x 14.96”x17”
Weight	53.9 LBS	64.9 LBS

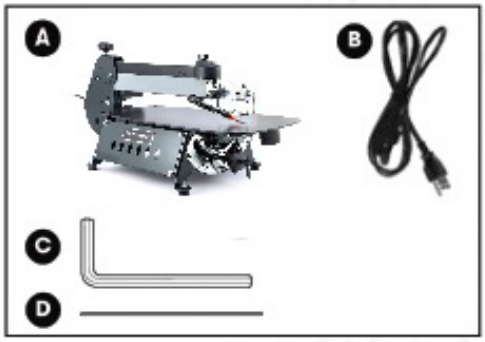
UNPACKING

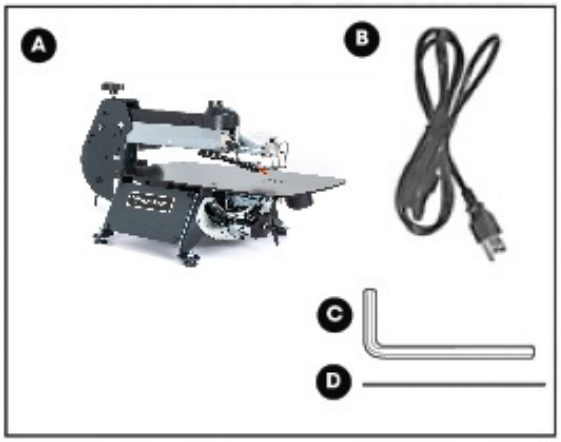
Carefully unpack and remove the scroll saw and its components from the box and check for missing or damaged items as per the list of contents below.

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

Once the parts have been removed from the packaging, you should have the following items:

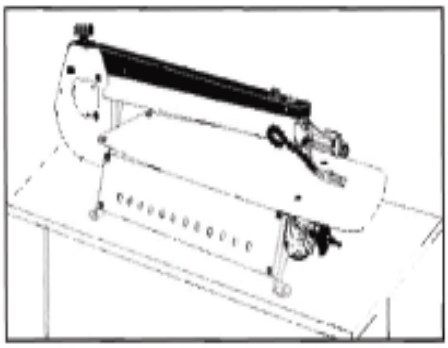
LIST OF CONTENTS	QTY
A - SCROLL SAW	1
B - POWER CORD	1
C - 3 MM ALLEN KEY	1
D - BLADE	1



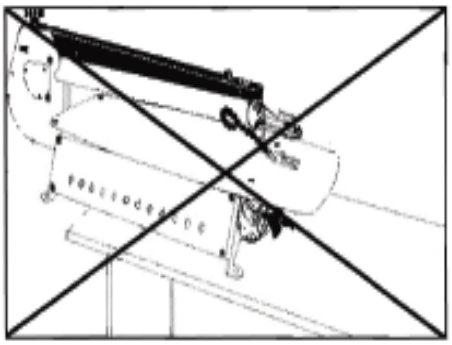


Unscrew the 4 shipping bolts and remove the saw from the protective plywood shipping base. For your convenience this scroll saw is shipped from the factory partially assembled and requires only minimal assembly and set-up before being put into service.

Before starting the assembly, make sure that the switch is in the "OFF" position and that the power cord is unplugged. Do not plug in or turn on the scroll saw until you have completed the assembly and installation steps described in this section of the manual.



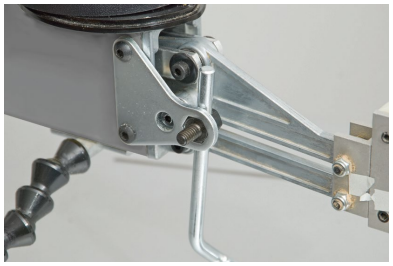
The unit should be installed on a flat, sturdy and stable surface able to support the weight of the machine and the workpiece with ease.

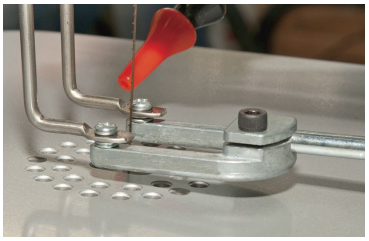


Never install the machine over the edge of a table or workbench.

Installation & Assembly

Saw guard assembly





Slot the guard clamping arm **(d)** through the pre-drilled hole in the hexagon clamp **(c)**. Insert the hexagon clamp **(c)** into the brackets hexagon recess, place the washer **(b)** over the hexagon clamp thread and secure using the butterfly clamping knob **(a)**.

NOTE: DO NOT OVERTIGHTEN otherwise you may strip the thread

Blade Selection

Blade selection is dependent on the type and thickness of the material being cut, but is also a matter of experience and personal preference. There are numerous types of blades available on the market specifically suited for various cutting applications such as metal-cutting and spiral blades which cut in all directions. Try test-cutting with a sample of each to determine which blade works best for you with different materials. Replacement and specialty blades can be purchased from a variety of sources. Ask your local tool or scroll saw dealer for suggestions for **unpinned 5" scroll saw blades** based on what is available in your area.

Some general guidelines to consider when choosing blades:

- Wide, thick blades with coarse teeth are suited to cutting straight lines and sweeping curves, but will not turn tight corners. They will cut aggressively and leave a fairly smooth finish, but may leave burn marks if the work piece is turned too tightly.
- Narrower, thinner blades with finer teeth will cut more slowly, but will turn much tighter corners for cutting very intricate work. They will impart a very smooth, burnished finish that requires no sanding.
- Consider material thickness when selecting blades. Ensure that a minimum of two or three teeth are in contact with the workpiece at all times. For example, when cutting 1/8" thick material, use a blade with a minimum of of 16-20 teeth per inch.

SKIP TOOTH

Regular evenly spaced tooth pattern. Considered the most common of scroll saw blades, they are available in the widest range of sizes and provide a good combination of fast cutting action with good chip clearance and a relatively smooth finish.

BLADE	WIDTH	THICKNESS	TEETH/INCH	
#2/0	.022	.010	28	For extremely intricate sawing. Very tight cuts in 1/16" - 1/4" wood veneer, plastic, hard rubber, pearl, etc.
#0	.024	.011	25	
#2	.029	.012	20	For tight radius work with thin materials, 3/32" - 1/2" wood veneer, wood, bone, fiber, plastic, etc.
#4	.035	.015	15	
#5	.038	.016	12.5	For close radius work in materials 1/8" or thicker. Good for sawing hard and soft woods, bone, horn, plastic, etc.
#6	.041	.016	12.5	
#7	.045	.017	11.5	Popular sizes for cutting hard and soft woods, 3/16" up to 2". Also cuts plastic, paper, felt, bone, etc.
#9	.053	.018	11.5	
#11	.059	.019	9.5	
#12	.062	.024	9.5	

REVERSE TOOTH

Reverse teeth at the bottom of the blades prevent splintering to the underside of the workpiece.

BLADE	WIDTH	THICKNESS	TEETH/INCH	
#2/0R	.026	.011	28/20	Same applications as Skip Tooth blades.
#2R	.029	.012	20/13	
#5R	.038	.016	12.5/9	
#7R	.049	.018	11.5/8	
#9R	.054	.019	11.5/8	
#12R	.062	.062	9.5/6	

DOUBLE TOOTH

Fast, clean cutting and very efficient chip clearance.

BLADE	WIDTH	THICKNESS	TEETH/INCH	
#1D	.026	.013	30	Same applications as Skip Tooth blades.
#3D	.032	.014	23	
#5D	.038	.016	16	
#7D	.044	.018	13	
#9D	.053	.018	11	
#12D	.061	.022	10	

Installing or changing blades

Always turn off and unplug the machine before removing, handling or changing blades.

1. Remove an installed, worn or broken blade by flipping the blade tension lever forward (position), then loosening the thumbscrews and on the upper and lower blade mounts and . (See Fig. 1 to 3)
2. Remove the blade.
3. With the blade teeth facing forward, slip one end of the blade through the hole in the table and fit each end of the blade into the corresponding upper and lower blade mounts, then tighten the thumbscrews firmly by hand only - do not use tools.

   Note: Overtightening the blade clamp thumbscrews can cause premature wear to the blades gripping surface and result in blade slippage.
4. Push the blade tension lever back (position) to apply tension on the blade.

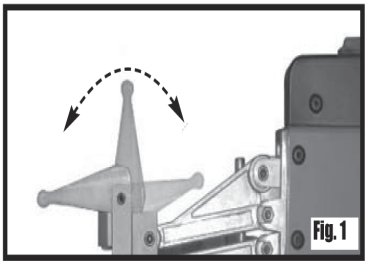


Fig. 1

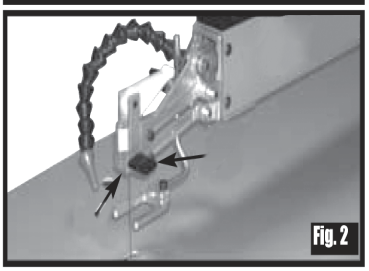


Fig. 2

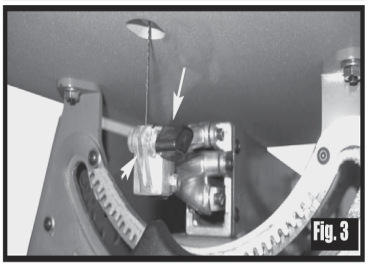


Fig. 3

Helpful Hints on blade tension: *Determining correct blade tension is somewhat subjective. It is learned through experience and is somewhat dependant on personal preference. A properly tensioned blade will last longer and be much less likely to break prematurely. If the blade tension is too loose, you will notice that the blade will have a tendency to drift or slip off-line when cutting and you may also experience excessive vibration or unusual noise. A blade that is too tight will break prematurely.*

Assuming the blade has been properly installed in the blade mounts, when the blade tension lever is pushed fully back towards the rear of the saw, the blade should be properly tensioned.

Test the blade tension by lightly plucking on the blade, like you would a guitar string, with your finger. If the blade is tight and tensioned correctly you will get a clear and even note. If so, you are ready to proceed to operating and cutting with the saw.

On/Off switch

A simple, dust protected rocker style on/off switch is located on the top of the saw. (See Fig. 5)

Adjusting the blade speed

The Ex-30 Scroll Saw is equipped with a variable blade speed control which allows you to select or fine-tune to the exact blade speed required (from 400-1550 strokes per minute) for best results based on the type and thickness of material and type of blade being used.

The blade speed control knob is located on the top of the machine. (See Fig. 5)

- To increase blade speed, turn the control knob clockwise.
- To decrease blade speed turn the control knob counter clockwise.

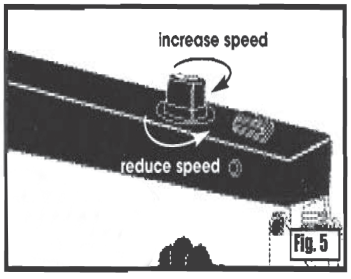


Fig. 5

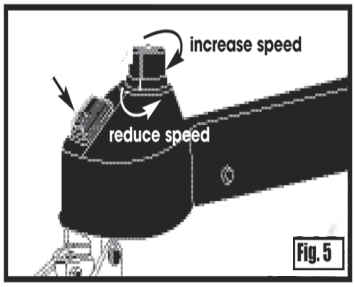
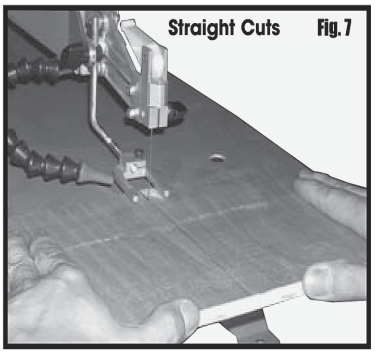
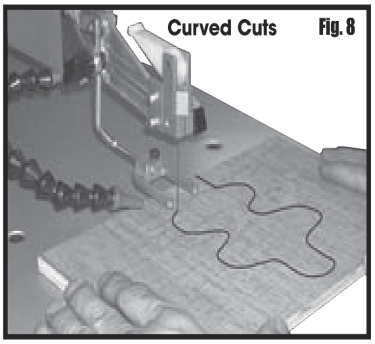


Fig. 5

1. With the saw turned off and unplugged, install the appropriate blade for the type of material to be cut and the type of cut to be made (Refer to the section "Choosing and Installing a Saw Blade" on page 9).
2. Adjust the workpiece hold-down and the blower nozzle to your liking.
3. Turn on the saw and set the speed controller to the desired blade speed.
4. With your fingers holding the piece firm to the table, and using your thumbs for directional control, (See Fig #7 & 8) feed the workpiece into the blade using steady, even pressure.
5. Make sure that the blade is cutting on the waste side of your reference line and adjust feed direction slighty as needed to compensate for blade drift.


Straight Cuts Fig. 7


Curved Cuts Fig. 8

Cutting Tips: To stay in control on tight curve cuts, slow down your feed rate as needed to allow the blade teeth time to make the cut. Avoid coming to a complete stop whenever possible as this can leave burn marks on the workpiece and also makes it more difficult to get the piece re-started and moving through the cut again. Avoid forcing through a curve cut as this can cause the blade to twist and cut off-track or may even cause the blade to break.

Fret Cutting

Fret or inside cutting is an operation that can only be performed on a scroll saw. Fret cutting involves drilling a small guide or pilot hole through the interior of your pattern on the workpiece, then disconnecting one end of the blade which is fitted through the guide hole and re-connected; essentially using this guide hole as the starting point to cu out the piece from within. A typical example of fret cutting would be removing the center portion of lettering. (See Fig. 9)

The KC-21 KC-30 is a great tool for fret cutting because, unlike most scroll saws it allows you to raise the upper arm with the blade attached, line up the guide hole in your workpiece with the hole in the table and then lower the arm while guiding the blade through the hole from above (see step by step instructions below). This can be a very useful time saving feature, particularly for intricate or complex fret designs that can involve dozens or even hundreds of holes.

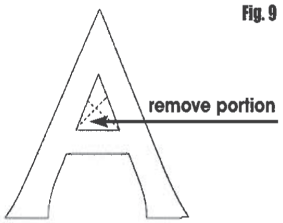


Fig. 9

Note: The upper arm locks in place in the raised position for easier insertion of the blade through the hole in the workpiece and for easier blade changes.

1. With the saw turned off and unplugged, install the appropriate blade for the type of material to be cut and the type of cut to be made (Refer to the section "Choosing and Installing a Saw Blade" on page 9 of this manual).
2. With your pattern or design transferred onto the workpiece, drill a guide hole in the inside waste portion of the workpiece. (See Fig. 10) Make sure that the hole is large enough for the blade to fit through.

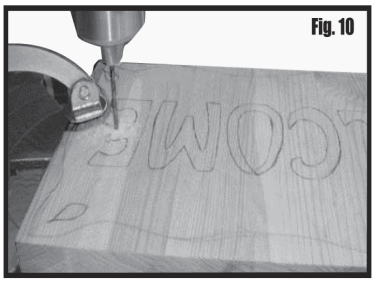


Fig. 10

Helpful hints on drilling guide holes: If multiple fret cuts are required on the same workpiece, drill all of your required guide holes before taking the workpiece to the scroll saw. This will keep you from going back and forth from the saw to the drill press.

To prolong blade life by limiting unnecessary cutting, drill your guide holes as close as possible to your reference lines. (See Fig. 11)

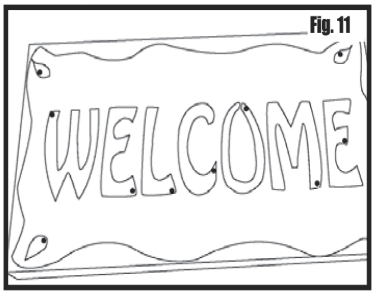


Fig. 11

3. Release tension on the blade by flipping the blade tension lever forward.

4. Loosen the thumbscrew on the lower blade mount, located under the table, to release the blade from the mount.

5. Raise the upper arm assembly which will lift the blade up through the hole and above the table.

6. Position the workpiece on the table so that the guide hole lines up with the hole in the table.

7. Lower the arm assembly with one hand while guiding the blade through the hole in the workpiece and table.

8. Re-install the bottom end of the blade in the lower blade mount and tighten the thumbscrew to secure the blade in the lower blade mount.

9. Flip back the blade tension lever to re-tension the blade and test the blade tension as described in "Installing or Changing Blades" section of this manual.

10. To begin cutting follow the same steps as described in "Basic 90° straight or curved cuts" section on page 9 of this manual.

To reduce the risk of injury, always turn off the saw and wait for the blade to come to a complete stop before reaching in to remove waste material from a fret cut.

Angle or Bevel Cutting

One of the unique features of the **KC-16 KC-21 KC-30** Scroll Saw is the ability to tilt the head of the saw in order to make angle or bevel cuts. The table and the workpiece always stay horizontal (parallel to the floor) while the blade tilts, keeping your hands in the same comfortable cutting position as they would normally be for regular right angle cuts. Because you are not fighting gravity or working with your hands or wrists bent in awkward positions, it can be a huge advantage and makes it easier and safer to make accurate bevel cuts.

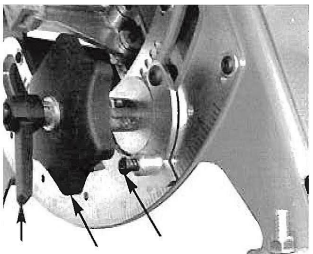


Fig. 12

The blade tilt controls are located under the table at the front saw. (See Fig. 12)

To tilt the blade for bevel cutting:

1. Release the locking lever by turning counter-clockwise.

2. Turn the tilting handle left or right to set the blade to the desired angle.

Note: Push in and hold the spring loaded indexing pin to locate the following common angles: 90°, 45°, 30° & 22.5° both left and right.

When tilting the blade to the left at extreme angles, it may be necessary to remove and reverse the lower blade mount thumbscrew assembly in order to maximize clearance under the table. (Fig. 13 shows the lower blade mount in default position and Fig. 14 shows it reversed).

To avoid kinking or damaging the blade in the holder, when making adjustments make sure the set screw (opposite the thumbscrew) is threaded in to the holder to protrude slightly beyond the blade slot . (See Fig. 15)

Fig. 13

Fig. 14

3. Tighten the locking lever to secure the blade at the desired angle.

4. To begin cutting follow the same steps as described in "Basic 90° straight or curved cuts" section on page 11 of this manual. Fig. 16 shows the scroll saw in position for bevel cutting.

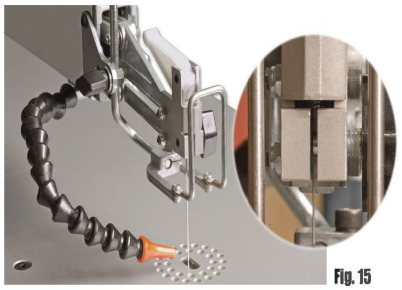
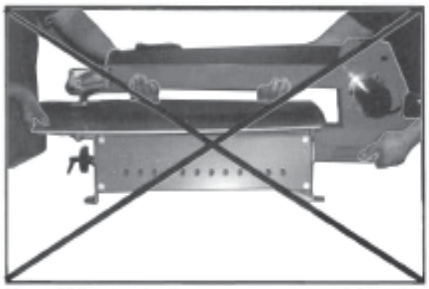


Fig. 15

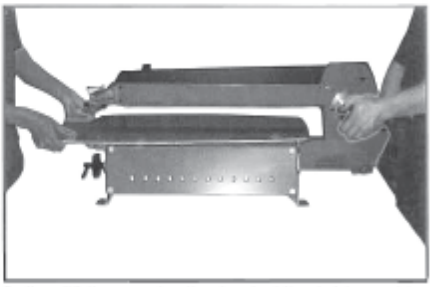
To reduce the risk of injury, always turn off the saw and wait for the blade to come to a complete stop before reaching in to remove waste material.

Fig. 16

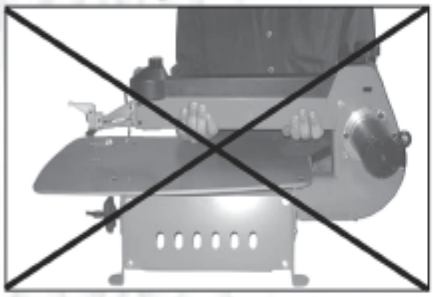
Handling



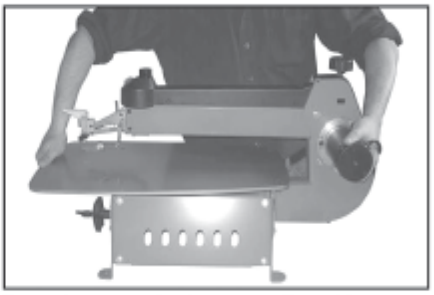
Never lift the saw by the upper arm assembly as this will result in damage to the drivetrain.



Rather lift the saw by the front of the table and by the motor.



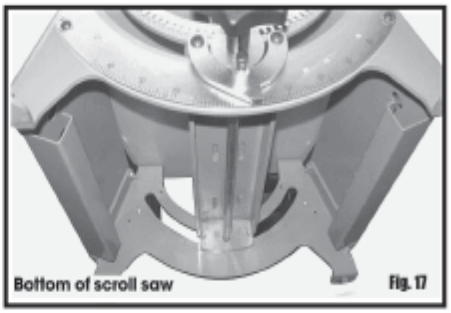
Never lift the saw by the upper arm assembly as this will result in damage to the drivetrain.



Rather lift the saw by the front of the table and by the motor.

Maintenance

- Always release tension on the blade when the saw is not in use.
- Clean the saw regularly with a soft bristle brush or by vacuuming to keep cutting dust from accumulating.
- An occasional application of a light dab of grease on the front and rear trunnions (See Fig. 17) will keep the tilting mechanism working smoothly. If you find the tilting mechanism becoming more difficult to operate, thoroughly wipe off any built-up cutting dust on the trunnions and re-apply a little grease.
- The bearings in the drive mechanism are sealed and permanently lubricated and do not need to be oiled or greased.



Bottom of scroll saw Fig. 17

Squaring the blade to the table

Depending on frequency of use and how much the tilting mechanism is used, normal wear will over time cause the blade to come slightly out of alignment with the table. Periodically check the blade is square with the table. When needed, adjust as described in the following steps to re-align the blade square to the table.

1. Turn off and unplug the saw.
2. Using the blade tilt controls at the front of the saw, set the blade angle to read 0 - which is 90° vertical to the table.
3. Set a machinists square on the table and against the blade to verify the blade angle. (See Fig. 18)
4. If the blade angle requires adjustment loosen the 4 bolts in the front trunnion as well as the 4 bolts on the rear trunnions .
5. By hand, move the entire head to bring the blade square to the table.
6. With the blade square to the table hold the head in position and re-tighten the bolts on the front and rear trunnions.

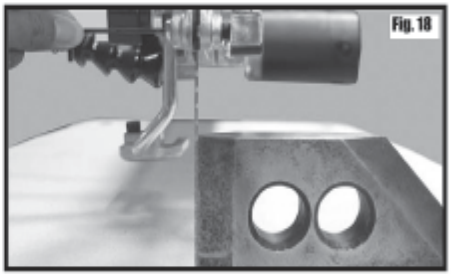


Fig. 18

Front View

Back View

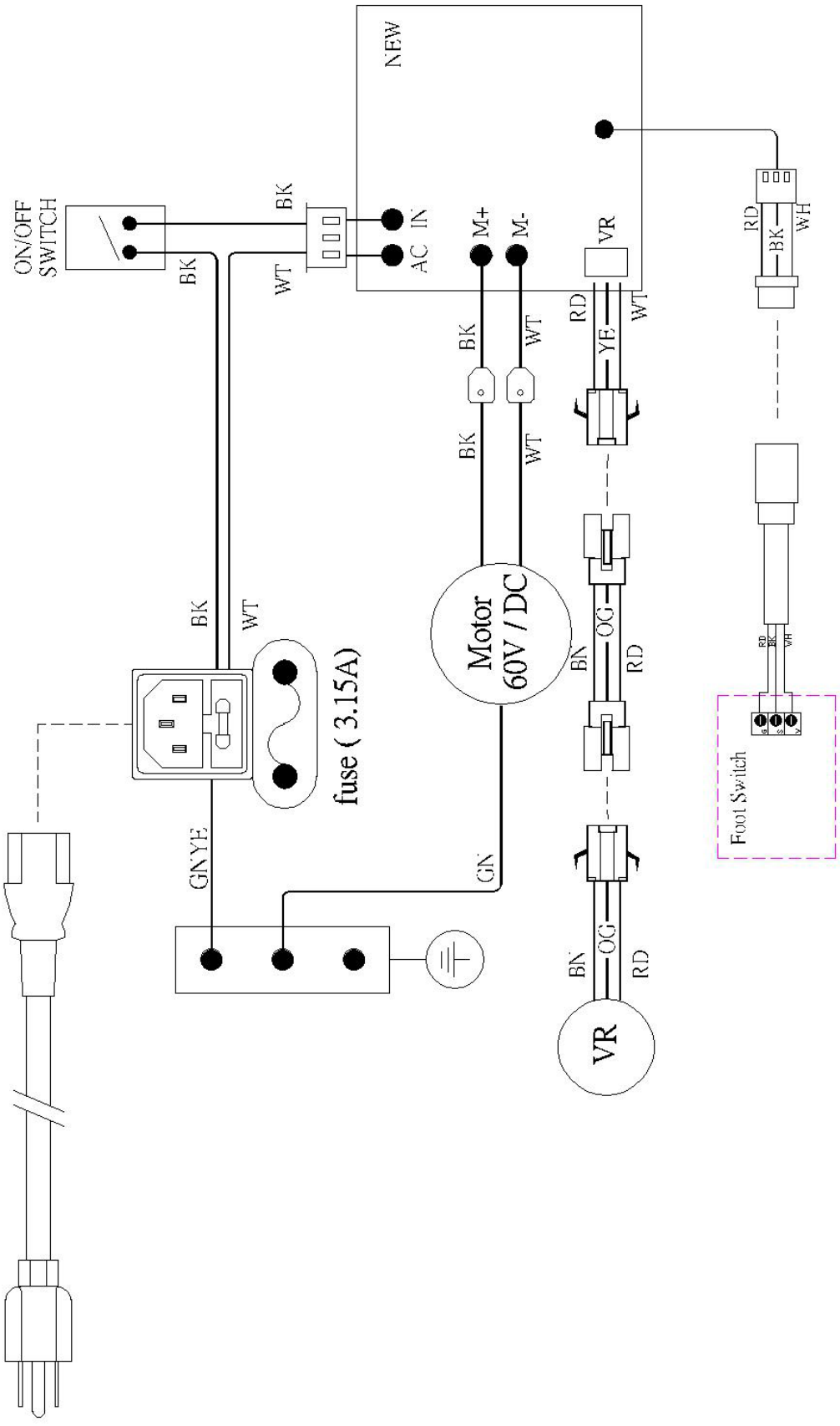
Upper arm tension adjustment

Over time and with normal wear, the upper arm tension will require adjustment to hold the arm in the raised position.

To adjust the upper arm tension:

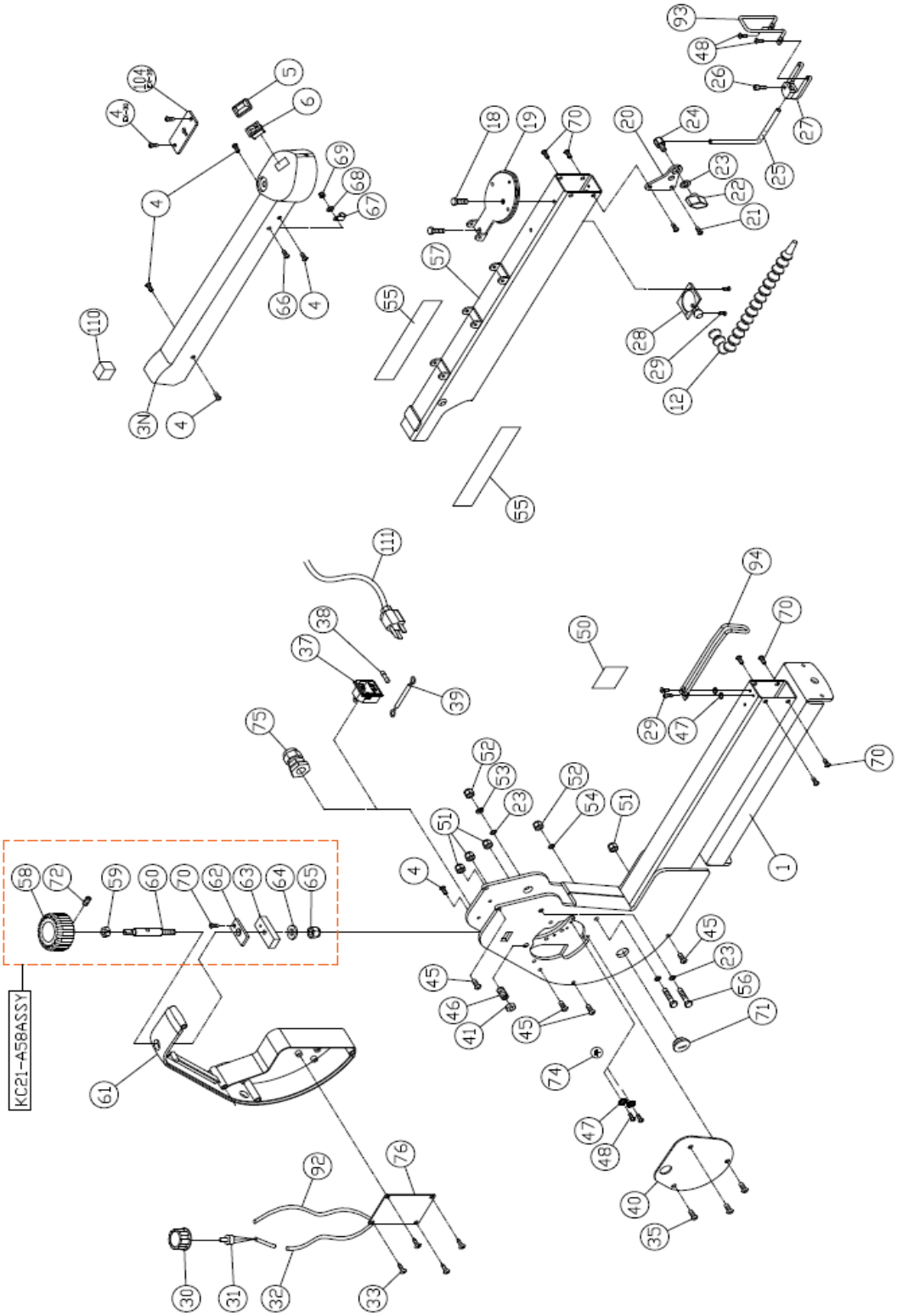
1. Loosen the lock nut. (See Fig. 19)
2. Adjust the tension screw until the arm stays in raised position.
3. Re-tighten the lock nut.

Wiring Diagram



Exploded Diagrams/Lists

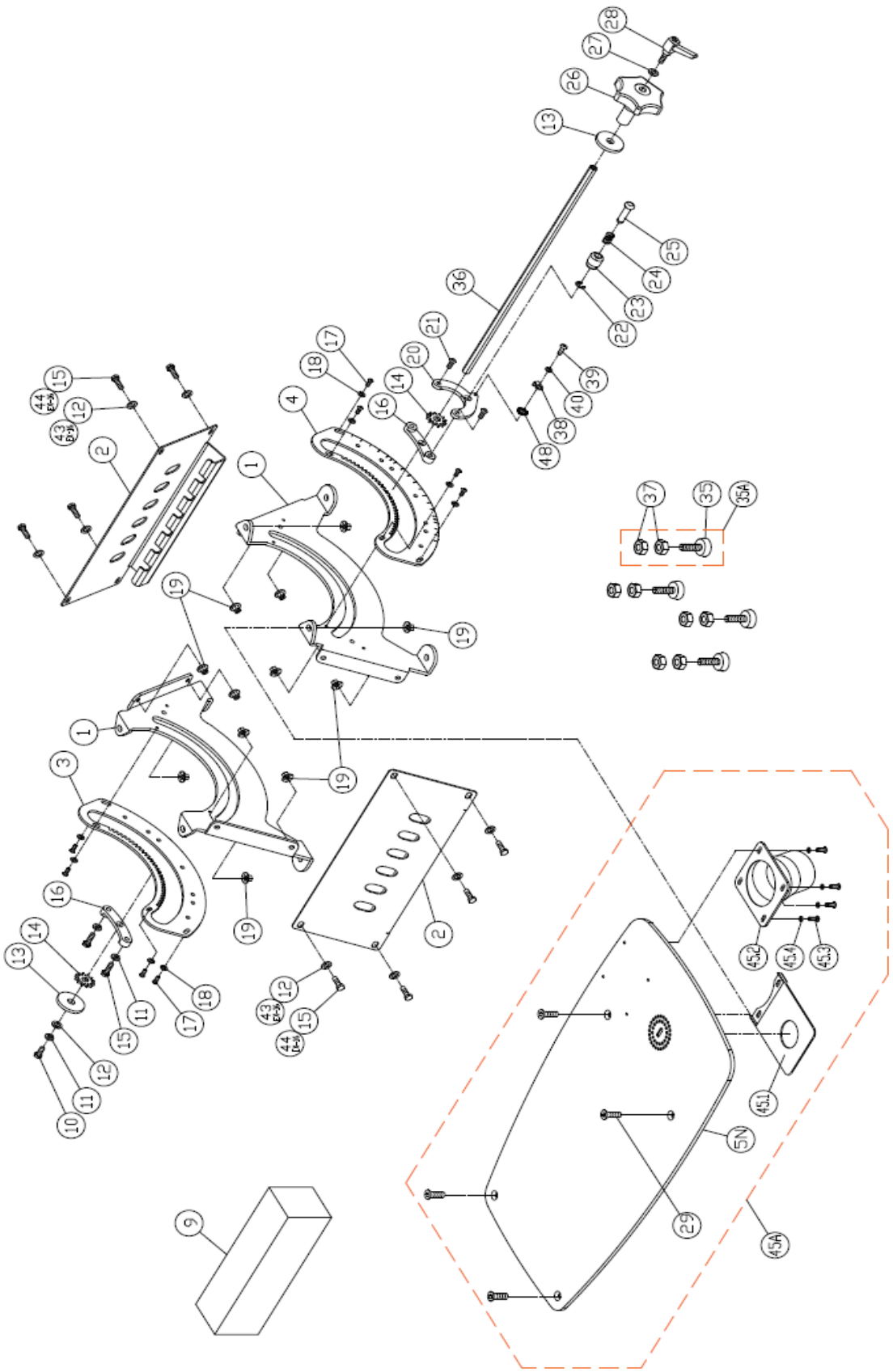
A PART LIST



REF.	PART NO.	DESCRIPTION	SPECIFICATION	Q'ty
01	KC21-A01	Main Body		1
	KC16-A78	Main Body		1
	KC30-A01	Main Body		1
03N	KC21-A03N	Top Cover		1
	KC16-A79	Top Cover		1
	KC30-A03	Top Cover		1
04	KC21-A04	Allen Screw	#10-32x1/4"	7
	KC30-A04	Allen Screw	#10-32x1/4"	2
05	KC21-A05	Switch Cover		1
06	KC21-A06	Switch		1
12	KC21-A12	Air Nozzle		1
18	KC21-A18	BOLT	1/4"-20x1/2"	2
19	KC21-A19	Upper & Lower Tension Plate		1
20	KC21-A20	Hold Down Mount Plate		1
21	KC21-A21	Allen Screw	#10-32x3/8"	2
22	KC21-A22	Hold Down Clamp Knob		1
23	KC21-A23	Washer	1/4"x16x1.8	4
24	KC21-A24	Hold Down Clamp Screw		1
25	KC21-A25	Hold Down Bar		1
26	KC21-A26	Cap Screw	#10-32x1/2"	1
27	KC21-A27	Hold Down Forks		1
28	KC21-A28	Dust Blower		1
29	KC21-A29	Tap Screw	#8-32UNF3/8"	4
30	KC21-A30	VR Knob		1
31	KC21-A31CE	VR		1
32	KC21-A32CE	Control Cable		1
	KC16-A32CE	Control Cable		1
	KC30-A32CE	Control Cable		1
31/32	KC21-A31/32CE	Control Cable		1
	KC16-A31/32CE	Control Cable		1
	KC30-A31/32CE	Control Cable		1
33	KC21-A33	Screw	M3.5x8	4
35	KC21-A35	Allen Screw	1/4"-20x1/2"	3
37	KC21-A37	Line Cord Socket		1
38	KC21-A38	Fuse		1
39	KC21-A39	Ground Jumper		1
40	KC21-A40	Gear Cover		1
	KC30-A40	Gear Cover		1
41	KC21-A41	Nut	3/8"xT5.5	1
45	KC21-A45	Allen Screw	#10-32x2-1/4"	4
46	KC21-A46	Screw	3/8"x5/8	1
47	KC21-A47	Washer	#8	4
48	KC21-A48	Screw	#8-32x1/4"	4
50	KC21-50	ID Label		1

51	KC21-A51	Nylon Nut	#10-32	4
52	KC21-A52	Nylon Nut	1/4"-20UNC	2
53	KC21-A53	Lock Washer	1/4"	1
54	KC21-A54	Flat Washer	1/4"(O.D.13)	1
55	KC21-A55	Label		2
56	KC21-A56	Screw	1/4"*2-1/2"	2
57	KC21-A57	Upper Arm		1
	KC16-A80	Upper Arm		1
	KC30-A57	Upper Arm		1
58	KC21-A58	Knob		1
	KC21-A58ASSY	Upper arm rising knob assembly		
59	KC21-A59	Nut	M8	1
60	KC21-A60	Adjusting lever		1
61	KC21-A61	Control Box		1
62	KC21-A62	Cross Block Retainer		1
63	KC21-A63	Housing Cross Block		1
64	KC21-A64	Flat Washer	M6x16x2	1
65	KC21-A65	Nylon Nut	M6	1
66	KC21-A66	Allen Screw	#10-32x1/2"	1
67	KC21-A67	EXR Fastener	ACC9	1
68	KC21-A68	Washer	#10	1
69	KC21-A69	Nylon Nut	#10-32	1
70	KC21-A70	Allen Screw	#10-32x5/16"	7
71	KC21-A71	Button		1
72	KC21-A72	Set Screw	M4x5	1
74	KC21-A74	Ground Label		1
75	KC21-A75	Strain Relief	PG11	1
76	KC21-A76	Motor Control Set		1
	KC16-A82	Motor Control Set		1
	KC30-A76	Motor Control Set		1
92	KC21-A92	Power Cord		1
	KC16-A92	Power Cord		1
	KC30-A92	Power Cord		1
93	KC21-A93	Protection bracket-Up		1
94	KC21-A94	Protection bracket-Down		1
104	KC30-104	Switch Plate		1
110	KC21-A110	Spong Block		1
	KC30-A110	Spong Block		2
111	KC21-A111	Power Cord		1

B PART LIST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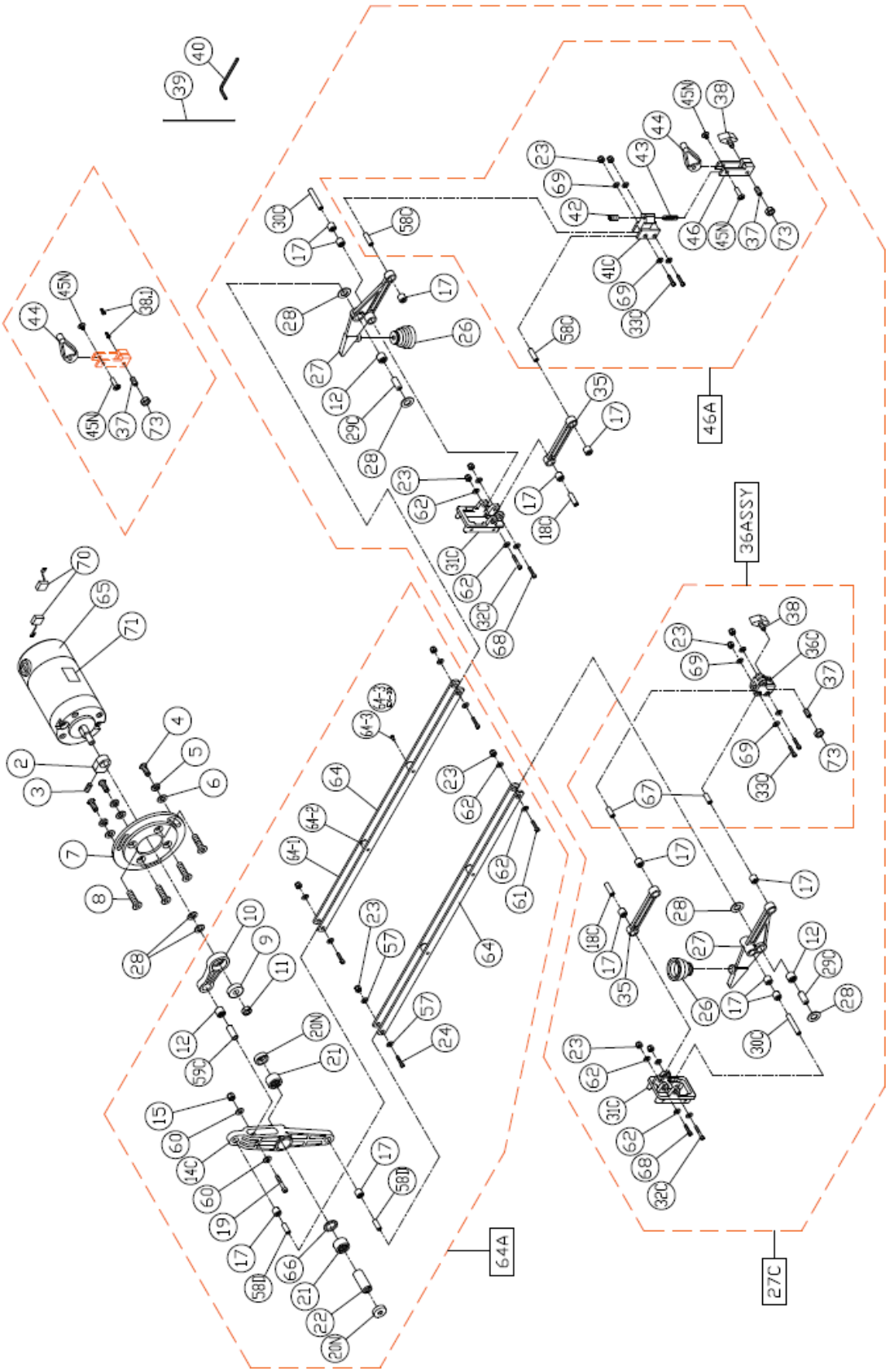
REF.	PART NO.	DESCRIPTION	SPECIFICATION	Q'ty
01	KC21-B01	Trunnion		2
02	KC21-B02	Side Panel		2
	KC16-B41	Side Panel		2
	KC30-B02	Side Panel		2
03	KC21-B03	Rear Trunnion Plate		1
04	KC21-B04	Front Trunnion Plate		1
05N	KC21-B05N	Table		1
	KC16-B42	Table		1
	KC30-B05N	Table		1
09	KC21-B09	Polyfoam		1
10	KC21-B10	Screw	1/4"-20UNC*1/2"	1
11	KC21-B11	Lock Washer	1/4"	3
12	KC21-B12	Washer	1/4"	8
		Washer	1/4"	1
13	KC21-B13	Blade Tilt Washer		2
14	KC21-B14	Blade Tilt Drive Gear		2
15	KC21-B15	Screw	1/4"-20UNC*3/4"	8
		Screw	1/4"-20UNC*3/4"	2
16	KC21-B16	Angle Follower		2
17	KC21-B17	Screw	#10-32x5/16"	8
18	KC21-B18	Washer	#10x12x1	8
19	KC21-B19	Nut	1/4"-20UNC	12
20	KC21-B20	Angle Indicator		1
21	KC21-B21	Allen Screw	1/4"-20x1"	2
22	KC21-B22	E Ring	ETW-3	1
23	KC21-B23	Tilt Detent Barrel		1
24	KC21-B24	Spring		1
25	KC21-B25	Detent Plunger		1
26	KC21-B26	Tilt Handle		1
27	KC21-B27	Washer	1/4"x16X3	1
28	KC21-B28	Blade Tilt Locking Lever		1
29	KC21-B29	Flat Head Screw	1/4"-20	4
35A	KC21-B35A	Leveling foot set		4
35	KC21-B35	Leveling foot	3/8"-16x1-1/4	
36	KC21-B36	Tilt Lock Draw Rod		1
	KC16-B45	Tilt Lock Draw Rod		1
	KC30-B36	Tilt Lock Draw Rod		1
37	KC21-B37	Nut	3/8"-16UNC	
38	KC21-B38	Pointer		1
39	KC21-B39	Round Head Screw	M4x6mm	1
40	KC21-B40	Washer	M4	1
43	KC16-B43	Washer	1/4"	8
44	KC16-B44	Allen Screw	1/4-20UNC*3/4	8
	KC21-B45A	Dust collector table kit		

45A	KC16-B45A	Dust collector table kit		
	KC30-B45A	Dust collector table kit		
45.1	KC21-B45.1	Plastic shroud		1
	KC16-B45.1	Plastic shroud		1
45.2	KC21-B45.2	Dust chute		1
45.3	KC21-B45.3	Round Head Screw	#8-32unc-3/8"	4
45.4	KC21-B45.4	Washer	#8-32unc	4
48	KC21-B48	External Tooth Washer	M4	1

C PART LIST



C Parts List

REF.	PART NO.	DESCRIPTION	SPECIFICATION	Q'ty
02	KC21-C02	Balance Block		1
03	KC21-C03	Set Screw	M6*6	1
04	KC21-C04	Allen Screw	1/4"-20x1/2"	3
05	KC21-C05	Lock Washer	1/4"	3
06	KC21-C06	Flat Washer	1/4"x16x1.8	3
07	KC21-C07	Motor Cover Plate		1
08	KC21-C08	Screw	M6x16	4
09	KC21-C09	Bearing	608ZZ	1
10	KC21-C10	Motor Cam		1
11	KC21-C11	Nut	M8XP1.25 LH	1
12	KC21-C12	Bearing	HK0810	3
14C	KC21-C14C	Rocker Cam		1
15	KC21-C15	Lock Nut	M5	1
17	KC21-C17	Bearing	HK0609	12
18C	KC21-C18C	Inner Bearing Sleeve (KC30-C18C)	ϕ6.03x21	2
	KC16-C18C	Inner Bearing Sleeve	ϕ6.03x9.8	2
19	KC21-C19	Cap Screw	M5*28	1
20N	KC21-C20N	Bearing Cover		2
21	KC21-C21	Bearing	HK1412	2
22	KC21-C22	Main Rocker Pivot	ϕ14.04x35.5	1
23	KC21-C23	Nut	M4	12
24	KC21-C24	Cap Screw	M4*25	2
26	KC21-C26	Air Pump Bellows		2
27	KC21-C27	Front Rocker		2
27C	KC21-C27C	Upper and Lower rocker assembly		
	KC16-C27C	Upper and Lower rocker assembly		
	KC30-C27C	Upper and Lower rocker assembly		
28	KC21-C28	Washer	M8*15*0.6	6
29C	KC21-C29C	Inner Bearing Sleeve-Front Rocker	ϕ8.03x18.40mm	2
30C	KC21-C30C	Bearing Inner Sleeve (KC30-C30C)	ϕ6.03x37mm	2
	KC16-C30C	Bearing Inner Sleeve	ϕ6.03x25.8mm	2
31C	KC21-C31C	Rocker Mount(KC30-C31C)		2
	KC16-C31C	Rocker Mount		2
32C	KC21-C32C	Cap Screw	M4*45	2
	KC16-C32C	Cap Screw	M4*40	2
33C	KC21-C33C	Cap Screw	M4*24	4
	KC16-C33C	Cap Screw	M4*22	4
35	KC21-C35	Strut		2
36C	KC21-C36C	Blade Chuck (KC30-C36C)		1
	KC16-C36C	Blade Chuck		1
36ASSY	KC21-C36ASSY	Blade Chuck bottom assembly(KC30-C36ASSY)		
	KC16-C36ASSY	Blade Chuck bottom assembly		
37	KC21-C37	Set Screw	M6*14	4
38	KC21-C38	Blade Clamp Thumb screw		2

38.1	KC21-C38.1	Thumb Screw Swivel		2
39	KC21-C39	Blade		5
40	KC21-C40	Allen Key	3MM	1
41C	KC21-C41C	Clamp Bracket (KC30-C41C)		1
	KC16-C41C	Clamp Bracket		1
42	KC21-C42	POM Set Screw	1/4"-20UNC	1
43	KC21-C43	Spring		1
44	KC21-C44	Tension Lever (KC16-C44)	5mm	2
	KC30-C44	Tension Lever	7mm	2
45N	KC21-C45N	Screw Post	M4	2
		Round Head Screw	M4x6	2
46	KC21-C46	Sliding Bracket		1
46A	KC21-C46A	Upper blade tension assembly		
	KC16-C46A	Upper blade tension assembly		
	KC30-C46A	Upper blade tension assembly		
57	KC21-C57	Washer	M4x10x1	4
58C	KC21-C58C	Inner Bearing Sleeve (KC30-C58C)	ϕ6.03 x 16.5mm	2
	KC16-C58C	Inner Bearing Sleeve	ϕ6.03 x 9.8mm	2
58D	KC21-C58D	Inner Bearing Sleeve	ϕ6.03 x 16.5mm	2
59C	KC21-C59C	Bearing Inner Sleeve	ϕ8.03 x 21.5mm	1
60	KC21-C60	Washer	M5	2
61	KC21-C61	Cap Screw	M4*27	2
62	KC21-C62	Washer	M4x14x1.2	4
				8
64	KC21-C64	Drive link Assy		2
	KC16-C64	Drive link Assy		2
	KC30-C64	Drive link Assy		2
64-1	KC21-C64-1	Upper and Lower rocker	484mm	4
	KC16-C64-1		357.2mm	
	KC30-C64-1		713mm	
64-2	KC21-C64-2	Spacer sleeve		4
	KC30-C64-2			6
64-3	KC21-C64-3	Rivet		4
	KC30-C64-3			6
64A	KC21-C64A	Complete drive link Ass'y		
	KC16-C64A	Complete drive link Ass'y		
	KC30-C64A	Complete drive link Ass'y		
65	KC21-C65	Motor		1
66	KC21-C66	SPACER		1
67	KC21-C67	BEARING SLEEVE	ϕ6.03x16mm	2
	KC16-C67	BEARING SLEEVE	ϕ6.03x9.8mm	2
68	KC21-C68	Cap Screw	M4x30	2
	KC16-C68	Cap Screw	M4x25	2

69	KC21-C69	WASHER	M4*8*1	8
70	KC21-C70	MOTOR BRUSH		2
71	KC21-C71 KC30-C71	Motor Label		1
	KC16-C71	Motor Label		
73	KC21-C73	Nut	M6	4