

INSTRUCTION MANUAL K16-18 ABRASIVE SAW



KI *KALAMAZOO*
INDUSTRIES, INC.

6856 East K Avenue

Kalamazoo, MI 49049

Phone: (269) 382-2050

Fax: (269) 382-0790

www.kalamazooind.com



MADE IN USA

WARNING!

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN, ANY LIQUID OR MOISTURE.

INSPECTION

If these goods are damaged in transit, the **DELIVERING TRANSPORTATION COMPANY** is required by law to make notation of damages on the freight bill. If in your opinion, there may be concealed damage, they are required to make an inspection after goods are unpacked. Transportation rates are made in proportion to damage. Therefore, the carrier and **NOT** the shipper should be charged with any loss or damage. Any claim should be filed with the delivering Transportation Company. **PLEASE DO NOT RETURN GOODS TO US WITHOUT OUR RGA NUMBER AND SHIPPING INSTRUCTIONS.**

Electrical: CAUTION: Voltage changes require wiring changes at drive motor. **WARRANTY DOES NOT COVER** unauthorized wiring changes/failures. **Consult an electrician an electrician if your not familiar with electrics.**

K16-18 SETUP

- BEFORE STARTING OR CONNECTING ELECTRICAL VERIFY THE PHASE AND VOLTAGE OF THE UNIT.
- BE SURE MACHINE IS BALANCED CORRECTLY SO IT WILL TIP OVER.
- TO GUARD AGAINST CONCEALED DAMAGE, STAND CLEAR AND OBSERVE UNIT FOR THE FIRST FEW MINUTES OF OPERATION. GUARDS MUST NEVER BE REMOVED.
- BEFORE INSTALLING THE ABRASIVE WHEEL CONFIRM THAT THE CUTOFF WHEEL IS DESIGNED TO RUN AT 2500 SFPM (MOS). YOU CAN FIND THIS INFORMATION DIRECTLY ON THE THE SIDE OF YOUR CUTOFF WHEEL. IT

ABRASIVE SAW SAFETY

- NEVER REMOVE SAFETY GUARDS FROM MACHINE. DISCONNECT MACHINE FROM POWER SOURCE BEFORE MAKING ANY MACHINE ADJUSTMENTS.
- DO NOT USE AROUND FLAMMABLE MATERIALS OR LIQUIDS.
- MACHINES SHOULD BE OPERATED IN VENTILATED AREAS.
- ALWAYS WEAR SAFETY GLASSES OR A FULL FACE SHIELD FOR PROTECTION.
- DO NOT USE TOOTHED BLADE WITH THIS SAW AND DO NOT ATTEMPT TO USE STEEL BLADES ON THIS SAW.
- KEEP HANDS CLEAR OF THE CUTTING AREA.
- DO NOT WEAR GLOVES OR LOOSE FITTING CLOTHES WHEN OPERATING THIS MACHINE.
- ALWAYS KEEP HAIR TIED BACK OR COVERED.
- ALWAYS KEEP FLANGES CLEAN AND TIGHT AGAINST CUTTING WHEEL.
- MANUALLY TIGHTEN AND LOOSE SPINDLE NUT.
- DO NOT USE IMPACTED GUN TO LOOSEN OR TIGHTEN SPINDLE NUT.
- ALWAYS KEEP WHEEL GUARD IN THE DOWN POSITION.
- BE SURE WORK PIECE IS CLAMPED SECURELY IN VISE BEFORE CUTTING.

WARNING!!!!

IMPROPER USE MAY CAUSE BREAKAGE AND SERIOUS INJURY.

DO

1. **DO** always handle and store wheels in the vertical position.
2. **DO** visually inspect all wheels before mounting for possible damage.
3. **DO** check machine speed against the established maximum safe operating speed marked on the wheel.
4. **DO** check mounting flanges for equal and correct diameter.
5. **DO** use mounting blotters when supplied with wheels.
6. **DO** always use a safety guard covering a least one-half of the abrasive wheel.
7. **DO** allow newly mounted wheels to run at operating speed, with guard in place, for at least one minute before cutting.
8. **DO** always wear safety glasses or some type of eye protection when cutting.
9. **DO** tie back hair.

DON'T

1. **DON'T** use a cracked wheel or one that has been dropped or has become damaged.
2. **DON'T** force a wheel onto the machine or alter the size of the mounting hole if wheel won't fit the machine.
3. **DON'T** ever exceed maximum operating speed established for the wheel.
4. **DON'T** use mounting flanges on which the bearing surfaces are not clean, flat and free of burrs.
5. **DON'T** tighten the spindle nut excessively.
6. **DON'T** start the machine until the wheel guard is in place.
7. **DON'T** jam work into wheel.
8. **DON'T** force cutting so that motor slows noticeable or work gets hot.
9. **DON'T** wear gloves and or have loose clothing when operating machine.
10. **DON'T** use tooth blade on saw.

BASIC MACHINE INFORMATION

Arbor size: 1”

Thread: Right hand thread.

Spindle speed: 2500

Switch type: magnetic on/off switch.

ELECTRICAL

Be sure of incoming AC power and verify machine power is the same as incoming AC power. **CAUTION: IF NOT FAMILIAR WITH ELECTRICAL CONSULT AN ELECTRICIAN!**

IMPORTANT

CHANGES FROM FACTORY SETTINGS ARE NOT COVERED UNDER WARRANTY UNLESS AUTHORIZED FROM THE FACTORY!!

HOOKING UP EQUIPMENT

Bring incoming AC power to the magnetic switch box. Punch/knock out switch threaded opening and use a seal tite fitting and connect incoming AC power to L1, L2, L3 on the contactor.

Abrasive wheels: Select the correct abrasive wheel for the material being cut. Consult your dealer for correct wheel selection. Abrasive wheels vary in grit, bond, etc. Good cuts are not burnt or discolored but bright like the outside of the material. If material being cut is binding, pinching the wheel, burning then the wrong abrasive cutoff wheel is being used. Many times it may take several test cuts with different wheels to get the best performance. Inform your dealer with the material, size (minimum and maximum), shape, hardness and how much material is being cut so as to select the right abrasive cutoff wheel. **IMPORTANT DO NOT USE STEEL BLADES!**

Cutting: Be sure material is held securely while cutting. **NO MOVEMENT** of material should occur when cutting or wheel failure will result. Use constant steady manual pressure when pulling down the saw head. Too little of pressure will cause loading of wheel and work hardening. Be sure no flammable material is nearby to cause a fire. **FOLLOW ALL** safety procedures like safety glasses, face shields, etc. **SEE ABRASIVE SAFETY SHEET!!!**

Chain vise: Pull and place chain over material as tight as possible, insert closest chain link into clevis on the back of fence (**#38**) Depress foot pedal (**#51**) to tighten chain around material. **DO NOT ALLOW** material to move during cutting!!! Wheel breakage **WILL** occur if material isn't properly clamped.

Maintenance: Keep drive v-belts (**#30**) tight (1/2” of squeeze). Do not over tighten. New v-belts will stretch so check v-belt after a 1/2 dozen cuts. If needed tighten v-belts. All bearings are sealed bearings and need no attention. Keep machine and area clean of abrasives dust. Frequently clean the machine, this will help extend the life of the machine.

BASIC OPERATING INSTRUCTIONS

MODEL K16-18

1. Be sure of correct electrical power (phase and voltage) for motor. The electrical motor has a wiring diagram with specification on the outside motor casing. Verify electrical power before operating.
2. Clamp part securely. Wrap/drape chain around part over back fence as tight as possible. In the unclamped position slip chain link into clevis on rear of fence (**#30**); step downward and to the right on the foot pad (**#51**) to lock foot pad and tighten chain around part. Part to be cut should not move when clamped. Re-adjust chain if necessary and re-clamp. To unlock foot operated chain vise press foot pad (**#51**) down and to the left. **Note: the part center line should be ahead of the wheel center line.** Use any available piece to lay against back fence first, then part to be cut (**no need to cut through spacer/shim**).
3. Select correct abrasive wheel for the job. Abrasive cutoff wheels vary in hardness; grain etc. Incorrect wheel will result in bad cuts. Good cuts are bright not blue, and or discolored black. Please call a wheel manufacturer to select the correct wheel for your job. Not sure which wheel manufacturer to contact? Contact us (269) 382-2050 for a wheel manufacturer.
4. As an abrasive wheel wears, the down stop (**#54**) will need to be threaded down to allow wheel to cut thru your part. Begin cutting with the wheel with stop (**#54**) up. Check to make sure wheel does not cut into saw top.
5. Use constant forceful, steady down pressure when cutting. A good shower of sparks will result. Keep flammable material clear of work and spark area. **Inconsistent pressure will load wheel up and work harden the material.**
6. Keep drive belts (**#30**) tight, 1/2" of slack when squeezed together. Loose drive belts result in lack of power and binding of wheel. Carefully use a pry bar to pry motor mount back to tighten belts, re-tighten threaded knob against motor plate to fix belt tension. **Note: new belts will stretch after the first 1/2" dozen cuts. Tighten v-belts if required.**
7. Be sure to wear adequate safety productions. Safety glasses, face shield etc. Do not operate equipment in flammable areas. **DO NOT USE STEEL BLADES!**

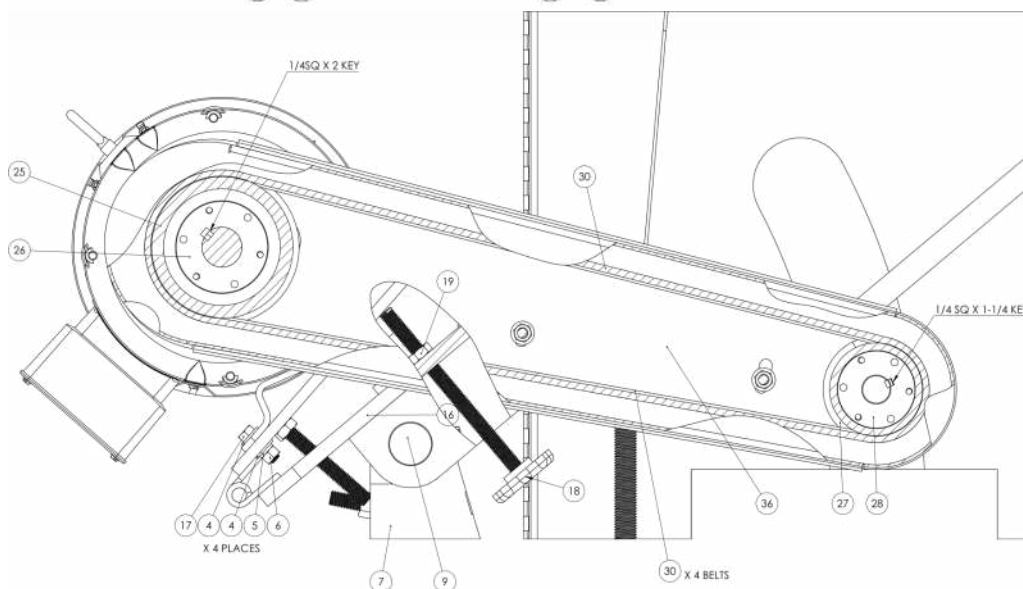
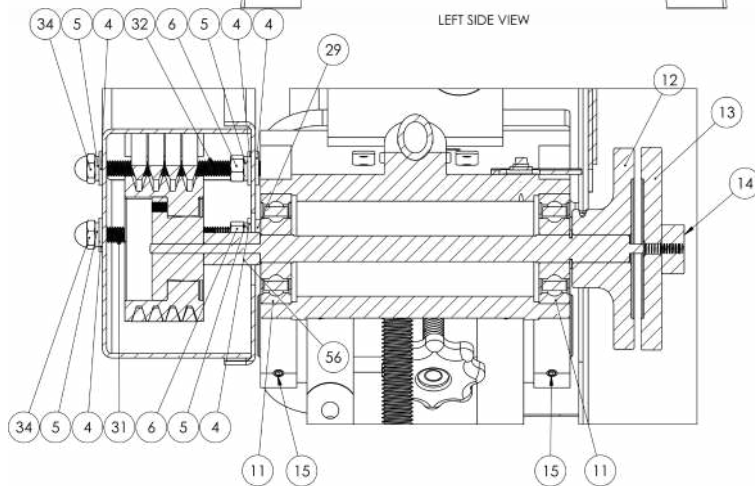
STOP HEIGHT IS ADJUSTABLE

X 2 PLACES

X 4 PLACES

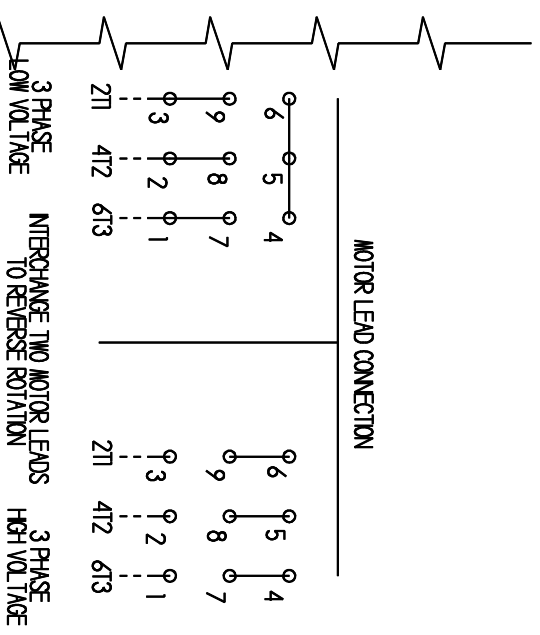
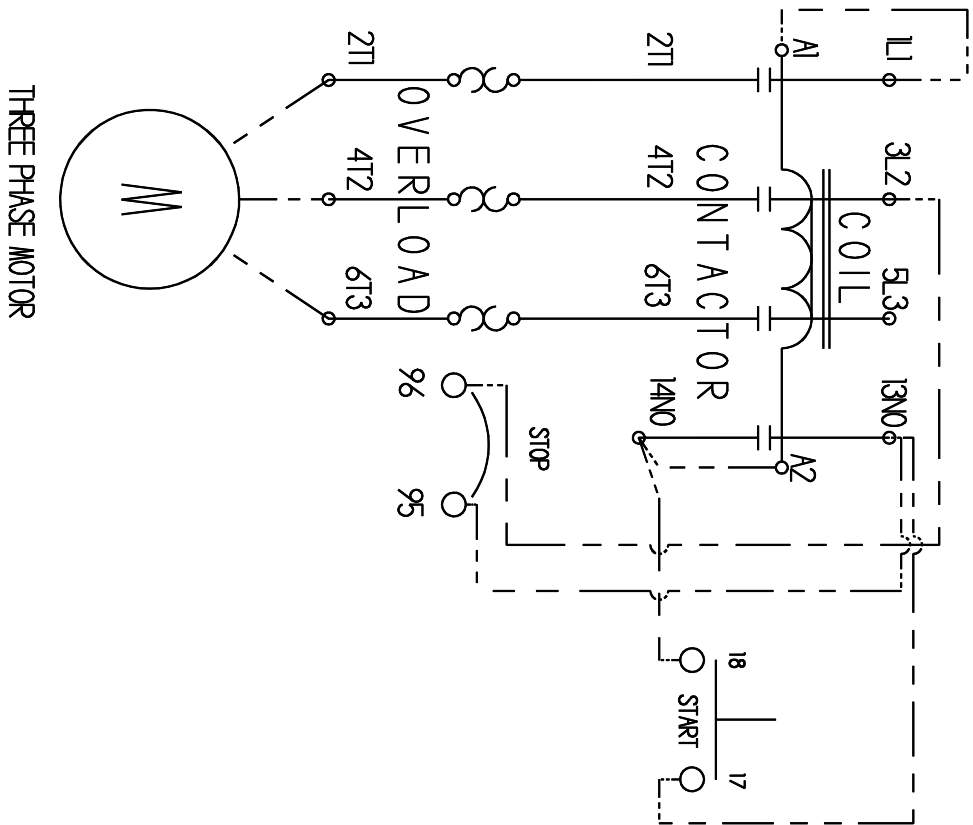
Technical drawing showing the assembly of the upper part of the machine. The drawing includes the upper frame (46) and the adjustment mechanism for the stop height. Key components and callouts include:

- 40: Upper frame assembly.
- 41: Adjustment screw.
- 44: Stop height adjustment mechanism (X 2 PLACES).
- 46: Upper frame (STOP HEIGHT IS ADJUSTABLE).
- 59: Stop height adjustment mechanism (X 2 PLACES).
- 54: Stop height adjustment mechanism (X 2 PLACES).
- 55: Stop height adjustment mechanism (X 2 PLACES).
- 51: Stop height adjustment mechanism (X 2 PLACES).
- 33: Stop height adjustment mechanism (X 2 PLACES).
- 10: Stop height adjustment mechanism (X 2 PLACES).
- 16: Stop height adjustment mechanism (X 2 PLACES).
- 18: Stop height adjustment mechanism (X 2 PLACES).
- 7: Stop height adjustment mechanism (X 2 PLACES).
- 9: Stop height adjustment mechanism (X 2 PLACES).
- 5: Stop height adjustment mechanism (X 2 PLACES).
- 8: Stop height adjustment mechanism (X 2 PLACES).
- 4: Stop height adjustment mechanism (X 2 PLACES).



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	716-023	STAND ASSEMBLY FOR K16-18	1
2	050-018A	BASE, PLATE K16-18 (NEW STYLE AFTER 08/20/2014)	1
3	FSCA037020	3/8-16 X 1-1/4 FSHCS	4
4	UFWZ037	3/8 USS F/W Z	36
5	SLWZ037	3/8 SPLIT L/W Z	30
6	FHN5037	3/8-16 FHN GR5 Z	14
7	831-021	TRUNNION FOR KM16-18, K16-18, K20SSF (NEW STYLE)	1
8	HHC5037036	3/8-16 X 2-1/4 HHCS GR 5 Z	4
9	700-003	NEW STYLE TRUNNION PIN FOR K16-18, KM STYLE TRUNNION, K20SSF	1
10	002-005	SAW ARM FOR K16-18, KM16-18, AND K20SSF SAW	1
11	044-004	K20 SPINDLE BEARING	2
12	701-010	SPINDLE W TIGHT FLANGE FOR K16-18, K20SSF, K20E SAWS	1
13	292-011	LOOSE FLANGE FOR K16-20, KM16-18, KM20-22	1
14	537-027	SPINDLE NUT FOR K16-20	1
15	SSKA031006	5/16-18 X 3/8 SOC SET KNURL PT.	2
16	486-010	MOTOR MOUNT PLATE FOR K16-20 ASSEMBLY	1
17	HHC5037020	3/8-16 X 1-1/4 HHCS GR5 Z	8
18	696-029	MOTOR PLATE TENSION SCREW FOR K16-K20 SAWS	1
19	FJNZ050	1/2-13 F H JAM NUT Z	1
20	CRBZ031040	5/16-18 X 2-1/2 CARRIAGE BOLT Z	1
21	UFWZ031	5/16 USS F/W Z	1
22	SLWZ031	5/16 SPLIT L/W Z	1
23	FHN5031	5/16-18 FHN GR5 ZINC	2
24	486-019	10 HP SD, 3PH, 1725RPM, 60HTZ, 213T, 208/230/460 FOR K16-18, KM16-18, BG14	1
25	560-046	MOTOR PULLEY FOR K16-18, KM16-18, K20SSF-15, KM20-22/15, KM20-22	1
26	049-003	BUSHING FOR MOTOR PULLEY FOR K16-18, KM16-18, K20SSF, K20RS	1
27	560-047	SPINDLE PULLEY FOR K16-18, KM16-18, K20RS, KM20-22, K20SSF	1
28	049-004	BUSHING FOR SPINDLE PULLEY FOR K16-18, K20SSF-15HP, K20RS-15, KM16-18	1
29	00202300X0.875	7/8 LONG OF 3/4 ROUND CR1018	1
30	051-005	V-BELT FOR K16-18, K20SSF, K20E, K20RS, K20SW	4
31	19100900X6.25	6-1/4 INCHES OF 3/8-16 THREADED ROD	1
32	19100900X5.375	5-3/8 INCHES OF 3/8-16 THREADED ROD	1
33	342-039	OUTER GUARD, BELT FOR K16-18 AND K20SSF SAWS	1
34	CPNZ037	3/8-16 CAP NUT NICKEL	2
35	SHCA037020	3/8-16 X 1-1/4 SHCS	2
36	342-039A	GUARD, INNER BELT FOR K16-18, KM16-18, K20SSF SAWS	1
37	293-003	FENCE, RIGHT FOR K16-18, K20SSF	1
38	293-002	FENCE, LEFT FOR K16-18, K20SSF	1
39	SHCA037040	3/8-16 X 2-1/2 SHCS	2
40	381-009	HANDLE WITH GRIP FOR K16-20 ABRASIVE SAW	1
41	SSKA025006	1/4-20 X 3/8 SOC SET KNURL PT.	1
42	697-021	SPRING FOR HOOK CHAIN ASSY FOR K16-18 AND K20SSF CHAIN VISE	1
43	697-022	SPRING, FOOT PEDAL FOR K16-18 AND K20SSF SAWS	1
44	ZERK012000	1/8-27 X 11/16 STRT LUBE FITTING	2
45	342-030	INNER WHEEL GUARD FOR K16-18, K20SSF SAWS	1
46	342-014	WHEEL GUARD FOR K16-18 SAW	1
47	HHC5037016	3/8-16 X 1 HHCS GR5 Z	4
48	HHC5025008	1/4-20 X 1/2 HHCS GR5 Z	4
49	SLWZ025	1/4 SPLIT L/W Z	4
50	UFWZ025	1/4 USS F/W Z	2
51	041-007	FOOT PEDAL/ CHAIN ASSEMBLY KOR K16-18 AND K20SSF	1
52	HHC5031020	5/16-18 X 1-1/4 HHCS GR 5 Z	1
53	TEBZ031032	5/16X2 TURNED EYE BOLT Z	1
54	709-003	STOP, DOWN FOR K16-18 AND K20SSF SAWS	1
55	FHN5075	3/4-10 FHN GR5 Z	1
56	049-116	SPACER BUSHING FOR K20 SERIES SPINDLE	1
57	19101300X2	2 INCHES OF 1/2-13 THREADED ROD	1
58	FHN5050	1/2-13 FHN GR5 Z	1
59	041-103	K20SSF PHV DOWN STOP SWITCH BRACKET	1

INCOMING LINE VOLTAGE
CONNECTS TO IL1, 3L2 AND 5L3



KALAMAZOO INDUSTRIES INC.

DRAWN BY	DATE	DESCRIPTION
ASHLEY	9/19/12	3 PH SCHEMATIC
REVISED BY	DATE	PART #
MATERIAL		