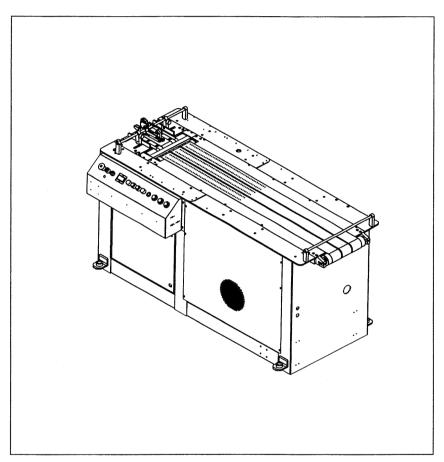
Kirk-Rudy, Inc.

Instruction and

Parts Manual KR219WIJ36



Manufactured by Kirk-Rudy, Inc.

Before using this machine, all operators must study this manual to understand and follow the <u>safety warnings and instructions</u>. Keep these instructions with the machine for future reference. If you have any questions, contact your local Kirk-Rudy, Inc. Distributor.

10000-219WIJ36

REV. 0

3/14/2006



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1 Important Safety Instructions

<u>Intended Use Statement:</u> The KR219 machine is design to convey product for inkjet printing and drying. A vacuum conveyor table will be used to transport the product under inkjet heads for printing. Next, product will be transferred to a heat belt section. The heat belt section will use a high temperature vacuum blower to the control the product as it is conveyed under an inkjet print dryer. Usage for other purposes may lead to an unsafe condition.

SAVE THESE INSTRUCTIONS. Read all instructions before using this product.



WARNING

- * NEVER OPERATE THE MACHINE WITHOUT ALL GUARDS OR SAFETY DEVICES IN PLACE.
- * ALWAYS TURN POWER OFF WHEN MAKING ADJUSTMENTS.
- * ALWAYS DISCONNECT THE POWER SUPPLY BEFORE ANY MAINTENANCE OR SERVICE WORK.
- * NEVER START THE MACHINE WITHOUT FIRST CHECKING ALL PERSONNEL ARE CLEAR OF MOVING PARTS.
- * KEEP FINGERS CLEAR OF ALL MOVING PARTS.
- * NEVER REMOVE THE PRODUCT FROM THE MACHINE WHILE MACHINE IS RUNNING.
- * SHOULD MISFED PRODUCT JAM THE MACHINE AND STOP IT FROM RUNNING, ALWAYS PRESS THE STOP BUTTON BEFORE CLEARING PRODUCT. IF THE STOP BUTTON IS NOT PRESSED AND THE JAM IS CLEARED, THE MACHINE WILL BEGIN RUNNING.
- * IT IS NOT RECOMMENDED THAT LOOSE CLOTHING, JEWELRY AND LONG HAIR BE WORN WHILE OPERATING THIS MACHINERY.
- * ALWAYS USE AN EXPERIENCED ELECTRICIAN WHEN TROUBLE-SHOOTING ELECTRICAL PROBLEMS.
- * CHANGES OR MODIFICATIONS TO THIS UNIT NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

2 SPECIFICATIONS

PRODUCT SIZE RANGE	English	Metric
Minimum Size:	3" W x 5" L	7.6cm W x 12.7cm L
Maximum Size:	17" W x 16" L	43.2cm W x 40.6cm L
Minimum Thickness:	Card Stock (.007")	Card Stock (.10mm)
Maximum Thickness:	.625"	15.9 mm
PHYISCAL SIZE (STANDA	ARD)	
Length	69.1"	175.79 cm
Width	46.7"	118.81 cm
Height	66.8"	169.94 cm
Weight	lbs	kg
Shipping	lbs	kg

MAXIMUM SPEED

590 feet per minute

ELECTRICAL SPECIFICATIONS

Power Requirements: 220VAC/20A 60Hz.

3 INSTALLATION



WARNING

Read and follow all Safety Instructions in Section 1, Page 3 before proceeding.

3.1 UNCRATING

- 1. Position crate near installation site.
- 2. Remove crate top and sides.
- 3. Locate accessories box and verify all items are present.
- 4. Remove metal strapping and securing blocks.
- 5. Use forklift to lift machine off skid. Be sure to position the forks in a centrally located position.
- 6. Machine is on casters and can be rolled to desired location.
- 7. Adjust the height of the base with the four leveling legs.

<u>Note:</u> A forklift should be used to lift machine from pallet. The base is mounted on casters.

3.2 ACCESSORIES AND SPARE PARTS

The accessories and spare parts are packaged and located inside the base cabinet. The box should be opened and checked against the enclosed packing list.

4 OPERATING INSTRUCTIONS



WARNING

Read and follow all Safety Instructions in Section 1, Page 3 before proceeding.

4.1 CONTROL PANEL (Figure 1.0)

Main Power Off Switch: This switch cuts power to the entire machine. Twist to unlatch.

<u>Main Power Switch</u>: When this two-position switch is depressed, source voltage is supplied to the electrical panel. This will make all of the switches on the electrical control panel active. The switch will be light green when activated.

<u>Blower Switch:</u> Rotate this switch to actuate both vacuum blowers. One is for the inkjet table. One is for the dryer table.

<u>Feeder Stop Switch:</u> When this two-position switch is depressed the feeder portion of the machine will turn off. The rest of the machine past the feeder will continue to operate.

Stop Switch (red): Machine operation can be manually stopped by depressing the stop button on the operator panel or the button on the left panel of the conveyor.

<u>Jog Switch (black)</u>: The machine can be inched or jogged by depressing and releasing this switch. The machine will continue to cycle if this button is held depressed.

<u>Start Switch (green)</u>: Continuous machine operation is achieved by depressing this switch momentarily and releasing.

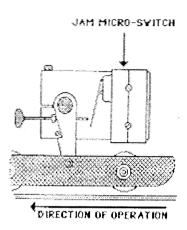
<u>Speed Control, Table Conveyor:</u> Machine speed can be varied by turning the first knob. Turn knob clockwise to increase conveyor speed, counterclockwise to decrease.

<u>Speed Control, Conveyor:</u> The second knob controls the speed of the belts on the shingle conveyor. When the main drive motor speed is set at a convenient range to continually replenish product in the feed hopper and for zip code sorting requirements, the conveyor speed should be adjusted for required product overlap. Turn knob clockwise to increase belt speed, counterclockwise to decrease.

<u>Speed Control, Conveyor Speed Up:</u> The third knob controls the speed up of the belts on the shingle conveyor. Turn knob clockwise to increase belt speed, counterclockwise to decrease.

4.2 STOP CIRCUIT

The stop circuit is wired in series, this means that if one of the stop switches or buttons is open, the machine will not run. There are two stop switches on the KR219N. They are the jam micro switch on the skid bar assembly, and the control panel emergency stop button.



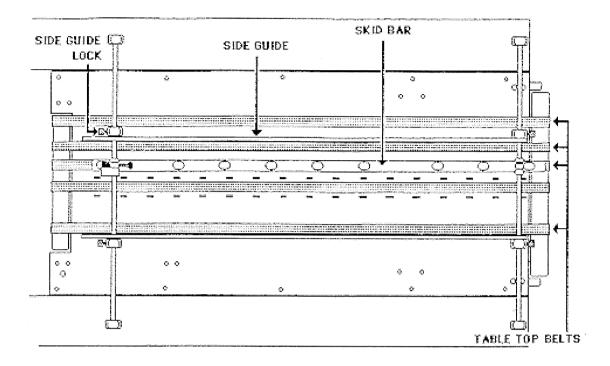
4.3 SEQUENCE OF SET-UP

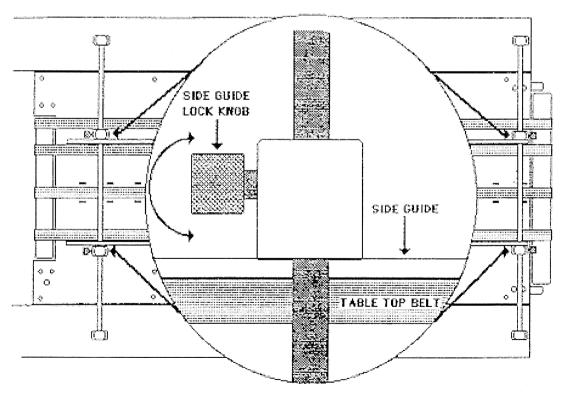
- 1. Position tabletop side guides.
- 2. Set micro jam switch and adjust skid bar to product height.
- 3. Turn and pull the power off button and stop button.
- 4. Plug conveyor up or if no conveyor, use jumpers to complete circuit. Machine will not run with incomplete circuit.
- 5. Turn power on.
- 6. Press start button.
- 7. Adjust tabletop belts.

4.4 SIDE GUIDES

Side guides are used to keep the product feeding in one direction and in an orderly manner. It is an important part of the 219IJ and 219IJ+20. To adjust the side guides, place the product on the tabletop belts and unlock the side guide lock knobs. Slide side

guides to 1/16" on both sides of the product. Lock side guides into place with lock knobs.

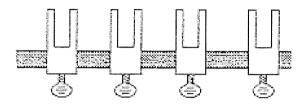




If the side guides are too tight, the mailing piece will not move across the tabletop. If they are too loose, the mailing piece may skew and the ink will be placed on crooked.

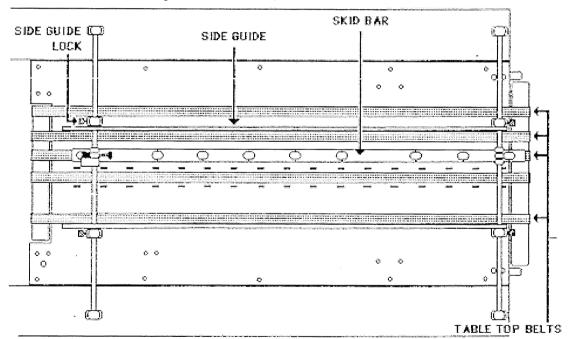
4.5 TABLETOP BELTS

The tabletop belts are designed to transport the product from the feed rollers, under the labeling head and onto the conveyor. There are five tabletop belts on the KR219N. However, not all of them are needed for every product. You may run the belts that are not needed outside of the side guides.



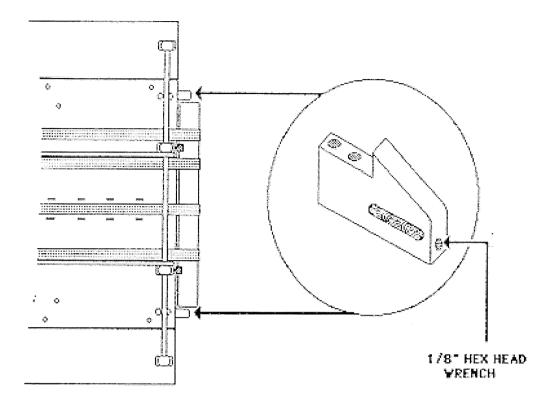
Underneath the tabletop are located guides for the tabletop belts. Each belt has its own guide. To move the belts, simply loosen the thumbscrew on the bottom of the guide and slide the guide on the shaft to the desired position and then tighten the thumbscrew.

The belts should be positioned so that there is a belt riding next to each side guide, one belt between the vacuum ports and, if used, one underneath the skid bar.



The fourth and additional belts are normally used when running large product such as newspapers or heavy product such as magazines.

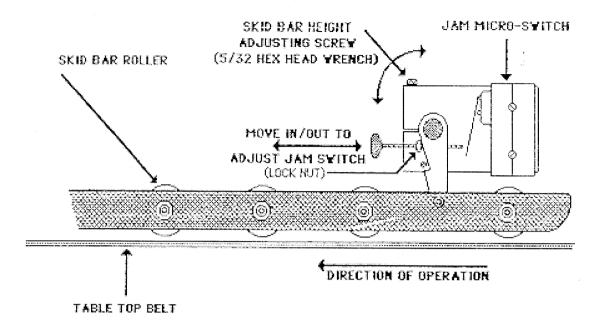
The tabletop belt tension can be adjusted. Caution should be taken not to over tighten. There should be just enough tension to prevent belt slippage.



4.6 SKID BAR

The skid bar rides on top of the product to help transport the mailing piece across the tabletop. The skid bar should be placed over one of the tabletop belts for best results. To move the skid bars locate and loosen the 1/8" hex head set screws in the lock collars on the right-hand side of the machine. The left-hand side of the machine has a lock collar and a skid bar block that is held in place with a 5/32" hex head screw. The KR219N are furnished with one skid bar. The skid bar is not needed when running small pieces such as cards or envelopes, but it can be installed when running large or heavy product.

Attached to one end of the skid bars is a "jam detector switch" on certain machines. This switch, when properly set, will stop the machine when a jam or double feed occurs.



To set the skid bar, rotate the machine until a mailing piece is under the skid bar. Loosen the 5/32" hex head screw on the skid bar block. Adjust until the skid bar is resting on the mailing piece and the skid bar rollers rotate as the product is transported. Lock in place with the 5/32" hex head screw.

The jam switch is adjusted by loosening the lock nut, moving the adjustment knob in or out and tightening the lock nut. The micro switch should disengage and stop the machine when a jam or double feed occurs.

NOTE: The machine will not run if the jam switch is not set properly (see Section 4.2).

4.7 PRODUCT DETECTION

The KR219N has a beam switch located at the infeed for product detection. This beam switch is used with a time delay relay to control the dryer lamps. The beam switch is set up so if product is not detected for "x" amount of time the dryer lamp are turned off. The amount of time is adjustable. This circuit is designed to extend the life of the high heat belts on the outfeed section of the machine.

4.8 DRYER ARM SETUP & USAGE (FIG 3)



WARNING

Read and follow all Safety Instructions in Section 1, Page 3 before proceeding. Dryer surface maybe hot. Read and follow dryer manufactures manual before proceeding.

<u>Height Adjustment:</u> The height of the dryer can be adjusted using the wheel on the top of the dryer Arm. First loosen the clamp screw on the vertical tube of the dryer arm. Next, turn the crank clockwise to move the dryer down or counter clockwise to move the dryer up. Retighten clamp screw when dryer is at desired height.

<u>Left/Right Adjustment:</u> The left/right position of the dryer can be adjusted by loosening the clamp screw on the horizontal tube, continue to hold the clamp screw handle and slide the dryer in and out. Retighten clamp screw when dryer is at desired location.

<u>Clearing Jam Under Dryer:</u> Use handle to push dryer arm back approximately 15 degrees. Dryer arm will remain back so jam can be cleared. **Note:** A micro switch at the bottom is used to turn dryer off in the back position. Pull on handle to position the dryer back over the conveyor for normal operation.

<u>Horizontal Tube Removal:</u> The inside horizontal tube has a paw stop to prevent the dryer from being pulled out too far. The spring loaded paw will automatically stop the tube at the end of its stroke. The spring loaded paw automatically resets when the tubing is pushed in the opposite direction. To remove the horizontal tube, follow these steps:

- 1. Remove dryer from dryer bracket.
- 2. Loosen horizontal clamp screw.
- 3. Slide tube out until the paw stops it.
- 4. Use the allen wrench to push the paw up and out of the hole located on the bottom of the larger horizontal tubing, at same time pull inside tubing out.

5 MAINTENANCE



WARNING

Read and follow all Safety Instructions in Section 1, Page 3 before proceeding.

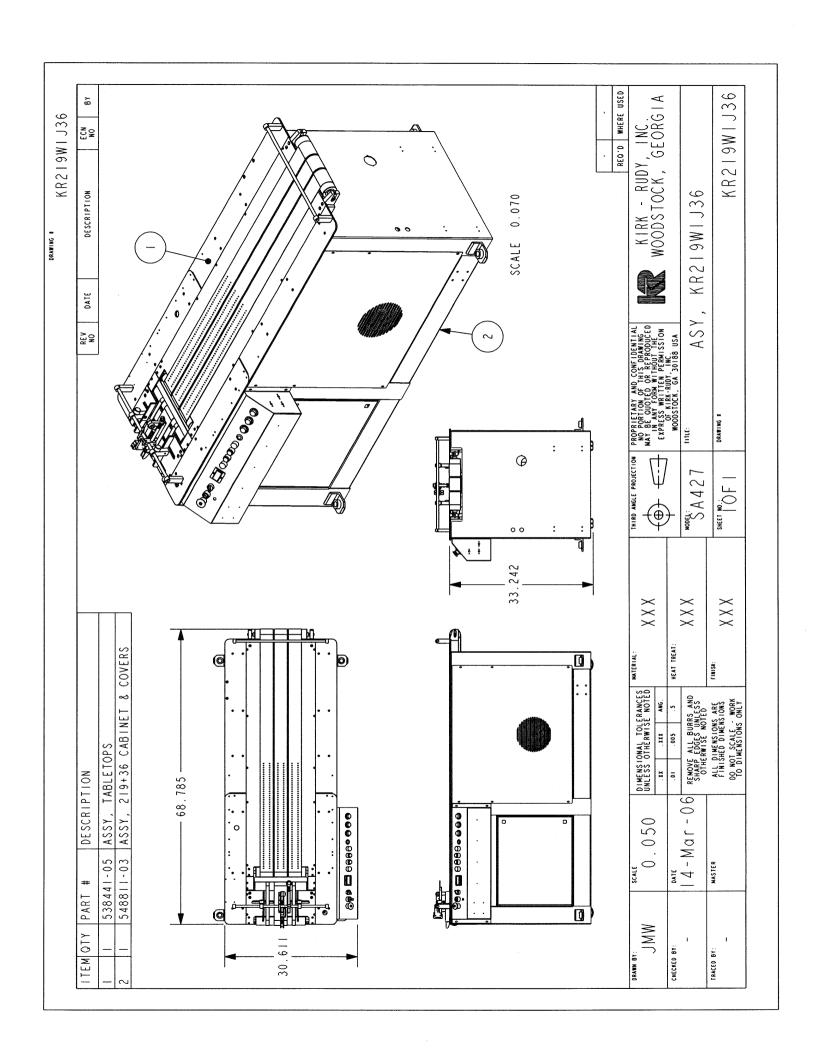
5.1 DAILY MAINTENANCE

Remove excessive paper dust, ink, glue, and all other foreign materials from the tabletop and inside the base. Use a clean soft rag. Dampen rag with water if necessary.

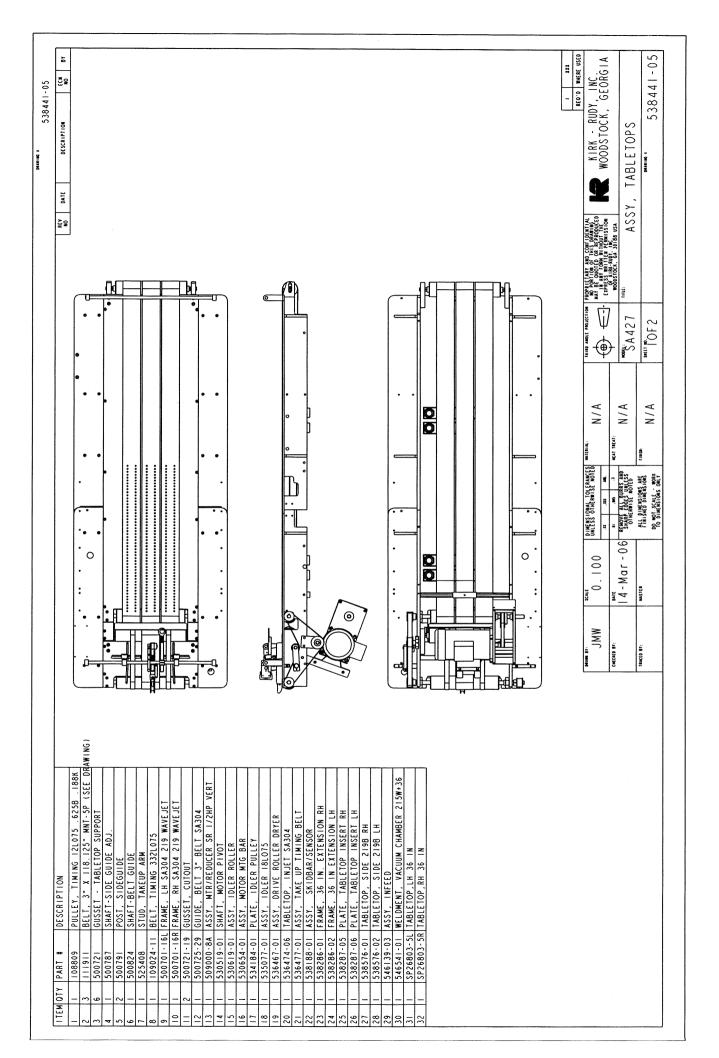
6.1 Diagrams

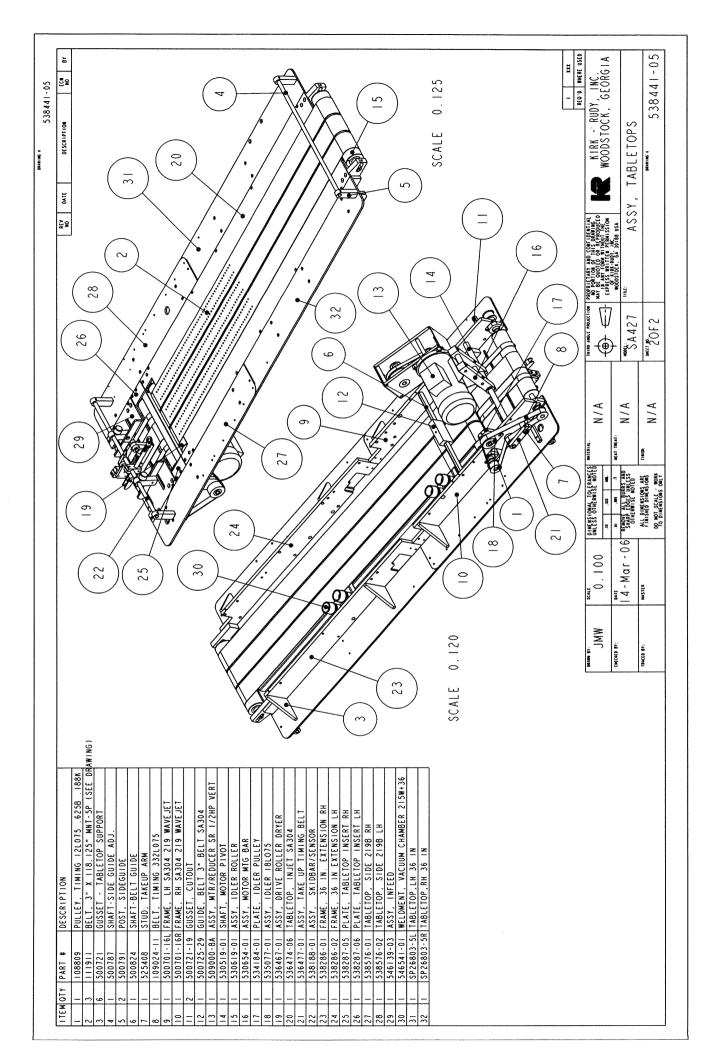
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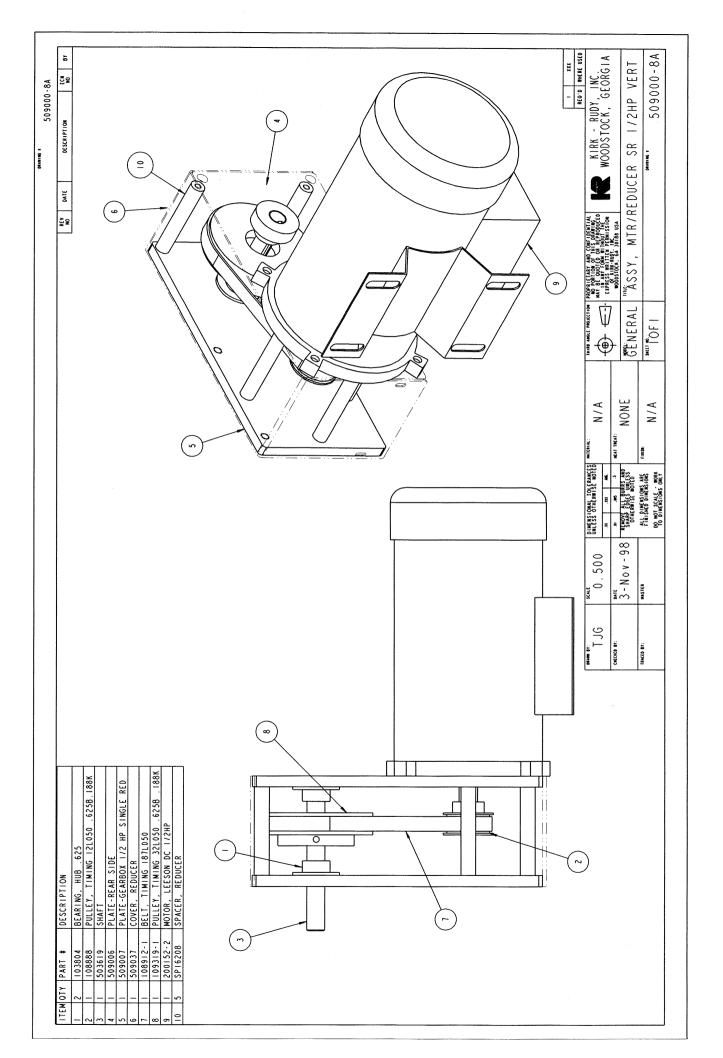
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- 548811-03 ASY, CABINET/COVERS



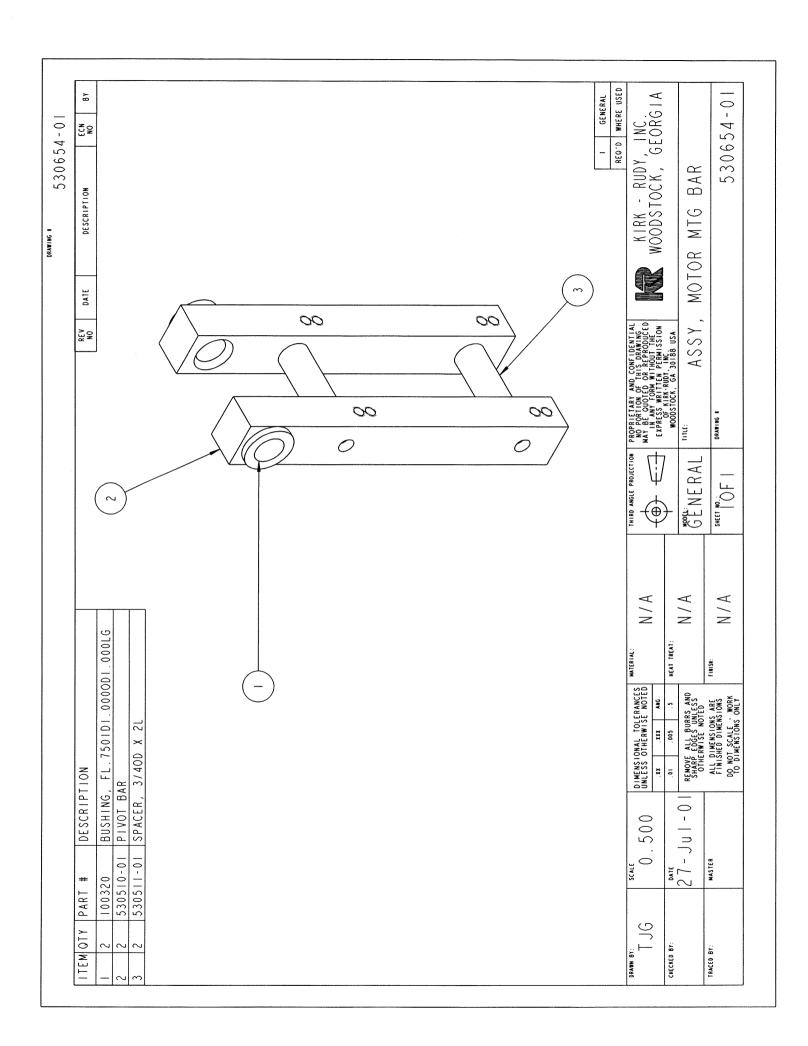
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7 ELECTRICAL SCHEMATICS AND PARTS

7.1 SCHEMATIC LIST

The following wiring diagrams are included in the manual packet for your reference.

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8 APPENDIX

8.1 POSSIBLE OPTIONS

The KR219N base can be modified to handle a variety of applications, contact your Kirk-Rudy dealer or call Kirk-Rudy direct to discuss you specific application.

Here is a list of some of the options offered for the KR219N base:

• Hydra Lift to adjust machine height (see print 537341-01 on next page).

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10 WARRANTY AND SERVICE

WARRANTY

Warranty: Kirk-Rudy, Inc., warrants to the original retail purchaser that this product is free from defects in the material and workmanship, and agrees to repair or replace, at Kirk-Rudy's option, any defective product within (90) days from the date of purchase. This warranty is not transferable. It covers damage resulting from defects in material or workmanship, and it does not cover conditions or malfunctions resulting from normal wear, neglect, abuse or accident.

THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESSED WARRANTIES ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE.

Limitation of Remedies: If product is proven to be defective within the warranty period stated above, THE EXCLUSIVE REMEDY, AT KIRK-RUDY'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE PRODUCT, provided that the defective product is, at Kirk-Rudy's choice, returned immediately to Kirk-Rudy or authorized service representative designated by Kirk-Rudy, or made available at user's premises in a location suitable for servicing.

Limitation of Liability: Kirk-Rudy shall not otherwise be liable for any losses or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal or equitable theory asserted, including contract, negligence, warranty, or strict liability.

To obtain replacement parts and service, contact an Authorized Kirk-Rudy Dealer. Use Kirk-Rudy part numbers when ordering.

USE ONLY GENUINE KIRK-RUDY REPLACEMENT PARTS

For Service or Replacement Parts Please Call: Kirk-Rudy @ 770-427-4203

> Kirk-Rudy, Inc. 125 Lorraine Parkway Woodstock, GA 30188 www.kirkrudy.com