

## WARRANTY

Practix Mfg. LLC will replace free of charge, F. O. B. Purchaser's plant, within 365 days (1 year) from time of shipment to the original purchaser, any mechanical part, within six (6) months any electronic component, and within six months (6) on a prorated basis any belt found in our judgment to be defective. This warranty is based on an eight (8) hour per day work/operating schedule.

This Warranty does not cover damage to the Machine or any part thereof found in our judgment to be the result of accident, negligence, or misuse. This warranty shall become ineffective if the product or component is altered by anyone other than Practix employees. Damage incurred in shipment should be reported to the designated carrier. It is his responsibility to ensure arrival in perfect condition.

This Warranty covers only labor and material. Expenses will be charged at cost. This warranty does not include installation of the product or component.

This Warranty is registered in the name of the original Purchaser and is non-transferable.

**Practix Mfg. LLC will, in no case and under no circumstances, be liable for special or consequential damages, loss of profit or commission or for loss or delay in production.**

Warranty will be non-redeemable if the balance on the Purchaser's account for the product is delinquent.

**I have read and received  
this manual.**

\_\_\_\_\_  
Signature

**PRACTIX MFG.  
4400 Cantrell Road  
Acworth, GA 30101  
Phone: (770) 974-1480  
Fax: (770) 974-1584**

**Mechanical Warranty Begins** \_\_\_\_\_ **through** \_\_\_\_\_

**Electrical Warranty Begins** \_\_\_\_\_ **through** \_\_\_\_\_

## **WARNING!**

At no time during the operation of the machine should any beverages or liquids be placed anywhere on the top of the Machinery to prevent injury from electric shock.

It is the responsibility of the Purchaser of this Machinery to train his personnel in the proper manner of operation.

It is further understood that Practix Mfg. Assumes no responsibility for injuries, disabilities, or death resulting from the improper operation of, removal from the Machinery, or bypassing of any electrical or mechanical safety devices incorporated in the design and manufacture of this Machinery.

NOTE: During the first few hours of operation the Machinery will release fumes due to the normal curing of coating materials.

**PRACTIX MFG.  
4400 Cantrell Road  
Acworth, GA 30101**

We at Practix Mfg. appreciate your purchase of our product. Your new machine is built to perform flawlessly for years to come.

This Operations Manual should be referred to for the installation, operation, and maintenance of this machine. Regular maintenance will ensure a long and trouble-free service life.

Design and development of Practix Machines are subject to constant improvement. There is no obligation on our part to carry out improvements, free of charge, on machines already delivered.

For further questions concerning machine maintenance call:

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## **Installation**

Position the machine on a solid, level section of the floor before removing it from the skid.

**NOTE:** Leave sufficient clearance around the machine and unwind and rewind units (if applicable) for material movement and maintenance personnel.

1. The electrical connections be made by a certified electrician in accordance with local standards and electrical codes for 240 Volt- 1 Phase industrial equipment
2. Bring the power supply to the wall adjacent to the machine. Install a breaker.
3. Run conduit and wire to the ceiling and then down to the top of the machine. Connect to the main power distribution block on the electrical subpanel.
4. Bring air supply to the machine using hose or pipe.

***In case of problems or questions, please contact Practix Mfg.***

## **Leveling and squaring**

1. Use a spirit level.
2. Place the level first on the top front of the machine. Adjust the legs as necessary
3. Place the level on the top rear of the machine. Adjust the legs as necessary.
4. Place the level across the top of the machine from front to back. Adjust the legs as necessary.

## **Operation**

To energize the rotary transfer machine, move the switch marked MAIN SWITCH to the "HAND" position. Make sure to turn on the air. THE MACHINE WILL NOT FUNCTION PROPERLY WITHOUT THE AIR TURNED ON.

Adjust the pressure regulator/filter/lubricator on the backside of the machine. Next adjust the pressure regulators on the control panel. The pressure regulator marked TENSION ROLLER should be set to approximately 80-110 PSI. Set the motor speed control to the desired speed. To start the belt, press the green START button. The belt should start to move, and the tracking system should keep the belt centered on the machine. When the belt is made operational, the heat control may be activated.

To heat the belt and drum, set the speed control to low speed setting. This will facilitate the heating of the drum quicker. The machine has main heaters that go the entire width of the machine to insure even heat the entire width of the machine.

Move the switch marked MAIN HEAT to the "ON" position. The temperature controller should activate. This machine is equipped with high technology solid state temperature control. The temperature controller has been "tuned" for your specific machine to give the best-controlled temperature allowable on the machine. To set the temperature on the machine, press and hold the "\*" button while pressing either the up or down arrow on the temperature controller to raise or lower the temperature. The indicator light on the temperature controller will flicker when the heaters are energized and stay on until the machine reaches its full temperature.

**NOTE: FOR MORE DETAILED INSTRUCTION ON THE TEMPERATURE CONTROLLER, SEE THE TEMPERATURE CONTROLLER SECTION IN THE BACK OF THIS MANUAL.**

When the machine reaches full temperature, the temperature controller indicator light will cycle on and off to maintain the desired temperature. If the heaters or temperature controllers do not energize properly consult the TROUBLESHOOTING section. After the machine has reached full temperature it is ready to be used for printing.

## **FIRST RUN**

1. Run the machine cold.
2. Check the belt tracking.
3. Check speed regulation.
4. Turn on the heat and check the same functions.
5. If the machine is not functioning properly turn it off. Check the TROUBLESHOOTING section or the TRACKING section. If the problem cannot be corrected call Practix Mfg.

## **OPERATIONAL TESTING**

The variety of speeds available with the OK-415 offers a higher production potential. The drum speed should be adapted to the lay-up rate. Heat and belt tension settings must be varied in proportion with the belt speed to obtain the proper printing quality. Although most print papers come with manufacturer's suggested printing specifications, a higher production rate and a more consistent product is usually obtainable by thorough testing.

A digital thermometer is designed to give an accurate reading of actual temperature on the drum. If there is a discrepancy between the actual drum temperature and the temperature controller shown temperature, then refer to the Omron Temperature Controller Section of this manual. Temp Strips are also designed to provide a temperature test.

### **Suggested Digital Thermometer with Bow Probe**

Practix Model No. 3879K83 (Digital Thermometer)

Practix Model No. 3863K91 (Bow Probe)

### **Temp Strips Selection Chart**

Type	Temperature Range(°C)	Order NO.
0	41-104	30/520SQ
1	104-143	30/521SQ
2	143-182	30/522SQ
3	182-224	30/523SQ
4	224-260	30/524SQ

## **SHUTTING OFF THE MACHINE**

At the end of each working day when the machine is to be turned off it should be run through a 45 minute cool down with the speed at a high setting. To do this, move the MAIN SWITCH to the "AUTO" position.

It is not necessary to move any other controls. With the switch in "AUTO" position the heaters are automatically deenergized with all remaining functions preserved. When the timer runs out, the machine will shut itself off completely. To restart the machine move the MAIN SWITCH to the "HAND" position and start the conveyor.

### **Using the Blotting Paper Unwind Station**

Each unwind rod has its own pneumatic brake. This consists of a regulator and a brake unit. To make the brake restrict more, turn the regulator knob to the right. The more the knob is turned, the more powerful the brake is. The brake should never be too tight. This will cause a breaking of the paper. The brake should be tightened just a little past the point of slipping.

### **Using the Blotting Paper Rewind Station**

All have separate slipping clutches for the capability of different size rolls. The slipping clutch works the same as the brake. To increase the speed of the rewind, turn the regulator knob to the right.

## **Belt Replacement**

### **Nomex Belt**

- 1. DISCONNECT THE POWER TO THE MACHINE!!**
2. Make sure the Nomex belt tension is off.
3. Slide the belt out of the machine.

Install the replacement belt using the reversal of this procedure. Then read the Tracking Section of this manual to find out how to set the belt for the best results.

## **Heater Rod Replacement**

### **DISCONNECT THE POWER TO THE MACHINE!!**

1. Remove the outside side cover from the side of the printing drum.
2. Remove the machine side cover.
3. **This procedure can be extremely dangerous. Use extreme caution!**  
**Disconnect the machine from the power!** Inside the machine, disconnect the heater coil from the two wires.
4. On the inside of the printing drum, remove the screws fastening the heater brackets to the heater tree. After the brackets are removed, pull the heater coil out of the printing drum.
5. Replace the new heater with the reverse of these instructions.
6. With the new heater in place, adjust the brackets on the heater tree to make sure the heater is in the center of the printing drum. If the heater is properly placed in the center of the drum, it may rub against the printing drum stiffener ring.

## **Tracking System**

This machine is equipped with an automatic tracking system and will not need adjustment until the belt is replaced. A belt channel is used to keep the belt centered on the machine. If the belt is tracking too far to one side and is coming out of the belt channel, loosen the aluminum bearing housing on any of the upper three rollers. Using the push bolt, move the bearing housing out or in to center the belt in the belt channel. Before performing this procedure, please contact Practix Mfg. to clarify this procedure.

## **Maintenance**

**NOTE:** We recommend a regular maintenance plan as outlined below. These maintenance points are considered a very minimum. Additional maintenance is left to the Owner's discretion.

### 1. Daily Maintenance/Cleaning

Vacuum or blow off any visible dust and lint.

### 2. Weekly Maintenance

- A. Cleaning Clean any buildup off the scraper and rollers.  
Remove any visible accumulation of dust, lint, or resin.
- B. Spot-check electrical and mechanical components.

### 3. Monthly Maintenance

- A. Cleaning Remove thread and lint deposits  
Remove dust and lint accumulation from pivot points.
- B. Lubrication Lubricate bearings with fittings using Hi-Temp grease. All other bearings are greased for life.  
Lubricate drive chain.  
Lubricate all roller slide guides with fittings using Hi-Temp grease.

## **Belt and Pneumatic Maintenance**

### **Main Belt**

1. Ink buildup on the Nomex belt should be avoided if possible since it may print back onto the fabric. Blotting paper should be positioned through the machine so that no printback occurs onto the nomex belt.
2. If the Nomex belt becomes worn or damaged, replacement may be necessary. Read the Belt Replacement section in this manual before attempting to change the belts.

### **Pneumatic System**

1. Recommended pressure for the incoming airline is 100-110 psig.
2. The air actuated clutches and brakes are controlled by pressure regulators on the control panel. However, the pressure supply to these regulators comes from a regulator mounted in the bottom of the inside of the machine. It works best at 30-40 psig pressure. Do not increase pressure above this level or it will cause the blotting paper to break.
3. Set the pressure of the belt tension at approximately 80 psig. If the print is still "bleeding" then increase the pressure.
4. Check all air lines periodically for water and clean the main regulator/filter/lubricator weekly.

## **Troubleshooting**

This section is provided for the identification and repair of items considered as field serviceable and is part of the maintenance of any machine. Problems falling outside the areas covered in this Manual should be first isolated as far as possible, and then repaired only after consultation with your Dealer or our service department.

<b><u>Problem</u></b>	<b><u>Check List</u></b>
1. Main controls fail to energize	a. Electrical power supply b. Control fuses c. Incomplete circuit
2. Heaters fail to energize with main controls energized	a. main fuses b. Solid state relays c. Thermocouple probe d. Temperature controller e. Incomplete circuit
3. Heaters energize but fail to come up to temperature	a. Incorrect line voltage b. Thermocouple probe c. Temperature controller faulty d. Temperature controller calibration off e. Heater element f. Incomplete circuit
4. Incomplete Circuit	a. Drive motor fails to energize b. Motor power supply c. Motor speed setting d. Motor console fuse e. Motor
5. Belt fails to move with motor energized	a. Tension roller fails b. Chain drive
6. Belt fails to track properly	a. Bad solenoid b. Fuse c. Squaring of machine is off d. Leveling inadequate

## **Speed Controller (Frequency Inverter) Initial Program**

After power on, press the “M” button once.

The screen will show “PASS” briefly and then 0000. Using the up and down arrows enter a number of 0225. This is the password. Press the “M” button again. “P100” should be shown on the screen.

Use the up and down arrow button to jog through the different parameters.

To change a parameter value, jog to the desired parameter, press the “M” button. Use the up and down arrow buttons to enter the desired value. Press the “M” button to enter the value into memory. The screen will return to the display mode. Press the “M” button again to get back into the parameter mode.

Below is listed a parameter value chart of all required parameters needed for the Practix OK-12 (AC Tech/Lenze).

P100.....1  
P102.....7.5  
P104.....1.0  
P105.....1.0  
P107.....\*\*0 OR 1\*\*  
P110.....1  
P111.....2  
P112.....1  
P121.....10  
P150.....1  
P152.....45  
P178.....\*\*\*0.2,0.6,0.9\*\*\*  
P400.....1

\*\* Note: P107 should be 0 for 208V or 400V systems and 1 for 240V and 480V systems

\*\*\* Note: P178 should be adjusted for each particular machine. This parameter is a scale value to show feet per minute drum speed on the display.

After these parameters are entered into the memory, use the “M” button to return to the speed indicator screen.

**THE ABOVE PROCEDURE SHOULD ONLY BE PERFORMED  
AFTER CONSULTING PRACTIX MFG.**

## **TEMPERATURE CONTROLLER – OMRON E5GN**

This machine has a special high technology temperature control system. The Omron E5GN controls mercury contactors instead of contactors to provide power to the heaters. This system allows the power to be switched on and off to the heaters much more frequently than with regular contactors, thus allowing the machine to maintain a more consistent temperature value.

### **To Set the Temperature Desired on the Controller**

To set your desired temperature, press either the up or down arrow button until the desired temperature is reached. After the temperature controller turns on, a small LED will illuminate on the upper right corner of the controller. Remember this machine has a two zone heating system, left and right. Both controllers must be set to the same temperature to ensure proper operation.

### **Tuning the Temperature Controller**

The OMRON E5GN has been tuned to your specific machine. It is good practice to tune the temperature controller once a week so that the controller can keep the most accurate temperature possible without varying up or down around the setpoint. For complete instructions on this process, refer to the end of this manual for original instructions from the manufacturer. Here is a simplified version of how to do this. The best way to tune your machine is tune at the setpoint. Let the machine heat up to the setpoint. Enter the program mode by pressing the left gray once. The controller will display AT ON and the display will begin to flash on and off until finished with its computation. The controller will do this for approximately ten to fifty minutes. When the controller has finished its auto tune process, the controller will display AT OFF. To display the process temperature again, press the left gray button once. The controller is now auto tuned and ready to be used. After this procedure is finished, the controller will switch back to displaying the current temperature. This process will set all the values in the temperature controller, except the control period for the process.

### **Calibrating a Difference between Display Temperature and Actual Temperature**

Eventually, due to wear or other influences, the actual temperature on the platen may differ from the temperature displayed by the temperature controller. To adjust the controller difference, first the controller must be in the program mode. To do this, press the left gray button once. Once in the program mode,

press the continuous oval button once. The controller will display "iN S". Press the up or down arrow keys until the read value has an increase or decrease corresponding to the difference in the actual and display temperature. For example, if the plate temperature is 400 degrees and the controller display temperature is 350 degrees. The value for the "iN S" should 50. Wait ten minutes and repeat this process until there is no difference between the temperature displayed and the actual temperature.

## **Omron E5GN**

### **To Set Temperature Desired on the Controller**

Depress up or down arrow keys. Setpoint temperature is in the lower right corner.

### **To Recalibrate Controller (i.e. controller display temperature is different than actual temperature.**

Press  (gray button) once. AT OFF is displayed

Press  until in5 is displayed. Input value of the difference with up and down arrow keys.

Press  once to return to display temperature.

### **To Tune Controllers**

Press  once. AT OFF is displayed.

Press up arrow once. AT ON is displayed. Allow machine to run. It will take 10 minutes to 1 hour.

AT OFF is displayed when the controller is finished.

Press  once to return to display temperature.

## Parts List

<b>PART NO.</b>	<b>QUANTITY</b>	<b>DESCRIPTION</b>
415/101	1	Transformer 500 VA
415/102	1	Solenoid Valve 3-way 1/8 NPT
415/103	1	Motor 1/3 HP 90VDC
415/104	1	Speed Controller
415/105	1	Terminal Block
415/106	2	Octal Relay 8 Pin
415/107	2	Octal Base
415/108	1	Time Delay Plug-In Type
415/109	1	Fuse Block 2 POLE 60A
415/110	1	Fuse Block 2 POLE 30A
415/111	1	Panel Fuse Holder
415/112	1	Main Switch Hand-Off-Auto
415/113	1	Start Switch w/ Light
415/114	2	Stop Button Mushroom Head
415/115	1	Toggle Switch On-Off
415/116	1	Temperature Controller CAL 3200
415/117	1	Regulator Panel NAR 2000 1/8 NPT
415/118	2	Regulator Unwind/Rewind NAR 1000 M5
415/119	1	Panel Gauge
415/120	2	Heat Sink 1.0
415/121	2	Solid State Relay 125A
415/122	2	Fuse 60 A
415/123	2	Fuse 20 A
415/124	1	Fuse 1 A
415/125	1	Helical Speed Reducer
415/126	1	Filter/Lubricator/Regulator
415/127	1	Regulator w/gauge 35 PSI max
415/128	1	Heater Coil 9.6 kW 240 V
415/129	1	Thermocouple Probe w/ Wire
415/131	1	Thermocouple Pipe w nuts
415/132	1	Thermocouple Probe Holder
415/133	1	Axial Fan 5 1/4"
415/134	1	Power Distribution Block
415/135	1	Main Roller Idler 5" DIA
415/136	1	Main Roller Drive 5" DIA
415/137	1	Rear Roller Idler 4" DIA
415/138	1	Tension Roller 4"
415/139	1	Bearing Housing for Tension Roller
415/140	3	Bearing Housing 1 1/4 "I.D. Aluminum
415/141	3	Bearing Housing 1 1/4" I.D. Steel
415/142	2	Double Bearing Housing for unwind/rewind

415/143	1	Bearing Housing for Printing Drum
415/144	3	Paper Roller Housing Side Adjustment
415/145	3	Paper Roller Shaft
415/146	3	Paper Roller w/ bearings
415/147	6	Bearings for main rollers 1 ¼" I.D.
415/148	2	Bearings for Unwind/Rewind 1 ¼" I.D.
415/149	2	Bearings for Printing Drum 190mm
415/150	4	Blotting Paper Shaft Bearings
415/151	2	Blotting Paper Shaft
415/152	2	Unwind/Rewind Brake/Clutch Unit
415/153	1	Sprocket for Clutch Unit
415/154	1	Printing Drum
415/155	7	Paper Pull Rollers
415/156	1	¼ dia Rubber Drive Belt
415/157	1	#35 ANSI Roller Chain
415/158	1	#40 ANSI Roller Chain
415/159	1	Sprocket #35B32 transmission shaft
415/160	1	Sprocket #40B20 motor
415/161	1	Sprocket #40B10 tensioner long arm
415/162	1	Sprocket #40B20/35A32 welded main roller
415/163	1	Sprocket #35B19 transmission shaft
415/164	1	Sprocket #35B10 tensioner short arm
415/165	1	Sheave ¼ dia beltway
415/166	1	Transmission Shaft for Pull Rollers
415/167	1	Heater Holder Assembly
415/168	1	Main Control Panel
415/169	1	Pull Roller Bracket Arm
415/170	7	Pull Roller Shaft
415/171	2	Paper Unwind Square Tubing
415/172	1	Paper Unwind Bracket
415/173	2	Infeeding Substrate Guide Bracket
415/174	4	Infeeding Substrate Guide Rods
415/175	24	Infeeding Substrate Guide Collars
415/176	4	Casters
415/177	4	Leveling Feet
415/178	1	Flange Bearing 1" I.D. FL205
415/179	1	Pull Bearing 1" I.D. P205
415/180	1	Pivot Bearing for Tension Roller
415/181	1	Lever Arm for Tension Roller
415/182	1	Pivot Bearing for Tension Roller
415/183	1	Tension Roller Shaft
415/184	1	Tension Roller Pivot Arm Shaft
415/185	1	Tension Roller Pivot Arm Locator Collar
415/186	1	Nomex Belt 10" wide
415/187	1	Nomex Belt Guide Channel
415/188	1	Nomex Belt Guide Rod w/ bracket

415/189	1	Scraper Bar w/ Rod
415/190	2	1/8 NPT Coupling
415/191	2	Elbow 1/8 NPT 5/32 Tube