

Thermopatch

Y151 Thermo-Seal

Temporary Marking Machine

Operator's Manual



47117-MAN
Rev 1214

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EC - STATEMENT OF CONFORMITY

As manufacturer the company

Thermopatch BV
Draaibrugweg 14-16
1332 AD ALMERE - NETHERLANDS

confirms that the machine for temporary marking **Thermo-Seal Y-151** meets the requirements in the EC directives for machine safety and health rules and is in accordance with the EC directives for machinery listed in **Table 1**.

The Thermo-Seal Y-151 meets the requirements in the EC directives for low voltage and electromagnetic compatibility in accordance with the EC directives listed in **Table 1**.

The Thermo-Seal Y-151 meets the requirements in the EN listed in **Table 1**.

Directive	Title
73/23/EEC	Low Voltage directive
89/336/EEC	EMC Directive
89/392/EWG	EC Machinery Directive
89/368/EWG	EC Machinery Directive
EN 61000-4-2 till 6	EMC Testing & Measurement Techniques "EMC Immunity Test"
EN 61000-4-11	Testing and Measurement Techniques, Voltage Dips, Short Interruptions, and Voltage Variations Immunity Test
EN 55014-1 & -2	EMC "household appliances, electric tools and similar apparatus"
EN 55022	EMS Testing Standard "Information Technology Equipment"

Table 1 – EC Compliance

J. Bausch
Director

Description

The Y151 **Thermo-Seal** is a machine for the temporary marking of garments and other textile items.

Temporary marking of a garment or textile item is achieved without the use of chemical solvents or other harmful materials. By means of an ink ribbon cartridge, a code (maximum of 12 characters per label) is printed directly onto the thermo-seal label tape, and it is sealed directly onto the garment or textile item.

Most garments or textile items can be marked directly. For garments over very sensitive fabric, there are alternative methods of fixing the temporary label to the garment. The most common option is to print an extra-long label. The extra-long label is inserted through the button hole of the garment, and then the ends are sealed together. Another option is to seal directly onto a “flag tag”. The flag tag is then stapled or pinned onto the garment.

The Thermo-Seal label type is specifically designed to adhere to the garment or other textile item through the cleaning process and then be easily removed without leaving any label residue on the garment. Thermo-Seal label tape is available in ten different colors.

The colors of the Thermo-Seal label tape, and the printed code on the label, offer a variety of ways to sort garments.

The Y151 **Thermo-Seal** machine operates electrically and pneumatically, through use of compressed air. The code to be printed on the label tape is entered through the machine keyboard. Raising the Press Arm engages the pneumatic system to automatically cut and seal the label tape onto the garment or textile item.

Time, temperature, and other optional settings can be entered through the machine keyboard. The time and temperature, as well as other information, can be viewed from the Keyboard LCD Panel.

The new heater unit design, as well as electronics, ensures the consumer of lower energy consumption and a safer work environment.

Safety Tips

The Y151 **Thermo-Seal** machine has been designed with optimum safety for the machine operator in mind. However, there are some precautions that must be taken when operating and servicing the machine.

Always turn off and unplug the machine when doing maintenance or cleaning the machine.

Ensure that there is sufficient space around the machine. Cables and connections must not get jammed.

Do not come in direct contact with the Heating Unit, as contact will cause burns.

Installation

What Did You Receive?

The Y151 **Thermo-Seal** machine has been packed in a cardboard shipment container with laminated foam protection cradles on each end to prevent any damage from shipping. Various components of the Y151 **Thermo-Seal** machine can be found packaged within. The Y151 **Thermo-Seal** comes complete with the following components:

- Y151 **Thermo-Seal** machine with keyboard
- Ink Ribbon Cartridge RC2410-15
- Line Power Cord 115 volt #20080-70 or 230 volt #41969
- Label Tape Cassette Storage Rack #47068
- Label Tape Cassette, quantity of 6 #47083
- A roll of white **Thermo-Seal** Label Tape #TS4635-01
- Air Filter Pressure Regulator #47094
- Main air line hose #DH-6795
- Rubber Sealing Platen #DH-3187
- Button head socket hex screws, 2 #21061-26-N
- Hex L-Key, 4mm #24085-14 (prior to January 2015)
- Ez-Off Cleaner Thermopatch #DH-6873 or SPADH-6873

If one of these components is missing or damaged, please contact your Thermopatch Sales Representative.

Available Accessories for Machines produced beginning January 2015

- TP P/N 47309 1.5 m (60") of 6mm Tubing
- TP P/N 47310 6 mm Male Connector
- TP P/N 47311 Metric Hex Key Kit (contains sizes 2.5, 3-6 mm)
- DH-3187 Sealing Platens Add 2 additional platens to the kit.

Thermo-Seal Label Marking Tapes — additional colors are available

TS4635-01	White	TS4635-08	Green
TS4635-02	Tan	TS4635-09	Red
TS4635-03	Blue	TS4635-11	Orange
TS4635-05	Gray	TS4635-13	Pink
TS4635-06	Lavender	TS4635-14	Gold
TS4635-07	Yellow		

Transport Instructions

Upon receipt, your Y151 **Thermo-Seal** machine is packed in a cardboard shipment container with laminated foam protection cradles for protection of your machine during shipment. **Retain original packaging** in case the machine should need to be returned for service. Please let the machine cool down before packing the machine in the shipment container.

Installing the Machine

Take the Y151 **Thermo-Seal** out of the shipment container and put the machine on a worktable near a grounded socket. Ensure there is sufficient free space around the machine.

Pneumatic Requirements

The Y151 **Thermo-Seal** Machine also requires a **clean dry air supply** to operate properly. The line pressure coming into the Y151 **Thermo-Seal** Air Filter Pressure Regulator should be a minimum of 70 P.S.I. or 5 Bars. **This is not the final pressure setting for the Air Filter Pressure Regulator on the Y151 Thermo-Seal machine.**

To confirm the machine air pressure is correct, check the gauge located on the front of the filter. The gauge should register 60 P.S.I. (Imperial measurement) or 4 Bars (metric measurement).

1. Connect a **clean dry air** supply to the Air Filter Pressure Regulator.
2. Connect the Air Filter Pressure Regulator by screwing the component onto the threaded elbow, positioning the gauge so it can be read.
3. Connect the Air Hose by pushing the receptacle firmly onto Air Inlet Fitting. Make sure the air line is connected securely and the air gauge is working.
4. To adjust air pressure setting, pull up the knob on top of the Air Filter Pressure Regulator to unlock the adjustment knob.
5. Slowly turn the knob clockwise to increase air pressure or counterclockwise to decrease air pressure until the gauge registers 60 P.S.I. or 4 bars.
6. Push down on the knob to lock the current setting in place.

CAUTION! The maximum machine operating pressure is 100 P.S.I. or 7 Bars.

The Y151 Thermo-Seal machine comes pre-set at 60 P.S.I. or 4 Bars.

Oil or water in the air supply will damage the valves and cylinders of the machine.

Damage from water or oil IS NOT covered under warranty

Electrical Requirements

Connect the Y151 **Thermo-Seal Machine** to the electricity grid (230V or 115V alternating current). Use the Line Power Cord provided with the machine. Electrical Specifications: 115 volts (50/60 HZ) Single Phase; 230 volts (50 HZ) Single Phase. All 230v machines use two 250v – 3.15 amp fuses. All 115v machines use two 250v – 6.3 amp fuses.



Figure 1 — Power Entry Module, 115 V



Figure 2 — Power Entry Module, 230 V

Changing the Input Voltage Setting

1. Turn off the machine using the ON/OFF switch the Electrical Chassis Assembly
2. Disconnect the power cord from the machine
3. Note the Line Voltage Indicator on the Power Entry Module located on the Electrical Chassis Assembly. Refer to Figure 1 for the 115 VAC setup, and Figure 2 for the 230 VAC setup.
4. Carefully pull open the Power Entry Module Fuse Holder using the tab located on the right hand side of the Power Entry Module.
5. Carefully remove the Fuse Holder from the Power Entry Module
6. Remove the two fuses from the fuse holder and replace with two fuses proper to the desired voltage. For 115 Volts, use P/N 20015-32, 250 VAC 6.3 AMP; for 230 Volts, use P/N 20015-26, 250 VAC 3.15 AMP
7. Rotate the fuse holder to show the desired voltage in the Power Entry Module window. Refer to Figures 1 & 2
8. Carefully re-install the fuse holder in its slot to show the desired Line Voltage in the Power Entry Module Window.
9. Close the Fuse Holder on the Power Entry Module.
10. Connect the correct power cord for the voltage to the Machine
11. The machine is ready to be operated from your desired VAC.
12. Refer to the operating instructions to operate the machine.

Label Tape Storage Rack Installation

The Y151 **Thermo-Seal** machine comes complete with a Label Tape Storage Rack and six Label Tape Cassettes. The rack can hold a maximum capacity of eight Label Tape Cassettes.

Attachment of the Label Tape Storage Rack requires the use of a 4mm L-Hex Key provided. The Label Tape Storage Rack is attached to the Y151 Thermo-Seal machine chassis with the two M6 x 1.0 x 40mm long screws provided. Insert the screws through the clearance holes in the Label Tape Storage Rack engaging the threaded inserts in the machine chassis. Use the 4mm L-Hex Key to tighten the screws.

Slide the Label Cassettes (6) over the square center post of the Label Tape Storage Rack. Correct position of the Label Tape Cassettes is with the hinge portion of the cassette towards the back and the slotted opening towards the front.



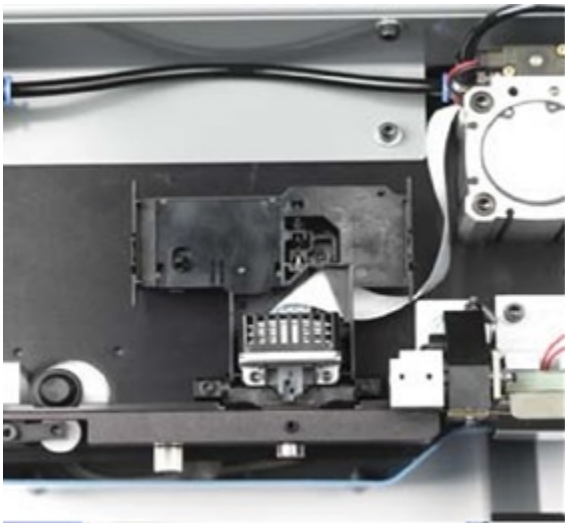
Figure 3 — Label Tape Storage Rack Installation

Operating the Thermo-Seal

Ink Cartridge Installation

The Y151 **Thermo-Seal** machine comes complete with an Ink Ribbon Cartridge, Thermopatch part #RC2410-15. The Ink Ribbon Cartridge is required to print the desired code onto the temporary label tape.

To Install the Ink Ribbon Cartridge:



1. Open the hinged Machine Top Cover all the way back until it comes to rest.

2. **Remove the** Ink Ribbon Cartridge from the box and the sealed plastic bag.

3. Clasp the tabs on each side of the Cartridge (**A**) and guide the Ink Ribbon between the Ink Ribbon Mask and the Printer Head. When properly installed, the Cartridge will snap in place.

4. Turn the Ink Ribbon Advance Knob (**B**) clockwise to advance the Ink Ribbon and remove any folds that may have occurred during insertion of the Ink Ribbon Cartridge.

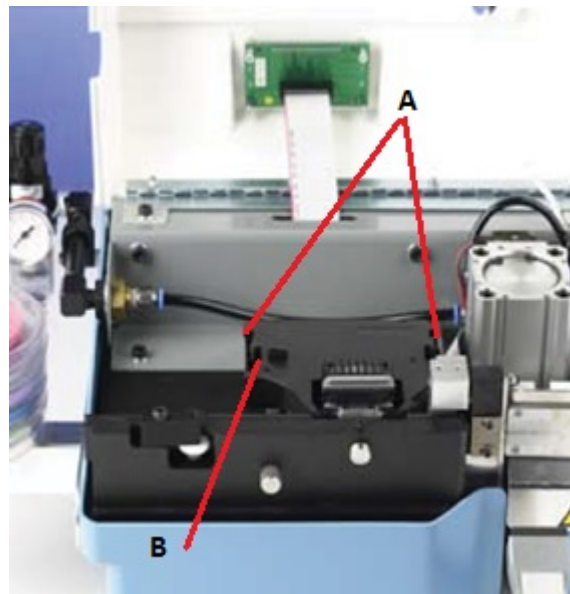


Figure 4 — Ink Ribbon Cartridge Installation

Inserting the Label Marking Tape

1. Switch the Power Entry Module Switch **“ON.”**
2. Place the Label Marking Tape into a Label Tape Cassette and place the Cassette onto the Label Tape Cassette Storage Rack.
3. Pull out approximately 12” or 30cm of tape from the Label Tape Cassette.



4. Insert the Label Marking Tape into the Tape Feed Guide entrance, making sure the adhesive (shiny) side faces the front of the machine.
5. Push the Label Marking Tape into the Tape Feed Guide until it can go no further.

6. Depress the F1 (Load Tape) key. The label tape will begin to advance toward the heater. Once the label tape is visible in front of the heater, release the F1 key. Raising the machine’s press arm all the way up will cut the tape and complete the load tape function. This action will also align the label tape and ready the machine for printing.

Should you encounter a splice in the roll (marked by silver tape), remove the section using scissors and re-insert the label marking tape into machine.



Figure 5 — Label Marking Tape Insertion

Machine Operation

Before printing and sealing with your Y151 **Thermo-Seal** machine, make sure you have completed all instructions for installation (see **Installation Section**). In review, the following should be completed:

- Loaded the Label Marking Tape into the Tape Feed Guide.
- The green “**POWER ON**” LED is illuminated on the LCD Panel.
- The green “**HEAT ON**” LED is pulsing or flashing on the LCD Panel.
- Verified that no oil or water is in the air supply.
- Verified that there are no air leaks
- Pressure is set to 60 PSI (4 BAR)
- Ink ribbon is firmly snapped into place.
- Label tape is properly loaded.

LCD panel

Before you begin printing and sealing, you should understand the features, messages and icons present on the LCD panel of the Y151 Thermo-Seal machine.

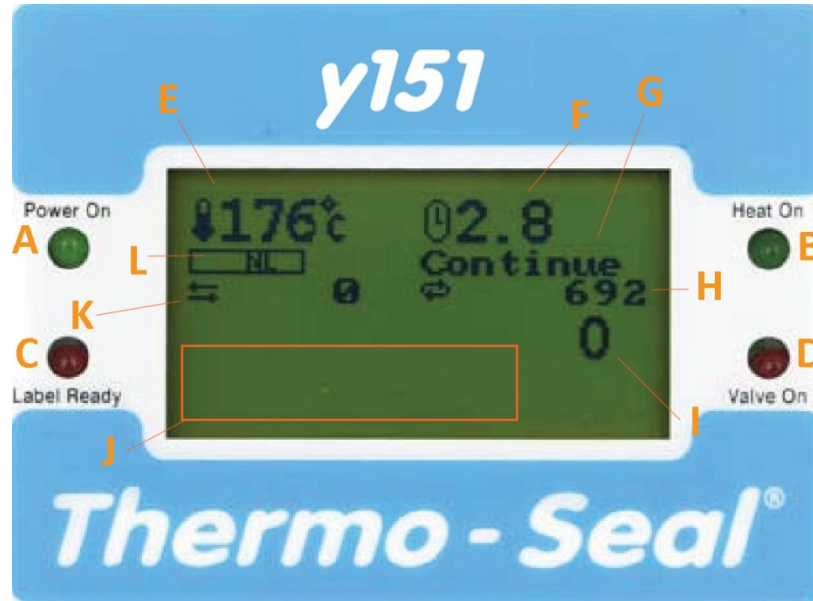


Figure 6 — LCD Display

The picture of the LCD above illustrates the Y151 in “Ready” mode.

- A. Illuminated green LED indicates the power is “ON.”
- B. Illuminated green LED indicates the heat is “ON” and rising to operating temperature. Flashing LED indicates the machine has reached operating temperature.
- C. Illuminated red LED indicates label is ready to be sealed.
- D. Illuminated red LED indicates the machine is sealing.
- E. Machine Operating Temperature icon: Temperature in either Celsius or Fahrenheit. The picture above shows the machine is operating at the factory setting 176° C or 349° F.
- F. Sealing Time: The normal sealing time is 2.7 seconds. An optional 4.8 seconds sealing time is available for thick, damp, or dirty objects.
- G. Operation mode: Label Quantity, Single Label or Continuous.
- H. Total Production Counter- Number of labels sealed since the machine was installed. The continuous counter cannot be reset.
- I. Bundle Quantity: Number of labels to be sealed per bundle. Counter will count downward from the number placed into the Bundle Quantity queue by the machine operator.
- J. Text Entry Line: up to 12 alphanumeric characters can be entered to be printed on labels.
- K. Daily Production Counter: Number of labels sealed in the time in which the machine has been operating. Resets after machine is switched off.
- L. Label Length: NL stands for Normal Length. Extra Length “EL” is available to the machine operator as well.

Customizing the Y151 Thermo-Seal

The Y151 Thermo-Seal machine software has a number of factory default settings, such as: Sealing Temperature, the Display Language, the Label Marking Tape Length, and the Password to the Special Settings Mode.

The Y151 **Thermo-Seal** software can be customized to your personal requirements. These changes to the factory settings in the machine software can be accessed through the **Special Settings Mode** in the **Keyboard Options F8** menu.

The Y151 **Thermo-Seal** factory settings are sufficient for normal daily processing of garments and textile items. However, shortcut **Thermo-Seal Function Keys** are provided to allow for changes to the standard software settings while processing. The **Thermo-Seal** Function Keys allow for the exceptions that are encountered without having to continually change factory software settings.

Table 2 — Shortcut Function Keys

Key	Display	Description
F1	Cut Tape	Cut Label Tape
F2	Load Tape	Load Label Tape
F3	2.7 / 4.8	Toggle between Normal and Heavy seal time
F4	NL / EL	Toggle between Normal Length and Extended Length
F5	Display Totals	Toggle Display Totals On/Off
F6	Double Strike	Print Label text darker
F7	Reset Day Counter Sure Y/N	Reset the Daily Counter
F8	1 = Settings 2=Special Mode 3=End	Activate <i>Settings</i> menu Activate <i>Special</i> menu Exit and return to display
F9	Repeat Last Label	Repeat Previous Label text
F10	Insert On/Off	Display last character in text line
Numlock	Current operating temperature	Toggles between operating temperature & main display
Backspace	No Display shown	Ends bundle or series, display is ready for new entry

Table 3 — Settings Menu

Menu	Display	Description	Adjustment	Default
1 = Temperature	Temperature	Change Temperature	Up/Down Arrow Key 1° or 1° C	176°C/349°F
2 = Seal Time	1 = Normal Time 2 = Ext. Time	Change Normal Seal Time Extended Seal Time (heavy)	Up/Down Arrow Key 0.1 second Left/Right Arrow Key 1.0 second	2.7 Sec 4.8 Sec
	3 = Sec. S. Time	Second Seal Time (Long Label Tag)	Up/Down Arrow On/Off Left/Right Arrow Key On/Off	On
3 = Label Length	1 = Normal Label 2 = Ext. Label	Normal Extended Label	Up/Down Arrow Key 1 unit Left/Right Arrow Key 10 units	10 100
4 = Characters	Characters Number	Change number of characters in use	Up/Down Arrow Key 1 character Left/Right Arrow Key 10 character	6
5 = Automatic Numbering	Auto Numbering Off	Turns Auto Numbering On or Off	Up/Down or Right/Left Arrow Key turns Auto Numbering On or Off	Off
6 = Language	Language 1 = Deutsch 2 = English 3 = Espagnol 4 = Francais 5 = Nederlands	Choice of Operation Language	Up/Down Arrow Key cycles through the Language menu. To select, press the Enter Key	English
7 = Celsius/Fahrenheit	Celsius/Fahr	Change Temperature Scale	Up/Down Arrow Key selects desired Temperature Scale	Celsius
8 = Serial Port	Serial Comm Off	Serial Port Function Setting	Up/Down Arrow Key selects desired setting: On or Off	Off
9 = Operation Mode	1 = Label Quant 2 = Single Label 3 = Continue	Operation Mode	Select menu number	1
	Sub Menu		Sub Menu	
	1 = Invoice Before 2 = Invoice After 3 = No Invoice	Use of Invoice	Select menu number	3

Table 4 — Special Mode

Menu	Display	Description	Adjustment	Default
	Type Password	Password required to make changes to defaults	Type in password and press Enter Key	Password Y150TP
1	Factory Reset Sure Y/N	Change factory settings	Press Y for Yes or N for No	N
2	Password On	Turns Password function On or Off	Up/Down Arrow Key On/Off	ON
3	Edit Passw Type Sure Y/N	Edit Password and set new password	Enter Y for Yes or N for No Type in current password and press Enter Key	Default Password Y150TP
	Sub Displays			
	Change Password Password again Succeeded	Requests new password Verification of new password New password is set	Enter new password Re-enter new password	
4	Temperature Offset	Change temperature offset setting	Up/Down Arrow adjust 1°C or 1° F Left/Right Arrow adjust 10°C or 10° F	0
5	Left Margin 10	Adjust left margin label distance	Up/Down Arrow adjust 1 unit Left/Right Arrow adjust 10 units	10
6	Print Quality 2	Adjustments to the label print quality	Up/Down Arrow adjust 1 unit	2

Temporary Marking

Temporary, removable marking is used by laundries, hospitals, hotels, textile suppliers, textile care companies, and various other industries. The Y151 **Thermo-Seal** Machine is designed to be used for temporary marking of garments and textile items.

Almost all garments or textile items can be marked **directly** or **indirectly**. Because of the variety of fabrics, it is very important to **follow some instructions on textile care**.

The default operating temperature of the Y151 Thermo-Seal machine is **176°C or 349°F**. Materials that are sensitive to heat cannot be marked directly.

The mark on garment labels **“Only wash/iron at low temperature”** can also indicate that the colors are sensitive to high temperatures or that the heating of the finish on the fabric can cause the color to change.

If you are not sure about the sensitivity of the fabric, please mark the garment or textile item indirectly. If there is no possibility for indirect marking, the garment or textile item must be washed in a washing net that has been marked. Be very careful when you want to mark articles that must be cleaned chemically. The message “Only Dry Cleaning” normally means that the garment or textile item is sensitive to heat, pressure, and detergents.

Sealing Label Tags and Organization

There are ten different colors of Label Marking Tape for organizing and sorting purposes. The colored tapes can be used for both the entire operations for a customer and for the different lots.

Bundle Lot System

One of the more popular systems is the **Bundle Lot System**. Garments from multiple customers or sources can be mixed while washing but easily sorted.

Typical labels for a Bundle Lot System are as follows:

1. A01-05	2. 3A01-05
A= Week number 01= Lot number in that week 05= Customer bundle number	3= Number of pieces in the order A= Week number 01= Lot number in that week 05= Customer bundle number

The tape color is changed at the end of each lot. The lot number is advanced by 1 and the bundle number is reset to 1. The colors are always used in the same sequence.

Day Lot System

On the Day Lot System, one color is designated for all articles received on a specific day of the week. All laundry is processed for a 1 or 2 day turnaround and the entire lot is sorted together. Items that get misplaced or out of lot are easily identified by their color.

1. M 12345 or 1-12345	2. 01M2345	3. 03M2345
M or 1= Monday or Day 1 12345= Invoice number	01= Week number M= The day 2345= Invoice number	03= Number of pieces in order M= The day 2345= Invoice number

Route Location System

This system uses the color of the tag to designate the route or the store location. In many cases, items are processed, folded, and sent to the store location for sorting by counter personnel. The number of locations is limited to the number of colors available.

1. 24-1234	2. 3-24-1234
24= Location Number 1234= Invoice or bundle number	3= Number of pieces in the order The rest is the same as Item 1.

Invoice Number System

The number on the tag is the invoice number. It is often accompanied by the number of pieces, the day of delivery, the location or lot number. Tag color is usually changed after a set number of bundles or at the end of each day.

1. 3-24-12345	2. 3M1234
3= Number of pieces 24= Location 12345= Invoice number	3= Number of pieces M= Day of delivery 1234= Invoice number

Hotel Room Number System

This system uses the room number and the date the item is received on the tag. The color changes each day so that items that are short are easily identified. Occasionally the number of pieces in the order is listed as the first number.

1. 20-1234	2. 03-1235
20= Date received 1234= Room number	03= Number of pieces in order 1235= Room number

Nursing Home/Elderly Home

Today, most Nursing Homes use a permanent label to identify the resident's garments. When a temporary label is used, the tag usually is used to denote location. The numbering usually denotes the room or apartment location.

1. B 435	2. 1435
B= Building designation 435= Room number	1435= Room or apartment number

Normal Label Tag Marking

Label Tags are sealed directly onto the garment or textile item. Placement of the Label Tag should be done in the correct position for the garment or textile item.

Thick, Dirty or Damp Garments and Textile Items

Label Tags are sealed upon thick, dirty, or damp garments and textile items in the same manner as described in the previous section, Normal Label Tag Marking. However, thick, dirty, or damp garments and textile items require more time to securely adhere the Label Tag to the garment or textile item. Therefore, a Sealing Time of 4.8 seconds “Heavy” is used to correctly seal the Label Tag to the garment or textile item. The machine operator can change from Normal seal time to Heavy seal time by using the F3 Thermo-Seal function key.

Sensitive Garments or Textile Items

Label Tags that cannot be sealed directly on sensitive garments or textile items can be sealed indirectly using the “Extra Length” option. The Extra Length option can be activated by using the F4 function function key. When the Extra Length option is activated, the display will show “EL”. The Extra Length tag will have the desired code printed onto the label tag.

The Extra Length label tag can be made longer by pressing the F4 function key when the printed label is positioned in front of the heater element and ready to be sealed.

Raise the press arm to cut the tag. Pass the long label tag through the top buttonhole of the garment or opening in the textile item. Fold the ends of label tape together and position the ends in front of the sealing platen, with the printed code facing the heater.

Raise the press arm to seal the ends of the tape together.

Attention! Thermopatch cannot take any responsibility for any damages to garments or textile items that occur by the use of this machine.

The Use of Flags on Sensitive Garments

There is an alternative **indirect** Label Tag marking method. The alternative method uses “**flags.**” The Label Tag with desired code is printed, cut, and sealed onto the flag. The flag is then fastened to a button on the garment, in a manner in which the flag cannot come loose.

**Attention! To ensure proper sealing of the Label Tag ends, be sure that both ends of the Label Tag are parallel to each other. To complete the seal, hold the Label Tag at the garment or textile item.
CAUTION! Be sure to keep your fingers clear of the Sealing Platen.**

Interrupting the Sealing Cycle

At any point in the process of printing, cutting, or sealing, the machine operator can interrupt the Sealing Cycle. Depressing the **Esc** key will exit the process cycle allowing the machine operator to initiate any necessary changes or activation of sub-routes.

Troubleshooting

Before referring to the following information, check for proper setup and operation as outlined in preceding sections of this manual. Some repair procedures require a person with mechanical and electrical skills.

Table 5 — Troubleshooting

Failure	Possible Causes	Solution
Machine does not function	Not connected to outlet No line power to outlet Fuses blown in Power Entry Module	Check outlet Check fuses in Power Entry Module
Sealing pressure fluctuates	Leak in Air Supply Hose Dust or water in air lines, regulator, or Solenoid Valve	Repair or replace Disassemble and clean
Machine does not seal	Insufficient air pressure Press Arm Limit Switch defective Solenoid Valve not engaged	Check and adjust air pressure regulator Check wiring or replace switch Check wiring and air lines at fittings; replace solenoid.
No Heat	No power to machine Heater Element defective, or Temperature Sensors defective, or Solid State Relay defective or Main Controller Board defective	Check outlet and fuses Replace
Error Detected: Heater Defective	Defective Heater Element	Replace
Error Detected: PT 1600 Defective	Defective Temperature Sensors	Replace
Temperature too high or too low	Temperature settings have been changed Temperature sensors are defective	Reset temperature settings Replace Sensors
Poor sealing quality	Temperature setting is incorrect Air pressure setting is incorrect Sealing time is incorrect Heater shield is loose or dirty Sealing Platen is worn or dirty	See Table 3 — Settings Menu See Pneumatic Requirements pg 7 See Table 3 — Settings Menu Correct or clean Replace or clean

Poor printing quality	Ink Ribbon Cartridge dry Ink Ribbon in cartridge not moving Print head defective Text spacing incorrect	Replace Replace Replace See Table 3 — Settings Menu
Printed text has horizontal type blanks	Printer Head is defective Controller Board is defective	Replace Replace
Dynamic Knife does not cut Label Marking	Dynamic Knife is dull Dynamic Knife Cylinder is not actuating	Replace Check air line tube connections or replace Knife Cylinder
Label Marking Tape is jamming in the Tape Guide	Tape Guide is dirty Splice in Label Marking Tape or fold in tape	Clean Int. & Ext. Tape Guide, see Tape Guide, pg 23 Remove tape and cut off spliced tape section
Unreadable or no LCD Panel Display	Loose connection at LCD Panel or Controller Board Defective Ribbon Cable Defective LCD Panel	Reset Ribbon at LCD Panel or Controller Board Replace Replace
Incorrect Character Spacing on Label Tape	Obstruction in Tape Guide Worn Spindle Drive Ring Defective Stepper Motor	Clean Tape Guide Replace, see Label Tape Drive "O"-Ring, pg 24 Replace
Marks on garment or textile item	Ink buildup on Rubber Platen Ink buildup on Heater Shield	Clean or replace
Textile is discolored during sealing	Textile is temperature sensitive or textile care symbols disregarded Time setting too long Temperature too high	Mark with Extra Long Label Tag or with Label Flag Decrease time Correct temperature
Labels become loose on left side	High mechanical load during washing or cleaning Temperature too low Sealing pressure too low Sealing time too short	Replace Rubber Sealing Platen Correct temperature Correct pressure Correct time

Maintenance

Before beginning any maintenance on your Y151 **Thermo-Seal** machine, finish any process cycles that may be started. After the process cycles have been completed, maintenance upon the machine may commence.

Attention! Before beginning maintenance, unplug the Main Air Supply Line Hose to the Air Filter Pressure Regulator and unplug the Line Power Cord from the electrical supply.

Maintaining a clean machine will extend the service life of the Y151 Thermo-Seal machine. The following is the recommended cleaning schedule for various parts of the Y151 **Thermo-Seal** machine.

Daily Cleaning & Maintenance

To optimize performance of your Y151 **Thermo-Seal** machine, the following parts or areas should be cleaned on a **Daily** basis:

- **Heater Shield:** should be cleaned following the schedule outlined in **Heater Shield**, pg 23.
- Rubber Sealing Platen
- **Tape Guide:** clean following directions in **Tape Guide**, pg 23

Weekly Cleaning & Maintenance

To optimize performance of your Y151 **Thermo-Seal** machine, the following parts or areas should be cleaned on a **Weekly** basis:

- **Machine Top Cover/LCD Panel:** remove dust and lint.
- **Interior Machine Platform:** remove dust and lint.

Semi-annual Cleaning & Maintenance

To optimize performance of your Y151 **Thermo-Seal** machine, the following parts or areas should be cleaned on a **semi-annual** basis:

- **Machine Electronics Compartment:** underside of Interior Machine Platform. Requires removal of Right and Left Machine Covers.
- **Heater Shield:** inspect, clean, or replace.
- **Rubber Sealing Platen:** inspect, clean, or replace.
- **External Tape Guide Teflon Shield:** inspect, clean, or replace.

Heater Shield

Clean the Heater Shield several times a day. To clean the Heater Shield, use the provided cleaning paste, “Ez-Off” (Thermopatch #DH-6873 or SPADH-6873).

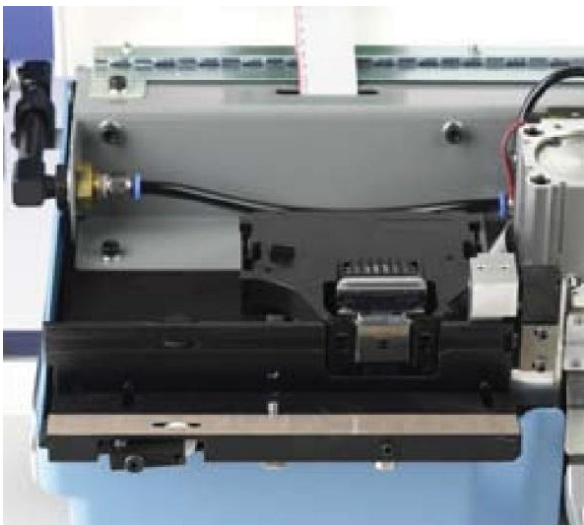
Ez-Off cleaning paste is available for purchase through our Customer Service network.

To clean the Heater Shield, put some paste on a dry cloth and clean the Heater Shield while it is still warm, **but not hot enough to cause burns to your skin**. When cleaning the Heater Shield, **never use chemicals, solvents or abrasives that can scratch** the Heater Shield.

A Heater Shield that is no longer smooth should be replaced. A Heater Shield that develops a buildup of ink or of which the smooth surface has been damaged will affect the print quality of the Label Tag.

Built-up layers of ink or dirt on the Heater Shield can cause an insulating effect. The insulating effect can cause a reduction in surface temperature at the Heater Shield. **Lower surface temperature is the main cause of Label Tag losses during the laundering process.**

Tape Guide



The Tape Guide in the Y151 **Thermo-Seal** machine is accessible from the front of the machine under the hinged Machine Top Cover.

Open the machine and run a clean, dry cloth along both surfaces.

Figure 7 — Tape Guide

Label Tape Drive “O”-Ring

The **Label Tape Drive “O”-Ring** transports the Label Marking Tape through the Tape Guide. The Label Tape Drive “O”-Ring is a part that will wear over a period of time. The life cycle of this part is relative to the amount of machine usage.

The following narrative with sequence of pictures will take you through the process of removal and installation of a new Label Tape Drive “O”-Ring.

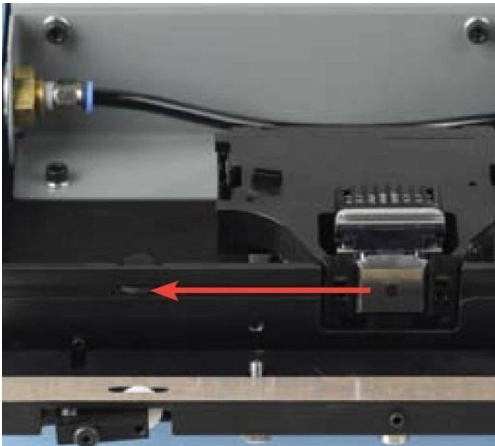


Figure 8 — “O” Ring location

Prior to opening the Machine Top Cover to expose the **Tape Guide** and **Label Tape Drive “O”-Ring**, switch the power to the machine to the “Off” position and unplug the machine from its electrical source. The picture to the left illustrates the Machine Top Cover of the Y151 Thermo-Seal open with the External Tape Guide removed.

Loosen (but do not remove) the two socket hex cap screws retaining the **Internal Tape Guide**. Tilt the Internal Tape Guide forward (toward you). Remove the **Label Tape Drive “O”-Ring** by sliding the “O”-Ring up off of the **Label Tape Drive Spindle**. Install the new “O”-Ring by sliding the “O”-Ring down over the Label Tape Drive Spindle until it is seated in the “O”-Ring groove on the Drive Spindle.

After the new “O”-Ring has been installed, slide 0.015” [0.4mm] shim stock at each end, between the **Upper Chassis Platform** and the **Internal Tape Guide**. Tighten the socket hex cap screws, and reinstall the **External Tape Guide**.

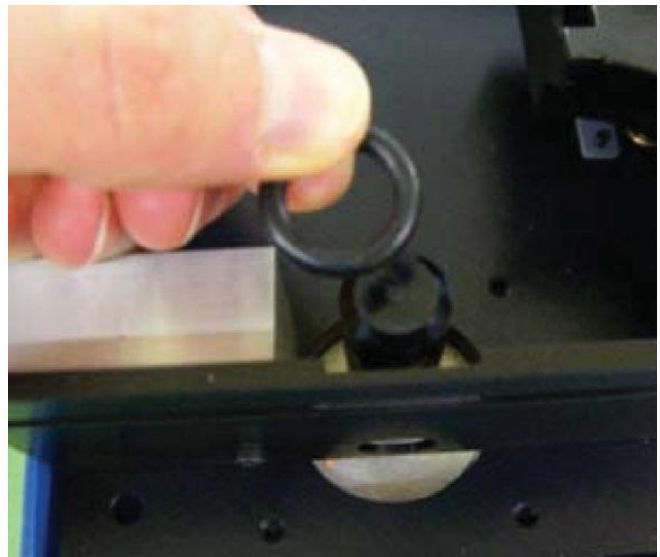


Figure 9 — “O” Ring Replacement

Drawings and Parts Listing

On the following pages, the reader will find technical drawings and corresponding parts listings of the Y151 **Thermo-Seal** machine. The technical drawing illustrating a particular sub-assembly or area of the machine will precede the parts listings.

The reader will find that the technical drawings and corresponding parts listings are arranged by category. Those categories in order are:

1. Electrical
2. Pneumatic
3. Mechanical

Electrical Drawings

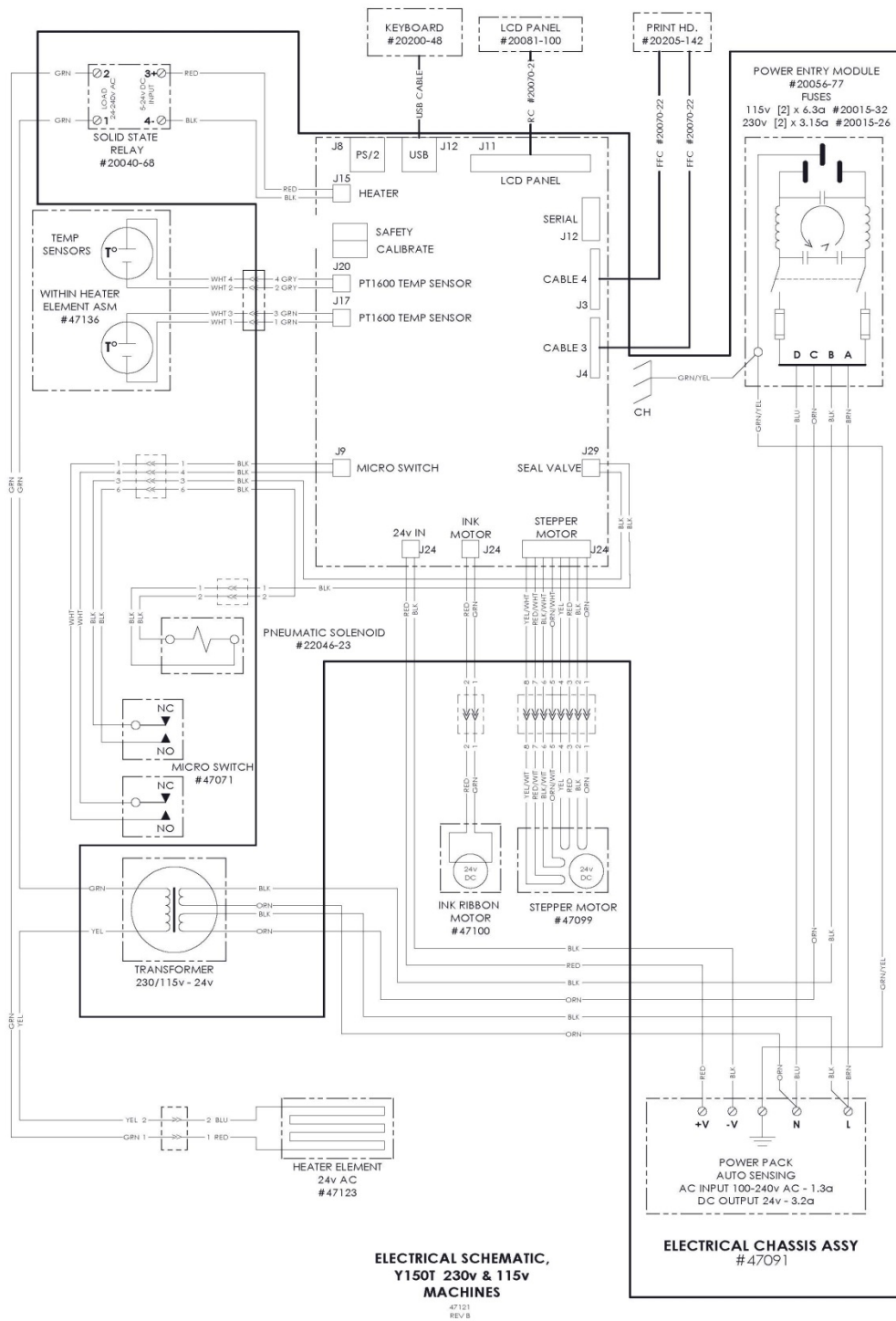


Figure 10 — Y151 Electrical Schematic

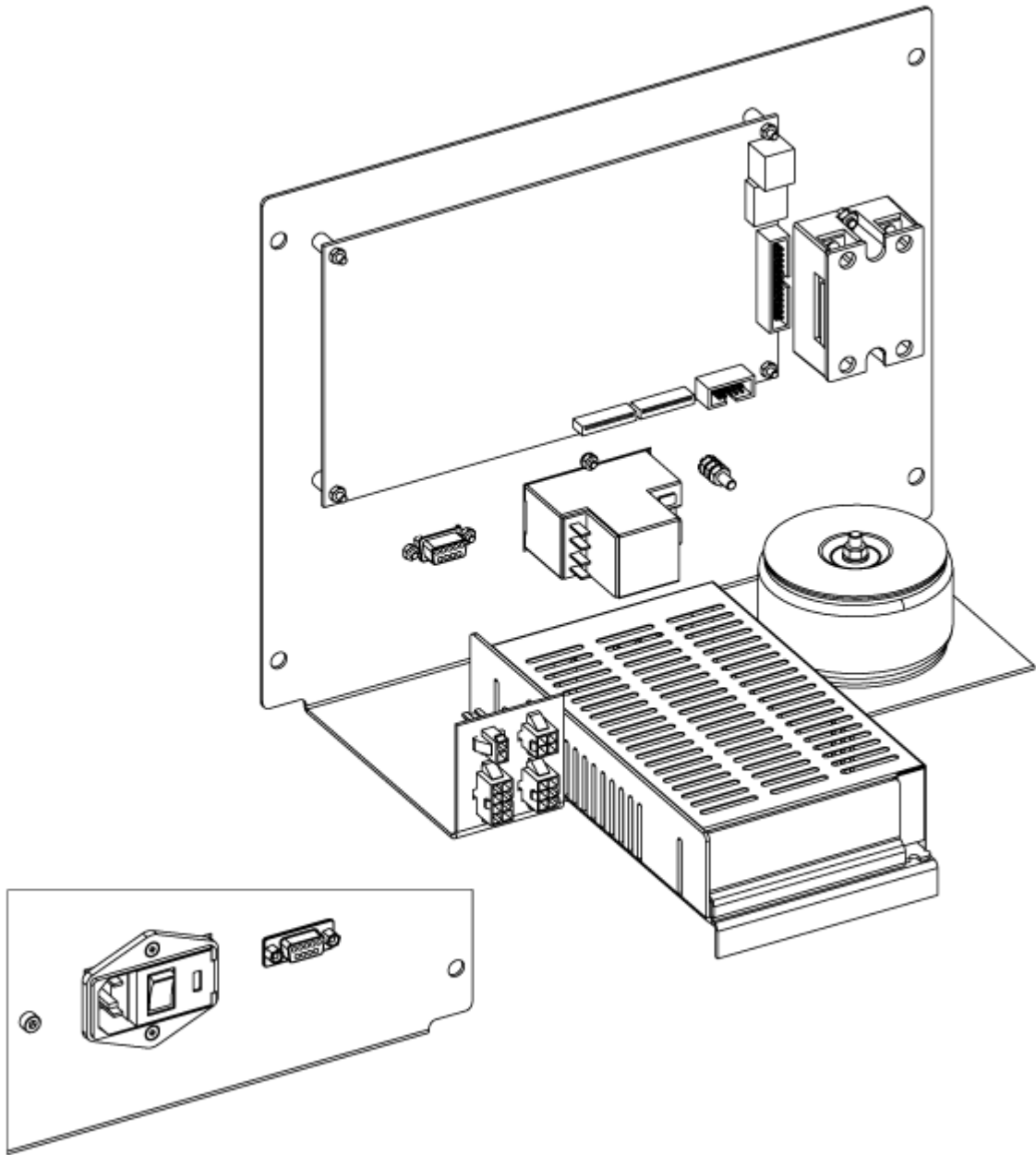
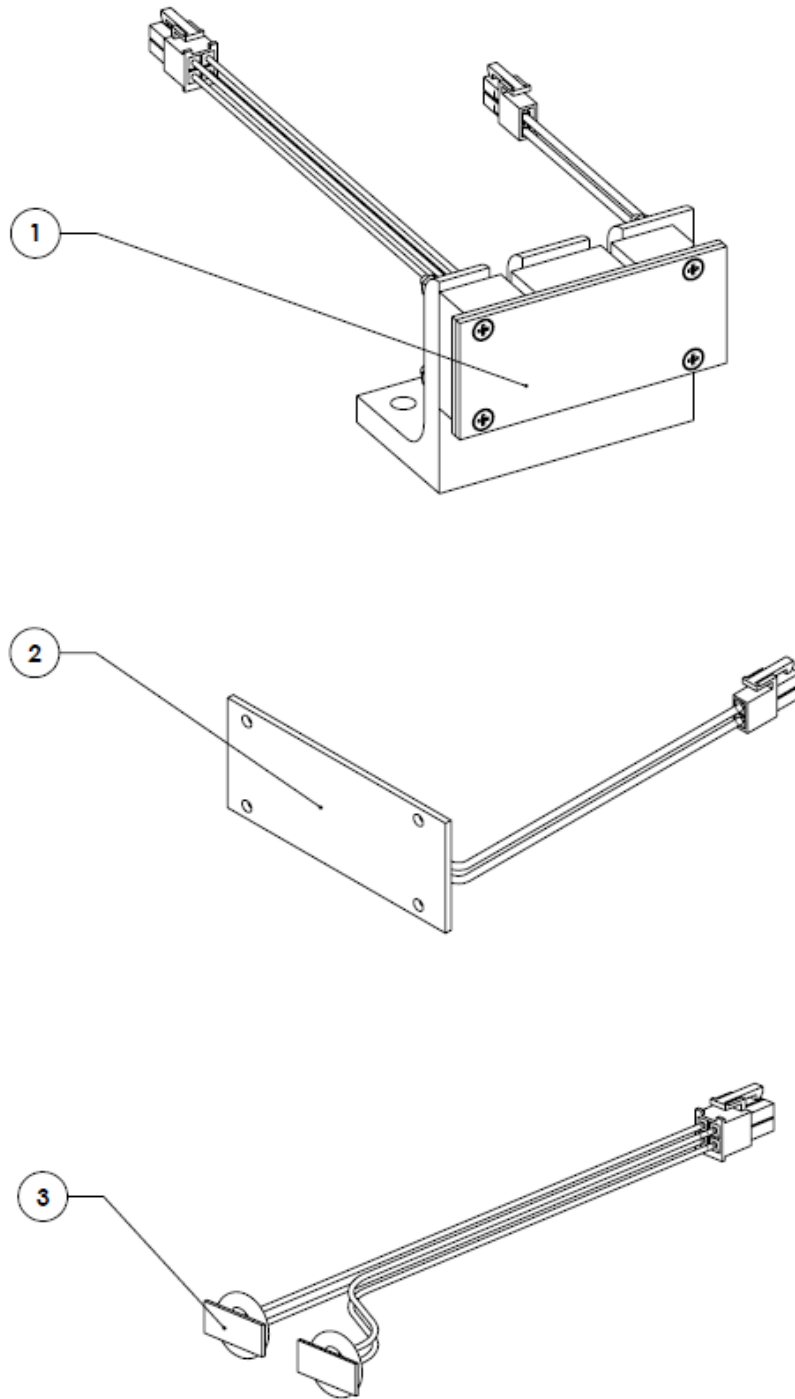


Figure 11 — Electrical Chassis Assembly (P/N 47091)



ITEM #	DESCRIPTION	QTY	Part Number
1	Heater Unit Assembly	1	47111
2	Heater Element Assembly	1	47123
3	RTD Temperature Sensor Assembly	1	47136

Figure 12 — Heater Unit Assembly

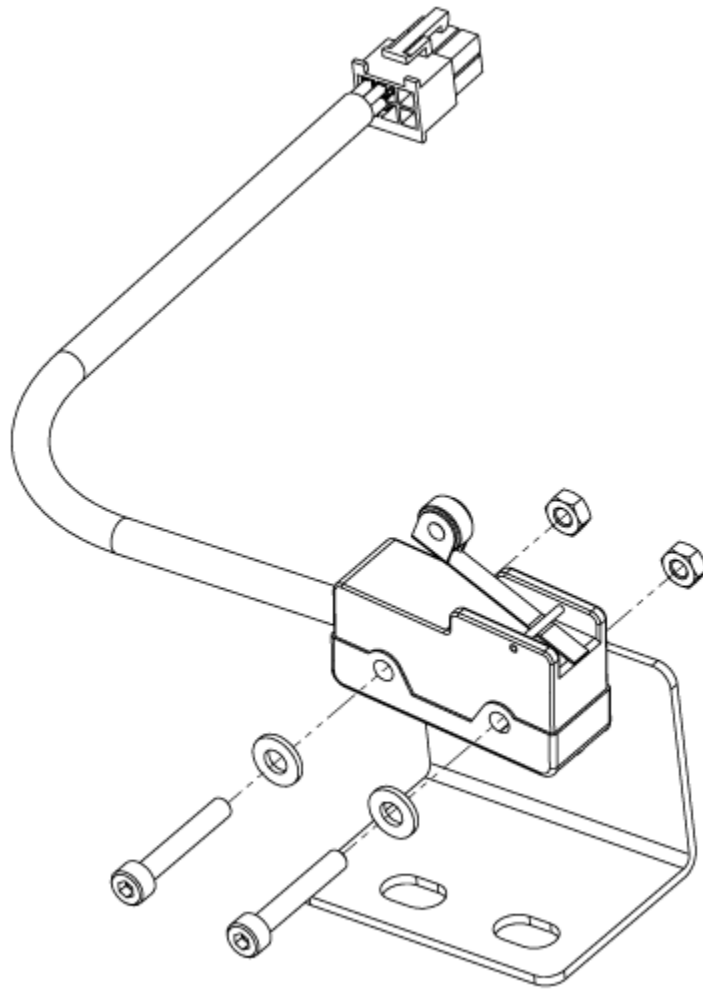


Figure 13 — Press Arm Switch Assembly (P/N 47071)

Pneumatic

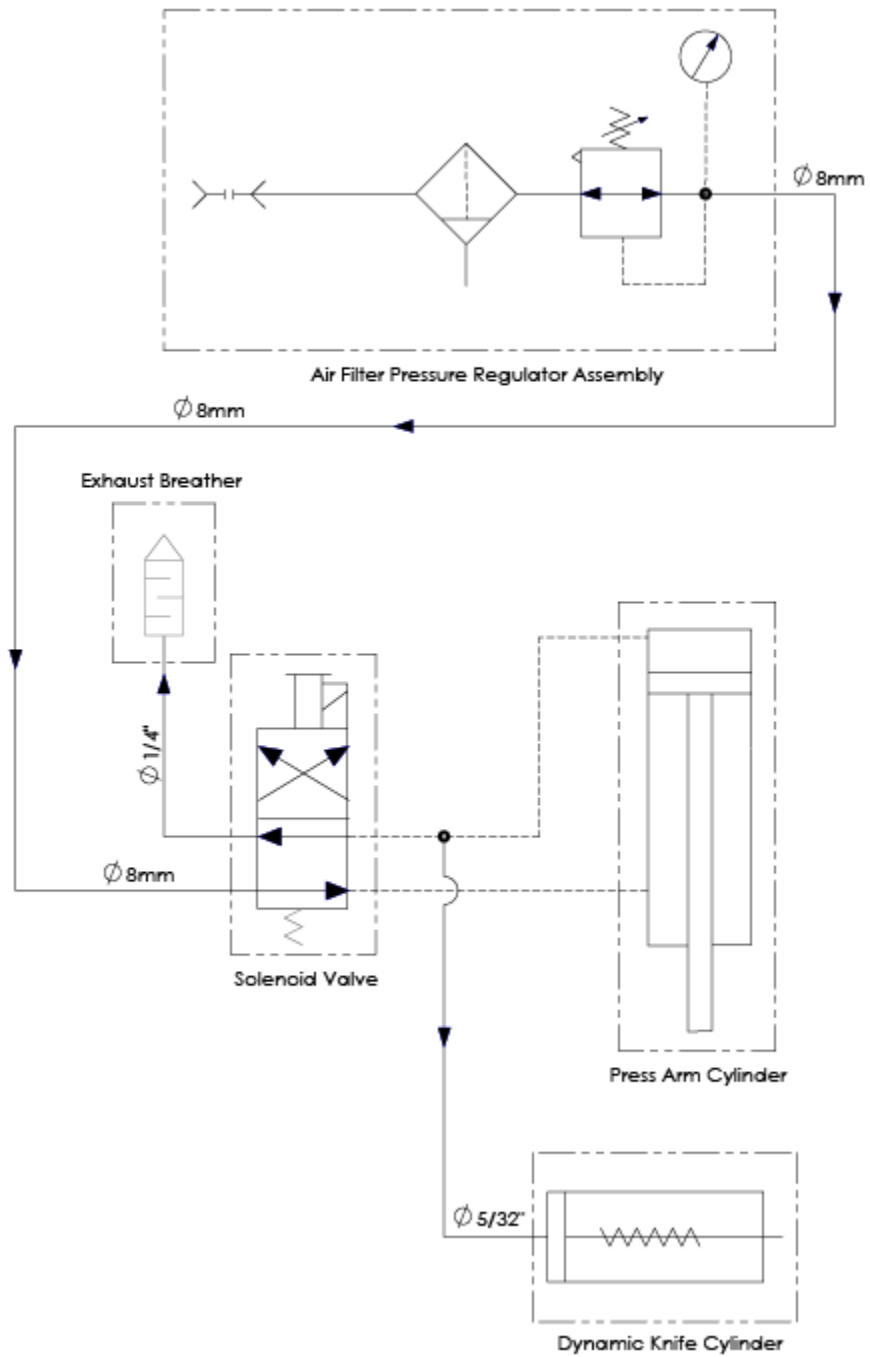
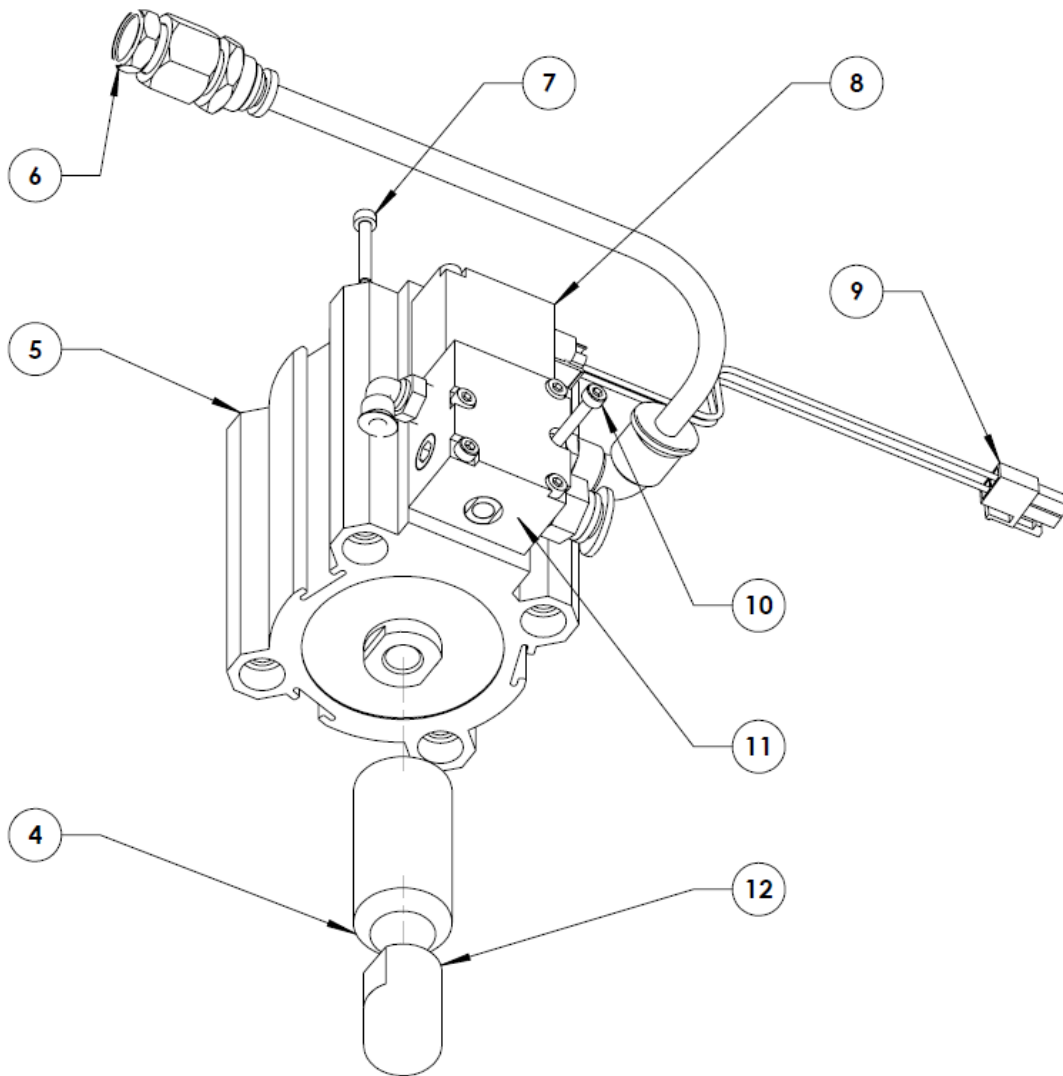
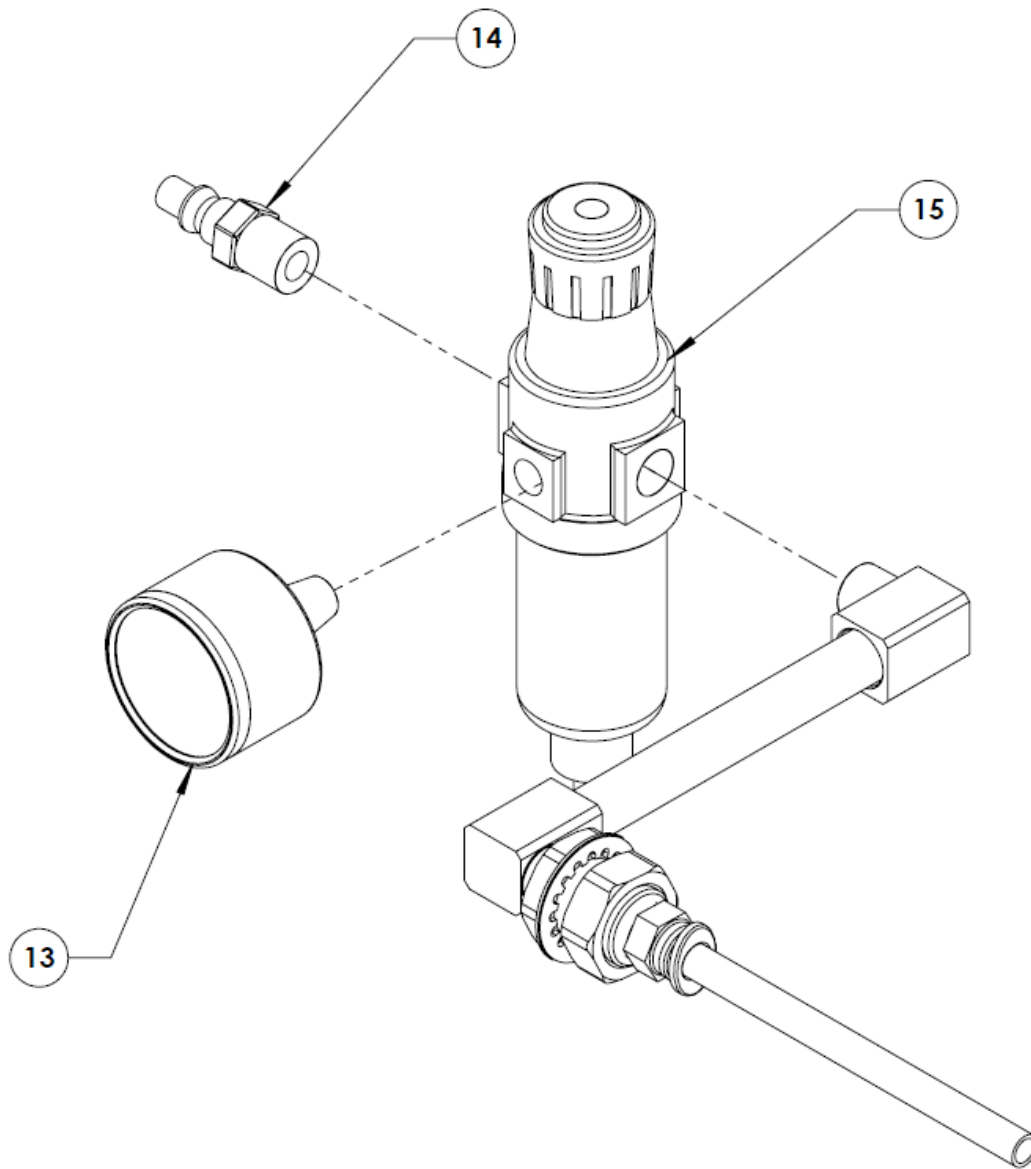


Figure 14 — Pneumatic Diagram



ITEM #	DESCRIPTION	QTY	Part Number
4	Socket Hex Set Screw, M10 X 1.5 X 30mm	1	21049-13-H
5	Press Arm Cylinder	1	22010-74
6	Exhaust Breather	1	22046-24
7	Socket Hex Cap Screw, M6 X 1.0 X 90mm	1	21043-25-E
8	Pneumatic Solenoid Valve	1	22046-23
9	Solenoid Valve Wire Harness	1	47084
10	Socket Hex Cap Screw, M3 X 0.5 X 30mm	1	22046-23
11	Solenoid Valve	1	21043-14-B
12	Press Arm Cylinder Rod End	1	47023

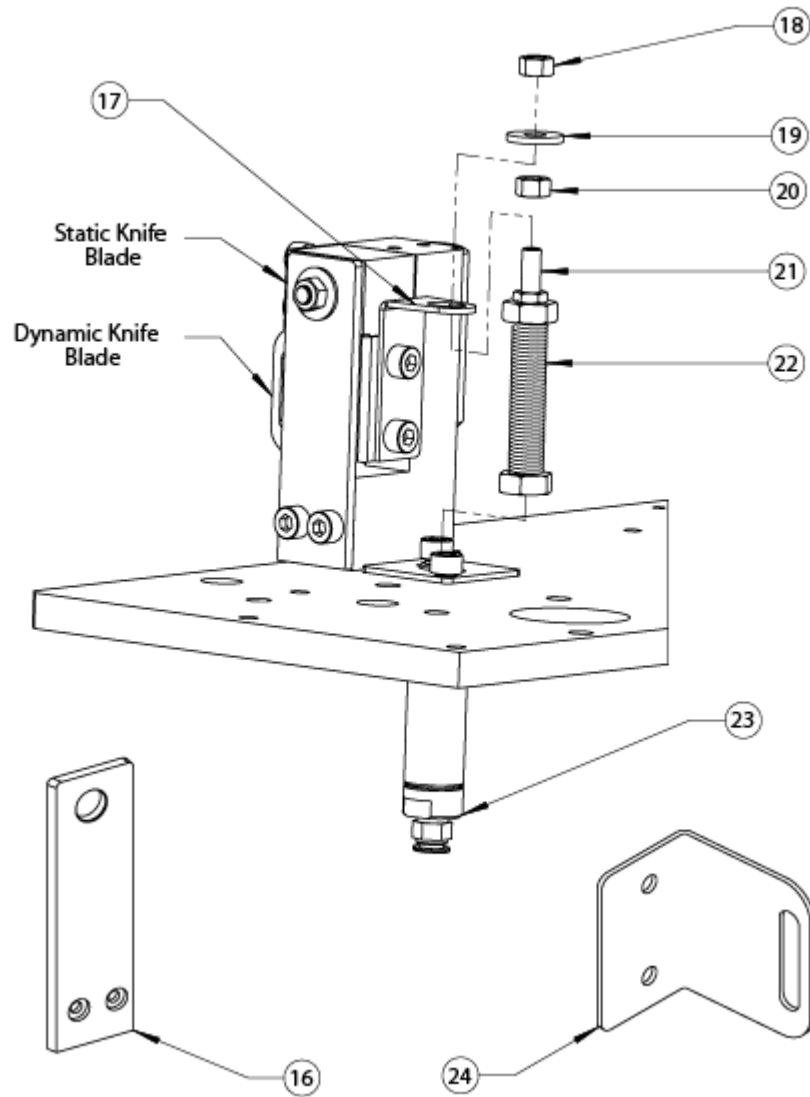
Figure 15 — Press Arm Cylinder Assembly



ITEM #	DESCRIPTION	QTY	Part Number
13	Air Pressure Gauge	1	22045-101
14	Quick Connect Hole Adapter	1	DH-6797
15	Air Filter Pressure Regulator	1	22045-91

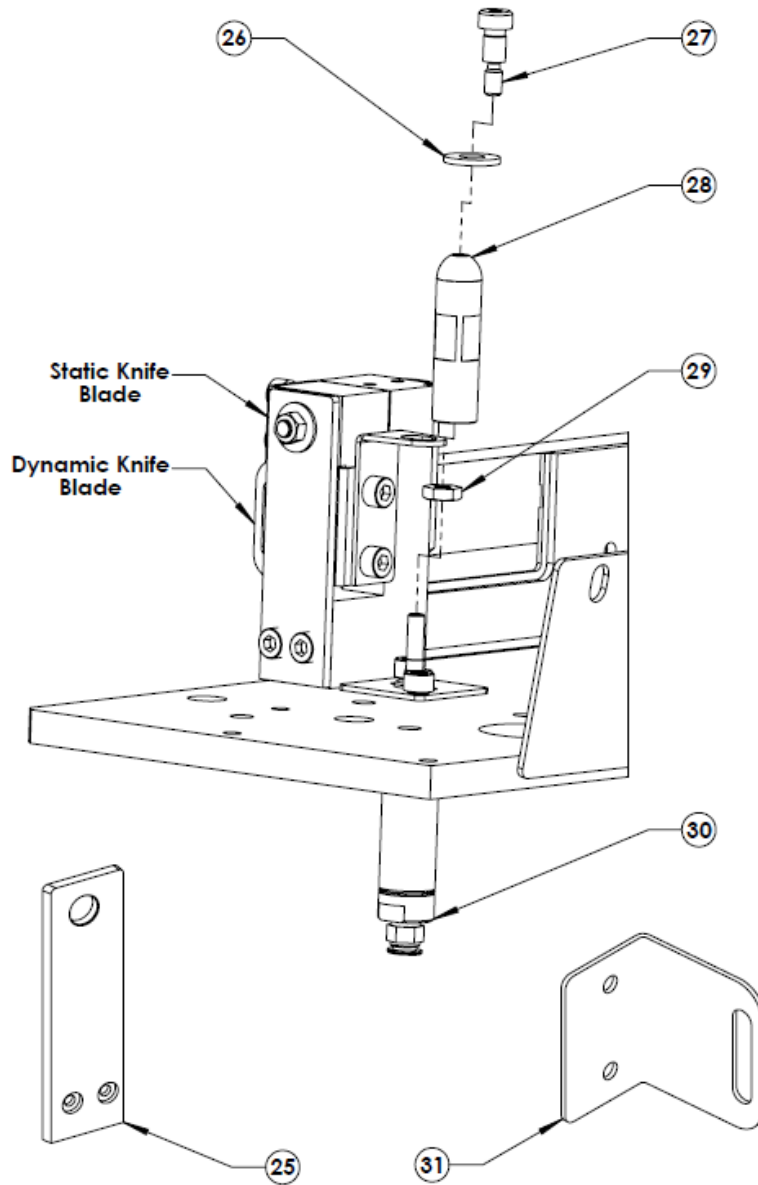
Figure 16 — Air Filter Pressure Regulator Assembly (P/N 47094)

Mechanical



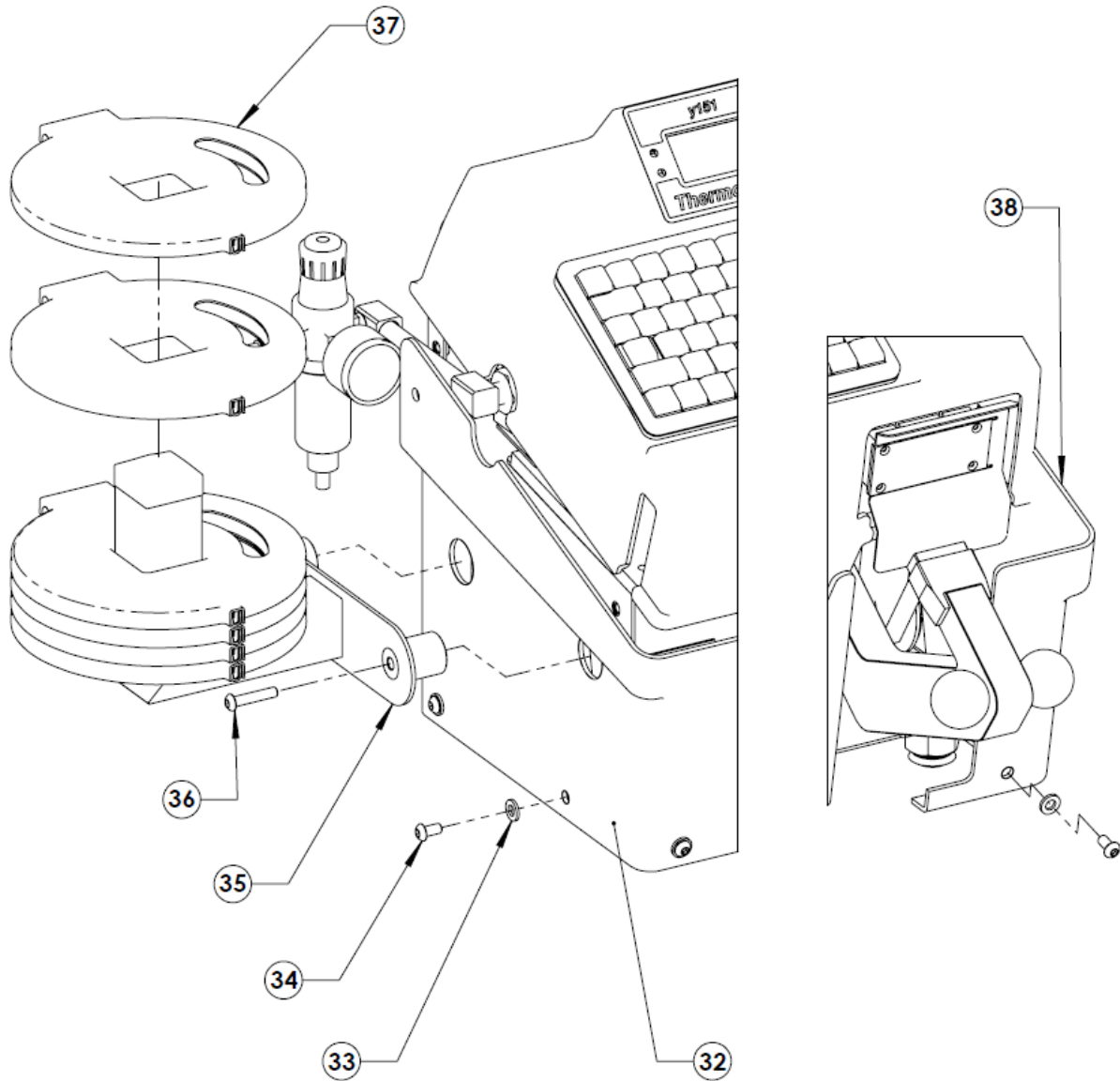
ITEM #	DESCRIPTION	QTY	Part Number
16	Static Knife Blade	1	47109
17	Cutter Actuator	1	47228
18	Nylon Locknut	1	21051-31-G
19	M5 Flat Washer	1	21047-06
20	M5 Hex Nut	1	21045-07-A
21	Set Screw	1	92311A431
22	Knife Actuation Spring Assy	1	47292
23	Dynamic Knife Actuation Cylinder	1	47204
24	Dynamic Knife Blade	1	47227

Figure 17 — Dynamic Knife Actuation Spring Assembly



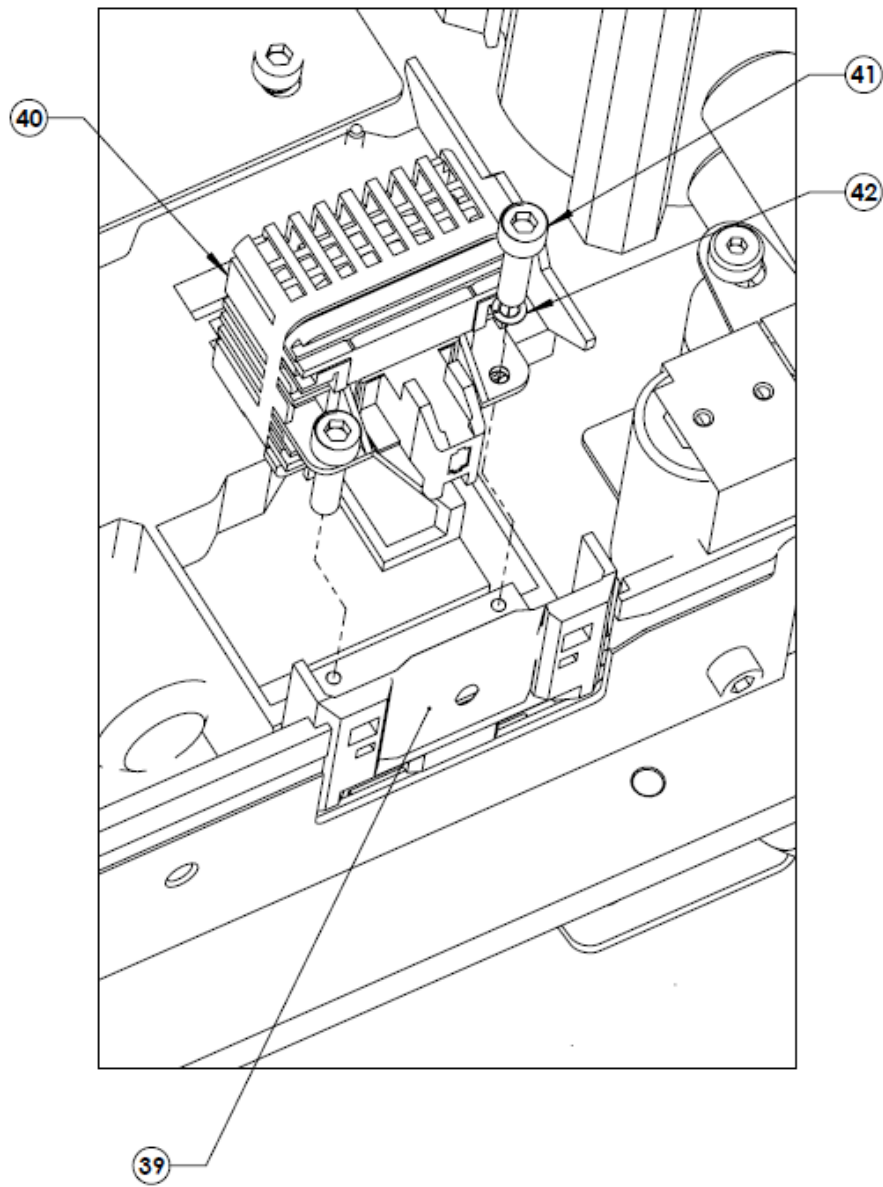
ITEM #	DESCRIPTION	QTY	Part Number
25	Static Knife Blade	1	47109
26	Nylon Washer, D 1/4" Inside	1	21028-63
27	Socket Hex Shoulder Screw, 1/4" X 3/8" Long (#10-31unc)	1	21006-01-G
28	Dynamic Knife Push Rod	1	47203
29	Hex Jam Nut, M5 X 0.8	1	21045-07-A
30	Dynamic Knife Actuation Cylinder	1	47204
31	Dynamic Knife Blade	1	47227

Figure 18 — Dynamic Knife Assembly (Y150 Only)



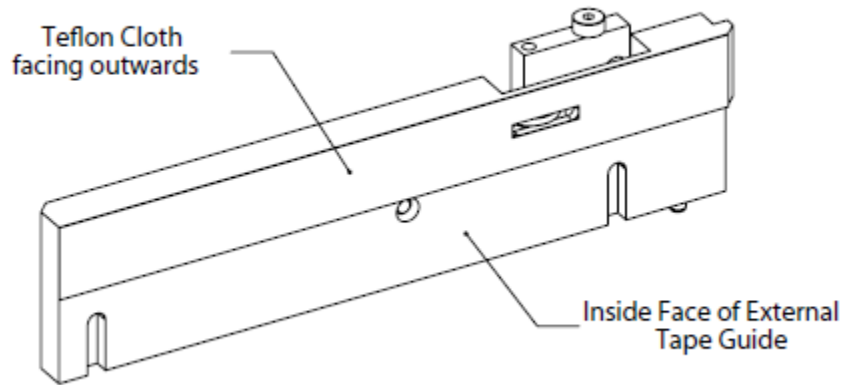
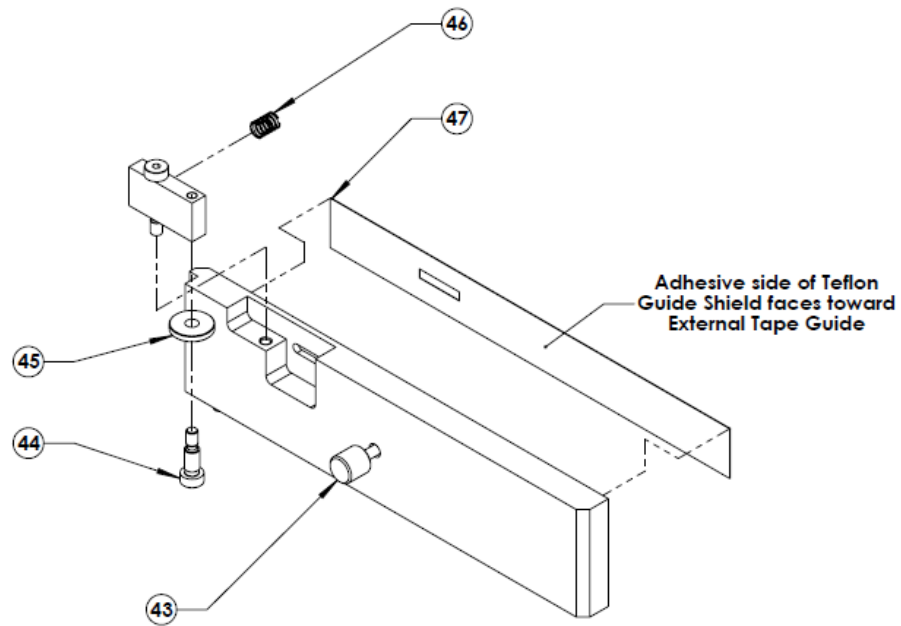
ITEM #	DESCRIPTION	QTY	Part Number
32	Leftside Lower Machine Cover	1	47066
33	M6 Nylon Washer	1	21028-63
34	Hex Socket Button Head Screw, M6 X 1.0 X 12mm	1	21061-20-N
35	Label Tape Cassette Rack	1	47068
36	Hex Socket Button Head screw, M6 X 1.0 X 40mm	1	21061-26-N
37	Label Tape Cassette	6	47083
38	Rightside Lower Machine Cover	1	47065

Figure 19 — Machine Top Cover Assembly and Accessories



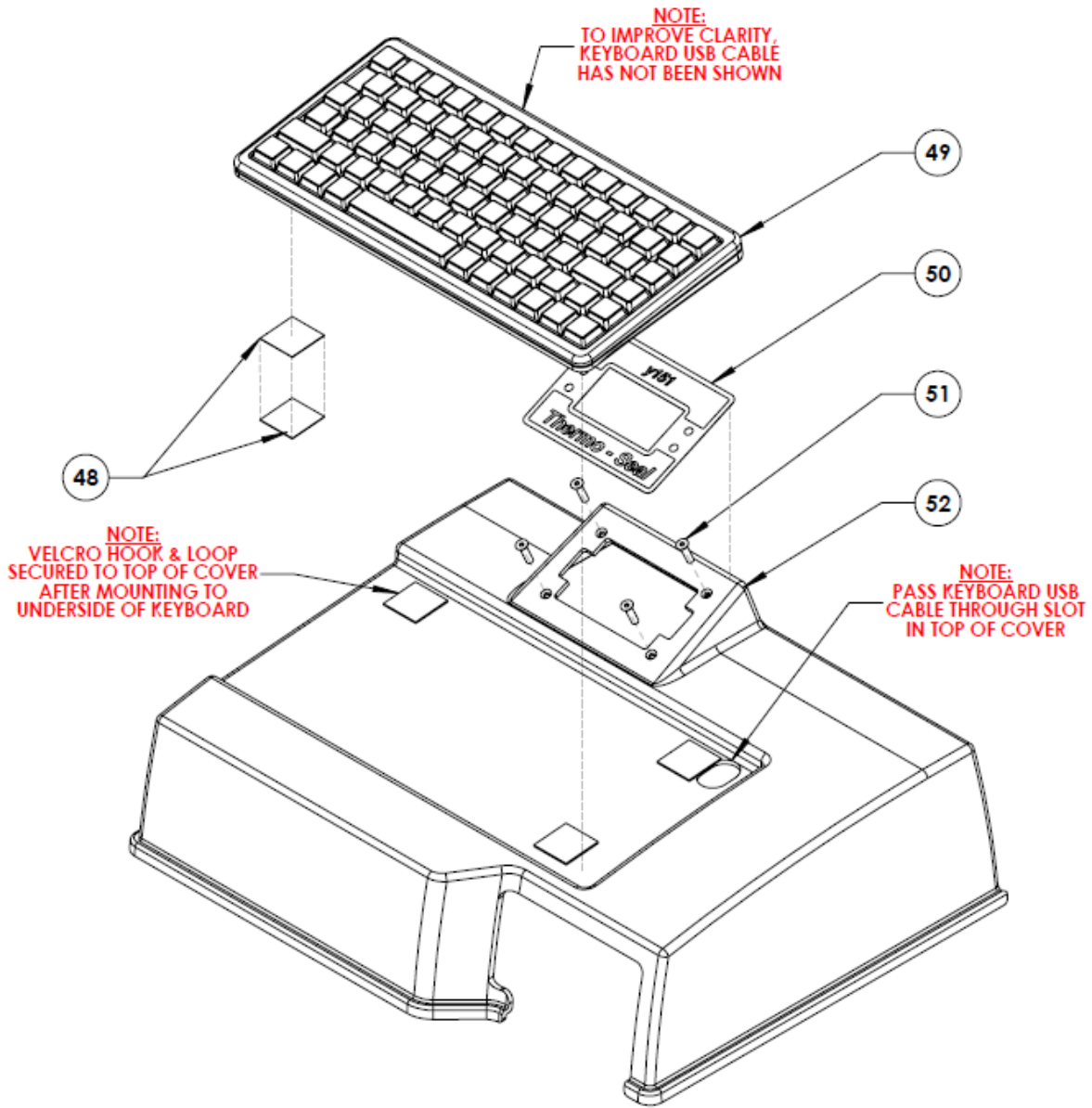
ITEM #	DESCRIPTION	QTY	Part Number
39	Printer Head Mask	1	20205-143
40	Printer Head	1	20205-142
41	Socket Hex Cap Screw, M3 X 0.5 X 12mm	1	21043-07-B
42	M3 Spring Lockwasher	1	21046-03-A

Figure 20 — Printer Head Assembly



ITEM #	DESCRIPTION	QTY	Part Number
43	Tape guide Thumb Screw	1	47087
44	Socket Hex Shoulder Screw, M6 X 12mm	1	21067-02-B
45	Pressure Idler Wheel	1	47042
46	Arm Compression Spring	1	24075-33
47	Teflon Tape Guide Shield	1	47108

Figure 21 — External Tape Guide Assembly



ITEM #	DESCRIPTION	QTY	Part Number
48	Velcro Hook, w/PSA Backing	4	23025-04
49	Compact Slim Line Keyboard	1	20200-48
50	LCD Panel Enclosure Label	1	47098
51	Flat Head Hex Socket Screw, M3 X 0.5 X 8mm	4	21053-01-A
52	Machine Top Cover	1	47054

Figure 22 — Machine Top Cover & LCD Panel Assembly

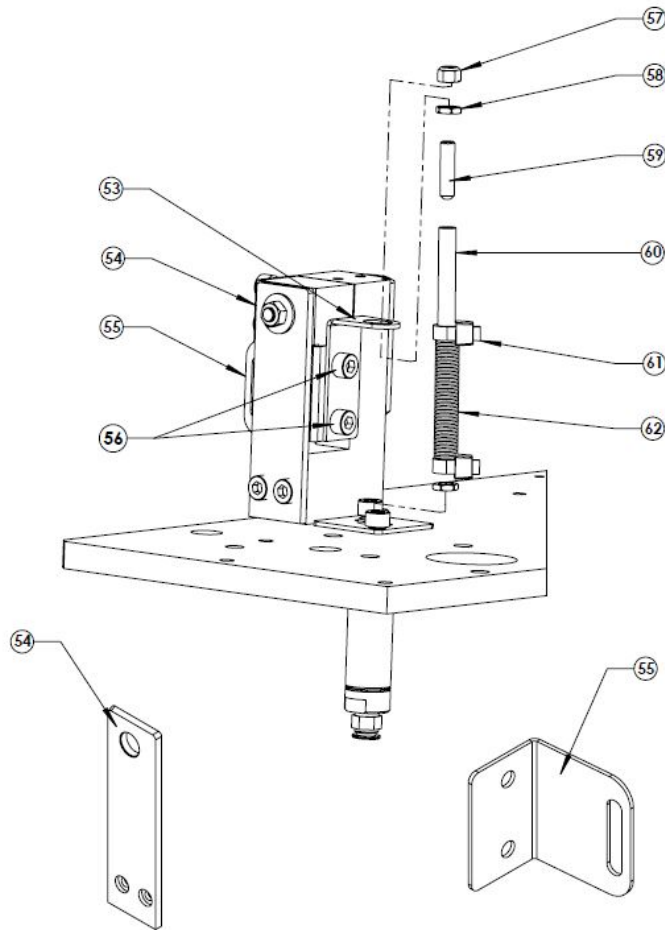


Figure 23 — SPA 47292 Dynamic Knife Actuation Spring Assembly

(for machines manufactured beginning January 2015)

ITEM #	DESCRIPTION	QTY	Part Number
53	Actuator Bracket	1	SPA47193
54	Static Knife Blade	1	47109
55	Dynamic Knife Blade	1	47227
56	Button Head Socket Cap Screws, M3 0.5 x 10z	2	21043-06-BHKZ
57	M5 HEX Lock Nut, M5 x 0.8 z	1	FABLOCKNUT
58	M5 HEX Nut, M5 x 0.8 z	2	FABNUT
59	Socket Head Set Screw, M5 x 20 mm	1	FABSHSETSCREW
60	Clear Plastic Tube, 6 mm x 50 mm	1	SPATUBING6MM
61	Tie Wraps	2	SPAMA-SU2-E2
62	Spring, 8 mm x 40 mm	1	SPA47291
	SPA47292 Dynamic Knife Installation Instructions		SPA47292INST

Please refer to Figure 17 — Dynamic Knife Actuation Spring Assembly
for full view of Static & Dynamic Knife Blades

Specifications of the Y151 Thermo-Seal

Table 6 — Specifications: 230 Volts

Power consumption	575 w
Power supply	230 v
Temperature	176 °C
Machine height	389 mm
Machine width	556.5 mm
Machine depth (connections included)	432.5 mm
Net weight	18.5 kg
Platen Pad dimensions	14.3 x 34.7 mm
Heater Unit dimensions	35 x 80 mm
Fuses	3.15 amps [5 X 20 mm]

Table 7 — Specifications: 115 Volts

Power consumption	575 w
Power supply	115 v
Temperature	349 °F
Machine height	15.3 "
Machine width	21.9 "
Machine depth (connections included)	17.1 "
Net weight	40.7 lb
Platen Pad dimensions	0.56" x 1.37 "
Heater Unit dimensions	1.38" x 3.15 "
Fuses	6.3 amps[0.2" x 0.79"]

Warranty

Thermopatch Corporation, Syracuse, New York ("Seller") warrants this product to be free from defects in material and workmanship under normal use and service. Any part which proves to be defective in material or workmanship within one year of the date of original purchase for use, will be repaired or replaced, at Seller's option, free of service or labor charges, with a new or functionally operative part. Seller's liability under the Warranty shall be limited to repairing or replacing at its own factory or through an authorized service distributor or dealer, material which is determined by Seller to have been defective in manufacture and upon which a claim has been made by the original purchaser or user to Seller (or an authorized distributor or dealer) within the warranty period. Claims under this Warranty will be honored only upon written approval by an authorized officer of Seller. Approved return of parts or products will be on a prepaid transportation charges basis only. Claims under this Warranty will be honored only upon Seller's determination that the claim is covered by this Warranty, and Seller shall incur no obligation under this Warranty prior to such determination. This Warranty does not apply: (1) To any machinery or equipment which has been altered or repaired, except by Seller or its authorized representatives, or (2) to any machinery or equipment which has been subject to misuse, negligence, or accident, including, without limitation, use and operation of such machinery or equipment while parts are loose, broken, out of order, or damaged by the elements. Parts replaced under this Warranty are warranted only through the remainder of the original Warranty. Any and all claims for warranty service must include such information as Seller designates, and shall include specifically the serial number of each unit (if appropriate).

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Thermopatch markets a complete line of heat-seal and marking machines, as well as a complete line of materials and supplies.

- **Label Print Machines** – Manual, automatic, and computer controlled.
- **Marking Machines** – High speed permanent imprinting of decorative or informative marks on most woven fabrics.
- **Heat-Seal Machines** – Manual, semi-automatic, and completely automatic, with high inter-platen pressure to assure excellent adhesion of label tapes and mending materials.
- **Label Tapes** – Specially woven 100% cotton and blends with adhesives to match specific processing requirements.
- The **Deco-Print** line of products has been specifically designed to offer alternative solutions to sewn-in labeling and other methods of decorative trimming. An assortment of heat-sealable applications is available including hot paper transfers, screen printed transfers, direct printing, application equipment and supplies, and digital printed transfers.

When ordering machine parts, please include the model and serial numbers of your equipment.

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