



Thermopatch



Y151 Thermo-Seal

Operator's Manual



thermopatch.com

EC - STATEMENT OF CONFORMITY

As manufacturer the company

Thermopatch bv
Draaibrugweg 14-16
1332 AD ALMERE - NETHERLANDS

confirms the machine for temporary marking

Thermo-Seal Y-151

meets the requirements as stated in the EC directives for machine safety and health rules and shows conformity to the following criteria and provisions: Low Voltage Directive (73/23/EEC)/EN60950, EMC Directive (89/336/EEC)/ EN55022 & EN50082-1 - 89/392/ewg and 89/368/ewg

and in particular the following requirements:

EN 55022:2006 EN
55014-1:2006 EN
61000-3-2:2006 EN
61000-3-3:1995
+A1:2001, A2 :2005

EN 55014-2 :1997
+A1 :2001 EN61000-
4-2 :1995 +A1 :1998,
A2 :2001 EN 61000-
4-4 :2004 EN 61000-
4-5 :1996 EN 61000-
4-6 :1996 +A1 :2001

EN 61000-4-11 :2004

The undersigned declares that the described product meets the essential requirements of the EMC Directive 2004/108/ EC, based on a non-recurrent examination.

KEMA Quality BV Certificate nr. 2113668.0551-QUA/

EMC

THERMOPATCH B.V.

J. Bausch
Director

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Preface

Welcome to the growing group of Thermopatch customers. The product you have purchased has been carefully designed and manufactured to ensure that you will gain the maximum benefit.

All Thermopatch products are specifically designed to ensure ease of use with particular attention to safety requirements.

Should you discover any fault or damage upon receipt of this product, contact your local Thermopatch representative immediately.

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1. Introduction

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

In one cycle, labels for temporary marking are printed, cut and sealed onto the garment or textile item. After washing or chemical cleaning, the labels can be removed from the garment or textile item without leaving any label residue.

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 twelve characters) is printed upon the **Thermo-Seal** label tape (.25" or 6.3mm in width).

Most garments or textile items can be marked directly. For garments of very sensitive fabric, there is an alternative method of fixing the temporary label to the garment. An extra-long label tape or "flag" can be printed and attached to the garment through the button hole of the garment. **Thermo-Seal** temporary marking label tapes are available in ten different colors.

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.

1.1 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. 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
- Ez-Off Cleaner Thermopatch #DH-6873 or SPADH-6873

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

Thermo-Seal Label Marking Tapes

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

1.2 Thermopatch Customer Service

Thermopatch Corporation's U.S. and International network of Sales Representatives, as well as its internal Customer Service Department, offer their assistance in the development of effective heat-seal mending, marking and identification programs.

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 are 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.

United States	: Thermopatch Corporation P.O. Box 8007 Syracuse, New York 13217-8007 Telephone: 315-446-8110 Fax: 315-445-8046 Toll Free: 800-252-6555 (in the US only)	Netherlands	: Thermopatch BV P.O. Box 50052 1305 AB Almere Netherlands Telephone: 011-31-36-549-1111 Fax: 011-31-36-532-0398
Canada	: Thermopatch (Canada) Incorporated 25 Groff Place, Unit No. 5 Kitchener, Ontario N2E 2L6 Telephone: 519-748-5027 Fax: 519-748-1543 Toll Free: 800-265-6416 (in Canada only)	Germany	: Thermopatch Deutschland Grunteweg 33 26127 Oldenburg Deutschland Telephone: +49 441-380210 Fax: +49 441-3802121 E-mail: sales@thermopatch.de
Australia	: Thermopatch (Australia) Pty. Ltd. 477 Warrigal Road, Unit No. 9 Moorabbin, Victoria 3189 Telephone: 011-61-3-9532-5722 Fax: 011-61-3-9532-5652	France	: Thermopatch France 7 Rue Chappe-Z.I. Des Garennes B.P. 1011 Les Mureaux Cedex 78131 France Telephone: 011-33-1-3022-0808 Fax: 011-33-1-3022-1866
		Internet Address	: http://www.thermopatch.com
		E-mail Address	: sales@thermopatch.com

1.3 The Y151 Thermo-Seal



1.4 Specifications of the Y151 Thermo-Seal

Specifications – 230 Volts

Power consumption	575 watts
Power supply	230 volts
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 20mm]

Specifications – 115 Volts

Power consumption	575 watts
Power supply	115 volts
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 [5 X 20mm]

1.5 Safety Tips

The Y151 **Thermo-Seal** machine has been designed with optimum safety for the machine operator in mind. However, we provide you with some instructions by which you should operate this 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. Although the heat radiation of the Heater Unit is low, there should be enough space for cooling down.

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

1.6 Conditions for 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).

The foregoing shall constitute the sole and exclusive remedy of any using purchaser and the sole and exclusive liability of Seller in connection with this product. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS AND ALL OTHER OBLIGATIONS OR LIABILITIES OF SELLER, INCLUDING ANY TORT LIABILITY, FOR NEGLIGENT DESIGN OR MANUFACTURE OF THIS PRODUCT, OR OTHERWISE. It is expressly agreed that Buyer shall not be entitled to recover any incidental or consequential damages, as those terms are defined in the Uniform Commercial Code, and that Buyer shall have no right of rejection or of revocation of acceptance of any part or all of the goods covered hereby.

2. Installation

2.1 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 serviced at a later time. Please let the machine cool down before packing the machine in the shipment container.

2.2 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 that there is sufficient free space around the machine.

2.3 Electrical Requirements

The Y151 **Thermo-Seal** should be connected 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.



The picture to the left shows the Y151 **Thermo-Seal** set for 230v operation.

2.4 Pneumatic Requirements

The Y151 **Thermo-Seal** machine also requires a **clean dry air supply** to operate the Press Arm Sealing Cylinder and the Dynamic Knife Cylinder. 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 that 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 receptacle firmly onto Air Inlet Fitting. Make sure 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 counter-clockwise 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.

2.5 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.



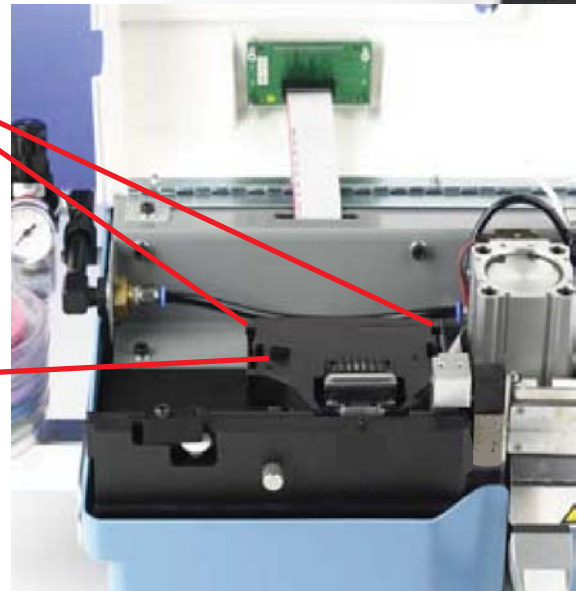
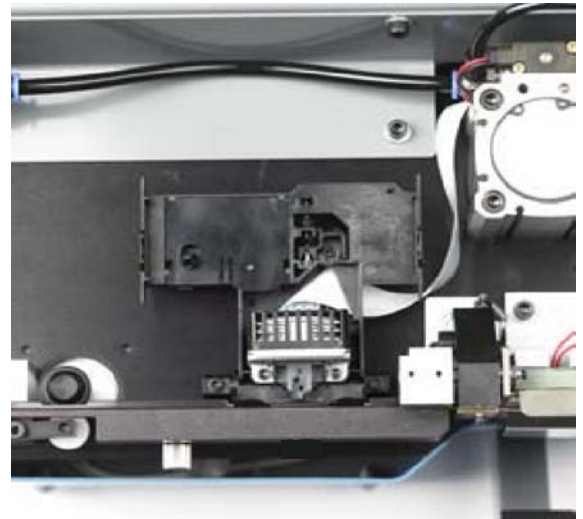
3. How to Operate the Thermo-Seal

3.1 Ink Cartridge Installation

The Y151 **Thermo-Seal** machine comes complete with an Ink Ribbon Cartridge, Thermopatch supply 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** Ink Ribbon Cartridge from the box and the sealed plastic bag.
3. Clasp the tabs on each side of the Cartridge 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 clockwise to advance the Ink Ribbon and remove any folds that may have occurred during insertion of the Ink Ribbon Cartridge.



3.2 Inserting the Label Marking Tape

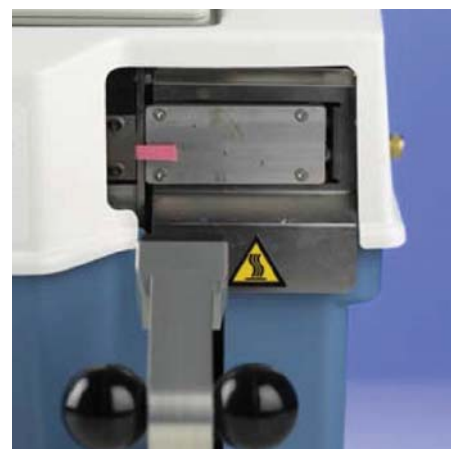
1. Switch the Power Entry Module Switch "ON."
2. Place the Label Marking Tape into a Label Tape Cassette and place the Cassette onto the Label Tape Cassette Storage Rack.
3. Pull out approximately 12" or 30cm of tape from the Label Tape Cassette.



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 and hold down the "LOAD TAPE" F1 key and the tape will begin to advance, becoming present in front of the Heater Unit. Once the Label Marking Tape is positioned in front of the Heater Unit, raising the machine Press Arm will complete the "Load Tape" sequence. This action will cut the Label Marking Tape and "Ready" the machine.



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

3.3 Machine Operation

Before printing and sealing with your Y151 **Thermo-Seal** machine, make sure you have completed all instructions for installation (see **Section 2 Installation**). In review, the following should be completed:

Threaded the Air Filter Pressure Regulator onto the machine.

Mounted the Label Tape Cassette Storage Rack to the left side of the machine.

Securely attached the Main Air Line Hose to the Air Filter Pressure Regulator.

Installed the Line Power Cord, and switched the Power Entry Module to "**ON**" position.

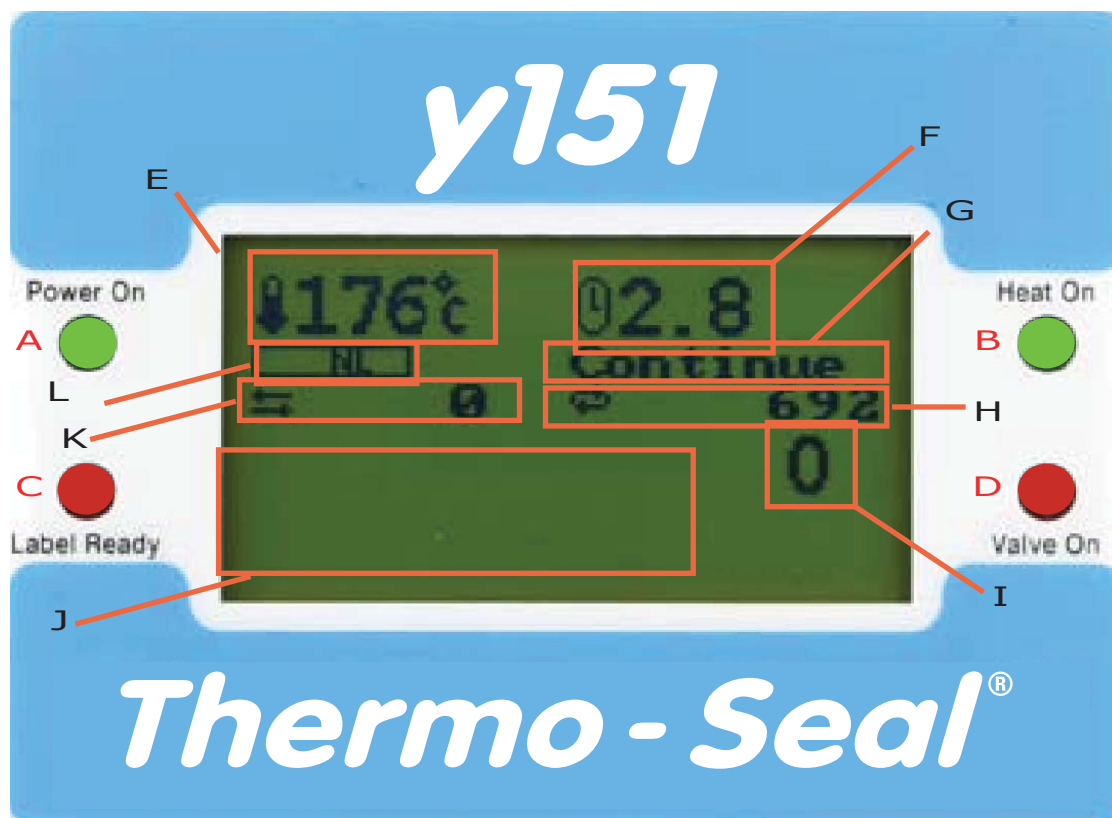
Installed the Ink Ribbon Cartridge.

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.

Before you begin printing and sealing, it is necessary for you to understand the features, messages and icons present on the LCD panel of the Y151 **Thermo-Seal** machine.



The picture of the LCD to the right 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 to the right shows the machine is operating at the factory setting 176° C or 349° F.

F: Sealing Time- The nominal sealing time is 2.7 seconds. An optional 4.8 second 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- 5-12 alpha-numeric 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.

4. 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, short cut **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.

SHORT CUT FUNCTION KEYS		
KEY	DISPLAY	DESCRIPTION
F1	Cut Tape	Load Label Tape
F2	Load Tape	Unload Label Tape
F3	2.7	Toggle between Normal and Heavy seal time
	4.8	
F4	NL	Toggle between Normal length and Extended length
	EL	
F5	Display Totals	Toggle Display Totals On/Off
F6	Double Strike	Print Label text darker
F7	Reset Day Counter	Reset the Daily Counter
	Sure Y/N	
F8	1 = Settings	Menu Options #1
	2 = Special Mode	Menu Options #2
	3 = End	Exit and return to display
F9	Repeat last Label	Reprint previous label text
F10	Insert	Display last character in text line
	On/Off	
Numlock	Current operating temperature	Toggles between operating temperature & main display
Back-space	No Display shown	Ends bundle or series display ready for new entry

MENU OPTION #1 - SETTINGS

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

MENU OPTION #2 - SPECIAL MODE

MENU	DISPLAY	DESCRIPTION	ADJUSTMENT	DEFAULT
	Type Password	Password required to make changes to defaults	Type in password and depress Enter Key	Password Y150TP
1	Factory Reset Sure Y/N	Change factory settings	Depress Y for Yes or N for No	N
2	Password	Turns Password function	Up/Down Arrow Key On/Off	ON
	On	On or Off		
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 depress Enter Key	Default Password
	Sub Displays			Y150TP
	Change Password	Requests new password	Enter new password	
	Password again Succeeded	Varification of new password New password is set	Re-Enter new password	
4	Temperature	Change temperature	Up/Down Arrow Key adjust 1° C of 1° F	0
	Offset	offset setting	Right/Left Arrow Key adjust 10° C or 10° F	
5	Left Margin 10	Adjust left margin label distance	Up/Down Arrow Key adjust 1 unit Right/Left Arrow Key adjust 10 units	10
	Print Quality 2	Adjustments to the label print quality	Up/Down Arrow Key adjust 1 unit	2

5. 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.

5.1 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.

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

A= Week number

01= Lot number in that week

05= Customer bundle number

2. 3A01-05

Same as the left

except 3= Number

of pieces in the order

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**
M or 1= Monday or Day 1
12345= Invoice number

2. **01M2345**
01= Week number
M= The day
2345= Invoice number

3. **03M2345**
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**
24= Location Number
1234= Invoice or bundle number

2. **3-24-1234**
3= Number of pieces in the order
The rest is the same as left.

Invoice Number Systems

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**
3= Number of pieces
24= Location
12345= Invoice number

2. **3M1234**
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**
20= Date received
1234= Room number

2. **03-1235**
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**
B= Building designation
435= Room number

2. **1435**
1435= Room or apartment number

5.1.1 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.

5.1.2 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 section 5.1.1 Normal Label Tag Marking. However, **thick, dirty or damp garments and textile items** require more heat 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**.

5.1.3 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 Thermo-Seal function key**. **Attention! Thermopatch cannot take any responsibility for any damages to garments or textile items that occur by the use of this machine.**

The Extra Length Label Tag has the desired code printed onto the Label Tag. The Label Tag is positioned in front of the Heater Element and ready to be sealed. Pass the long Label Tag through the top buttonhole of the garment or opening in a textile item. **The printed code must be visible and the end of the long Label Tape must be folded between the Sealing Platen and fixed tape.**

5.1.4 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.**

5.2 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.

6. Troubleshooting

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

Failure	Possible Causes	Solution
Machine does not function	Not connected to outlet	Check Outlet
	No line power to outlet	
	Fuses blown in Power Entry Module	Check fuses in Power Entry Module
Sealing pressure fluctuates	Leak in Air Supply Hose	Repair or replace
	Dust or water in air lines, Regulator or Solenoid Valve	Disassemble and clean
Machine does not seal	Insufficient air pressure	Check, seal and adjust Air Filter Press/Reg
	Press Arm Limit Switch defective	Check wiring or replace switch
	Solenoid Valve not engaged	Check wiring and air leaks at fittings. Replace Solenoid
No Heat	No power to machine	Check outlet and fuses
	Heater Element defective	Replace
	Temperature Sensors defective	
	Solid State Relay defective	
Error Detected: Heater Defective	Main Controller Board defective	Replace
	Defective Heater Element	
Error Detected: PT 1600 Defective	Defective Temperature Sensors	Replace
Temperature too high or too low	Temperature settings have been changed	Reset temperature settings
	Temperature sensors are defective	Replace sensors

Failure	Possible Causes	Solution
Poor sealing quality	Temperature setting is incorrect	See section 4
	Air pressure setting is incorrect	See section 2.4
	Sealing time is incorrect	See section 4
	Heater Shield is loose or dirty	Correct or clean
	Sealing Platen worn or dirty	Replace or clean
Poor printing quality	Ink Ribbon Cartridge dry	Replace
	Ink Ribbon in cartridge is not moving	
	Print Head defective	
	Text spacing incorrect	See section 4
Printed text has horizontal type blanks	Printer Head is defective	Replace
	Controller Board is defective	
Dynamic Knife does not cut Label Marking	Dynamic Knife is dull	Replace
	Dynamic Knife Cylinder is not actuating	Check air line tube connections or replace Knife Cylinder
Label Marking Tape is jamming in the Tape Guide	Tape Guide is dirty	Clean Int. & Ext. Tape Guide, see section 7.5
	Splice in Label Marking Tape or fold in tape	Remove tape and cut off spliced tape section
Unreadable or no LCD Panel Display	Loose connection at LCD Panel or Controller Board	Reset Ribbon at LCD Panel or Controller Board
	Defective Ribbon Cable	Replace
	Defective LCD Panel	

Failure	Possible Causes	Solution
Incorrect Character Spacing on Label Tape	Obstruction in Tape Guide	Clean Tape Guide
	Worn Spindle Drive Ring	Replace, see section 7.6
	Defective Stepper Motor	Replace
Marks on garment or textile item	Ink build-up on Rubber Platen	Clean or replace
	Ink build-up on Heater Shield	
Textile is discolored during sealing	Textile is temperature sensitive or textile care symbols disregarded	Mark with Extra Long Label Tag or with Label Flag
	Time setting too long	Decrease time
	Temperature too high	Correct temperature
Labels become loose on left side	High mechanical load during washing or cleaning	Replace Rubber Sealing Platen
	Temperature too low	Correct temperature
	Sealing pressure too low	Correct pressure
	Sealing time too short	Correct time

7. 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.

7.1 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 **Section 7.4 Heater Shield**.
- **Rubber Sealing Platen**
- **Tape Guide:** clean following directions in **Section 7.5 Tape Guide**.

7.2 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.

7.3 Bi-yearly Cleaning & Maintenance

To optimize performance of your Y151 **Thermo-Seal** machine, the following parts or areas should be cleaned on a **Bi-yearly** 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.

7.4 Heater Shield

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

Ez-Off platen cleaner 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.**

7.5 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.

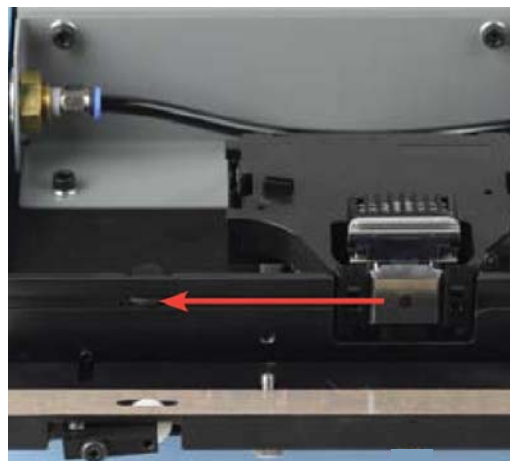


7.6 Label Tape Drive "O"-Ring

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.

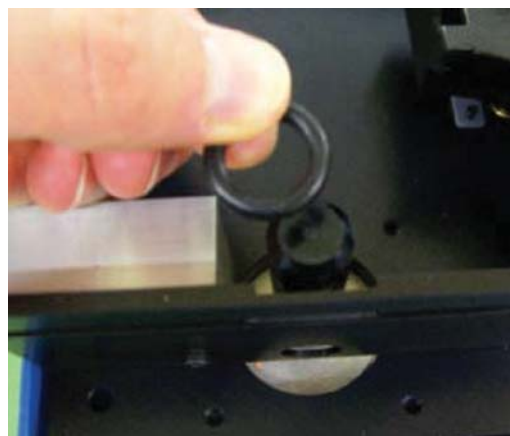
The following narrative with sequence of pictures will take you through the process of removal and installation of a new Label Tape Drive "O"-Ring.

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**.



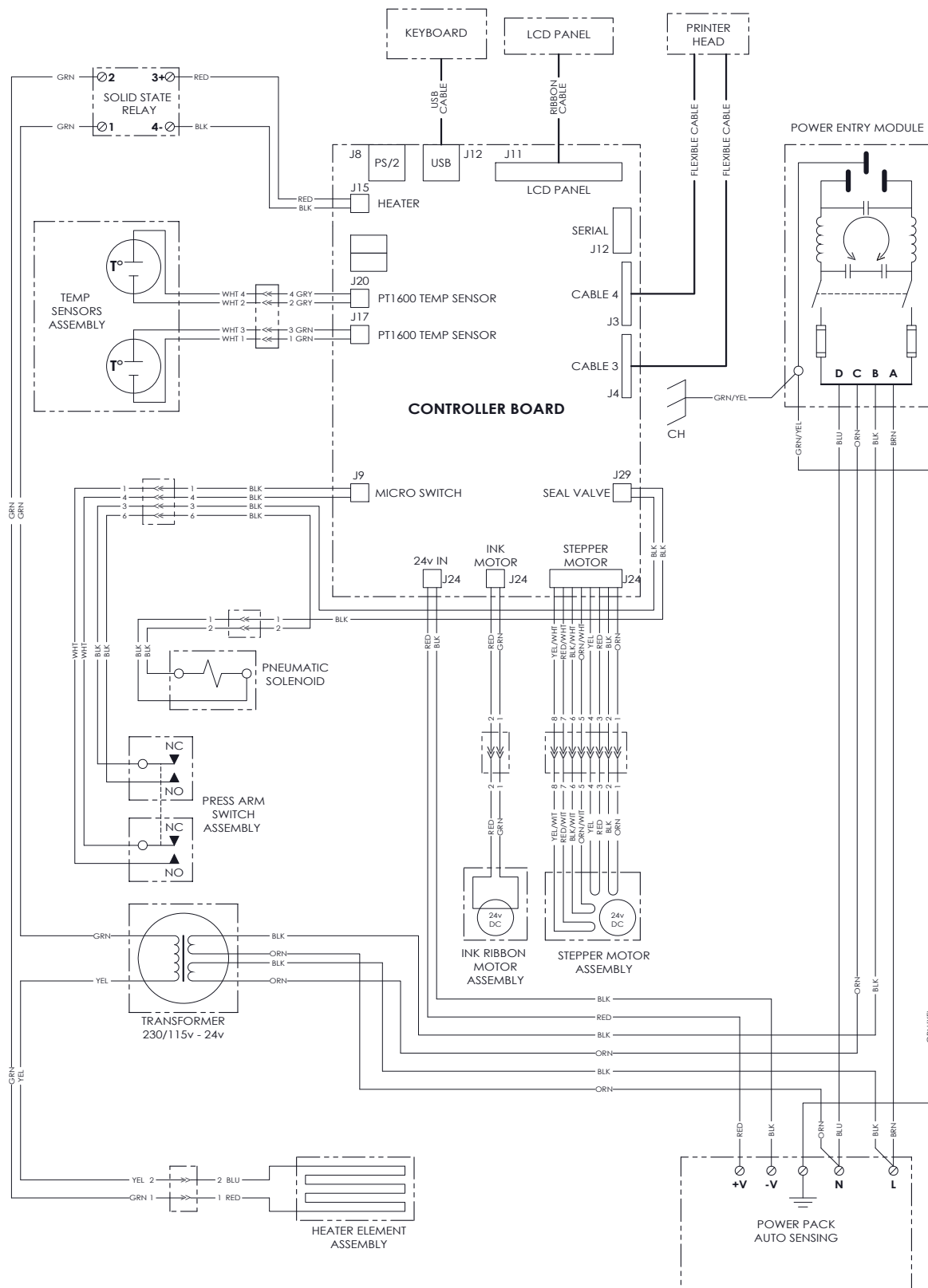
8. Drawings and Parts Listing

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.

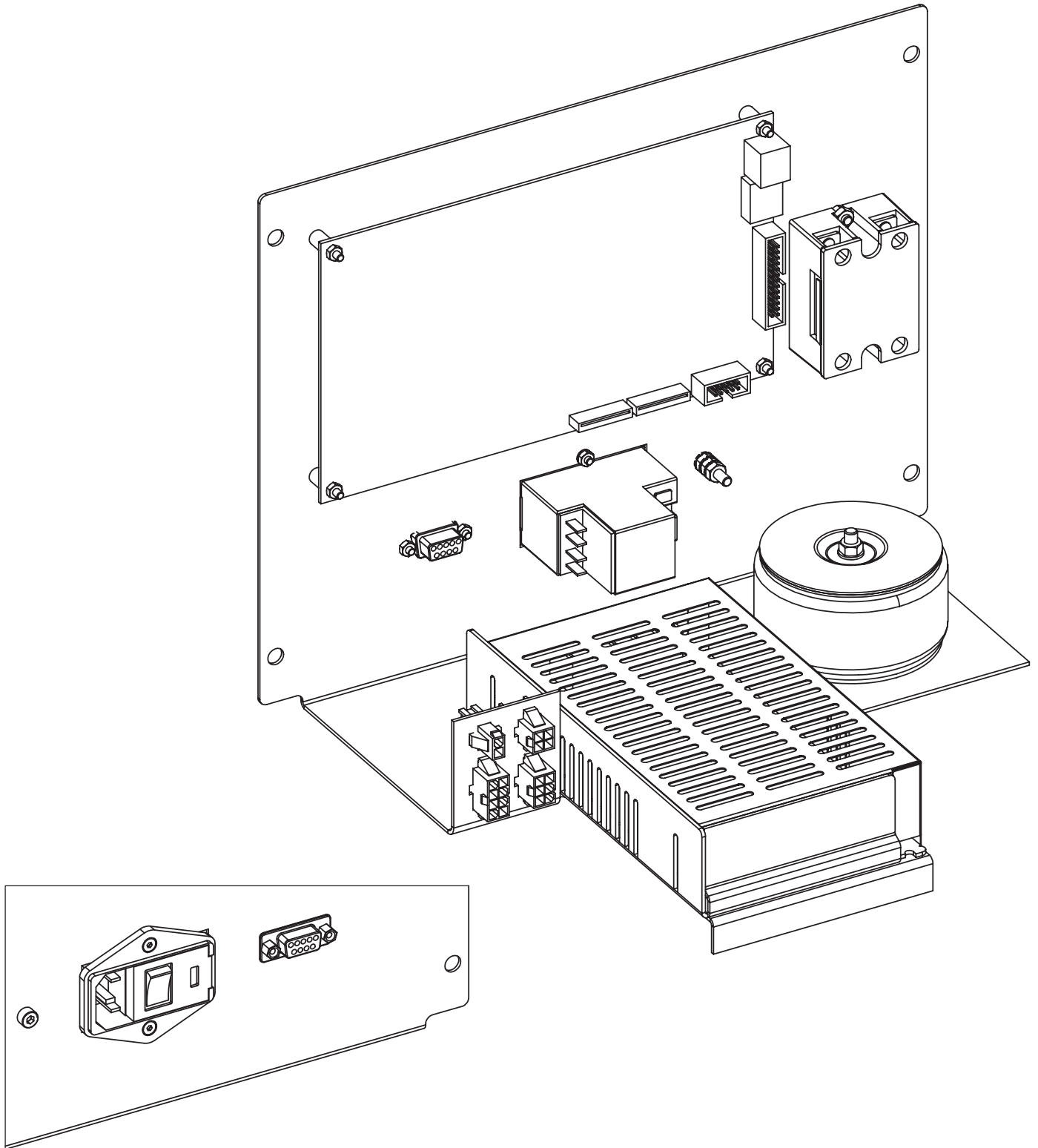
The reader will find that the technical drawings and corresponding parts listings are arranged by category. Those categories in order are:

1. **Electrical**
2. **Pneumatic**
3. **Mechanical**

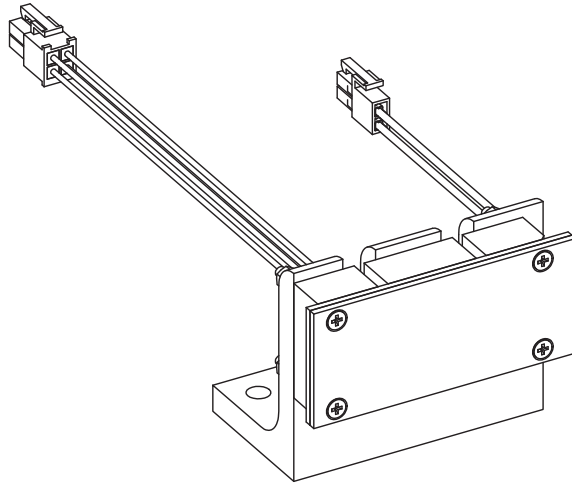
1. Electrical



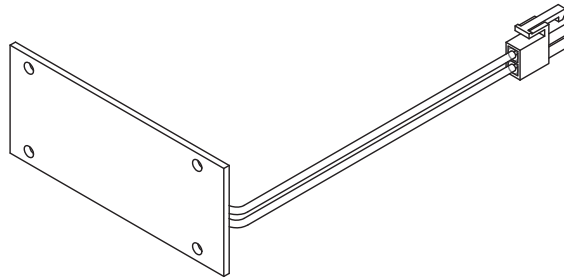
Electrical Schematic,
230 volt and 115 volt



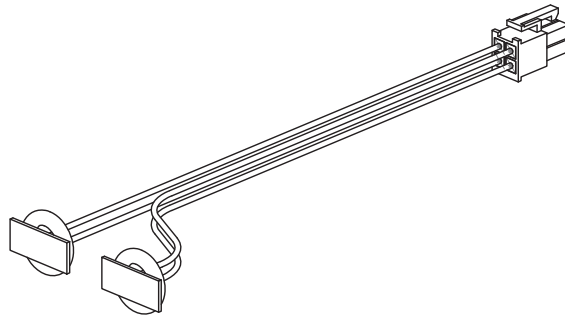
Electrical Chassis Assembly
Part Number 47091



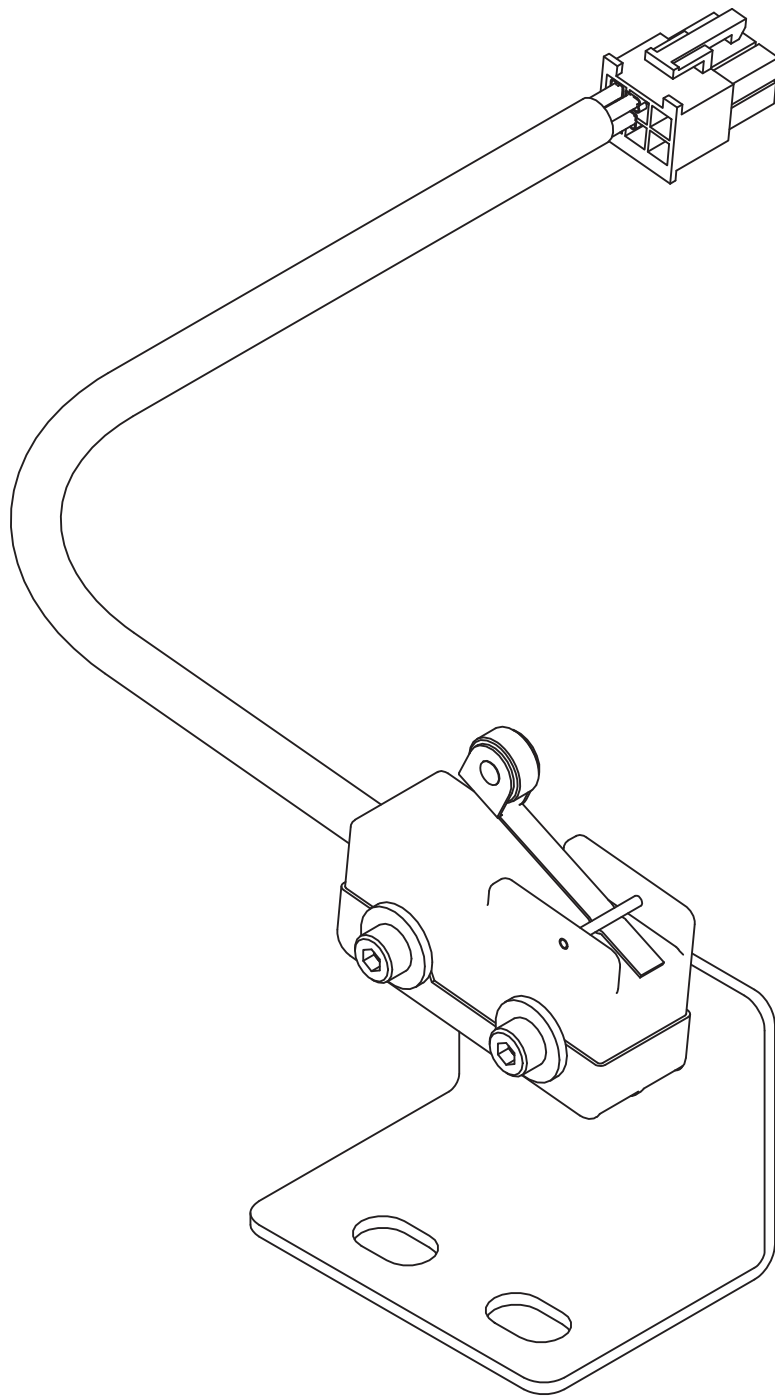
Heater Unit Assembly
Part Number 47111



Heater Element Assembly
Part Number 47123

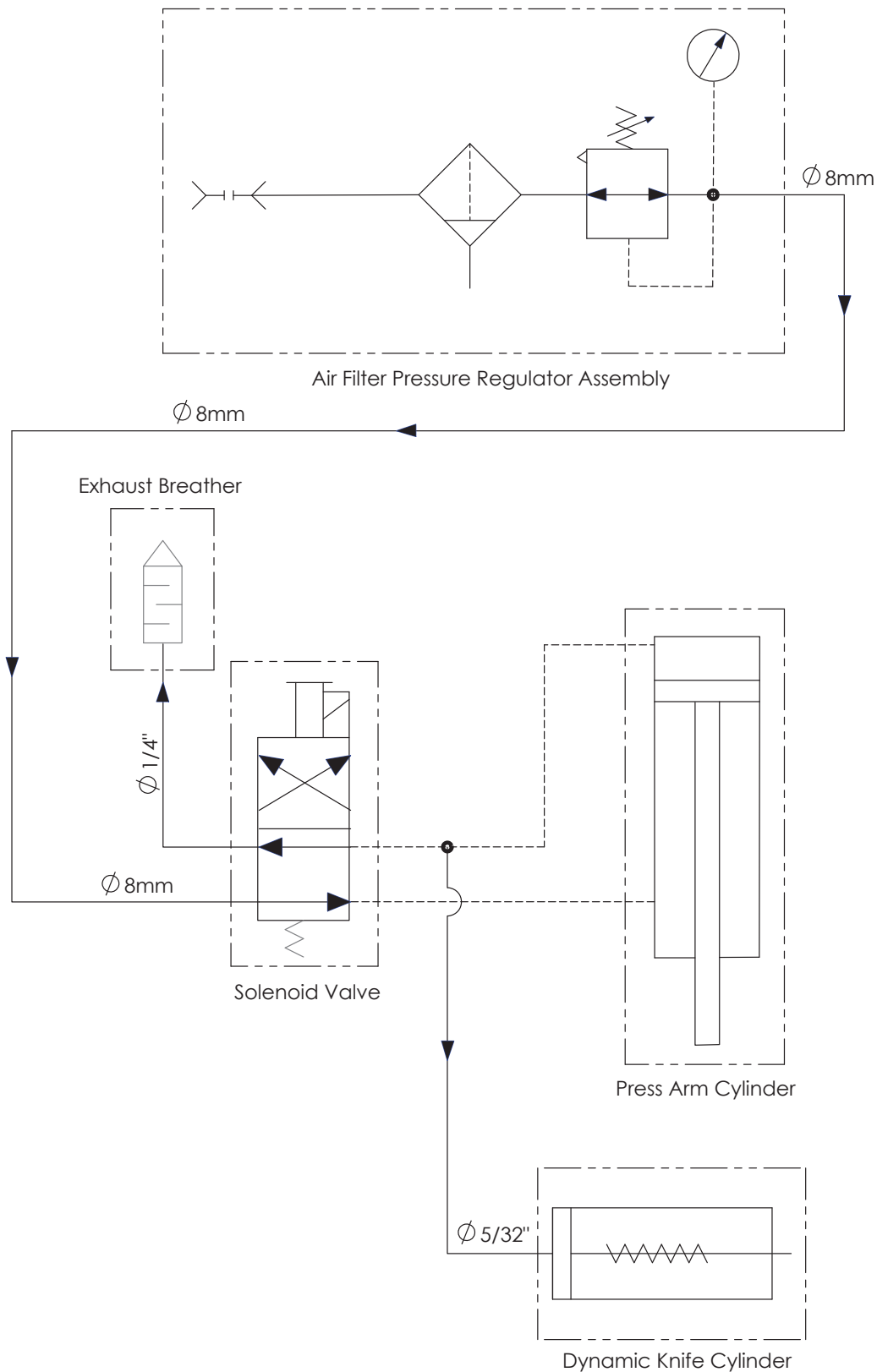


RTD Temperature Sensor Assembly
Part Number 47136

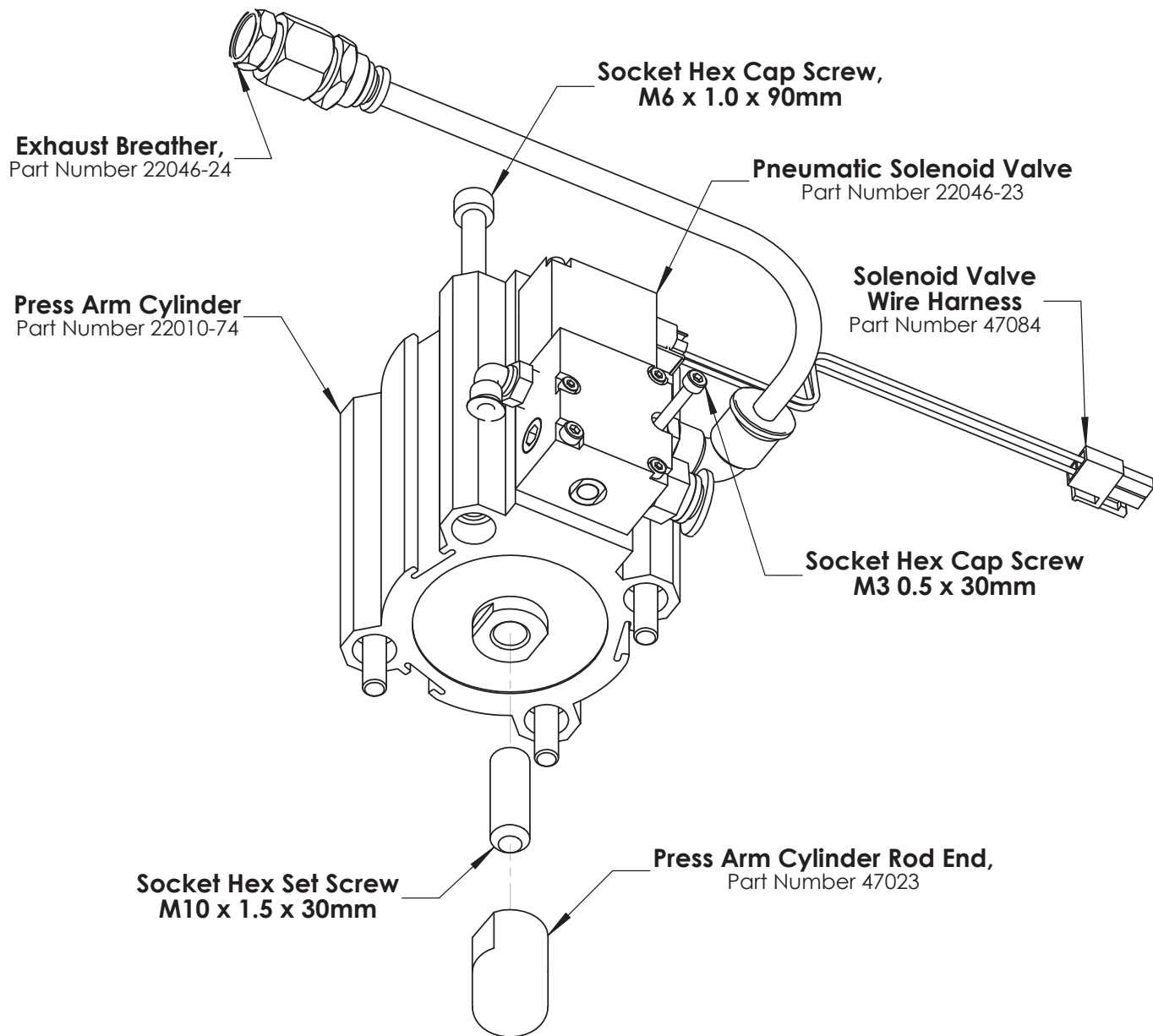


Press Arm Switch Assembly
Part Number 47071

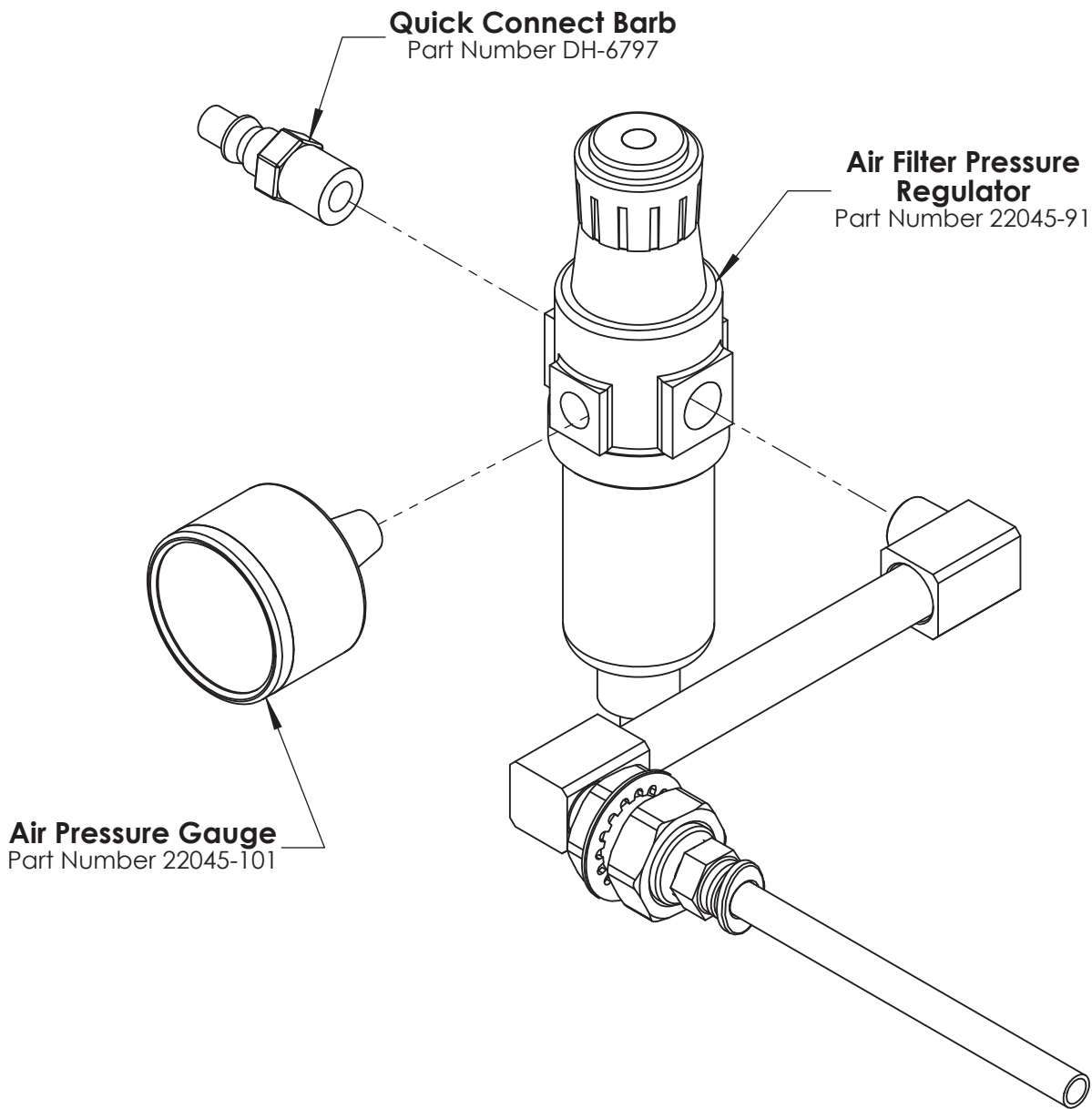
2. Pneumatic



Pneumatic Diagram

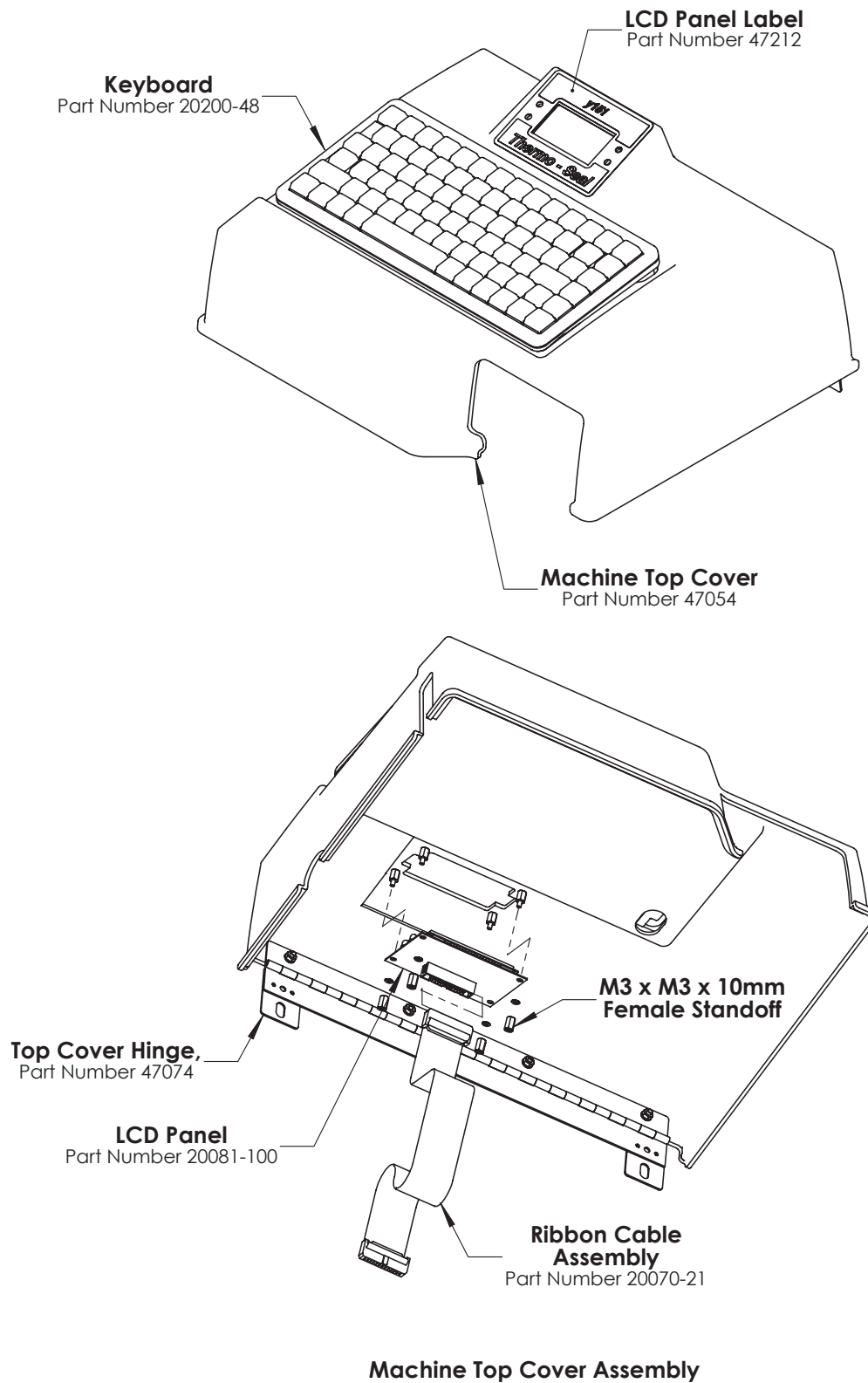


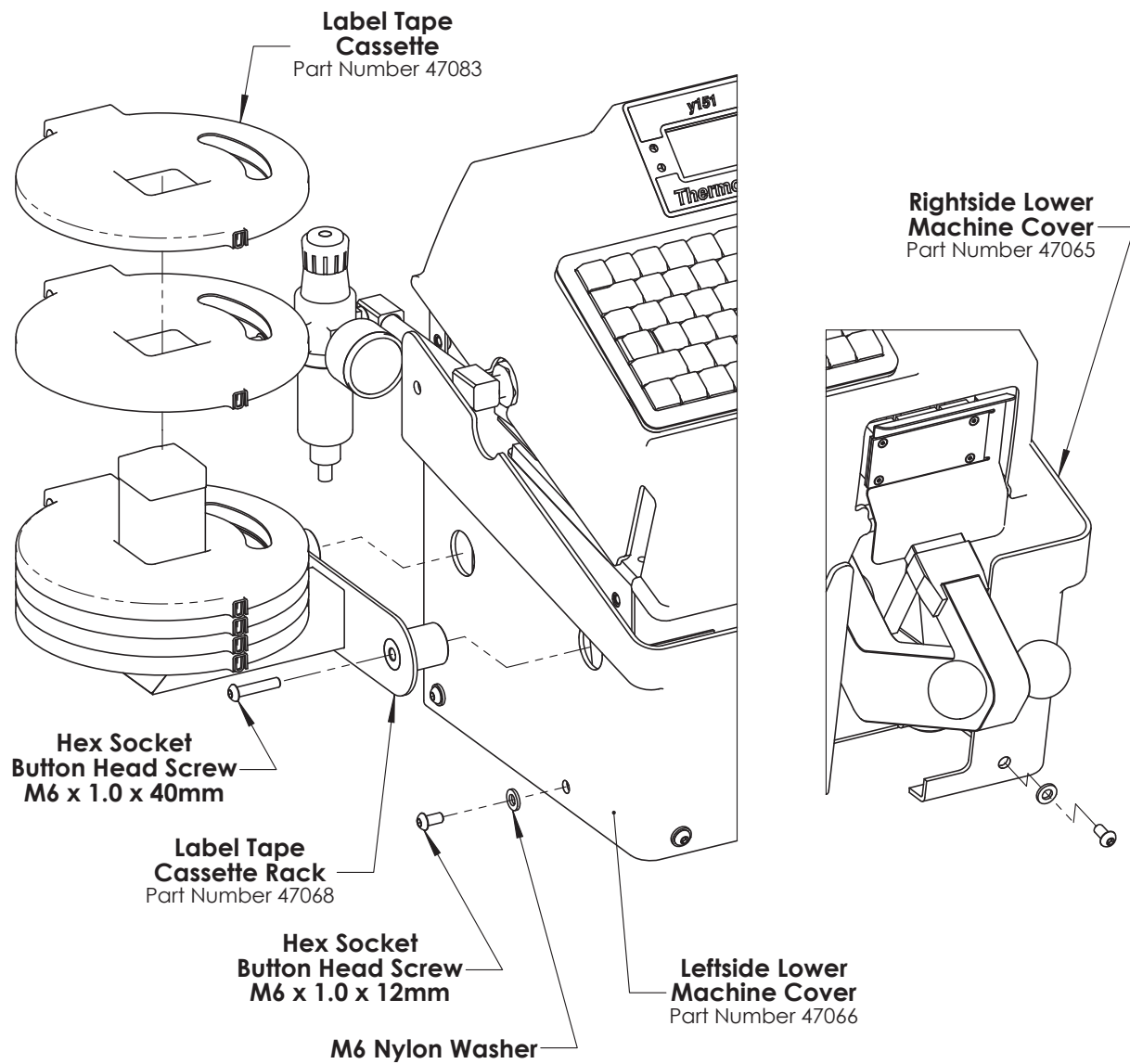
Press Arm Cylinder Assembly
Part Number 47018



Air Filter Pressure Regulator Assembly
Part Number 47094

3. Mechanical





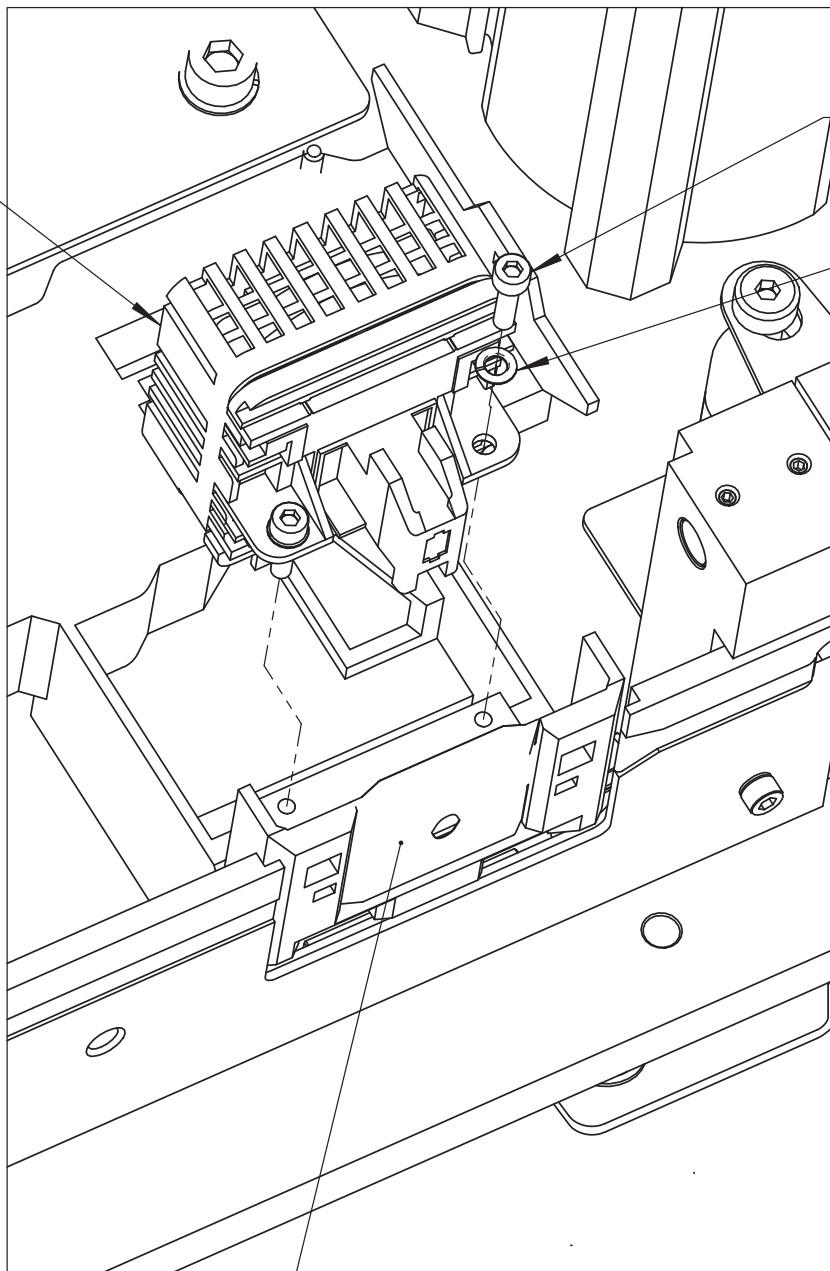
Machine Cover Assembly and Accessories

Printer Head
Part Number
20205-142

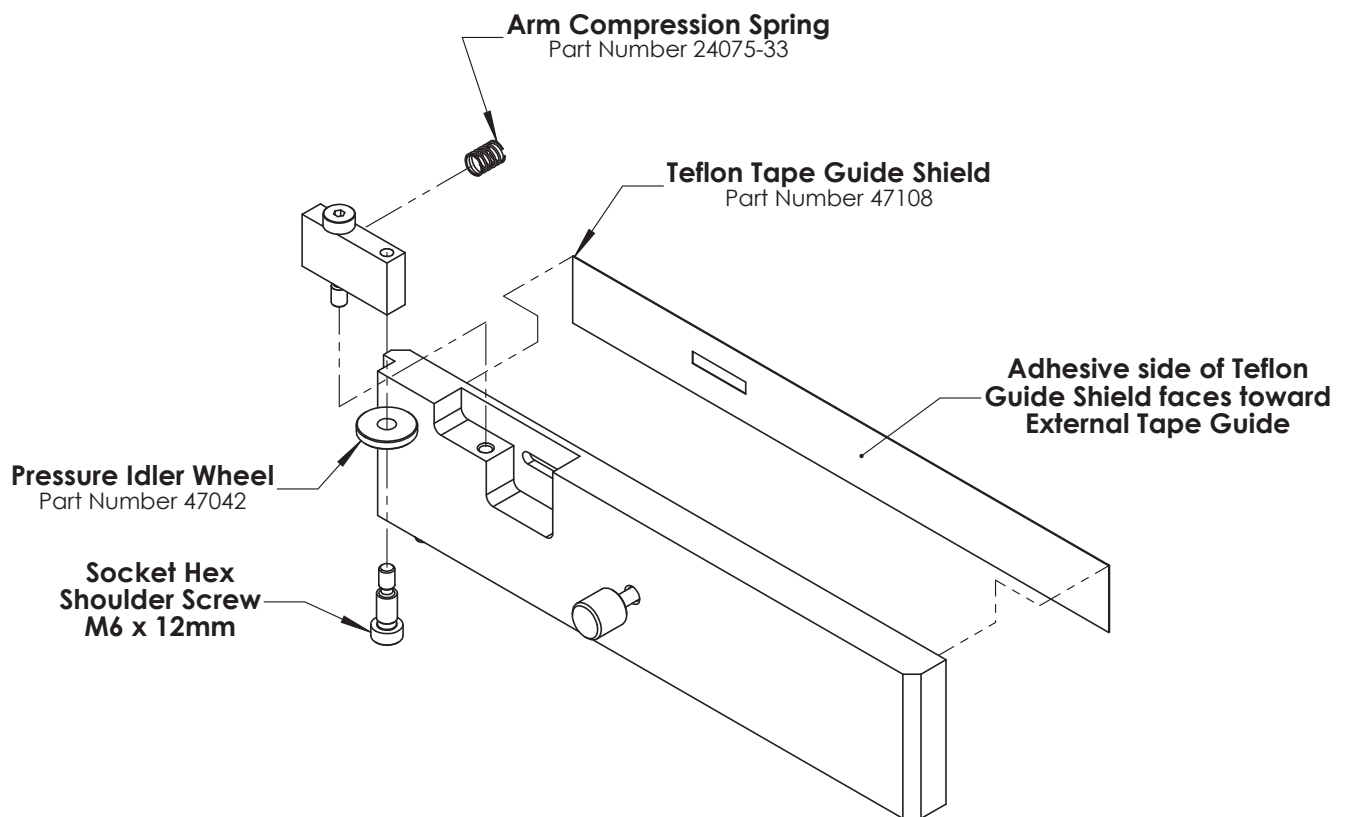
**Socket Hex
Cap Screw**
M3 x 0.5 x 12mm

**M3 Spring
Lockwasher**

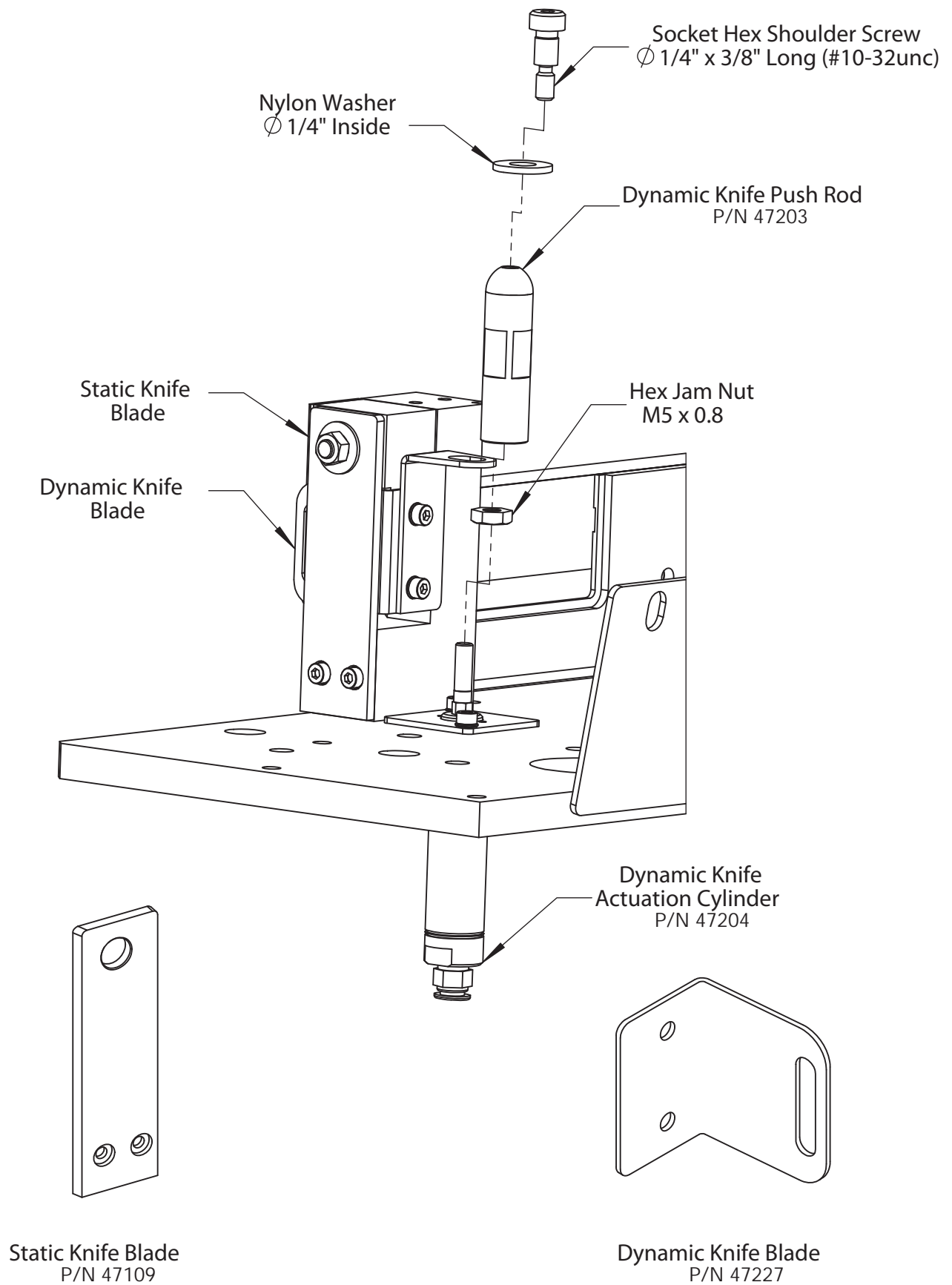
Printer Head Mask
Part Number 20205-143



Printer Head Assembly



External Tape Guide Assembly



Dynamic Knife Assembly

Y151 Thermo-Seal Replacement Parts List

MECHANICAL

Part Number	Description	Qty per machine
DH-3187	Rubber Sealing Platen	(1)
DH-6797	Quick Connect Hose Barb	(1)
24089-06	Spindle Drive O-Ring (Buna-N rubber)	(1)
24091-75	Press Arm Shock Dampener	(1)
20205-143	Printer Head Face Shield	(1)
47023	Press Arm Cylinder Rod End	(1)
47042	Pressure Idler Wheel	(1)
47081	Dynamic Knife Return Spring	(1)
47083	Label Tape Cassette	(6)
47108	Teflon Tape Guide Shield	(1)
47109	Static Knife Blade	(1)
47194	Dynamic Knife Blade Assembly	(1)
47203	Dynamic Knife Push Rod	(1)

ELECTRICAL

Part Number	Description	Qty per machine
20015-26	3.15 amp Fuse (230v Machine)	(2)
20015-32	6.30 amp Fuse (115v Machine)	(2)
20081-100	LCD Panel	(1)
20070-22	Flexible Flat Cable (17 wires)	(2)
20070-21	Ribbon Cable (26 wires)	(1)
20200-48	Compact Keyboard (USB Conn.)	(1)
20205-142	Printer Head, 24 pin	(1)
47084	Solenoid Valve Wire Harness	(1)
47091	Machine Electrical Chassis Assembly	(1)
47099	Stepper Motor Assembly	(1)
47100	Ink Ribbon Motor Assembly	(1)
47123	Heater Element (24v AC)	(1)
47136	Wire Harness Assembly, RTD Sensors & Wires	(1)

PNEUMATIC

Part Number	Description	Qty per machine
22045-91	Air Filter/Pressure Regulator	(1)
22045-101	Air Pressure Gauge	(1)
22046-23	Solenoid Valve	(1)
47018	Press Arm Sealing Cylinder Assembly	(1)
47094	Air Filter/Pressure Regulator Assembly	(1)
47204	Dynamic Knife Actuation Cylinder Assembly	(1)



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