

HS-4-C HS-4-C-Air HS-4-C-Air-Pro

User manual



# TATTENTION!

All persons involved in installation, commissioning, operation, maintenance and repair of this product should be made available to these instructions.

# **Copyrights**

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# Introduction

Dear User,

Welcome to the growing group of Thermopatch users. Your purchase has been manufactured with the utmost care to ensure that you benefit as long as possible from your Thermopatch product.

The products by Thermopatch are designed with special attention to your convenience. Should you discover any fault or damage upon receipt of this product, please contact your local Thermopatch vendor.

The manual has been prepared in accordance with NEN 5509 and in conformity with the Machinery Directive 2006/42/EC. This user manual is intended not only for all users of the machine, but also for those who install and maintain the HS-4-C / HS-4-C-Air / HS-4-C-AirPro. The goal is to familiarize you with the operation, to provide for safe working instructions and guidelines for periodical maintenance.

### **ATTENTION!**

In order to make safe and optimal use of the HS-4-C / HS-4-C-Air / HS-4-C-AirPro, it is important to take note of and understand the contents of this manual.

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# **DECLARATION OF CONFORMITY**



We,
Thermopatch B.V.
Draaibrugweg 14
1332 Almere
The Netherlands

herewith declare, on our own responsibility, that the machinery:

marking machine **HS-4-C HS-4-C-Air** or **HS-4-C-AirPro** which this declaration refers to, is in accordance with the conditions of the following Directive(s):

2006/95/EG

(Low tension directive)

2004/108/EG

(EMC directive)

The Netherlands, Almere, 05-07-2016

Jan Bausch, Director

# 1. General description

The HS-4-C machine range consists of practical and universally applicable heat seal machines. All can be used to apply patches, textile emblems, heat seal transfers, in short all Thermopatch materials suited for marking and mending to textiles.

The HS-4-C / HS-4-C-Air / HS-4-C-AirPro machine is a semiautomatic machine wich is manually operated. The set temperature and time are presented upon its display. The pressure setting can be seen on the pressure gauge of the air pressure regulator.

The HS-4-C is the basic version in the range, which has to be closed manually and opens up automatically, after completion of the heat sealing cycle, driven by an electric motor. The pressure between the platen can be adapted by turning the lower platen to the left (deminishing) or right (increasing).

Both HS-4-C-Air and HS-4-C-AirPro are semi automatic machines which have to be closed manually and open automatically after the heat sealing cycle is completed but are driven by compressed air. The pressure between the platens is set by setting the added airfilter regulatior, mounted on the back of the machines.

#### Added lower heating platen

The HS-4-C-AirPro has a heated lower platen as an added feature for faster heat sealing due to extra added heat from the bottom.

#### 1.1 Delivery

The HS-4-C machines are supllied packed in a cardboard box.

The HS-4-C delivery contains following items:

- HS-4-C / HS-4-C-Air / HS-4-C-AirPro heat seal machine
- Power cord
- Quick installation guide
- Quality checklist
- Manual including a declaration of conformity, on CD-ROM

The HS-4-C-Air / HS-4-C-AirPro delivery contains following items:

- HS-4-C-Air / HS-4-C-AirPro heat seal machine
- Power cord
- 6 mm air tubing, mounting plate and air filter regulator in a separate card board box
- Quick installation guide
- Quality checklist
- Manual including a declaration of conformity, on CD-ROM

If one of these articles should be missing or faulty, please contact your Thermopatch supplier.

#### 1.2 Conditions of warranty

Thermopatch points to its warranty and product liability conditions as laid down in our conditions of sales. These can be obtained from your Thermopatch supplier.

# 2. Intended use

The machine HS-4-C machine range is practical and universally applicable. It can be used to apply patches, textile emblems, heat seal transfers, in short all Thermopatch materials suited for marking and mending to textiles and manmade fibres.

### $\triangle$ WARNING!

Any use other than described above can be dangerous and cause damage and thus qualifies as 'misuse' which excludes Thermopatch by from any liability.

# 3. Technical specifications



### 3.1.1 Specifications of the HS-4-C

Power	600 Watts
Power supply	230 Volt
Operating temperature	204 °C
Temperature range	20-230 °C
Press Time range	1 - 60 sec.
Machine height, open	550 mm
Machine height, closed	550 mm
Machine width	550 mm
Machine depth, open	350 mm
Machine depth, closed	350 mm
Gross weight, including packaging	37.5 kg
Net weight	27.7 kg
Fuses 2x	3.15 Ampere
A-weighted noise level	<70 dB (A)



### 3.1.2 Specifications of the HS-4-C-Air

Power	600 Watts
Power supply	230 Volt
Operating temperature	204 °C
Temperature range	20-230 °C
Press Time range	1 - 60 sec
Discharge pressure range	2-5 bar
Machine height, open	550 mm
Machine height, closed	550 mm
Machine width	550 mm
Machine depth with air filter regulator,	
open	360 mm
Machine depth with air filter regulator,	
closed	360 mm
Gross weight, including packaging	37.5 kg
Net weight	27.7 kg
Fuses 2x	3.15 Ampere
A-weighted noise level	<70 dB (A)



### 3.1.3 Specifications fo the HS-4-C-AirPro

Power	1200 Watts
Power supply	230 Volt
Operating temperature	204 °C
Temperature range	20-230 °C
Press Time range	1 - 60 sec.
Discharge pressure range	2-5 bar
Machine height, open	550 mm
Machine height, closed	550 mm
Machine width	550 mm
Machine depth with air filter regulator,	
open	360 mm
Machine depth with air filter regulator,	
closed	360 mm
Gross weight, including packaging	37.5 kg
Net weight	27.7 kg
Fuses 2x	6.3 Ampere
A-weighted noise level	<70 dB (A)

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# 4. Overview of safety measures and warnings

#### 4.1 Safety

At normal usage no safety issues are to be expected. Regardless that, we state underneath a few pointers which will limit any existing risks to a minimum.

- Unplug the machine from the wall socket whenever you are maintaining or cleaning the machine.
- Make sure there is enough working space around the machine. Although the heat radiation of the press is very low, it is still necessary to have enough room for cooling down.
- Extensions and connections must not get snagged.
- Avoid contact with the press arm and the heating element.
- Pull the fabric tightly over the sealing pad.

The HS-4-C / HS-4-C-Air / HS-4-C-AirPro is fitted with all required safety measures to ensure safe working as required by European safety guidelines.

#### The safety frame

The upper platen of the press head of the HS-4-C-Air / HS-4-C-AirPro is guarded by a safety frame. This frame prevents getting pinched between both platens.

# TATTENTION!

Make sure you are informed about the contents of this manual before starting to work with the HS-4-C / HS-4-C-Air / HS-4-C-AirPro. This ensures an optimal and safe use of the machine.

## TATTENTION!

Always turn the power off (unplug it) when you need to carry out maintenance work or when cleaning the machine.

## **ATTENTION!**

In case of emergency, press the emergency stop button!

## TATTENTION!

Take care that there is enough space around the machine. Cables and connections must not get pinched. Although the heat radiation of the press is low, there should be enough space for cooling down.

### TATTENTION!

Avoid contact with the press element and the heating element.

### **ATTENTION!**

Pull the fabrics tight around the press pad and ensure that your hands are away from the sealing pad before operating the machine.

**Warning symbols**The following warning symbols have been mounted onto the machine for added safety:

### $\triangle$ warning!



Hot surface

 $\triangle$  warning!



Electric tension

# 5. Transport and storage

### 5.1 Transport

When the machine needs to be moved, Thermopatch advises to use the original packaging.

#### **5.2 Storage**

When the machine needs to be stored, Thermopatch advises to use the original packaging. The machine should be stored on a pallet, off the floor, in dry conditions.



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# 6. Operating instruction

#### 6.1 Operating the HS-4-C

You can start operating the Thermoseal HS-4-C as soon as it is connected to the electricity mains. Switch on the machine by pressing the on/off (I-0) switch, which is placed on the back of the machine, to "on (I)".

Wait until the set temperature has been reached, which will take about one minute.

#### Starting up:

At start up the display will show "888" and illuminate both LED's.

The element is now heating up to the set temperature, during which the chosen temperature (Celsius or Fahrenheit) LED will be blinking.

When the blinking stops, the set temperature is reached.

#### Stand-by

When the machine is idle for a longer period than the set time for Stand-by, it will go into power saving mode. The factory set time for Stand-by is set after 30 minutes

The temperature of the heating element will be decreased to 50 °C, if this function is enabled. In the stand-by mode a letter "S" will be moving from left to right in the display.

#### **6.1.1** The control panel

The following describes the display functions and shows:

The Celsius or Fahrenheit LED will light up continuously once the temperature is within range of the setting. The temperature range is the set temperature +/- 7°C or +/- 15°F.

When the machine is idle, the actual temperature of the heater element is displayed.

During a heat sealing cycle, the display will show a countdown of the time in seconds from the preset press time.

#### 6.1.2 Settings

By pressing the select save button, you can run through the menu for the various settings:

For HS-4-C:

- Temperature
- Heat sealing time
- Stand-by time

#### 6.1.2.1 Temperature settings

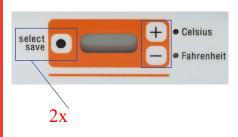
The set temperature of the HS-4-C heat seal machine has been set at the factory to 204°C.

To change the set temperature, please follow the procedures below:

- Press select/save button once.
- Press + or button to set the desired set temperature.
- Press select/save to save the setting.

**Note:** if the + or - button is not touched for 3 seconds the display will revert to the actual temperature of the heater element and any changes will not be saved.









# Warning!

Use of excess pressure can cause the HS-4-C to become locked in a closed position and difficult to open.

Extreme pressure can cause severe damage tot the machine.

#### **6.1.2.2** Time settings

The sealing time of the HS-4-C heat seal machine has been set at the factory to 12 seconds. To change the sealing time, please follow the procedures below:

- Press the select/save button twice.
- Press + or button to set the desired time.
- Press select/save to save the setting.

**Note:** if the + or - button is not touched for 3 seconds the display will revert to the actually set sealing time and any changes will not be saved.

#### 6.1.2.3 Pressure settings for the HS-4-C

A label to indicate the direction in which to turn the lower press platen is mounted directly below it.

- To increase inter-platen pressure, turn the Lower Press Platen counterclockwise.
- To decrease the inter-platen pressure, turn the Lower press platen clockwise.

The desired pressure is set as follows:

- Turn the lower press platen clockwise until it has bottomed out against the machine base.
- Turn the lower press platen counterclockwise until the first "click" is detected. This pressure setting is "zero" pressure.
- To set the lower press platen to a selected Pressure Setting, count the number of "clicks" turning the lower press platen counterclockwise, increasing pressure.

To set the lower press platen to a new selected pressure setting from and existing setting, count the number of "clicks" from the existing setting, turning the lower press platen clockwise or counterclockwise.

Settings may vary depending upon garment thickness. Normally, higher pressures will produce more effective heat seals. However, the use of excess pressure may force adhesive through the fabric, with an undesired result.

Difficulty in locking the seal arm handle of the HS-4-C in a closed position is an indication of too much pressure between the platens. To prevent excess pressure when sealing thick garments, screw the lower press platen all the way down.

When the pressure is too high, preventing the machine to open by itself, this has to be done manually. After this, switch off the machine for 5 seconds and switch it on again, resetting the machine.

A lower press platen that is worn from use can cause too low pressure between the platens and lead to bad heat sealing results.

The Lower press platen should be replaced with lower press platen part number SPA43941.

#### 6.2 Operating the HS-4-C-Air and HS-4-C-AirPro

You can start operating the Thermoseal HS-4-C-Air and -AirPro as soon as it is connected to both the electricity mains and to an airsupply which provides clean and dry compressed air set at a maximum of 5 Bar.

Switch on the machine by pressing the on/off (I-0) switch, which is placed on the back of the machine, to "on (I)". Wait until the set temperature has been reached, which will take about one minute.

#### Starting up:

At start up the display will show "888" and illuminate both LED's.

The element is now heating up to the set temperature, during which a led wil be blinking.

When the blinking stops, the set temperature is reached.

#### **Stand-by**

When the machine is idle for a longer period than the set time for Stand-by, it will go into power saving mode. The factory set time for Stand-by is set after 30 minutes

The temperature of the heating element will be decreased to 50 °C, if this function is enabled. In the stand-by mode a letter "S" will be moving from left to right in the display.

#### **6.2.1** The control panel

The following describes the display functions and shows: The Celsius or Fahrenheit LED will light up continuously once the temperature is within range of the setting. The temperature range is the set temperature +/- 7°C or +/-

When the machine is idle, the actual temperature of the heater element is displayed.

During a heat sealing cycle, the display will show a countdown of the time in seconds from the preset press time.

#### **6.2.2 Settings**

15°F.

By pressing the select save button, you can run through the menu for the various settings:

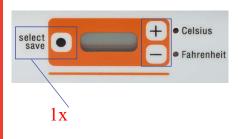
For HS-4-C-Air:

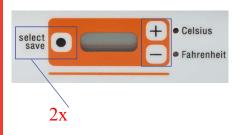
- Temperature
- Heat sealing time
- Stand-by time

#### For HS-4-C-Air-Pro:

- Temprature upper platen
- Temperature lower platen
- Heat sealing time
- Stand-by time

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#### **6.2.2.1** Temperature settings

The set temperature of the HS-4-C-Air / HS-4-C-AirPro heat seal machine has been set at the factory to 204°C.

To change the set temperature, please follow the procedures below:

- Press select/save button once.
- Press + or button to set the desired set temperature.
- Press select/save to save the setting.

**Note:** if the + or - button is not touched for 3 seconds the display will revert to the actual temperature of the heater element and any changes will not be saved.

#### **6.2.2.2** Time settings

The sealing time of the HS-4-C-Air / HS-4-C-Air-Pro heat seal machine has been set at the factory to 12 seconds. To change the sealing time, please follow the procedures below:

- Press the select/save button twice.
- Press + or button to set the desired time.
- Press select/save to save the setting.

**Note:** if the + or - button is not touched for 3 seconds the display will revert to the actually set sealing time and any changes will not be saved.

#### **6.2.2.3 Pressure settings**

The factory set pressure of 5 bar on the air filter regulator can be adjusted to requirements by turning the pressure to a lower setting.

# 6.3 Interrupting the operation of the HS-4-C / HS-4-C-Air / HS-4-C-Air-Pro

In order to interrupt the heat sealing cycle of the machine, press any button on the display. The machine will stop and open up immediately.

#### **6.4 Error codes**

**Error 1 = Temperature sensor short (0 Ohm)** 

**Error 2 = Temperature sensor broken** 

**Error 3 = Error in Eprom** 

# 7. Assembly and installation

#### 7.1 Assembly

It is very important that the HS-4-C-Air / HS-4-C-Air-Pro is provided with clean, dry air.

The water condenser is an additional safety measure.

Provide air pressure of 2 - 6 bar from the compressor or its own air supply.

Connect the air tubing with a diameter of 6 mm to the compressor or to your own local air supply, and to the pressure regulator of the HS-4-C-Air / HS-4-C-Air-Pro.

#### 7.2 Installation

Take the Thermoseal HS-4-C / HS-4-C-Air / HS-4-C-Air-Pro from its box and place it onto a stable worktop near an earthed wall socket.

Connect the machine with the supplied power cord to the electrical current (230 Volt, alternating current). Thermoseal HS-4-C / HS-4-C-Air / HS-4-C-AirPro is earthed and provided with two fuses (3.15 A; AirPro 6.3 A).

If you have to move the machine at a later time, it is recommended to pack it in a similar way.

Make sure the machine is cooled down before you pack it.

#### 7.3 Electrical requirements

The HS-4-C / HS-4-C-Air / HS-4-C-AirPro should be connected to the mains

(230 V alternating current) with the supplied power cable. The HS-4-C / HS-4-C-Air / HS-4-C-AirPro is an earthed machine and has been provided with two fuses of 3.15 (AirPro 6.3) amps.

### 8. Maintenance instructions

#### 8.1 Maintenance

• Every day: Clean the machine with a dry non pilling cloth.

Periodically:

#### **Temperature:**

The temperature of the heating plate can be tested regularly by using temperature measuring strips which can be obtained at your Thermopatch supplier.

#### **Teflon cover:**

The Teflon cover of the heating plate should always be clean to prevent labels or patches sticking to it or soiling the heat seal products. Clean the cover with a dry, clean cloth when the machine is still warm. Repeat this several times a day when using the machine intensively. Damaged or soiled Teflon covers need to be replaced. These can be obtained at your Thermopatch supplier.

#### **Sealing pad:**

Clean the sealing pad while it is still warm. Use a clean, lint free cloth to clean it regularly. Do not heat seal on zippers, staples, buttons etc. to avoid damage by puncturing or tearing the sealing pad. Never use solvents to clean the sealing pad.

#### Replacing the Teflon cover or sealing pad:

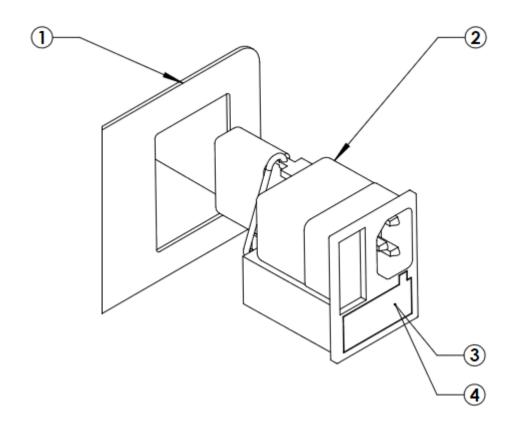
The Teflon cover or the sealing pad should, depending on their condition, be replaced regularly. When performing the replacement, make sure the machine has cooled down sufficiently. Peel off the self-adhesive Teflon cover (like a used band-aid). Then carefully remove any glue residue that was left behind. Make sure that all residue is removed and the metal surface is clean, before placing the new cover, without bubbles. Teflon covers and sealing pads can be obtained at your Thermopatch supplier.

# TATTENTION!

- Switch off the machine and disconnect from the electrical power
- Make sure the HS-4-C / HS-4-C-Air / HS-4-C-Air-Pro has cooled down enough before starting maintenance or repairs.

# 9. Technical annexes

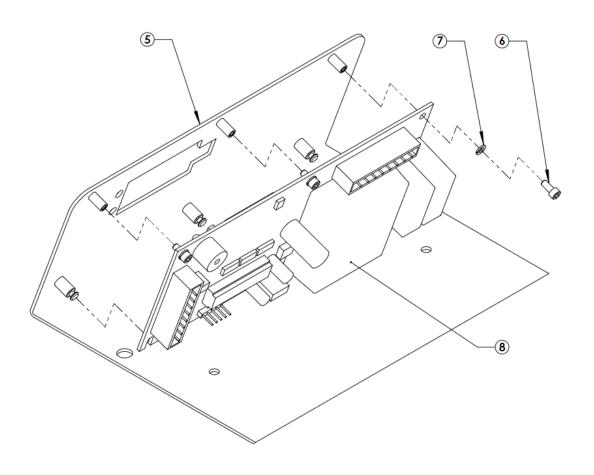
9.1 Power Entry Module



9.1 Parts list

Number:	Description	Quantity	Part number
1	Electrical Chassis	1	46326
2	Power Entry Module Assembly (without fuses)	1	46453
3	Fuse Drawer	1	P/O 46453
4	230 VAC 3.15 AMP Fuses for 600 W	2	20015-16
4	230 VAC 6.3 AMP fuses for 1200 W	2	105009

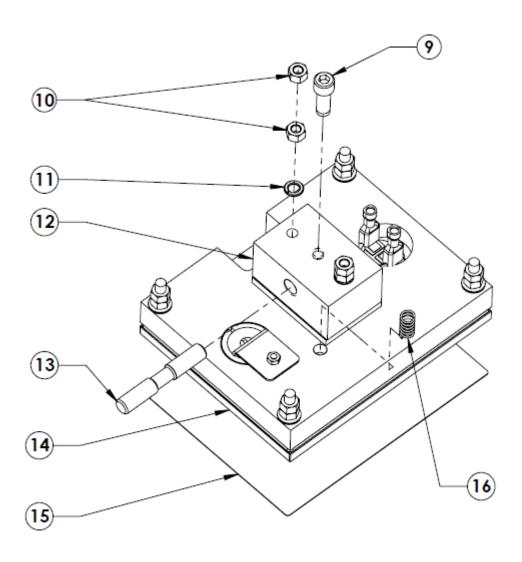
### 9.2 Controller board



9.2 Parts list

Number:	Description	Quantity	Part number
5	Electrical Chassis	1	46326
6	#4-40unc x ¼" Socket Hex Cap Screw	4	21063-02-C
7	#4 Spring Lockwasher	4	21031-03-C
8	Controller Board for manual version	1	46411
8	Controller Board for pneumatic versions	1	46411-A

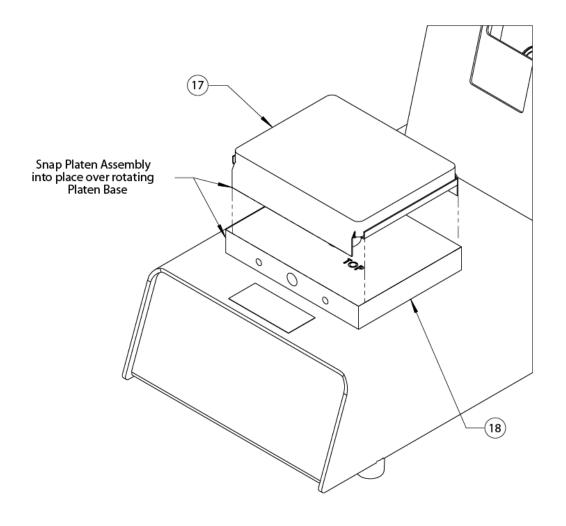
9.3 Heater Element



9.3 Parts list

Number:	Description	Quantity	Part number
9	1/4 20unc x 5/8" Socket Hex Cap Screw	1	21063-05-K
10	M5 Hex Nut	4	21045-07-A
11	M5 Spring Lockwasher	2	21046-06
12	Pivot Block	1	46378
13	Pivot Block Pin	1	46379
14	Heater Unit Assembly	1	SPAHS40000
15	Teflon Cover	1	46375
16	Compression Spring	2	24075-36

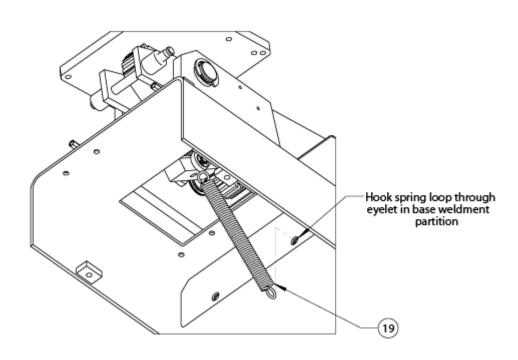
### 9.4 Platen assembly

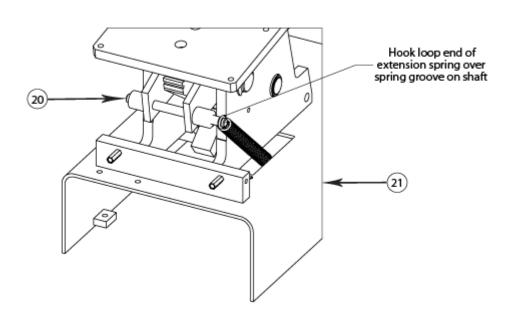


9.4 Parts list

Number:	Description	Quantity	Part number
17	Platen Assembly	1	43941
17	Platen Assembly for PRO only	1	43941-PRO
18	Rotating Platen Base	1	43663

### 9.5 Extension spring assembly

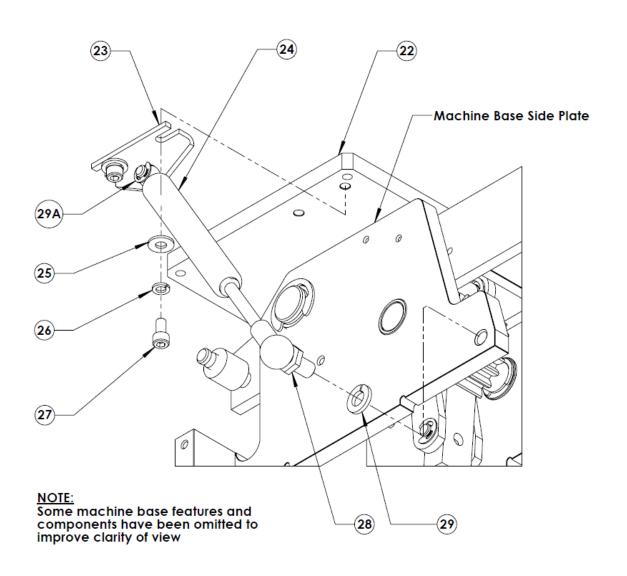




9.5 Parts list

Number:	Description	Quantity	Part number
19	Extension Spring	1	24080-35
20	Bumper	2	24091-44
21	Base Frame Assembly	1	47263

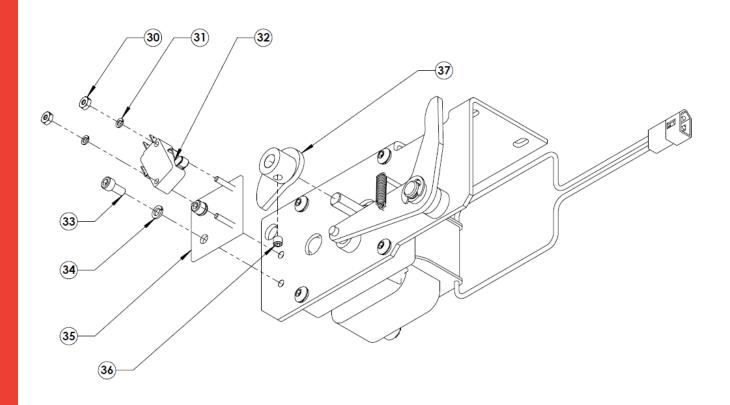
### 9.6 Gas spring mounting



9.6 Parts list

Number:	Description	Quantity	Part number
22	Top Cover Mounting Plate	1	46312
23	Gas Spring Bracket	1	46374
24	Gas Spring	1	24091-48
25	#10 Flat Washer	1	21023-01
26	#10 Spring Lockwasher	1	21012-07-C
27	#10-32unc x 3/8" Socket Hex Cap Screw	1	21063-03-J
28	Gas Spring Ball Joint	1	24901-77
29	5/16" Spring Lockwasher	1	21021-10-C
29A	Retaining Ring	1	D-9706

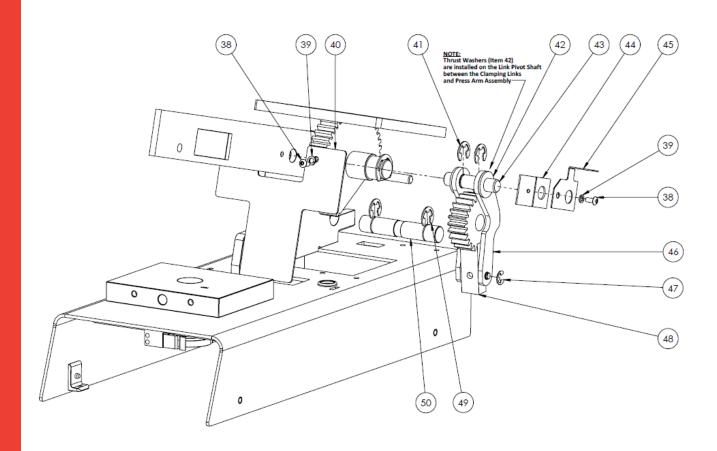
### 9.7 Seal arm release mechanism (gear motor assembly)



### 9.7 Parts list

Number:	Description	Quantity	Part number
30	#4-40unc Hex Nut	2	21051-03-A
31	#4-40 Spring Lockwasher	2	21021-03-C
32	CAM Release Arm Switch	1	20055-62
33	#8-32unc x 3/8" Hex Socket Cap Screw	2	21063-03-G
34	#8 Spring Lockwasher	2	21021-06-C
35	Cam Arm Switch Bracket	1	47187
36	#10-32unf x 3/16" Set Screw, Socket Hex Cup Point	1	21011-04-K
37	Cam Release Lobe	1	46408
	Gear Motor Assembly	1	47219

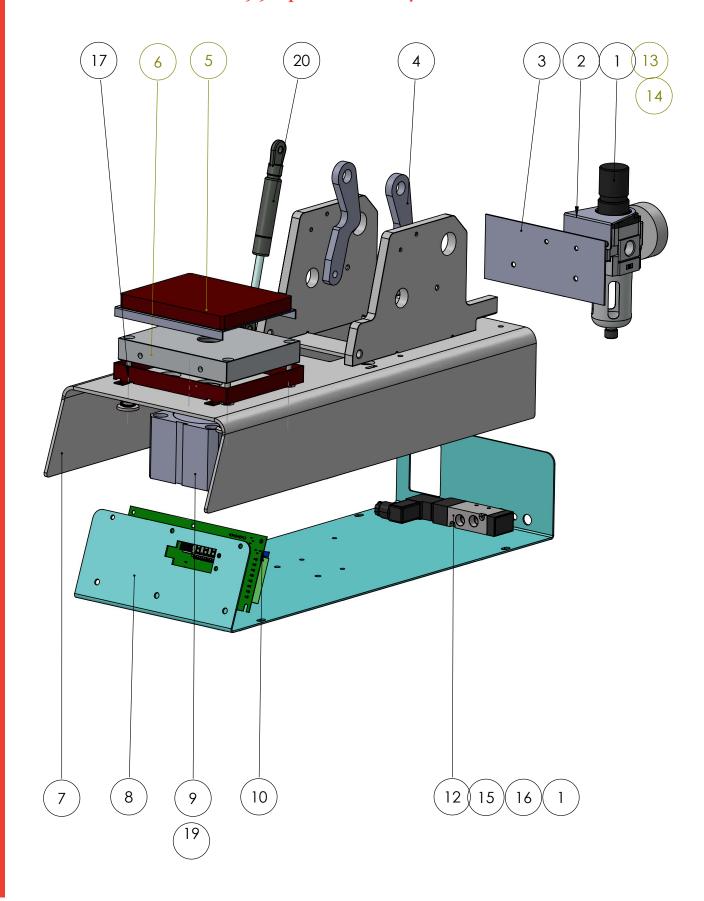
### 9.8 Press arm assembly



9.8 Parts list

Number:	Description	Quantity	Part number
38	#8-32unc x 3/8" Button Head Socket Screw	1	21029-48
39	#8 Spring Lockwasher	1	21021-06-C
40	Close Out Cover	1	46363
41	E Style ½" Diameter Retaining Ring	2	21025-26
42	Thrust Washer OD= 1", ID= 0.5"	2	21022-13
43	Link Arm Pivot Shaft	1	46328
44	Close Out Cover Bracket	1	46364
45	Switch Actuator	1	46334
46	Clamping Link Arm	2	46307
47	E Style ¼ " Diameter Retaining Ring	1	D-9702
48	24 Tooth Gear Assembly	1	46493
49	E Style 5/8" Diameter Retaining Ring	2	21025-28
50	24 Tooth Gear Pivot Shaft	1	46492

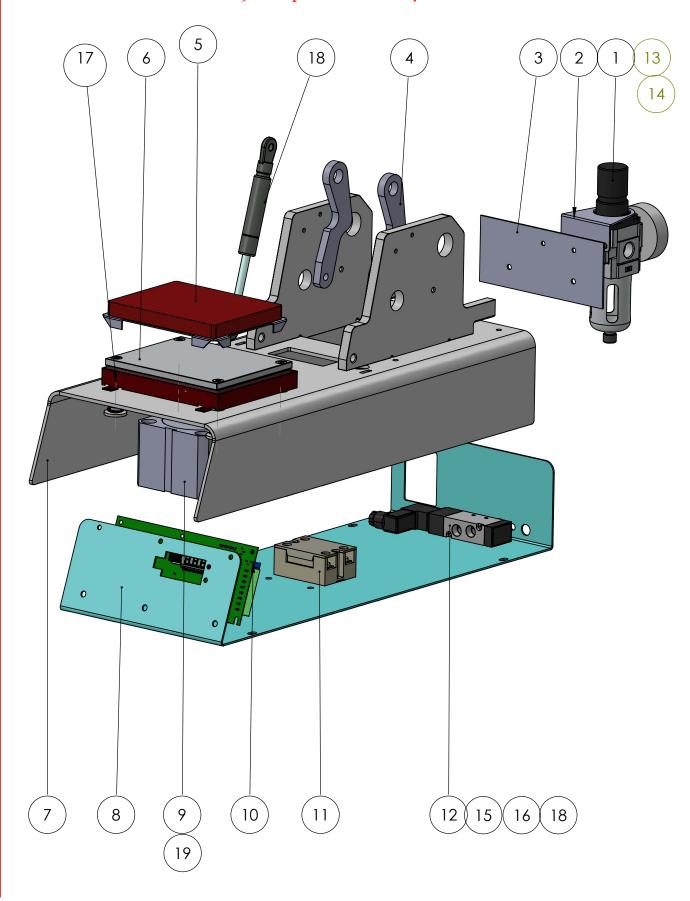
9.9 Exploded view HS-4-C-Air



### 9.9 Parts list

Number:	Description	Quantity	Part number
1	Air Filter Regulator	1	SPAPNF-AW2000-02
2	Bracket for Air Filter Regulator	1	-
3	Backplate	1	SPA46339AIR
4	Link	1	SPA46307AIR
5	Silicone sealing plate	1	SPA43941
6	Lower base plate	1	SPA43663AIR
7	Lower frame	1	SPA47255AIR
8	Bottom plate	1	SPA46327AIR
9	Air cilinder	1	SPANCYL-TDSA 63*15
10	Main board	1	SPA46411-A
11	Solidstate	1	SPA105010
12	Valve	1	SPAPNV-4V110-M5
13	Fitting	1	SPAPNS-IPC04-01
14	Fitting	1	SPAPNS-IPC06-01
15	Fitting	2	SPAPNS-IPC04-02
16	Fitting	2	SPAPNS-IPC04-m5
17	Safetyframe	1	SPAHS-400
18	Silencer	2	SPAPNSIL-BSL-M5
19	Fitting	2	SPANPNS-IPC04-02
20	Gas spring	1	SPA24091-48-E

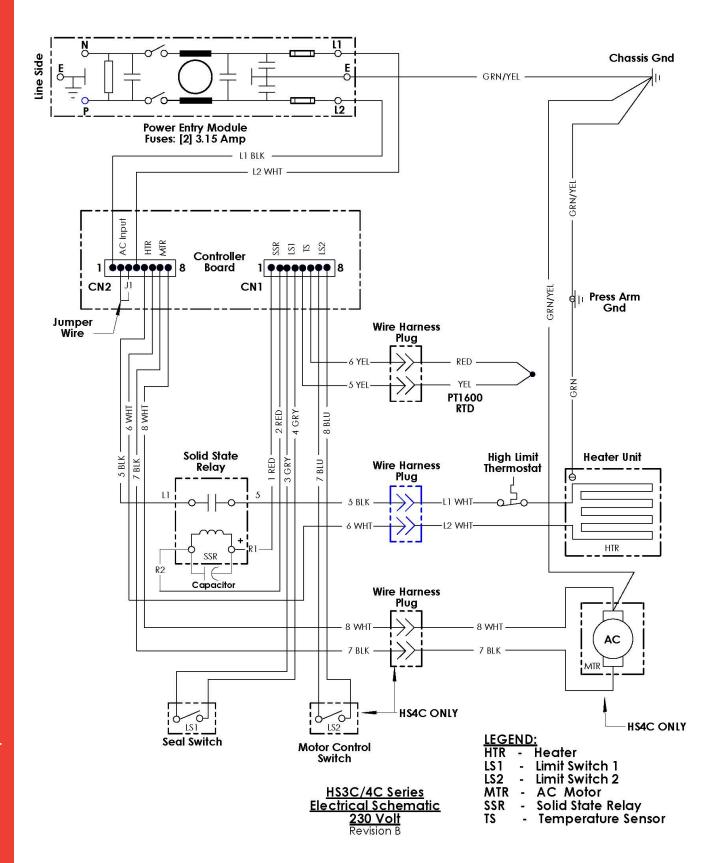
9.10 Exploded view HS-4-C-Air-Pro



### 9.10 Parts list

Number:	Description	Quantity	Part number
1	Air Filter Regulator	1	SPAPNF-AW2000-02
2	Bracket for Air Filter Regulator	1	-
3	Backplate	1	SPA46339AIR
4	Link	1	SPA46307AIR
5	Silicone sealing plate	1	SPA46307-PRO
6	Lower element assembly	1	SPA4000YAIR
7	Lower frame	1	SPA47255AIR
8	Bottom plate	1	SPA46327AIR
9	Air cilinder	1	SPANCYL-TDSA 63*15
10	Main board	1	SPA46411-A
11	Solid state	1	SPA105010
12	Valve	1	4v110-m5 AC220V
13	Fitting	1	IPC04-01
14	Fitting	1	IPC06-01
15	Fitting	2	IPC04-02
16	Fitting	2	IPC04-m5
17	Safetyframe	1	SPAHS-400
18	Silencer	2	BSL-M5
19	Fitting	2	TPC04-02
20	Gas spring	1	SPA24091-48-E

#### 9.11 Electric wiring diagram HS-4-C



Manual HS4C / HS4C-Air / HS4C-Air / HS4C-Air Pro ENG original V1.0 23022017 MN

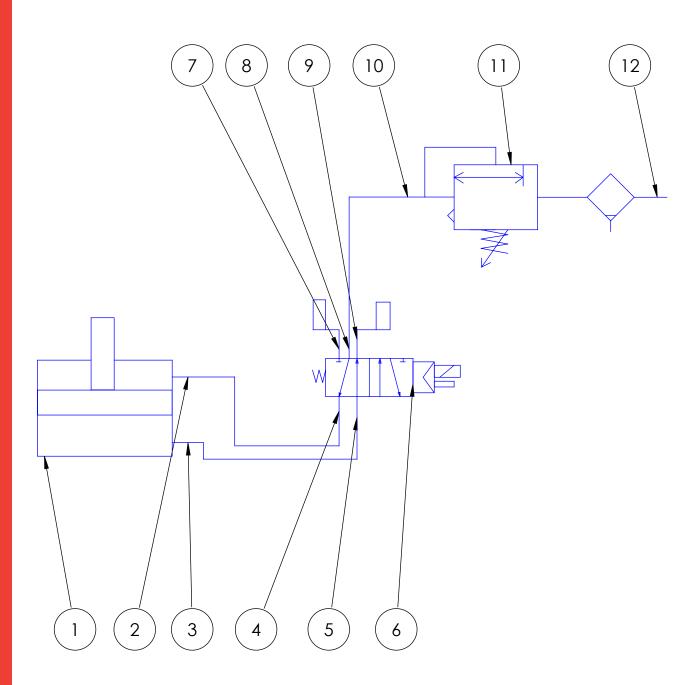
9.12 Electric wiring diagram HS-4-C-Air FARTH White Thermostat Upper White FARTH Size: A4 Engineer:R Scherrenburg

Date: 1-6-2017 Time: 13:42:33

File: HS4C Air Wiring. SchDoc Title: HS4C Air Wiring.SchDoc Project: HS4C Double Heat Black SPA20055-62 EARTH

# 9.13 Electric wiring diagram HS-4-C-Air Pro FARTH White Thermostat Upper White SPAPEN-03-02 White EARTH Size: A4 EngineerR Scherrenburg Title: HS4C Air Pro Wiring. SchDoc Project: HS4C Double Heat A SPA20040-68 Solid State Lower Red SPA46411-A HS4C PCB Grey Gllow SPA20055-62 SPA46453 Green/Yellow EARTH C В Ω

### 9.14 Pneumatics diagram HS-4-C-Air and HS-4-C-Air-Pro





# 10. Faults

Foult Bookhia anno Colution				
Fault	Possible cause	Solution		
No heat.	<ul> <li>Machine is unplugged or power source is faulty.</li> <li>Main power switch is not "On".</li> <li>Power Saver feature activated.</li> <li>Temperature displayed.</li> <li>Loose wires.</li> <li>Heat sensor is defective.</li> <li>Sealing iron is defective.</li> <li>Relay is defective.</li> <li>Heat controller is defective.</li> </ul>	<ul> <li>Check plug and fuses.</li> <li>Check</li> <li>See I. Introduction.</li> <li>See II. Installation.</li> <li>Check</li> <li>Replace</li> <li>Replace</li> <li>Replace</li> <li>Return circuit board to factory for repair.</li> </ul>		
Temperature too high or too low.	<ul> <li>Heat control requires adjustment.</li> <li>Temperature display is incorrect.</li> <li>Power Saver feature activated.</li> <li>Heat sensor is defective.</li> <li>Sealing iron defective.</li> <li>Heat controller is defective.</li> </ul>	<ul> <li>See II. Installation to adjust.</li> <li>See II. Installation to check.</li> <li>See I. Introduction</li> <li>Replace</li> <li>Replace</li> <li>Return circuit board to factory for repairs.</li> </ul>		
Time malfunction.	<ul><li>Loose wires.</li><li>Timer is defective.</li><li>Micro switch is defective.</li></ul>	<ul><li>Check</li><li>Return circuit board to factory for repairs.</li><li>Replace</li></ul>		
Handle does not stay down. Handle does not return at end of cycle (HS4C / HS4C-Air / HS4C- AirPro).	<ul> <li>Insufficient pressure</li> <li>Excess pressure.</li> <li>Motor is defective.</li> <li>Linkage or gas spring is binding or broken.</li> <li>Springs are weak.</li> <li>Links broken.</li> </ul>	<ul> <li>See III. Operating the HS4C / HS4C-Air / HS4C-AirPro.</li> <li>See III. Operating the HS4C / HS4C-Air / HS4C-AirPro.</li> <li>Replace</li> <li>Lubricate or adjust. See Page V. Possible faults and VI. Supplies Note 1.</li> <li>Replace</li> <li>Replace</li> <li>Replace</li> </ul>		
Inadequate bond or transfer.	<ul> <li>Insufficient sealing time</li> <li>Insufficient pressure</li> <li>Insufficient tempeature.</li> <li>Pad worn.</li> <li>Teflon shield soiled or worn.</li> </ul>	<ul> <li>Increase time in 2 second increments and test.</li> <li>Increase pressure in one half turn increments and test.</li> <li>See II. Installation to adjust.</li> <li>Replace</li> <li>Clean or replace.</li> </ul>		
Bleed through.	<ul><li>Too much time.</li><li>Too much pressure.</li></ul>	<ul> <li>Decrease time in 2 second increments.</li> <li>Decrease pressure in one half turn increments.</li> </ul>		

# 11. End of life



Choose to dispose of the machine responsibly when it has reached its end of life.

Electrical machinery, accessories and packaging should be recycled as much as possible in an environmentally responsible manner.

- Dismantle the machine groups: steel parts / pneumatic components / electrical components
- These can be separated and returned for recycling.

# ATTENTION!

Always dispose according to current and locally applied guidelines for health and safety and disposal requirements.

Manual HS4C / HS4C-Air / HS4C-Air / HS4C-Air Pro ENG original V1.0 23022017 MN 35

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