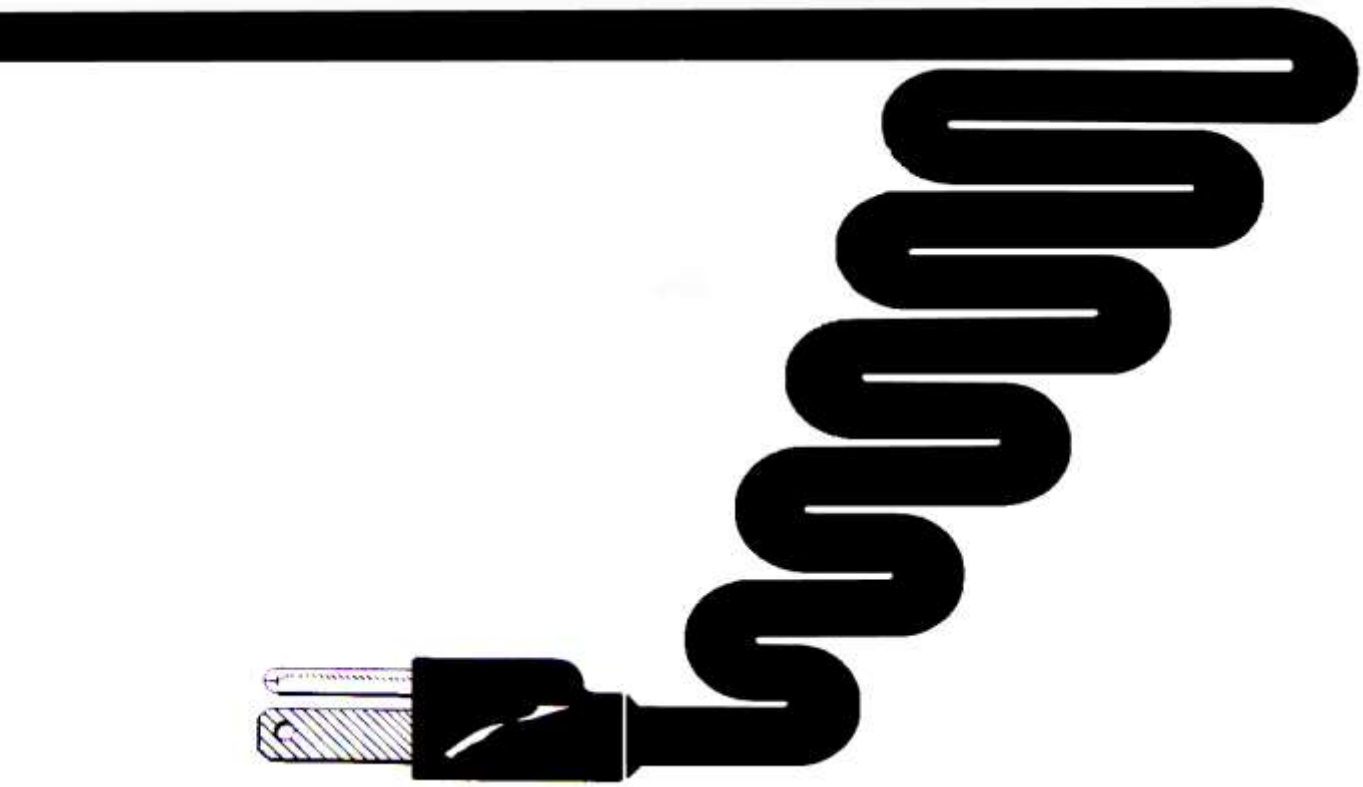
Operating Instructions



ACCU-SEAL CORPORATION

Model 6400 Series

8”, 15” & 20”

Constant Heat Sealer

April 1, 2016 Rev C **Doc# 901-0050**

Table of Contents

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Introduction

IMPORTANT: READ INSTRUCTIONS COMPLETELY PRIOR TO OPERATION

This Manual is organized in eight sections. The Safety section describes the precautions you should take when you operate, perform maintenance or repair the machine. The Operating instructions describe the machine, physical layout, controls, operating procedures and regular maintenance that should be performed by the operator. The Maintenance section has step by step instructions for the installation of the machine and specific information and descriptions of consumable parts, their function and replacement procedures as well as recommended Maintenance schedules and troubleshooting. The calibration section provides information needed for machine calibration. The Repair Section includes theory of operation, component parts and their function and repair procedures. The Appendix includes the machine specifications, electrical and pneumatic diagrams, and parts ordering information.

Throughout this manual, you will find Safety Icons. You should pay particular attention to these icons because they signal information that is important to your safety and to the correct operation and maintenance of the equipment.

- **WARNING**: Represents possible dangers. In extreme conditions, there is a possibility of serious injury or loss of life.
- **CAUTION**: Represents hazardous situations which may result in minor or moderate injury
- **IMPORTANT**: Represents important information to be aware of

📖 **NOTES**: Represents notes and special Instructions.

DISCLAIMERS:

Accu-Seal Corporation disclaims any liability for injuries or damage resulting from use or application of this product contrary to instructions and specifications contained herein. Liability shall be limited to repair or replacement of product if shown to be defective. Observe all safety symbols and information in this manual.

Satisfactory operation of the Heat Sealer depends on proper application, correct installation and adequate maintenance. In addition, modifications to the Heat Sealer may result in less than satisfactory performance and could damage the product, cause injury and void the warranty.

AUDIENCE:

The Operating section is designed for operators who have baseline knowledge of typical mechanical operations and who have basic reading and math skills.

The Maintenance and Repair section, Calibration section and the Appendixes are written for maintenance technicians who have successfully completed a certified mechanical training program or who have equivalent maintenance experience. Only qualified repair technicians should be permitted to work on this equipment.

CONTACT INFORMATION:

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www.accu-seal.com

Safety

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- **WARNING**: **Do Not Operate the machine in the presence of flammable gasses or fumes; such and environment constitutes a definite Safety hazard.**

- **CAUTION:** When operating the machine Always keep fingers and hands out of the seal jaw area. Never operate the machine without the Safety Guard securely in place.

Figure 1 Pinch Point

Figure 2 Safety Sticker Hot Surface

PRECAUTIONS:

To insure safe operation of the Heat Sealer, Never operate the machine without the Safety Guard in Place. The operator should be aware of pinch points and possible burn hazard near the Seal Jaw Area.

Do not wear neckties, jewelry, loose clothing or other items that can become caught in moving parts or mechanisms near the machine.

Wear all company-specified personal protective equipment while operating the machine.

Do not operate, troubleshoot, or maintain the sealer while under the influence of any type of drug or alcohol.

Always observe all safety warnings and notices on the machine and in this chapter.

Do not use flammable or toxic cleaning fluids such as gasoline, benzene, or ether when cleaning or maintaining the sealer

- **IMPORTANT:**

Ensure that ONLY pouch materials are present in the seal area before pressing the Foot Switch. Small objects may damage the platen surface.

- **WARNING:**

Disconnect Power before Servicing

Figure 3 WARNING Hazardous Voltage Inside. Disconnect Power before servicing. Service by trained personnel only.

Operating Information

Description of Equipment

The Accu-Seal 6400 Series Constant Heat Sealing machines are temperature controlled pneumatic heat sealers designed for use in package sealing operations generally used for heat-sealing manufactured pouches/bags. A PID Temperature controller and digital timer in the PLC control the constant heat sealer. The user interface is a color enhanced LCD (liquid crystal display) Touch Screen HMI (human machine interface). The machine will store heat-sealing parameters for two seal recipes. The settable parameters are Seal Temperature, Sealing time (dwell), and machine seal pressure. When the machine is turned on, the seal bar platen will heat to the set temperature and remain constant.

The machine is password protected and has various alarms and safety features to ensure safe operating performance as well as repeatable sealing performance. The operator can reset alarms, but cannot access any machine settings. Access to all machine settings requires a password. When the correct password is entered via the Touch screen HMI, seal parameters and alarm settings can be set.

The machine can be set to operate by foot pedal or set to auto cycle. In either mode, the Safety guard must be installed on the machine or it will not operate. In the foot pedal mode, the operator depresses the pedal and the machine will begin the seal cycle. When the seal cycle is complete, the seal bar will open. In the auto cycle mode, the machine will automatically start each seal based on the set cycle delay time.

The machine is designed for portability and can be operated on a tabletop or on a stand in multiple positions. The machine case is laser cut and welded 304 Stainless steel. The sealer is standard with upper 3/8" wide heat platen. Platen length varies by machine.

🕮 **NOTES**:
Refer to **Machine Specifications** for complete details

Sealing Process

1. Place the pouch/bag to be sealed in the Safety guard opening so the end of the pouch is under the Seal platen.
2. Depress the Foot Switch
3. Seal Bar will close under Low Pressure
4. Seal Bar reaches High Pressure close and the dwell time will begin.
5. Seal bar will open automatically when the timer times out and the seal cycle is complete.

In Auto-Cycle mode, the machine will rest for the set delay time between seal cycles. If the cycle delay is set at 5 seconds, when the seal bar opens the cycle delay timer will start and when the delay time has passed the seal bar will automatically close starting the next seal cycle.

Physical Machine Layout

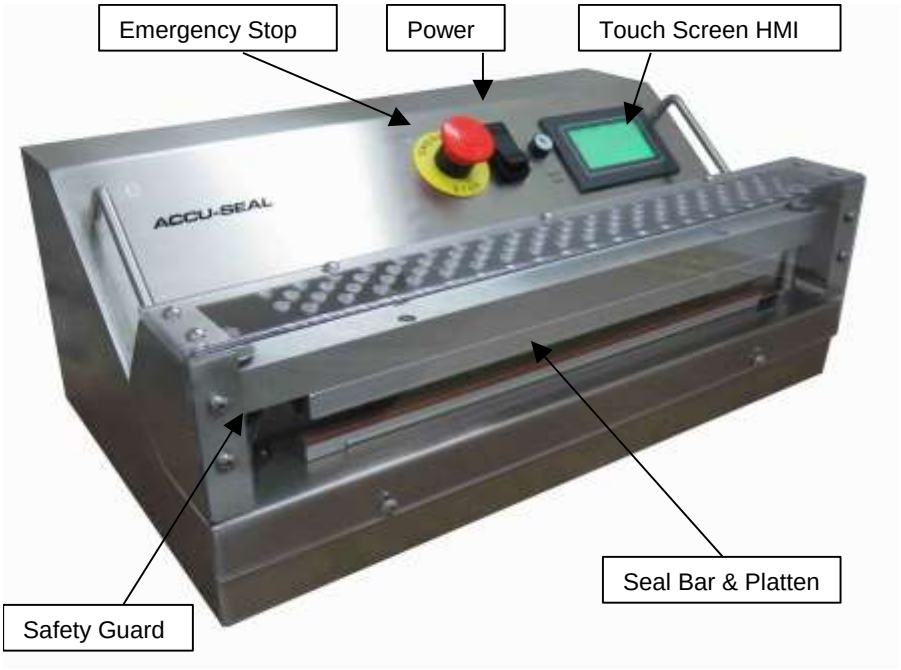


Figure 4 Front Constant Heat Sealer

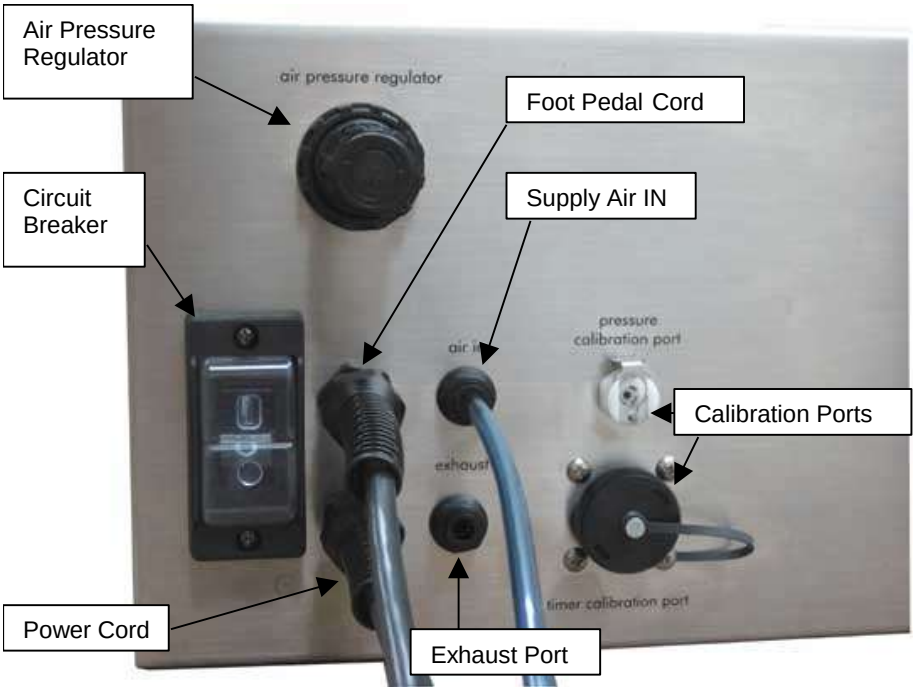


Figure 5 Back of Constant Heat Sealer

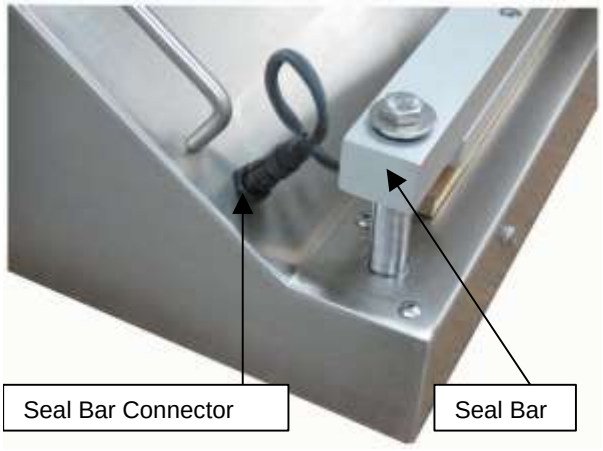


Figure 6 Left Side – Seal Bar Connector

Figure 7 Right Side - Safety Switch

Figure 8 Safety Guard

Operational Flowchart

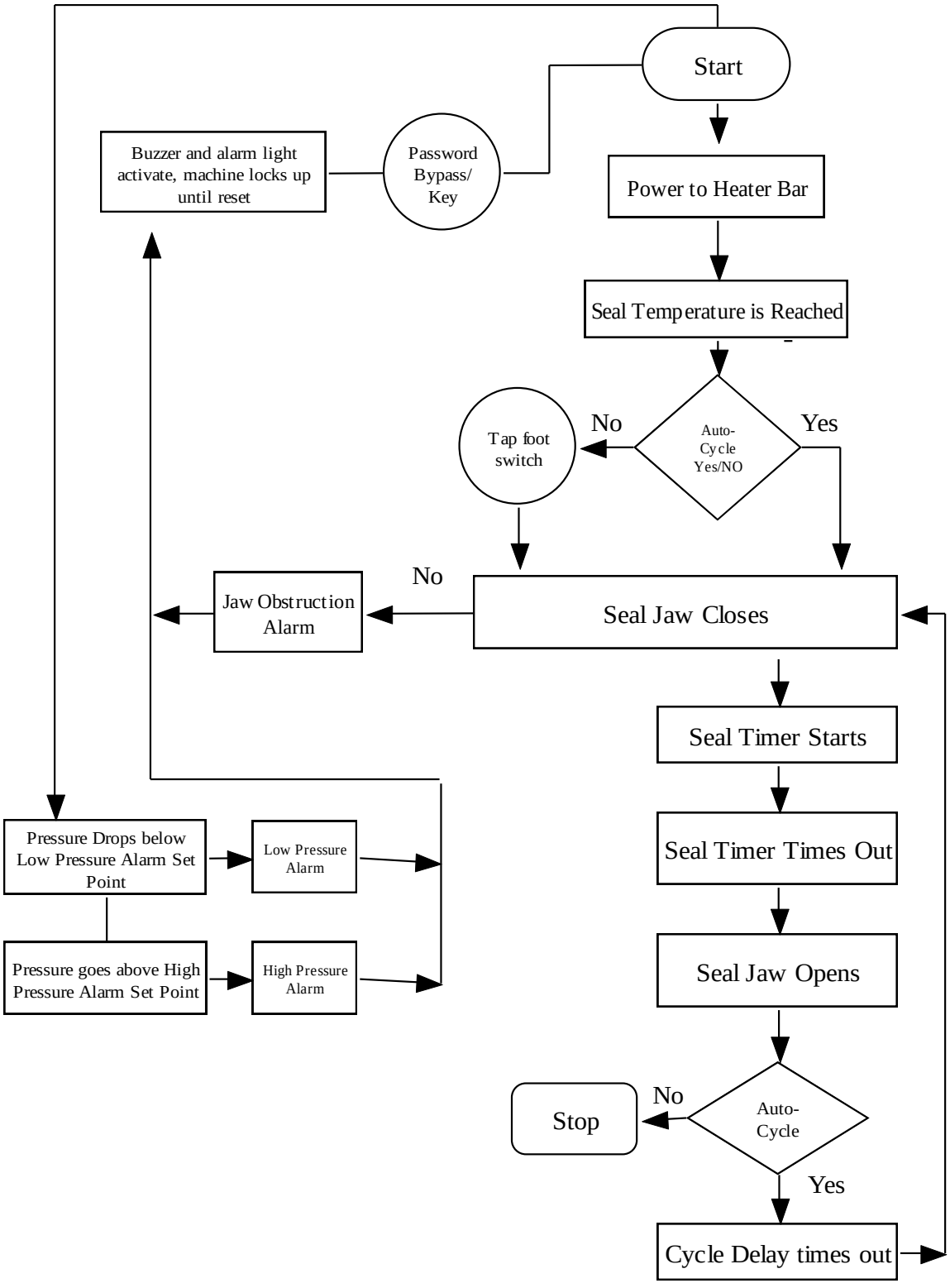


Figure 9 Operational Flow Chart

Controls

Overview

The machine is programmed for two modes of control. Non access code operation and password protected access. Non access code operation allows the operator to select a pre-set recipe to run and reset alarms only.

The touch screen allows Authorized personnel, utilizing an Access code (password), access for editing all of the machine seal parameters, alarm settings, pressure settings, as well as the Calibration and maintenance screens.

Some models have a keyed access that overrides the need for password entry and goes directly to the Edit Menu when the key is turned at the password screen.

Controls and their Function:

Power Switch:
Turns power to the machine ON and OFF.

Foot Switch:
The foot switch is used to start the sealing cycle when not using auto cycle mode.

Emergency Stop:
Manually activated. When pressed all power to the machine stops and the seal bar opens.

Circuit Breaker:
Breaks the Main Power to the machine when there Is an over load.

Touch Screen HMI:
The Touch Screen HMI is used to Monitor, Set or Edit all of the machine parameters.

Touch Screen Functions:

Main "Run" Screen
Displays the Recipe Number and Name that is ready to Run.

TEMP/***: Displays the Set Seal Temperature and the Actual temperature

PRESS: Displays set air pressure

TIME: Displays set seal (dwell) time

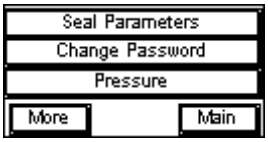
SEAL COUNT: Displays the number of heat seals completed

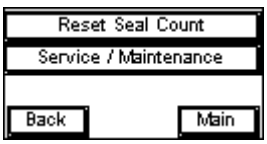
SELECT: Allows the operator to select a Recipe to run

FOOT: When the machine is in manual foot pedal operation mode, "foot" is displayed. "Auto" will be displayed in the box when the machine has been set in the Auto cycle mode.

EDIT: Allows authorized personnel, utilizing Access Code (password) to access all of the machine settings:
- Seal Parameters
- Alarm Settings
- Change Password
- Pressure
- Reset Seal Count
- Calibration
- Alarm History

Edit Menu Screens:
Display the functions that can be selected for Editing





Seal Parameters:

EDIT RECIPE:
Select the Recipe to name and set seal parameters

SEAL TEMP:
Temperature of the seal platen.

SEAL TIME:
The amount of time the Seal Bar is closed.

AUTO CYCLE MODE:
ON / OFF button toggles the machine between automatic and manual seal bar activation modes.

CYCLE DELAY:
The time interval between seals. When auto cycle is on, the machine will complete the seal and the seal bar will remain open for the set cycle delay time (seconds).

Band Alarms:

HIGH & LOW TEMPERATURE
BAND ALARMS:
Sets a +/- band based on the Seal Temperature Setting. If the temperature goes above or below the band during the Seal Time, the Alarm will activate

HIGH & LOW PRESSURE
BAND ALARMS:
Sets a +/- band based on the pressure setting. If the pressure goes above or below the band during the Seal Time, the Alarm will activate.

Other Alarms:

SAFETY GUARD: Alarm sounds if guard is removed, heater stops and machine halts operation.

JAW OBSTRUCTION: Indicates that for some reason the seal jaw will not close completely.

NO SUPPLY AIR DETECTED:
When the machine is at rest the PLC monitors the supply air to the machine for a low-pressure event where the air supply is below 20 psi. When the machine detects the low-pressure condition, the red, No Air Supply Screen will appear, the foot pedal will lock and the machine will not operate. When the Air supply is restored, the screen will automatically reset and the machine will operate.

OPEN SENSOR:
The machine continuously monitors the status of the machine temperature sensor. If the sensor is disconnected or has an open fault, the machine will alarm with the open sensor alarm screen. The sensor monitor is active whenever the machine on so the alarm can occur even when the machine is in the resting state

Other Function Screens:

Change Password
Pressure
Reset Seal Count
Service & Maintenance
Calibration
Alarm History

Controls Operation

Turn the machine on, by pressing the Main Power Switch located on the top of the machine. When the Power is ON, the touch screen will be lit in Red and the foot pedal will remain locked out until the set temperature band is reached. When the set temperature is within the band, the screen will turn Green.

The current settings will be displayed on the Main Run Screen. To select a different seal recipe, press the "Select" button on the main run screen. The next screen will prompt you to select the recipe you want to run. To edit or change machine parameters, press the "Edit" button. When the Edit button is pressed, the Enter Password Screen will appear. The correct Access Code (password) must be entered to continue. When the correct code is entered, you will have access to the functions Menu screens and have the ability to change any of the machine parameters.

NOTE: Initial Set-Up Pass code has been programmed into the machine. See Initial Set-Up instruction in the Maintenance Section. Use this code for the first time access to set New Password.

ENTERING/EDITING MACHINE PARAMETERS:

Any parameter that is enclosed in a box can be changed. To change the parameter, press anywhere in the box of the parameter you want to change. This will then bring up a "keyboard" that will allow you to enter a new value. Once the desired value is entered, press the box of the parameter want to change or press the "enter" button on the keyboard to save the new value into memory.
(Enter=the return arrow key). Parameters that are not enclosed in a box are for viewing only.

AUTO CYCLE:

The machine can be set to automatically activate the seal bar. Setting the Auto cycle to ON locks out the foot pedal and the bar cycles automatically at the set cycle delay interval. When auto cycle is selected, the main run screen will read "AUTO" in the left box. If Auto is OFF, the display box will read FOOT.

CYCLE DELAY:

Cycle delay allows for setting the time interval between seals in seconds. When Auto Cycle is on, the machine will complete the seal cycle and the seal bar will remain open for the set cycle delay time.

BAND ALARM OPERATION:

The Pressure Band Alarm uses the Set Pressure and the Pressure Band Alarm Setting to determine alarm points. For example: If the Base Pressure Setting is 50PSI and the Pressure Band Alarm Setting is +/- 10PSI, then the machine sets an operating pressure band between 40 and 60 PSI. If the pressure goes above or below this band at anytime during the seal cycle then the alarm will activate.

The Temperature Band Alarm works in the same manner but uses the Seal Temperature setting as the basis for its operating band.

If an alarm is activated, the machine will go into a lock-up mode. The machine will not operate until the alarm is reset, by pressing the box that reads "Alarm Reset" on the flashing red alarm screen. If the condition that caused the alarm is corrected, the screen will turn green when the alarm is reset.

PRESSURE:

To change the base pressure setting you must be in the Base Pressure Setting screen. When the regulator on the back of the machine is adjusted, the readout on the screen is the established base pressure setting. The Down force PSI readout on the screen is a theoretical calculation based upon the cylinder specification and the air pressure setting. Typical operating pressure should be above 50 PSI.

CHANGING ACCESS CODE:

The access code can be changed by pressing the "Change Password" button. To change the Access Code, press the box with *****. Enter a new access code. The number must be five (5) digits and cannot startwith '0'. The number you entered will show in the box, if the number is correct, Press the "Enter" button to save the new Access Code to memory. The machine has been programmed with a master Default Access Code in case your code is lost or forgotten.

SEAL COUNT FUNCTION:

The machine counts every seal that is started and successfully completed and displays this in the Main run screen. The machine will count to 99,999 before it automatically resets to '0'. The seal count can also be manually reset.

CALIBRATION OFFSET:

The calibration Offset controls allow for adjustment of the machine instrument readings. Offsets can be entered for temperature and pressure. Offsets should only be entered after the current readings have been compared to a known standard reading. (See Calibration Section)

ALARM HISTORY:

Alarm history screens show each type of alarm and the number of times the machine has encountered that alarm. Maintenance personnel with a pass code can reset alarm history.

General Information for Establishing Seal Parameters.

Set Seal temperature based upon the recommendation of the bag manufacturer.
If you do not have that information, we recommend starting with the following:
Set Seal Temperature at 280F.
Set Seal Time (dwell) at (2) seconds.
Set the Pressure at 70psi

Based upon the result of the Seal using the above guideline, increase or decrease the seal temperature and the dwell (seal time) slightly. We recommend changing only one parameter at a time so you know which parameter made the difference in the seal. It is always best to use a lower temperature and a longer dwell (within reason).

IMPORTANT:

Tyvek pouches must be sealed with the Tyvek side of the pouch Away from the Heater Platen.

Operating Procedures

IMPORTANT:

The Start Up Operating Procedure assumes that the machine has been installed according to the Installation and Set Up Instructions in the Maintenance Section of this manual. Always perform the daily visual inspections and routine operating maintenance prior to operation.

Start up

1. Verify that the Air Supply is connected

2. Turn the machine ON by pressing the Power Switch.

3. The Touch screen HMI will light up 'Red' and the foot pedal will be locked out until the set temperature band is reached. When the temperature is within the temperature band, the screen will turn Green.

4. The current seal settings will be displayed on the main Run screen. Verify that the settings are correct.

5. Place the pouch to be sealed through the slot in the safety guard and underneath the Seal Bar making sure the product inside the pouch is not protruding into the Seal Area.

IMPORTANT:

Small products in the pouch that protrude into the Seal Area may be too small to cause a Jaw Obstruction Alarm, but could cause damage to the platen.

6. Keeping your fingers away from the Seal Area, press and release the Foot Switch. When the Foot Switch is pressed, the machine will immediately begin the seal cycle.

7. When the seal cycle is complete the Seal bar will open.

8. Remove the product and inspect the seal.

9. At the end of each shift or production run, Turn the Power switch to the OFF position.

IMPORTANT:
Sealing cycle may be aborted at any time by:
Pressing the E-Stop or Switching Power to OFF

Monitor

At the start of each production run, the operator should monitor and visually inspect the Seal area for bumps, wrinkles or burns in the PTFE Fabric covers. These conditions can cause irregularities in the seal and requires maintenance of the Seal Bar.

Alarm Response

Jaw Obstruction Alarm indicates that for some reason the jaw will not close completely. If this happens an audible alarm will sound and the Touch screen will flash Red.

To silence and reset the Alarm, Press the Alarm Reset button. The main menu will appear.

Verify that there is nothing in the seal area to keep the Seal Jaw from closing.

Cycle the machine to confirm the obstruction has been cleared and the machine is operating normally.

If the alarm condition continues and there is no apparent obstruction, contact maintenance or supervisor.

Temperature Band and Pressure Band Alarms
Occur if the temperature or pressure is above or below the set band alarm parameters.
To silence and reset the Alarm, Press the Alarm Reset button. The main menu will appear.

If the problem that caused the alarm is restored the Alarm will reset. If the alarm condition continues, contact maintenance or supervisor.

Open Sensor Alarm will activate if the sensor is disconnected or has an open fault, the machine will alarm with the open sensor alarm screen. Verify the thermocouple connection and Reset the Alarm. If the alarm will not reset, contact maintenance.

No Supply Air Detected screen indicates there is less than 20 PSI or no air pressure being supplied to the machine. When this event occurs the Heater will turn Off, the foot pedal will be locked out and the machine will not operate. Air supply to the machine must be restored. When the air supply is restored, the screen will automatically reset and the machine will operate.

Shut-Down

At the end of each shift or production run
Turn the Power Switch to the OFF position.

Operator Maintenance

Daily Inspections

Before turning the machine ON, At the start of each shift or production run, inspect the following:

1. Seal Bar Safety guard is properly installed

2. Inspect the PTFE fabric tape on the platen. It should be smooth with no bumps or wrinkles.

3. View the pressure readout on the Touch screen for reasonability.

4. Twist the E-Stop button to ensure it is in the proper operating position.

Cleaning

CAUTION:

Prior to performing any cleaning or maintenance procedure turn the power to the machine OFF and unplug the machine.

DO NOT immerse or hose down your Accu-Seal Heat Sealing machine. Use only wipe down cleaning procedures. Failure to follow these cleaning instructions can lead to premature machine failure, shock or fire hazard.

Accu-Seal recommends using alcohol or soap and water to clean your machine. Contact Accu-Seal technical service for other cleaning methods or for use of other cleaning solutions.

Maintenance Information

Introduction and Safety

The Maintenance section includes step-by-step instructions for the installation of the machine including installation and operational qualifications. Also discussed is Specific information and descriptions of consumable parts, their function and replacement procedures. Recommended Maintenance schedules and troubleshooting are also included in this section.

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- **WARNING:**

Hazardous Voltage Inside. Disconnect power before servicing. Service by trained personnel only.

Figure 10 WARNING Hazardous Voltage Inside

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Installation Procedures

Read this entire Manual thoroughly before attempting to Set-Up, Operate or perform any maintenance on the machine.

BUILDING UTILITIES:

Prior to plugging in the machine, verify the building utilities. The machine requires a dedicated power supply matching the voltage requirement on the machine serial tag.
Do Not operate this machine on an extension cord.

Verify the compressed air source is 80-110psi and is clean and dry.

IMPORTANT:

Supply Air must be a minimum of 10 psi higher than the desired operating pressure for alarms and machine to perform properly. Operating pressure setting should be above 50 Psi.

Accu-Seal machines require that the compressed air supply be filtered properly to prevent any moisture or contaminants from entering the machine.

Moisture or particles may damage the internal valves. Contact Accu-Seal if you need additional information regarding supply air filters.

Machine Installation

1. Place the machine on a sturdy surface where it is to be used.
2. Connect the Thermocouple connector to the case.
3. Install the Safety Guard.
4. Twist the E-Stop button to ensure it is in the correct operating position.
5. Locate the Air In port on the back of the machine and attach a clean dry air supply (80-110psi) using ¼" OD Tubing supplied with the machine.
6. Optional: Attach ¼" OD Tubing to Exhaust Port on the back of the machine.
7. Verify that all connections are correct and tight.
8. Verify that the circuit breaker on the back of the machine is in the ON Position.
9. Plug the machine power cord into dedicated power receptacle. Refer to Serial Tag on the back of the machine for machine power requirements. Do Not use an Extension Cord.
10. Turn the machine ON by pressing the main power switch on the front of the machine.
11. When the Power is turned On, the Touch Screen will light up. When the boot up sequence is complete, you will see the main RUN Screen. The Screen will remain Red and the foot pedal will be locked out until the platen is heated to the set seal temperature. When set temperature is within the temperature band, the screen will turn green and the machine will be operational.

Initial Set-Up

Maintenance and Supervisory personnel should read the entire contents of this manual and have a complete understanding of the controls and machine operation before proceeding.

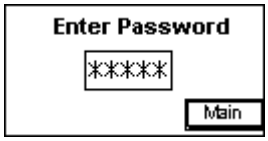
IMPORTANT:

The first time you turn on the machine, Prior to Operation, set the pass Code and then set the seal parameters for each recipe.

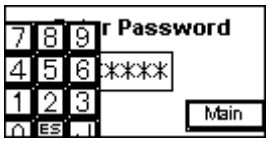
Your machine has been programmed with the following Set-Up pass code. **24680**

1. From the Main Run Screen press Edit.

2. The enter password screen will appear

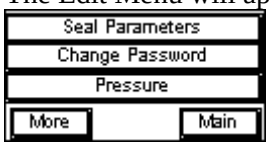


3. Press the box with the *****



Using the keypad enter the set up pass code 24680 and press the arrow key on the keypad.

4. The Edit Menu will appear.



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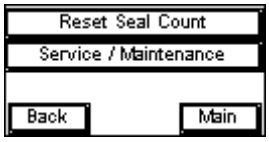
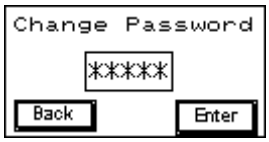


5. Select Change Password and the following screen will appear.

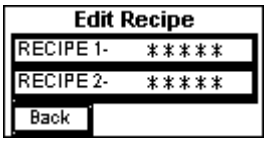


6. Press the box with the ***** and the keypad will appear. Enter the New Password and press the arrow key on the keypad.
   Five (5) Digits Required.
   The new password will show in the box.

If correct, press the Enter Key to store the New password and return to the Edit Menu.

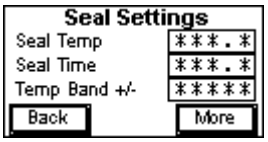
ENTER SEAL PARAMETERS

1. From the Edit functions menu, Select Seal Parameters and the Edit Recipe screen will appear.



2. Select Recipe1 to Name and enter parameters. When Recipe1 information has been entered, select Recipe2 and enter seal parameters.

3. Name Recipe and then press Next and enter seal settings.

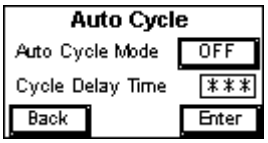


4. Enter Seal Temperature and Seal Time

5. Enter Temperature Band

(Accu-Seal recommends a band alarm setting of 10°F)

6. Press 'More'



7. Auto cycle mode is defaulted to Off. Touch the Off button and it will toggle between Off and On.

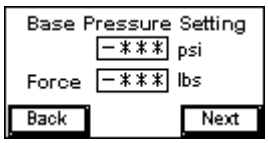
8. Set Cycle delay time (seconds) if Auto cycle ON is selected

9. **PRESS ENTER TO SAVE ALL SEAL VALUES**.

PRESSURE SETTING

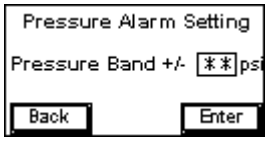
1. From the Edit functions Menu, Select Pressure.

2. The Base Pressure Setting Screen will appear.



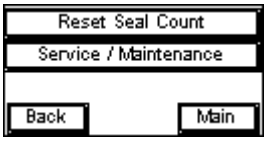
3. Adjust the Pressure Regulator on the back of the machine until the desired pressure setting is showing in the top box (psi). The operating pressure (recommend 50-100 psi) that is shown will be the base pressure setting for the alarm band. The force box is only a read-out and cannot be changed.

4. Press Next and set the pressure band.

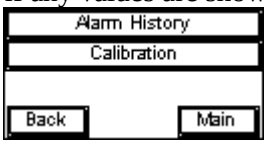


Accu-Seal recommends a band alarm setting of 10-15psi.

SERVICE AND MAINTENANCE



From the Edit menu select Service/Maintenance. View Seal Count and Alarm History screens and clear if any values are shown.



CALIBRATION OFFSETS

From the Edit menu select Service/Maintenance. Then select Calibration.
View the Temperature Cal Screen and verify that there are no Offset values entered or that any values present were entered during calibration and are within the calibration guideline specification.
View the Pressure Cal Screen and verify that there are no Offset values entered or that any values present were entered during calibration and are within the calibration guideline specification.

OPERATIONAL QUALIFICATION

Once the password and all of the Seal Parameters, Pressure setting and band alarm setting have been entered, you have completed the initial set up of the machine.

Two documents are included in this manual to assist you in the Installation and Operational Qualification of the machine. Refer to Installation Qualification and Operational Qualification in this section. Accu-Seal recommends that both of these documents be completed as part of the initial installation.

IMPORTANT:

The person that has the password to this machine has access to all of the editing functions, calibration and resetting of password. Extreme care should be used to protect the Pass code.

A default pass code has been hard coded into your machine PLC. Should you ever require this information because the stored password was lost or forgotten, authorized personnel will need to contact Accu-Seal Corporation.

Installation Checklist

General Equipment

Parameter	Expected	As Found	Initial	Date
Equipment Number				
Equipment Description	Constant Heat Sealer			
Manufacturer	Accu-Seal Corporation			
Serial Number	xxxxx			
Model Number	6400-xB (refer to machine serial tag)			
Seal Width	3/8"			
Seal Length	Refer to specifications / lengths vary			
Input Requirements				
Voltage	Refer to machine Serial Tag			
Current	XX Amps			
Air Supply	80-110 psi			
Air Consumption (@80psi)	1.0 CFM@80psi			
Control System				
Temperature				
Limits	AMB-350 F			
Accuracy	+/- 1			
Pressure				
Recommended Seal Pressure	50 - 100 psi			
Accuracy (@60psi)	+ / - 5 psi			
Time				
Limits	0.1 - 19.9 sec			
Accuracy	+ / - 0.1 sec			
Environmental Specification				
Ambient Temperature	0°C to +50°C/32°F to +122°F			
Ambient Humidity	RH (Non-Condensing)			

Operational Checklist

Safety Features and Operational Controls Testing

Safety Feature / Operating Control	Function	Test Method	Expected Outcome of the Feature / Control	Pass/ Fail	Initial	Date
Power Switch	Turns on electrical power	Push on power switch	Touch Screen will light up			
Emergency Stop	Manually activated	Push the button	Machine Power Off, Bar releases			
HMI Touch Screen- Password protect Settings	Enables Editing of machine settings with correct password entry	Select Edit on main screen, at enter password screen, enter an invalid password	Password will not be accepted and there will not be access to Edit Menu			
Foot Switch/Pedal	The foot switch pedal is used to start the sealing cycle	Press the foot pedal	The seal bar will close and the sealing cycle will start			
Safety Guard Alarm	Halt machine if guard is removed	Remove the safety guard	Alarm screen will flash, heater will turn off, machine will not operate			
Air Pressure Regulator	Regulates Supply Air	Turn Regulator knob clockwise to increase pressure, Turn counter clockwise to decrease pressure	View increase / decrease on pressure gauge			
Jaw Obstruction Alarm	Prevents seal bar from closing if objects larger the ¼" are in the seal jaw	Place a flat obstruction approximately ½" high in seal jaw.	Bar will release, Audible Alarm, Alarm Screen Flashes until reset is pressed on touch screen			
Open Sensor Alarm	Notifies user that the thermocouple connection is disconnected or the TC has failed open	Remove guard while machine is cool and turned off. Hold down the safety guard switch and turn the machine on. Disconnect the thermocouple connector. Do not start seal cycle; this is a static test.	Wait for Open Sensor Alarm			
Low Pressure Band Alarm	Supply air is lower than set alarm pressure band relative to the Air Pressure setting	Turn regulator knob counter clockwise to Lower Supply Air Pressure	Audible Alarm, Alarm Screen Flashes, Bar Releases, machine stops			
High Pressure Band Alarm	Supply air is higher than set alarm pressure band	Turn regulator knob clockwise to Increase Supply Air Pressure	Audible Alarm, Alarm Screen Flashes, Bar Releases, machine stops			
High Temperature Alarm	Seal Temperature above Band Alarm Setting	*CAUTION: The Seal Bar will be exposed and hot for this test. Set temp to 200°F. Set seal time to 15 sec. Using caution, remove the guard and hold down the safety guard switch to prevent the guard alarm. Press foot pedal and start a seal cycle. While in the seal, unplug the thermocouple sensor.	Bar Releases, Audible Alarm, Screen Flashes High Temp Alarm.			
Low Temperature Alarm	Seal Temperature Below Band Alarm Setting	Set Band Alarm to 1°F. Set temperature to 200°F. Set seal time to 15 seconds. Let the machine set without use for 5 min. Then insert a heavy pouch (foil) in the seal area and begin sealing as fast as possible. You may have to repeat this process to get an alarm depending on the type of pouch you use for the test.	Bar Releases, Audible Alarm, Screen Flashes Low Temp Alarm.			
No Supply Air Detected	Air Supply below 20psi / no air supply, foot pedal locked out, heater turned off	Disconnect Air Supply from Air In port	Red Screen will appear "No Supply Air Detected" heater will turn off and foot pedal will be locked out. Machine will not operate			
		*CAUTION: Be sure to return all test settings to original operating settings and reset alarm history				

Maintenance Schedule

All recommended maintenance and inspection frequencies are minimum intervals. Maintenance schedules should be increased based upon actual production levels and the specific operating environment. Harsh environments where liquids, powders and biocides are present require maintenance that is more frequent.

At the start of each shift or production run, inspect the following machine control displays and the Seal Jaw Area.

Daily Inspections:

1. View the Temperature on the Touch screen display. Verify for reasonability. Inspect thermocouple connection.

2. View the pressure readout on the front of the Touch screen for reasonability.

3. Visually and manually, check the PTFE Fabric Zone Tape covering the platen. It should be smooth. If any bumps, or wrinkles are present, the tape should be removed and replaced with new PTFE Fabric Zone Tape.

4. Verify that the Safety Guard is properly installed.

Quarterly Inspections:

Accu-Seal recommends quarterly inspections of all power cords, Foot switch, and connectors to ensure that there are no frayed cords or damaged connectors.

Inspect Seal Bar washers, grommets and bolts. Tighten all screws that secure the cylinders and machine handles to the case. Inspect the safety guard and verify that it has not been modified and fits properly on the machine.

Inspect all pneumatic connections for leaks. Verify the supply air pressure and verify that there is no visible moisture in the pneumatic lines.

Inspect thermocouple on the back of the seal platen and tighten. Inspect thermocouple wire for signs of wear or damage.

Using the Operational Qualification form, test all safety and operating controls.

Replace Tapes and pressure pad if they show any signs of wear.

Annually:

Calibration: verification of the temperature, timer and pressure to a known standard. Refer to the Calibration section of this manual.

Replacement Consumable Parts:

Accu-Seal recommends the following consumable parts be maintained with a minimum quantity of two (2) each, to reduce production downtime.

1. PTFE Fabric Tape or PTFE Tape Set
2. Pressure Pad Assembly
3. Silicone Grommets

Other parts are referenced in the Repair Section and in the Parts Ordering information in the Appendix

Parts may be ordered at your convenience Online at www.accu-seal.com

Description of Replacement Parts

PTFE Fabric Zone Tape:
1 ½" PTFE Fabric Tape Adhesive backing is used to cover the heating element.

Pressure Pad Assembly (PPA):
The pressure pad assembly is the pad opposite the seal platen on the constant heat sealer. It consists of layers of silicon rubber on an aluminum bar that is centered directly under the seal bar.

Surface mount Thermocouple Assembly:
The thermocouple assembly is configured for easy installation. It consists of the thermocouple, wire and Nema boot connector.

Grommet
The silicone grommet insulates and locates the seal bar on the cylinder shaft.

Other parts are referenced in the Repair Section and in the Parts Ordering information in the Appendix

Seal bar Heater Connector
Supplies power to the heater cartridge to heat the platen.

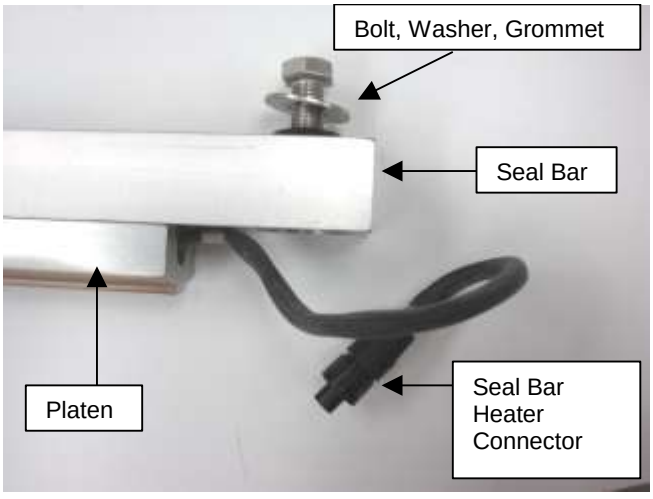


Figure 11 Seal Bar Components

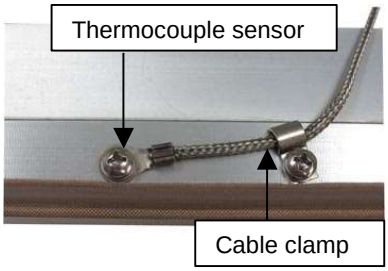


Figure 12 Surface Mount Thermocouple

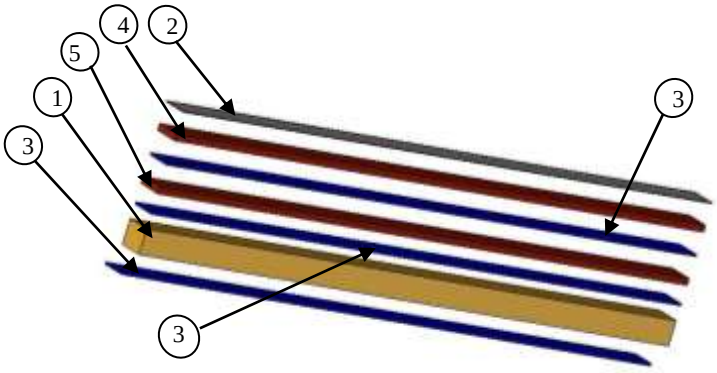
THERMOCOUPLE ASSEMBLY:

Figure 13 Thermocouple Assembly

Figure 14 Cylinder Bolt, Washer & Grommet

CYLINDER BOLT, WASHER &GROMMET:
The cylinder grommet fits inside the top of the seal bar with the washer on top of it. The seal bar bolt fits through the washer and grommet and is screwed into the top of the cylinder shaft. The Seal bar bolts are **finger tight**, over tightening will damage the grommet.

Replacement Procedures



ITEM #	QTY.	DESCRIPTION
1	1	ALUMINUM BAR STK
2	1	PTFE Fabric Tape 5mil, .5in. UN
3	3	KAPTON, double sided
4	1	RED RUBBER 1/2 x 1/16
5	1	FOAM RUBBER 1/2 x 1/16

Replacement of Pressure Pad Assembly (PPA)

Items Required:

New Pressure Pad Assembly
Flat-head screwdriver
Denatured Alcohol
Cloth or Rag

1. Turn power to machine off, Remove the Seal Bar Safety Guard

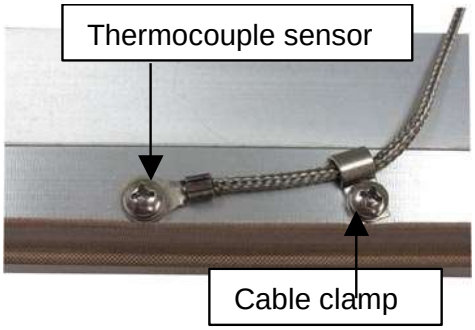
2. Disconnect Thermocouple, and Seal Bar connector.

3. Unscrew the (2) bolts holding the Seal Bar Assembly onto the cylinders, and remove the seal bar.

4. Carefully remove the Pressure Pad Assembly (PPA) from the case. Remove any residual adhesive, and wipe down the area with denatured alcohol.

5. Remove the backing on the double-sided tape. Align the new PPA and press down.

6. Re-Install Seal Bar and connect thermocouple and seal bar heater connector. Install Safety Guard.



Replacement of Thermocouple Assembly

Items Required:

Thermocouple Assembly
Phillips screwdriver

1. Turn the machine off, and remove the safety guard.

2. Disconnect thermocouple connector and seal bar connector then Remove the Seal Bar.

3. Loosen the Cable clamp and remove the thermocouple wire.

4. Carefully remove the thermocouple sensor and replace with new thermocouple assembly.

5. Position thermocouple wire under the cable clamp and tighten.

6. Replace the seal bar and tighten cylinder bolts, finger tight, being careful not to damage grommets.

7. Connect thermocouple connector and seal bar connector.

8. Install Safety guard.

IMPORTANT!

If the Thermocouple is not properly installed it could cause inaccurate temperature control.

Replacement of Silicone Grommet

Items Required:
Silicone Grommets (2)
Flat-Head Screwdriver

1. Turn the power to the machine off and remove the safety guard.

2. Disconnect thermocouple connector and seal bar connector then Remove the Seal Bar.

3. Unscrew the (2) bolts holding the Seal Bar Assembly onto the cylinders, and remove the seal bar.

4. Remove the Bolt and washer so the grommet can be removed from the bar.

5. Install the new grommets so they fit into the seal bar.

6. Re-Install the Seal bar assembly by placing the washers onto the bolts and screwing the bolts into the cylinders.

IMPORTANT:
The Bolts should be **Finger Tight,** Over tightening will damage the grommets.

Calibration

📖 **NOTE:**
Some internal signal controllers or conditioners in the sealer may have zero and/or span adjustments. These internal devices are factory calibrated and sealed by the manufacturer.

The following adjustments or offset points are intended to move the machine operating parameters a minimum amount. They can be misused if they are used to offset a faulty internal device.
If the following tests indicate that offsets typically greater than +/- 3 % of span are needed, there may be accuracy problems internally.

OFFSET Entry:
Calibration offset entry may be accessed via the Touch Screen. From the Edit Menu, select Service/Maintenance. Then Select Calibration. Then select Temperature Offset or Pressure Offset. You may also select Timer Test for calibration, but no offset is available.

Offset adjustments set from the display screens are "offsets" only and not intended to correct a faulty internal instrument. Call Accu-Seal if you have any questions regarding offsets.

Calibration Instructions:

Instruments Required:

1. "K" type thermocouple simulator
2. Period Counter or stop watch to measure contact closure time
3. Air Pressure Gauge 0-100psi

TEMPERATURE CONTROLLER CALIBRATION

1. Ensure that the sealer is off and the Seal Bar is cool.

2. Disconnect the type "K" thermocouple connector from the chassis connector at the right end of the sealer.

3. Plug the thermocouple simulator into the chassis connector and set the calibrator for your desired temperature.

4. Turn the machine on and compare the displayed temperature to the set temperature on the calibrator. The temperatures should match +/-2 F.

5. If the temperatures do not match, an offset can be entered in the "Temperature Offset" screen.

6. When completed, turn the sealer power to off and reconnect all connections.

PRESSURE CALIBRATION

1. Turn the Power Switch OFF.

2. Connect your calibrated pressure gauge to the pressure calibration port on the rear of the machine.

3. Connect the air supply line to the sealer air input connector.

4. Turn the Power Switch ON.

5. Navigate to the "PRESSURE OFFSET" screen.

6. Set the "SET" pressure to the desired pressure you are checking. This will usually be your desired seal pressure or the highest and lowest pressure you will be operating at. Do not use a pressure below 25 PSI for this calibration because it is outside the normal operating range of the sealer. (The internal P to V sensor is not linear below 10 PSI so do not enter offsets or expect the P to V sensor to be linear to zero PSI)

7. Observe the "READING" number on the display. This is the machine interpretation of the selected pressure. It should agree with the reading on your external pressure meter.

8. If the external pressure reading and the "READING" on the display are within +/-5 PSI, you can enter an offset to correct the reading.

9. Push the “BACK” button on the display to exit the pressure calibration mode.

10. When completed disconnect the standard pressure gauge from the calibration port.

TIMER CALIBRATION

1. Turn the Power Switch OFF.

2. Attach the “Timer Calibration Cable” to the connector on the rear of the machine. Refer to Timer Calibration Port schematic.

   The sealer provides an isolated contact closure at the calibration port when the internal timer is activated.

3. Turn the Power Switch ON.

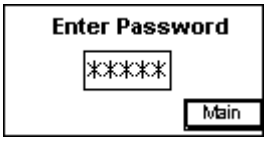
4. Go to the timer calibration menu screen to activate the external calibration port (the external calibration port is only activated when the timer calibration screen is visible).

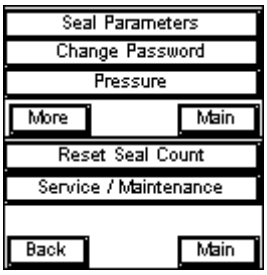
5. Set the time setting for the desired seal time test condition. Press the START button on the display screen and monitor the calibration port. The internal isolated contact will close when the internal timer starts and open when it stops.

6. Compare the measured contact activation time with the screen time setting. The times should match +/- 0.1 s. This contact closure time can be easily measured with a stopwatch to verify the time is within the +/-0.1 seconds. The time accuracy is controlled by the internal PLC Clock and is not adjustable. This test verifies that the seal time is within the machine specification limits.

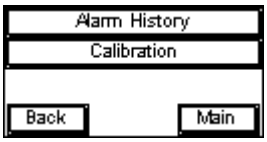
7. When complete detach the Timer Calibration Cable from the machine and replace protective cap.

Accessing the Calibration Offset Screens :

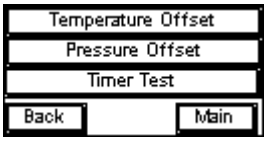




Select Service / Maintenance Button



Select Calibration



Select for each desired function.

Timer Calibration Port Wiring Diagram

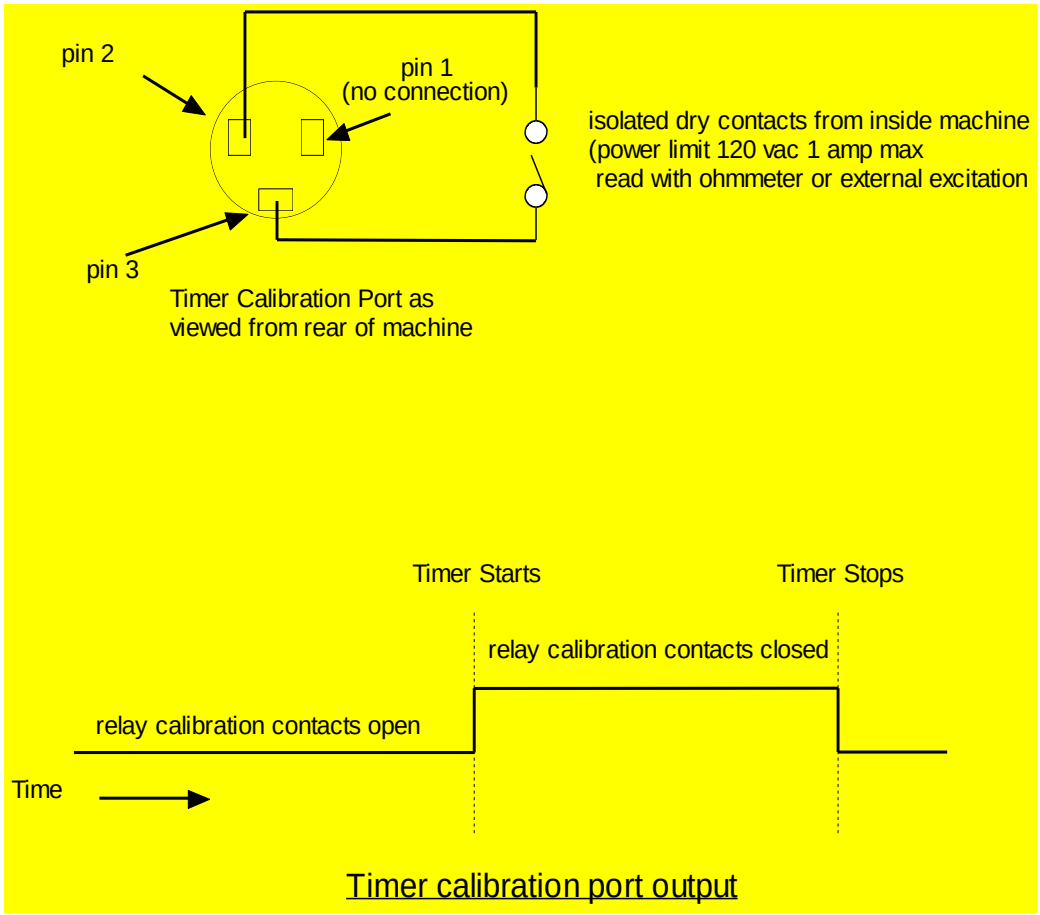


Figure 15 Timer Calibration Port Wiring

Repair Information

Introduction and Safety

The Repair section includes the machine theory of operation, and alarms. Component Parts descriptions, replacement procedures the heater cartridge and the reed switches. This section also includes detailed diagrams, parts lists and a Troubleshooting guide.

DISCLAIMERS:

Accu-Seal Corporation disclaims any liability for injuries or damage resulting from use or application of this product contrary to instructions and specifications contained herein. Liability shall be limited to repair or replacement of product if shown to be defective. Observe all safety symbols and information in this manual.

WARNING:

Disconnect Power before Servicing

Figure 16 WARNING Hazardous Voltage Inside

AUDIENCE:

The Maintenance and Repair section, Calibration section and the Appendixes are written for maintenance technicians who have successfully completed a certified mechanical training program or who have equivalent maintenance experience. Only qualified repair technicians should be permitted to work on this equipment.

WARNING:

The procedures and components discussed in the section may require power to the machine when testing the repair or making internal adjustments. EXTREME CAUTION MUST BE USED WHEN PERFORMING REPAIRS. ONLY QUALIFIED TECHNICIANS WITH A COMPLETE UNDERSTANDING OF THEIR ACTIONS SHOULD BE ALLOWED TO OPEN THE MACHINE.

Contact Accu-Seal Technical Support with any questions prior to proceeding

CONTACT INFORMATION:

Accu-Seal Corporation
(800) 452-6040 or (760) 591-9800
Fax (760) 591-9117.
Email: info@accu-seal.com
www.accu-seal.com

Theory of Operation

The 6400 series machine is a pneumatic Constant Heat Sealer controlled by a PLC with PID temperature controller and digital timer. When the machine is turned on and the air supply is connected, the machine platen will heat to the temperature set point. Once the temperature set point is reached, the foot pedal will be active. When the Foot Switch is pressed, a signal is sent to the PLC. The PLC then supplies power to the Main Valve, which then closes the Seal Jaw under low pressure. When Seal Jaw closes, the Reed Switches are activated. The Reed Switches send a signal to the PLC, which then supplies power to the High Pressure Valve and the SSR. The high- pressure valve applies the high pressure to the closed seal bar and the. The seal bar will remain closed for the set dwell (seal) time. When the timer times out, the seal bar will open.

The pressure regulator on the back of the machine regulates the incoming air supply internally. The regulator requires the pressure setting to be at least 10 psi below the machine supply air for the machine to operate properly. The regulator pressure is monitored during the seal process and the machine will alarm if the pressure falls outside the pressure band setting

The machine monitors temperature of the platen constantly. If at anytime the temperature is out of the set band, the foot pedal will be locked out and the touch screen will turn red until the temperature is within the band.

If any alarm condition is detected, the PLC will stop the current cycle immediately and the machine will halt in a safe mode until the alarm is cleared. Alarm condition must not be present or the associated alarm setting must be changed in order for machine to be reset.

In addition to the pressure and temperature band alarms, the machine also has a function that monitors the air supply pressure when the machine is at rest. If the supply air pressure drops below 20psi, the event will be detected and a red screen that reads No Air Supply Detected will appear. When this occurs the foot pedal will be locked out and the heater will turn off. Once the proper air supply is restored, the warning screen will disappear automatically machine will operate normally.

Component Parts and Function

PLC: The central processing unit (CPU) of the machine

HMI: Touch Screen HMI: Human machine interface is used to enter information and make selections

24VDC Power Supply: Converts AC to DC for all DC powered components in the machine.

Pressure Sensor: Provides a voltage signal to the PLC proportional to set pressure

Pressure Regulator: Regulates incoming air supply

Low Pressure Regulator: 0-30psi regulates low pressure close.

PID: Monitors and regulates power to the heater

Main/Valve-4: Supplies air pressure to close the seal bar.

Hi/Lo Valve-3: Supplies high or low pressure to the Main Valve.

SSR /Solid State Relay: Supplies power to the heater cartridge.

Seal Bar Platen: Applies pressure and heat to the product to be sealed.

Heater Cartridge: Supplies heat to the seal bar Platen.

Reed Switch: Senses the cylinder rod position. It is used for Jaw Obstruction Alarm and Switching on the High Pressure Valve.

Emergency Stop: Disables the machine power and causes the Seal Bar to retract.

Safety Guard Switch: Prevents Seal Bar from activation if the Safety Guard is removed.

Buzzer: Provides an audible indication of an alarm condition.

Troubleshooting

Problem	Cause	Solution
No Power	♦ No power to machine ♦ Machine not plugged in ♦ Tripped Circuit Breaker ♦ Power Switch in "OFF" position ♦ E-Stop pushed down	♦ Check that outlet for the machine has power. ♦ Plug in machine. ♦ Check and Reset ♦ Place Power Switch in "ON" position. ♦ Twist E-Stop to Reset
No Heat	♦ Seal Bar not properly plugged in ♦ Faulty or bad SSR ♦ Faulty Heater Cartridge	♦ Check that Seal Bar is properly installed ♦ Replace SSR ♦ Replace Heater Cartridge
No Air Supply Detected	♦ Supply Air Below 20PSI ♦ Regulator not working ♦ Pressure sensor is bad	♦ Verify Utility ♦ Turn reg. Knob to increase pressure/verify Regulator, replace ♦ Use cal port to confirm air pressure ♦ Replace pressure sensor
No display on Touch Screen HMI	♦ Cable connecting HMI to PLC loose or disconnected ♦ Faulty HMI ♦ Faulty 24VDC power supply ♦ Faulty PLC	♦ Check that cable is secure and in place. ♦ Replace HMI. ♦ Replace 24VDC power supply. ♦ Replace PLC.
Temperature Band Alarm	♦ Temperature Band Alarm Setting is too low. ♦ Fault in temperature sensing circuit ♦ Damaged Thermocouple	♦ Increase Temperature Band Alarm Setting Accu-Seal recommended alarm setting is +/- 10 ♦ Check connections associated with the thermocouple, including internal wires. ♦ Replace thermocouple, replace or tighten connections.
Pressure Band Alarm	♦ Air Supply too low ♦ Pressure Band Alarm setting too low. ♦ Faulty Pressure Sensor or Regulator	♦ Verify air supply source, must be 10psi > set point ♦ Increase Pressure Band Alarm setting ♦ Replace Pressure Sensor or Regulator
Seal Bar does not come down/Jaw Obstruction Alarm	♦ Obstruction in Jaw ♦ Improper Reed Switch position ♦ Faulty Reed Switch ♦ Faulty Main Valve ♦ Faulty HI / LO Valve	♦ Free jaw obstruction ♦ Adjust Reed switch ♦ Replace Reed Switch ♦ Replace Main Valve. ♦ Replace Hi / Lo Valve

Problem	Cause	Problem
Open Sensor Alarm	♦ Disconnected Thermocouple ♦ Broken Thermocouple wire between TC and Connector ♦ Broken connection between TC and temperature sensing module	♦ Reconnect thermocouple ♦ Inspect wire for cuts or damage inspect plug connection, replace Thermocouple assembly ♦ Trace wire inside machine to temperature sensing module and verify connection is good. If problem continues call Accu-Seal
Safety Guard Alarm	♦ Guard not properly positioned on safety switch ♦ Safety switch bad	♦ Position guard and ensure it is closing the safety switch ♦ Replace safety switch
Touch Screen HMI lights up but machine does not work	♦ Faulty HMI ♦ Faulty PLC ♦ Machine is locked-up	♦ Have program checked or Replace HMI. ♦ Check for "red" error light on PLC. If flashing, call Accu-Seal. ♦ Cycle power to machine.

Repair & Replacement Procedures

Figure 17 Reed Switch Position

REPLACEMENT OF REED SWITCH:

Items Required:

New reed switch
Phillip-head screwdriver
Small Flat-head Screwdriver
Black marker

Turn Off Power to machine.

1. Remove bottom cover.
2. Disconnect Air Supply
3. Locate reed switch on cylinder.
4. Mark position of reed switch leads on terminal block.
5. Remove leads of reed switch from terminal block.
6. Mark the position of old reed switch on cylinder with black marker.

NOTE: Typical Reed position is **.5**” from the bottom of the cylinder

7. Unscrew and remove reed switch from cylinder.
8. Install new reed switch at the exact same position as old reed switch.
9. Secure new leads to terminal block.
10. Install bottom cover.
11. Connect the Air Supply
12. Plug in Power, turn the machine ON
13. Using a flat object approximately ½” in height (magazine) place in seal area and force a jaw obstruction to test the reed switch operation.
14. If there is no jaw obstruction alarm you will need to adjust the reed switch slightly.

WARNING: Electrical Hazard!

The Following procedure requires that Power be ON with no Air Supply. Use extreme caution working inside the machine.

15. To adjust switches you will need to remove the back cover.
16. Turn the machine over and prop it up so the bar will open and close and you have clear access to the reed switches.
17. Remove Air supply to the machine
18. Open the seal bar manually then slowly close the seal bar manually until you see the green lights on the reed switches light up.
19. Look at the seal bar opening. If it is more than ½” you need to move the bottom of the reed switch slightly toward the bottom of the cylinder.
20. Continue adjustment until the seal bar opening is between ¼” and ½”.
21. Re-Test Switch operation. Using a flat object approximately ½” in height (magazine) place in seal area and force a jaw obstruction to test the reed switch operation.

REPLACEMENT OF SAFETY SWITCH:

Figure 18 Safety Switch

Items Required:

Safety Switch
Soldering Iron
Wrench

WARNING:
TURN OFF POWER AND UNPLUG MACHINE

1. Unplug the power to the machine
2. Remove the safety guard
3. Remove the bottom cover
4. Unscrew the safety switch, retaining nut on the outside of the machine.
5. Remove the switch from the case.
6. De-Solder the old switch and remove.
7. Re-Solder the new switch
8. Place the retaining nut on the switch and then position the switch in the case.
9. Place the second retaining nut on the switch outside the case. Make sure the outside retaining nut is flush with the top of the switch.
10. Tighten the inside retaining nut.
11. Replace the bottom cover.
12. Replace the Safety Guard.

REPLACEMENT OF
HEATER CARTRIDGE ASSEMBLY:

Figure 19 Heater Cartridge Assembly

Items Required:

Heater Cartridge Assembly
Phillips Screwdriver
5/32" Allen wrench

CAUTION: Unplug machine and allow bar to cool completely before removing the Safety Guard.

The Seal Bar and Platen MUST be room temperature. Removing the platen from the bar when HOT could cause personal injury and could damage the PLATEN threads.

Figure 20 Seal Bar

Disconnect the seal bar and thermocouple connectors and remove the seal bar from the machine

Using an Allen wrench, Remove the cap screws and lock washers that secure the platen to the seal bar.

Turn the seal bar over so the platen is facing up and remove the platen from the seal bar.

Using a Phillips screwdriver, remove the pan head screw with captive washer and the cable clamp that secure the ground wire and the cable. Remove the old heater cartridge assembly from the bar.

Install the new heater cartridge assembly on top of the brass bar.

Secure the ground wire and the cable using the Phillips screw and captive washer with cable clamp. Do not tighten at this time; just tighten enough to hold the wire and cable in place.

Place the platen over the heater cartridge assembly and align the platen and cartridge with the brass bar as shown above.

Re-install the cap screws and lock washers to secure the platen to the seal bar. Install all screws and lock washers through the bar into the platen. Use caution not to strip the screws.

When all 4 screws and lock washers are in place, tighten down the screws so they are snug. Do not over tighten.

Turn the bar over, position the cable so that it does not interfere with the cylinder area of the bar. Tighten the ground wire and cable clamp with cable position as shown above.

Install the seal bar assembly with the washers and seal bar bolts. Bolts should be tightened, finger tight, without the use of tools. Over tightening, the bolts can damage the grommet.

Connect the Seal Bar Connector and the Thermocouple. Install the Safety Guard.

Component Parts List

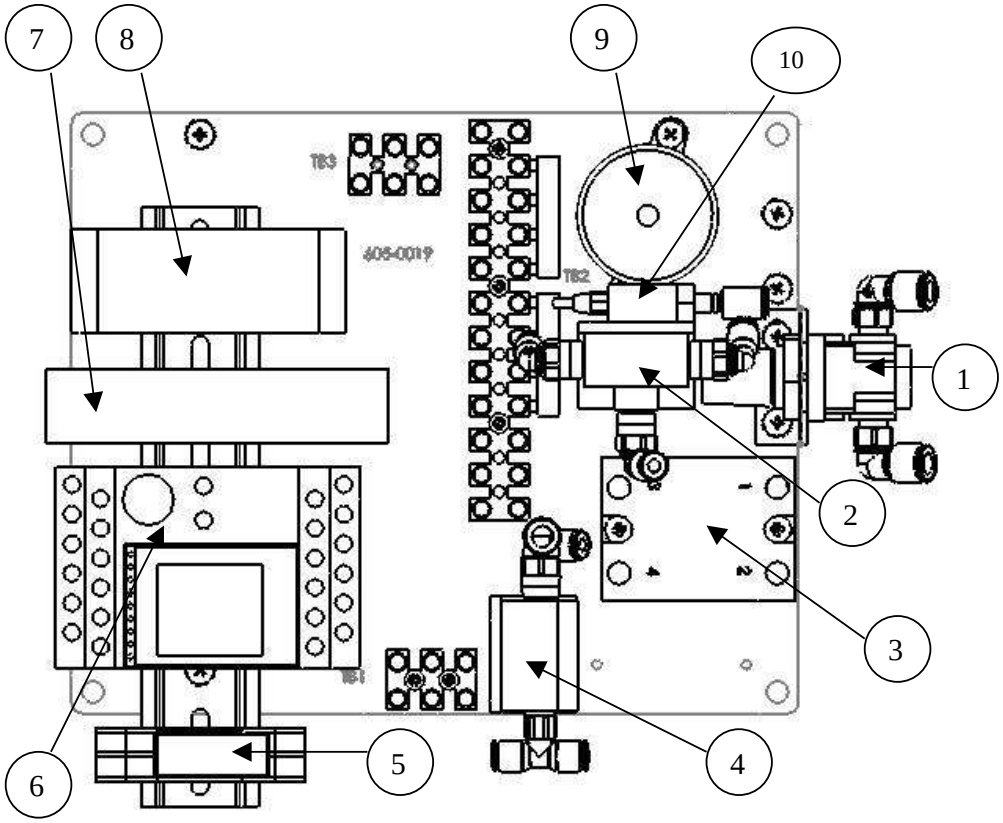


Figure 21 Component Plate 6400

ITEM	PART NO.	DESCRIPTION
1	106-0012	Regulator, Low Pressure 0-30 PSI
2	102-0021	VALVE - 3
3	304-0023	SS RELAY 10AMP
4	102-0022	VALVE - 4
5	304-0029	RELAY 24V DPDT
6	302-0013	PLC FP-X-C14T
7	307-0017	TC Transmitter
8	301-0013	Power Supply Din Mt 24v 60W
9	306-0020	Buzzer
10	105-0015	Pressure Sensor

Component Parts List

PART NO.	DESCRIPTION
306-0036	Power Switch
306-0029	Circuit Breaker
101-0022	Cylinder
106-0007	Pressure Regulator ¼ NPT (Supply Air)
309-0005	GT-01 HMI
306-0037	E-Stop Switch
306-0002	Foot Switch
618-0008	Thermocouple Assembly-Surface Mount-NEMA
306-0034	Reed Switch
306-0032	Safety Guard Switch, Mini Push OVR Travel
507-0130	Safety Guard Window 8” Polycarbonate
507-0128	Safety Guard Window 15” Polycarbonate
507-0148	Safety Guard Window 20” Polycarbonate

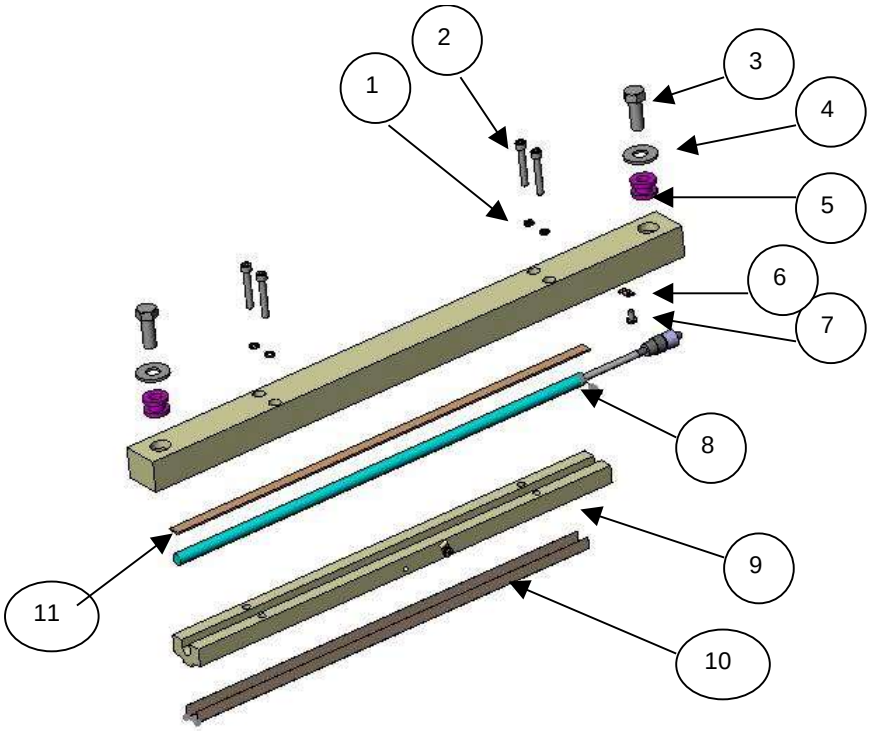


Figure 22 Seal Bar Assembly Parts Diagram

		Heater Cartridge Assembly
ITEM	PART NO.	DESCRIPTION
	611-0125	8 inch 120V Heater Cartridge Assembly
8	611-0126	15 inch 120V Heater Cartridge Assembly
8	611-0127	20 inch 120V Heater Cartridge Assembly
	611-0128	8 inch 220V Heater Cartridge Assembly
8	611-0129	15 inch 220V Heater Cartridge Assembly
8	611-0130	20 inch 220V Heater Cartridge Assembly

		Seal Bar Components
1	403-0026	Washer #10 Lock SS
2	401-0080	SCAP SS10-32x1.25
3	401-0081	3/8-24x1 SS HEX BOLT
4	403-0028	WASHER 3/8”ID 1” OD SS
5	501-0012	GROMMET 60 BLK 3-8ID
6	502-0120	CABLE CLAMP SS 3/32
7	401-0107	6-32X5/15 PAN HEAD w/w SS
9	508-xxxx	HEAT PLATEN (length varies) x 3/8”
10	Varies	1 ½” PTFE Fabric Tape with adhesive backing
11	701-xxxx	Brass Bar 1/16 x .375 x (length varies)

Appendixes

Machine Specifications

6400 Series Machine Specifications			
	6400-08-B	6400-15-B	6400-20-B
Seal Width (Standard)	3/8"	3/8"	3/8"
Seal Length	8"	15"	20"
Input Requirements			
Voltage (Standard) +/-10%	120 Vac	120 Vac	120 Vac
(X) 50 HZ	220 Vac	220 Vac	220 Vac
Current (@120 Vac)	4.0 Amps	6.0 Amps	8.0 Amps
Current (@220 Vac)	2.0 Amps	3.0 Amps	4.0 Amps
Air Supply (Min-Max)	80-110 psi	80-110 psi	80-110 psi
Air Consumption @ 80 psi	1.5 CFM	1.5 CFM	1.5 CFM
Control System			
Temperature			
Limits	AMB-350 F	AMB-350 F	AMB-350 F
Accuracy	+/- 1 F	+/- 1 F	+/- 1 F
Pressure			
Limits	50-100psi	50-100psi	50-100psi
Accuracy (@60 psi)	+/- 5 psi	+/- 5 psi	+/- 5 psi
Time			
Limits	0.1-19.9 sec	0.1-19.9 sec	0.1-19.9 sec
Accuracy	+/- 0.1 sec	+/- 0.1 sec	+/- 0.1 sec
Environmental Specifications			
Ambient Temperature	0C to + 50c / 32F to +122F		
Ambient Humidity	RH Non-Condensing		
Physical Dimensions			
Length (in.)	13.125	20.5	25.5
Width (in.)	12	12	12
Height (in.)	12	8	8
Weight (lbs.)	22	25	30

Electrical Schematic

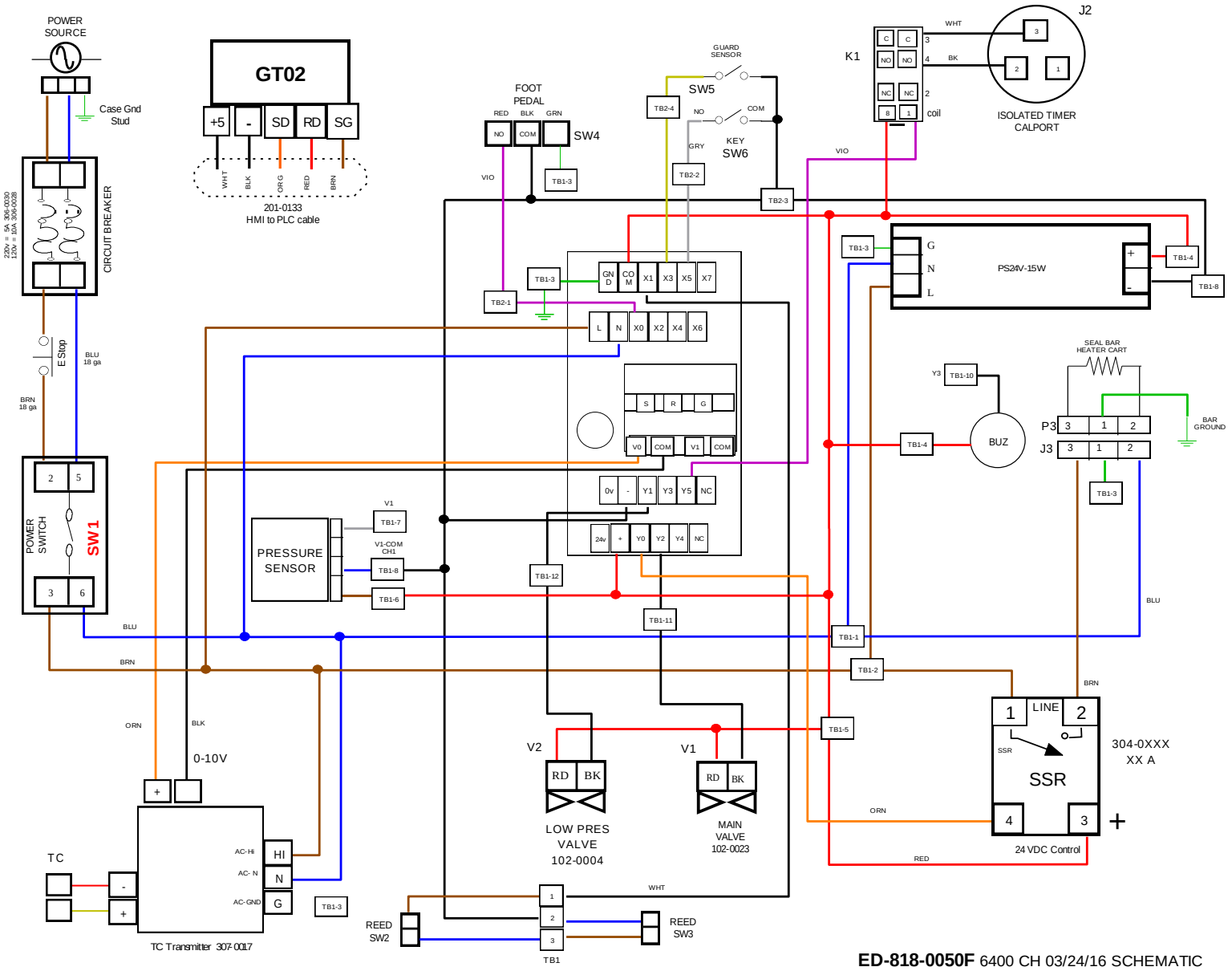


Figure 23 Electrical Schematic

Pneumatic Schematic

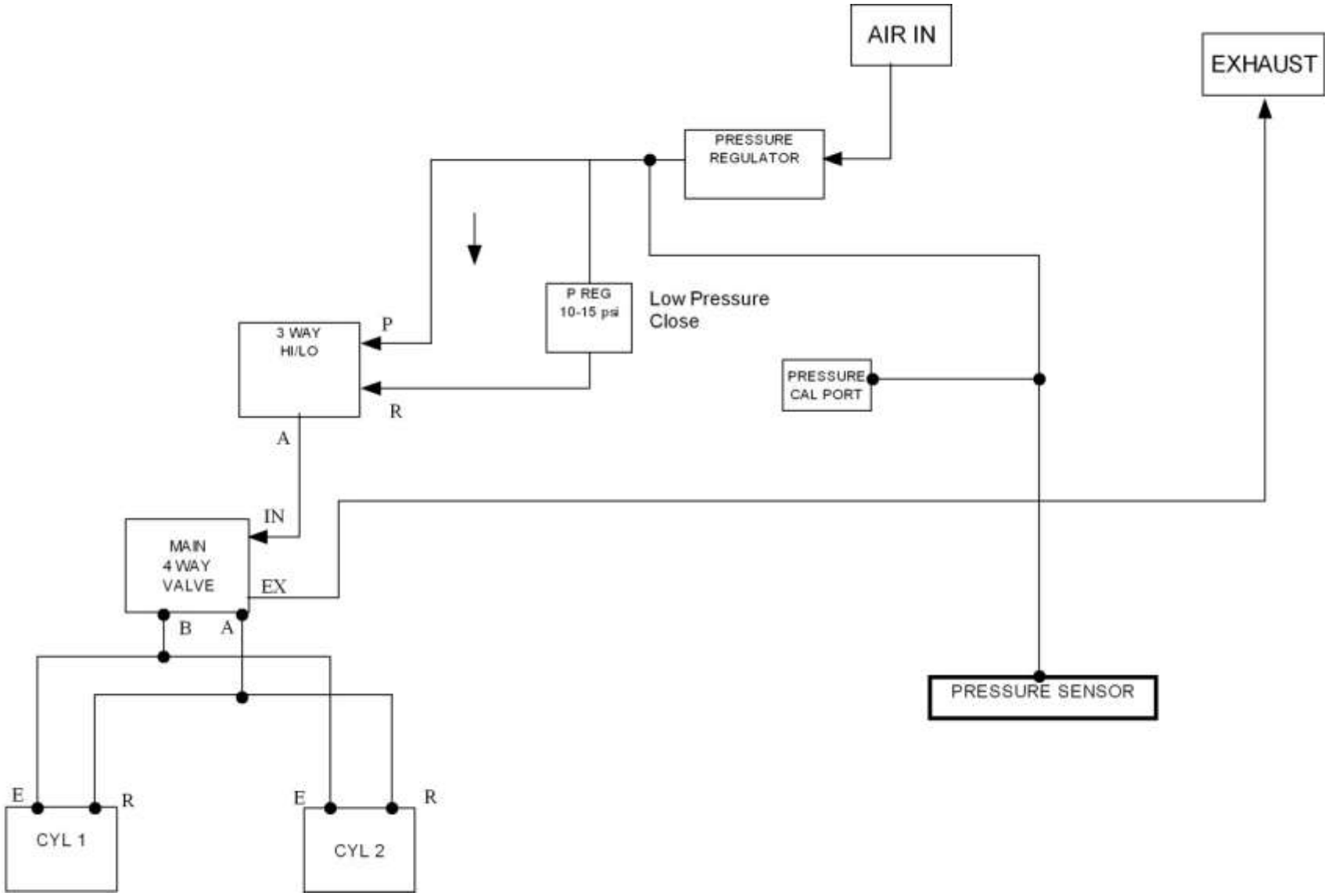


Figure 24 Pneumatic Schematic

CONSTANT HEAT MEDICAL SEALER REPLACEMENT PARTS ORDERING INFORMATION

Seal Bar Length	Pressure Pad Assembly	PTFE Fabric Tape Set			
	#	#			
8”	617-0006	612-0045			
15”	617-0007	612-0046			
20”	617-0008	612-0047			

PTFE Fabric Tapes by the Roll	Part Number
1.5” PTFE Fabric Tape, Adhesive back- 10’ Roll	612-0030
1.5” PTFE Fabric Tape, Adhesive back- 25’ Roll	612-0031
1.5” PTFE Fabric Tape, Adhesive back- 50’ Roll	612-0032
1.5” PTFE Fabric Tape, Adhesive back- 108’ Roll	612-0033

Prior to ordering replacement, parts please have full model and serial number for your machine. The Model and Serial numbers are on the silver and black tag on the back of your machine.

If you can’t find the part you need, please call us toll free 1-800-452-6040 or 760-591-9800

Order Online 24/7 www.accu-seal.com

Replacement Parts Order Form

ACCU-SEAL CORPORATION
225-B BINGHAM DRIVE SAN MARCOS, CA 92069
ORDER TOLL FREE: 1-800-452-6040
E-MAIL ORDERS TO: info@accu-seal.com
INT'L ORDERS FAX: INT'L ACCESS CODE+1+760-591-9117
ONLINE ORDERS: www.accu-seal.com

PO Date: _____
Your PO Number: _____
Delivery Date: _____
Ordered By: _____

YOUR COMPANY INFORMATION

BILL TO:		**SHIP TO:**	
Company Name:		*Company Name:*	
Contact Name:		*Contact Name:*	
Address:		*Address:*	
City/State/Zip		*City/State/Zip*	
Phone:		*Phone:*	
Fax:		*Fax:*	
E-mail Address:		*E-mail Address:*	

METHOD OF PAYMENT

☐ NET 30	☐ COD	☐ PREPAY	☐ MC	☐ VISA	☐ AMEX

CC#: _____ **EXP:** _____ **3-DIGIT PIN:** _____

CC NAME: _____ **SIGN HERE:** _____

MODEL#: _____ **SERIAL#:** _____

$35.00 MINIMUM ORDER REQUIREMENT

PART #	**DESCRIPTION**	**QTY**	**COST (ea)**	**TOTAL**
			$	**$**
			$	**$**
			$	**$**
			$	**$**
			$	**$**
			$	**$**
			$	**$**
			$	**$**
			$	**$**
	SUB TOTAL			**$**
	CALIFORNIA SALES TAX			**$**
000-0011	HANDLING FEE			**$5.00**
	TOTAL			**$**

YOUR PO# (if applicable): _____
YOUR SHIPPING ACCT. # (if applicable): _____
YOUR SHIPPING METHOD: **GROUND** **OVERNIGHT**

FREIGHT WILL BE ADDED AT TIME OF INVOICING