

Operating Instructions



Heat Sealing Solutions

www.accu-seal.com



675TC Temperature Controlled Vacuum-Gas Sealer

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675TC – Temperature Controlled Vacuum Sealer with Gas Purge

OVERVIEW

IMPORTANT: READ INSTRUCTIONS COMPLETELY PRIOR TO OPERATION

This Manual is organized in sections. This Overview section outlines safety precautions, general equipment description and pictures to familiarize you with the product. The Set-up and Installation section describes the features and procedure for installing the equipment, as well as an overview of the controls and HMI interface menus. The Operating Instructions describe the process and permissions for setting and adjusting recipes and alarms, and for general operation of the machine. The Maintenance Information section includes recommended machine inspection, cleaning and maintenance information, descriptions of consumable parts, their function and replacement procedures, as well as troubleshooting. The Machine Calibration section provides information needed for machine calibration. The Appendix includes the machine specifications, electrical and pneumatic diagrams, and parts ordering information.

DISCLAIMERS:

Accu-Seal SencorpWhite Inc. disclaims any liability for injuries or damages 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, proper operator training 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.

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.

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.

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Safety

Throughout this manual you will find three 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.

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* **IMPORTANT:** Represents important information to be aware of

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

⚡ **WARNING:** Do Not Operate the machine in the presence of explosives or flammable gasses or fumes, such an environment constitutes a definite Safety hazard. Not for use in potentially explosive or flammable atmospheres.

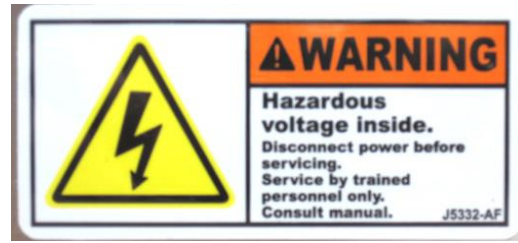
This machine is not protected from ingress of dust or liquids. Operate in a clean dry environment.

⚡ **CAUTION:** When operating the machine, always keep fingers and hands out of the seal jaw area.

To ensure safe operation of the Heat Sealer, the operator should be aware of pinch points and possible burn hazard near the Seal Jaw Area.



⚡ **WARNING:** Hazardous Voltage inside. Disconnect Power before Servicing. Service by Trained personnel only.



PRECAUTION:

To ensure safe operation of the Heat Sealer, 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 in the vicinity of 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 manual.

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

⚡ **CAUTION:** Ensure that ONLY pouch materials are present in the seal area before pressing the Foot Switch.

The Operator must be cautious that small objects do not fall out of pouches. Small, hard objects caught in the seal area can damage the heating element and cause the machine to attempt extreme temperatures. Small objects may be caught in the seal area that are too small to be detected by the jaw obstruction safety sensor, this could cause machine failure or fire hazard and void the warranty.

Description of Equipment

The Accu-Seal 675TC is a temperature controlled pneumatic, impulse heat vacuum sealer with gas purge capability. The sealer is controlled by a fully digital high-speed PLC controller with a color enhanced LCD Touch screen HMI.

Settable heat seal parameters are:

- sealing temperature
- sealing time (dwell)
- release temperature
- sealing pressure

The machine has visible and audible alarms for temperature, time, pressure, and jaw obstruction. Safety features include emergency stop button, safe low-pressure jaw close, internal high temperature limit, and thermal overload protection.

The operator can select one of 10 pre-set seal recipes and view all seal parameters. When the desired recipe is selected, the operator places a pouch with the product to be sealed in the seal area and depresses the Foot Switch. When the Foot Switch is depressed, the machine will begin running through its cycle. When the cycle is complete, the Seal Jaw will open, and the pouch is then removed.

The operator can also select a recipe to run as well as view Recipe settings, Alarm settings and Seal count.

A Passcode is required to edit or change any machine parameters. Additional pass code access is required for Calibration and Alarm History screens.

The machine case is laser cut and welded # 304Stainless Steel. The seal bars are anodized aluminum.

See machine specifications for complete details.

Physical Layout



Figure 1- Front of machine
(your machine may vary)

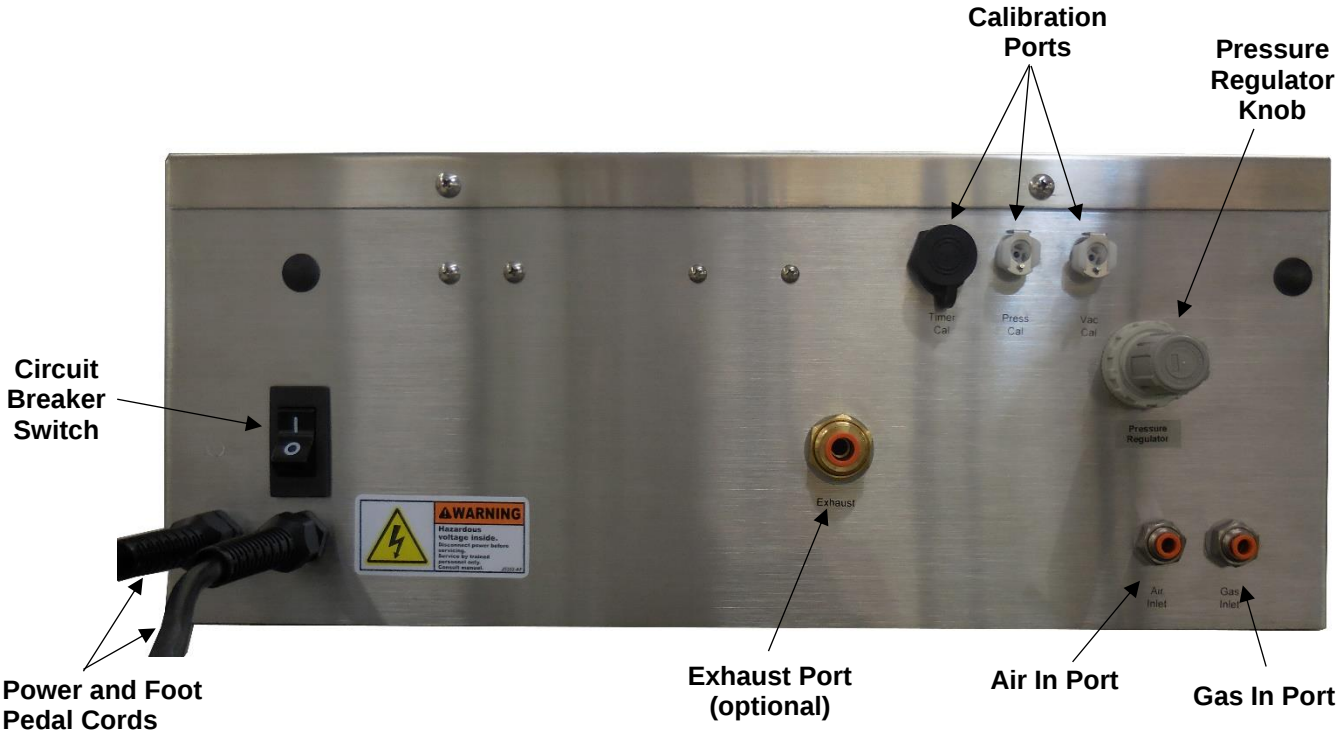


Figure 2- Back of machine
(your machine may vary)

Physical Layout (cont'd)

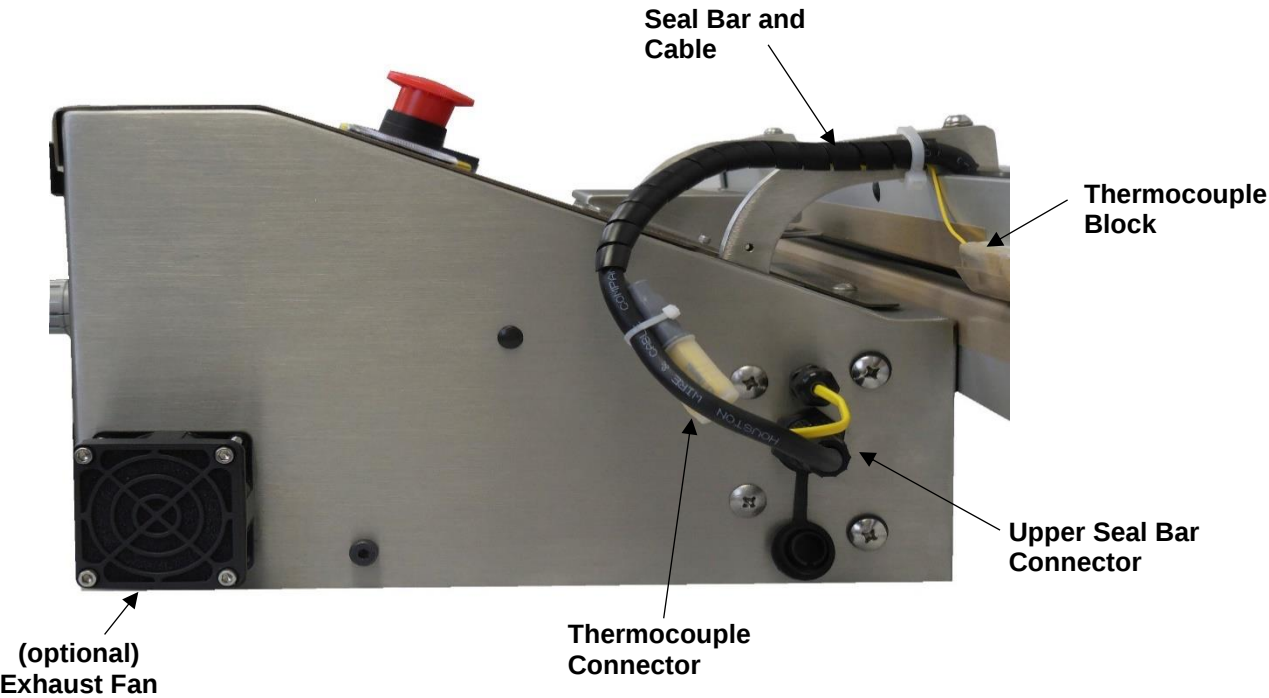


Figure 3- Left Side of Machine
(your machine may vary)

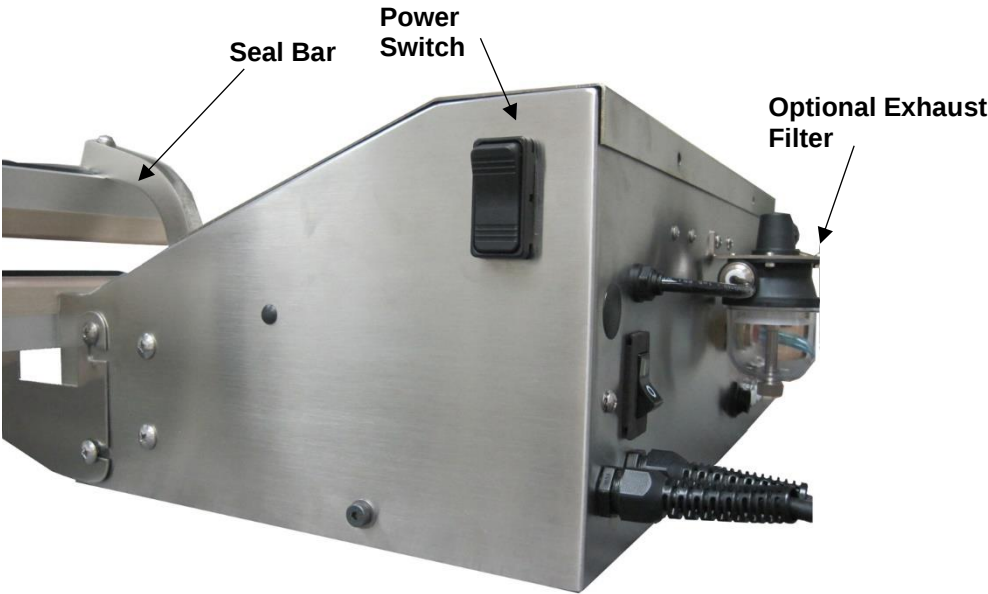


Figure 4- Right side of Machine
(your machine may vary)

SET-UP AND INSTALLATION

Installation Procedures

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.

Connect to a clean, dry, compressed air source between 90-110 psi. The Accu-Seal 675TC requires 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.

1. Place the machine on a stable and sturdy surface capable of supporting a 200 lb load.
2. Locate the "Air In" port on the back of the machine and attach clean dry air supply (90-110psi) using 1/4" OD tubing supplied with machine. When the air supply is connected and power is on, the Seal Bars will open.
3. If your machine is configured for gas purge capability, locate the "Gas In" port on the back of the machine and attach 1/4" tubing from source gas. The gas source should be regulated to avoid pouch damage during operation.

NOTE: Gas or air supply is needed to operate the manual purge button on HMI screen.



CAUTION:

Nitrogen is the only gas approved for use in this machine. Should your procedure require the use of any other type gas, contact Accu-Seal.

4. If exhaust air is to be exhausted out of the room, attach 3/8" exhaust tubing to exhaust ports(s) on the back of the machine. Alternatively, Accu-Seal recommends using a silencer for a quieter operation when exhaust air is to be evacuated in the workspace.
5. Verify that the Circuit Breaker on the back of the machine is in the ON position.
6. Plug the machine power cord into dedicated power receptacle. Refer to serial tag on back of machine for specific requirements.

7. Turn the machine ON by pressing the main Power Switch, on the front of the machine.
8. Ensure the red ESTOP button is pulled out. Twist the button clockwise and it should pop out.
9. When power is turned ON, the Touch Screen will light up and the start-up sequence begins. First you will see the boot screen followed by the Main Menu Screen.

Main Operating Components

Referring to Figures 1-4 in this manual, below is a list of the major operating components of the machine.

POWER SWITCH:

ON: Turns the power to the machine on, the Touch screen lights up 'green' and the start-up sequence begins, first you will see the boot screen followed by the Main Menu Screen.

OFF: Turns the power to the machine off. Touch Screen is no longer lit.

HMI TOUCH SCREEN:

Used to perform input to the machine and read output information. HMI Flashes Red when in Alarm Status and sounds audible alarm.

E-STOP:

Removes power to all machine components. To operate the E-Stop Push Red Knob in. To Reset the E-Stop, Twist and the knob will pop-out.

FOOT SWITCH:

Initiates the seal cycle. When the Foot Switch is depressed, the seal jaw closes and seal cycle begins.

VACUUM GAUGE:

The vacuum gauge indicates the vacuum level during a vacuum cycle. When the vacuum time expires the vacuum cycle will end.

DIGITAL VACUUM SWITCH (OPTIONAL):

Machines may integrate a digital vacuum switch in place of the standard analog vacuum gauge, allowing for precise control of the vacuum levels achieved during the vacuum cycle of the machine. The digital vacuum switch can override the vacuum time setting on the machine to improve cycle times.

Controls Overview

The HMI Touch Screen allows for three Access Levels for Operation. The Non-Access code “Operator”, without a pass code, may select and operate one of 10 pre-set seal recipes, view recipe settings, view alarm settings and view seal count. The operator can also reset Alarms so long as the machine function has been restored.

Level 1 passcode allows access to changing/editing Recipes, Alarms, Pressure, and reset seal counter.

Level 2 passcode allows access to all machine settings.

1. Seal Temperature
2. Release Temperature
3. Seal Time (Dwell)
4. Pressure
5. Vacuum Time
6. Gas Time
7. Temperature Band Alarm Setting
8. Cold Seal Alarm
9. Reset Seal Count
10. Password
11. Calibration Screens
12. Alarm History
13. Establish Recipe/Select Mode

Each recipe can operate one of 6 selectable seal modes on Gas-Vacuum models.

The 6 selectable seal modes are:

- SEAL → Seal only
- VS → Vac-Seal
- VGS → Vac-Gas-Seal (1-99 Cycles)
- VGVS → Vac-Gas-Vac-Seal
- GVS → Gas-Vac-Seal (1-99 cycles)
- GVGS → Gas-Vac-Gas-Seal

Setting the Passcode

Your model machine has been programmed with the following default pass codes.

Level 1 = 12345

Level 2 = 24680

Use the Level 2 pass code to access and change both Level 1 and Level 2 codes. File in document control for protection.

You may set a new passcode, as follows, using the Set-Up access.

Main Operating Screen

The Main Operating Screen displays the following information:

Recipe	* NONE	Set	Act	Avg
Seal Temp (°F)	***	***	***	
Seal Time (sec)	**.*	**.*		
Release Temp (°F)	***	***		
Pressure (psi)	***	***		

Buttons at the bottom: VIEW / EDIT SETTINGS (highlighted), SELECT RECIPE, NEXT. A 'DAS DISABLED' indicator is also present.

1. Touch the VIEW/EDIT SETTINGS button

View / Change Main Screen

The View / Change Main Screen contains the following buttons:

- VIEW SETTINGS
- CHANGE SETTINGS (highlighted)
- BACK

2. Touch CHANGE SETTINGS button.

Passcode Entry Screen

The Passcode Entry Screen displays the prompt "Enter Password Access Code" above a keypad icon. Below the icon is the text "Touch to display keypad". A BACK button is at the bottom left.

3. Touch to display keypad to enter passcode.

Passcode Entry Screen

The Passcode Entry Screen displays a numeric keypad with the following layout:

1	2	3	4	5	ESC	CLR	
6	7	8	9	0	BS	ENT	

4. Enter **Level 2** passcode to access Level 2 Edit/Change Settings Screen, then touch ENT to enter.

 NOTE:

A keypad screen will appear anytime data values are required to be entered. Passcode numerical values are not displayed when entered.

In addition to numerical values, definitions for Alpha keys are provided below:

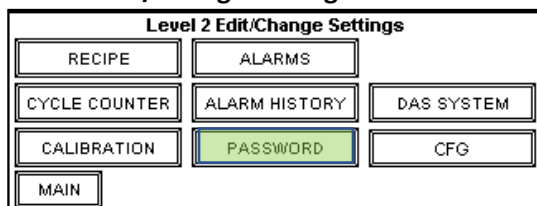
ESC: Touch to escape screen and return to previous screen.

CLR: Touch to clear incomplete/incorrect entries made, and re-enter data.

BS: Backspace key to edit entry.

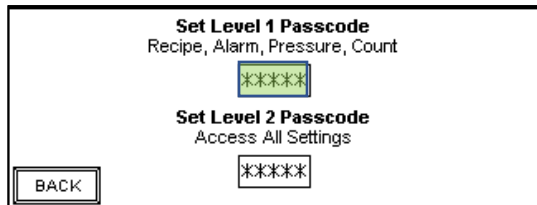
ENT: Touch to enter values and continue to next screen.

Level 2 Edit/Change Settings Screen



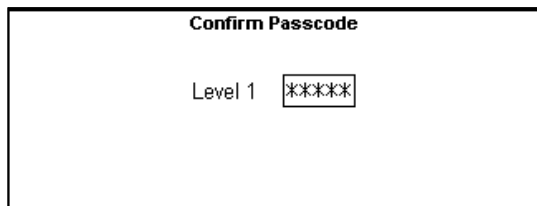
5. Touch the PASSWORD button

Passcode Entry Screen



5. Touch window for **Set Level 1** Passcode.
6. Enter a new passcode, up to 5 digits. Touch ENT to save the new passcode.

Passcode Confirmation Screen



7. Touch window to re-enter new passcode, then touch ENT to enter.
8. Repeat Steps 5-7 to reset Level 2 passcode

 NOTE:

If the confirmation code entered does not match, a Red Error screen will appear and read "Invalid Code Entered" the message will flash for 3 seconds and then return to the pass code menu. Re-enter passcode.

9. Repeat Steps 5-7 for resetting Level 2 Passcode.

*** IMPORTANT:**

Level 2 passcode has access to the Calibration Screens, as well as setting passwords and seal parameters. Extreme care should be used to Protect Level 2 access code.

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

Once you have completed the machine installation and the new passwords have been set you are ready to input the desired Machine Pressure setting, Seal parameters for each recipe, and Band Alarm Settings.

Be sure to file passcodes in a secured and controlled document for protection.

The flow chart diagrams on the following pages (Figures 5 and 5A) provide an operational overview of the functions and navigation procedure for this machine.

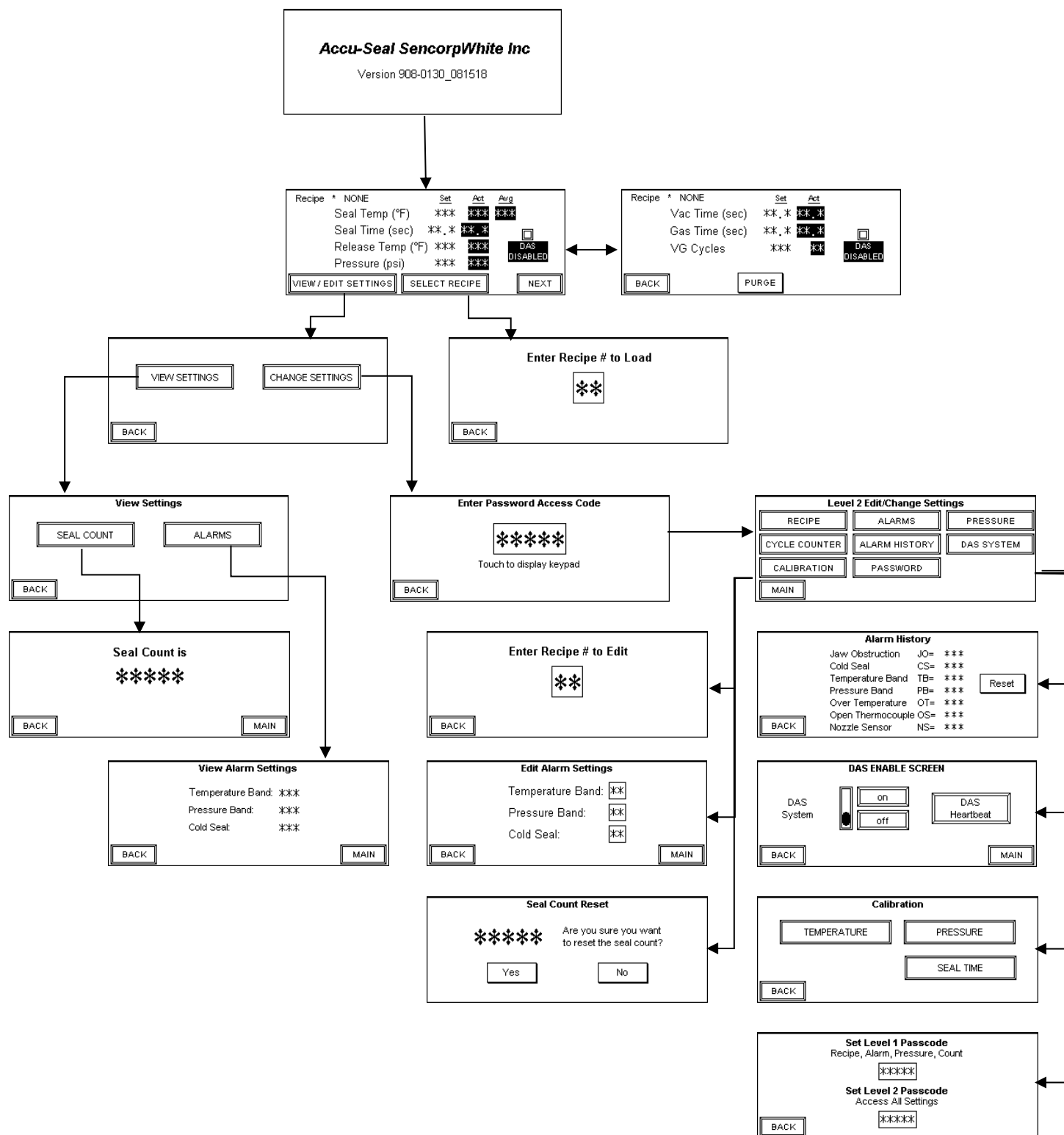


Figure 5 - Touchscreen Flow Chart 1

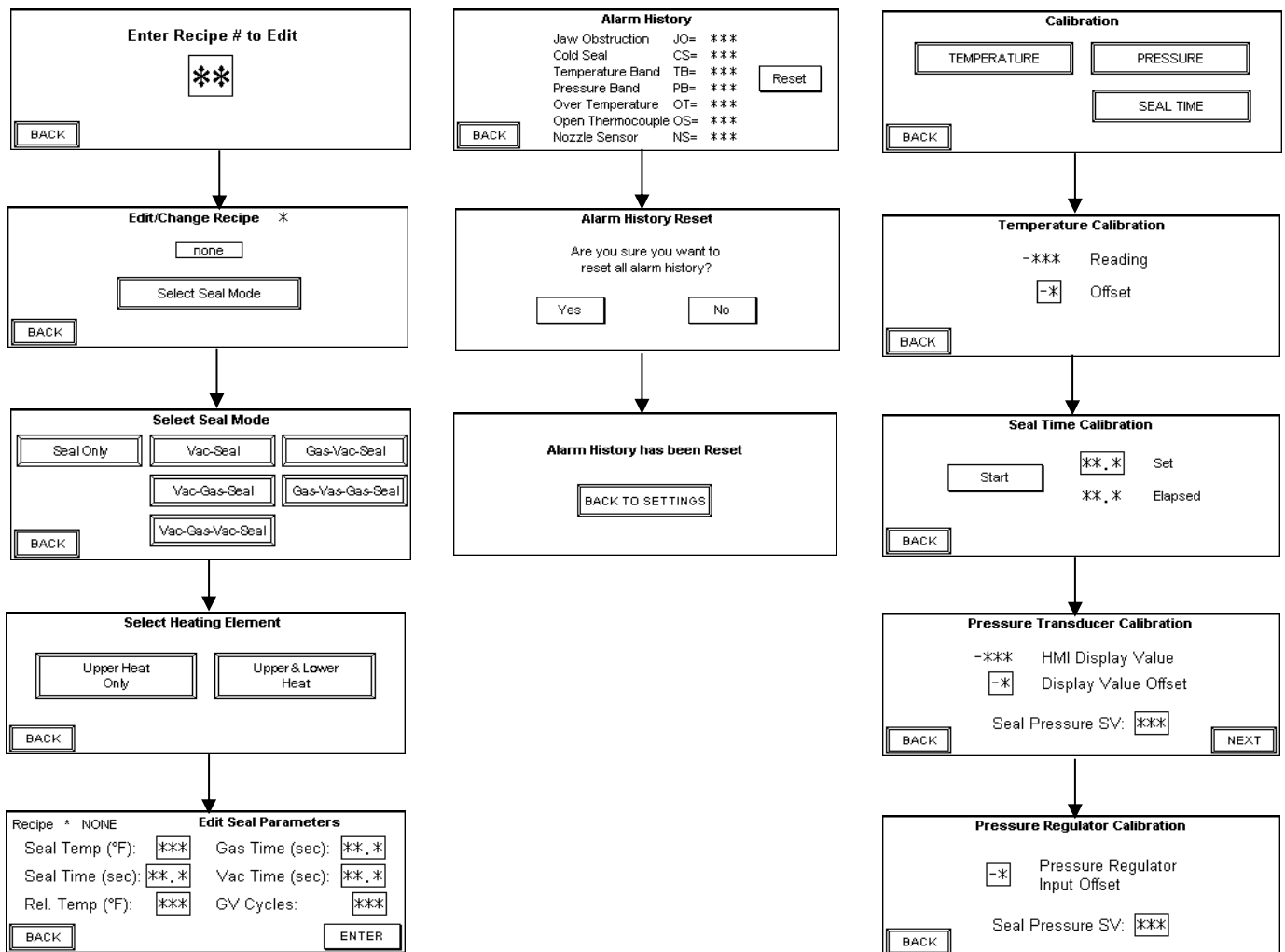


Figure 5A - Touchscreen Flow Chart

OPERATING INSTRUCTIONS

This section outlines both the Monitor (navigation) and Control (programming) functions of the digital HMI interface screen on your machine.

The section below provides the user with an overview of screen information available for the various operating modes for the sealer, as well as the procedure for Viewing Settings and Selection of Recipes to be used by the operator.

Maintenance or Supervisory personnel should read the entire contents of the Operating Instructions section prior to proceeding.

Machine Operation

✱ **IMPORTANT:**
This start-up procedure assumes that the machine has been installed according to the Set-Up and Installation instructions of this manual and the visual inspections and routine operating maintenance has been performed.

Turn the machine ON by pressing the Power Switch. The Touch Screen will light up 'green' and the following display(s) will be initiated prior to the Main Operating Screen being displayed.

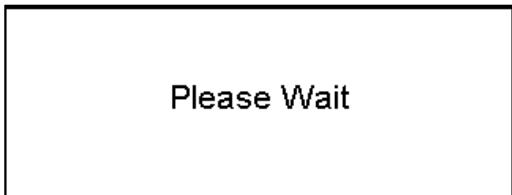
Boot Up Screen



Temporarily displays software version and date code (908-XXXX_MMDDYY)

Warm-up Screen

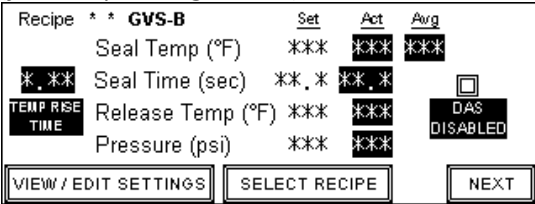
(Indicates PLC is updating information)



When the boot-up sequence is complete, the Main Menu like below will appear.

Main Operating Screen

(for all Operating Modes)



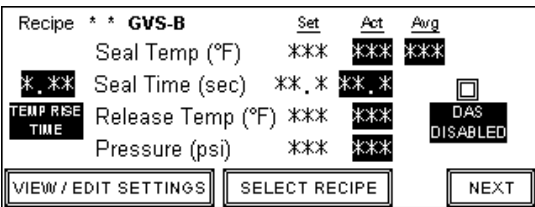
General Screen Conventions

*** Data enclosed in a box may be modified.

*** Data shown as white text with a black background (reverse image) represents actual process values. Column heading may be "ACT" or "AVG".

*** Data shown as black text with a white back and not enclosed in a box represents a set value.

Main Operating Screen Display Definitions



Recipe: Displays the current recipe number and seal mode (if programmed).

Temp Rise: Displays the elapsed time for the temperature to rise from 100°F to 450°F for diagnostic purposes. Only visible when the seal temperature is set to 450°F.

Seal Temp: Displays the set temperature, actual temperature and average temperature maintained during the seal cycle.

Seal Time: Displays the set and elapsed seal dwell time.

Release Temp: Displays the set and actual release temperature.

Pressure: Displays the set and actual seal pressure. (Set pressure is adjusted using the manual regulator on the back of the machine).

DAS DISABLED*: Displays DAS system status – "DAS ENABLED", "DAS DISABLED", "Data XMIT" (*requires DAS option – not available on all models).

VIEW / EDITS SETTINGS: Navigation button to Main View / Change Settings screen.

SELECT RECIPE: Navigation button to Select Recipe screen.

NEXT: Navigation button to 2nd Main Operating screen displaying vac/gas function values. (Not shown for some seal modes).

Touch screen HMI: Main Operating Screens

Main Operating Screen

(for all Operating Modes except Vac-Seal-Seal)

Recipe	2	VGS-B	Set	Act	Avg	
Seal Temp (°F)	***	***	***	***	***	
Seal Time (sec)	**,*	**,*	**,*	**,*	**,*	☐
Release Temp (°F)	***	***	***	***	***	DAS
Pressure (psi)	***	***	***	***	***	DISABLED
VIEW / EDIT SETTINGS		SELECT RECIPE		NEXT		

Main Operating Screen

(for Vac-Seal-Seal mode only)

Recipe	2	VSS-B	Set1	Set2	Act	Avg1	Avg2	
Seal Temp (°F)	***	***	***	***	***	***	***	
Seal Time (sec)	**,*	**,*	**,*	**,*	**,*	**,*	**,*	☐
Release Temp (°F)	***	***	***	***	***	***	***	DAS
Pressure (psi)	***	***	***	***	***	***	***	DISABLED
VIEW / EDIT SETTINGS		SELECT RECIPE		NEXT				

Touch NEXT button to display 2nd Main Operating Screen



NOTE:

NEXT button not shown (not applicable) for Seal only mode setting.

2nd Main Operating Screen

(VS-B mode shown)

Vac-Seal, both upper and lower heat

Recipe	**	VS-B	DAS DISABLED	☐
Vac Time (sec)	**,*	**,*		
BACK				

2nd Main Operating Screen

(VGS-B mode shown)

Vac-Gas-Seal, both upper and lower heat

Recipe	**	VGS-B	DAS DISABLED	☐
Vac Time (sec)	**,*	**,*		
Gas Time (sec)	**,*	**,*		
VG Cycles	***	**,*		
BACK		PURGE		

2nd Main Operating Screen

(GVS-U mode shown)

Gas-Vac-Seal, upper heat only

Recipe	**	GVS-U	DAS DISABLED	☐
Gas Time (sec)	**,*	**,*		
Vac Time (sec)	**,*	**,*		
GV Cycles	***	**,*		
BACK		PURGE		

2nd Main Operating Screen

(VGVS-B mode shown)

Vac-Gas-Vac-Seal, both upper and lower heat

Recipe	**	VGVS-B	DAS DISABLED	☐
Vac1 Time (sec)	**,*	**,*		
Gas Time (sec)	**,*	**,*		
Vac2 Time (sec)	**,*	**,*		
BACK		PURGE		

2nd Main Operating Screen

(GVGS-U mode shown)

Gas-Vac-Gas-Seal, upper heat only

Recipe	**	GVGS-U	DAS DISABLED	☐
Gas1 Time (sec)	**,*	**,*		
Vac Time (sec)	**,*	**,*		
Gas2 Time (sec)	**,*	**,*		
BACK		PURGE		

Vac Time: Displays the vacuum function set and elapsed time (only for VG or GV modes).

Gas Time: Displays the gas function set and elapsed time (only for VG and GV modes).

Vac1 Time: Displays the set and elapsed time for 1st vacuum cycle (only for VGV mode).

Vac2 Time: Displays the set and elapsed time for 2nd vacuum cycle (only for VGV mode).

Gas1 Time: Displays the set and elapsed time for 1st gas purge cycle (only for GVG mode).

Gas2 Time: Displays the set and elapsed time for 2nd gas purge cycle (only for GVG mode).

GV, VG Cycles: Displays the set and elapsed Vac/Gas or Gas/Vac cycle iterations (only for VG and GV modes).

PURGE: Touch and hold to temporarily activate the purge valve. (Disabled while a cycle is in progress).

BACK: Navigation button returns to the Main Operating screen.

Select/View Recipe Screens

Main Operating Screen

(for all Operating Modes)

The Main Operating Screen displays the following information:

Recipe	Set	Act	Avg
* * NONE	***	***	***
Seal Temp (°F)	***	***	***
Seal Time (sec)	**.*	**.*	
Release Temp (°F)	***	***	
Pressure (psi)	***	***	

Buttons: VIEW / EDIT SETTINGS, SELECT RECIPE, NEXT. A checkbox for DAS is labeled DISABLED.

Select Recipe Screens:

To select recipe to load/use, touch SELECT RECIPE button on Main Operating Screen.

Recipe # Entry Keypad Screen

The Recipe # Entry Keypad Screen displays:

Enter Recipe # to Load

Range 1-10

none

BACK

Touch the ******* control to display the recipe number keypad screen.

The keypad displays the following buttons:

1	2	3	4	5	ESC	CLR
6	7	8	9	0	BS	ENT

Enter Recipe number to be loaded/used (between 1 - 10) and touch ENT to enter.

Recipe # Entry Keypad Screen

Example: Recipe 2

The Recipe # Entry Keypad Screen displays:

Enter Recipe # to Load

2

Range 1-10

none

BACK

Touch the BACK button to display the recipe on the Main Operating Screen.

The Main Operating Screen displays the following information:

Recipe	Set1	Set2	Act	Avg1	Avg2
2 VSS-B	***	***	***	***	***
Seal Temp (°F)	***	***	***	***	***
Seal Time (sec)	**.*	**.*	**.*		
Release Temp (°F)	***	***	***		
Pressure (psi)	***	***	***		

Buttons: VIEW / EDIT SETTINGS, SELECT RECIPE, NEXT. A checkbox for DAS is labeled DISABLED.

Viewing the Main Menu, verify that the seal mode and settings are correct for your application. The machine is now ready to operate.

1. Press the footswitch to cycle the machine once to warm it up.
2. Place the product to be sealed between the Seal Jaws making sure the nozzles are inside the pouch/bag.
3. Keeping your fingers away from the Seal Jaw Area, press and release the footswitch. When the Footswitch is pressed, the machine will immediately begin the selected seal cycle.
4. When the seal cycle is complete, the Seal Jaw will open.
5. Remove the product and inspect the seal.
6. At the end of each shift or production run turn the Power switch to the OFF position.



NOTE:

Sealing cycle may be aborted at any time by:

- Pressing the E-Stop
- Switching Power to OFF

Monitoring Sealer Performance

At the start of each production run and during production, the operator should monitor and visually inspect the Seal Jaw 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.

Alarms

If for any reason the machine is unable to function due to an abnormal condition/event, an ALARM will occur that prevents or aborts the seal cycle to be initiated or completed. The operator will hear an audible alarm and the Red ALARM SCREEN will flash.



CAUTION:

Severe damage to the machine can occur if the problem that caused this fault is not corrected. Contact Supervisor or maintenance immediately.

To Reset Alarms:

1. Press the box that reads ALARM RESET on Red Alarm screen.
2. Main Menu will appear.

Alarm Response

If a machine fault occurs, the HMI will display a fault message screen to identify the condition. An audible alarm consisting of three short “beeps” will also sound. “Non-critical” alarms may be reset by touching the ALARM RESET button on the HMI screen. “Critical” alarms must be reset by momentarily removing power from the machine.

After resetting the alarm, inspect the machine to identify the cause of the displayed fault. Correct the issue and cycle the machine to confirm the alarm condition has been corrected and the machine is operating normally. If the alarm condition continues with no apparent obstruction, contact maintenance or a supervisor.

Non-Critical Alarms

Jaw Obstruction Alarm indicates that the seal bar was unable to fully close.

If the seal bar does not completely close, the Jaw Obstruction Alarm will trigger a sound and the display screen will appear in RED.



Press ALARM RESET to clear the alarm and return to the Main Operating Screen.

Inspect the machine to locate and remove any obstruction which may prevent seal bar from closing. Cycle the machine to confirm the obstruction has been cleared and the machine is operating normally.

Temperature Band Alarm occurs if the seal temperature goes above or below the set temp +/- temperature band amount during the seal cycle time.



Press ALARM RESET to clear the alarm and return to the Main Operating Screen.

Pressure Band Alarm occurs If the operating pressure goes above or below the set +/- band at the beginning of or during the seal cycle time.



Press ALARM RESET to clear the alarm and return to the Main Operating Screen.

Cold Seal Alarm indicates that there is no power to the element, or the set temperature is not being reached within the cold seal time setting. Verify that the Seal Bar power cords are properly connected.



Press ALARM RESET to clear the alarm and return to the Main Operating Screen.

Invalid Code Entered occurs if the user attempts to enter a value for the Seal Temperature that exceeds the maximum temperature allowable for the machine, or if the Release Temperature is outside the acceptable range. The alarm screen will appear for approximately 3 seconds, and the main screen values will default to acceptable levels. User should re-enter a value within the acceptable range below:

Seal Temp Range: 150 - 450°F (65 - 232°C)

Release Temperature: min. 30°F below Seal Temp



***DAS Offline Alarm** indicates that the data acquisition system and PLC are not communicating therefore, Cycle data will not be captured.



Press Alarm Reset and Enable DAS system to resolve. The issue can typically be resolved by cycling power to the machine or turning the function off then on at the HMI screen.

*Requires DAS system. Not available on all machines.

Critical Alarms

Open TC Alarm indicates that the thermocouple circuit is open.



Indicates the PLC is not receiving a valid signal from the thermocouple transmitter. Inspect the thermocouple connection.

Alarm Reset

To Reset the Alarm

1. Touch the ALARM RESET button on the alarm screen (if available), to return to the Main Operating Screen.
2. If ALARM RESET button is not available on the fault screen, turn off the machine to cycle power.

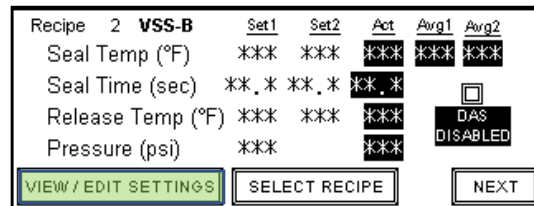
* **IMPORTANT:** If the fault condition has been cleared, the machine will reset and operate normally.

IF THE ALARM CONDITION CONTINUES, CONTACT MAINTENANCE, OR SUPERVISOR.

View Seal Count/Alarms Settings Screens

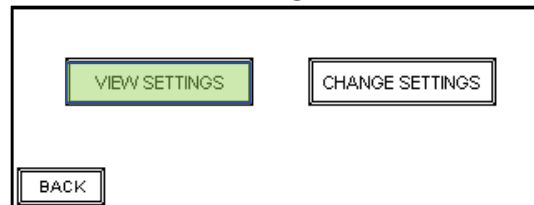
Main Operating Screen

(for Vac-Seal-Seal mode only)



Touch VIEW/EDIT SETTINGS

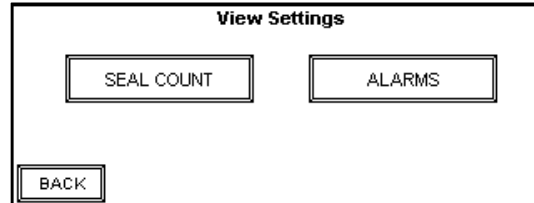
Main View / Edit Settings Screen



VIEW SETTINGS: Navigation button to Main View Settings screen.

BACK: Navigation button returns to the Main Operating screen.

Main View Settings Screen

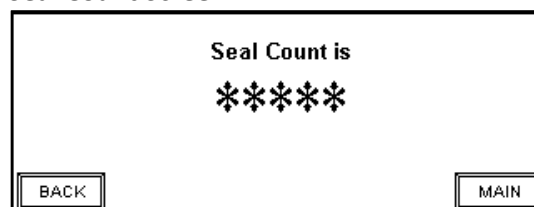


SEAL COUNT: Navigation button to view current seal count screen.

ALARMS: Navigation button to view alarm settings screen.

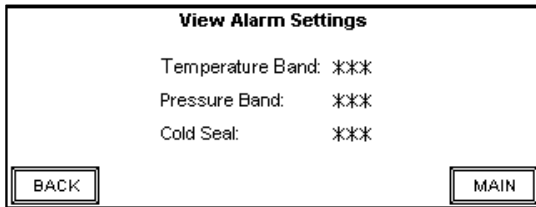
BACK: Navigation button returns to the Main View/Edit Settings Screen.

Seal Count Screen



Displays current seal count value.

View Alarm Settings Screen



The screen displays the title "View Alarm Settings" at the top. Below it, three parameters are listed: "Temperature Band: ***", "Pressure Band: ***", and "Cold Seal: ***". At the bottom left is a "BACK" button, and at the bottom right is a "MAIN" button.

Displays named alarm setpoint values

BACK: Navigation button returns to the Main View / Edit Settings screen

MAIN: Navigation button to return to the Main Operating screen.

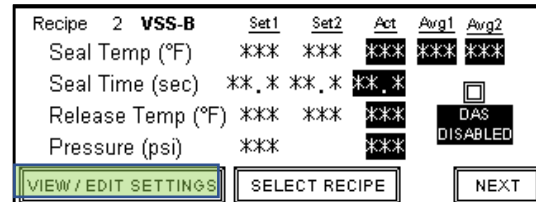
Change/Edit Settings

This section describes the process for changing or editing the settings for your machine.

 **NOTE:** Intended for use by authorized personnel—valid passcode required to access functions.

Main Operating Screen

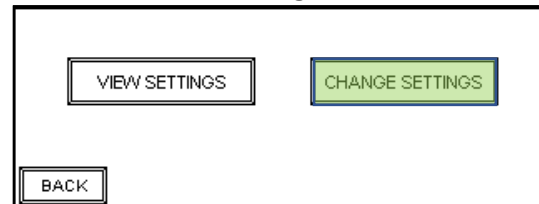
(for Vac-Seal-Seal mode only)



The screen displays various parameters and buttons. At the top, it shows "Recipe 2 VSS-B". Below this, there are rows for "Seal Temp (°F)", "Seal Time (sec)", "Release Temp (°F)", and "Pressure (psi)", each with corresponding setpoint values (*** or **.*). To the right, there are columns for "Set1", "Set2", "Act", "Arg1", and "Arg2". A "DAS DISABLED" indicator is present. At the bottom, there are three buttons: "VIEW / EDIT SETTINGS" (highlighted with a green border), "SELECT RECIPE", and "NEXT".

Touch the VIEW/EDIT SETTINGS button

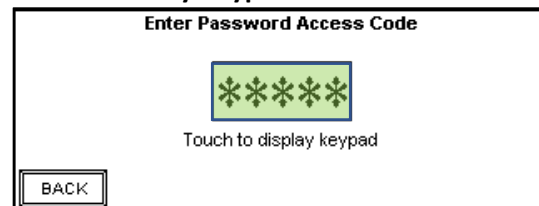
Main View / Edit Settings Screen



The screen displays two buttons at the top: "VIEW SETTINGS" and "CHANGE SETTINGS" (highlighted with a green border). At the bottom left is a "BACK" button.

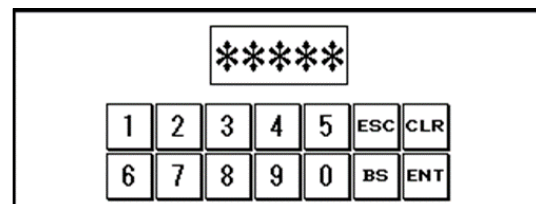
CHANGE SETTINGS: Touch Change Settings to access the Password Access Code screen.

Passcode Entry Keypad Screen



The screen displays the title "Enter Password Access Code". In the center, there is a green box containing six asterisks (*****). Below this box, the text "Touch to display keypad" is displayed. At the bottom left is a "BACK" button.

Touch the  control to access the parameter setting keypad.

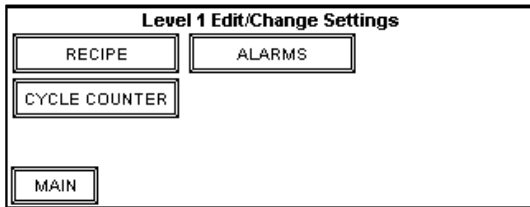


The keypad displays a row of six asterisks (*****). Below this, there are two rows of buttons: the first row contains "1", "2", "3", "4", "5", "ESC", and "CLR"; the second row contains "6", "7", "8", "9", "0", "BS", and "ENT".

Enter **Level 1** or **Level 2** passcode and touch ENT to access Edit Settings Screen.

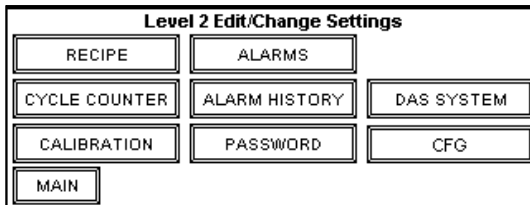
 **NOTE:**
If an invalid or incorrect entry is made in during the process of entering or changing parameters, the screen will not advance to the next screen.

Main Edit Settings Screen – Level 1



Includes navigation buttons to named function screens. Access requires a Level 1 passcode.

Main Edit Settings Screen – Level 2

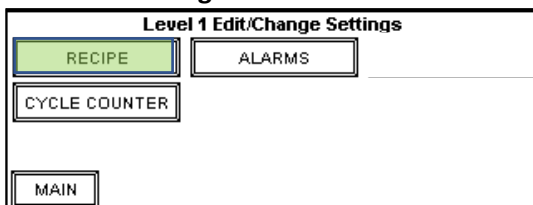


Includes navigation buttons to named function screens. Access requires a Level 2 passcode.

Edit/Change Recipes

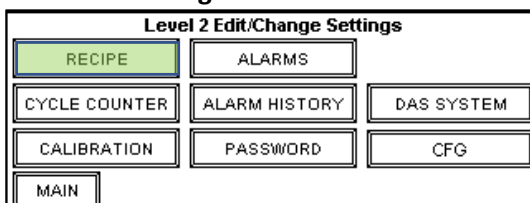
To change recipes from either the Level 1 or Level 2 edit screens, touch the RECIPE button.

Main Edit Settings Screen – Level 1



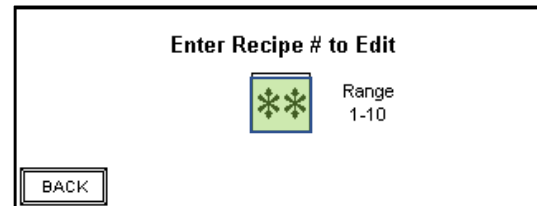
Changes available with Level 1 passcode are limited to the above.

Main Edit Settings Screen – Level 2

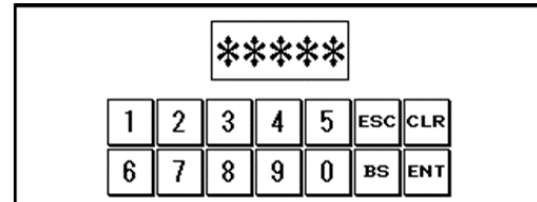


Level 2 passcode provides access to change or edit all functions available.

Recipe # Entry Keypad Screen

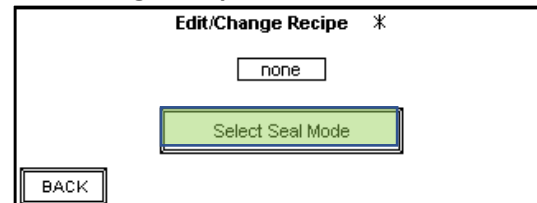


Touch the *** control to display the recipe number keypad screen.



Enter Recipe number to be edited (between 1 - 10) and touch ENT to enter.

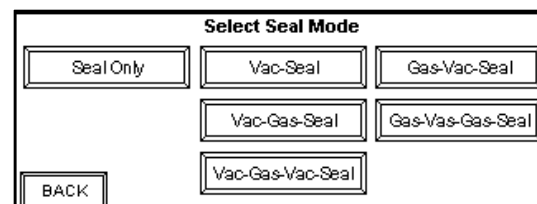
Edit/Change Recipe Screen 1



Select Seal Mode: Navigation button to display the Select Seal Mode screen.

BACK: Navigation button returns to the Enter Recipe # to Edit screen.

Select Seal Mode Screen



Touch the desired button to access the related seal mode parameters for editing.

BACK: Navigation button returns to the Edit/Change Recipe screen.

Select Heat Mode Screen

Select Heating Element

Upper Heat Only Upper & Lower Heat

BACK

BACK: Navigation button returns to the Select Seal Mode screen.

Upper Heat Only: Touch this button to select only the upper element to heat during the seal cycle.

Upper & Lower Heat: Touch this button to select both the upper & lower elements to heat during the seal cycle - (visible only on select models).

BACK: Navigation button returns to the Select Seal Mode screen.

The appropriate parameter edit screen is displayed once the heat mode is selected.

Parameter Edit Screen – Seal Only Mode

Recipe * * SEAL-U Edit Seal Parameters

Seal Temp (°F): ***

Seal Time (sec): **.*

Rel. Temp (°F): ***

BACK Seal Pressure (psi): *** ENTER

Parameter Edit Screen – VS Seal Mode

Recipe * * VS-B Edit Seal Parameters

Seal Temp (°F): *** Vac Time (sec): **.*

Seal Time (sec): **.*

Rel. Temp (°F): ***

BACK Seal Pressure (psi): *** ENTER

Parameter Edit Screen – GVS Seal Mode

Recipe * * GVS-B Edit Seal Parameters

Seal Temp (°F): *** Gas Time (sec): **.*

Seal Time (sec): **.*

Rel. Temp (°F): *** Vac Time (sec): **.*

GV Cycles: ***

BACK Seal Pressure (psi): *** ENTER

Parameter Edit Screen - VGS Seal Mode

Recipe * * VGS-B Edit Seal Parameters

Seal Temp (°F): *** Vac Time (sec): **.*

Seal Time (sec): **.*

Rel. Temp (°F): *** Gas Time (sec): **.*

VG Cycles: ***

BACK Seal Pressure (psi): *** ENTER

Parameter Edit Screen - VGVS Seal Mode

Recipe * * VGVS-U Edit Seal Parameters

Seal Temp (°F): *** Vac1 Time (sec): **.*

Seal Time (sec): **.*

Rel. Temp (°F): *** Gas Time (sec): **.*

Vac2 Time (sec): **.*

BACK Seal Pressure (psi): *** ENTER

Parameter Edit Screen - GVGS Seal Mode

Recipe * * GVGS-B Edit Seal Parameters

Seal Temp (°F): *** Gas1 Time (sec): **.*

Seal Time (sec): **.*

Rel. Temp (°F): *** Vac Time (sec): **.*

Gas2 Time (sec): **.*

BACK Seal Pressure (psi): *** ENTER

Touch the *** control to access the set or edit the selected parameter using the Parameter Entry Keypad.

Parameter Entry Keypad Screen

1	2	3	4	5		ESC	CLR
6	7	8	9	0	.	BS	ENT

Enter value for selected parameter, then touch ENT to select and return to Parameter Edit Screen.

Seal Temp: Temperature at which the PLC controls the seal heat.

Range: 150 - 450°F (65 - 232°C)
150 - 650°F (65 - 343°C) w/hi temp option

Seal Time: The duration the seal element remains at the set temperature during the sealing mode

Range: 0.1 - 99.9 seconds

(Release) Rel. Temp: Temperature at which the seal jaw cools to before opening to end the cycle.

Range: 120 - 450°F (50 - 215°C)

NOTE:

The Release Temperature must be set at least 2°F lower than the set Seal Temperature value.

Gas1, Gas2 Time: The amount of time the gas flush function remains on.

Range: 0.1 - 99.9 seconds

Vac, Vac1, Vac2 Time: The amount of time the vac function remains on.

Range: 0.1 - 99.9 seconds

GV / VG Cycles: The number of times the gas/vac (vac/gas) sequence repeats before starting the heat function.

Range: 1 - 99 seconds

Seal Pressure: The value entered for seal pressure is the desired pressure at which the seal jaws will operate during the heat seal cycle. This value does not control the seal pressure, but is a reference for comparison of the “actual” pressure as adjusted using the external Pressure Regulator (see note below).

Setting Range: 5 - 100 psi (35 - 690kPa)

Recommended Range: 70 - 90 psi

NOTE:

Inlet pressure must be adjusted using the Pressure Regulator knob on the back of the machine to correspond with Seal Pressure setting.

When all desired values are entered on the Parameter Edit Screen, touch **ENTER** to save and return to the Main Operating Screen.

BACK: Navigation button returns to the previous screen.

Alarm Settings

Pressure Alarm Operation

The Pressure Band Alarm uses the Set Pressure and the Pressure Band Alarm Setting to determine alarm points.

Example: If the Pressure Setting is 80 PSI and the Pressure Band Alarm Setting is +/-10 PSI, then the machine sets an operating pressure band between 70 and 90 PSI. The alarm will activate if the pressure goes above or below this band for more than 1 second during the seal cycle.

Temperature Alarm Operation

The Temperature Band Alarm uses the Seal Temperature Setting and Temperature Band Alarm Setting to determine alarm points.

The Temperature Band Alarm monitors the temperature only during the seal time period.

Example: If the Seal Temperature Setting is 275° F and the Temperature Band Alarm Setting is ± 10° F, then the machine will operate within a temperature range of 265° F to 285° F.

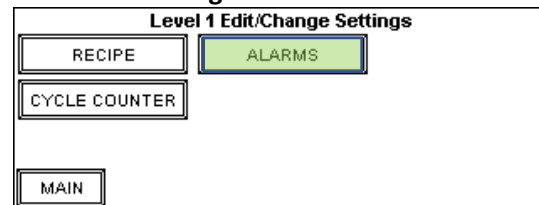
The alarm will activate if the temperature measured by the thermocouple goes above or below this band anytime during the seal cycle.

Setting/Changing Alarm Parameters

NOTE:

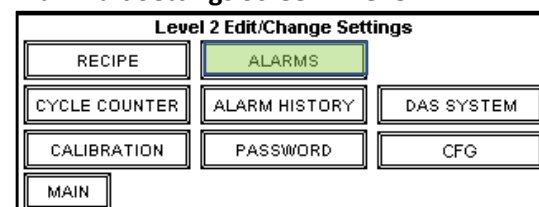
Access to the “Alarm” parameter settings screen requires a Level 1 or Level 2 passcode.

Main Edit Settings Screen – Level 1



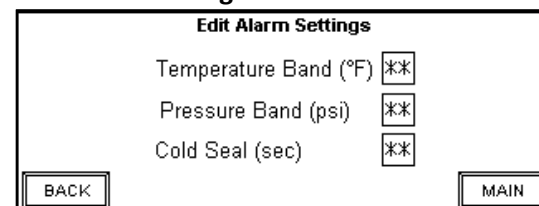
Touch “Alarms” button to access the Edit Alarm Settings screen.

Main Edit Settings Screen – Level 2

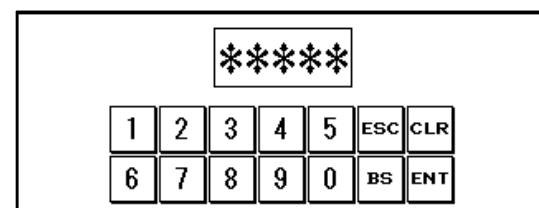


Touch “Alarms” button to access the Edit Alarm Settings screen.

Edit Alarm Settings Screen



Touch the ****** control to access the parameter setting keypad.



Enter Values for selected parameter then touch ENT to save value.

Temperature Band: Enter a value to set the upper/lower seal temperature alarm limits outside which the “temperature band alarm” is activated.

Range: 1 - 25°F (1 - 10°C)

Recommended Setting: ± 15°F

Pressure Band: Enter a value to set the upper / lower seal pressure alarm limits outside which the “pressure band alarm” is activated

Range: 1 - 20 psi (1 - 140 kPa)

Recommended Setting: ± 10 psi

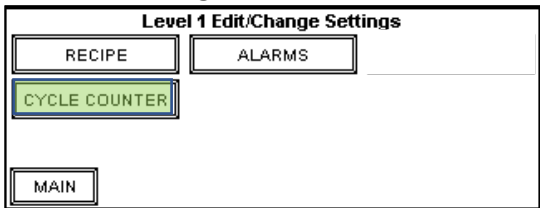
Cold Seal: The elapsed time allowed to reach the seal time before the “cold seal” alarm is activated
Range: 1 - 20 seconds
Recommended Setting: 3 - 5 seconds

Cycle Counter Reset Screen

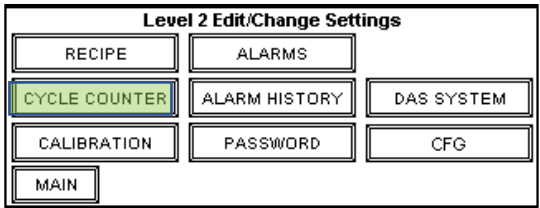
The machine counts every seal that is started and displays this value on the Counter Screen. The cycle counter can increment up to 30,000 cycles before it is automatically reset to "0". The seal count can also be manually reset through the HMI.

 **NOTE:**
Access to the “Cycle Counter” parameter settings screen requires a Level 1 or Level 2 passcode.

Main Edit Settings Screen – Level 1

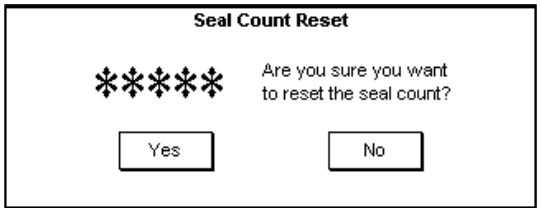


Main Edit Settings Screen – Level 2



Touch the Cycle Counter button to access the “Seal Count Reset” screen.

Cycle Counter Reset Screen



YES: Resets the counter value and navigates to the “Seal Count is Reset” screen.

NO: Navigates to the “Main Edit Settings” screen.

Seal Count Is Reset Screen

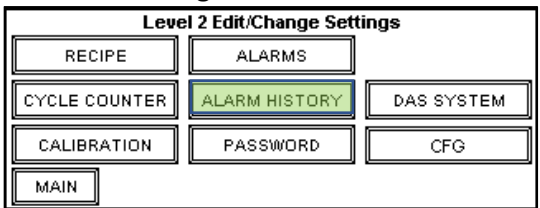


BACK TO SETTINGS: Navigation button to return to the “Main Edit Settings” screen.

Alarm History Screens

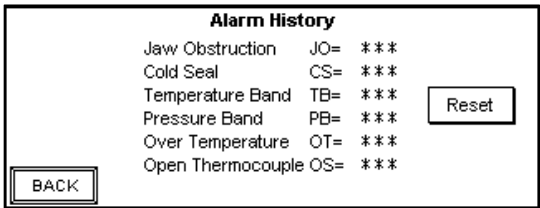
The following screens can only be accessed with a Level 2 passcode access.

Main Edit Settings Screen – Level 2



Touch the Alarm History button to access the Alarm History screen.

Alarm History Screen



Displays the current number of alarm occurrences for each named function since the last reset.

Reset: Navigation button to the “Reset Alarm History?” screen.

Alarm History Reset Screen



YES: Resets all alarm counters and navigates to the “Alarm History is Reset” screen.

NO: Navigates to the “Main Edit Settings” screen.

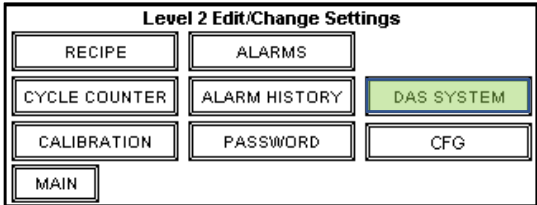
Alarm History is Reset Screen



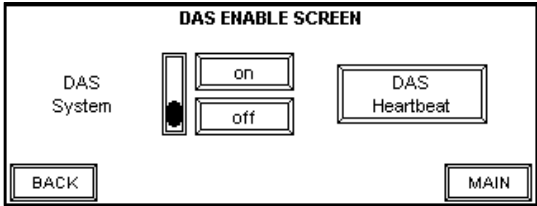
BACK TO SETTINGS: Navigates to the “Main Edit Settings” screen.

Data Acquisition System (DAS)
Optional- not on all machines

Main Edit Settings Screen – Level 2



Touch the DAS System button to allow access to settings.



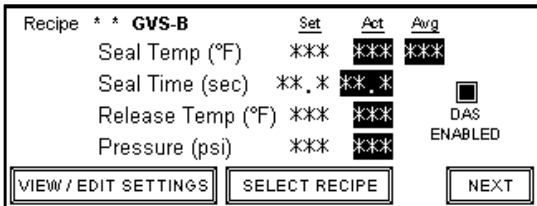
On / Off: Touch to enable/disable the data capture function. The indicator control to the left of the buttons will display the on/off status.

DAS HEARTBEAT: Indicates the status of the “handshake” between the PLC and the Data Acquisition module. The indicator will alternate between the standard view and the reverse image view approximately every three seconds when the communication is active.

BACK: Navigation button returns to the Main Edit Settings screen

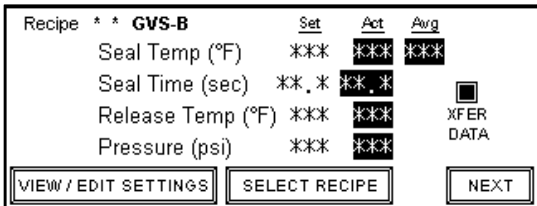
MAIN: Navigation button returns to the Main Operating screen.

Main Operating Screen with DAS Enabled



When the DAS system is enabled, a machine cycle may not be initiated while the data transfer is in progress.

Main Operating Screen during data transfer (after end of seal cycle)



Calibration Functions Screens

(Access requires a **Level 2** passcode)

⚡ CAUTION:

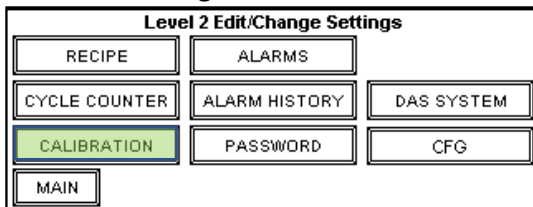
Personnel that are not familiar with machine calibration and entry of Offsets should never access the calibration screens.

📖 NOTE:

Refer to Calibration instruction in the Maintenance Section.

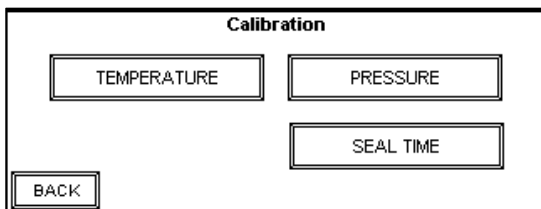
The Calibration Offset controls allow for the adjustment of the machine instrument readings. Offsets can be entered for temperature, time and pressure. Offsets should only be entered after the current readings have been compared to known standard readings. Offsets should never be used to compensate for instruments that are not within operational specification.

Main Edit Settings Screen – Level 2



Touch the Calibration button to access “Calibration” screen.

Main Calibration Screen



(Refer to Calibration section of this manual for calibration procedures)

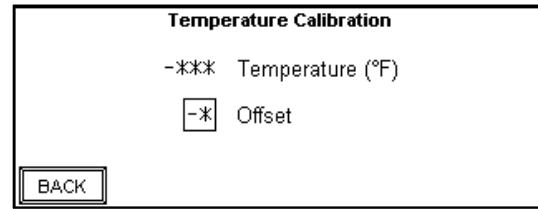
TEMPERATURE: Navigates to the “Temperature Calibration” screen.

PRESSURE: Navigates to the “Pressure Calibration” screen.

SEAL TIME: Navigates to the “Time Calibration” screen.

BACK: Navigation button returns to the “Level 2 Edit/Change Settings” screen.

Temperature Calibration Screen



Touch the ******* control to access the parameter setting keypad.

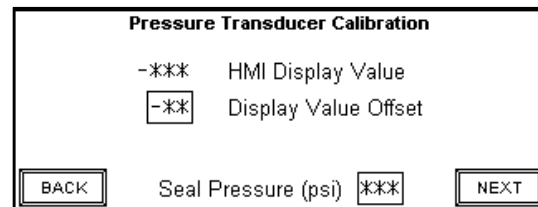
Reading: Displays the sum of the actual temperature, measured by the thermocouple, plus the current “offset” value.

Offset: Enter a positive value to increase the “Reading” temperature and a negative value to reduce the “Reading” value.

Range: $\pm 5^{\circ}\text{F}$ ($\pm 1.8^{\circ}\text{C}$)

BACK: Navigation button returns to the “Main Calibration” screen.

Pressure Transducer Calibration Screen



Touch the ******* control to access the parameter setting keypad.

HMI Display Value: Displays the sum of the actual pressure measured by the pressure transducer, plus the current “display value offset” value.

Display Value Offset: Enter a positive value to increase the “HMI Display Value” and a negative value to reduce the “HMI Display Value”.

Range: $\pm 5\text{psi}$ ($\pm 35\text{kPa}$)

Seal Pressure SV: Enter the desired seal pressure value.

Range: 5 - 100 psi (35 - 690kPa)

(Requires manual pressure adjustment on most models. Pressure is automatically adjusted on select models) Displayed only on select models.

BACK: Navigation button returns to the “Main Calibration” screen.

Seal Time Calibration Screen

The screen is titled "Seal Time Calibration". It features a "Start" button on the left. To the right of the "Start" button is a keypad with three asterisks (***) and a decimal point (.), followed by the label "Set". Below this keypad is another keypad with three asterisks (***) and a decimal point (.), followed by the label "Elapsed". At the bottom left is a "BACK" button.

Touch the *** control to access the parameter setting keypad.

SET: Enter a value at which to test the seal time measured at the test port on the back of the machine.

Range: 0.1-99.9 sec

ELAPSED: Displays the elapsed time the output port on the back of the machine remains on.

START: Touch this control to start the timer test.

BACK: Navigation button returns to the "Main Calibration" screen.

Password Reset Screens

Main Edit Settings Screen – Level 2

The screen is titled "Level 2 Edit/Change Settings". It contains a grid of buttons: "RECIPE", "ALARMS", "CYCLE COUNTER", "ALARM HISTORY", "DAS SYSTEM", "CALIBRATION", "PASSWORD" (highlighted in green), "CFG", and "MAIN".

Touch the "Password" button to access Passcode settings screen.

Set New Passcode Screen

The screen is titled "Set Level 1 Passcode" with the subtitle "Recipe, Alarm, Pressure, Count". Below this is a keypad with six asterisks (*****). Underneath is the title "Set Level 2 Passcode" with the subtitle "Access All Settings", followed by another keypad with six asterisks (*****). A "BACK" button is located at the bottom left.

Touch the *** control to access the parameter setting keypad.

The keypad consists of two rows of buttons. The top row contains buttons for digits 1, 2, 3, 4, 5, and function keys "ESC" and "CLR". The bottom row contains buttons for digits 6, 7, 8, 9, 0, and function keys "BS" and "ENT". Above the keypad is a display area showing six asterisks (*****).

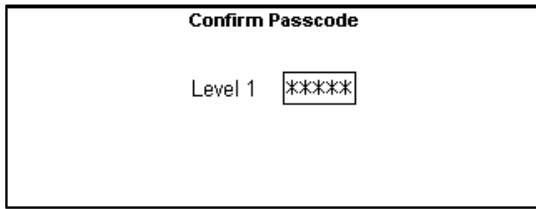
Enter Values for selected parameter then touch ENT to save value.

Set Level 1 Passcode: Enter a new passcode to access the "Main Edit Settings Screen - Level 1" screen.

Range: 10000 – 99999

When the new Level 1 passcode is entered, the "Confirm Passcode" screen will be displayed.

Confirm Passcode Screen – Level 1



Touch the  control to access the parameter setting keypad.

Re-enter the same Level 1 passcode to confirm. If entered correctly, the screen will return user to the Set Passcode screen.

Set Level 2 Passcode: Enter a new passcode to access the “Main Edit Settings Screen - Level 2” screen.

Range: 10000 – 99999

When the new Level 2 passcode is entered, the “Confirm Passcode” screen will be displayed.

Confirm Passcode Screen – Level 2



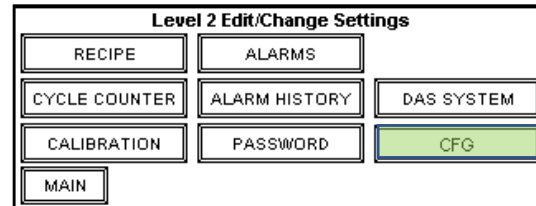
Touch the  control to access the parameter setting keypad.

Re-enter the same Level 2 passcode to confirm. If entered correctly, the screen will return user to the Set Passcode screen.

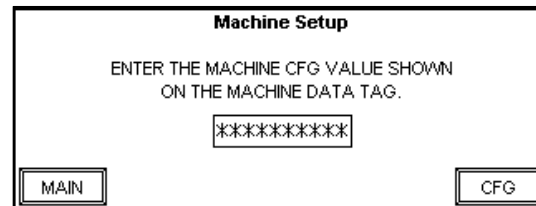
BACK: Touch “Back” button returns to the “Level 2 Edit/Change Settings” screen.

Machine Configuration Screen

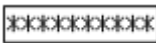
Main Edit Settings Screen – Level 2



Touch the CFG button to access Machine Setup screen.



If a new PLC is installed or a program update is downloaded the MACHINE SETUP screen will be automatically displayed the first-time power is applied to the machine.

Touch the  control to display a keypad. Enter the machine configuration code found on the machine data tag or available from Accu-seal.

Prior to operation, confirm the configuration code on the Machine Setup screen.

 **NOTE:** The CFG button is not accessible except by Accu-seal and its authorized personnel.

 **CAUTION:** To avoid a machine malfunction additional caution should be exercised when entering the machine configuration code.

Maintenance

This section is for maintenance personnel only

MAINTENANCE INFORMATION

*IMPORTANT: READ INSTRUCTIONS COMPLETELY PRIOR TO OPERATION

Operator Maintenance

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

1. View the Temperature on the Touch Screen display. Within 1 minute after turning the machine ON, the ambient room temperature will be displayed. Verify reading is reasonable relative to the operating environment.
2. View the pressure gauge on the front of the machine to confirm reading is as expected relative to inlet pressure of air source.
3. Visually and manually check the PTFE Fabric Zone Tape covering the element. If any bumps, or wrinkles are present, the tape should be removed and replaced with new PTFE Fabric Zone Tape.
4. If burn marks show in the PTFE Fabric Zone Tape, remove the PTFE Fabric Zone Tape and inspect:
 - a. The element for kinks or signs of overheating
 - b. Proper Thermocouple placement.If any problems exist, replace damaged parts.
5. Push the E-Stop down until it clicks, then turn the knob clockwise to release to ensure that it is in the proper operating position.
6. Inspect rubber on vacuum pad to confirm it is smooth and shows no visible damage.
7. If the machine has been built with optional vacuum filter, it is important that it be inspected for water or particles and drained or cleaned.

CAUTION: KEEP FINGERS OUT OF SEAL AREA

Ensure that ONLY pouch materials are present in the seal area before pressing the foot switch. The operator must be cautious that small objects do not fall out of pouches. Small, hard objects caught in the seal area can damage the heating element and cause the machine to attempt extreme temperatures. Small objects caught in the seal area that are too small to be detected by the jaw obstruction safety, could cause machine failure, fire hazard and void the warranty.

Maintenance Schedule

To ensure machine performance and operator safety, the following scheduled maintenance is recommended

NOTE:

Maintenance frequency may vary depending on the production levels and temperature settings. Accu-Seal recommends utilizing the Seal Counter to establish maintenance frequencies.

Weekly Inspections:

Accu-Seal recommends testing Jaw Obstruction Safety Feature.

Quarterly Inspections:

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

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

Inspect or replace filters where appropriate.

Test all safety and operating controls per Operational Check Sheet.

Annual Inspection:

Calibration/Verification of instruments is recommended annually. Refer to the calibration section of this manual.

Cleaning:

* IMPORTANT:

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 machine. Use only wipe down cleaning procedures. Failure to follow these cleaning instructions can lead to premature machine failure, shock, or fire hazard.

Nozzle Purge: There is a Purge button on the HMI touch screen that blows air out of the nozzles to remove small particles. The purge will only work if there is Nitrogen or compressed air supplied to the "Gas In" port on the back of the machine.

Maintenance Parts List

Accu-Seal recommends the following consumable parts be maintained with a minimum quantity to avoid production down-time.

Heater Elements
PTFE Fabric Zone Tape
Element Pad Assembly
Vacuum Pad Rubber
Thermocouple

When ordering parts, you can visit our website at www.accu-seal.com.

Please have the full **model and serial number** to assure the correct parts are shipped.

DISCLAIMERS:

Failure to follow the proper operating, maintenance and component replacement procedures described in this manual may result in shortening the operating life or damage the Machine. Using replacement parts other than those purchased through Accu-Seal SencorpWhite Inc. or its distributors could result in increased downtime, poor equipment performance and could void the warranty.

AUDIENCE:

This section is written for trained technicians who have successfully completed a certified electrical / mechanical training program or who have equivalent relevant training, education and experience to enable them to perceive risks and avoid hazards associated with electricity.

CONTACT INFORMATION:

If any additional information is needed, please contact Customer Service at:

Accu-Seal SencorpWhite Inc.
(800) 452-6040 or +1 760 591-9800
Monday through Friday

Visit our website: www.accu-seal.com
e-mail: info@accu-seal.com with any questions or concerns.

INSTALLATION CHECK LIST

Parameter	Expected	As Found	Initial	Date
Equipment Number				
Description of Equipment	Temperature controlled Impulse Heat Vacuum Sealer			
Manufacturer	Accu-Seal			
Serial Number				
Model Number	675TC-XX-XX			
Seal Width	3/8"			
Seal Length	(machine length dependent)			
Input Requirements				
Voltage	(see serial tag on machine)			
Current	XX Amps Maximum			
Air Supply	90-110psi			
Recommended Air Supply Capacity	2.5 CFM@90 psi (Seal Only) 4.6 CFM@90 psi (Gas-Vac)			
Control System				
Temperature				
Limits	AMB-450° F			
Pressure				
Limits	50 - 100psi			
Accuracy	+/- 5psi			
Time				
Limits	0.1 - 99.9 sec			
Accuracy	+/- 0.1 sec			
Environmental Specification				
Ambient Temperature	32°F to +122°F/0°C to +50°C			
Ambient Humidity	RH (Non-Condensing)			

Machine Configuration# : _____

OPERATIONAL CHECK LIST

Safety Features and Operational Controls Testing

Note: * Calibration offsets will change this value

Safety Feature / Operating Control	Function	Test Method	Expected Outcome of the Feature / Control	Test Outcome	Pass/Fail	Initial	Date
Power Switch	Turns on electrical power	Push on Power Switch	Touch Screen will light up				
Air Regulator Control Knob	Regulates Air pressure to machine and Seal Bar during Seal cycle time.	Turn knob clockwise or counterclockwise	Regulates the air pressure to machine. Clockwise increases pressure. Counter-clockwise decreases pressure. View pressure on screen				
Foot Switch	Used to start the sealing cycle	Press the Foot Switch	The seal bar will close, and the sealing cycle will start				
Emergency Stop	Disconnects power internal to the machine	Push the button	All power OFF Machine Stops, Bar releases				
Temperature Alarm	Prevents or aborts operation if temperature exceeds the Hi/Low limits set for the machine	Set temperature band setting to 2 degrees	Audible Alarm, Temperature Alarm Screen Flashes, Bar Releases, machine stops				
Air Pressure Alarm	Prevents or aborts operation if operating pressure exceeds the Hi/Low limits set for the machine	Set band +/- 5 Lower air pressure by turning knob on P Regulator	Audible Alarm, Pressure Alarm Screen Flashes, Bar Releases, machine stops				
Air Pressure Alarm	Prevents or aborts operation if operating pressure exceeds the Hi/Low limits set for the machine	Raise air pressure by turning knob on P-Regulator	Audible Alarm, Pressure Alarm Screen Flashes, Bar Releases, machine stops				
Cold Seal Alarm	Aborts sealing operation if temperature does not reach the Set Temperature point within X seconds (1-6 sec).	Set cold seal alarm to 1 sec to test	Audible Alarm, Cold Seal Alarm Screen Flashes, Bar Releases, machine stops				
Open Thermocouple (TC)	Confirms that thermocouple signal to PLC is valid	Unplug Thermocouple- Screen will read Seal Temp: 000 * Press Foot Switch	Seal will abort with Audible Alarm Temp Band Alarm Screen will flash				
Touch Screen VIEW Settings	Operator without password can only use view settings	Try to Edit Settings and password	Invalid Password				
Touch Screen EDIT Settings	Supervisor with password can edit parameters	Try to Edit Settings with password entry	Access to edit screens				
Jaw Obstruction	Prevents operation if an obstruction is detected.	Place a soft, rubber obstruction in Seal Jaw	Audible Alarm, Jaw Obstruction Alarm Screen Flashes, Bar Releases, machine stops				
Upper Heat Bar Connection	Supplies Power to the upper heat bar	Turn machine Off, disconnect connector, turn machine ON	Touch Screen will display Cold Seal Alarm Screen				
Manual nozzle purge	Used to clear nozzle	Press purge button on Touch Screen	air/gas will blow out of nozzle. Nitrogen or Air must be supplied through Gas In port				

Description of Controls

POWER SWITCH

ON: Turns power to the machine on.
OFF: Turns the power to the machine off. *(The display is no longer lit)*

HMI TOUCH SCREEN

The Touch Screen allows the operator to select the desired seal mode and enter the desired seal values for:

Heat time, cool time, vacuum, and gas times as well as number of cycles where it applies.

FOOT SWITCH

Activates the seal cycle and, when pressed during a seal cycle, will advance the machine to the next set parameter.

PLC

The PLC is a programmable logic controller that receives or sends a command from or to the HMI.

E-STOP

Interrupts power and operation of machine during any point during the seal cycle. To operate the E-Stop, Push the Red Knob in. To Reset the E-Stop, twist to release and extend the knob.

Description of Components

SEAL BAR ASSEMBLY

The Seal Bar Assembly includes the Heating Element, Element Pad Assembly, Seal Bar and Seal Bar Power Connector that provides power to the heating element.

VACUUM PAD ASSEMBLY

The Vacuum Pad rubber is inserted into the Z Bar mounted to the front of the Seal Bar or Pressure Bar. Includes Black Sponge Rubber.

PRESSURE BAR

The pressure bar is opposite the Seal bar and has a sponge rubber pad covered with PTFE fabric tape. Models with Dual heat option do not have a pressure pad/bar.

HEATING ELEMENT

The heating element is a Nichrome wire band with brass ends that serve as electrical conductors.

SPRING TENSIONER END CAPS

End Caps are located at the ends of the Seal Bar and have springs positioned to maintain tension on the heating element.

VACUUM NOZZLE ASSEMBLY

Consists of nozzle, block and fitting for connecting air/gas.

MAIN POWER CORD

Plugs into main power source and supplies power to the machine.

CIRCUIT BREAKER

Interrupts the power circuit if it detects an over current condition.

SEAL BAR POWER CONNECTOR

Used to connect power to the upper Seal Bar.

AIR SUPPLY

External compressed air source is required to operate the pneumatic components.

GAS SUPPLY

External 'Gas' or (Air) supply is required for the Gas purge function. Also required for the manual nozzle purge button function.

EXHAUST PORT

Used to connect a tube to pipe exhaust air out of a cleanroom. Also used with tube and silencer for quiet operation.

FOOT SWITCH

Activates the seal cycle and when pressed.

PNEUMATIC CYLINDERS

Used to open/close the seal jaws during vacuum and seal cycles.

VACUUM GAUGE (or DIGITAL PRESSURE DISPLAY)

The vacuum gauge indicates the vacuum level during a vacuum cycle.

CALIBRATION PORTS

Used to connect instruments for verification of the timer, vacuum, and air pressure.

Description of Consumable Replacement Parts

Satisfactory operation of the Accu-Sealer depends on proper application, correct installation of replacement parts and adequate maintenance. In addition, modifications to the Accu-Sealer may result in less than satisfactory performance and could void the warranty.

Prior to ordering replacement parts please have full model and serial number for your machine. These are located on the silver and black tag on the back of your machine.

Element Pad Assembly (EPA)

The Element Pad Assembly is located under the Heating Element. The Element Pad Assembly includes the grey silicone rubber and PTFE Fabric Tape.

Vacuum Pad Rubber

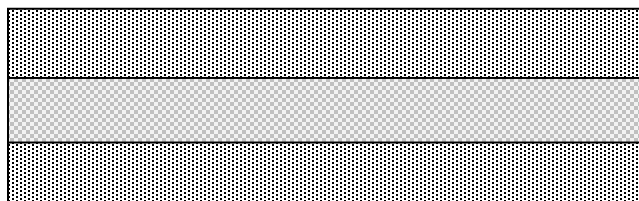
The Vacuum Pad serves to clamp and seal the bag or pouch over the nozzle(s) to minimize leakage during the gas and vacuum cycles. The black sponge rubber fits into a Z-Bar mounted to the front of the upper and lower bars. The black sponge rubber is rounded on one side and flat on the other.

Heating Elements

Nichrome strip through which current passes to generate heat. The element must be covered with a 2-1/2" wide strip of PTFE Fabric Zone Tape (non-adhesive down the center).

Zone Tape:

2 1/2" wide PTFE Fabric Tape with a 1" NON-Adhesive Zone in the center for **OVER** the element



2 1/2" PTFE Fabric Zone Tape with a 1" Non-Adhesive Zone in the center for **OVER** the element. This tape has a non-adhesive center to prevent premature element failure.

Caution: Never use full adhesive backed tape directly on the element. Severe Damage could occur.

PTFE Fabric Tape by the Roll

3/4" PTFE Fabric Tape for UNDER the element.

2 1/2" PTFE Fabric Zone Tape with non-adhesive center for OVER the element.



NOTE:

See the Replacement Part Ordering Information Sheet in the Appendixes section.

TROUBLESHOOTING

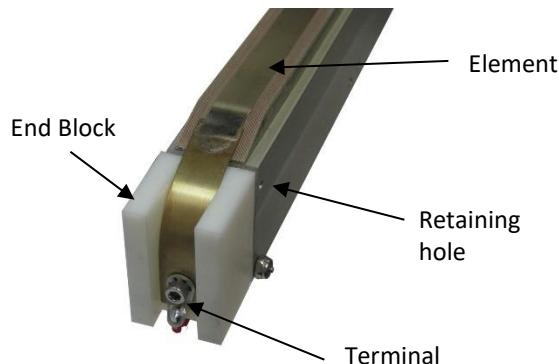
Problem	Cause	Solution
No Power	♦ No Power to machine ♦ Machine not plugged in ♦ Tripped Circuit Breaker ♦ Main Power Switch in OFF position ♦ Thermal overload condition has occurred ♦ E-Stop pushed down	♦ Check that outlet for machine has power. ♦ Plug in machine. ♦ Check and reset Circuit Breaker. ♦ Place Main Power Switch in ON position. ♦ Turn OFF power and wait to allow machine to cool for 1/2 hr. Turn on power. Call Accu-Seal if problem persists. This is a normal protective feature. ♦ Twist E-Stop to reset
No Heat	♦ Broken Element ♦ Heat time too low ♦ Dirty contact surfaces ♦ No power to Upper & Lower Bars ♦ Faulty Heat Relay (or SSR) ♦ Fault in Heating Circuit	♦ Replace Element. ♦ Increase heat time setting. ♦ Make sure all element contact surfaces are clean. ♦ Make sure Upper & Lower Bars are connected. ♦ Replace Heat Relay (or SSR). ♦ Check all wires and transformers associated with heating circuit. Replace any bad wires or transformers.
Poor Seal/Weak Seal	♦ Hot spots, or burn through ♦ Low Seal Pressure ♦ Faulty High-Pressure Valve ♦ Thermocouple mis-placed or bad	♦ Decrease Seal Time / Lower Release Temp. ♦ Replace Zone Tape and/or replace Element. ♦ Increase Seal Pressure ♦ Replace High Pressure Valve ♦ Verify TC placement, Element and EPA
No display on HMI	♦ Cable connecting HMI Touch Screen to PLC loose or disconnected ♦ Faulty HMI Touch Screen ♦ Faulty 24VDC power supply ♦ Faulty PLC	♦ Check that cable is secure and in place. ♦ Reprogram or replace HMI Touch Screen. ♦ Replace 24VDC power supply ♦ Reprogram or replace PLC.
Poor/No Vacuum (Gas Vac Models)	♦ Supply pressure too low ♦ Clogged Nozzle(s) ♦ Kinked tubing ♦ Faulty Vacuum Valve ♦ Clogged ejector	♦ Ensure machine is getting 90-110psi supply pressure. ♦ Replace/Clean out Nozzle(s). ♦ Check that all tubing is not being kinked. If tubing is kinked, re-route/replace tubing. ♦ Replace Vacuum Valve. ♦ Clean or replace ejector.
Poor/No Gas (Gas Vac Models)	♦ Gas pressure too low ♦ Clogged Nozzle(s) ♦ Kinked tubing ♦ Faulty Gas Valve ♦ Faulty gas pressure regulator	♦ Increase gas pressure. ♦ Replace/clean out nozzle(s). ♦ Check that all tubing is not kinked. If tubing is kinked, re-route/replace tubing. ♦ Replace Gas Valve. ♦ Replace gas pressure regulator.

TROUBLESHOOTING, CONT.

Poor/No Gas (Gas Vac Models)	♦ Gas pressure too low ♦ Clogged Nozzle(s) ♦ Kinked tubing ♦ Faulty Gas Valve ♦ Faulty gas pressure regulator	♦ Increase gas pressure. ♦ Replace/clean out nozzle(s). ♦ Check that all tubing is not kinked. If tubing is kinked, re-route/replace tubing. ♦ Replace Gas Valve. ♦ Replace gas pressure regulator.
Seal Bar won't come down	♦ No Air Pressure ♦ Low Air Pressure ♦ Not at Ready Screen	♦ Check Air ♦ Go to Ready Screen
Seal Bar does not come down/Jaw Obstruction Alarm	♦ Obstruction in Jaw ♦ Improper Reed Switch position ♦ Faulty Reed Switch ♦ Faulty Main Valve ♦ Faulty High-Pressure Valve	♦ Free jaw obstruction ♦ Adjust Reed switch – Call Accu-Seal ♦ Replace Reed Switch ♦ Replace Main Valve. ♦ Replace High Pressure Valve
Nozzles stay extended/will not retract (Gas Vac Models)	♦ Faulty Nozzle Carrier Manifold Valve	♦ Replace Nozzle Carrier Manifold Valve.
No or incorrect temperature displayed	♦ Disconnected or faulty Thermocouple ♦ Faulty Temperature Controller ♦ Thermocouple Leads disconnected from Temperature Controller	♦ Connect or replace Thermocouple ♦ Replace Temperature Controller. ♦ Check that leads are connected to Temperature Controller inside machine.
Machine will not stop heating up (Runaway condition)	♦ Faulty Heat Solid State Relay (or SSR)	♦ Replace Heat Relay (or SSR).
Run-away heat Faulty or misplaced Temperature Controller	♦ Thermocouple not placed correctly under element ♦ Faulty thermocouple	♦ Reposition thermocouple per replacement instructions (page 38). ♦ Replace thermocouple

MAINTENANCE PROCEDURES

Element Replacement



Items Required:

- Vise grip Installation tool
- 4 pcs 2-56 x 1-1/4 screws or similar sized item that will fit in Retaining hole above.
- Phillips screwdriver
- 7/64" Allen wrench
- Heating Element
- 2 ½" PTFE Fabric Zone Tape with non-adhesive center *
- Element Pad Assembly (if needed)

⚡ CAUTION:

BEFORE PROCEEDING VERIFY POWER TO THE MACHINE IS DISCONNECTED

1. Remove the black vacuum rubber from the Z bar.
2. Remove the PTFE Fabric Zone Tape covering the element.
3. Remove the Black caps at the ends of the bar.

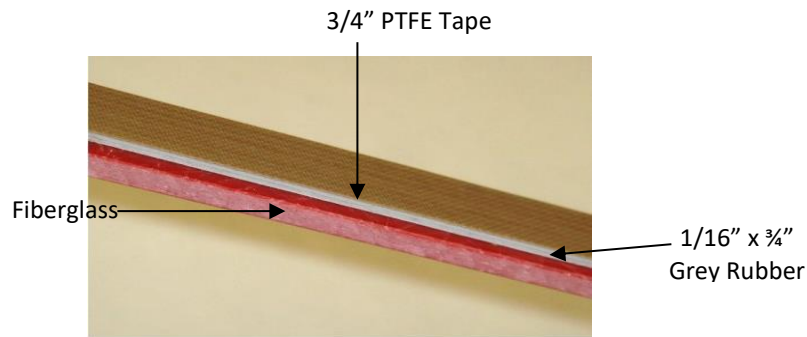


4. Using a vise grip tool (pictured above), clamp the tool on the end cap. Be Careful not to crush wire at the end terminal, this will give you the leverage needed to pull the end cap up to the end of the seal jaw and insert the retaining screw. (screws were shipped with your machine).

5. Follow the same procedure for inserting the retaining screw at the other end of the bar.
6. With both retaining screws in place, the tension is removed from the element.
7. Remove the Allen screw at each end of the element. Remove old element.
8. **Important:** At this time, inspect the Element Pad Assembly for any damage. If it needs to be replaced, follow the instruction for Element Pad Assembly Replacement procedure.
9. Place the New Element on the Seal Bar. Where the brass tab and element are brazed together, place element so that the brass layer is placed down on the pad side, so it does not interfere with seal area.
10. Bend the copper end tabs around the End Caps.
11. Screw in the Allen screws to fasten the copper tabs on both ends.
12. Make sure the element is centered on the Seal Bar.
13. Release the End Cap by pulling out the Retaining screws on both ends of the Seal Bar.
14. There should now be tension on the element.
15. Verify that the Thermocouple is correctly placed and centered under the element. This is critical for correct operation. See Thermocouple replacement section for further info.
16. Cover the element with 2 ½" PTFE Fabric Zone Tape. Be sure to cover the entire length of the element and bar including Copper end Tabs. Put the black covers over the end blocks.

17.

Element Pad Assembly (EPA) Replacement

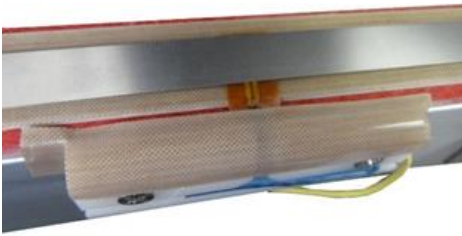


Items Required:

- Element Pad Assembly (EPA.)
- Denatured Alcohol
- Cloth or rag
- All Items required for Element Replacement

1. Follow steps for Element Replacement.
2. After you have removed the Element as stated in the Element Replacement Section.
3. Using a flat blade screwdriver or knife, remove the grey rubber and 3/4" PTFE Fabric Tape stuck to the red fiberglass. Leave red fiberglass attached to the bar.
4. Remove all residual adhesive from the red fiberglass and wipe down with denatured alcohol.
5. Remove the backing tape from the new grey rubber.
6. Center the grey rubber on the fiberglass. Press lightly.
7. With the grey rubber in place, remove the adhesive backing on the 3/4" "PTFE Fabric Tape and place it on top of the grey rubber. Press down completely and check for any wrinkles or bubbles.
8. EPA Installation is complete.
9. Follow procedure for installing element and thermocouple.

Thermocouple Replacement



Parts Required:

- Thermocouple
- 2 ½" PTFE Fabric Zone Tape to cover the element.
- Items needed for Element Replacement.



NOTE:

It is easier to access the thermocouple and properly install if the machine is turned upside down.

1. Disconnect Power, Air and Gas to the machine
2. Disconnect Thermocouple connector at boot
3. Remove the black vacuum pad rubber on the front of the bar.
4. Remove the PTFE Fabric Zone Tape covering the element
5. Remove the element being careful not to bend or kink. Follow instruction for Element Replacement
6. From the back of the bar you are looking at the back of the Thermocouple block. Remove the tape and the small tube holding the TC in place.
7. Inspect the PTFE Fabric surface of the element pad. If it is damaged, replace prior to installing new Thermocouple.
8. Locate new Thermocouple
9. Carefully place new Thermocouple in the slot on the TC block with the bump on the TC facing down into the slot.
10. **The Thermocouple MUST BE CENTERED** under the element on the EPA as picture shows.



* IMPORTANT:

THERMOCOUPLE POSITION

Always position the Thermocouple Junction under the element with the sensor centered precisely in the middle of the element pad. **See Figure above.** If the Thermocouple sensor Junction is not properly placed under the element, it could cause inaccurate temperature control.

11. Place a piece of tape on the top of the Thermocouple wire to hold it in place on the white Thermocouple block.
12. Carefully press the small tube back in the slot on the white block to hold the Thermocouple wire in the slot.
13. Use the spiral wrap to route the thermocouple wire with the power cable.
14. Replace the element.
15. Cover the element with 2 ½" PTFE Fabric Zone Tape. Check for wrinkles or bubbles.
16. Place vacuum rubber in Z bar (rounded edge inserted into T-Bar slot).

Replacement of Vacuum Pad Sponge Rubber

1. To remove the vacuum pad rubber, simply pull it out of the Z bar on the front of the seal bars.
2. Install the new black vacuum pad rubber, with the rounded edge inserted into the T-Bar assembly, leaving the flat edge exposed to make contact with the pouch material during normal sealing operation.



Replacement of (optional) Vacuum Filter Cartridge

If your vacuum process involves moisture, liquid or particles, it is important to properly maintain the filter to protect the internal machine components.



Vacuum Filter

To drain the bowl or replace the filter unscrew the finger nut on the bottom of the bowl.



Drop the bowl and dump the liquid. If the filter needs to be replaced use a small wrench to unscrew the shaft.



The flat white plate and filter will drop down. As pictured below, install a new filter, and then bowl and hand tighten so bowl is snug.



Digital Vacuum Switch Setting

The optional digital vacuum switch allows the user to define and control the vacuum level to be achieved within the package during the vacuum cycle. Measurements are displayed as “inHg” as the default, but can also be changed to read other units such as mmHg, PSI, kPa, etc. (Refer to the Digital Vacuum Switch Guide in the Appendix of this manual).

The vacuum setting has a range of 0.1 to 26.0 inHG, with incremental adjustments of 0.1 inHG.



Setting Vacuum Set point

1. Press 'S' set key once: The screen will toggle back and forth showing P_1 and whatever the current vacuum level setting is (negative number).
2. Set P_1 to desired set point using the up or down arrow keys.
 - a. 1 - 5 Very low vacuum level
 - b. 5 – 10 Low to moderate vacuum level
 - c. 10 – 15 Moderate vacuum level
 - d. 15 – 20 Moderate to high vacuum level
 - e. 20+ High vacuum level
3. Press 'S' set key once
4. P_2 will be displayed, but is not used and is set to “Off” by the manufacturer.
5. Press 'S' set key once: You should now be back in normal display mode 0 screen.

 **NOTE:** To reset the display to read out 0.0 at rest, press and hold the up and down arrow keys simultaneously for 3 seconds and release.

The vacuum cycle for the machine will now be controlled by either the vacuum time setting, or the vacuum pressure setting, whichever comes first. When setting the vacuum level and vacuum time, keep in mind that the machine is designed to complete the vacuum cycle when either the vacuum time or vacuum pressure is achieved. We suggest setting the vacuum time in the PLC long enough to reach the vacuum level setting.

Ex: Vac Time = 10 sec
 Dig Vac level = 8 inHG

This will allow the machine to reach the desired vacuum level without being overridden by the time setting.

 **NOTE:**

Watch for bag collapsing around nozzle(s). Keep the nozzle(s) as close to the product as possible to avoid interference of the vacuum level due to the impeding flow through nozzle. If the bag pinches off around the nozzle, maximum vacuum level will be reached prematurely, and the vacuum cycle will stop.

MACHINE CALIBRATION

NOTE:

Some internal signal controllers or conditioners in the sealer may have their own zero and/or span adjustments. These internal devices are factory calibrated and sealed by the manufacturer. The following adjustments or offsets 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 $\pm 3\%$ of span are needed, there may be accuracy problems internally.

Offset adjustments set from the display screen are “offsets” only and not intended to correct a faulty internal instrument.

Instruments Required:

- “K” type Thermocouple simulator
- Period Counter to read contact closure time
- Air Pressure Gauge 0-100psi

TEMPERATURE CONTROLLER CALIBRATION

CAUTION:

DO NOT USE PROBE-TYPE THERMOCOUPLES AS DAMAGE WILL OCCUR TO THE HEATER ELEMENT. ONLY USE BEAD OR FLAT THERMOCOUPLES.

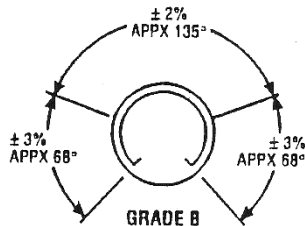
1. Ensure that the sealer is off, and the seal bar is cool.
2. Disconnect the type “K-Type” Thermocouple connector from the chassis connector.
3. Plug the Thermocouple simulator into the chassis connector and set the calibrator for your desired temperature.
4. Turn the machine on and compare the displayed temperature to the set temperature on the calibrator. The temperatures should match $\pm 2^\circ\text{F}$.
5. Take readings at various simulated temperatures.
6. If the temperatures do not match, an offset can be entered in the “Temperature Offset” screen. Manual entry limit of $\pm 2^\circ\text{F}$ is allowed.
7. When completed, turn the sealer power to off and reconnect all connections.

PRESSURE CALIBRATION

1. Connect your calibrated pressure gauge to the pressure calibration port on the rear of the machine. A Calibration port connection fitting connected to a short piece of tubing was included with your machine.
2. Connect the air supply line to the sealer air input connector.
3. Turn the Power Switch ON.
4. Navigate to “Base Pressure Setting” screen. Adjust main regulator on rear of machine to desired pressure setting. Press “Done” to set to new “Base Pressure”.
5. 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. Compare data against gauge specifications.
6. If the external pressure reading and the “READING” on the display are not within $\pm 5\text{psi}$, you can enter an offset to correct the reading.
7. Navigate to the “PRESSURE CALIBRATION” screen. Display shows Pressure reading with any offset included. Press offset button to change offset. Now the offset value is set in memory. Press “Back” button to verify new reading is within $\pm 5\text{psi}$.
8. Push the “BACK” button on the display to exit the pressure calibration mode.
9. When completed disconnect the standard pressure gauge from the calibration port.

VACUUM GAUGE CALIBRATION

1. Connect your Calibrated Vacuum Gauge to the Vacuum Cal Port on the back of the machine. Use the same pressure cal port fitting used above.
2. Place tape over the openings at the ends of the nozzle(s) to seal off any air entry.
3. Set a Vac-Seal Recipe as follows: Vacuum time=60 sec, Heat Temperature=200F, Release temperature= 180F, and Time = 1 sec
4. Initiate the Vac-Seal cycle by pressing the foot switch and observe the reading on the Vacuum Gauge. Compare the readings to the Calibrated gauge. Vacuum levels can be changed by adjusting the External regulator on the back of the machine up or down. Make observations (5, 10, 15, 20, 25 inHg) as required.
5. Compare data against gauge specifications below.
6. If gauge is found to be not within specifications, replace gauge
7. When completed disconnect gauge from calibration port on the back of the machine.



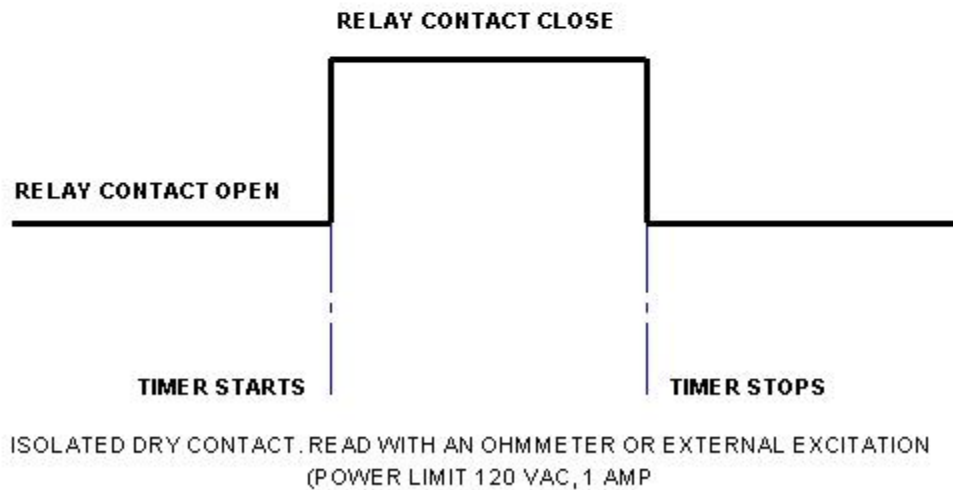
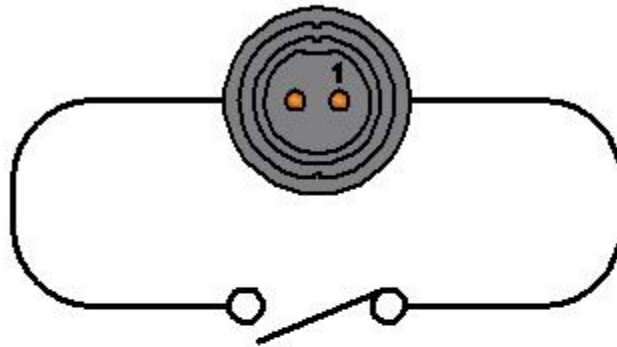
Gauge Specifications

TIMER VERIFICATION

1. Insert the two test leads of a Volt/Ohm meter or the cable from an Oscilloscope to the Timer Calibration Port connector on the back of the machine. Refer to Timer Calibration Port diagram (next page). Use Timer Calibration pigtail cable supplied with machine.

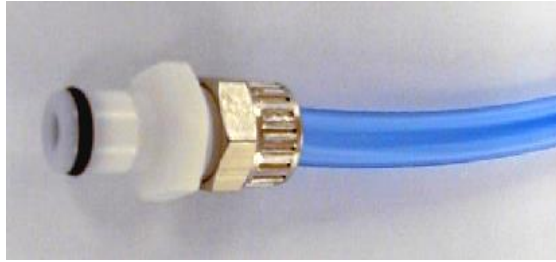
The sealer provides an isolated contact closure at the calibration port when the internal timer is activated. The calibration port is only active when the timer calibration screen is showing on the display.
2. Go to the timer calibration menu screen to activate the external calibration port (the external calibration port is only activated when the timer calibration screen is visible).
3. 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 and open when the internal timer starts and stops.
4. Compare the measured contact activation time with the screen time setting. The times should match ± 0.1 seconds.
5. When complete, disconnect the instrument used for this procedure from the machine and replace protective cap.

TIMER CALIBRATION PORT



Timer Calibration Port Wiring Diagram

Calibration



Pressure Calibration Quick Connector



Timer Calibration Connector



NOTE:

The Pressure quick disconnect fitting and Tubing, and the Timer Calibration Connector were shipped with your machine.

APPENDIX

Machine Specifications- Models with Upper Heat Only

Machine Specifications				
Model	675TC-20-UB	675TC-25-UB	675TC-30-UB	
Seal Width	3/8"	3/8"	3/8"	
Seal Length	20	25	30	
Utility Requirements				
Voltage (Standard) +/-10%	120(50/60Hz) Vac	120(50/60Hz) Vac	120(50/60Hz) Vac	
(X) Option	220(50/60Hz) Vac	220(50/60Hz) Vac	220(50/60Hz) Vac	
Current Max (@120 Vac)	20 Amps	20 Amps	20 Amps	
220 Vac)	10Amps	10 Amps	10 Amps	
Air Supply (Min-Max)	90-110 psi	90-110 psi	90-110 psi	
Air Consumption @90 psi	2.5 CFM	2.5 CFM	2.5 CFM	
Control System				
Temperature				
Temp. Controller Accuracy	+/- 1 F	+/- 1 F	+/- 1 F	
Limits	AMB-450 F	AMB-450 F	AMB-450 F	
Seal Map Expected Range*	+/-15 F	+/-15 F	+/-15 F	
*Mapping is for information only, it is not a validation range				
Pressure				
Limits - Regulator	20-100 psi	20-100 psi	20-100 psi	
Accuracy	+/-5 psi	+/-5 psi	+/-5 psi	
Operating Range	50- 90psi	50- 90psi	50- 90psi	
Time				
Limits	0.1-99.9 sec	0.1-99.9 sec	0.1-99.9 sec	
Accuracy	+/-0.1 sec	+/-0.1 sec	+/-0.1 sec	
Vacuum				
Limits	0 - 26 inHg	0 - 26 inHg	0 - 26 inHg	
Gauge Accuracy	+/-0.9 inHG	+/-0.9 inHG	+/-0.9 inHG	
Gas (Nitrogen Only)	Regulated by external source	Regulated by external source	Regulated by external source	
Environmental Specifications				
Ingress Protection	Not protected for ingress of dust particles or liquids			
Ambient Temperature	0°C to +50°C 32°F to +122°F			
Ambient Humidity	RH (Non-Condensing)			
Physical Dimensions				
Seal Bar Length	24"	29"	34"	
Case Width (in.)	20"	20"	20"	
Case Depth (in.)	13"	13"	13"	
Case Height (in.)	8"	8"	8"	
Weight (lbs.) approx.	65 lbs.	65 lbs.	70 lbs.	

Machine Specifications- Models with Dual Heat-Upper and Lower

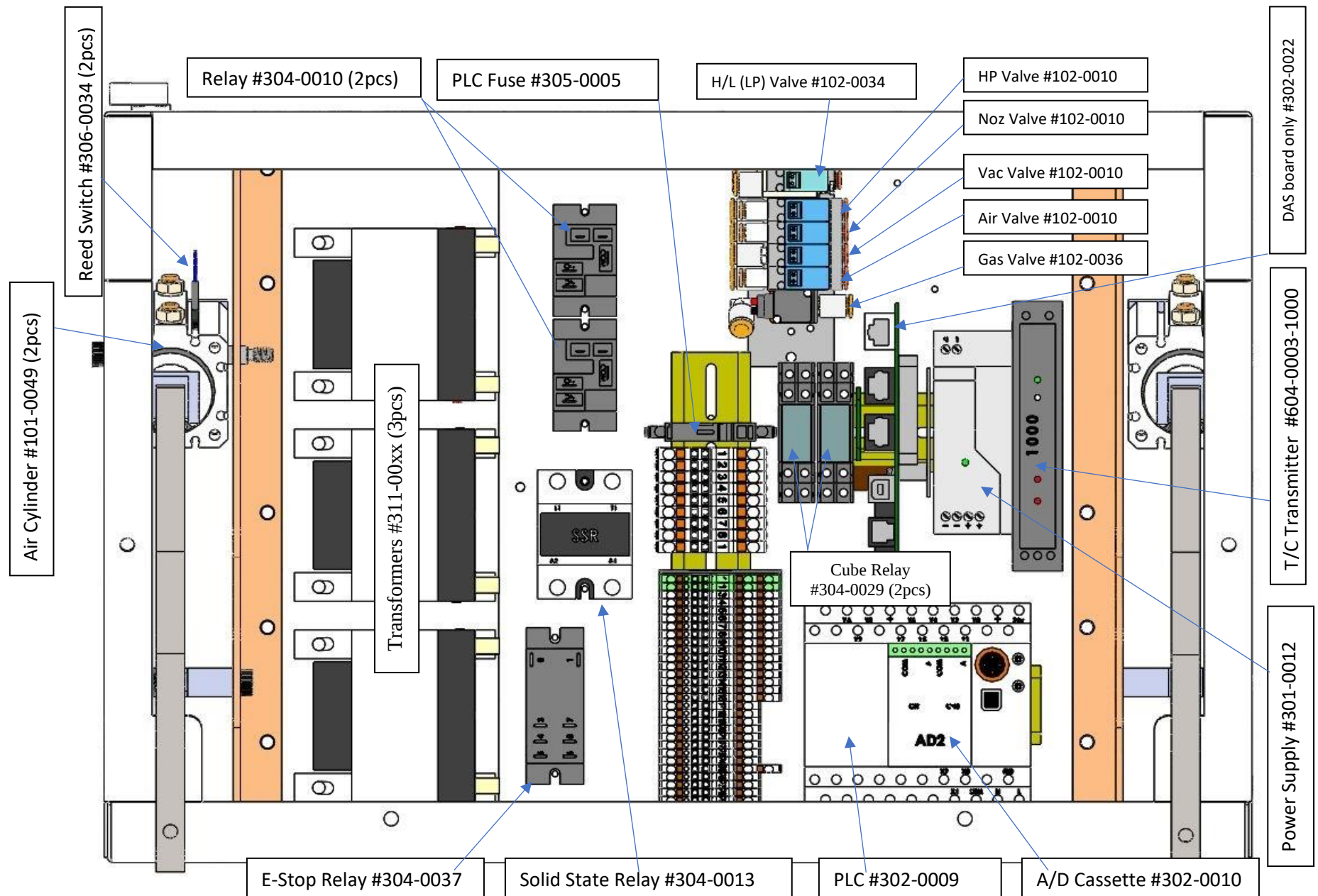
Machine Specifications				
Model	675TC-20-DB	675TC-25-DB	675TC-30-DB	
Seal Width	3/8"	3/8"	3/8"	
Seal Length	20	25	30	
Utility Requirements				
Voltage (Standard) +/-10%	120(50/60Hz) Vac	120(50/60Hz) Vac	120(50/60Hz) Vac	
(X) Option	220(50/60Hz) Vac	220(50/60Hz) Vac	220(50/60Hz) Vac	
Current Max (@120 Vac)	20 Amps	20 Amps	20 Amps	
220 Vac)	10Amps	10 Amps	15 Amps	
Air Supply (Min-Max)	90-110 psi	90-110 psi	90-110 psi	
Air Consumption @90 psi	2.5 CFM	2.5 CFM	2.5 CFM	
Control System				
Temperature				
Temp. Controller Accuracy	+/- 1 F	+/- 1 F	+/- 1 F	
Limits	AMB-450 F	AMB-450 F	AMB-450 F	
Seal Map Expected Range*	+/-15 F	+/-15 F	+/-15 F	
*Seal mapping is for informational purposes only, it is not a validation range.				
Pressure				
Limits - Regulator	20-100 psi	20-100 psi	20-100 psi	
Accuracy	+/-5 psi	+/-5 psi	+/-5 psi	
Operating Range	50- 90psi	50- 90psi	50- 90psi	
Time				
Limits	0.1-99.9 sec	0.1-99.9 sec	0.1-99.9 sec	
Accuracy	+/-0.1 sec	+/-0.1 sec	+/-0.1 sec	
Vacuum				
Limits	0 - 26 inHg	0 - 26 inHg	0 - 26 inHg	
Gauge Accuracy	+/-0.9 inHG	+/-0.9 inHG	+/-0.9 inHG	
Gas (Nitrogen Only)	Regulated by external source	Regulated by external source	Regulated by external source	
Environmental Specifications				
Ingress Protection	Not protected for ingress of dust particles or liquids			
Ambient Temperature	0°C to +50°C 32°F to +122°F			
Ambient Humidity	RH (Non-Condensing)			
Physical Dimensions				
Seal Bar Length	24"	29"	34"	
Case Width (in.)	20"	20"	20"	
Case Depth (in.)	13"	13"	13"	
Case Height (in.)	8"	8"	8"	
Weight (lbs.) approx.	65 lbs.	65 lbs.	70 lbs.	

675 TC Components Parts List**(See Replacement Parts near the end for Machine Model Seal Length dependent parts.)**

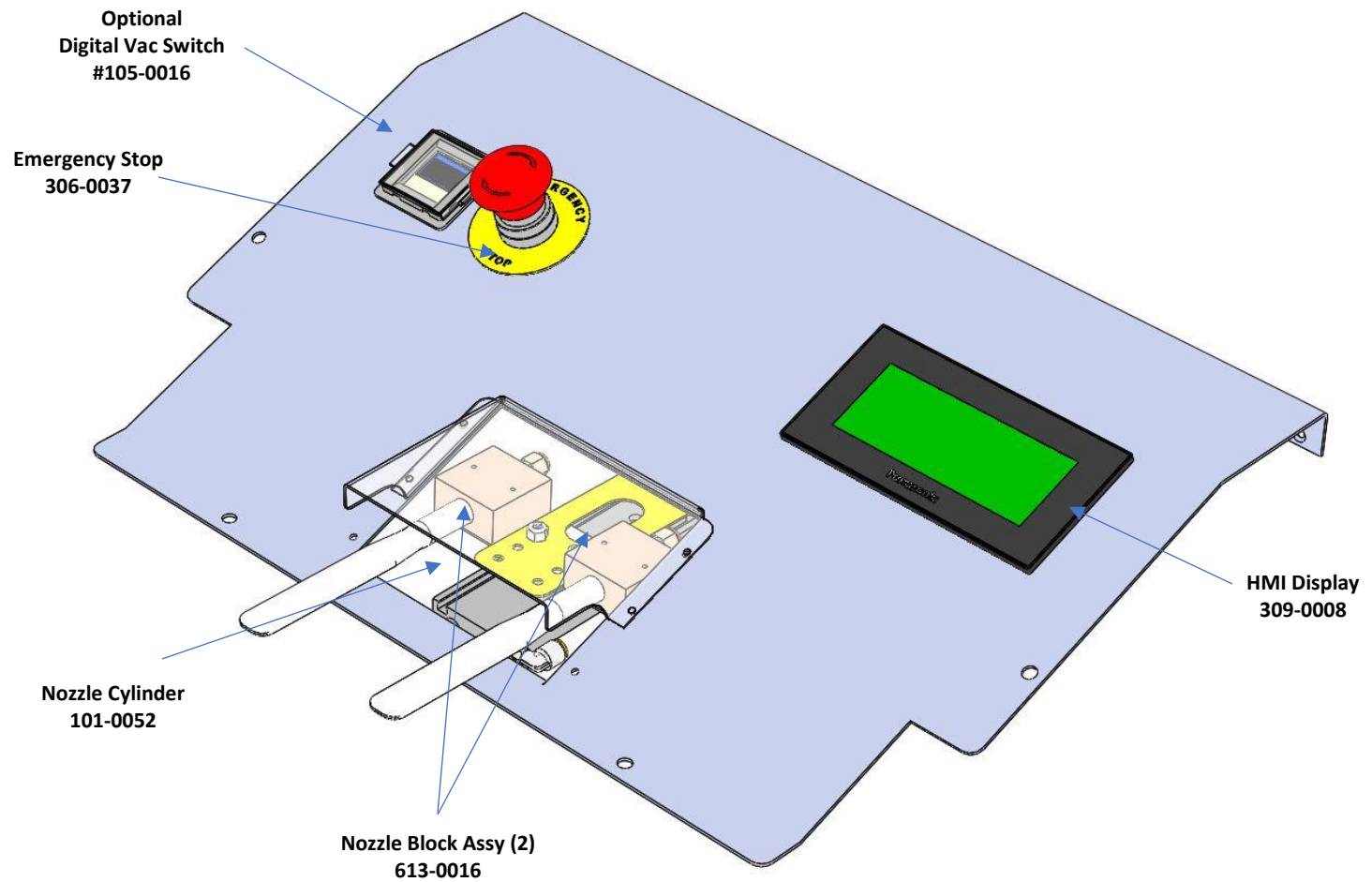
PART NO.	DESCRIPTION
101-0052	NOZZLE CYLINDER
101-0049	CYLINDER-MAIN (FOR SEAL BAR)
102-0010	VALVE – AIR IN DUMP (All versions) series VQZ1121-5L01-M5
102-0010	VALVE – HI/LO series VQZ1121-5L01-M5
102-0032	VALVE – HI/LO (Older Version) series VQZ232-5L1-M5T
102-0010	VALVE – NOZ CYLINDER series VQZ1121-5L01-M5 or
102-0030	VALVE – NOZ CYLINDER (Older version) series VQZ1121-5L01-N7
102-0034	VALVE – JAW (All Versions) series VQZ2121R-5L01-N3T
102-0054	VALVE – VAC EJECTOR series VQZ232-5L01-N7T or
102-0032	VALVE – VAC EJECTOR (Older Version) series VQZ232-5L1-M5T
102-0010	VALVE – GAS 4-WAY series VQZ1121-5L01-M5 or
102-0036	VALVE – GAS 1-WAY (Older Version) series VDW14GA
102-0023	VALVE, MANUAL FLOW CONTROL INLINE
105-0003	VACUUM SWITCH (OPTIONAL)
105-0006	VACUUM GAUGE
105-0015	PRESSURE TRANSDUCER
106-0007	P-REGULATOR 1/4 NPT W/NUT
604-0036	PRE-SET LP REGULATOR w/ FITTINGS
109-0004	VAC EJECTOR
202-0101	FUSE IN TB FOR CONTROLS
301-0012	POWER SUPPLY 24V S.5A DIN 60W
302-0009	PLC
302-0010	ANALOG CASSETTE
304-0013	SSR-24VDC-25A series RM1A23D25 or
304-0006	SSR-24VDC-25A series RM1A23A25
304-0029	CUBE RELAY DPDT 24V
304-0010	RELAY 24V SPDT 20A
305-0005	FUSE 3A FAST
306-0002	FOOT PEDAL, ELECTRIC
306-0028	SWITCH, THERMAL 10A
306-0029	SWITCH, THERMAL 15A
306-0039	SWITCH, THERMAL 20A
306-0034	CYLINDER POSITION SWITCH SENSOR (SEAL BAR & NOZZLE)
306-0036	SWITCH, NEMA POWER
306-0037	SWITCH, E-STOP

309-0008	HMI TOUCHSCREEN DISPLAY
307-0016	THERMO SWITCH (ON TRANSFORMER)
311-0010	TRANSFORMER #185G24 or
311-0011	TRANSFORMER #185G20 or
311-0014	TRANSFORMER #185G16
605-0034	COMPONENT PLATE 675TC
618-0011	THERMOCOUPLE ASSEMBLY
604-0003-1000	TC TRANSMITTER-0-1000
613-0016	NOZZLE ASSEMBLY / FITTING
304-0033	120v E-STOP RELAY (Older 120V MODELS)
304-0034	220v E-STOP RELAY (Older 220V MODELS)
304-0037	24v E-STOP RELAY (All newer models)

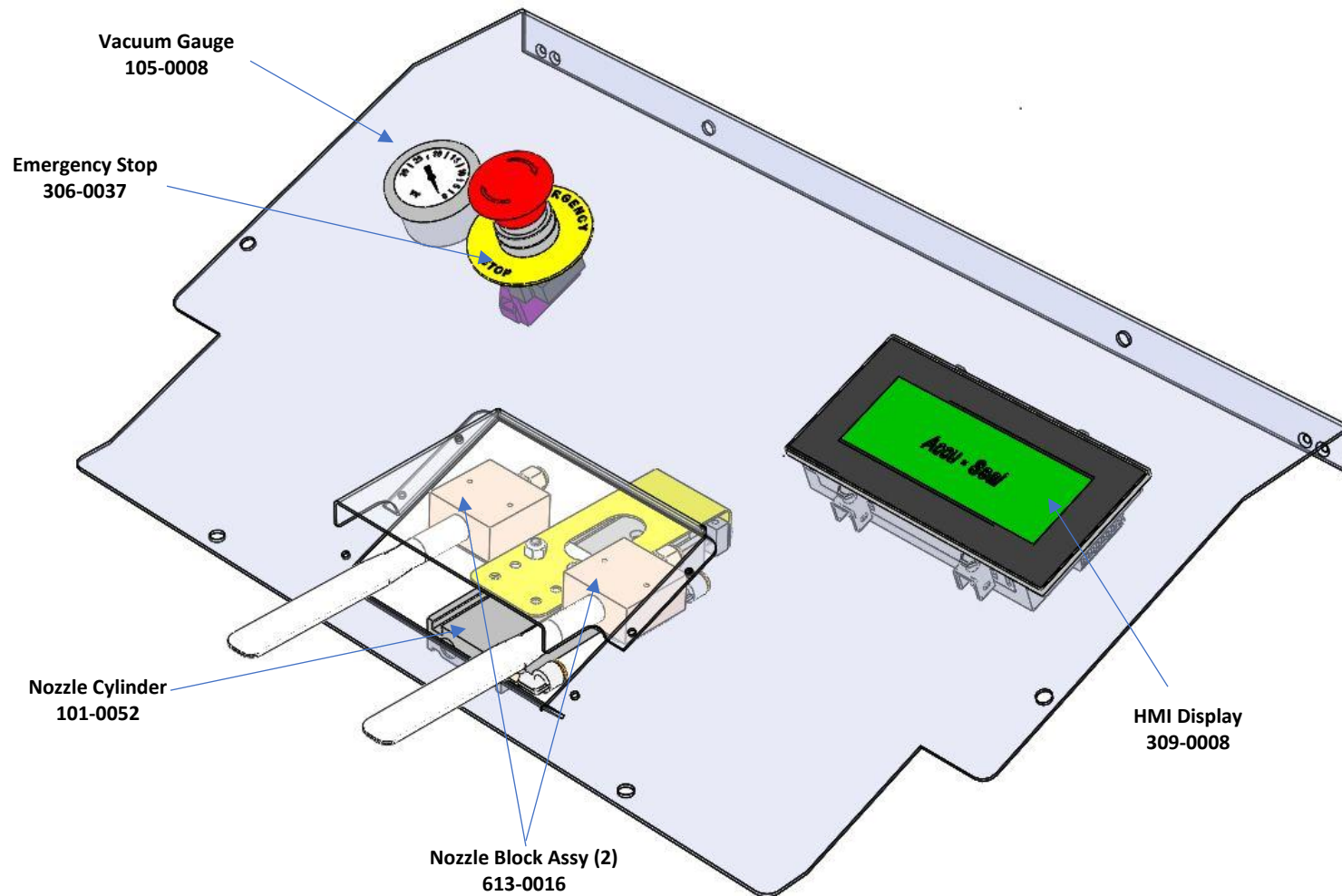
Components Diagram, Internal



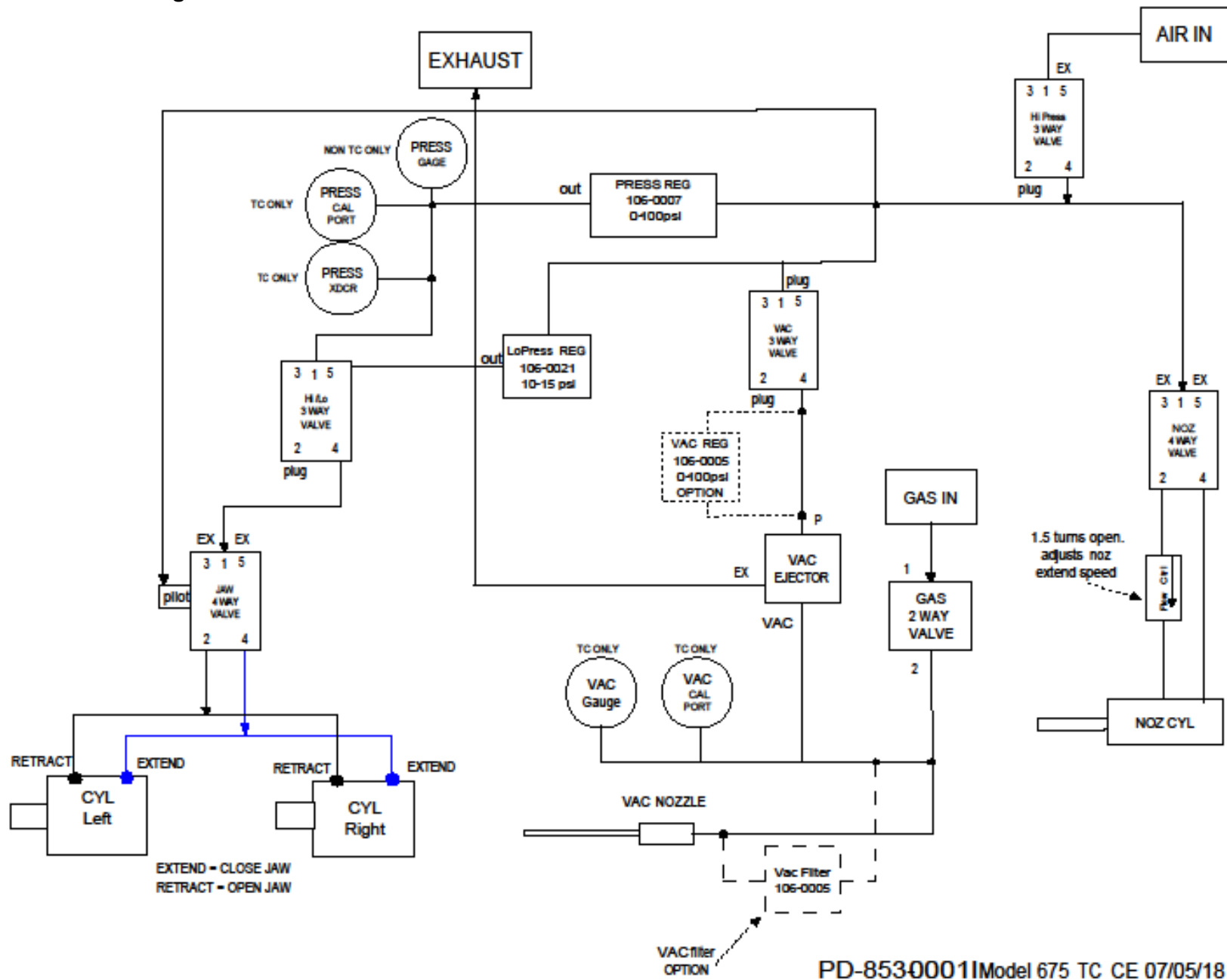
Components Diagram, with Digital Vacuum Gauge



Components Diagram, with Analog Vacuum Indicator



Pneumatic Diagram



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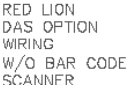
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Accu-Seal Sengapuri Incorp.

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ITEM #	PART NO.	QTY	PART OR MATERIAL	DESCRIPTION	U.O.M.	QTY	WT.
REV. FILED BY DATE	INTERPRET TO ASME Y14.6-2009		 ACCU-SEAL Fast Seal Technology Division		225 Bingham Drive San Marcos, CA 92069 760-591-9800		
	TOLERANCES UNLESS OTHERWISE NOTED:						
	 WORK TO DIMENSIONS DO NOT SCALE DRAWING REMOVE SHARP EDGES						
	MAX. SURFACE ROUGHNESS 125 $\sqrt{R}$ ON MACHINED SURFACES						
	INTERNAL THREAD CLASS UNC 2B UNF 2B		DRW BY:	CG	DATE:	04/15/19	NFC APPR:
	EXTERNAL THREAD CLASS UNC 2A UNF 2A		ENG APPR:		DATE:		
	TITLE:		FINISH:		NEXT ASM:		
	WIRING SCHEMATIC		SCALE: DO NOT SCALE		SHEET: 4		
	675TC		DWG NO.:				REV:
			ED-853-0001				P

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Replacement Parts Ordering Information

Seal Bar Length	3/8" Heating Element	Upper (EPA) Element Pad Assembly	Lower (EPA) Element Pad Assembly (Dual Heat models)	Vacuum Pad Rubber Assembly includes 2 pcs	Pressure Pad Assembly (Upper Heat models)
20"	611-0119	608-0074	608-0088	609-0023-20	617-0027-20
25"	611-0120	608-0075	608-0089	609-0023-25	617-0027-25
30"	611-0096	608-0085	608-0090	609-0023-30	617-0027-30

PTFE Zone Tape by the Roll	
2 1/2" wide PTFE Tape with 1" non- adhesive zone for over the element (25')	612-0061
2 1/2" wide PTFE Tape with 1" non- adhesive zone for over the element (50')	612-0062
2 1/2" wide PTFE Tape with 1" non- adhesive zone for over the element (108')	612-0063

Prior to ordering replacement parts please have full model and serial number for your machine. These are located on the silver and black tag on the back of your machine.

To order parts Online, please visit our website at www.accu-seal.com and select Replacement Parts from the left column.

Select your Machine Model; ex: 675TC-30-DB

To order parts just click on "add to cart" by the item you need and then follow the steps to complete your order. You will be asked to set up your account and establish your own password, but once you have done this you will not have to do it again.

If you can't find the part you need, please call us toll free 1-800-452-6040 or 760-591-9800 or e-mail us at info@accu-seal.com

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

YOUR COMPANY INFORMATION

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

METHOD OF PAYMENT

☐ NET 30	☐ COD	☐ PREPAY	☐ MC	☐ VISA	☐ AMEX
CC#: _____ EXP: _____ 3-DIGIT PIN: _____ CC NAME: _____ SIGN HERE: _____					

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

\$50.00 MINIMUM ORDER REQUIREMENT				
PART #	DESCRIPTION	QTY	COST (ea)	TOTAL
			\$	\$
			\$	\$
			\$	\$
			\$	\$
			\$	\$
			\$	\$
			\$	\$
			\$	\$
			SUB TOTAL	\$
			CALIFORNIA SALES TAX	\$
			TOTAL	\$
FREIGHT TO BE ADDED AT TIME OF INVOICING				

YOUR SHIPPING ACCT. # (if applicable):

YOUR SHIPPING METHOD:

GROUND?

OVERNIGHT?

Warranty

Accu-Seal SencorpWhite Incorporated

Thank you for choosing an ACCU-SEALER, manufactured in the U.S.A. by one of the country's leading manufacturers of Heat Sealing machinery.

WARRANTY

All Accu-Sealers are designed, built and tested to give years of reliable trouble-free service. Accu-Seal machines have a 2-year* limited warranty from date of delivery against electrical or mechanical defects, excluding elements, PTFE fabric tape and consumable parts. This warranty is automatically voided if a machine is damaged through improper use or unauthorized repairs. At our option, any defective Accu-Seal machine that is returned freight prepaid will be repaired or replaced by Accu-Seal at no charge.

Accu-Seal SencorpWhite Inc. assumes no responsibility for freight, customs, duties or other shipping costs

San Marcos, CA 92069

www.accu-seal.com

800-452-6040 / 760-591-9800