Technical Guide AutoSealer

Service Schematics and Parts Replacement





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Trouble Shooting Guide

This is only a quick "guide" to aid in finding the cause of an AutoSealer problem. There are other documents that show: Where the parts a located, how to replace parts, Settings, Etc....

- No Heat (stays at Room Temperature) or Improper Heat (EX: heats to only 170°F)
 - Bad Wiring
 - To Heating Elements
 - To Over-Temp Switch
 - Through Fire Wall
 - To Solid State Relay
 - To Watlow
 - Make sure "1" Light turns on (on the Watlow Display)
 - If "1" Light is OFF
 - Watlow Settings incorrect
 - Bad Watlow
 - If "1" Light is ON
 - Bad Wiring
 - · Bad Over-Temp Switch
 - · Bad Solid State Relay
 - Bad Heating Elements
- Heat Plate does not move (when 2 green buttons are pressed) or Heat Plate
 Stuck Down
 - Activate & De-Activate Red Button
 - Bad Fuse / Breaker (typically it is the Fuse / Breaker located on the left side wall closest to the rear)
 - Check Wiring
 - To Motor
 - To Relays
 - To Micro-Switches
 - To Fuses / Breakers
 - Manually activate the motor by activating the Front Micro Switch (for 2-3 seconds) (located above the heat plate on the front left side, above the white block, there will be 2 Micro-Switches located here... Activate the one closest to the inside of the AutoSealer)

NOTE: THIS REQUIRES THE MACHINE TO BE "ON", Which means if you are not careful you can be shocked. Do Not Attempt if you are not qualified.

- No movement from motor (when manually activating it)
 - Bad Fuse / Breaker
 - Bad Wiring
 - Bad Motor
 - Bad Motor Power Supply
 - Bad Relay/s
- Motor moves (when manually activating it)
 - Bad wiring to Green or Red Buttons
 - Bad Micro-Switches
- Heat Plate Cycles more than once when the two green buttons are pressed
 - Clean Micro-Switch Cam (wheel)
 - o Bad Micro-Switches
 - Bad Motor Power Supply

- Watlow displays ERROR (EX: "Err1" or "Er-In") or shows improper Temperature (EX: 680°F)
 - o Bad Thermocouple Connection
 - Bad Thermocouple
 - Bad Watlow
- Cards not Sealing
 - Improper Sealing Procedure
 - Verify Temperature
 - Verify Seal Time
 - Verify Sealing 2 Cards at once (ie: Not one at a time)
 - Verify 1/4" plate at bottom of mouth is in use or removed (with a 1/2" sealing tray / paddle, this plate needs be in use, with any thicker sealing tray / paddle this plate needs to be removed)
 - o Dirty Heat Plate
 - Broken Pressure Springs

If you have any questions or concerns, please contact our Tech Support.

Thank You, Technical Support Rx Systems Inc. 121 Point West Boulevard St. Charles, MO 63301 Phone: 800-922-9142

Fax: 636-925-0041 Email: tsr@rxsystems.com

Sealing Factors

Everything listed in this document, has been thoroughly tested and prooven.

There are three factors to create a good seal for Pill Cards

- 1 Temperature
- 2 Pressure
- 3 Time

Which is true for ALL types of Heat Seal Pill Cards (regardless of Manufacturer, Machine, or Type of Heat Seal Pill Cards)

The correct combination of the above three factors will produce a good seal

If any of the three factors are altered, the quality of the seal will be affected

Below are the Specifications we have determined for the Heat Seal Pill Cards and Sealing Machines

| | Uni-Cards (Folds from Bottom to Top) | | | |
|---------------|--------------------------------------|-------------|---------------------------|--|
| | Temperature Time Pressure | | | |
| Manual Sealer | 315°F | 7-8 Seconds | Refer to Operators Manual | |
| AutoSealer | 315°F | 2-4 seconds | Constant | |
| MTS 300 | 260°F | 8 Seconds | 80-100 PSI | |
| AutoBond | 260°F | 8 Seconds | 80-100 PSI | |

| | M-Cards (Folds from Left to Right) | | | |
|---------------|------------------------------------|-------------|---------------------------|--|
| | Temperature | Time | Pressure | |
| Manual Sealer | 315°F | 7-8 Seconds | Refer to Operators Manual | |
| AutoSealer | 315°F | 2-4 seconds | Constant | |
| MTS 300 | 260°F | 8 Seconds | 80-100 PSI | |
| AutoBond | 260°F | 8 Seconds | 80-100 PSI | |

110S, DS100, Hobby Lite, Auto-Open and Mighty Press

AutoSealers Pressure is always the same (Constant)(no need to adjust)

A good seal on a Pill Card is when the blisters are air tight

To test this you can, seal empty cards and then "Pop the blisters like Bubble Wrap"

If they do not "pop" or you can tell that air seeps through to the next blister or out of the card, it is a bad seal

If you have a "Bad Seal" check the above settings / factors, and read below

Temperature

Confirm the correct temperature is displayed

If your machine does not have a thermometer, you can get a meat thermometer at your local grocery store

Time

Compare how long the heat plate is on the cards to the above Settings / Factors

Pressure

For a "Manual" Sealer the pressure adjustment proceedure varies. Please refer to the Operators Manual to check or set the proper Pressure Setting. Or call Rx Systems and we can send you documents on how this accomplished and / or walk you through the pressure adjustment over the phone.

For an AutoSealer check to see if the "yellow" springs are broken

Sealing Items

Sponge Pad

Needs to be in good shape (not torn or dimpled)

The Sponge pad helps the heat plate seal the cards evenly

Pressure Board

Needs to be in good shape (not warped)

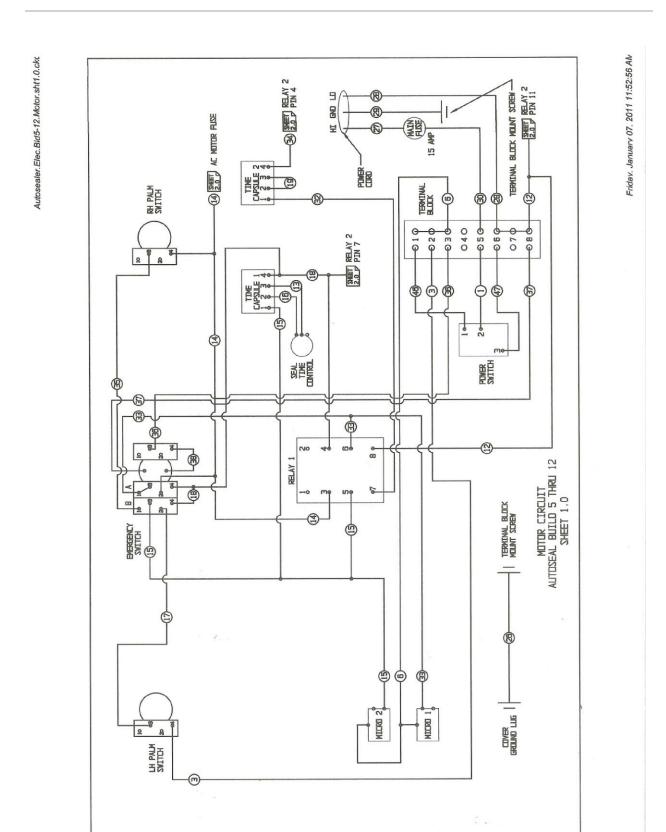
The Pressure Board aids in inserting and removing the Sealing Trays and helps the heat plate seal the cards evenly

Sealing Trays

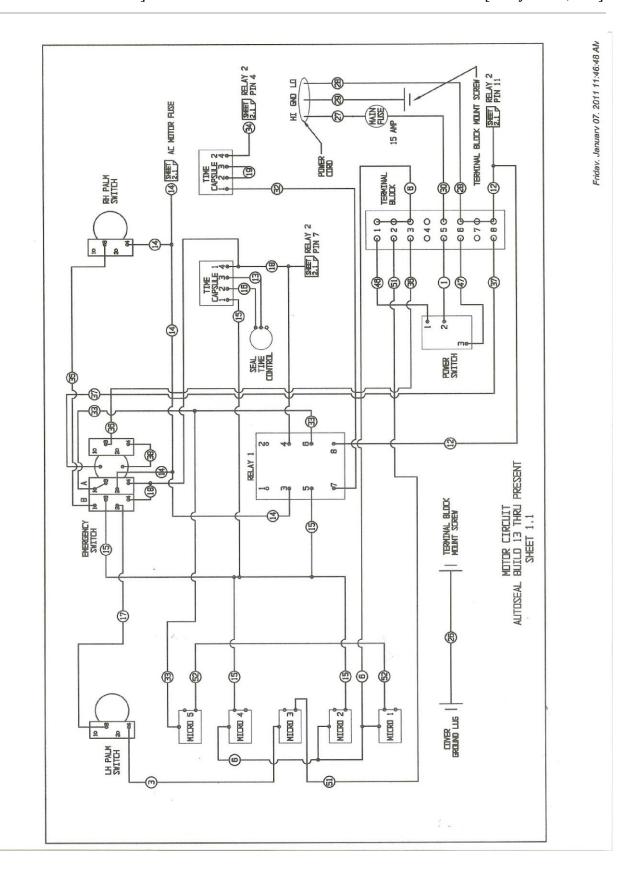
Needs to be in good shape (not warped, shrunken, dried out, hard, torn or dimpled)

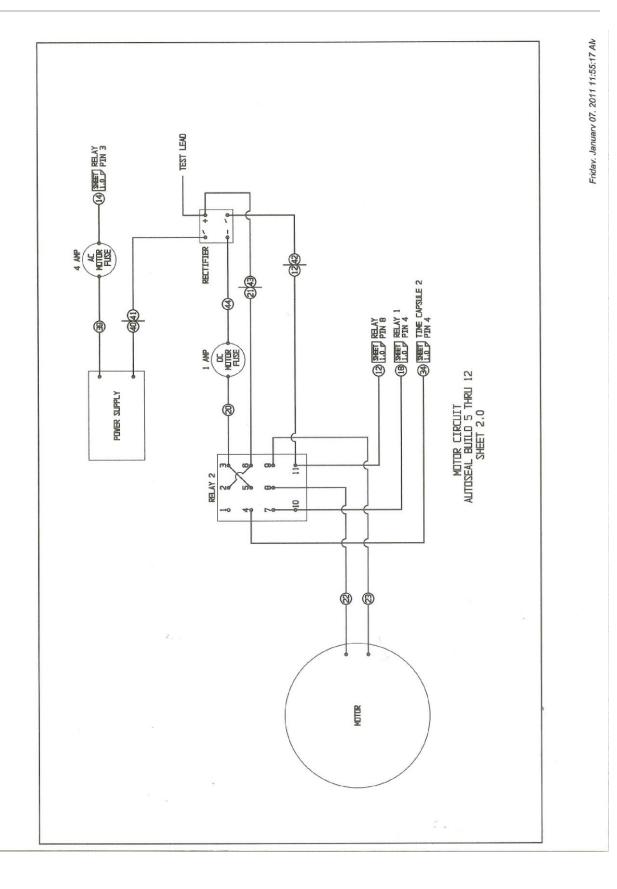
The Sealing Trays support the cards while sealing and help remove moisure and helps the heat plate seal the cards evenly.

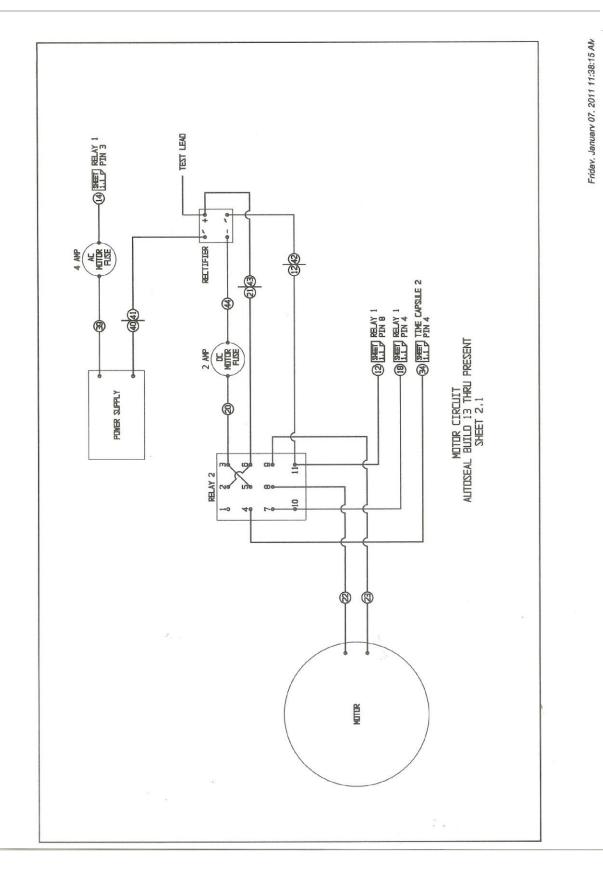
[&]quot;Manual" Heat Seal Machines Include:



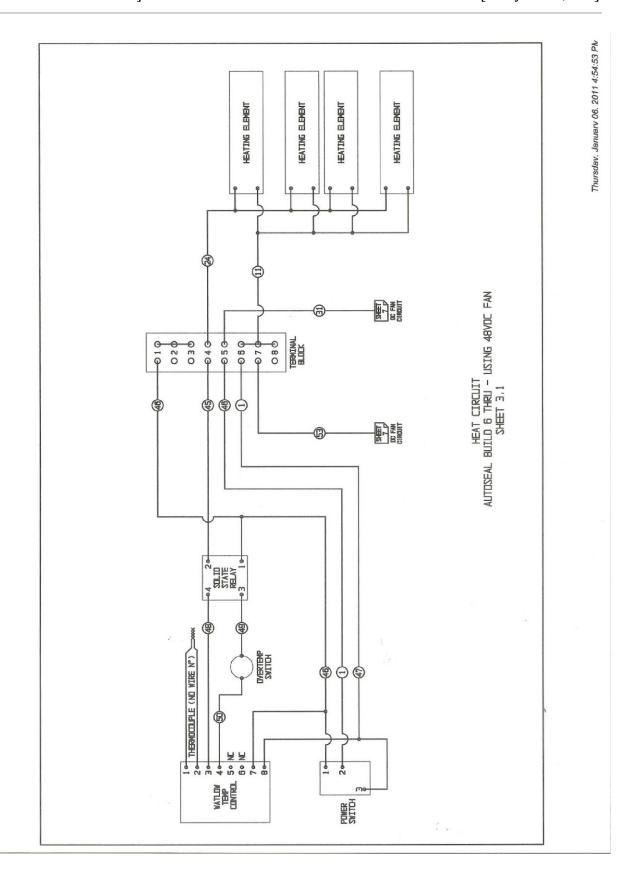




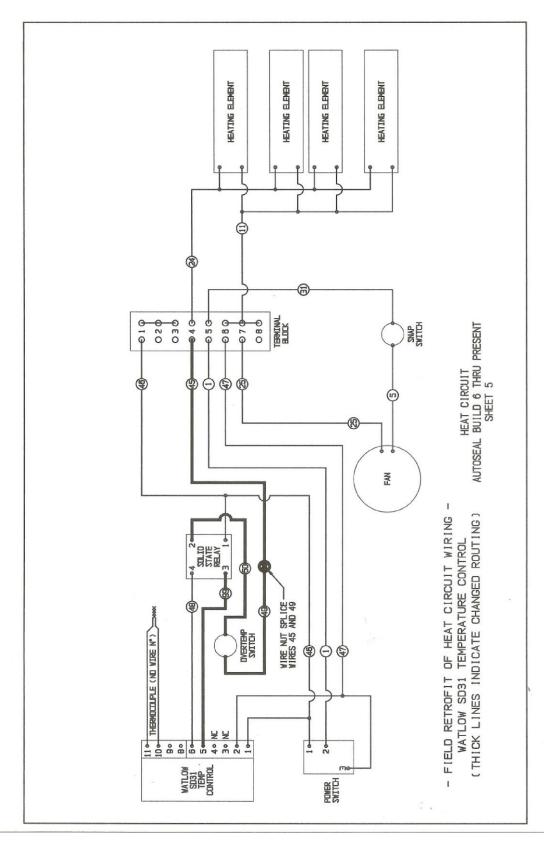


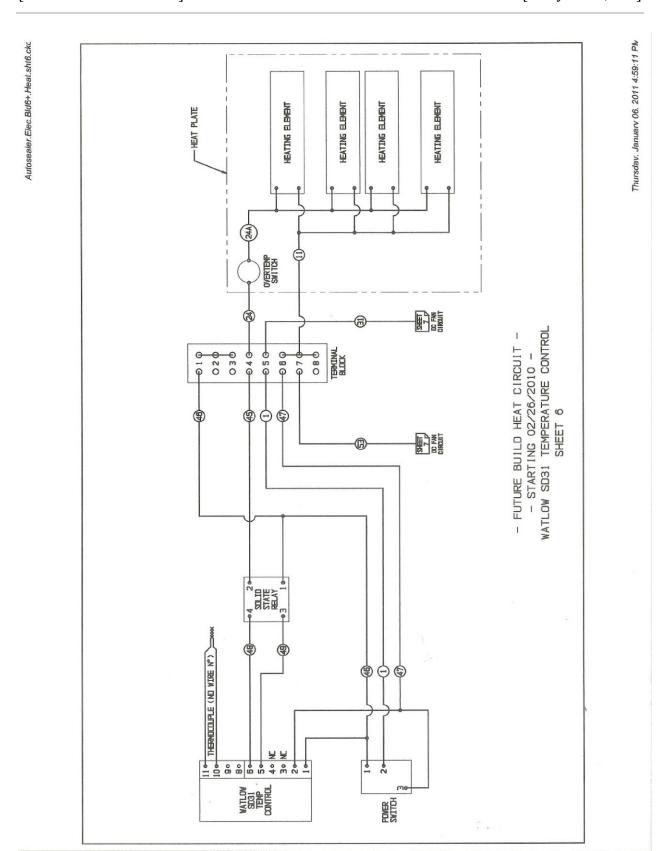


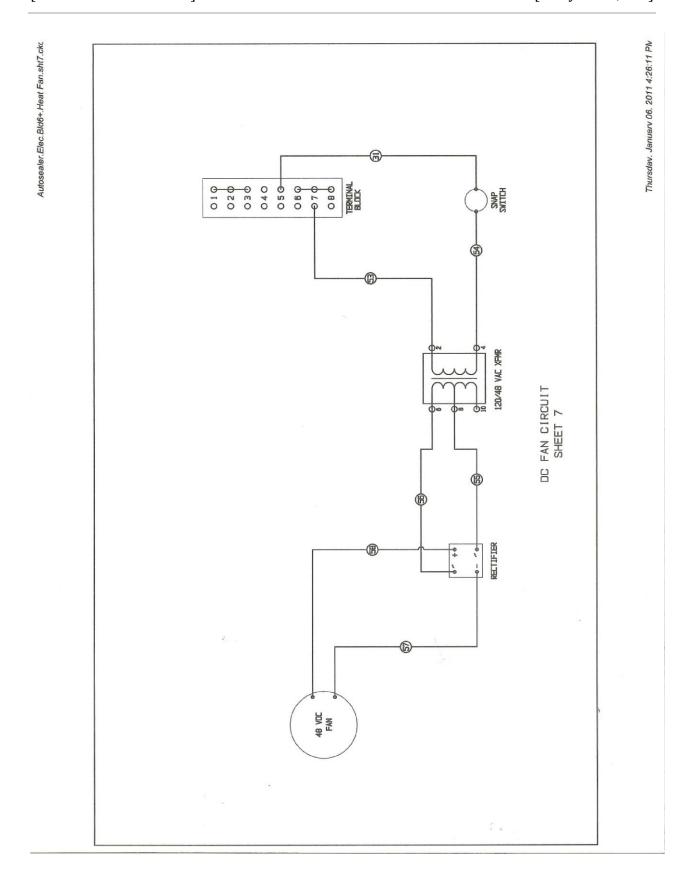


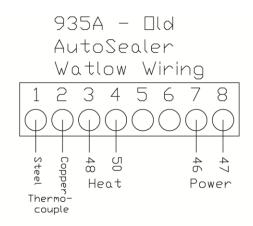


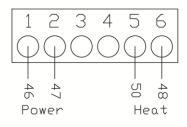
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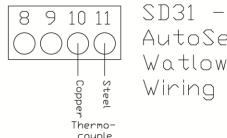






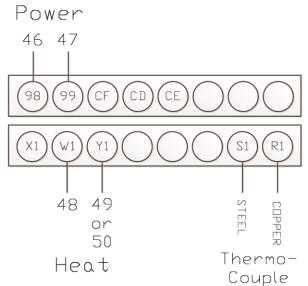






AutoSealer Watlow Wiring couple





Watlow 935A

To veiw / change Settings - Hold Up & Down Arrows for 5 sec (until "AUt" is displayed)

Press the Up Arrow until "CnFg" is displayed & change value to Yes

(Press & Hold Set key to Veiw values)

(Press the Up & Down Arrows to Change values)

| | US (A-S, ATS, ATC) |
|---------|--------------------|
| SETTING | VALUE |
| IN | t |
| Tag | Blank |
| Sloc | No |
| Fail | 0 |
| Disp | AC |
| OT2 | None |
| OT1 | Heat |
| rH | 350° |
| rL | 32° |
| C_F | F |

To save changes, do not touch the keys on the Watlow for at least 60 seconds (until it displays current temperature)

To veiw / change Settings - Hold Up & Down Arrows for 5 sec (until "AUt" is displayed)

Press the Up Arrow until "PID" is displayed & change value to Yes

| | US (A-S, ATS, ATC) |
|---------|--------------------|
| SETTING | VALUE |
| PbH | 28 |
| CAL | 5 |
| dE | .15 |
| lt | 1.67 |
| CTh | 1.0 |

To save changes, do not touch the keys on the Watlow for at least 60 seconds (until it displays current temperature)

Watlow SD 31

To veiw / change Settings - Hold
Up & Down Arrows for 5 sec
(until "Set" is displayed)
Press & Hold Set key to Veiw
Press the Up & Down Arrows to
Change values

US (A-S, ATS, ATC)

| | US (A-S, ATS, ATC) |
|---------|--------------------|
| SETTING | VALUE |
| Sen | tc |
| L in | t |
| C-F | F |
| S.dEC | 0 |
| IS.En | no |
| SP.Lo | 32 |
| SP.hi | 350 |
| Ftr.E | OFF |
| Ot 1 | hEAt |
| Ctr1 | Urtb |
| PL 1 | 100.0 |
| PSL1 | 0.0 |
| PSh1 | 100.0 |
| nLF1 | OFF |
| ACLF | 60 |
| Unit | US |
| I.Err | nLAt |
| FAIL | OFF |
| dSP | Pro |
| r₽ | OFF |
| LOC | 0 |

Press Infinity Key to Save

Now Press & hold the Infinity Key for 5 sec (until "OPEr" is displayed)

US (A-S, ATS, ATC)

| SETTING | VALUE |
|---------|-------|
| Po.ht | 0 |
| A-M | Auto |
| Aut | OFF |
| CAL | 4 |
| ht.M | Pid |
| Pb.ht | 3 |
| rE.ht | 0.1 |
| rA.ht | 0.01 |

Press Infinity Key to Save

To change the Set Point
Temperature, Hold the SET Key
& press Up or Down arrows until
desired temperature is displayed,
then release the Set key

To Load all of the Factory Default Settings Hold Up & Down Arrows for 7 sec (until "Fact" is displayed)

Press the Up key repeatedly until "dFLt" is displayed Change the value of "dFLt" from NO to YES

Press Infinity Key to Save

Watlow EZ ZONE (PM3)

To veiw / change Settings - Hold Up & Down Arrows for 10 sec (until "Ai Set" is displayed)

Press Green Key until "J L.in".

Press the Up Arrow until "t L.in"

Press the Infinity Key once

Press the Up Arrow until "Loop Set"

Press the Green key Until "25 h.Pb"

Press the Up Arrow until "35 hPb"

Press the Green key Until "180 t.i"

Press the Up Arrow until "205 t.i"

Press the Green key Until "0 t.d"

Press the Up Arrow until "34 t.d"

Press the Green key Until "-1999 L.SP"

Press the Up Arrow until "50 L.SP"

Press the Green key Until "9999 h.SP"

Press the Down Arrow until "350 h.SP"

Press the Green key Until "75 C.SP"

Press the Up Arrow until "315 C.SP"

Press the Green key Until "75 i.dS"

Press the Up Arrow until "78 i.dS"

Press and HOLD Infinity Key for 3 seconds

Default Settings (Do NOT do this unless otherwise instructed)

Hold Up & Down Arrows for 10 sec (until "Ai Set" is displayed)

Press Up Arrow until "GLbL" is Displayed

Press Green Button until "nonE Usrr" is Displayed

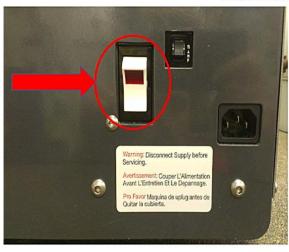
Press Down Arrow until "Fcty Usrr" is Displayed

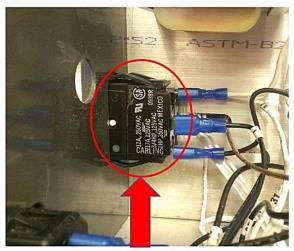
Hold Infinity Key for 3 seconds

AUTOSEALER 1001 REPLACING THE ON/OFF SWITCH

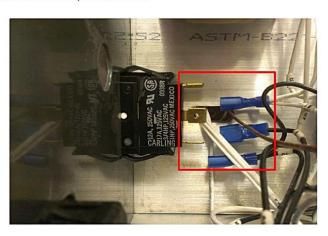
TOOLS REQUIRED:

FLATHEAD SCREWDRIVER NEEDLE - NOSE PLIERS PHILLIPS HEAD SCREWDRIVER

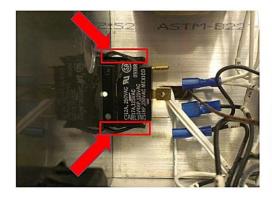


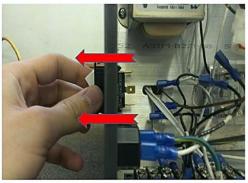


- 1.) UNPLUG THE UNIT FROM THE OUTLET AND MAKE SURE THAT IT IS COOL.
- **2.)** REMOVE THE 12 PHILLIPS HEAD SCREWS HOLDING DOWN THE MAIN COVER TO THE AUTOSEALER. LIFT UP AND OVER THE AUTOSEALER.
- 3.) LOCATE THE ON/OFF SWITCH.

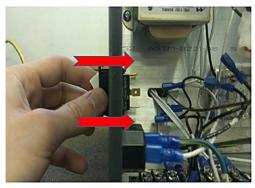


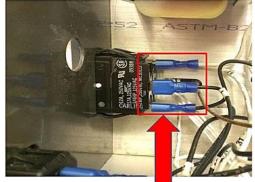
4.) REMOVE THE 3 WIRES CONNECTED TO THE SWITCH. (USE NEEDLE-NOSE PLIERS IF NECESSARY.)





5.) PINCH THE 4 LOCKING BARS ON THE SWITCH AND PULL THE SWITCH OFF OF THE PANEL. (TO MAKE THINGS A LITTLE EASIER YOU CAN USE A FLATHEAD SCREWDRIVER TO PINCH THE LOCKING BARS. IF THIS IS STILL TOO DIFFICULT THEN YOU CAN JUST BREAK OFF THE LOCKING BARS WITH THE FLATHEAD SCREWDRIVER.)





6.) INSTALL NEW SWITCH. MAKE SURE THAT THE RED SECTION OF THE SWITCH IS IN THE TOP POSITION AND NOT THE BOTTOM. **7.)** RECONNECT WIRES TO THE NEW SWITCH.

8.) REMOUNT MAIN COVER AND INSTALL SCREWS.



WIRE NUMBERS

AUTOSEALER 1000 REPLACING THE ON / OFF SWITCH

Tools Required:

Needle-nose pliers 1/8" Allen wrench

STEPS TO FOLLOW:

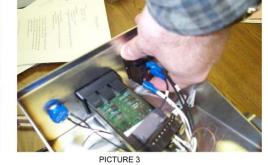
NOTE: See page 2 if your unit does not have a Watlow control, like in picture 1.

- 1. Unplug the unit from the outlet, & make sure unit is cool.
- 2. Remove the two button head screws, on sides of control panel. (see picture 1)

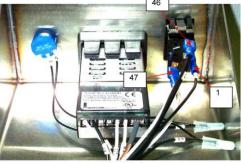
- 3. Lift the panel from the front to the back. (see picture 2)
 4. Remove the 3 wires from the switch. (use needle-nose pliers if necessary)
 5. Pinch the locking bars on the switch, & pull the switch off of the panel. (see picture 3)
- 6. Install new switch. Make sure red section of switch is positioned on the "ON" side.
- 7. Reconnect wires to the new switch. (see picture 4)
- 8. Remount control panel & install screws.

PART REPLACEMENT COMPLETE





PICTURE 1



PICTURE 2

STEPS TO FOLLOW:

NOTE: If you unit has a analog thermometer, like in picture 5, use picture 6 to connect the wiring.

1. Unplug the unit from the outlet, & make sure unit is cool.

2. Remove the two button head screws, on sides of control panel. (see picture 1)

3. Lift the panel from the front to the back. (see picture 2)

- 4. Remove the 3 wires from the switch. (use needle-nose pliers if necessary)
 5. Pinch the locking bars on the switch, & pull the switch off of the panel. (see picture 3)
- 6. Install new switch. Make sure red section of switch is positioned on the "ON" side.
 7. Reconnect wires to the new switch. (see picture 6)

8. Remount control panel & install screws

PART REPLACEMENT COMPLETE

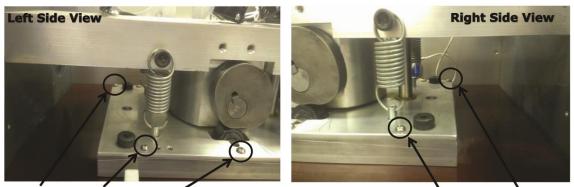




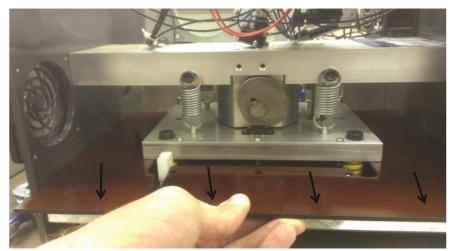
PICTURE 5

PICTURE 6

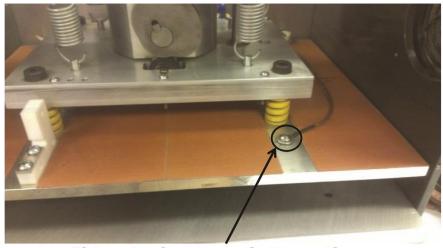
Heat Shield Removal / Thermocouple Replacement



1) Remove 5 Phillips Head Screws Holding Down the Heat Shield



2) Remove the Heat Shield



3) Locate Thermocouple Connection at the Front Right Side of Heat Plate

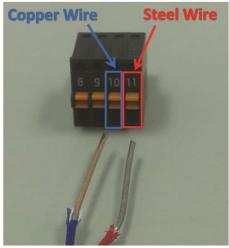


4) Using an 1/8" Allen Wrench, Disconnect the Bolt that Holds Down the Thermocouple

5) Disconnect Thermocouple from back of Watlow and Remove Thermocouple from Machine

Install New Thermocouple by following the instructions below for the Model of Watlow you have

Watlow Model "SD31"

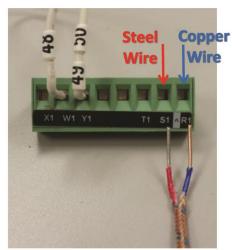


6) Install NEW Thermocouple into Watlow SD31,

Copper Wire in Position 10 and

Steel Wire in Position 11

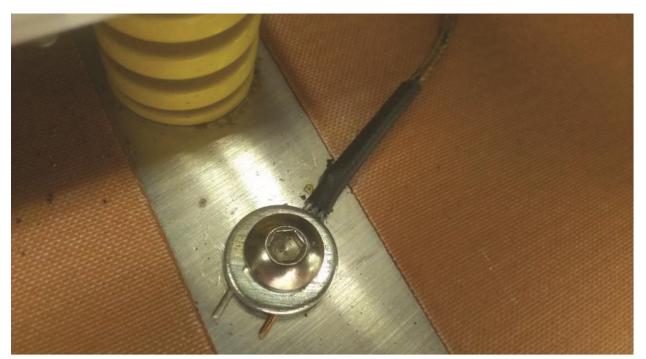
Watlow Model "EZ Zone"



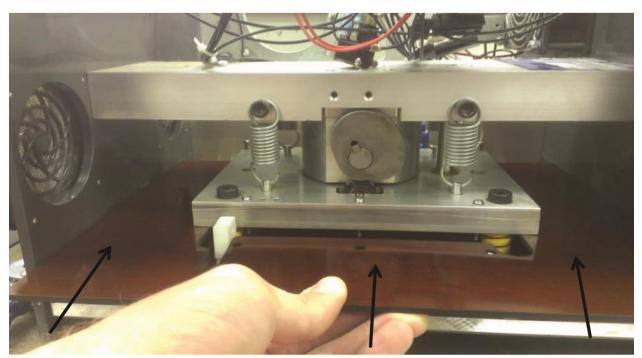
6) Install NEW Thermocouple into Watlow EZ Zone,

Copper Wire in Position R1 and

Steel Wire in Position S1



7) Install the other end of the Thermocouple to the Heat Plate



8) Re-Attach Heat Shield

Replace Start and Stop Button



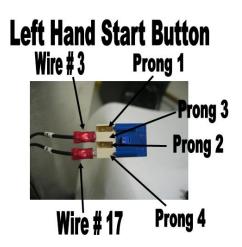


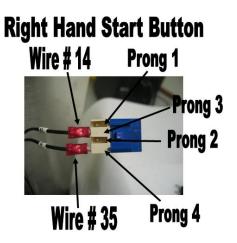


locks / unlocks the contact block on to the Button body. Note: If this screw is loose or not locked. it will cause the button to not work

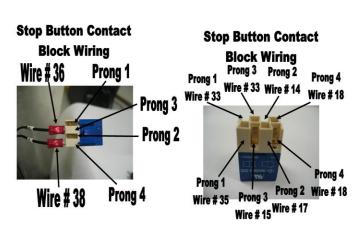
Contact Block

Slides onto Button







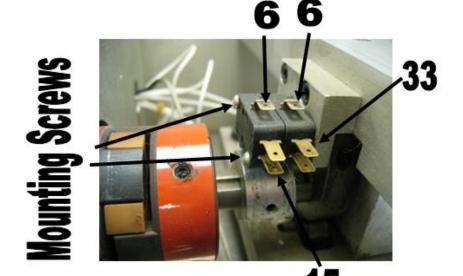


MicroSwitch Replacement for Newer AutoSealer



To Replace any MicroSwitch,
Remove mounting screws,
Remove wires from
the faulty MicroSwitch
& install New MicroSwitch.

MicroSwitch Replacement for Older AutoSealer



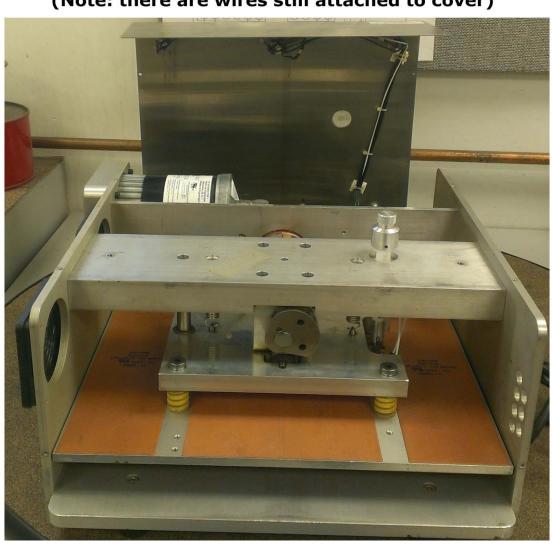
To Replace any MicroSwitch,
Remove mounting screws,
Remove wires from
the faulty MicroSwitch
& install New MicroSwitch.

Replacing Motor

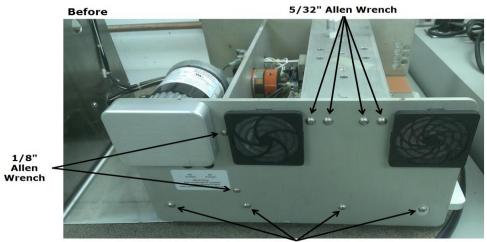
Tools Required
-Phillips Head ScrewDriver
-Needle-Nose Pliers
-7/16" Socket Wrench
-1/8" Allen Wrench
-5/32" Allen Wrench

- 1. Unplug AutoSealer and be sure it is cool
- 2. Remove Cover Screws, from sides of the AutoSealer

3. Lift Cover up, from front to back (Note: there are wires still attached to cover)



4. Remove AutoSealer Left Side Wall, by removing the Allen Head bolts (Note: Wires will still be attached to the Fuses)



5/32" Allen Wrench



5. Disconnect Fuse Wires

2 Amp

44

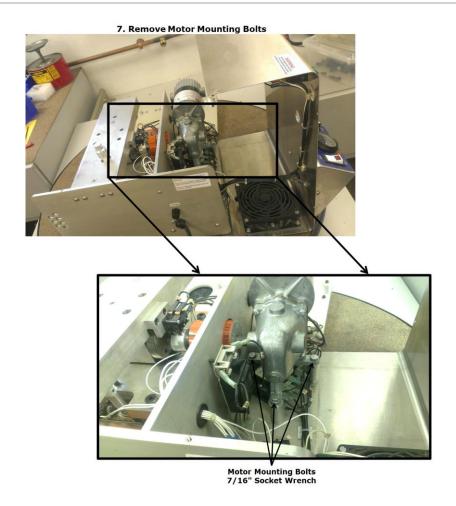
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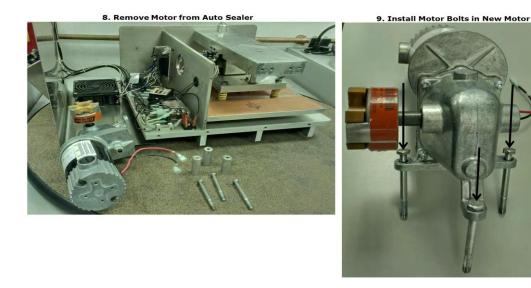
4 Amp

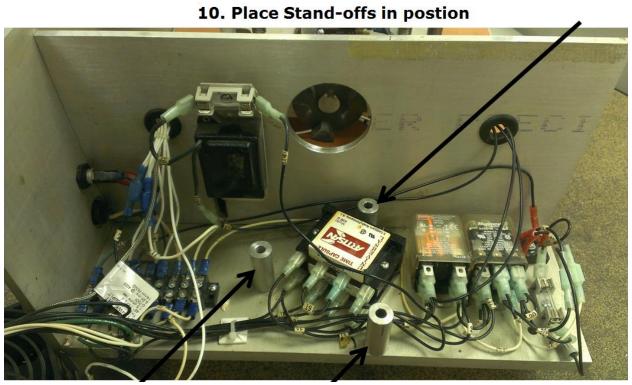
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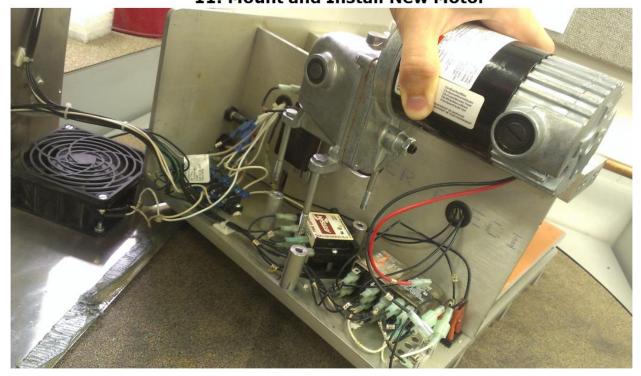


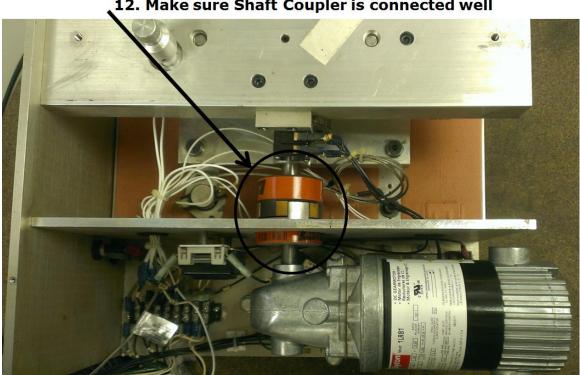






11. Mount and Install New Motor





12. Make sure Shaft Coupler is connected well

13. Screw in Motor Mounting Bolts But Do NOT Tighten

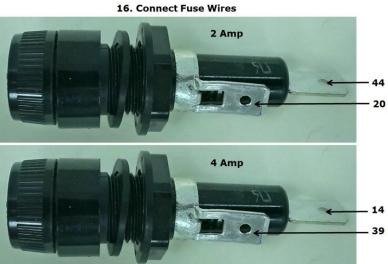


Motor Mounting Bolts 7/16" Socket Wrench

14. Connect Motor Wires **Magnecraft Relay**

15. Remove Fuses from Old Side Plate and Install on New Side Plate





Depending on the type
of Auto Sealer
The Side Plate Keys
need to be oriented either
Upward or Downward.
To Find which Orientation
is needed install the
Keys and look
to see how they line up.





To find which orientation is needed for your Auto Sealer

Install keys and see if holes line up.

This is decribed in the next few steps

17. Mount New Side Plate using ONLY Top 4 Bolts



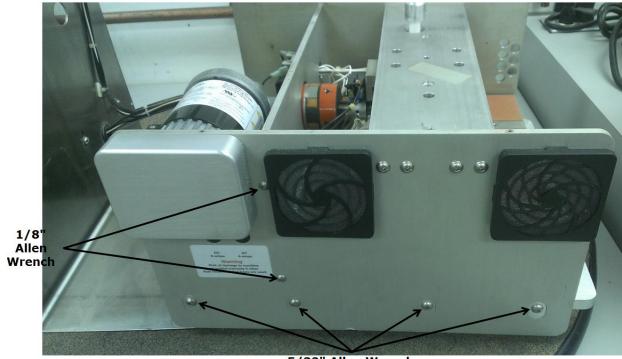






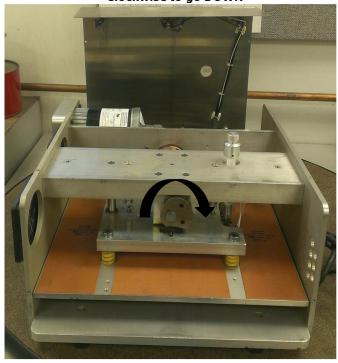
The Holes should line up for easy installation

19. Install the rest of the Side Plate Bolts Do NOT Tighten

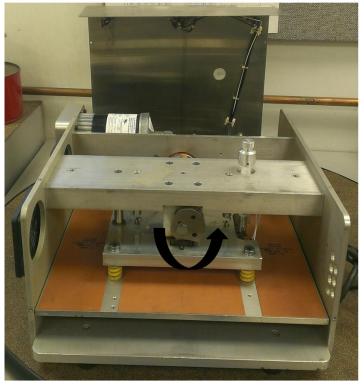


5/32" Allen Wrench

20. Plug In, Turn On and Cycle Auto Sealer 21. Make sure the Front Cam turns Clockwise to go DOWN



22. Make sure the Front Cam turns Counter Clockwise to go UP



If Cam Direction is incorrect, Switch Motor wires at Relay



24. Cylce Auto Sealer into the Down Position



23. Insert Paddle with Cards



25. Turn Off and Unplug Auto Sealer while it is in the Down Position

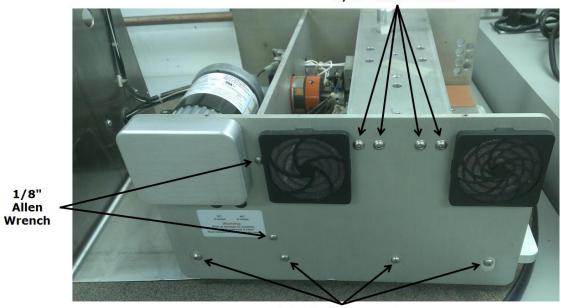


26. Tighten Motor Mounting Bolts



Motor Mounting Bolts 7/16" Socket Wrench

27. Tighten the all of the Side Plate Bolts 5/32" Allen Wrench



5/32" Allen Wrench

Motor Replacement Complete

Note: Return the old Slide Plate to Rx Systems Inc. for a \$100.00 credit.

AUTOSEALER REPLACING THE TIMER BLOCK & DAYTON RELAY

Tools Required:

Flat head screwdriver Needle-nose pliers 7/16" socket or standard wrench 1/8" & 5/32" Allen wrench

Steps to Follow:

- 1. Unplug machine and be sure it is cool.
- 2. Remove the eight Phillips head screws from the stainless steel cover (See picture 1)
- Lift the cover up and toward the back of the machine (there are wires connecting the cover to the back of the machine).
- 4. If your auto sealer has a serial number of 7903040 or lower, you will have to remove the brown phenolic cover by removing the two flat head screws. Higher serial numbered machine owners will not have to do this step.
- Next remove the left wall of the machine using 5/32" & 1/8" Allen wrenches.
 This will make removing it easier (see picture 2)
- 6. Disconnect the motor wires. Using needle-nose pliers, carefully remove the red wire (#22) and the black wire (#23) from terminal 8 & 9 (see picture 3).
- To free the motor, remove the three motor mounts using the 7/16" socket or standard wrench (see picture 4)
- 8. "Timer Block 2" is on top of "Timer Block 1". (See picture 5)
- 9. Remove the two Phillips head screws on both sides of the timer blocks.
- 10. Remove the wires from the appropriate timer block, & connect them to the new timer block, in their corresponding locations. (See Diagram 1)
- 11. Remount the timer blocks.

If you do not need to replace any relays, skip to step 15.

- 12. To replace the relays, you will need to loosen the top Phillips head screw of the appropriate relay, & then remove the Phillips head screw on the bottom of appropriate relay. (see pictures 6 & 7)
- 13. Remove the wires from the relay & connect them to the new relay, in their corresponding locations. (see Diagram 2)
- 14. Mount the new relay.
- 15. Re-attach the motor mounts.
- 16. Remount the left wall & snug the bolts in place, but Do Not Tighten.
- 17. For correct positioning, center the motor housing in the cut out of the left wall. (See picture 8) Once centered, tighten motor mounts. Double check to make sure motor is still centered.
- 18. Remount the phenolic cover, if necessary with your model.
- 19. Remount the stainless steel cover.
- 20. Place a sealing paddle into the autosealer. Active both green buttons. Once the heat plate is down, pressing on the paddle, turn off the autosealer. With the machine off, tighten all of the bolts for the left wall.

Part replacement is complete



PICTURE 1



PICTURE 2



PICTURE 3



PICTURE 4

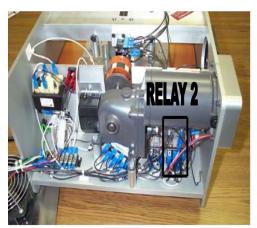
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PICTURE 5



PICTURE 6



PICTURE 7

| TIMER BLOCK 2 | | | | |
|---------------|----|------|----|--|
| , | _ | 0.50 | | |
| 32 | 19 | 19 | 34 | |

| TIMER BLOCK 1 | | | | |
|---------------|---|----------------|----|--|
| | *************************************** | (F | | |
| 15 | 16 | 13 | 18 | |
| | DIA | GRAM 1 | | |

| RELA' | Y 1 | RELAY 2 | | |
|--------|-----------|-----------|------------|-----------|
| DAYTON | | MA | MAGNECRAFT | |
| 14 | 18 | 2 | <u>21</u> | <u>20</u> |
| _ | _ | <u>34</u> | 20 | <u>21</u> |
| 15 | 33 | 18 | 22 | 23 |
| 32 | <u>12</u> | <u>18</u> | | <u>12</u> |

DIAGRAM 2



PICTURE 8

Installation of Slide Rails (1000R)

1. Remove **one** ¼-20 Button head socket bolts from the bottom roll on both sides using an Allen wrench (5/32" or 4mm).



2. Attach the left & right rails to the sides of the machine using the same bolts just removed.



3. Place the rod into the rails and tighten up the nuts.



4. You are finished and ready to seal.

DC Fan to AC Fan Conversion Guide

AC Fan RxS Item 4503A-1



Remove Wires 53 and 54 from Transformer





Connect Wires 53 and 54 to AC Fan

