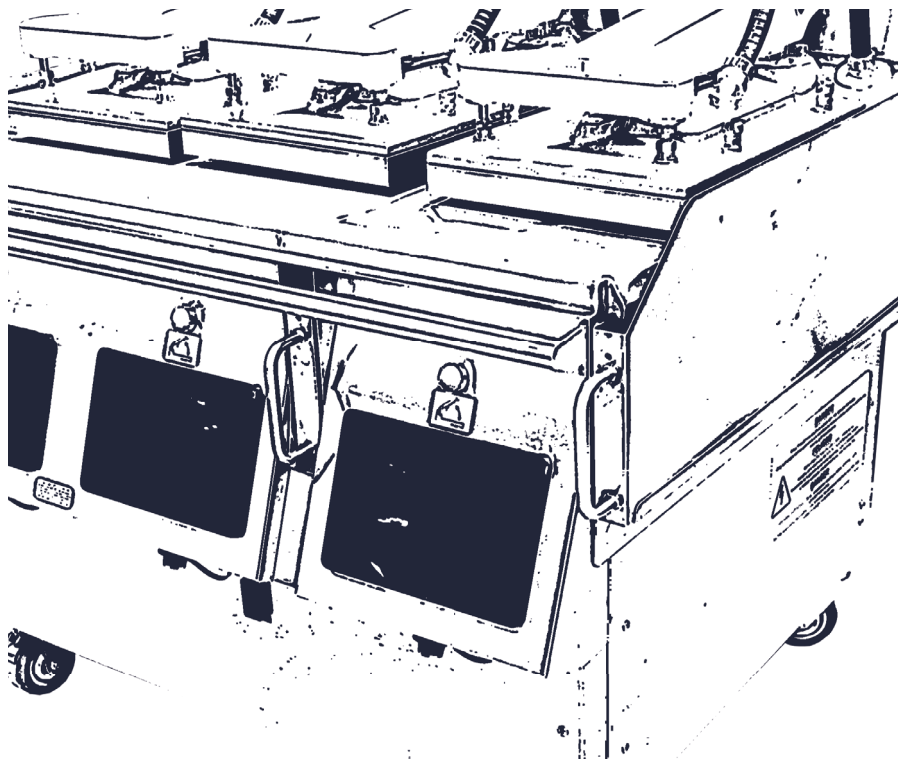


Gas/Electric Clamshell Grill

M(E/G)-1P, M(E/G)-2P, M(E/G)-3PX

Next Generation Grill Troubleshooting Guide



Safety Notices

DEFINITIONS

DANGER

Indicates a hazardous situation that, if not avoided, will result in death or serious injury. This applies to the most extreme situations.

Warning

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

Caution

Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

Notice

Indicates information considered important, but not hazard-related (e.g. messages relating to property damage).

NOTE: Indicates useful, extra information about the procedure you are performing.

DISCLAIMERS

Warning

Only trained and authorized service personnel or store manager should access the service screens. If changes to these settings are made incorrectly they will cause the unit to malfunction.

Caution

Maintenance and servicing work other than cleaning as described in this manual must be done by an authorized service personnel.

DANGER

Do not install or operate equipment that has been misused, abused, neglected, damaged, or altered/modified from that of original manufactured specifications.

DANGER

All utility connections and fixtures must be maintained in accordance with local and national codes.

DANGER

It is the responsibility of the equipment owner to perform a Personal Protective Equipment Hazard Assessment to ensure adequate protection during maintenance procedures.

DANGER

The on-site supervisor is responsible for ensuring that operators are made aware of the inherent dangers of operating this equipment.

NOTE: Proper installation, care and maintenance are essential for maximum performance and trouble-free operation of your equipment. Visit our website <https://clamshell.garland-group.com> for manual updates, translations, or contact information for service agents in your area.

Warning

Do Not Store Or Use Gasoline Or Other Flammable Vapors Or Liquids In The Vicinity Of This Or Any Other Appliance. Never use flammable oil soaked cloths or combustible cleaning solutions, for cleaning.

Warning

Do not store combustible materials on the appliance.

Warning

Warning labels mounted directly on the equipment must be observed at all times and kept in a fully legible condition.

Warning

Read this manual thoroughly before operating, installing or performing maintenance on the equipment. Failure to follow instructions in this manual can cause property damage, injury or death.

Warning

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision concerning use of the appliance by a person responsible for their safety. Do not allow children to play with this appliance.

Notice

Routine adjustments and maintenance procedures outlined in this manual are not covered by the warranty.

Warning

This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm. Operation, installation, and servicing of this product could expose you to airborne particles of glass-wool or ceramic fibers, crystalline silica, and/or carbon monoxide. Inhalation of airborne particles of glass-wool or ceramic fibers is known to the State of California to cause cancer. Inhalation of carbon monoxide is known to the State of California to cause birth defects or other reproductive harm.

LOCATION

Warning

Two or more people or a lifting device are required to lift this appliance.

Warning

To avoid instability the installation area must be capable of supporting the combined weight of the equipment and product. Additionally the equipment must be level side to side and front to back.

Warning

No structural material on the appliance should be altered or removed to accommodate placement of the appliance under a hood.

Warning

Be aware of the red mark in the threaded stem caster to indicate the maximum adjustment. Adjusting above the red mark could cause the caster to fail & the unit to tip. For more information see installation section 2.

Warning

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ psi (3.5 kPa).

Caution

This equipment must only be operated under an approved hood system in accordance with local regulations in force. This unit is intended for indoor use only.

ELECTRICAL

DANGER

Check all wiring connections, including factory terminals, before operation. Connections can become loose during shipment and installation.

DANGER

Do not operate any appliance with a damaged/pinched cord or plug. All repairs must be performed by a qualified service company.

DANGER

Failure to disconnect the power at the main power supply could result in serious injury or death. The power switch DOES NOT disconnect all incoming power.

DANGER

Copper wire suitable for at least 75°C (167°F) must be used for power connections.

Warning

This appliance must be grounded and all field wiring must conform to all applicable local and national codes. Refer to rating plate for proper voltage. It is the responsibility of the end user to provide the disconnect means to satisfy the authority having jurisdiction.

Warning

Do not use electrical appliances or accessories other than those supplied by the manufacturer.

Warning

This equipment must be positioned so that the plug is accessible unless other means for disconnection from the power supply (e.g., circuit breaker or disconnect switch) is provided.

Warning

Disconnect electric power at the main power disconnect for all equipment being serviced. Observe correct polarity of incoming line voltage. Incorrect polarity can lead to erratic operation.

Warning

Never touch anything that runs on electricity when your hands are wet.

CODE

Warning

Authorized Service Representatives are obligated to follow industry standard safety procedures, including, but not limited to, local/national regulations for disconnection / lock out / tag out procedures for all utilities including electric, gas, water and steam.

Warning

For an appliance equipped with casters, (1) the installation shall be made with a connector that complies with the Standard for *Connectors for Movable Gas Appliances ANSI Z21.69 • CSA 6.16*, and a quick-disconnect device that complies with the Standard for *Quick-Disconnect Devices for Use With Gas Fuel, ANSI Z21.41 • CSA 6.9*, (2) adequate means must be provided to limit the movement of the appliance without depending on the connector and the quick-disconnect device or its associated piping to limit the appliance movement and (3) the location(s) where the restraining means may be attached to the appliance shall be specified.

Warning

Post in a prominent location, instructions to be followed in the event the user smell gas. This information shall be obtained by consulting your local gas supplier.

DAMAGE

DANGER

Improper installation, adjustment, alteration, service, or maintenance of this appliance or installation of a damaged appliance can result in DEATH, INJURY, EQUIPMENT DAMAGE, and void the warranty. NEVER install damaged appliances, equipment, or accessories.

ALWAYS have installation and service performed by trained and authorized personnel.

Caution

Pouring water or ice on a hot heating elements/heated surfaces will cause damage..

Warning

Pinch Hazard. Keep hands and tools clear from the area above the platens when platens are in motion towards the exhaust hood. Be aware that adjacent platens may unexpectedly move at any time. "Turn Grill Off" at main switch when cleaning platens as there can be an unexpected movement of the platens

CLEARANCE

Caution

Do not block the supply and return air vents or the air space around the air vents. Keep plastic wrappings, paper, labels, etc. from being airborne and lodging in the vents. Failure to keep the air vents clear will result in unsatisfactory operation of the system.

Caution

Do not position the air intake vent near steam or heat exhaust of another appliance.

Warning

Slipping Hazard: Grease from food products will splatter. The areas surrounding the grill are a slipping hazard due to the splatter zone. Clean the area surrounding the grill regularly. The grill may be slippery. Ensure floor area is clean. Care needs to be taken as equipment may be hot.

Warning

Failure to maintain required clearances and additional distances as needed can result in INJURY and EQUIPMENT DAMAGE.

Consult manufacturers' literature, and sales and service agencies as needed.

DANGER

To reduce the risk of fire, the equipment is to be installed in non-combustible surroundings only, with no combustible material within 18" (457 mm) of the sides, front or rear of the appliance or within 40 " (1 m) above the appliance. The appliance is to be mounted on floors of noncombustible construction with noncombustible flooring and surface finish and with no combustible material against the underside or on noncombustible slabs or arches and have no combustible material against the underside. Such construction shall in all cases extend not less than 12" (305 mm) beyond the equipment on all sides.

DANGER

Risk of fire/shock. All minimum clearances must be maintained. Do not obstruct vents or openings.

Warning

Pinch Hazard. Ensure a minimum of 1" clearance between the hood and the uppermost position of the platen arm. To reduce the risk of crushing injuries between platen & hood.

PERSONAL PROTECTION

DANGER

All utilities (gas, electric, water and steam) must be OFF to all equipment and locked out of operation according to OSHA approved practices during servicing. Always allow unit to cool.

DANGER

Use appropriate safety equipment during installation and servicing.

DANGER

Never stand on the unit! They are not designed to hold the weight of an adult, and may collapse or tip if misused in this manner.

DANGER

Keep power cord AWAY from HEATED surfaces. DO NOT immerse power cord or plug in water. DO NOT let power cord hang over edge of table or counter.

Warning

DO NOT use the unit for storage. DO NOT leave paper products, cooking utensils, or food in the unit when not in use.

Warning

Allow heated equipment to cool down before attempting to clean, service or move. Unit must be cool to touch and disconnected from power source.

Warning

Always wear some type of protective covering on your hands and arms when opening the unit.

Warning

Steam can cause serious burns. Always wear some type of protective covering on your hands and arms when opening the unit. When platen is Lifting, move away face and body from the escaping steam.

Warning

Remove all removable panels before lifting and installing.

Warning

Do not contact moving parts.

Warning

When using cleaning fluids or chemicals, rubber gloves and eye protection (and/or face shield) must be worn.

Warning

Use caution when handling all metal surface edges of the equipment.

Warning

This equipment is intended for indoor use only. Do not install or operate this equipment in outdoor areas.

Warning

All covers and access panels must be in place and properly secured, before operating this equipment.

Warning

Do not spray aerosols in the vicinity of this appliance while it is in operation.

Warning

Risk of burns from high temperatures. You may get burnt if you touch any of the parts during cooking. Surfaces close to the cooking surface including side panels may get hot enough to burn skin. Use extreme caution to avoid coming in contact with hot surfaces or hot grease. Wear personal protective equipment.

Warning

When checking for burner ignition or performance, do not get too close to the burners. Slow ignition can cause possible flashback, increasing the potential for facial and body burns.

Warning

This appliance must be installed with sufficient ventilation to prevent the occurrence of unacceptable concentrations of substances harmful to the health of personnel in the room in which it is installed.

Warning

Hazard. Keep hands and tools clear from the area above the platens when platens are in motion towards the exhaust hood. Be aware that adjacent platens may unexpectedly move at any time. "Turn Grill Off" at main switch when cleaning platens as there can be an unexpected movement of the platens.

Warning

Slipping Hazard: Grease cans must be properly installed before use. Improper installation will result in grease on the floor which will create a slipping hazard. Ensure grease cans are emptied and cleaned as needed to prevent grease from overflowing onto the floor. The grill may be slippery. Ensure floor area is clean. Care needs to be taken as equipment may be hot

Warning

Pinch Hazard. Keep hands and tools clear of area between platen and grill plate when platens are in motion. Be aware that adjacent platens may unexpectedly move at any time. "Turn Grill Off" at main switch when cleaning platens as there can be an unexpected movement of the platens.

Table of Contents

| | |
|-----------------------------|----------|
| Safety Notices | 1 |
| Definitions..... | 1 |
| Disclaimers | 1 |
| Location..... | 2 |
| Electrical..... | 2 |
| Damage | 3 |
| Clearance | 3 |

Section 1 General Information

| | |
|--|-----------|
| Testing Limit switches..... | 9 |
| Check Hood Height | 9 |
| Testing kill switches | 9 |
| Motor Over current (E2 Error)..... | 9 |
| SIB Board - LED Location | 10 |
| Actuator Motion Test..... | 11 |
| SIB Faults | 11 |
| UI not powering | 11 |
| UI Freezing/ not booting or going slow | 11 |
| UI Recovery procedure | 11 |
| UI Touch screen Calibration | 12 |
| Power Supply PCB no power | 12 |
| Power supply PCB giving low power (Below 24Vdc) | 12 |
| SSRB Issues..... | 12 |
| Not heating | 12 |
| SSRB Revision unknown | 13 |
| Level Motor Not adjusting | 13 |
| Baumer Sensor Faults | 14 |
| Replacing a Baumer sensor..... | 14 |

Section 1

General Information

Testing Limit switches

With grill in off position

1. Press green button to lower platen.
 - When platen lowers the upper limit switch LED on the SIB will change state.
 - When platen stops at home position lower limit switch LED should change state.
2. If the platen passed lower than the switch but does not stop then this is due to the UI not seeing an Encoder count the platen will now continue until it presses the lower kill switch.

Check Hood Height

1. Go to hood height settings from the settings menu.
2. Enter hood height settings.
 - a. Press on Platen current position box and enter the maximum value allowed.
 - i. Depending on software this could be 4600 or 5200
 - ii. We recommend 4850.
3. The platen will rise and then stop but the RED DOT will stay coloured.
4. Read the value of platen current position.
 - a. Eg value may say 4637 mils.
5. This is your maximum hood height before touching the kill switch.
6. Deduct 100 mils from this value and that is your maximum Hood height value for that lane.
7. Set the new value in the hood height setting and press apply then end calibration.

Testing kill switches

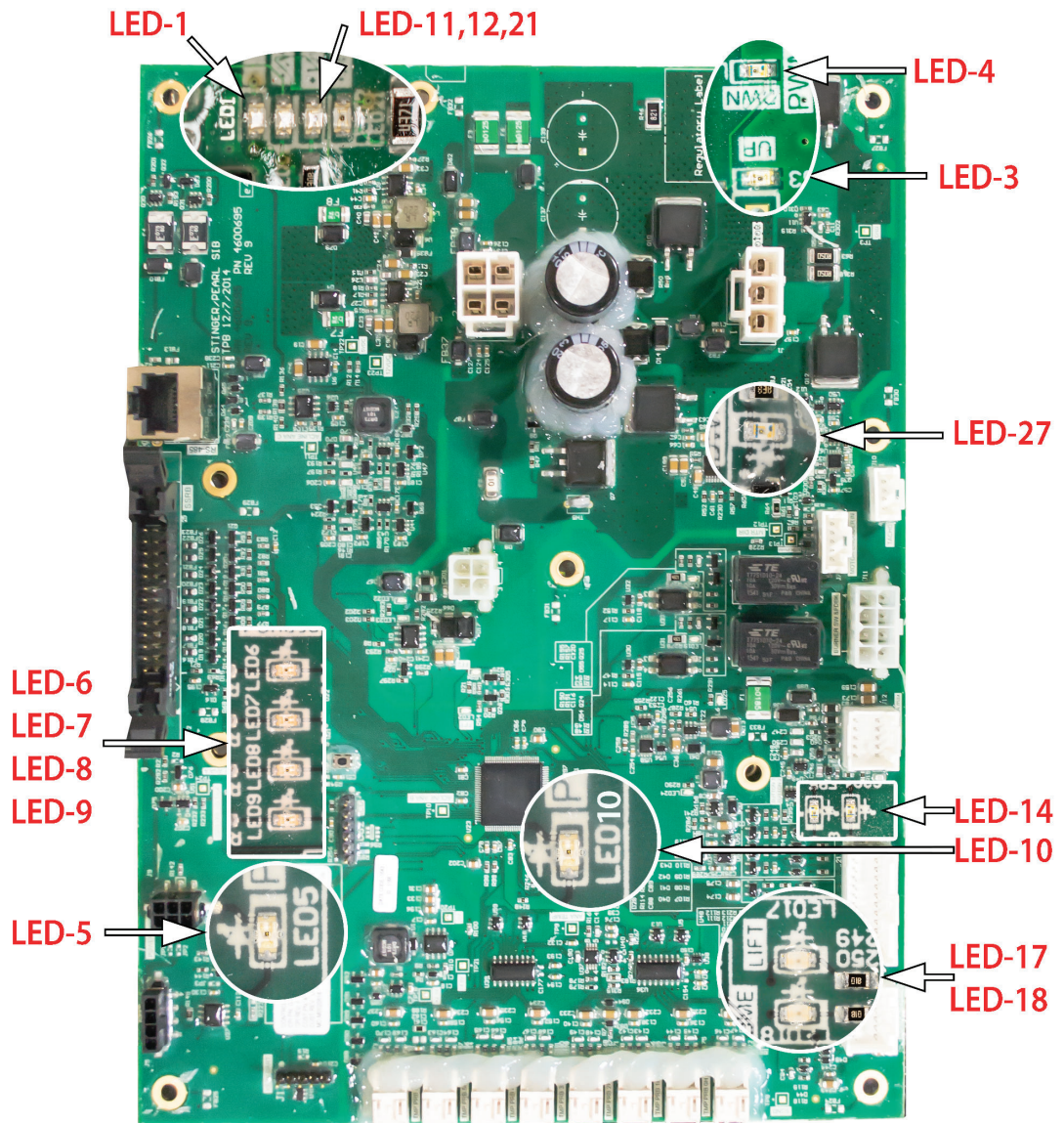
1. To check the upper kill switch complete section 1 – 5 of “Check hood Height” this proves the upper limit switch position.
2. To set the lower switch enter Gap calibration.
3. Once you have entered the gap calibration to the point that you are able to control the platen height set the platen position to -100.
4. The platen should be able to reach the value. If it stops before the platen drives to -100 mils then the Lower kill switch is incorrectly positioned.
5. Readjust the lower switch position and complete steps 3-4.

Motor Over current (E2 Error)

Check your SIB version Revision N or higher are newest spec Revision M could cause an issue when fitted with a Norgren Actuator.

1. Drive the platen up and down.
 - a. Whilst doing this check the LED on the SIB that shows over current (E2).
 - b. **NOTE:** If this flashes red then the platen is drawing excessive current (it may happen under normal circumstances on initial movement or as the platen starts to angle.
2. If this flash is consistent it could be the platen shaft is dry and need lubrication.
 - a. Remove platen arm to expose shaft carriage block.
 - b. Remove the 3 ¼ bolts holding the shaft seal gap.
 - c. Remove the 2 bolts that hold the platen shaft to the actuator.
 - d. Remove the actuator clevis pin.
 - e. From the top now lift the platen shaft.
 - i. It should separate and come out of the bearing with the shaft seal still attached.
 - f. Clean the grease and carbon from inside the bearing and the shaft.
 - g. Now apply Nevastane – XMF grease inside the shaft tube bearing. Ensure you cover the top and lower bearings
 - i. You **can not** use the following:
 01. Thin spray Grease.
 02. WD40.
 03. Shake Machine Lube.
3. Now you need to reassemble the grill.
4. When reinserting the shaft in the bearing make sure you lower it and rotate the shaft to spread as much grease as possible.
5. Do not tighten the 3 x ¼ bolts that hold the shaft seal cap on until the platen arm is refitted.
6. Once reassembled run 5 times up and down then review step 1.
7. If the grill still shows excessive current and triggers the Error 2 message, then replace actuator.

SIB Board - LED Location



| LED | Color | Name | Meaning |
|-----|--------|--------------|--|
| 1 | Green | 3.3V Power | Constant when power supply connected |
| 3 | Green | Motor Up | Lights while platen motor moving up |
| 4 | Blue | Motor Down | Lights while platen motor moving down |
| 5 | Red | PWR SYNCH | Blinks when high voltage detected from SSRB |
| 6 | Red | DEBUG 1 | Data Communication: On during normal operation |
| 7 | Red | DEBUG 2 | Data Communication: Blinks during normal operation |
| 8 | Red | DEBUG 3 | Data Communication: Blinks rapidly during normal operation |
| 9 | Red | DEBUG 4 | Data Communication: Blinks when SIB software updates, lights if error between SIB and UI |
| 10 | Green | Heartbeat | Blinks during normal operation |
| 11 | Green | 5V Power | Constant when power supply connected |
| 12 | Green | 12V Power | Constant when power supply connected |
| 14 | Blue | Green Button | Light when green button is pressed (The right most LED at location indicated). |
| 17 | Amber | Upper / Lift | On until platen is at the upper switch (or higher) |
| 18 | Amber | Home | On until platen is at the home switch (or lower) |
| 21 | Green | 24V Power | Constant when power supply connected |
| 27 | Orange | Over Current | Blinks momentarily during boot and if motor goes over current |

Actuator Motion Test

1. If you have software version 4.0.1 or higher then there is a function called motion test. This test will drive the motor up and down at various voltages to test the motor and encoder. To find this function complete the following steps
 - a. Go into the diagnostics screen.
 - b. Press start on the advanced menu.
 - c. Select log in and enter the password SERVOCR.
 - d. Select motion diagnostics.
 - e. Then press start motion diagnostics.
 - f. This will drive the platen up and down about 30 times.
2. If the test passes everything is ok.
3. If the test fails it can be a sign of issues on the lift system or actuator.
 - a. Follow guidance in motor over current procedure.

SIB Faults

1. Check all LEDs are showing the same as the lane next to the suspect board.
 - a. If not review LED meaning on cut sheet to confirm what is giving the issue
2. If everything looks correct, then move this SIB to the other lane and test its function. If the fault follows, then it would be sensible to assume the SIB is faulty.
 - a. If the fault stays on the original lane then the fault is not the SIB.
 - b. If the fault disappears from both lanes then it is most likely an issue with the jumper connections to the SIB so the issue should now be resolved but to verify you should move the board back to its original position.

UI not powering

1. Check SIB and ensure the 12V LED is illuminated.
 - a. If yes proceed to next step.
 - b. If no then Proceed to Power board diagnostics and SIB
2. Unplug the UI and check the wires at both ends.
 - a. It is possible the UI RJ45 cable has been pulled dislodging the cable from the UI.
 - b. Check the RJ45 socket on the SIB and ensure all pins are correctly aligned to match the RJ45 plug
3. If everything looks ok plug UI into another lane to test if it works.
 - a. If it fails to work replace the UI

UI Freezing/ not booting or going slow

1. If the UI has any of the above it is recommended to install the Recovery software in case, there is a corrupt file (the recovery process has its own instructions to follow)
2. If the UI is still running slowly or freezing, ensure that the grill has a good ground both to the grill and from the incoming ground to the front of the grill.
 - a. If in doubt install 2 additional ground leads from the main incoming ground to the front panel ground screws (on the grill chassis)
3. If after all this the UI is still running slowly and freezing it will be necessary to replace the UI.

UI Recovery procedure

1. The folder must be un-zipped- then the files taken out of the folder and put on a blank stick
2. With the grill off insert Recovery USB and Turn on Grill this will search/start the recovery program (may take a couple of minutes)
3. Touch Screen Calibration (being careful not to tap screen twice)
4. When you are prompted to enter code use: 997572
5. Grill will start recovery procedure
6. Touch screen calibration will be required again (being careful not to tap screen twice)
7. Remove USB
8. When prompted to enter code again press "Quit"



9. Grill will go through self-test procedure
10. This will then ask if it's a McDonalds or General market grill or manufacturing. Select the customer/ chain you are in.
11. When home screen appears go to settings (Code: servgcr)
12. The grill controller is now in an uncommission state, so you will need to go back through it and input all the settings again including
 - Date, Time, Installation date and serial number.
 - Gap Calibration
 - Temperature Calibration

- Power calibration
- Recipes and menus

UI Touch screen Calibration

1. Load an unzipped copy of the ts_calib software on to the root directory of a USB
Note. This is only for version 4.0.1 and higher software
2. Insert the USB into the grill
3. Cycle grill power
4. Touchscreen calibration should now start
5. Once all 5 spots have been selected remove USB and cycle power
 - i. Note. If you skip or double press on a step just cycle the grill power to avoid saving your changes before you complete the 5-point process.

Power Supply PCB no power

1. You can visually check the power output from this board by checking the SIB power LED for 24V is illuminated.
2. If the LED is not illuminated, check the out coming power by testing across the red and green output wires. It is important to understand that the board has 4 separate 24VDC output supplies so check all.
 - a. Note. check Green – Red not to ground and ensure you have disconnected the load from the plug-in case something is dragging the voltage down.
 - b. If you have lost just one supply on the ME grill you can move the output cable around to get the grill working whilst you order a replacement.
3. If you have no output check the incoming supply to the board. There should be AC line voltage present.
 - a. If you have input power but no output, then the PCB has failed and require replacing.
 - b. If you have no input voltage check the 2 fuses at the front of the grill. If these have failed, then all lanes will have no control circuit power but will have 3 phase power to the contactors.

Power supply PCB giving low power (Below 24Vdc)

1. Disconnect the output of the power supply board and then check the voltage.
 - a. If the voltage is still low, by +/-1 VDC you can adjust this via a small potentiometer on the front lower corner of the board. When adjusting ensure you disconnect the output and measure the voltage for accuracy to 24Vdc before reconnecting the output plug.
2. If the voltage is now correct, then there is an issue on the

24vDC circuit dragging the voltage down.

- a. To isolate the faulting circuit, you can start by disconnecting each out put jumper Harness on the SIB. Follow the below order and check between each disconnection.
 - i. Switch and sensor harness (most common issue as wires get trapped in platen arm lid)
 - ii. Level Motor (if on an ME/MG grill)
 - iii. Actuator motor (power)
 - iv. Actuator encoder
 - v. Green button harness
 - vi. UI RJ45
 - vii. 26 pin ribbon cable
- b. If we all of these disconnected, you still have a voltage issue then it is most likely an SIB failure you can prove this by taking the SIB and trying it on another lane.

SSRB Issues

Not heating

1. Check all cables and connectors are inserted correctly
 - a. Remove them and then plug back in do not rely on visual only
2. In the UI check if the lane is a master or slave
 - a. If it's a slave, then the master lane needs to be working and a power sync cable must be installed
 - b. If it's a master, ensure none of the other lanes are master and connected with the power sync cables together.
 - i. Power sync cables are installed to the left of the ribbon cable on the SIB
- c. Simple Master Slave relationship guide
 - i. A slave must be connected to a master with a power sync cable
 - ii. Masters can not be connected to other masters with a power sync cable.
- d. If the Slave/ Master configuration is incorrect it will cause the SSRB not to operate and the high-power LED on the SIB will not illuminate on even if there is high voltage present.
3. In the UI go to settings then Heater state test.
 - a. Run the heater test you should see each element raise temperature. If it is good the display will turn green.
 - b. If bad the display will turn that element zone red.
4. If you have a failure you can activate that zone and check the LED for the zone Triac.

- a. When a Triac is switched on it should flash to show it is calling for heat.
5. If it still does not heat
 - a. Check wires to elements are connected
 - b. Isolate the power and complete a resistance check across the element resistances should be between 20 – 30 ohms.
 - c. if you have OL, >99 ohms resistance then the element has failed
 - d. If it is all ok, then check the voltage from the contactor to the SSRB.
 - e. If voltage is good also check the neutral back to the neutral block.
 - f. You can do a voltage check on the elements when they are being asked to heat, to do this you must do the following
 - i. Set your test meter to AC.
 - ii. Make the range 600V
 - iii. When you test you will see the voltage jump from 0 – 250V this proves the SSRB is switching and sending power.
 - iv. Automatic range tester will not react fast enough to record anything.
 - g. If this still fails swap the SSRB to another lane to see if the fault moves with the board.

SSRB Revision unknown

1. This error is common with a communication issue.
2. Check the ribbon cable is connected correctly by removing it and reinserting it fully
 - a. Check both ends SIB and SSRB reboot the grill
3. Remove the jumper harness
 - a. the harness with the green and white wires connected to the green push button.
 - b. Refit it and reboot the lane
4. If the fault clears, then this harness had a bad connection.
5. If the fault stays, then swap the SSRB to another lane and see if the fault follows
 - a. If the fault follows, then the SSRB is faulty
6. If the fault is still present it could be an issue with the SIB so follow SIB diagnostics process.

Level Motor Not adjusting

1. From the +/- screen in the gap calibration screen check the line is within the white box and the rear sensor reads between 160 – 310 mils.
2. Provided the line is in the white range you can press the up or down arrow.
 - a. To verify the voltage is being given to the motor check the SIB.
 - b. There are 2 LED's by the motor connection (about the middle of the board)
3. One of the LEDs should move to show voltage is being passed to the motor
 - a. If both LEDs illuminate, then that's a sign the motor is jammed and is overcurrent.
 - b. Check the adjuster is not at the maximum/ minimum travel by removing the motor and turning adjuster with the gap tool, it should be reasonably easy to move.
 - c. If the lights are alternating rapidly then this is a sign you are at the maximum software restricted travel.
4. If no LEDs illuminate this is a sign the SIB is not sending voltage, so the motor will not move
 - a. If this happens it can be caused by a simple software reset. You should reset the power to that lane and try again. It is possible you may need to reset power and check 3 times before the software will allow the board to function correctly.
5. If one LED does illuminate and the motor does not move, then you should follow the below procedure
 - a. disconnect the motor from the terminal block in the arm
 - b. Unscrew the motor from the arm so it is free and not under load.
 - c. Using a battery from 9V – 18V connect it to the motor.
 - d. It should turn the motor.
6. If the motor still does not move, you will have to replace the motor.

Baumer Sensor Faults

1. To check the baumer sensor the easiest method is as below
 - a. Enter the gap calibration menu.
 - b. Select the +/- button.
2. This will now show you the actual read out of the rear and front sensor.
 - a. The reading is a live reading so if you place a metallic object such as a Gapping tool between the sensor and target the value in the box should become smaller
 - b. The number is a reading of the physical gap between the bottom of the sensor and the target below.
 - c. If nothing happens you can then remove the platen arm lid. In the lid you will see the top of the sensor will have a red light. If you place your metallic object between the sensor and target you should see the red light becomes dimmer as the distance shrinks.
 - d. If this happens but the reading on the UI does not change you can remove the black wire from the sensor and swap the wire with the black wire from the other sensor. This will now change the sensor position.
 - e. Example. If you had a failed rear sensor and swapped the black wire this would now become the front sensor.
 - f. If the reading on the UI now changes when you change the distance of the sensor and target this proves the sensor is ok.
 - g. You can now try the other sensor and if that does not change then the issues is with the wiring harness (there is a connection by the actuator so check this is correctly connected before assuming a new harness is required.
 - h. If after the test the sensor still did not change the reading, then it is the sensor that is at fault and needs replacing.

Replacing a Baumer sensor

1. Look at the top of the sensor and note how many threads are visible.
 - a. Remove the 3 wires (noting their position)
 - b. Loosen the locking nut and unscrew the sensor (counter clockwise to bring the sensor out the top of the arm)
 - c. Insert the new sensor and turn it clockwise until you have the same number of threads visible as the one you removed.
 - d. Rewire the sensor
 - e. Turn on the grill and go to the gap calibration screen then the +/- screen so you can see the read out from the switch.
 - f. Referencing the Baumer-thread relationship set the sensor to the correct reading based on the guide given. (Be careful not to over stress the wires are you turn the sensor) Once the reading is in the correct range tighten the locking nut.
 - g. Pop the wires out of the terminals again to remove any twists and stress on the cable then reinsert them.
 - h. Refit the lid and the job is complete.

| REAR Shoulder Bolt | | |
|------------------------------------|---------------------------|-----|
| Allowed Adjuster Nut Setting (MIL) | Allowed Rear Sensor Value | |
| | MIN | MAX |
| 40 | 190 | 220 |
| 70 | 220 | 250 |
| 100 | 230 | 270 |

| FRONT Shoulder Bolt Adjustment | | |
|---|----------------------------|-----|
| Average Threads Showing | Allowed Front Sensor Value | |
| | MIN | MAX |
| BOTH NOTCHES MUST BE VISIBLE | | |
| NOTCH ONLY | 198 | 238 |
| 1/2 THREAD | 214 | 254 |
| 1 THREAD | 230 | 270 |
| 1-1/2 THREADS | 246 | 286 |
| 2 THREADS | 262 | 302 |
| 2-1/2 THREADS | 278 | 318 |
| A MAXIMUM OF THREE THREADS CAN BE SHOWING | | |

**WWW.WELBILT.COM**

Welbilt provides the world's top chefs, and premier chain operators or growing independents with industry leading equipment and solutions. Our cutting-edge designs and lean manufacturing tactics are powered by deep knowledge, operator insights, and culinary expertise. All of our products are backed by KitchenCare® – our aftermarket, repair, and parts service.

- ▶ CLEVELAND
- ▶ CONVOTHERM®
- ▶ DELFIELD®
- ▶ FITKITCHEN™
- ▶ FRYMASTER®
- ▶ GARLAND
- ▶ KOLPAK®
- ▶ LINCOLN
- ▶ MANITOWOC®
- ▶ MERCO®
- ▶ MERRYCHEF®
- ▶ MULTIPLEX®