

DO NOT DISCARD

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Pg. 4



NAPOLEON

SERVICE MANUAL



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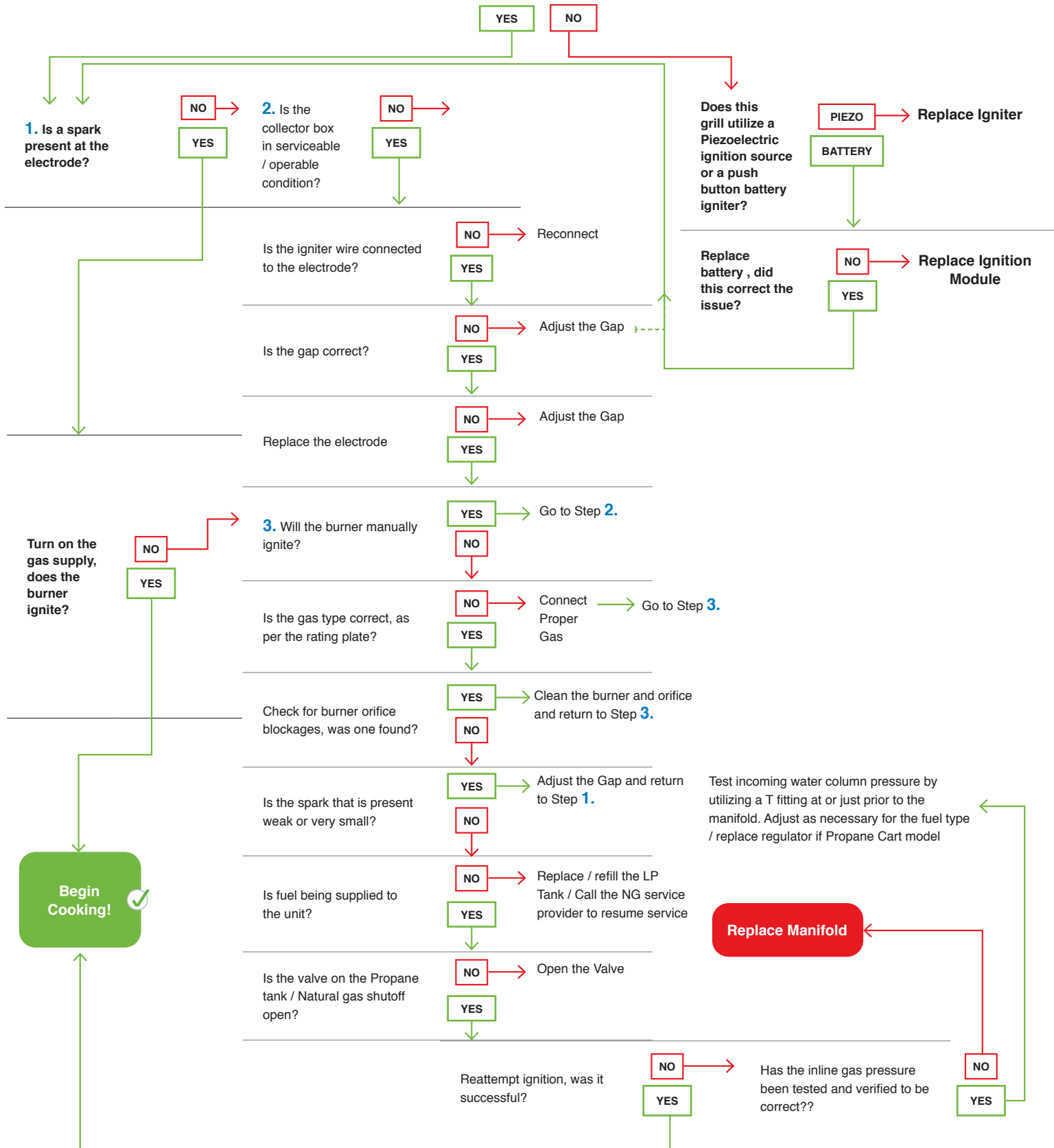
Napoleon Service Provider Recommended Tool Kit

Dual Differential Digital Manometer
Digital Clamp-On Multimeter
Ratcheting Nut Driver Set
Hand Tap Set – Metric and SAE
Insulated Screwdriver Set Pipe Wrenches – 10” & 14”
Combination Wrench Set – Metric and SAE
Rubber Mallet
Pipe Dope (can with brush applicator)
Leak Testing Fluid (brush or spray on)
Rust Penetrating Lubricant

IGNITION / TRADITIONAL

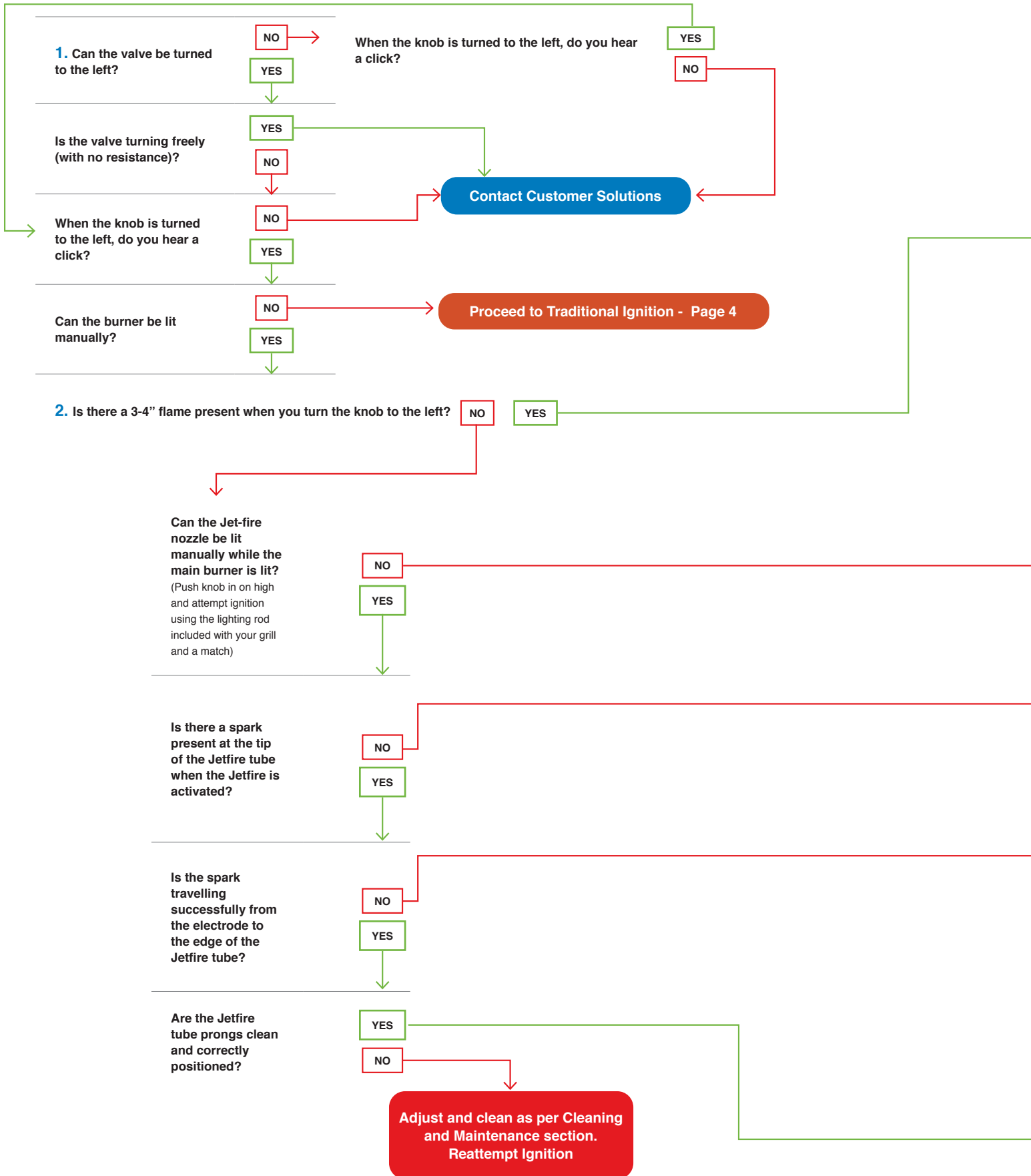
Troubleshooting - Ignition Difficulties - Traditional (electronic, piezo)

Do you hear a clicking sound when the igniter button is depressed?



IGNITION / JETFIRE®

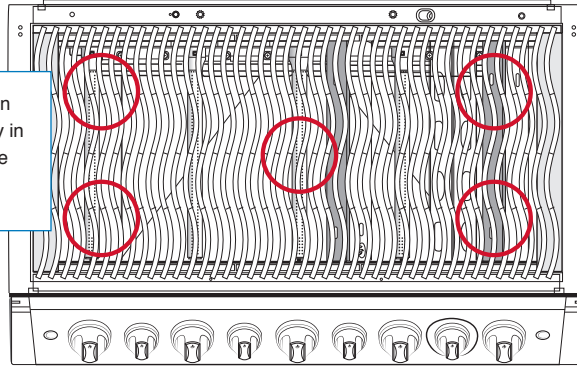
Troubleshooting - Ignition Difficulties - JETFIRE®



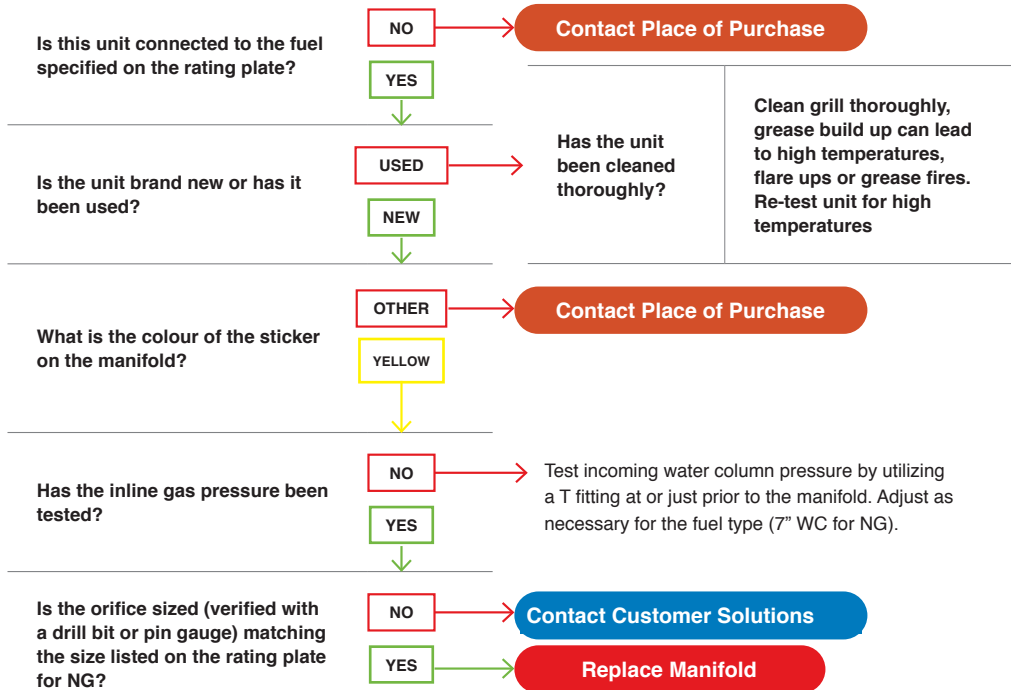
TROUBLESHOOTING / HIGH HEAT

SUBSTANTIATE THE CLAIM. DEPENDING ON THE UNIT THE TEMPERATURE MAY BE COMPLETELY REASONABLE. HIGH TEMPERATURES WOULD BE UPWARD OF 600 DEGREES ON LOW, OR BURYING THE NEEDLE ON HIGH. PLEASE ALSO CHECK TO ENSURE THE TEMPERATURE IS ACCURATE; IF THE GAUGE IS READING A VERY HIGH TEMPERATURE BUT THE GRILL IS COOKING NORMALLY IT MAY BE A FAULTY GAUGE.

Test the temperature on the unit utilizing a meat thermometer and a tin tray after preheating the unit on high for 15-20 minutes. Place the tray in each position detailed below for 5 minutes and check the reading. The reading must be taken with the lid closed and the unit on high.

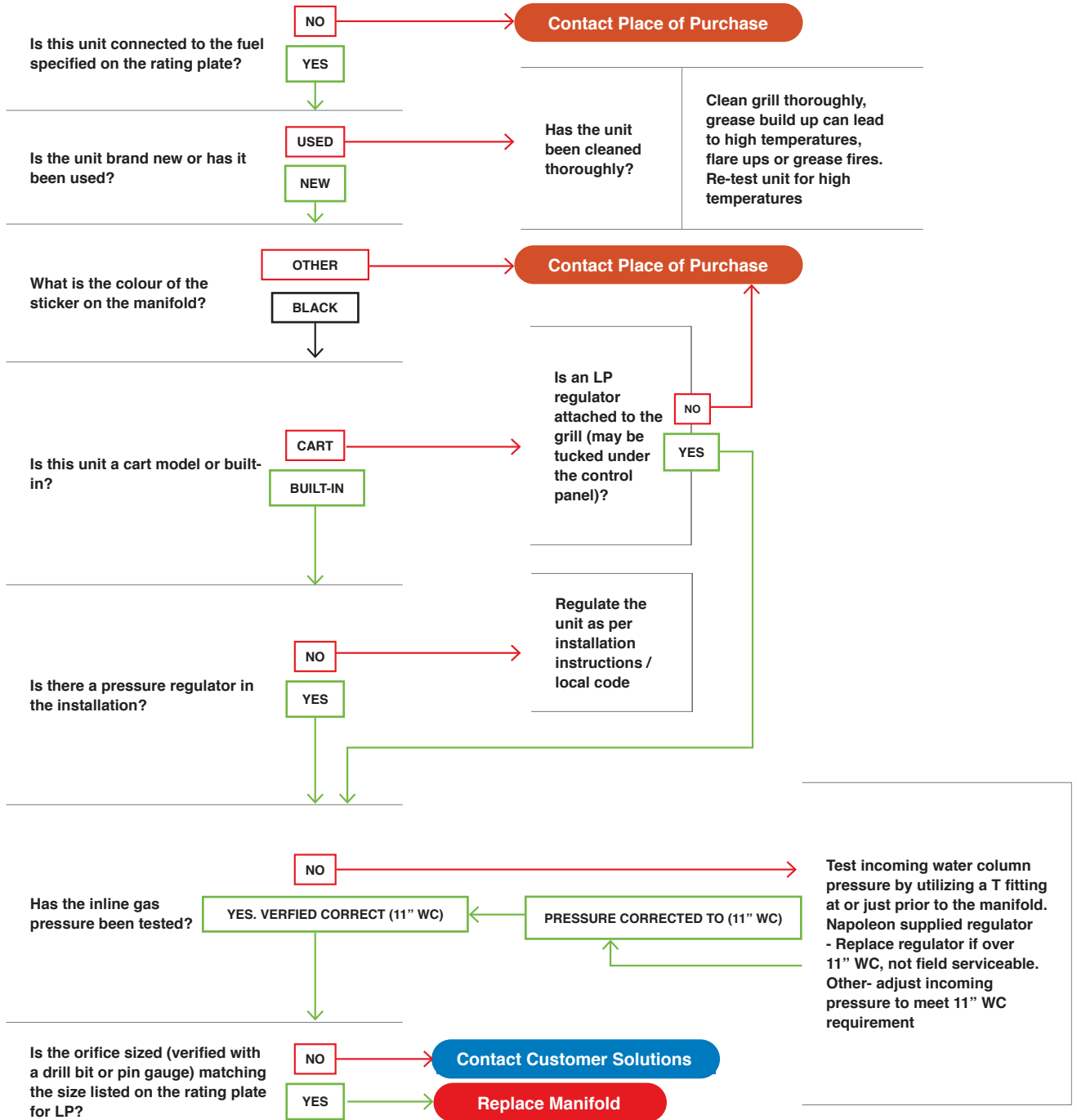


Natural Gas



TROUBLESHOOTING / HIGH HEAT

Liquid Propane



TROUBLESHOOTING / LOW HEAT

SUBSTANTIATE THE CLAIM. DEPENDING ON THE UNIT THE TEMPERATURE MAY BE COMPLETELY REASONABLE. LOW TEMPERATURES WOULD BE 300 DEGREES OR LESS ON HIGH

Test the temperature on the unit utilizing a meat thermometer and a tin tray after preheating the unit on high for 15-20 minutes. Place the tray in each position detailed below for 5 minutes and check the reading. The reading must be taken with the lid closed and the unit on high.

What is the gauge reading? (On High Setting)

ABOVE 400° F ON HIGH
BELOW 300° F ON HIGH

Unit is working ✓

Have you verified that the needle is not stuck (tap gently)?

NO
YES

Have you verified that the needle is not stuck



Tap Gently

Are the external conditions extremely adverse (windy, raining or very cold)?

YES
NO

Discontinue use until conditions improve



Are you cooking with the lid open?

YES
NO

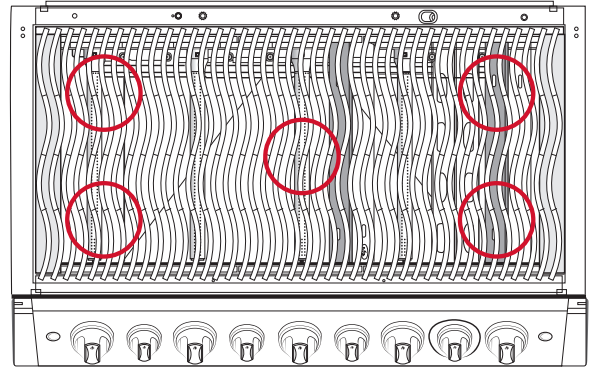
Close lid, reattempt pre-heating of the unit per the manual



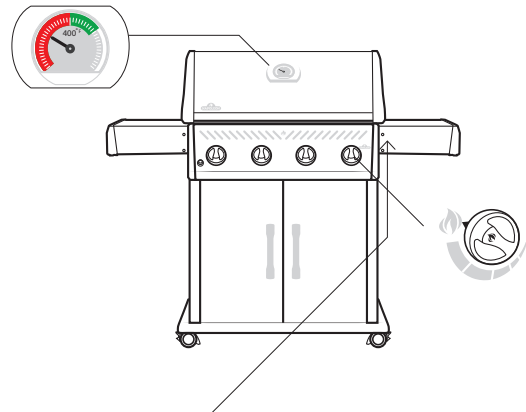
Is the drip pan properly engaged / in place?

NO
YES

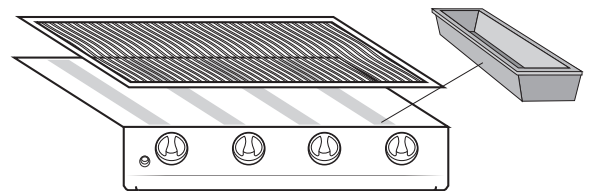
Remove and reinstall the drip tray pan on the rails, reattempt pre-heating of the unit per the manual



EXAMPLE GRILL



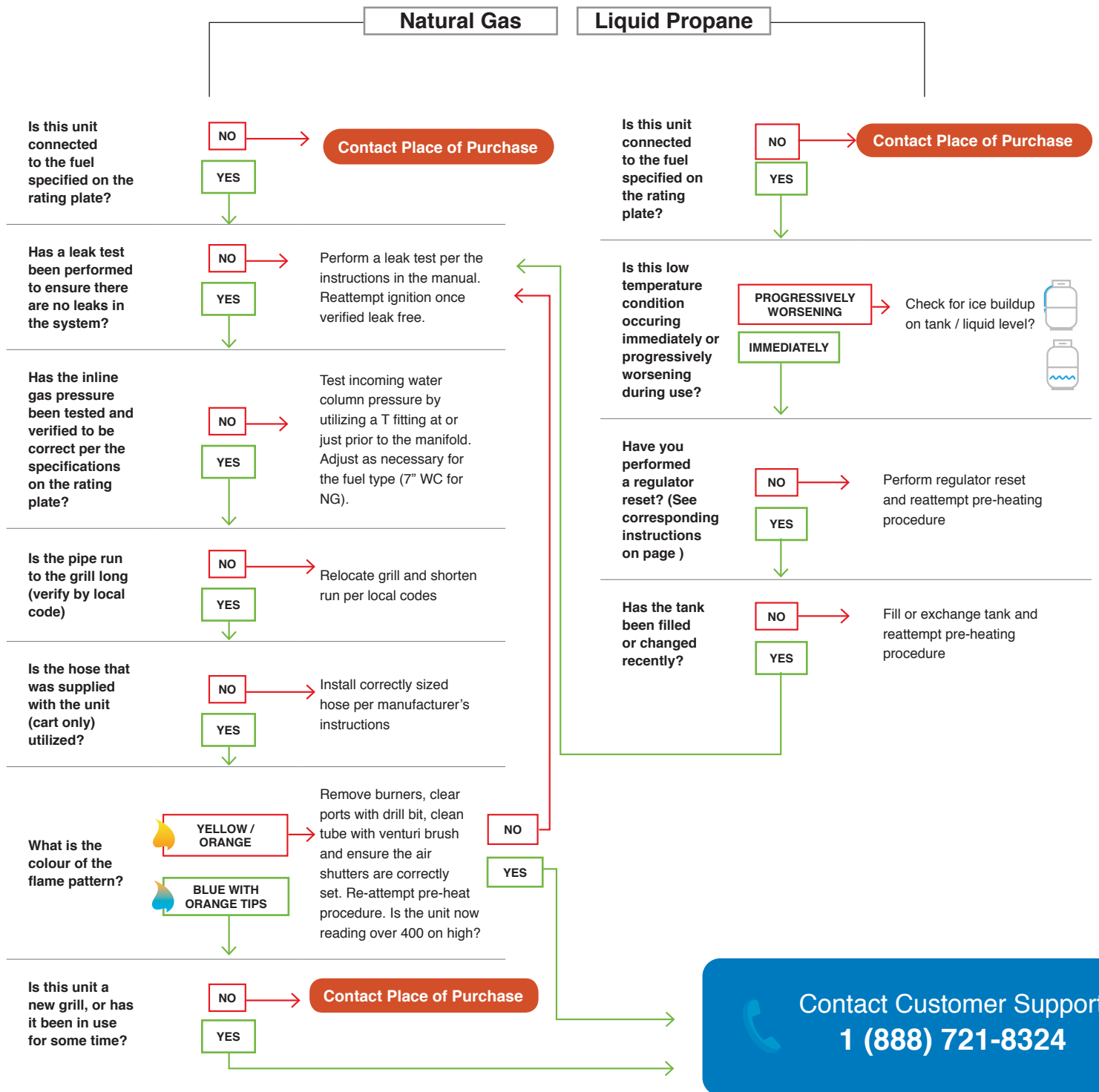
TESTING FOR TEMPERATURE



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TROUBLESHOOTING / LOW HEAT

What fuel type is this grill connected to?



BURNER AND FLAME IRREGULARITIES

What kind of irregularity is the burner exhibiting?

Behaviour	Steps to take
Whistling	Check to ensure the air shutters are set properly and the flame pattern looks normal per the diagram in the manual. Clean orifice with pin or correctly sized drill bit to ensure there are no burrs. If this does not fix the issue contact Customer Solutions. Ensure all burners are monitored independently to determine if this is one burner or all burners producing said noise prior to calling.
Large, bright yellow / orange flames	A bright yellow / orange flame is typically an indicator that the flame is starving for oxygen. This can be caused by several different possible scenarios, all with the ability to be remedied. Check the air shutter to ensure it's open to the correct setting. Remove the burners and inspect them for any cracks. If there are cracks contact Customer Solutions to acquire a new burner. If no cracks are present then run a venturi brush through the tubes (minimum 20" length) and clear the burner ports with a #48 drill bit. This will clear any potential blockages that may be causing the burner to starve for oxygen. If the grill is a built-in ensure that the enclosure has the correct amount of ventilation on all sides. Check to ensure grill is not running LP through an NG manifold. If the heat level is very high please also see the corresponding heat level troubleshooting section of this manual.
Blue / Sharp	A sharp and blue flame is indicative of the unit having too much oxygen being supplied to it, or of the gas supply being a little on the low side. Check the air shutter to ensure it's open to the correct setting. Test incoming water column pressure by utilizing a T fitting at or just prior to the manifold. If the heat level is very low - see the corresponding heat level troubleshooting section of this manual.
Undersized Yellow / Orange	A small yellow flame is likely a result of the burners needing to be cleaned / having a blockage. Remove the burners and run a venturi brush through the tubes (minimum 20" length) and clear the burner ports with a #48 drill bit. Check the air shutter to ensure it's open to the correct setting. Test incoming water column pressure by utilizing a T fitting at or just prior to the manifold. If the heat level is very high or very low - see the corresponding heat level troubleshooting section of this manual. LP ONLY - liquid level of propane may be getting low, or it may be too cold outside (-40) Switching tanks will remedy for low liquid level.
Oversized Blue	Burners with large blue flames, especially ones that seem erratic or are accompanied by extremely high heat, are a result of high fuel pressure. Test incoming water column pressure by utilizing a T fitting at or just prior to the manifold. Adjust pressure where applicable. If the heat level is very high also see the high heat level troubleshooting section of this manual.
Gurgling/Roaring (Tube burners)	Attempt to close the air shutter slightly to see if it corrects the issue. Factory air shutter settings can be found in the maintenance section of the grill manual. It also could be caused by a blockage in the burner tube, usually spider or insect related. Remove the burner and run a venturi brush through the tube. If this does not correct the issue, please contact Customer Solutions.

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BURNER AND FLAME IRREGULARITIES

Behaviour	Steps to take
Roaring (Infrared)	A roar in the infra red is generally caused by a blockage in the burner tube, usually spider or insect related. Remove the burner and run a venturi brush through the tube of the infra red. Also inspect the burner tiles for cracks, especially if the roaring sound is followed by a flame extinction pop.
Inconsistent Height	Inconsistent flame height is usually as a result of a partial burner blockage, it's able to maintain combustion but is struggling. This behaviour could also be coupled with partial burner port outages. Remove the burners and run a venturi brush through the tubes (minimum 20" length) and clear the burner ports with a correctly sized drill bit. Low gas pressure could also affect this but would usually need to be coupled with an incorrectly set air shutter in order to replicate the inconsistency (unlikely).
Lifting / Fluttering	Check the air shutter to ensure it's open to the correct setting - if the shutter is wide open then flames will lift away. NG Only - Test incoming water column pressure by utilizing a T fitting at or just prior to the manifold. Your supplier will set the gas pressure at 7" WC (NG) or 11" WC (LP). If a unit is supplied with higher pressure than required, it will change the flame characteristics and can cause the flame to lift off the burner. The installer that finds the gas to the grill to be at higher pressure than required will need to install an appliance regulator upstream of the appliance (not supplied).
Partial Burner Flame	Partial burner flame is usually a result of a partial burner blockage (likely due to insects). The burner is just barely able to sustain combustion due to the severe lack of gas mixing with the oxygen. Remove the burners and run a venturi brush through the tubes (minimum 20" length) and clear the burner ports with a correctly sized drill bit. Having the drip pan not properly engaged (allowing the burners to get far too much secondary air) can contribute to a similar behaviour but the flame will be more fluttery or inconsistently partial.
Red / Pink Flames	If the grill is located close to a body of salt water, the salt content in the air may cause the flames to appear red or pink. This is a naturally occurring phenomenon and cannot be changed unless the grill location is changed.

ELECTRICAL TROUBLESHOOTING / NO POWER

FOR FIRST GENERATION PRO GRILLS

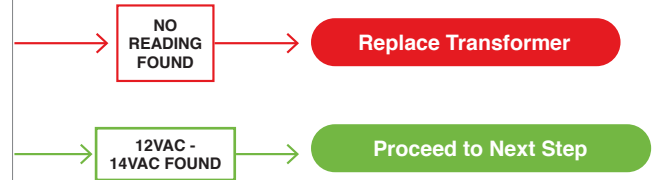
The only components that can completely prevent power from being distributed to the entire unit are the Transformer, Fuse, and Power Control Board

Step 1: Testing the Transformer

- I. Disconnect the 2 quick connections between the transformer's black wire and the red and black wires of the fuse holder.



- II. Set multi-meter to check AC volts. Place prongs into connections of transformer. Verify readings

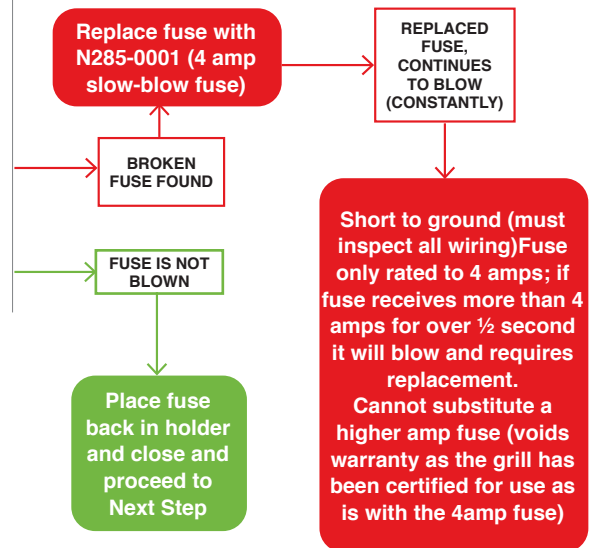
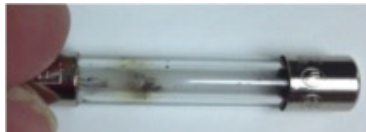


Step 2: Verify Fuse Operation

- I. Open the fuse connection by pushing each end in simultaneously and turning them away from one another



- II. Take out the fuse and examine it. If the fuse has blown, it will look like this:

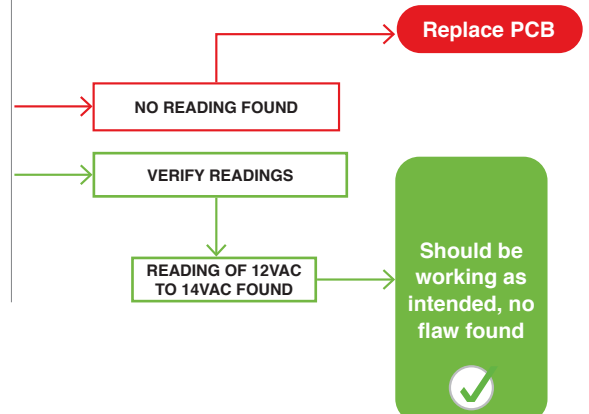


Step 3: Testing the Power Control Board

- I. Set multi-meter to verify AC volts. Place the multi-meter prongs onto the connections on the left side of the control board @ the first 2 connections labeled AC Input



- II. One prong on positive (+) and one prong on negative (-). Be sure not to touch both terminals with 1 prong as this will result in a power surge and blow the fuse



ELECTRICAL TROUBLESHOOTING / IGNITION DIFFICULTIES

FOR FIRST GENERATION PRO GRILLS

Steps to take - No spark at rear, side or smoker burner.

Step 1: Testing the Ignition Module

I. Set Multimeter to check DC voltage

II. Disconnect the leads from the red and black wires leading from the igniter module



III. Place red prong into red wire lead, place black prong into black wire lead

IV. Depress Igniter Switch

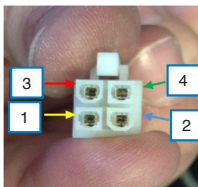
READING IS 1.5VDC - PROCEED TO CHECKING IGNITER MODULE, GROUND WIRE AND ELECTRODES FOR LOOSE CONNECTIONS, SHORTS OR PHYSICAL DAMAGE

READING IS OTHER THAN 1.5VDC, ISSUE LIES WITH IGNITION SWITCH, IGNITION WIRE HARNESS OR PCB FAULT

Step 2: Testing the Igniter Switch

I. Set Multimeter to check continuity (Ohms)

II. Disconnect the 4 wire igniter switch connection from the PCB (far right 4 prong connector)



PIN1: → Switch LED (+)
 PIN2: → Switch LED (-)
 PIN3: → Light / Igniter SW
 PIN4: → Light / Igniter SV

III. To check the igniter on switch: Place black multi-meter prong into pin 3, and the red prong into pin 4

To check whether current flows through the switch: Place black multi-meter prong into pin 3, and the red prong into pin 4

BLUE LIGHT ON SWITCH TURNS ON - THE CIRCUIT IS FINE

BLUE LIGHT ON SWITCH DOES NOT TURN ON - HARNESS OR SWITCH IS FAULTY

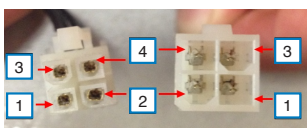
IF YOU HEAR A BEEP, YOUR POWER CIRCUIT IS WORKING CORRECTLY FOR THE IGNITER SWITCH

IF NO BEEP IS HEARD, THE IGNITER SWITCH WIRE INTERCONNECT N750-0029 REQUIRES REPLACING, OR THE LIGHTS SWITCH HARNESS N660-0004-SER (REQUIRES REMOVAL OF THE CONTROL PANEL. INSTRUCTIONS CAN BE ACQUIRED BY CONTACTING CUSTOMER SOLUTIONS)

Step 3: Testing the Igniter Switch Wire Interconnect

I. Set Multimeter to check continuity (Ohms)

II. Disconnect the igniter switch harness from the igniter switch (leaving the igniter switch harness in the left side of the control panel) & using the 4 wire Igniter Switch that was disconnected from the PCB you will now need to verify continuity on all 4 wires:



Set multi-meter to Ohms & place 1 prong into PIN 1 of the wire disconnected from the PCB and the other prong into PIN 1 of the wire disconnected from the switch. Repeat with corresponding PINs:

PIN1: → PIN1
 PIN2: → PIN2
 PIN3: → PIN3
 PIN4: → PIN4

IF YOU HEAR A BEEP, THEN YOUR POWER CIRCUIT IS WORKING CORRECTLY FOR THE IGNITER SWITCH WIRE INTERCONNECT

IF NO BEEP IS HEARD, THE IGNITER SWITCH WIRE INTERCONNECT N750-0029 REQUIRES REPLACING

Continued on next page...

ELECTRICAL TROUBLESHOOTING / IGNITION DIFFICULTIES

FOR FIRST GENERATION PRO GRILLS

Step 4: Igniter Switch Harness Wiring Configuration

I. Remove switch from control panel and disconnect all wires - Please note if the wires are all black and appear to be soldered you can move on to step 5

II. Verify that the igniter switch wire harness is correctly connected and all connections are secure per the diagram below - More details to the right. Once verified please move on to step 5



NC - no wires should be attached to this prong (unlabelled)
NO - the black wire with the black end should be attached to this prong (#3)
C - the red wire with the black end should be attached to this prong (#4)
the red wire with the yellow end (#1) and the black wire with the yellow end (#2) should be attached to the prongs on the outer edges

Step 5: Testing the ignition switch harness wiring

I. Set Multimeter to check continuity (Ohms)

II. Verify that the igniter switch wire harness is correctly connected and all connections are secure per the diagram below - More details to the right. Once verified please move on to step 5

Place red prong into pin 1 of the end that was disconnected from the light switch wire interconnect. Place black prong into Pin 2 of the end that was disconnected from the light switch wire interconnect

To check whether current flows through the switch - Place the black multi-meter prong into PIN 3 of the end that was disconnected from the igniter switch wire interconnect - Place the red multi-meter prong into PIN 4 of the end that was disconnected from the igniter switch wire interconnect Push igniter switch button in

IF THE BLUE LIGHT ON THE SWITCH TURNS ON, THE CIRCUIT IS FINE.

IF THE BLUE LIGHT ON THE SWITCH DOES NOT TURN ON, EITHER THE HARNESS OR THE SWITCH IS FAULTY

IF YOU HEAR A BEEP, THEN YOUR POWER CIRCUIT IS WORKING CORRECTLY FOR THE IGNITER SWITCH

IF NO BEEP IS HEARD, THE IGNITER SWITCH HARNESS N660-0004-SER REQUIRES REPLACEMENT

Step 6: What's Next?

I. Set Multimeter to check continuity (Ohms)

Where all other options have been , and the testing comes back positive that the N660-0004-SER: Igniter Switch Wire Harness and the N750-0059: Igniter Switch Harness have been verified and operational the issue lies with the Igniter Module N357-0019 and the module will need to be replaced.

ELECTRICAL TROUBLESHOOTING / LIGHTING DIFFICULTIES

FOR FIRST GENERATION PRO GRILLS

Ignition Working - All Lights Not Working Steps to take when the complaint is that lights on the grill are not working.

Replacing the Control Panel LED Strip

I. Disconnect the two wire panel LED connection from the PCB (2nd connection from left)

II. Disconnect the igniter switch harness from the switch wiring



III. Feed that wire through the unit, ensuring you record or remember how it was fed as you'll need to re-feed it through the unit once you've completed the swap.

IV. Remove knobs and bezels from the control panel

V. Gently remove the inoperable LED strip using pliers and a flat screwdriver

VI. Insert the new LED lights from the replacement harness through the hole next to each valve stem.

VII. Install a N160-0030 clip over each bulb and gently press to the control panel. We recommend a 3/8 socket to drive the clips down with even pressure

Please note on cart models this will require removal of the control panel

Replacing the Cabinet Lights - Cabinet lights are inoperable (either one or both)

I. Determine which port the inoperable cabinet light is plugged into.



II. Disconnect the appropriate cabinet light from the PCB

III. Unscrew the cabinet light(s) from the cabinet heat shield



IV. Gently remove the inoperable cabinet light from the unit, ensuring you record or remember how it was fed as you'll need to feed the new light through.

V. Gently remove the inoperable LED strip using pliers and a flat screwdriver

VI. Mount new cabinet light to the cabinet heat shield using the removed hardware, feed wires along interior flange as mentioned above

VII. Clip wires into wire clip and connect the wires into the PCB as indicated in the first photo

Replacing the Halogen Lights

I. Hood lights are inoperable – 1, 2 or 3 hood lights (depending on model). You must determine if only the bulb requires replacement, or if there is an issue with the housing wire.

II. Set Multimeter to check continuity (Ohms)

III. Unplug two (+) and (-) connections of the halogen light wires from the PCB



IV. Place 1 multi-meter prong into one orange lead and the other prong into the other orange lead need to feed the new light through.

If you hear a beep, then that Light you are testing is fine.

If you do not hear a beep, replace light housing N402-0014 or N402-0015

The only components that can completely prevent power from being distributed to the entire unit are the Transformer, Fuse, and Power Control Board

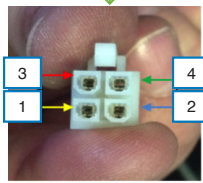
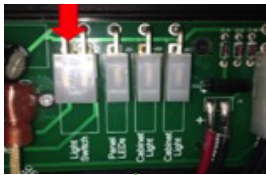
ELECTRICAL TROUBLESHOOTING / LIGHTING DIFFICULTIES

Ignition Working - All Lights Not Working Steps to take when the complaint is that lights on the grill are not working.

Step 1: Testing the light switch

I. Set Multimeter to check continuity (Ohms)

II. Disconnect the 4 wire Light Switch connection from the PCB (1st connection from left) - details below



PIN 1: Yellow Arrow - Switch LED (+)
 PIN 2: Blue Arrow - Switch LED (-)
 PIN 3: Red Arrow - Light/Igniter SW
 PIN 4: Green Arrow - Light/Igniter SW

To check the LED light on switch



Place the black multi-meter prong into PIN 1 of the end that was disconnected from the pcb. Place the red multi-meter prong into PIN 2 of the end that was disconnected from the PCB



Blue light on switch turns on, circuit is fine



Blue light on switch does not turn on, either the harness or the switch is faulty

To check whether current flows through the switch



Place the black multi-meter prong into PIN 3 of the end that was disconnected from the pcb. Place the red multi-meter prong into PIN 4 of the end that was disconnected from the PCB



If you hear a beep, then your power circuit is working correctly for the light switch



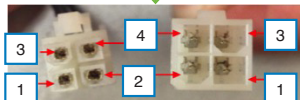
If no beep is heard, either the light switch wire interconnect N750-0028 requires replacing, or the light switch harness N660-0003-SER

Please note on cart models this will require removal of the control panel

Step 2: Testing the Light Switch Wire Interconnect

I. Set Multimeter to check continuity (Ohms)

II. Disconnect the light switch harness from the light switch wire interconnect (leaving the light switch harness in the right side of the control panel) & using the the 4 wire Light Switch that was disconnected from the PCB you will now need to verify continuity on all 4 wires



Set multi-meter to Ohms & place 1 prong into PIN 1 of the wire disconnected from the PCB and the other prong into PIN 1 of the wire disconnected from the switch. Repeat with corresponding PINs (Pin 2 and Pin 2, Pin 3 and Pin 3, Pin 4 and Pin 4)



If you hear a beep, then your power circuit is working correctly for the light switch wire interconnect



If no beep is heard, the Light Switch Wire Interconnect N750-0028 requires replacing

Please note on cart models this will require removal of the control panel

ELECTRICAL TROUBLESHOOTING / LIGHTING DIFFICULTIES

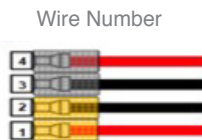
FOR FIRST GENERATION PRO GRILLS

Ignition Working - All Lights Not Working Steps to take when the complaint is that lights on the grill are not working.

Step 3: Light Switch Harness Wiring Configuration

I. Remove switch from control panel and disconnect all wires - Please note if the wires are all black and appear to be soldered you can move on to step 4

II. Verify that the igniter switch wire harness is correctly connected and all connections are secure per the diagram below - More details to the right. Once verified please move on to step 4



NC - No wires should be attached to this prong (unlabelled)

NO - The Black wire with the black end should be attached to this prong

C - The red wire with the Black end should be attached to this prong (#4)

The red wire with the yellow end (#1) and the black wire with the yellow end (#2) should be attached to the prongs on the outer edges

Step 4: Testing the N660-0003-SER Light Switch Harness

I. Set Multimeter to check continuity (Ohms)

II. Disconnect the igniter switch harness from the switch wiring



Place red prong into pin 2 of the end that was disconnected from the light switch wire interconnect. Place black prong into Pin 1 of the end that was disconnected from the light switch wire interconnect

Blue light on switch turns on, circuit is fine

Blue light on switch turns on, circuit is fine

To check whether current flows through the switch

Place the black multi-meter prong into PIN 3 of the end that was disconnected from the igniter switch wire interconnect - Place the red multi-meter prong into PIN 4 of the end that was disconnected from the igniter switch wire interconnect. Push igniter switch button in

If you hear a beep, then your power circuit is working correctly for the Igniter Switch

If no beep is heard, the Igniter Switch Harness N660-0004-SER requires replacement

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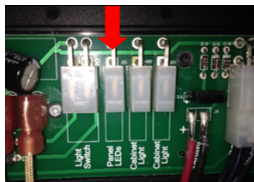
ELECTRICAL TROUBLESHOOTING / LIGHTING DIFFICULTIES

-1 / -2 REPLACING LIGHTS

Replacing the control panel LED strip

I. Please note on cart models this will require removal of the control panel

II. Disconnect the two wire panel LED connection from the PCB (2nd connection from left)



III. Feed that wire through the unit, ensuring you record or remember how it was fed as you'll need to re-feed it through the unit once you've completed the swap.

IV. Remove knobs and bezels from the control panel

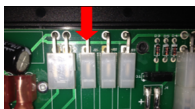
V. Insert the new LED lights from the replacement harness through the hole next to each valve stem.

VI. Install a N160-0030 clip over each bulb and gently press to the control panel. We recommend a 3/8 socket to drive the clips down with even pressure

Replacing the control panel LED strip

I. Please note on cart models this will require removal of the control panel

II. Disconnect the two wire panel LED connection from the PCB (2nd connection from left)



III. Feed that wire through the unit, ensuring you record or remember how it was fed as you'll need to re-feed it through the unit once you've completed the swap.

IV. Remove knobs and bezels from the control panel

V. Insert the new LED lights from the replacement harness through the hole next to each valve stem.

VI. Install a N160-0030 clip over each bulb and gently press to the control panel. We recommend a 3/8 socket to drive the clips down with even pressure

Replacing the cabinet lights

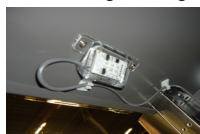
I. Determine which port the inoperable cabinet light is plugged into.

II. Disconnect the appropriate cabinet light from the PCB



III. Unscrew the cabinet light(s) from the cabinet heat shield

IV. Gently remove the inoperable cabinet light from the unit, ensuring you record or remember how it was fed as you'll need to feed the new light through



V. Mount new cabinet light to the cabinet heat shield using the removed hardware, feed wires along interior flange as mentioned above

VI. Clip wires into wire clip and connect the wires into the PCB as indicated in the first photo

Replacing the halogen lights

I. Hood lights are inoperable – 1, 2 or 3 hood lights (depending on model). You must determine if only the bulb requires replacement, or if there is an issue with the housing wire.

II. Set Multimeter to check continuity (Ohms)

III. Unplug two (+) and (-) connections of the halogen light wires from the PCB



IV. Place 1 multi-meter prong into one orange lead and the other prong into the other orange lead (Repeat this process with all 4 or 6 orange leads, using the process of elimination to determine where the fault lies)

V. If you hear a beep, then that Light you are testing is fine.

VI. If you do not hear a beep, replace light housing N402-0014 or N402-0015

ELECTRICAL TROUBLESHOOTING / POWER & LIGHTING

-1 / -2 All lights not working - ignition not working

Is the BBQ Plugged into a GFI Outlet



Plug in BBQ to GFI outlet and activate the light switch and igniter switch. If still not working move to next step

Is there power at the GFI Outlet?



Has the GFI outlet breaker been tripped?



Push light switch and igniter switch, if they are still not working go to next step.

Is the transformer (black cube component- located on the inside the cart at the back left) plugged into the black receptacle (located on the bbq cart on the back panel- lower left side)?



Plug transformer into outlet and try the light switch and igniter switch- If still not working move to next step.

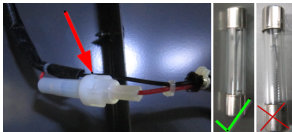
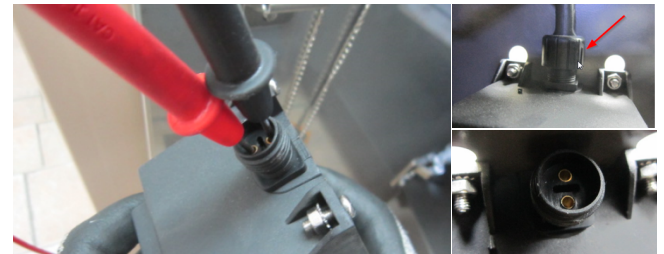
Place your multimeter leads into the 2 pin connection (shown below). If no A/C voltage is present then replace the transformer. If voltage is present (12v and higher) proceed to the next step. Also you can do a quick check with touching the transformer and seeing if it's warm. If you can touch it and feel warmth you know there is powering being received at the transformer. If the transformer is too hot to the touch then it will need to be replaced.

Check the 4 amp fuse by removing it from the white 2 piece housing (push cap down and turn to remove fuse). Check the filament on the inside of the fuse by inspecting it or checking the fuse for continuity with a multimeter. Is the filament broken and black?

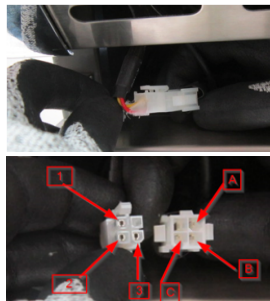


Check transformer voltage by unscrewing the connection above the transformer.

Replace fuse with a 4 amp tube fuse and try both switches. If it's not operating the lights or igniter move to next step

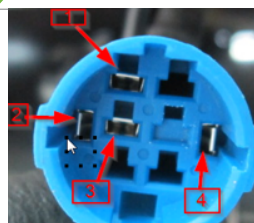


Disconnect the power harness 4 pin connector (located behind the control panel on the left hand side). Locate pin B and pin C and check voltage by inserting the test leads into each pin (see picture below). Are you seeing 12V and above?



Replace fuse harness and try both switches again. To remove the fuse harness, remove the drip pan. Look for the clips on the inside of the cabinet. Remove the harness from the clips. Unscrew the connection at the top of the transformer. For re-installation, follow the removal instructions in the reverse order. If nothing is working go to step 7. If lights are working and no igniter or vise versa- please see the correct section for further diagnosing..

Disconnect the control panel harness- igniter switch connection (located behind the igniter switch under the control panel). On igniter switch harness (blue), locate pin 3 and pin 4. Are you seeing voltage (12V and higher)?



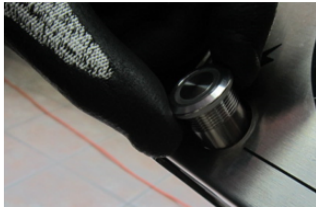
If no voltage is present- this means there is an issue with the harness and requires you to replace the control panel harness. Once completed try both switches- If nothing works move to next step.

Proceed to Next Step / Page

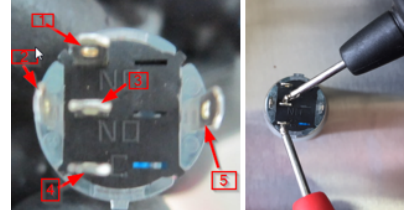
ELECTRICAL TROUBLESHOOTING / POWER & LIGHTING

- 1 - 2 All lights not working - ignition not working - Cont.

Disconnect the igniter Switch Harness located on the back of the switch and remove the switch from the control panel by loosening a nut on the back of the switch (located underneath the control panel). If you can't access the back side of the switch from the underside of the control panel, please see Control Panel Removal section.



Check the push down button on the switch and make sure it's moving smoothly. Locate pin 2 and pin 5 (switch LED circuit) and with multimeter and set it to the OHM function and touch pin 2 and pin 5 (if possible). Look at the front of the switch- The blue LED should activate and turn ON. Also check pin 3 and pin 4 (Power circuit) for continuity also. Are you seeing the activated blue LED for the LED circuit on pin 2, pin 5? Are you seeing continuity between pin 3 and pin 4?



NO

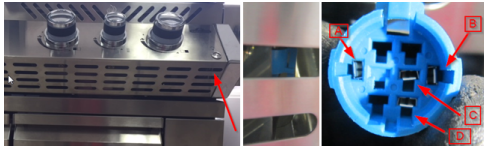
YES

YES - This means the igniter switch is functioning correctly. Reinstall the switch and harness and try both switches. If Ignition is working and the lights aren't working move to Step A. If ignition isn't functioning move to step B.

NO - This means your ignition switch has a fault and will require a replacement. Remove and replace and try both switches again for function. If no function of the ignition- move to step B, if no function of the lights, move to section A.

Step A

- I. To check the light switch circuit on the right side of the control panel, remove the drip pan. Locate the back side of the light switch. Remove the light switch harness from the back of the switch. Check pin A and pin C.



You should see approximately 12VAC across these pins. Is this the case?

YES

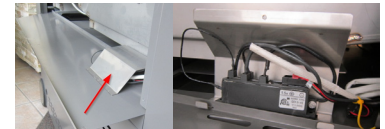
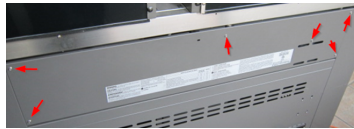
NO

If approximately 12VAC is present in the circuit- replace light switch.

If one circuit or no circuit shows voltage present this requires the control panel harness to be replaced.

Step B

- I. Check the power going to the ignition block module. On the back of the grill there is a back panel with six ¼ inch self tapping screws.
- II. Remove these screws and rest the back panel so it is secure. Locate the heatshield on the right side of the back panel. Rotate heatshield upward to access the ignition module.



- III. Remove the two connections (+) and (-) from the module.



- IV. Using a multimeter, check AC voltage at the two wires (1.5 volts DC if this model has a rectifier). Place the red connection of the multimeter on the red wire, and black to black. Using a multimeter, check AC voltage at the two wires (1.5 volts DC if this model has a rectifier). Place the red connection of the multimeter on the red wire, and black to black.

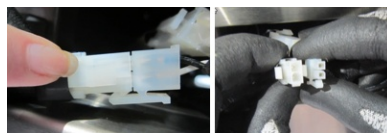
- V. Depress the ignition switch and watch for an increase in voltage. You should see approximately 12V AC (1.5V DC if this unit has a rectifier) Do you see 12V AC / 1.5V DC?



YES

NO

This means power is getting to the ignition block module and the ignitions block is faulty. Replace the ignition block module by disconnecting all connections and installing replacement.

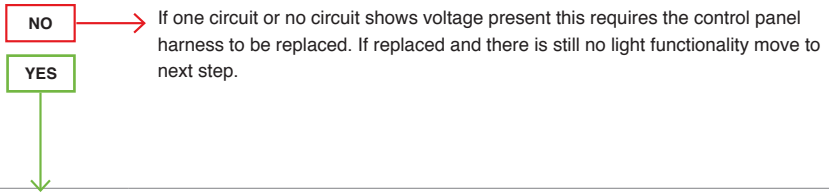


Replace the 2 pin connector wire that is located down the left side of the grill and the ignition block module. If its still not functioning then replace the control panel wire harness.

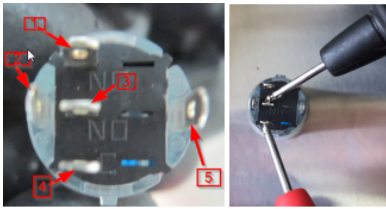
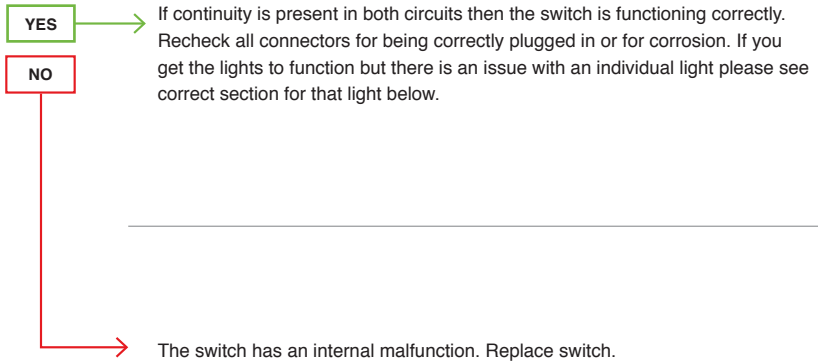
ELECTRICAL TROUBLESHOOTING / POWER & LIGHTING

- 1 - 2 Ignition working - all lights not working

To check the light switch circuit- on the right side of the control panel, remove the light switch harness from the back of the switch. Check the power for the circuit with pin 3 and pin 4. You should see 12 volts across these pins. Also check voltage across the Light switch LED circuit pin 2 and pin 5. You should see 12 volts also. Do you see voltage across both circuits?



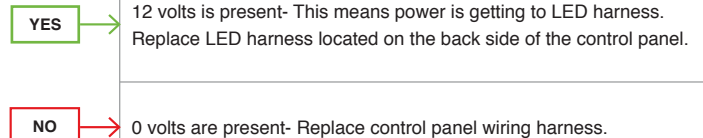
Remove the light switch from the control panel by loosening the nut on the back of the switch. It is recommended to open the cart doors and remove the drip pan for accessibility. See previous section for accompanying visuals. Once removed- the power circuit needs to be checked with a multimeter and set to continuity. Locate pin 3 and pin 4. Activate the switch by pushing it in- You should see continuity. For the Light switch LED circuit- pin 2 and pin 5, again set the multimeter to continuity. Has continuity been observed?



LED Knob Lights - All Not Working

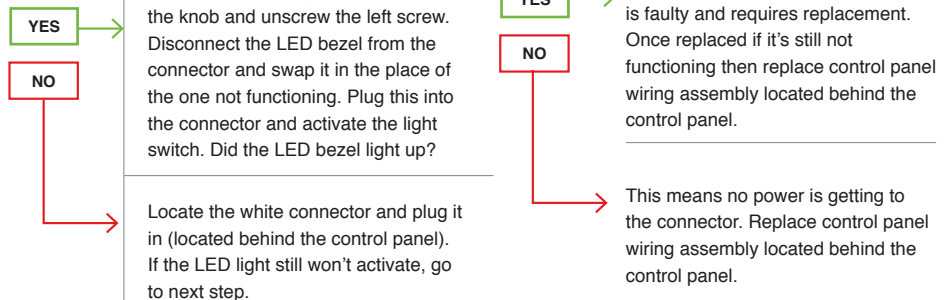
I. Ensure hood lights and cabinet lights are functioning prior to troubleshooting and inspect all connectors for any loose or corroded wires.

II. Locate the 2 pin LED harness connector (underneath the control panel on the right hand side). Disconnect the connector and check voltage on the female end with a multimeter (picture shown) where is the picture? . This should read 12VAC. This female connector will be connected to the control panel harness. Are you reading 12VAC?



LED Knob Lights Function - But One Does Not

I. Remove the knob on the LED that isn't working by pulling it off. Remove the left screw with a Philips screw driver. Remove the knob bezel and observe the back of it. Is the white connector plugged in?



Continued on next page...

ELECTRICAL TROUBLESHOOTING / POWER & LIGHTING

- 1 - 2 All lights not working - Ignition not working - Cont.

All LED Knob Lights Work - But One Does Not Turn Red When Activated (if applicable)

I. Remove the knob of the suspected fault and look on the inside of the knob. There will be a circular magnet located near the outer edge of the knob. Is this magnet in its housing?

YES

The LED bezel is faulty and needs to be replaced.

NO

Replace knob and retest by rotating the knob. If it's still not functioning then replace LED bezel.

All Other Lights Work - Cabinet Light Not Functioning

I. Ensure the cabinet light 2 pin white connector is plugged into the side of the light housing. Is this plugged in correctly?

YES

Locate the 2 pin red connector and with a multimeter check voltage across the pins. The reading should be 12VAC. Is this the case?

YES

12VAC is the reading indicates that you have power to the LED cabinet light and the light isn't functioning. Replace LED light.

NO

Plug it in and activate the light switch. If it's still not functioning move to next step.

NO

II. 0 VAC present indicates that there is a fault with the control panel harness, replace this harness.

All Lights Working - One Halogen Hood Light Not Functioning

I. First check the halogen bulb for a fault by removing the glass cover with a Philips screw driver. Remove the bulb (NOTE: wear gloves when removing this bulb - oils from your skin will cause premature failure of bulb). Inspect filament for breaks or burn marks. If a multimeter is present then do a continuity check. Are there breaks or burn marks inside the bulb / no continuity found?

YES

Bulb is faulty. Replace bulb and reactivate the light switch. If the bulb still isn't functioning move to next step.

NO

Plug it in and activate the light switch. If it's still not functioning move to next step. *Note: If the bulb looks fine and has continuity with the multimeter move to next step.*

II. Remove the back panel of the grill (pic shown) with a 1/4" in socket. Locate the 2 pin wire connector and disconnect it. With the halogen bulb installed do a continuity check across the 2 pin connector going to the halogen bulb. Do you have continuity?

NO

This means power can't flow to the halogen bulb and there is a fault in the wire or housing of the bulb. Replace halogen light housing. Once installed reactivate the light switch, if it is still not working go to next step.

YES

Locate the 2 pin connector for the halogen light that is faulty that goes along either the left side or right side of the grill. Disconnect the connector and activate the switch. The multimeter reading should be 12 volts AC. What is the reading?

12 VAC

0 VAC

Is this the left or right halogen light?

LEFT

RIGHT

Go to the front of the grill and locate a 2 pin connector either on the left side or right side of the grill head (pic shown) where is the picture? (Left side for left halogen light and right side for right halogen light). If it's the right side Halogen light see step 5) steps are currently not numbered. If it's the left side halogen then disconnect the connector and check voltage at the connector that is connected to the control panel harness. Activate the light switch; the multimeter should read 12VAC. What is the reading?

12 VAC

0 VAC

REPLACE 2 PIN CONNECTOR WIRE

REPLACE CONTROL PANEL HARNESS

Go to the front of the grill and to the right side of the control panel. Underneath is a 2 pin connector that has a wire running down the right side of the grill head. Disconnect this and check voltage at the connector that is connected to the control panel harness. Activate the light switch and observe the reading. 12VAC should be present. What is the reading?

12 VAC

0 VAC

REPLACE 2 PIN CONNECTOR WIRE

REPLACE CONTROL PANEL HARNESS

ELECTRICAL TROUBLESHOOTING / POWER & LIGHTING

- 1 - 2 lights working - Ignition not working

Lights Working - Ignition Not Working

- I. Disconnect the control panel harness from the igniter switch connection (located behind the igniter switch under the control panel). Locate pin 3 and pin 4. Are you seeing voltage (12V and higher)?

NO
YES

If no voltage is present then there is an issue with the harness and requires the control panel harness be replaced. Once completed try both switches, if still not working move to next step.

Remove the igniter switch from the control panel by loosening the nut on the back of the switch. It is recommended to open the cart doors and remove the drip pan for accessibility Please see previous section for accompanying visuals. Once removed- the power circuit needs to be checked with a multimeter and set to continuity. Locate pin 3 and pin 4. Activate the switch by pushing it in- You should see continuity. For the Light switch LED circuit- pin 2 and pin 5, again set the multimeter to continuity. Has continuity been observed?

YES NO

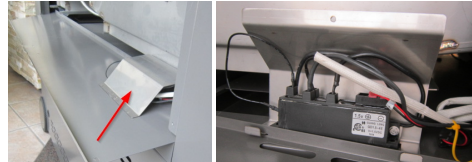
Yes - This means the igniter switch is functioning correctly. Reinstall the switch and harness and try both switches. If ignition isn't working move to next step. If ignition is working and the lights aren't working move to corresponding section (page 21).

Ignition switch has a fault and will require replacement. Remove and replace and try both switches again for function. If no function of the ignition - move to next step.

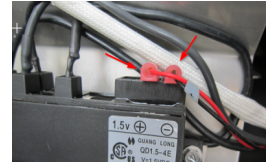
- I. Check the power going to the ignition block module. On the back of the grill there is a back panel with six 1/4" in self tapping screws.



- II. Remove these screws and rest the back panel so it is secure. Locate the heatshield on the right side of the back panel. Rotate heatshield upward.



- III. Remove the two connections (+) and (-) from the module.



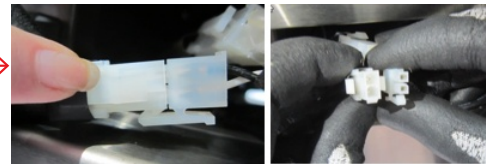
- IV. Using a multimeter, check AC voltage at the two wires (1.5 volts DC if this model has a rectifier). Place the red connection of the multimeter on the red wire, and black to black.



Depress the ignition switch and watch for an increase in voltage. You should see approximately 12V AC (1.5V DC if this unit has a rectifier) Do you see 12V AC / 1.5V DC?

YES

NO



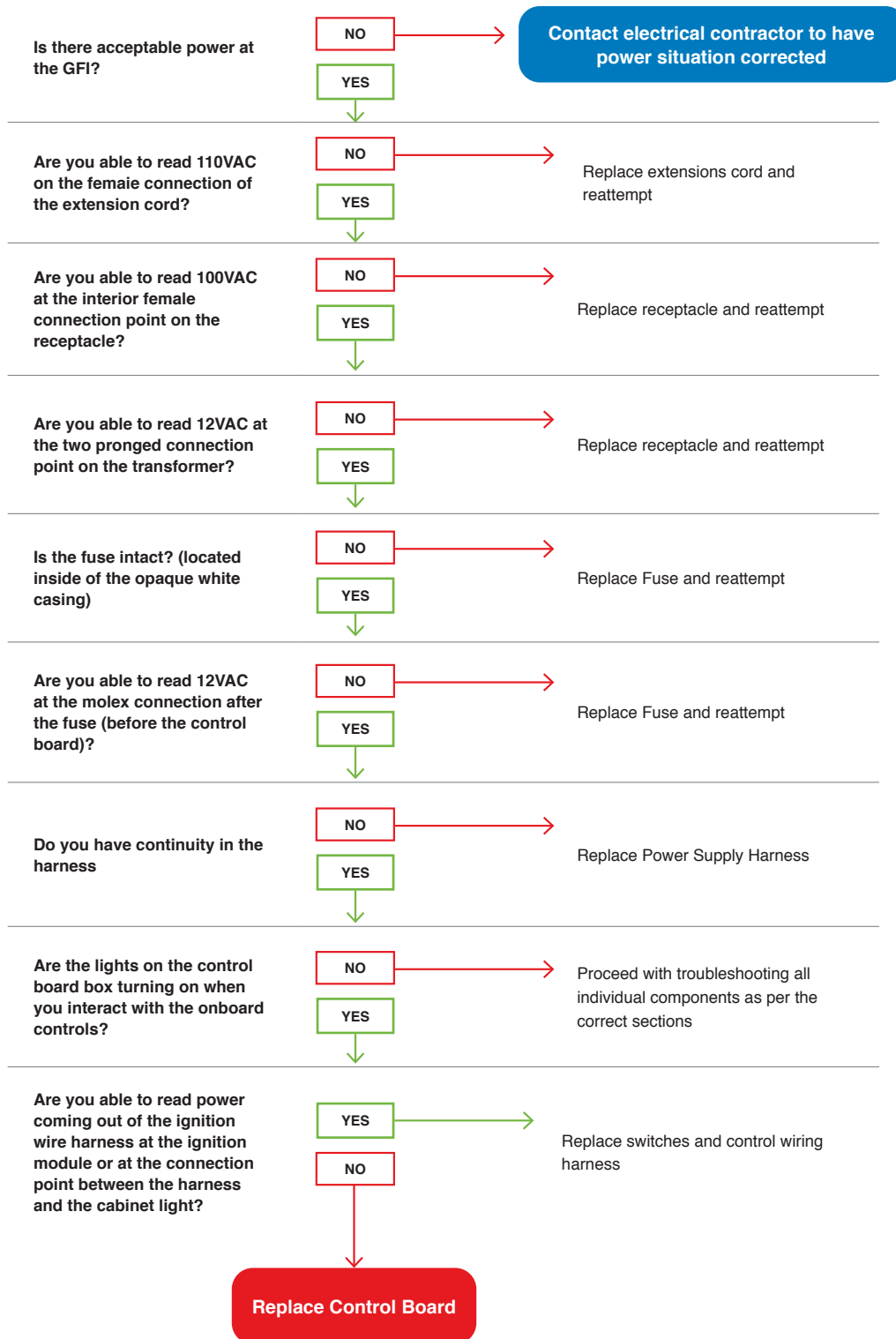
This means power is getting to the ignition block module and the ignitions block is faulty. Replace the ignition block module. To replace the ignition block, disconnect all connections and replace.

Replace the 2 pin connector wire that is located down the left side of the grill and the ignition block module. If it's still not functioning then replace the control panel wire harness.

ELECTRICAL TROUBLESHOOTING / PRO-3

POWER & PROXIMITY FUNCTIONALITY

Unit has NO Power



ELECTRICAL TROUBLESHOOTING / PRO-3

POWER & PROXIMITY FUNCTIONALITY

Proximity Functionality Issues - Always Call Napoleon Customer Solutions if the following steps are unsuccessful

Lights not turning on when the proximity sensor should be in control



Reset power and control module, and activate the proximity sensor again. Was this successful?

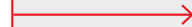
NO



Replace Proximity Sensor and reattempt use

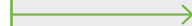
Is the power control box successfully swapping to proximity functionality?

NO



Reduce Power and Control Module

YES



Replace Proximity sensor and reattempt use

Grill will only work with manual 'Control Panel' switch to turn on and off lights



Reset power and control module, and activate the proximity sensor again. Was this successful?

NO

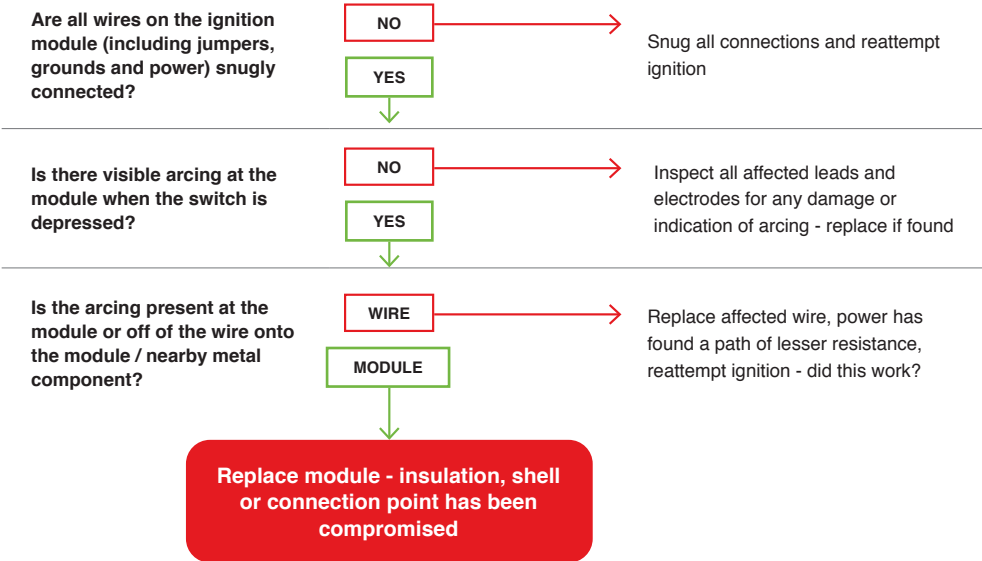


Replace Power and control module

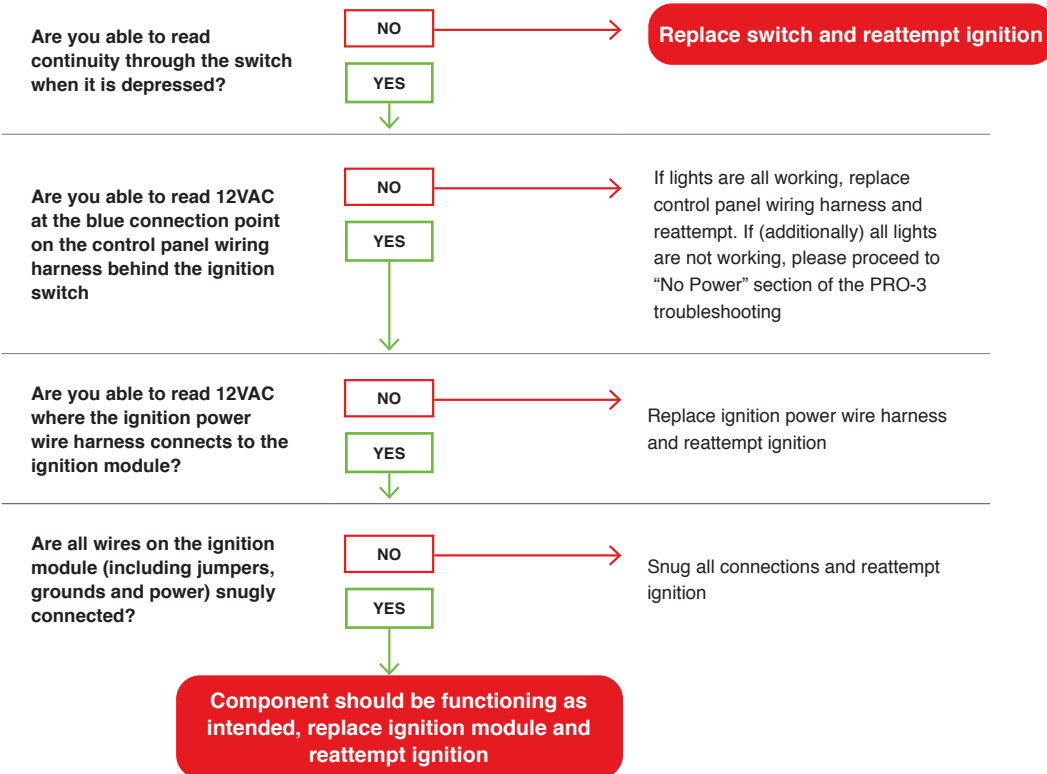
ELECTRICAL TROUBLESHOOTING / PRO-3 IGNITION

Before attempting diagnosis of the electronic ignition system, always attempt to light burner manually. If it will not light manually proceed to Ignition - traditional portion of this manual and begin with step (3) - The problem is not electrical in nature

Module is clicking when correct switch is depressed, one (or more) electrodes not generating a spark

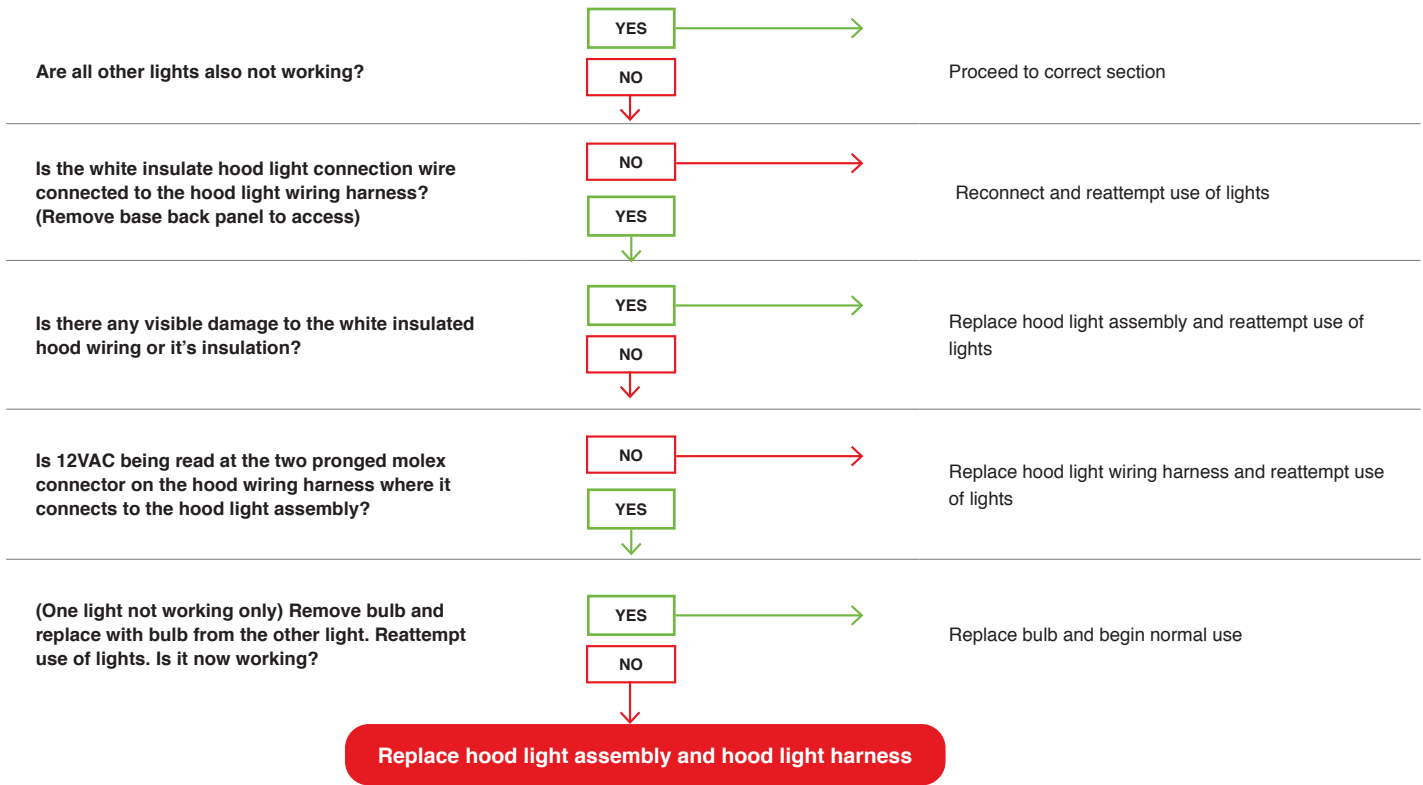


Module is not clicking when correct switch is depressed

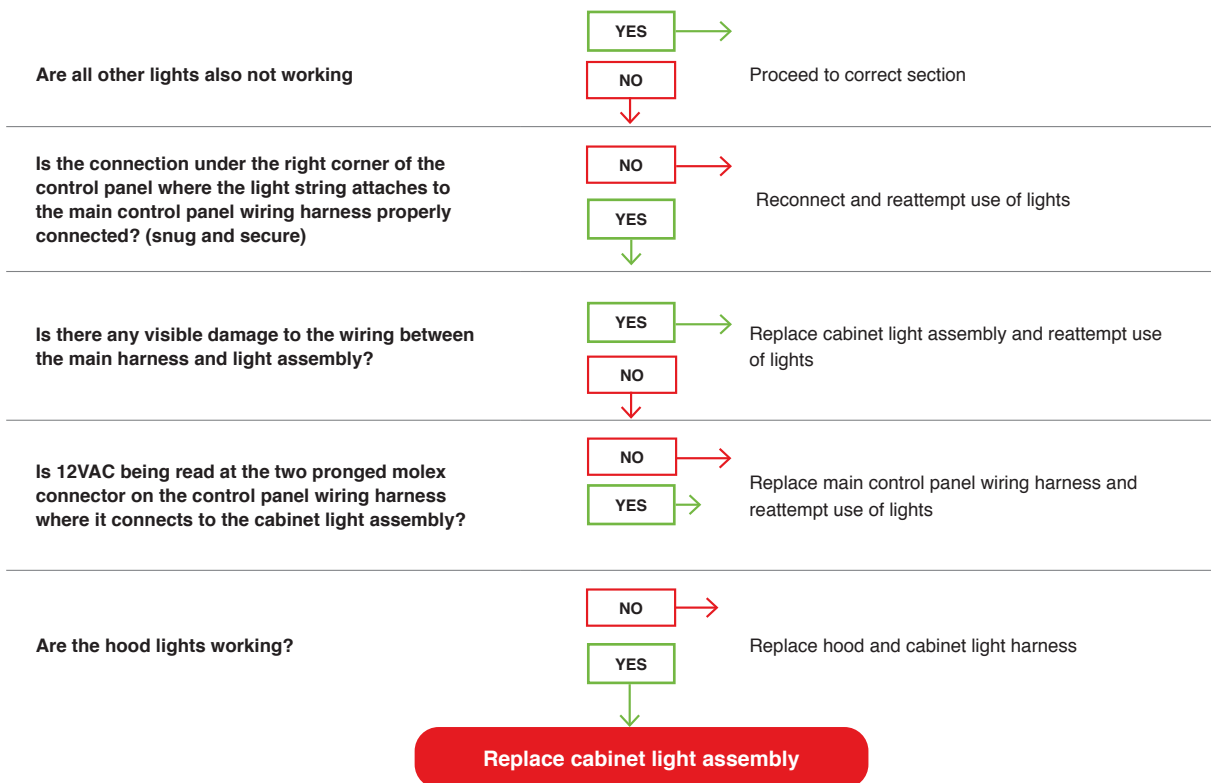


ELECTRICAL TROUBLESHOOTING / PRO-3 LIGHTS

Hood light(s) not working

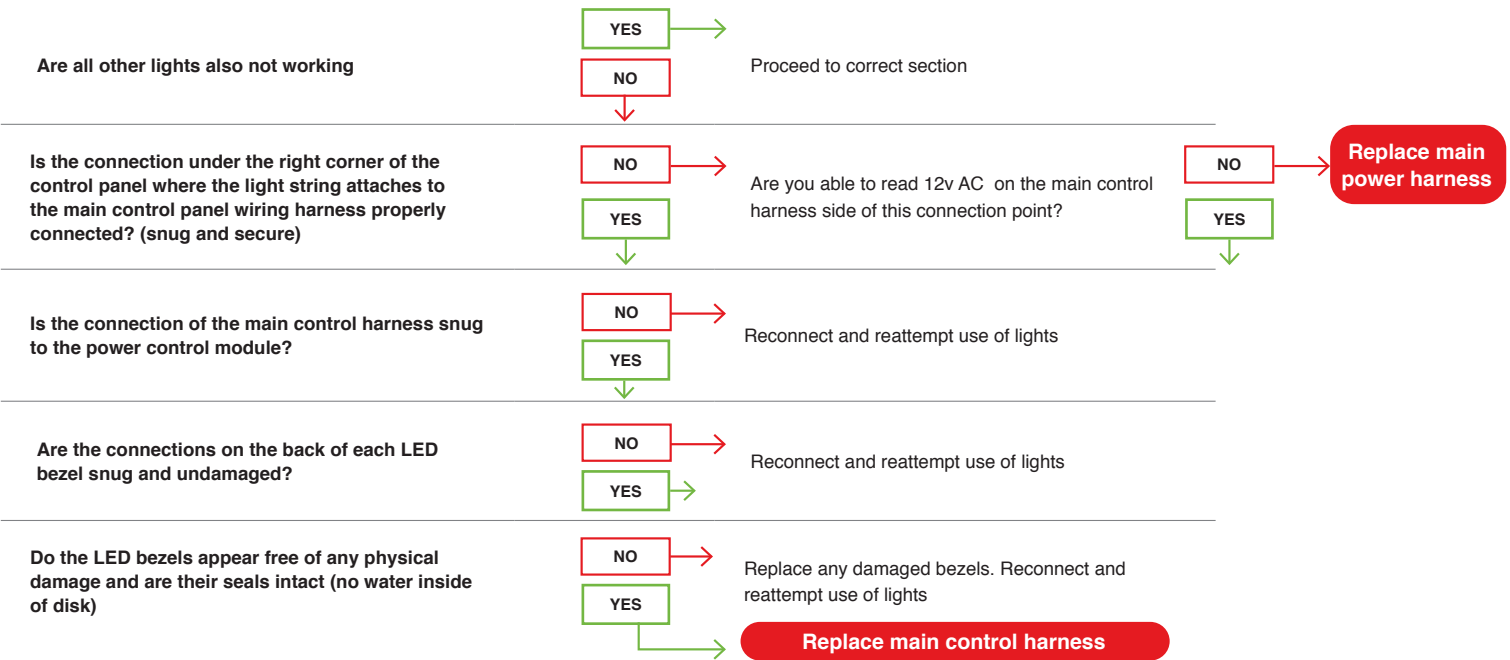


Cabinet Lights Not Working

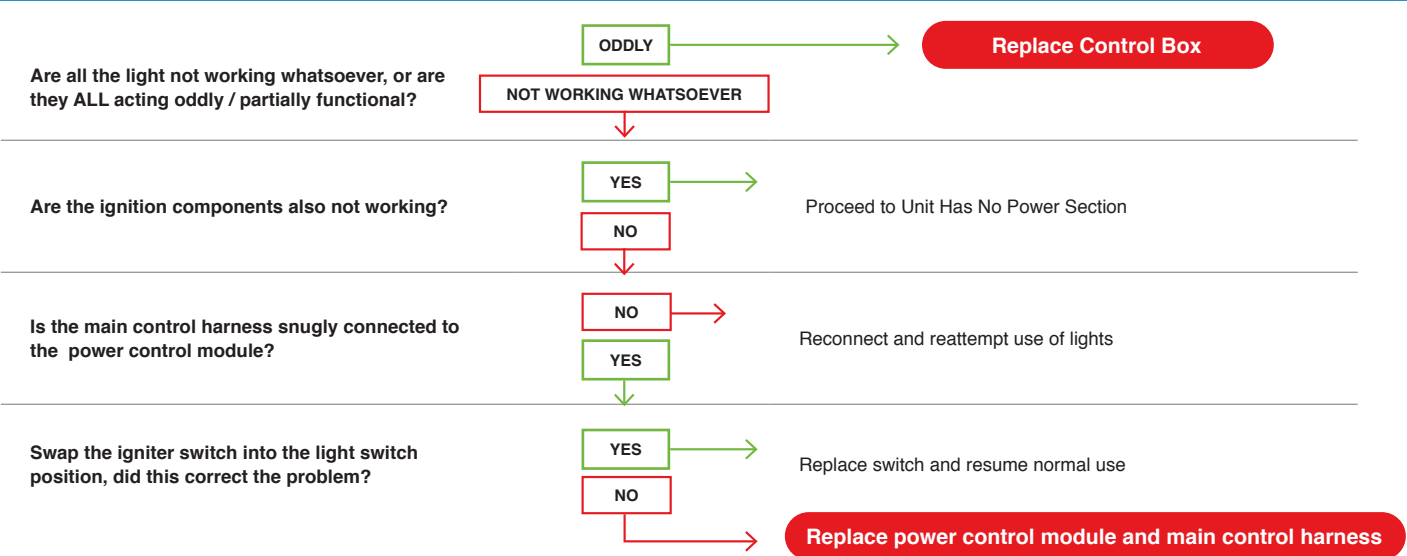


ELECTRICAL TROUBLESHOOTING / PRO-3 LIGHTS

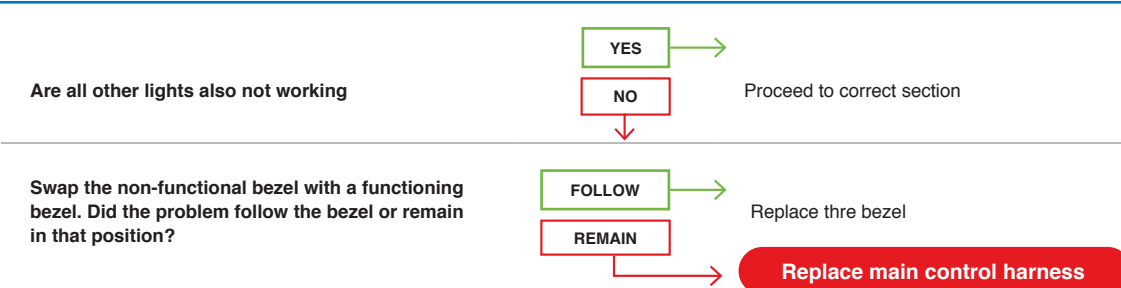
Control Panel Illumination - Not Working



All Lights Not Working

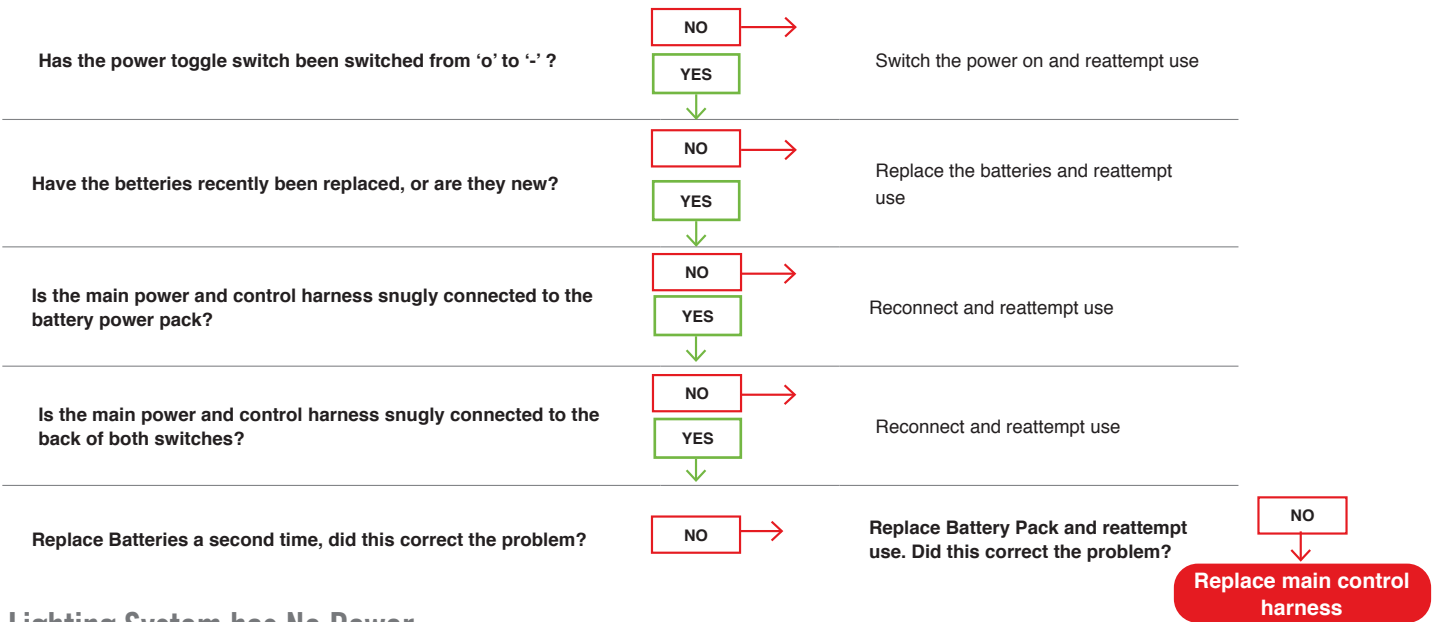


Control Panel Illumination - One Not Working

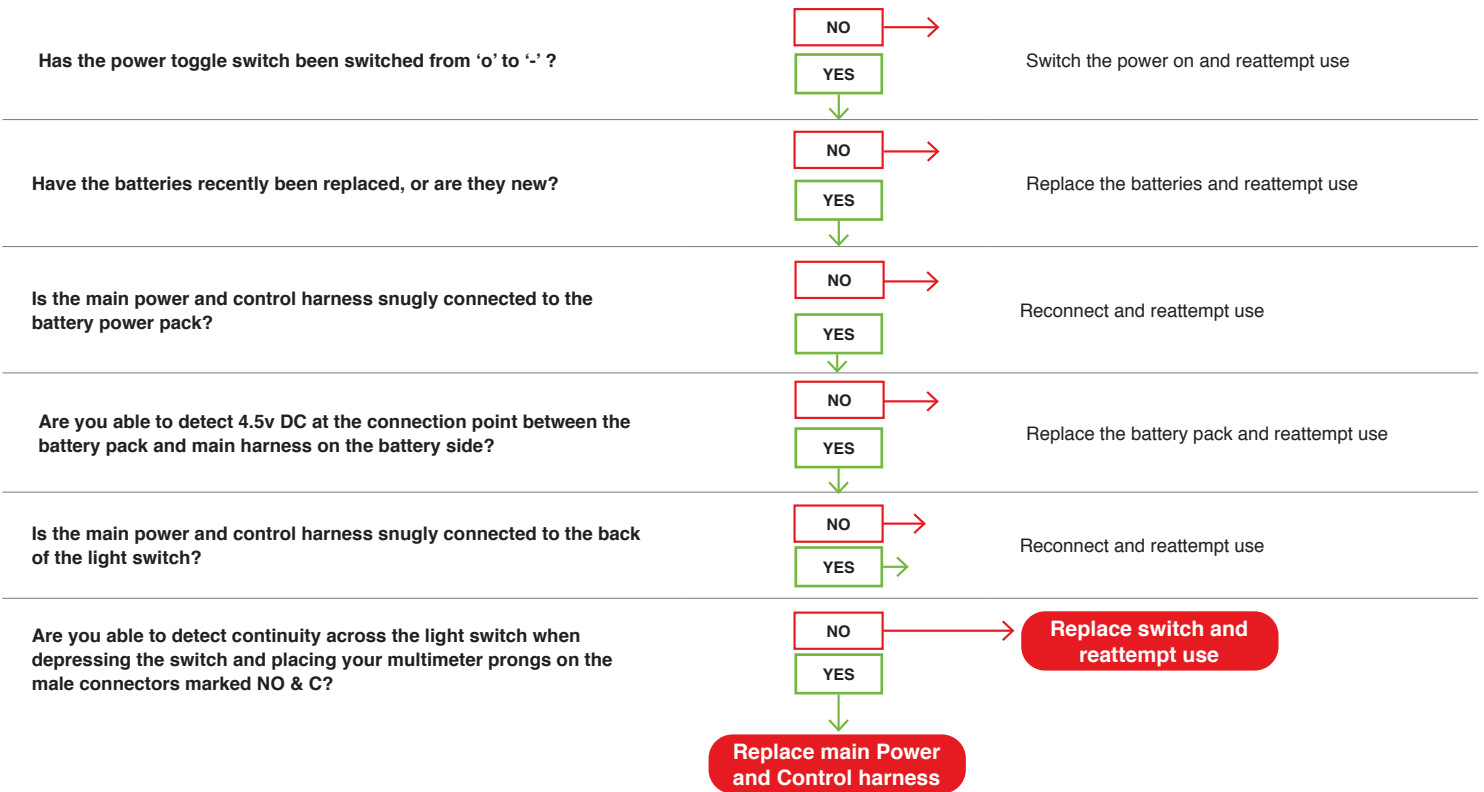


ELECTRICAL TROUBLESHOOTING / P-3 / RSE POWER / LIGHTS

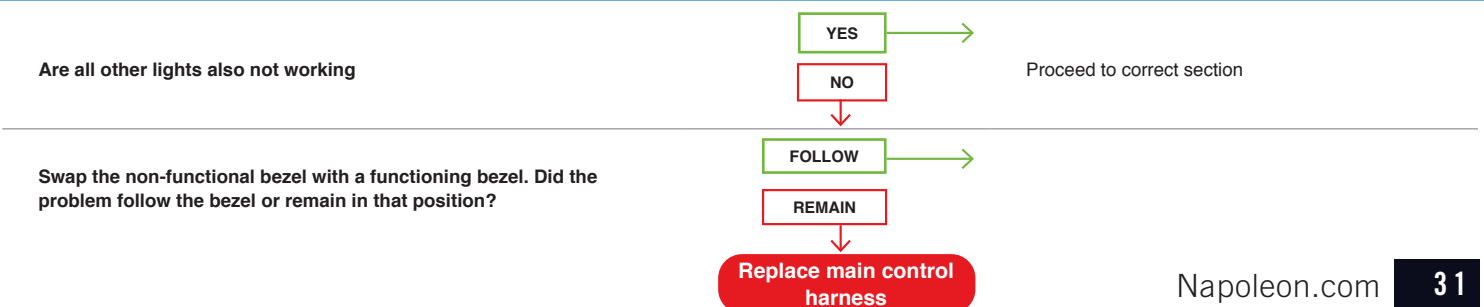
Unit has no power - Confirmed no ignition or lighting functionality



Lighting System has No Power



Control Panel Illumination - One Not Working



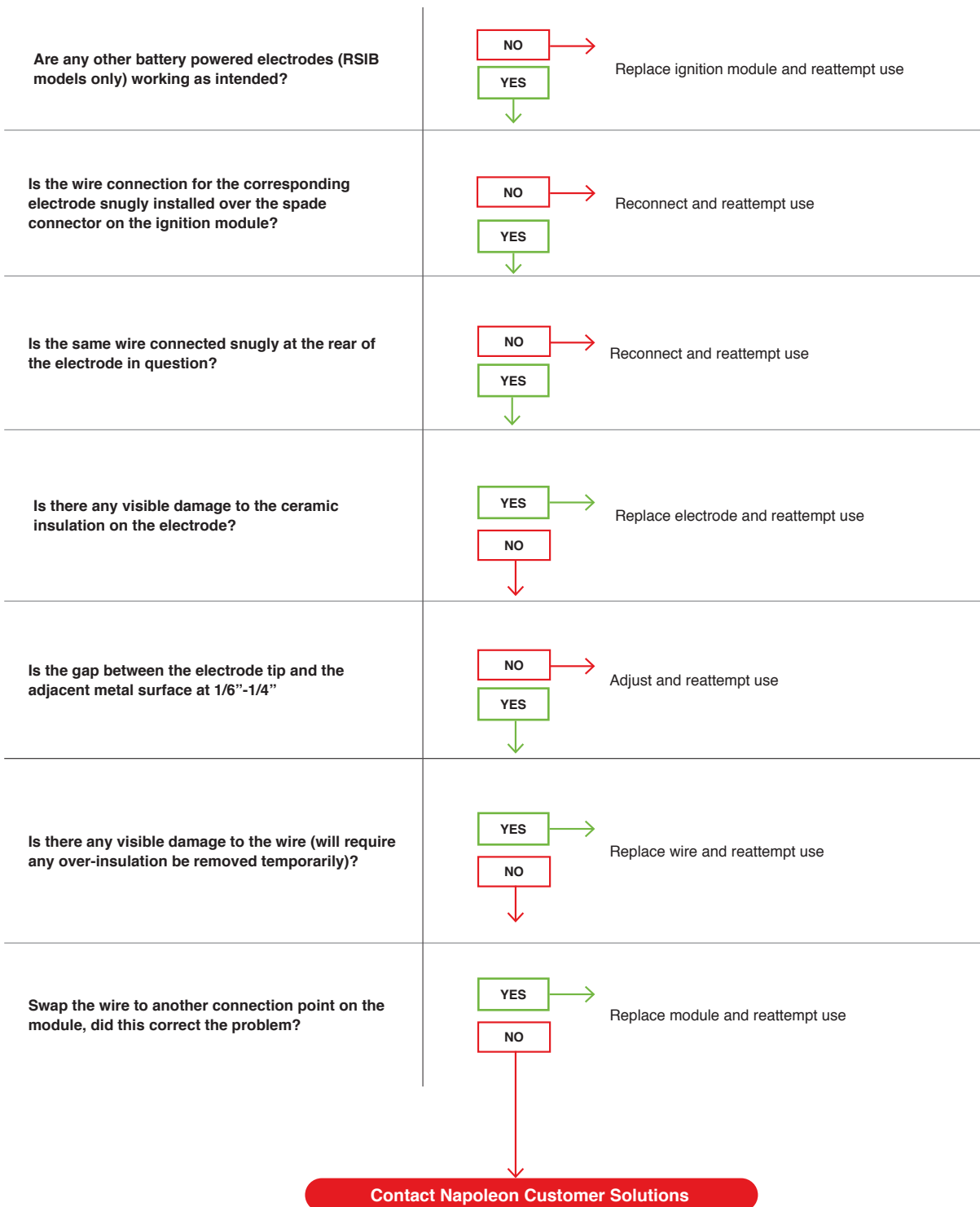
ELECTRICAL TROUBLESHOOTING / P-3 / RSE IGNITION

Ignition system has no power (No Clicking)



ELECTRICAL TROUBLESHOOTING / P-3 / RSE IGNITION

Ignition system has power, is clicking, no spark at electrode



MILLIVOLTAGE SYSTEMS AND THERMOCOUPLES

Primarily found on patio heaters, patio flame tables, outdoor fireplaces and some infrared burners.

On our grills, patio heaters and patio flame tables thermocouples are used to power safety circuits for the combustion system. Upon being heated, the thermocouple generates millivoltage to power an electromagnet in the safety shutoff valve. As long as the pilot (or main burner in some cases) remains lit, the valve will remain open as it is energized. If the thermocouple cools, the millivoltage will drop, which in turn closes the safety shutoff on the valve.

Troubleshooting a Thermocouple

CAREFULLY INSPECT THE THERMOCOUPLE PROBE LOOKING FOR DAMAGE SUCH AS PIN HOLES, CRACKS, DISCOLOURATION, SURFACE CORROSION.

Step 1:

Ensure there is no media or debris inside of the thermocouple screen

Step 2:

Inspect wires / connectors / tubing for crimping, poor solder, damage to insulation, or aftermarket connectors / wires added to augment the installation.

Step 3:

Clean the thermocouple probe using very fine grain sandpaper and a microfiber cloth.

Step 4:

Open test the thermocouple by checking for continuity across the positive and negative leads. For threaded connections you will require an adapter to open test the unit.

Step 5:

Often when a thermocouple is not working it simply needs to be replaced. In the interest of providing cost savings we do recommend testing.


Care notes:

Units with thermocouples will thrive in dry, temperature controlled environments. If you have a product that utilizes a thermocouple, we recommend storing it during lengthy periods of inactivity / over the winter in a non-humid (and temperature controlled if possible) environment. Thermocouples are consumable components that will undoubtedly require replacement, however with routine preventative maintenance the life of your thermocouple can be extended.

MILLIVOLTAGE SYSTEMS AND THERMOCOUPLES


Primarily found on patio heaters, patio flame tables, outdoor fireplaces and some infrared burners.

Patio Heaters

Problem	Probable Cause	Solution 
Burner blockage	<ul style="list-style-type: none"> • Insects Nesting • Carbon Deposits • Peeling Zinc 	Clean Burner Assembly
Pilot Will Not Light	• Gas Control Valve in the OFF position	Turn gas valve to start position
	• Propane Tank may be empty	Fill propane tank
	• Natural Gas valve may not be open	Open NG valve at the connection point
	• Burner Orifice Clogged	Inspect and clean burner orifice
	• Air In Supply System	Purge air from the system
	• Loose Connection/Leak	Check all fittings, perform a leak test
	• Dead Battery	Replace battery in ignition module
Pilot will not stay on	• Debris around pilot	Clean Pilot Assembly
	• Loose Connections / Leak	Check all fittings, perform a leak test
	• Thermocouple Malfunction	Test thermocouple, replace if required
	• Thermocouple Positioning	Set thermocouple so that 3/8" to 1/2" is being enveloped by the flame
	• Thermocouple Dirty	Clean Thermocouple
	• Lack of Pressure in system	Adjust incoming pressure (if NG) Perform Regulator reset (if LP)
Burner will Not Light	• Lack of pressure in system	Adjust incoming pressure (if NG) Perform Regulator reset (if LP)
	• Burner orifice blocked	Inspect and clean burner orifice
	• Gas Control Valve in the OFF position	Turn gas valve to start position
	• Thermocouple Malfunction	Test thermocouple, replace if required
	• Thermocouple Positioning	Set thermocouple so that 3/8" to 1/2" is being enveloped by the flame
	• Dead Battery	Replace battery in ignition module
	• Igniter Electrode Dirty	Clean electrode with fine grain sandpaper or microfibre cloth
	• Igniter button assembly faulty	Check Igniter Button Wire, Replace Igniter
	• Loose Connections / Leak	Check all fittings, perform a leak test

MILLIVOLTAGE SYSTEMS AND THERMOCOUPLES

Patio Flame Tables Very similar to patio heater troubleshooting. Basic Thermocouple system. Other behaviours that are unique are below.

Problem	Probable Cause	Solution 
Abnormal Burner Flame (very long, very short, partial) Sooting	<ul style="list-style-type: none"> Spider / Insect related blockage Other Blockage 	<p>Clean burner with venturi. To clean the inside of the burner, it must be removed from the appliance: Remove the glass embers and examine the burner. If dirty, clean with a wire brush.</p> <p>Cleaning: Use a flexible venturi tube brush to clean the inside of the burner. Shake any loose debris from the burner through the gas inlet. Check the burner ports and valve orifices for blockages. Burner ports can close over time due to debris and corrosion; use an opened paperclip or a drill bit to clean them. The ports are easier to clean if the burner is removed from the appliance, but it can also be done with the burner installed.</p>
Low heat / Low flame when burner turned to high	<ul style="list-style-type: none"> LP - Improper lighting procedure NG - Undersized supply line 	For LP - Ensure lighting procedure is followed carefully. The valve must be in the off position when the tank valve is turned on. Turn tank on slowly to allow pressure to equalize. See lighting instructions for NG - Pipe must be sized in accordance with local installation code
Burner will not light with the igniter, but will light with a match	• Dead Battery / Installed Incorrectly	Replace with heavy duty battery
	• Loose Electrode Wire or Switch Terminal Wires	Check that electrode wire is firmly pushed onto the terminal on the back of the igniter.
	• Improper Gap at Electrode Tip	The gap can be adjusted by bending the tip in or out until a spark is achieved.
Burners burn with yellow flame, accompanied by the smell of gas.	• Possible spider web or other debris.	Thoroughly clean burner venturi
Burner will not stay lit when control knob is released	• Knob not being held in long enough	Thermocouple must have time to heat up. Hold the knob in for 30+ seconds after the burner lights, then release
	• Too Windy	Unit will shut down if winds are greater than 16 km/h - relocate unit or use when less windy
	• Glass or debris in ignition area of the burner preventing thermocouple from being fully engulfed in flame	Ensure there is no glass or other debris in ignition area, and clean the connection between valve and thermocouple. Ensure the connection is properly tightened.
	• Dirty thermocouple or thermocouple connection	Clean the thermocouple and clean the connection between the valve and thermocouple. Ensure the connection is properly tightened.
	• Faulty thermocouple or valve	Replace thermocouple / Valve
Humming regulator	• Normal occurrence on hot days	This is not a defect. It is caused by internal vibrations in the regulator and does not affect the performance or safety of the gas heater. Humming regulators will not be replaced
Burner output on "high" setting is too low. (rumbling noise and fluttering blue flame at burner surface.)	• Lack of fuel	Check gas level in propane cylinder - LP only
	• Pinched Supply Hose	Reposition supply hose as necessary
	• Dirty or clogged orifice	Clean burner orifice
	• Spider webs or other matter in Venturi tube	Clean out venturi tube
	• Propane regulator in "low flow" state	Ensure lighting procedure is followed carefully. All valves must be in the off position when the tank valve is turned on. Turn tank on slowly to allow pressure to equalize. See lighting instructions.

Leaks

The first step to correcting a leak is finding it. To do so you would perform a leak test as per page __. Based on your findings, if a leak is found you can correct the leak in accordance with it's location.

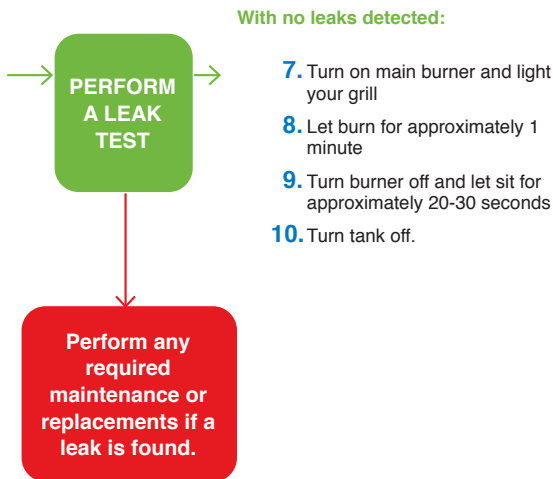
- | | | |
|--------------------------------|---|--|
| Leak found at a fitting | → | Tighten connection and perform test again. If this does not correct the issue then component will need to be replaced. |
| Leak found on a line | → | Leaks in corrugated lines or hoses require the component be replaced. We do not recommend the use of industrial sealants under any circumstances. |
| Leak found in a valve | → | Attempt to tighten valve seating screws to correct. If this does not resolve the issue then the manifold will need to be replaced. |

Propane - Low Flow

Since 1995 all regulators have included a safety device that restricts the gas flow in the event of a leak. The regulator however can inadvertently activate the safety device without having a gas leak. This typically occurs if you open the propane tank valve rapidly, or if one or more of the control knobs is in an open position when opening the propane tank valve or by turning the tank off before turning off the burners (bleeding the line). If you do activate the gas regulator safety device, the grill will only reach maximum temperatures between 250 and 300 degrees Fahrenheit, even with all burners in the high position.

Regulator reset

1. Close the Propane Tank Valve
2. Turn all burner control knobs to off position
3. Disconnect the regulator from the propane tank
4. Wait at least Five minutes if the barbecue has been lit.
5. Re-connect the regulator to the propane tank
6. Slowly turn the Propane Tank Valve all the way open, wait 20-30 seconds



Note: To keep the regulator flow valve from tripping again, when you are done

1. Turn all burner control knobs to the off position
2. Turn off the propane tank valve last

GAS RELATED DIFFICULTIES

Leaks, Low Flow and other Questions

Additional Questions

Question	Answer
How far away from the meter can the grill be?	Having an overly long pipe run can cause difficulties with maintaining constant pressure, or high enough pressure. If the grill is having ignition or burner related difficulties, and the troubleshooting in the correct section is not working, it may be advisable to ensure the piping running to the unit has been completed to spec and within local regulations / codes
Should built-in grills come with regulators or hoses?	Unfortunately none of our built-in grills come with regulators as each grill needs to be hard-piped installed by a licensed gas technician. We would recommend referring to local codes and speaking to a local technician in order to get your grill installed correctly. A flex line can be utilized to make the connection between the manifold and the piping. Rubber hoses are never acceptable.
Can I add a second hose to the grill in order to allow the unit to be positioned further from my connection?	The grills are only tested and certified for use with a 10 ft hose. Any additional length could cause undesirable performance. This will also position your grill further from the shutoff, which could be dangerous in an emergency or violate local codes.
Hoses for propane?	Hoses should only be utilized with propane if connected to a household supply tank and regulated by the supplier / fitter.
How could my grill be undersupplied?	Consideration should be given by the installer that the grill not be installed on a branch that services many other appliances. The pressure drop when the other appliances are in use could cause adverse, or inoperable gas pressures to be supplied to the unit.
Regulators for natural gas?	Natural gas regulators are not supplied with or utilized by any of our current North American grills. If a natural gas regulator is required to drop the delivery pressure it must be selected, provided and installed by the gas fitter in accordance with local codes.
My grill is having trouble operating in extreme heat and cold?	(Propane Only) - In temperatures that are lower than -40 ° C/°F propane will no longer be able to transition from it's liquid state to it's vapour state. We cannot recommend use of the grill in such temperatures. High temperatures do not tend to have terribly negative impact on the usage of a propane tank, though extended flow of propane through the regulator in a hot humid time can cause the regulator to ice up severely and potentially damage the membranes / seals inside of the regulator.

ODOURS, SMOKE, AND SOOTING



My grill is 'smells' excessively when it's lit

Listen, do you smell something?

Odour	Steps to Take
Rotten Eggs	What you're smelling is mercaptan, an additive added to natural gas and propane to make those odourless gases detectable. The unit most likely has a leak - refer to Gas Troubles section of this manual for leak test instructions and proceed accordingly.
Sulfur	Unit is likely sooting / carboning due to a lack of oxygen. Proceed to Sooting section of this manual for how to correct sooting and large flames.
Rotting Meat	Empty and wash drip pan and grease collection tray; this odour can occur during periods where the grill is not used for some time and is not cleaned prior. After emptying and washing we recommend performing a burn off.
Musty / Mold	Wash interior of grill, including drip pan and grease collection tray. Mold can grow on food debris left in the unit after cooking. After emptying and washing we recommend performing a burn off. We also recommend letting the unit run for a few minutes when you're finished cooking to ensure remaining food debris burns off.
Burning Chemicals / Plastic	On first firing, during the burn off period it is absolutely normal to smell burning chemical odours as paint on cast components cures and any oils / solvents used in the manufacturing process burn away. If the paint peels or the smell does not go away please contact Customer Solutions.

ODOURS, SMOKE, AND SOOTING

My grill is 'smoking' excessively when it's lit

Is the grill new or has it been in use for some time?

New

On first firing, it is very normal for white or grey smoke to be emitted by the unit as paint on cast components cures and any oils / solvents used in the manufacturing process burn away. If the paint peels or the unit continues to smoke consistently please contact Customer Solutions.

Older (has been in use for some time)

Empty and wash drip pan / grease collection tray, wash interior of the unit out with dish soap and hot water using non-abrasive cloths/tools/ sponges. After emptying and washing we recommend performing a burn off. Frequent cleaning can prevent this from occurring going forward. If the smoke is coupled with large yellow / orange flames, troubleshoot per Burner and Flame

My grill is 'sooting' excessively when it's lit

Is the grill new or has it been in use for some time?

New

If a new grill is sooting excessively please contact Customer Solutions

Older (has been in use for some time)

Is the sooting coupled with large and irregular orange and yellow flame patterns?

YES



If the sooting is coupled with large yellow / orange flames, troubleshoot per Burner and Flame Irregularities section of this manual.



NO



If sooting is occurring during normal operation, and coupled with no additional behavioural irregularities then clean burner tubes and clear ports of any small blockages. Check to ensure sear plates are properly seated.

ASSEMBLY DIFFICULTIES

What difficulties are you having?

Issue	Solutions 
Piece doesn't fit	Try flipping the component over, or rotating it 90° / 180° / 270° degrees. Often our parts have grooves, tabs or guides intended to ensure the component only goes in one specific way.
This screw is too large / won't go in	Check to see if the hole the screw is intended to go into has grooves or threading. Often if a hole seems too small but also has no threading it's intended to have the screw forced into place. It is a tapping screw that will create it's own threading. Use a torque wrench, not power tools, and firmly screw into place.
Plastic tab won't lock	Many plastic components that have locking tabs to hold them in place will have just enough room in their intended receiving hole to fit. If they are difficult to put in place, try using a flathead screwdriver or needlenose pliers to gently pry or grip the tab and pull it through.
No words in the manual	Our manuals are designed in order to allow them to be printed in many different languages. As such our manuals include as little written instruction as possible. If you do require additional clarification not covered in this guide, please contact Customer Solutions.
Doors won't level	500-1 : This can be easily corrected by loosening the two screws that hold the upper alignment brackets on the outside of each corner. These brackets are not designed to sit flush to the outside where the first screw was put into each, they were designed to float between the outer and inner screw, allowing the doors to move freely to the left and right by loosening one screw and simultaneously tightening the other.
What's this rod on a chain?	There are times when it becomes necessary to light the unit using a method other than the integrated ignition system. This rod and chain are what is known as the lighting rod. To light the unit with a match, clip the match into the the supplied lighting rod. Hold the end with the lit match down through the grids and sear plates while turning the corresponding burner valve to high. 
Lid doesn't sit flush	To correct the issue, grip the lid on the front edges of the side castings. Gently but firmly pull up on the lower side while simultaneously pushing down on the higher side. These steps may need to be repeated a few times to ensure it is sitting completely level.

GREASE FIRES

What to look for. How to address and prevent them.

When on site, look to see where the damage is centralized. Analyze the state of the grill and the environment.

What to Look For?	Why?
Food remnants	All food remnants are a great fire starter. Heavy fat content foods can be considered an accelerant or fuel for fire. The temperature should be lowered to accommodate for the extra fuel being added by the fat.
Surfaces coated in grease that don't normally come in contact with grease	Often times when a grease fire has taken place, the grill will have been subjected to excessive grease levels. The jetfire tubes, air shutters, valves, gas lines and cart interior are not normally exposed to grease and its presence can indicate that a great volume of greasy food was being cooked on the grill.
Grill doesn't look like it's been cleaned recently / at all	Grills need to be regularly cleaned / washed to prevent grease fires from occurring. The drip pan and grease collection tray should be done every 4 - 5 uses minimum (per the user manual). Built-in grills should have the tray cleared before every use and washed every few uses like the cart models.
Damage exclusively in the base / lid	When there is no damage to any of the gas components, lower portions of the cart, or side shelves more often than not this is a grease fire. Grease fires can spread large enough to damage all of these components, but unless left unattended it is unlikely.
Blanching / peeling / melting / disintegration of the castings	Grease fires can burn in excess of 1200 degrees Fahrenheit. Cooking oils used to prepare food prior to grilling can ignite as low as 390 - 450 degrees Fahrenheit. When 1200 degree heat is applied to our aluminium castings it can blanch them, make them peel, or even causing melting / disintegration of the components over a longer period of time.
Black smoke billowing	Grease fires will be accompanied by billowing blue/black smoke, and typically will be coupled with a temperature gauge burying the needle due to extreme heat.

Preventative Measures:

Scraping	Scraping food bits, fat deposits and cooled grease out of the drip pan and into the collection tray (to be emptied) is easy preventative maintenance that can be performed between uses.
Washing	Washing the interior of the grill and the drip pan out with dish soap and hot water should be performed periodically to prevent dangerous build up of grease. Components such as sear plates, stainless steel cooking grids and drip pans may be too large for a home dishwasher but are actually dishwasher safe (discolouration is normal).
Trimming	Trim the fat. We all can appreciate the flavour infusion provided by a nicely marbled cut, however it will contribute to the likelihood of large flare ups and grease fires. If you're going to use high fat content meats you must turn down the heat to compensate and constantly monitor the cooking progress.
Don't line the drip pan	Tin foil, cat litter, baking soda, wax paper, cardboard, parchment - we have seen it all. Don't line the drip pan. It can cause grease to pool when it should drain and increase the possibility of a grease fire exponentially. The reflective nature of foil will also increase the heat of the grill.

LEAK TESTING

Troubleshooting Instructions



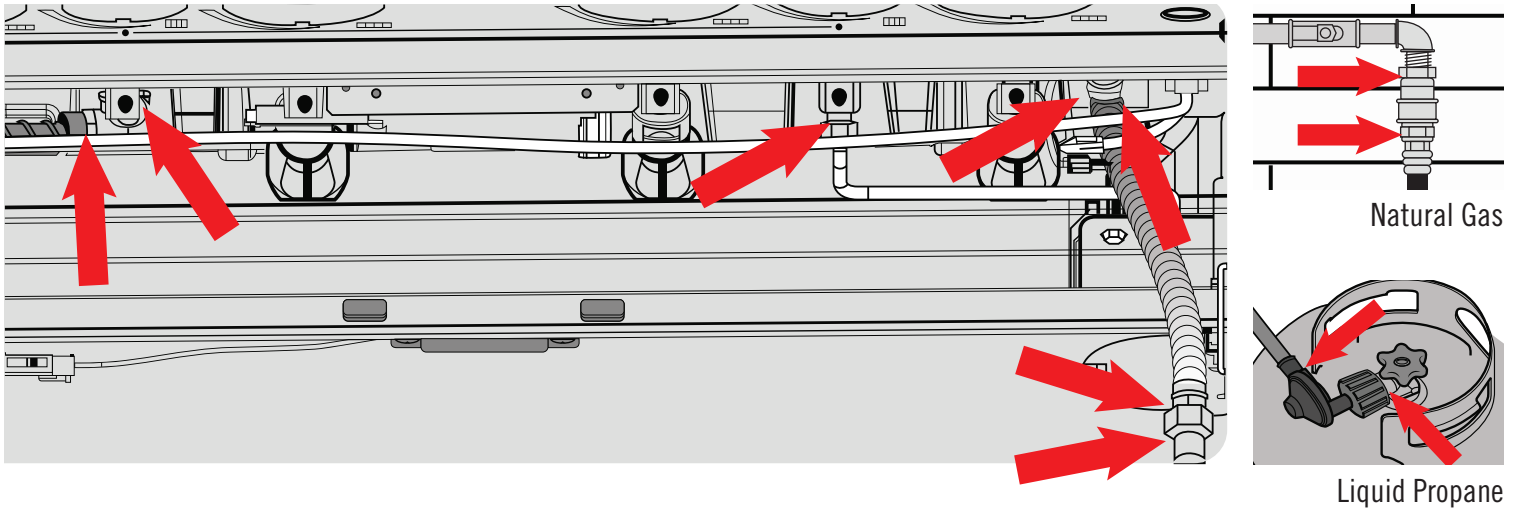
WARNING!:

A leak test must be performed annually and each time a cylinder is hooked up or if a part of the gas system is replaced.



WARNING!:

Never use an open flame to check for gas leaks. Be certain no sparks or open flames are in the area while you check for leaks. Sparks or open flames will result in a fire or explosion, damage to property, serious bodily injury, or death.



Step 1:

Leak testing: This must be done before initial use, annually, and whenever any gas components are replaced or serviced. Do not smoke while performing this test, and remove all sources of ignition. See Leak Testing Diagram for areas to check. Turn all burner controls to the off position. Turn gas supply valve on.



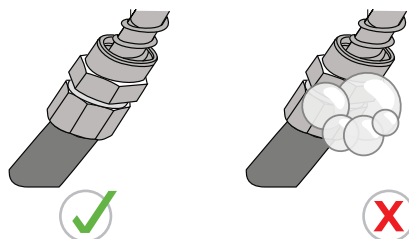
Step 2:

Brush a half-and-half solution of liquid soap and water onto all joints and connections of the regulator, hose, manifolds, and valves.



Step 3:

Bubbles will indicate a gas leak. Either tighten the loose joint or have the part replaced with one recommended by the Napoleon Customer Solutions department and have the grill inspected by a certified gas installer.



If the leak cannot be stopped, immediately shut off the gas supply, disconnect it, and have the grill inspected by a certified gas installer or dealer. Do not use the grill until the leak has been corrected.

CLEANING & MAINTENANCE

CLEANING INSTRUCTIONS



WARNING! Always wear protective gloves and safety glasses when servicing your grill.



WARNING! To avoid the possibility of burns, maintenance should be done only when the grill is cool.

Avoid unprotected contact with hot surfaces. Ensure all burners are turned off. Clean grill in an area where cleaning solutions will not harm decks, lawns, or patios. Do not use oven cleaner to clean any part of this gas grill. Do not use a self-cleaning oven to clean cooking grids or any other parts of the gas grill. Barbecue sauce and salt can be corrosive and will cause rapid deterioration of the gas grill components unless cleaned regularly.



Note: Stainless steel tends to oxidize or stain in the presence of chlorides and sulfides, particularly in coastal areas and other harsh environments, such as the warm, highly humid atmosphere around pools and hot tubs. These stains could be perceived as rust, but can be easily removed or prevented. To provide stain prevention and removal, wash all stainless steel and chrome surfaces every 3-4 weeks or as often as required with fresh water and/or stainless steel cleaner.

Grids And Warming Rack

The grids and warming rack are best cleaned with a brass wire brush during the pre-heating period. Steel wool can be used for stubborn stains. It is normal that stainless grids (if equipped) will discolor permanently from regular usage due to the high temperature of the cooking surface.

Cast Iron Cooking Grids

The cast iron cooking grids supplied with your new grill offer superior heat retention and distribution. By regularly seasoning your grids you are adding a protective coating, which will aid in resisting corrosion and increase your grids non-stick capabilities.

First Time Use

Wash the cooking grids by hand with mild dish soap and water to remove any residue from the manufacturing process (never wash in a dish washer). Rinse thoroughly with hot water and dry completely with a soft cloth. This is important to avoid moisture from entering the cast iron.

Seasoning

Using a soft cloth, spread VEGETABLE SHORTENING over the entire grid surface ensuring all grooves and corners are covered. Do not use salted fats such as butter or margarine. Pre-heat your grill for 15 minutes, then place the seasoned cooking grids in the grill. Turn the burner control knobs to medium with the lid closed. Allow the cooking grids to heat for approximately one-half hour. Turn all the burners to the "OFF" position and turn the gas off at the source. Let the cooking grids stand until cool. This procedure should be repeated several times throughout the season, although it is not required for daily use (follow daily usage procedure below).

Daily Usage

Before pre-heating, and cleaning with a brass wire grill brush, coat the entire top surface of the cooking grids with VEGETABLE SHORTENING. Pre-heat the grill and then brush away any unwanted residue with a brass wire brush.

Stainless Steel Cooking Grids

(Upgrade kit available - see replacement parts list). Stainless steel cooking grids are durable and corrosion resistant. They require less seasoning and maintenance than cast iron cooking grids. It is recommended that you follow the daily usage procedure listed above although you may find pre-heating and cleaning your grids with a wire brush is sufficient for your grilling needs.

Control Panel

The control panel text is printed directly on the stainless steel and with proper maintenance will remain dark and legible. To clean the panel, use only warm soapy water or stainless steel cleaner available from your Napoleon dealer. Never apply abrasive cleaners on any stainless surfaces, especially the printed portion of the control panel or the printing will gradually rub off.

Infrared Burners

Because of the high intensity of the infrared burner, most drippings and food particles that fall onto the burner surface are immediately incinerated. However, some debris and residue may remain. To remove this residue after cooking, operate the grill on high for 5-10 minutes. Do not clean the ceramic tile with a wire brush.

Cleaning Inside The Gas Grill

Remove the cooking grids. Use a brass wire brush to clean loose debris from the casting sides and underneath the lid. Scrape the sear plates with a putty knife or scraper, and use a wire brush to remove the ash. Remove the sear plates and brush debris from the burners with the brass wire brush. Sweep all debris from inside the gas grill into the drip pan.



WARNING! Accumulated grease is a fire hazard.

Drip Pan

Clean the drip pan frequently (every 4 – 5 uses or as often as required) to avoid grease buildup. Grease and excess drippings pass through to the drip pan, located beneath the gas grill and accumulate in the disposable grease tray below the drip pan. To access the disposable grease tray or to clean the drip pan, slide the drip pan free of the grill. Never line the drip pan with aluminum foil, sand or any other material as this could prevent the grease from flowing properly. The pan should be scraped out with a putty knife or scraper. Replace the disposable grease tray every 2 – 4 weeks, depending on gas grill usage. For supplies, see your Napoleon Grill dealer.

Cleaning The Outer Grill Surface

Do not use abrasive cleaners or steel wool on any painted, porcelain or stainless steel parts of your Napoleon Grill. Doing so will scratch the finish. Exterior grill surfaces should be cleaned with warm soapy water while the metal is still warm to the touch. To clean stainless surfaces, use a stainless steel or a non-abrasive cleaner. Always wipe in the direction of the grain. Over time, stainless steel parts discolor when heated, usually to a golden or brown hue. This discoloration is normal and does not affect the performance of the grill. Porcelain enamel components must be handled with additional care. The baked-on enamel finish is glass-like, and will chip if struck. Touch-up enamel is available from your Napoleon Grill dealer.

CLEANING & MAINTENANCE

MAINTENANCE INSTRUCTIONS

MAINTENANCE INSTRUCTIONS



WARNING! Always wear protective gloves and safety glasses when servicing your grill.



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Avoid unprotected contact with hot surfaces. Ensure all burners are turned off. Clean grill in an area where cleaning solutions will not harm decks, lawns, or patios. Do not use oven cleaner to clean any part of this gas grill. Do not use a self-cleaning oven to clean cooking grids or any other parts of the gas grill. Barbecue sauce and salt can be corrosive and will cause rapid deterioration of the gas grill components unless cleaned regularly.



Note: We recommend this gas grill be thoroughly inspected and serviced annually by a qualified service person. At all times keep the gas grill area free from combustible materials, gasoline and other flammable vapors and liquids. Do not obstruct the flow of ventilation and combustion air. Keep the cylinder enclosure ventilation openings (located on the cart sides and at the front and back of the bottom shelf) free and clear from debris.

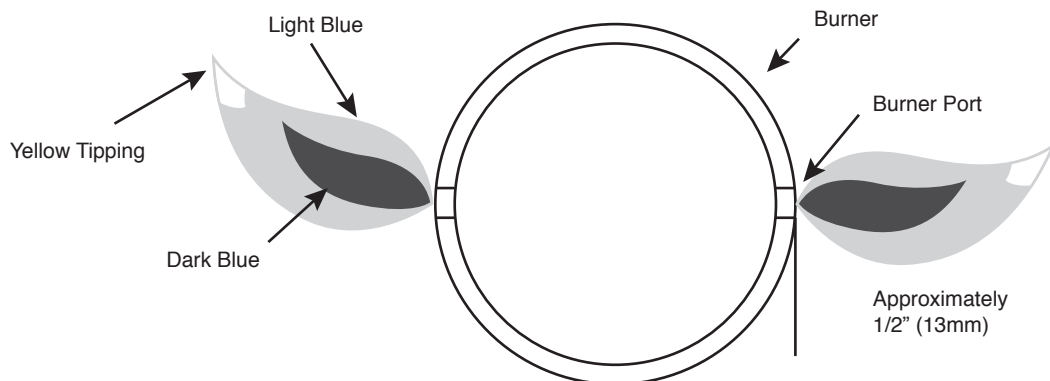
Combustion Air Adjustment

(This must be done by a qualified gas installer.) The air shutter is factory set and should not need adjusting under normal conditions. Under extreme field conditions, adjustments might be required. When the air shutter is adjusted correctly the flames will be dark blue, tipped with light blue and occasionally yellow.

- With too little air flow to the burner, the flames are lazy yellow and can produce soot.
- With too much air flow, the flames lift erratically and can cause difficulties when lighting.

Adjusting the air shutter:

1. Remove cooking grids and sear plates and leave lid open. You may have to open the door or remove the top drawer (if equipped) to access the air-shutter screw located at the mouth of the burner. The back cover must be removed for rear tube burner air shutter adjustment.
2. Loosen air-shutter lock screw and open or close air shutter as required. The normal opening settings are:
Main Tube Burner: Propane 1/2" (13mm), Natural 3/8" (10mm)
3. Light the burners and set to high. Visually inspect burner flames. When the shutters are set correctly, turn burners off, tighten locking screws, and replace removed parts. Ensure that the insect screens are installed.



Burner

The burner is made from heavy wall 304 stainless steel, but extreme heat and a corrosive environment can cause surface corrosion to occur. This can be removed with a brass wire brush.



CAUTION! Beware of Spiders.

Spiders and insects are attracted to the smell of propane and natural gas. The burner is equipped with an insect screen on the air shutter, which reduces the likelihood of insects building nests inside the burner but does not entirely eliminate the problem. A nest or web can cause the burner to burn with a soft yellow or orange flame or cause a fire (flashback) at the air shutter underneath the control panel. To clean the inside of the burner, it must be removed from the gas grill: Remove the screw (s) that attaches the burner to the back wall. Slide the burner back and up wards to remove. Cleaning: Use a flexible venturi tube brush to clean the inside of the burner. Shake any loose debris from the burner through the gas inlet. Check the burner ports and valve orifices for blockages. Burner ports can close over time due to cooking debris and corrosion, use an opened paperclip or the supplied port maintenance bit to clean them. Drill out blocked ports using this drill bit in a small cordless drill. The ports are easier to clean if the burner is removed from the grill, but it can also be done with the burner installed. Do not flex the drill bit when drilling the ports, as this will cause the drill bit to break. This drill is for burner ports only, not for the brass orifices (jets) which regulate the flow into the burner. Take care not to enlarge the holes. Ensure the insect screen is clean, tight, and free of any lint or other debris.

Reinstallation

Reverse the procedure to reinstall the burner. Check that the valve enters the burner when installing. Replace sear plate mount and / or tighten screws to complete reinstallation.



WARNING! When reinstalling the burner after cleaning it is very important that the valve/orifice enters the burner tube before lighting your gas grill. If the valve is not inside the burner tube a fire or explosion could occur.

Protection Of Infrared Burners

The infrared burners of your grill are designed to provide a long service life, though care must taken to prevent cracking of their ceramic surfaces. Fractures will cause the burners to malfunction. The following provides a few of the causes of cracks and the steps you can take to avoid them. Damage caused by failure to follow these steps is not covered by your grill warranty.

1. Impact with hard objects - Never allow hard objects to strike the ceramic. Take care when inserting or removing cooking grates and accessories into or from the grill.
2. Contact with water or other liquids - Cold liquids contacting the hot ceramic surfaces can cause them to break. Never throw water into the grill to douse a flame. If the ceramic or interior of a burner becomes wet while not in use, later operation of the burner can create steam, which can produce sufficient pressure to crack the ceramic. Repeated soaking of the ceramic can also cause it to swell and expand. This expansion causes undue pressure on the ceramic that can cause it to crack and crumble.
 - i) Never throw water into the grill to control flare-ups.
 - ii) Do not attempt to operate the infrared burners in open air while raining.
 - iii) If you find standing water in your grill (because of exposure to rainfall, sprinklers, etc.), inspect the ceramic for evidence of possible water-soaking. If the ceramic appears to be wet, remove the burner from the grill. Turn it upside down to drain the excess water and bring indoors to dry thoroughly.
3. Impaired ventilation of hot air from the grill - For the burners to function properly, hot air must have a way to escape the grill. If the hot air is not allowed to escape, the burners can become deprived of oxygen causing them to back-flash. If this occurs repeatedly, the ceramic could crack. Never cover more than 75% of the cooking surface with solid metal (i.e., griddle or large pan).
4. Incorrect cleaning - Do not clean the ceramic tile with a wire brush. If debris is collecting on your burner, light the burner and operate on high for 5 minutes with the lid open, allowing debris to burn off.



WARNING! Hose: Check for abrasions, melting, cuts, and cracks in the hose. If any of these conditions exist, do not use the gas grill. Have the part replaced by your Napoleon Grill dealer or qualified gas installer.

Aluminum Castings

Clean castings periodically with warm soapy water. Aluminum will not rust, but high temperatures and weathering can cause oxidation to occur on aluminum surfaces. This appears as white spots on the castings. To refinish these areas, clean first and sand lightly with fine sandpaper. Wipe the surface to remove any residue and paint with high temperature barbecue paint. Protect surrounding areas from over-spray. Follow the manufacture's directions for curing.

CALLING CUSTOMER SOLUTIONS

Prior to calling Customer Solutions, please have the following information with you (whenever possible) in order to ensure you receive a complete and accurate solution

Customer Information:

Customer Name:

Customer Phone Number:

Customer Email: (Whenever Possible)

Customer Mailing: (in case components need to be sent to their location)

Grill Information

Model Number:

Serial Number:

Date of Purchase:

Place of Purchase:

Fuel Source:

Other Useful Data:

Existing case number (if applicable):

Troubleshooting steps taken (per this guide):

Initial customer complaint / request (in as much detail as possible):

Photos of the issue / unit (if available):

Account number (existing dealers only):

Product registration number (if applicable):

Customer Solutions

 **1 (888) 721-8324**

grillsupport@napoleon.com



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