

SLIDE IN GAS RANGES

MODELS AND MODEL CODES: NX58H9500WS/AA

SERVICE Manual

GAS RANGES



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1. Precautions

1-1 Forward

This SAMSUNG Service Manual, "Slide In Gas Ranges," provides the technician with information on the operation and service of the slide in self-cleaning gas ranges. It is to be used as a training service manual. For specific information on the model being serviced, refer to the user manual or tech sheet provided with the gas range.

1-2 Safety Precautions

- Repairs of the appliance should be carried out by a licensed technician only. Incorrect repairs may result in dangerous situations. If you need repairs, contact a SAMSUNG Service Center or your dealer.
- If the power cord is defective, it must be replaced by a licensed technician with a UL-listed range cord.
- If the gas supply is damaged or defective, it must be replaced by a licensed technician or gas supplier.
- Electrical leads and cables should not be allowed to touch the oven.
- Rating plate is located on the left side of the opening for the warming drawer or storage drawer.
- The gas and electrical supplies to the appliance should be turned off and/or disconnected when the range is being serviced or repaired.



WARNING

- To avoid risk of death or severe personal injury from electrical shock, disconnect power before working on/servicing the appliance.
- To avoid risk of death, severe personal injury, or property damage from fire or explosion, turn off the gas supply before working on/servicing the appliance. **IF YOU SMELL GAS:**
- 1. DO NOT light a match, candle, or cigarette.
- 2. DO NOT turn on any gas or electric appliances.
- 3. DO NOT touch any electrical switches.
- 4. **DO NOT** use any type of phone in the building.
- 5. Clear the room, building, or area of all occupants.
- 6. Immediately call the gas supplier from a phone outside of the building. Follow the gas supplier's instructions.
- 7. If you cannot reach the gas supplier, call the fire department.
- To avoid risk of death, severe personal injury, or property damage from fire or explosion, do not wear loose-fitting, or hanging garments near an open flame during operation and/or servicing the appliance.
- When the oven operates, the interior parts will be very hot.

SAMSUNG Electronics assumes no responsibility for any repairs made on our products by anyone other than authorized service technicians.

1-3 Important Safety Instructions

Read and follow all instructions before using or servicing the range to prevent death, personal injury, fire, explosion, and/or property damage. This guide does not cover every possible condition that may occur. For further assistance, contact a licensed technician or the manufacturer.

All electrical and gas equipment and their moving parts can be dangerous. Please read the important safety information on the appliance and in this manual. The information must be followed to minimize the risk of death, personal injury, and/or property damage.

This is the safety alert symbol. It alerts you of potential hazards that can kill or injure you or others. The following safety messages explain the potential hazards:

Hazardous situation that will result in death and/ or serious personal injury.

A WARNING

Hazardous situation that could result in death, serious personal injury, and/or property damage.

CAUTION

Hazardous situation that may result in moderate personal injury, and/or property damage.

- Be sure your appliance is properly installed and grounded by a licensed technician.
- Do not repair or replace any part of the appliance unless specifically recommended in the manual. All other servicing should be referred to a licensed technician.
- Always disconnect power to the appliance before servicing by turning off the circuit breaker or removing the fuse.
- Always turn off the main gas supply to this appliance before servicing by closing the gas supply valve to this appliance.
- Always check gas fittings and components for leaks before servicing the appliance. If a leak is detected, shut off the gas supply and notify a licensed technician and/or gas supplier.



- INJURIES CAN OCCUR IF THE RANGE TIPS - INSTALL ANTI-TIP DEVICE PACKED WITH RANGE

- FOLLOW ALL INSTALLATION INSTRUCTIONS

To reduce the risk of tipping the range, the range must be secured by a properly installed anti-tip device. To check if the bracket is installed properly:

- Warming drawer: Grasp the top rear edge of the range and carefully attempt to tilt it forward. Verify that the anti-tip device is engaged.
- Storage drawer: Remove drawer and verify leveling leg is inserted into and fully secured by the anti-tip device.

Refer to the installation manual for proper anti-tip bracket installation.

• Do not step, lean, or sit on the doors of the range. This can cause the range to tip, resulting in burns or serious injuries.

WARNING

 DO NOT TOUCH SURFACE BURNERS. SURFACE BURNER GRATES, OVEN BURNERS, INTERIOR SURFACES OF OVEN, **OR WARMING DRAWER HEATING ELEMENT –** Burners, heating element, and surfaces may be hot even though they are dark in color. Interior surfaces of an oven become hot enough to cause burns. During and after use, do not touch or let clothing or other flammable materials contact burners, heating element, grates, or interior surfaces of oven until they have had sufficient time to cool. Other surfaces of the appliance may become hot enough to cause burns. Among these surfaces are oven vent openings and surfaces near these openings, oven doors, and windows of oven doors.

CAUTION

Do not store items of interest to children in cabinets above a range or on the backguard of a range – Children climbing on the range to reach items could be seriously injured.

- Do Not Leave Children Alone Children should not be left alone or unattended in the area where the appliance is in use. They should never be allowed to sit or stand on any part of the appliance.
- Never Use Your Appliance for Warming or Heating the Room.
- Storage in or on Appliance Flammable materials should not be stored in an oven or near surface units. Be sure all packing materials are removed from the appliance before operating it. Keep plastics, clothes, and paper away from parts of the appliance that may become hot.
- Wear Proper Apparel Loose-fitting or hanging garments should never be worn while using the appliance.
- Do Not Use Water on Grease Fires Turn off the oven to avoid spreading the flame. Smother the fire or flame by closing the door or using baking soda or a dry-chemical or foam-type extinguisher.
- Use Only Dry Pot Holders Moist or damp pot holders on hot surfaces may result in burns from steam. Do not let the pot holder touch hot heating elements. Do not use a towel or other bulky cloth.

WARNING

SURFACES

• DO NOT TOUCH SURFACE BURNERS OR AREAS NEAR BURNERS – Surface burners may still be hot after they have been turned off. Areas near surface burners may become hot enough to cause burns. During and after use, do not touch or let clothing or other flammable materials contact surface burners or areas near burners until they have had sufficient time to cool. Among these areas are the cooktop, surface burner grates, and surfaces close to the cooktop.



WARNING

To avoid risk of death or personal injury from electrical shock, make sure your range has been properly grounded and always disconnect it from the main power supply before any servicing.

SURFACE BURNERS

- Use Proper Pan Size This appliance is equipped with one or more surface burners of different sizes. Select utensils having flat bottoms large enough to cover the surface burner flames. The use of undersized utensils will expose a portion of the surface burner flames to direct contact and may result in ignition of clothing. Proper relationship of utensil to burner will also improve efficiency.
- Never Leave Surface Burners Unattended at High Heat Settings – Boilovers could ignite or extinguish the burner flames. Both conditions create an explosion and/or fire hazard.
- **Protective Liners** Do not use aluminum foil to line cooktop surface or oven bottoms, except as suggested in the manual. Improper installation of these liners may result in a risk of electric shock, fire, or burner damage.
- Glazed Cooking Utensils Only certain types of glass, glass/ceramic, ceramic, earthenware, or other glazed utensils are suitable for range-top service without breaking due to the sudden change in temperature.
- Utensil Handles Should Be Turned Inward and Not Extend Over Adjacent Surface Burners – To reduce the risk of burns, ignition of flammable materials, and spillage due to unintentional contact with the utensil, the handle of a utensil should be positioned so that it is turned inward and does not extend over adjacent surface burners.
- Surface Burner Components The burners, burner caps, and burner cups should always be cleaned by hand. They are not dishwasher-safe. The orifices should always be checked for dirt and debris whenever the burner cups are cleaned.
- Be sure you know which control knob operates each surface burner. Make sure you turned on the correct surface burner.

COOKTOP COOKING SURFACES

- Clean Cooktop With Caution If a wet sponge or cloth is used to wipe spills on a hot cooking area, be careful to avoid a steam burn. Some cleaners can produce noxious fumes if applied to a hot surface.
- Clean the cooktop surface with a nonabrasive cleaner on painted metal surfaces.

VENTILATING HOODS:

- Clean Ventilating Hoods Frequently Grease should not be allowed to accumulate on hood or filter.
- When flaming foods under the hood, turn the fan on.

DEEP-FAT FRYERS:

• Use extreme caution when moving the grease kettle or disposing of hot grease.

SELF-CLEAN OVENS

- BEFORE CLEANING, REMOVE BROILER PAN, OVEN RACKS, AND UTENSILS.
- WIPE EXCESS SPILLS FROM OVEN INTERIOR.
- SEE USER INSTRUCTIONS.
- **Do Not Clean Door Gasket** The door gasket is essential for a good seal. Care should be taken not to rub, damage, or move the gasket.
- Do Not Use Oven Cleaners No commercial oven cleaner or oven liner protective coating of any kind should be used in or around any part of the oven.
- Never keep pet birds in the kitchen The health of birds is extremely sensitive to the fumes released during an oven self-clean cycle. Fumes may be harmful or fatal to birds. Move birds to a well-ventilated room.

- Important Instruction In the event the self-clean mode "F" code goes on or three long beeps sound, the oven is malfunctioning in the self-clean mode. Turn off or disconnect appliance from electrical and gas supplies and have the appliance serviced by a licensed technician.
- Use Care When Opening Door Let hot air or steam escape before you remove or replace food in the oven.
- Do Not Heat Unopened Food Containers Buildup of pressure may cause container to burst and result in injury.
- Keep Oven Vent Ducts Unobstructed The oven vent is located above the left-rear surface unit. This area could become hot during oven use. Never block this vent and never place plastic or heat-sensitive items near the vent.
- Placement of Oven Racks Always place oven racks in the desired location while the oven is cool. If a rack must be moved while the oven is hot, do not let the pot holder contact a hot oven burner or oven bottom.

1-4 Model and Serial Number Label and Tech Sheet Locations

These models have Model/Serial Number labels and Tech Sheets located as shown below.



2-1 Oven Features



If you need an accessory marked with a *, you can buy it from the Samsung Contact Center (1-800-726-7864).

2-2 Control Panel - Oven





- 1. Convection Bake : Activate the convection baking for large amounts of food on multiple racks.
- 2. Convection Roast : Activates the convection roast function. Use this function to cook large cuts of meat.
- 3. Bake : Bake food evenly using the lower oven burner.
- 4. Broil : Broil food using the upper oven burner only.
- 5. Healthy Cook : Recall the healthy cooked recipe setting of the oven.
- 6. Conv. Convert : Switch between baking mode and convection baking mode.
- 7. Keep Warm : Keep cooked food warm at lower temperatures of between 150°F and 200 °F. (66°C and 93°C)
- 8. Self Clean : Burn off food residues at very high temperatures.
- 9. Touch to wake-up : Activate the pads and functions on the display.
- 10. Delay Start : Set the oven to start and stop at a certain time.
- 11. Cooking Time : Set the cook time.
- **12. Temp probe :** Use to activate the temp probe mode.
- 13. Numbers : Tap the numbers to set the time, temperature and the preset.
- **14. Clock :** Set the clock time.
- 15. Options : Use to bring up the user preference menu in the display.
- 16. OFF/CLEAR : Cancel the current operation but not the timer. Lock the control panel and the door to prevent accidents.
- 17. START/SET : Start operation, or set the time.
- **18. Timer :** Activate/deactivate the timer.
- 19. Oven Light : Turn on/off the oven light.

2-3 Control Panel - Gas Cooktop

LIGHTING A GAS SURFACE BURNER



Make sure all surface burners are positioned and assembled properly.

- 1. Push in and turn the control knob to the LITE position. You will hear a "clicking" sound indicating the electronic ignition system is working properly.
- 2. After the surface burner lights, turn the control knob to adjust the power setting of the surface burner and turn off the electronic ignition system.
- If the control knob is left in the Lite position, the electronic ignition system will continue to click and spark. It is not recommended to operate any surface burner in the Lite position, since all electronic igniters spark at the same time.

GAS SURFACE BURNERS AND CONTROL KNOBS

Your gas range cooktop has five gas burners. All cooktop burners are open-port design to provide you the proper heat source for the desired cooking job.

The 5,000 BTU burner provides precise cook easy assembly and accurate and dependable operation. The different burner sizes ensure you have cooking performance for delicate foods and foods that require low heat for long cooking times. The 5,000 BTU burner allows the LO setting to be used for a very low simmer setting.



The 9,500 BTU and 15,000 BTU round burners are general-purpose burners that can be used for most cooking. The HI to LO settings provide a wide range of cooking temperatures to meet your cooking needs.

The 19,000 BTU(18,000 BTU) burner provides maximum output. These burners can also be used as general-purpose burners, but they are designed to provide quick heat to large cookware.

The 19,000 BTU(18,000 BTU) burner spreads out the heat with a larger circle of flames.

This provides better heat distribution for larger cookware (12 in [30.5 cm]) or larger pots and pans.

The 9,500 BTU center oval burner can also be used for large pots and pans, but is designed to be used with the center burner grate and/or the center griddle accessory. The oval burner also spreads out the heat more evenly over the large center cooking area.

Each surface burner has a control knob with settings from HI to LO. They also have a Lite setting that is only used to light the flame.

The electronic ignition system sparks when the control knob is in the Lite position.

The surface burner indicator next to the control knob shows which burner the knob controls.



2-4 Table of Specifications

láomo	CHEF Collection		
Items	NX58H9950WS NX58H9500WS		
Colour	Stainless Steel	Stainless Steel	
Controls		I	
Control Type - Oven	Glass Touch	Glass Touch	
Control Type - Cooktop	Weighted Knob	Weighted Knob	
Display Type	VFD	VFD	
Display Color	Ice Blue	Ice Blue	
BackGuard Color	Stainless	Stainless	
Cleaning (Variable Cleaning Time)	Self cleaning (2/3/5 hr)	Self cleaning (2/3/5 hr)	
Bake	150°F (65°C) - 550°F (285°C)	150°F (65°C) - 550°F (285°C)	
Variable Broil (Low-High)	Low 460°F(230°C) High 570°F(300°C)	Low 460°F(230°C) High 570°F(300°C)	
Convection Bake	175°F (80°C) - 550°F (285°C)	175°F (80°C) - 550°F (285°C)	
Convection Roast	175°F (80°C) - 550°F (285°C)	175°F (80°C) - 550°F (285°C)	
Auto Oven Light	Yes	Yes	
Manual On/Off Light Switch	Yes	Yes	
Favorite Cook	Yes	Yes	
Clock	12HR / 24HR	12HR / 24HR	
Numeric Pad	0~9	0~9	
Delay Start	Yes	Yes	
Timer	Yes	Yes	
Keep Warm	Yes	Yes	
Child Lock	Yes	Yes	
Healthy Cook(Pre-set)	6 (Dehydrate, Baked potato, Grilled chicken, Salmon stake, White fish fillet, Bread proof)	6 (Dehydrate, Baked potato, Grilled chicken, Salmon stake, White fish fillet, Bread proof)	

Table of Specifications

Items	Best	Better
items	NX58H9950WS	NX58H9500WS
Cooktop		·
Cooktop Type	Stainless steel	Stainless steel
Number of Burners	5	5
Total Power (BTU)	58,000	57,000
Right Front (BTU)	19,000 (Dual)	18,000 (Dual)
Right Rear(BTU)	5,000	5,000
Left Front(BTU)	15,000	15,000
Left Rear(BTU)	9,500	9,500
Center(BTU)	9,500	9,500
Center Oval	Yes	Yes
Sealed Burner	Yes	Yes
Grate	Matte Black continuous grate	Matte Black continuous grate
Oven		·
Convection/Element Wattage	Fan True convection	Fan True convection
Oven Capacity (cu.ft)	5.8	5.8
Broiler	Gas	Gas
Bake Burner	18,000	18,000
Broil Burner	16,500	16,500
Interior Light (Watts / Location)	1 Incandescent 40W / Back	1 Incandescent 40W / Back
# of Oven Racks	3	3
# of Rack Positions	7	7
Rack Finish	Chrome	Chrome
Door		
Door Material	STSS + Glass	STSS + Glass
Door Handle	Stainless Steel	Stainless Steel
Number of Glass	3	3
Window Size	W – 25.24", H- 18.31"	W – 25.24", H- 18.31"
Automatic Safety Door Lock	Yes	Yes
Removable Oven Door	Yes	Yes

Table of Specifications

ltown	Best	Better
Items	NX58H9950WS	NX58H9500WS
Drawer		
Drawer capacity (cu.ft)	0.7	0.7
Туре	Warmer	Warmer
Drawer Heater Performance	600W	600W
Warm. Drawer Temp. Settings	Low-Mid-High	Low-Mid-High
Warm. Drawer Handle	Handle	Handle
Accessories/Others		
Anti-Tip Device	Yes (Leg Brackets)	Yes (Leg Brackets)
Griddle	1	1
Wok Grate	1	1
Wire Rack	2	2
Split Rack	0	1
Gliding Rack	1	0
Application Dimensions		
Actual Oven Dimensions (WxHxD)	25" x 21 1/8" x 19"	25" x 21 1/8" x 19"
Outside Dimensions (WxHxD)	29 13/16" x 36 3/16" x 26 3/8"	29 13/16" x 36 3/16" x 26 3/8"
Shipping Dimensions (WxHxD)	32 7/8" x 43 11/16" x 30 1/8"	32 7/8" x 43 11/16" x 30 1/8"
Net Weight (Kg)	233 lbs.	225 lbs.
Gross Weight (Kg)	256 lbs	248 lbs.

2-5 Accessories

Item	Description	Code No.	Quantity
	Assy-Grate Side Coating	DG94-00937A	2
	Assy-Grate Center Coating	DG94-00938A	1
	Plate Griddle	DG61-00563A	1
	Rack-Flat	DG75-01001C	2
	Assy Grate	DG94-00939A	1
	Assy Wire Rack (NX58H9950WS Only)	DG94-00908A	1
	Assy-Split Rack (NX58H9500WS Only)	DG94-00634A	1
	Sensor Probe	DG32-00013A	1

Tool for assembly and disassembly

Item	em How to use Pictures	
Screw driver	Use for assembly and disassembly of all screws	
Tubing Wrench	Use for assembly and disassembly of tubing to the burner cup	
7mm Vox Driver	Use for assembly and disassembly of injector nozzles. (Cooktop/Broil/Bake burner)	

3-1 COVER MOTOR CONVECTION



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

A WARNING

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.



3-2 ASSY CONTROL BOX

WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

🛦 warning

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.

When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.



3-3 ASSY FRAME COOKTOP



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

A WARNING

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.



3-4 SIDE PANEL

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.

When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.



3-5 ASSY BURNER BOX

🔺 WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

A WARNING

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

Explanation

- 1. Follow the steps in 3-1, 3-2, and 3-3.
- 2. Remove the Assy Motor (p 29) and 6 screws from a Guide Cooktop Rear.
- 3. Remove the Assy tube-manifold using a tubing wrench.
- 4. Remove 1 screw from a Cover Rear and 6 screws from a Assy Burner Box.
- 5. Remove 1 ground screw and Disconnect wires connected to a Cover Rear.
- 6. Remove the Assy Burner Box.



3-6 PCB ASSEMBLY, ASSY-FRAME COOKTOP

WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

Parts	Explanation	Explanation Photo
PCB ASSEMBLY	 Follow the step on 3-1. Disconnect 10 wire connectors from the Main PCB. Remove 2 screws of PCB assembly and replace the PCB. 	
ASSY- FRAME COOKTOP	 Follow the steps on 3-1. Disconnect 7 wire connectors from the Spark Module. Remove 2 screws from the Spark Module and replace it. 	

3-7 ASSY DISPLAY, ROTARY SWITCH

Parts	Explanation	Explanation Photo
ASSY DISPLAY	 Follow the steps on 3-2. Bend the Tail Holder of the Assy Display(PCB). Remove 2 screws from the Assy Display. Replace the Assy Display. 	Warming Drawer Warming Drawer Warming Drawer Warming Drawer Warming Drawer Warming Drawer
ROTARY SWITCH	 Follow the steps in 3-1 and 3-2. Remove 2 screws from the Holder Knob Warmer. Pull out the Rotary Switch and replace it. 	

3-7 ASSY DISPLAY, ROTARY SWITCH

WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

WARNING

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.



If replacing more than one burner cup, do not mix up the gas orifices. Incorrectly sized orifices could result in personal injury, fire, and/or poor cooking results.

3-8 ELECTRODE

Parts	Explanation	Explanation Photo
		Gas Orifice Burner Cup Tube
ELECTRODE	 Follow the steps on 3-1 and 3-3. Disconnect the wire connectors from the terminal on the Spark module. To remove the Electrode from the cup, squeeze the two outside edges of the clip under the electrode together while pulling to remove the locking clip. Slide the electrode and the wire from the cup. In case of Dual Burner, 	Bracket Spring Electrode Electrode Holder & Spring ETC
	Rotate Electrode and pull it up.	Wire Housing

3-8 ELECTRODE



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.



If replacing more than one burner cup, do not mix up the gas orifices. Incorrectly sized orifices could result in personal injury, fire, and/or poor cooking results.

3-9 BURNER CUP

Parts	Explanation	Explanation Photo
	 Follow the steps on 3-1 and 3-3. Using a tubing wrench on the 	Burner Cup Tube
BURNER CUP	 Using a tubing wrench on the gas line fitting and a channel lock wrench on the burner cup base, firmly hold the cup base in place while disconnecting the gas line. Remove a Electrode(p 25) The burner cup can be removed. Replace it. 	
	The new burner cup must be replaced with the same size as the one removed.	Bracket Spring Electrode Electrode
	 After replacement, You must check gas leakage 	

3-9 BURNER CUP



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.



EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.



CAUTION

If replacing more than one burner cup, do not mix up the gas orifices. Incorrectly sized orifices could result in personal injury, fire, and/or poor cooking results.

3-10 GAS ORIFICE NOZZLE

Parts	Explanation	Explanation Photo
GAS ORIFICE NOZZLE	 To remove the gas orifice, place the burner cup in a vise and remove the orifice with a 9/32- inch socket wrench. In case of the Dual Burner, it has 3 Orifice nozzles. Install a new gas orifice to the burner cup. 	<image/>

3-11 VALVE COOKTOP



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.



Check the parts code of the knob and/or Switch Ignition in case of replacement.

3-11 VALVE COOKTOP

Parts	Explanation	Explanation Photo
VALVE COOKTOP	 Follow the steps 3-2 and 3-3. Open or remove a Door. Place a finger behind each side of the switch ignition and pull it straight out to release it from the control shaft. Using a tubing wrench and a channel lock wrench, disconnect the gas lines from the valve cooktop. Do not bend or crimp gas lines during Removal. Remove the Valve Cooktop followed by removal of 1 screw on the valve cooktop. Replace the Valve Cooktop and Check gas leakage. When assembling or disassembling the valve, the screw torque should be adjusted to 1.5N.m. 	<image/>

3-11 VALVE COOKTOP



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.



EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.



Check the parts code of the knob and/or Switch Ignition in case of replacement.

3-12 SWITCH IGNITION

Parts	Explanation	Explanation Photo
SWITCH IGNITION	 Follow the steps on 3-1, 3-2, and 3-3. Place a finger behind each side of the switch ignition and pull it straight out to release it from the control shaft. Repeat this step to all switches. Disconnect the wires from the connectors on the Cover Rear. Bend the Clamp to disconnect the Switch Ignition Wire. Replace the Switch Ignition. 	

3-12 SWITCH IGNITION



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.



Check the parts code of the knob and/or Switch Ignition in case of replacement.

3-13 ASSY MOTOR, TCO

Parts	Explanation	Explanation Photo
ASSY MOTOR and TCO		
		Hooks of Bracket Motor Rear
	 Follow the steps on 3-1 and 3-3. Remove 2 screws from the Guide Cooktop Rear and a Bracket Motor Front. Disconnect 2 terminal housings from the Assy Motor and the TCO. Remove the Assy Motor and unbend the hook of the Bracket Motor Rear. Remove 2 screws from the Bracket Motor Front and the Bracket Motor Rear. 	Housing
	 Remove 2 screws from the TCO, then replace the TCO. 	

3-13 ASSY MOTOR , TCO



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.
3-14 ASSY DOOR LATCH

Parts	Explanation	Explanation Photo
ASSY DOOR LATCH	 Follow steps on 3-5. Remove 2 screws from the Cavity Front. Remove 2 screws from the Bracket-Latch sub to the rear of the range. Disconnect wires from the door latch to the rear of the range and remove it. Remove 2 screws holding the Assy bracket-latch rear to the rear of the range. Replace the Assy Bracket Latch. Test the Assy Door Latch to make sure it is latching and unlatching properly. 	Cavity Front Image: Displaying the series Image: Displaying the series

3. Disassembly and Reassembly

3-14 ASSY DOOR LATCH



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



3-15 ASSY PROBE

Parts	Explanation	Explanation Photo
		Connector of Assy Probe
ASSY PROBE	 Follow steps on 3-4. (removal of the left side panel). To replace the Assy Probe, remove 2 screws from the Assy Probe. Disconnect the Assy Probe connector. Replace the Assy Probe. 	

3-16 SWITCH-DOOR PLUNGER



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



Parts	Explanation	Explanation Photo
SWITCH- DOOR PLUNGER	 Turn off the electrical supply going to the range. Shut off the gas shut-off valve in the gas supply line to the range. Open the oven door. Carefully pull out the switch door plunger switch from the upper right corner of the cavity front. Gently grasp the plunger with pliers and work from side to side while pulling. Pull out far enough to expose the wires. Note the location and mark the wires; then disconnect the wire to the switch door plunger. Replace with the switch-door plunger, reconnect the wires in their original positions, and reinstall switch in the oven frame. 	Switch Door Plunger

3-17 ASSY LAMP

WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.

Parts	Explanation	Explanation Photo
ASSY LAMP	 Open the oven door and remove the racks from inside the oven. The oven lamp is in the upper right-hand corner of the oven cavity. Turn oven lamp cover counterclockwise to loosen and remove the cover. Remove the oven light bulb. After replacement, Install Oven light cover by turning clockwise. 	<image/>

3-18 SENSOR-THERMISTER



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



Parts	Explanation	Explanation Photo
Sensor- Thermister	 Follow steps on 3-1 Open the oven door and remove the racks from inside the oven. Disconnect connector of the sensor thermistor to the rear of the range. The oven sensor thermistor is in the upper left-hand corner of the oven cavity. Remove 2 screws and carefully pull the sensor wire leads until the wire connectors appear. Reverse the order to install the oven temperature sensor. If you can't access the wire connectors from inside the oven, remove the rear cover panel. Mark and disconnect the two wiresgoing to the oven sensor thermistor. 	<image/> <image/> <image/> <image/>

3-19 GASKET-DOOR

Parts	Explanation	Explanation Photo
GASKET DOOR	 Open the oven door to its fully down position. Pull the ends of the gasket out of the liner holes. Pull the oven door gasket clips out of the holes until all of the clips are removed. When the service is complete, Insert gasket clips in each mounting hole. Push the ends of gasket in end holes in the bottom of the front oven frame. Close the oven door. When you install the new gasket, make sure that all of the clips are seated in their liner holes, and that the ends of the gasket are pushed fully into their holes. Use the pointed end of a pencil to push the gasket ends into the holes. 	

3. Disassembly and Reassembly

3-20 OVEN DOOR



Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

The door is very heavy. Be careful when removing door. Do not lift door by the door handle.



Parts	Explanation	Explanation Photo
OVEN DOOR	 Fully open the door. Pull the hinge locks downward. Firmly grasp both side of the door at the top. Close door to the door removal position, which is approximately 5 degrees. Lift door up and out until the hinge arm are clear of the slot. 	<image/>

3. Disassembly and Reassembly

Parts	Explanation	Explanation Photo
OVEN DOOR	 To replace door 1. Firmly grasp both sides of the door at the top position. 2. Fully open the door. (If the door will not fully open, it means that the indentation is not seated correctly in the bottom edge of the slot. Push the hinge locks up to the locked position.) 3. Close the oven door. 	<image/>

3-21 HANDLE-DOOR, GLASS-INNER

Parts	Explanation	Explanation Photo
	 Remove the oven door from the range. Place the oven door on a padded work surface with the front glass facing down. Remove 3 bottom screws from the door. Remove 2 Handle-screws from the door. 	
HANDLE- DOOR , GLASS- INNER	 Lift the door rear assembly off the front assembly and set it aside Remove 2 spacers and 2 screws. 	<image/>

3-21 HANDLE-DOOR, GLASS-INNER

Parts	Explanation	Explanation Photo
HANDLE- DOOR, GLASS- INNER	To remove Handle-Door 1. Remove 2 screws to remove Handle- Door.	Nt58H9500WS
	 To remove Glass-Inner Remove 6screws from rear side of door to remove 2 Hinge-Door. Remove 4screws to remove Glass- Inner Sub Assembly. Remove 7screws to remove Baffle- Door. 	
	 Remove Baffle-Door and take out the Glass-Inner assembly. 	
	5. Unfold 2 flanges of Cover- Frame Inner Glass to take out Glass-Inner	

3-22 ASSY POWER CORD



A WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



Parts	Explanation	Explanation Photo
ASSY POWER CORD	 Turn off the electrical supply going to the range. Remove the cover screw and pull it out from the range. Remove the ground wire screw. Pull on the power cord wire. Disconnect the housing of the wire and replace it. 	<image/>

3-23 BURNER BROIL

WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.

Parts	Explanation	Explanation Photo
BURNER BROIL	 Follow the step on 3-1. Open the oven door and remove the racks from inside the oven. Disconnect the wires or the connector of the HSI. (Identify and mark the two wires going to HSI.) Remove 1 screw of bracket HSI- wire. Remove 4 screws on bracket- broil spreader to top of oven. Support the burner-broil with one hand, remove 2 screw supporting the burner-broil to the front and the rear of the oven. Pull the upper ASSY-BURNER BROIL SPREADER to disconnect it from the holder nozzle-broil on the rear wall of the oven. Carefully remove ASSY- BURNER BROIL SPREADER. Separate the burner broil and bracket-broil spreader. Replace the Burner Broil. 	ConnectorBracket HSI WireImage: Strate of the strate

3-24 HOT SURFACE IGNITOR, NOZZLE BROIL BURNER, HOLDER BROIL-**BURNER**



Disconnect power before servicing the range. Replace all panels before operating range. Failure to **do so** can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.

Parts	Explanation	Explanation Photo
HOT SURFACE IGNITOR (HSI) of the BURNER BROIL, NOZZLE BROIL- BURNER, HOLDER BROIL- BURNER	<continued> 12. To replace the HSI of the burner broil, remove 2 screws assembled to HSI 13. To replace the nozzle broilburner, remove the gas nozzle with a 9/32-inch socket wrench. 14. To remove the holder-broil burner, remove 2 screws supporting the holder-broil burner to the rear of the oven. 15. When the service is complete, reverse the order to install burner broil, HSI, Nozzle and Holder broil burner. Image: The oven burner flames can be adjusted by loosening the locking screw and opening or closing the air shutter at the base of the oven burner.</continued>	<image/> <image/> <image/>

3-25 BURNER BAKE

WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.

Parts	Explanation	Explanation Photo
	1. Turn off the electrical supply going to the range.	
	2. Shut off the gas shut-off valve in the gas supply line to the range.	
	3. Open the oven door and remove the racks from inside the oven.	
	 Pull on the wires or the connector until the wire connector appears from the back wall of the warmin drawer opening. 	Connector
BURNER BAKE5. Disconnect the connector of HSI of the burner bake.6. Remove 2 screws from the back of the cavity floor. Lift back to clear the front edge and lift out the cavity floor.	6 6 9	
	of the cavity floor. Lift back to clear the front edge and lift out	Cavity Floor 9
	7. Remove 2 screws from the front of the bracket bake-spreader.	Burner Bake
 8. Lift front the bracket bake-spreader and lift out the bracket-bake spreader. 9. Remove 2 screws from the Burner Bake and lift up the burner bake from the holder-bake burner on the bottom of the drawer. 	Spreader HSI	
	Burner Bake and lift up the burn bake from the holder-bake burne	

3-26 HOT SURFACE IGNITOR, NOZZLE BAKE BURNER, HOLDER BAKE-**BURNER**



Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

A WARNING

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.

CAUTION

Parts	Explanation	Explanation Photo
HOT SURFACE IGNITOR (HSI) of the BURNER BAKE NOZZLE BAKE- BURNER, HOLDER BAKE- BURNER	 <continued></continued> 10. To replace the HSI of the burner bake, remove 2 screws assembled to HSI. 11. To replace the nozzle bakeburner, remove the gas orifice with a 9/32-inch socket wrench. 12. To remove the holder-bake burner, remove 2 screws supporting the holder-bake burner to the rear of the oven. 13. When the service is complete, reverse the order to install Burner bake, HSI, Nozzle, Holder bake-burner. 14. The oven burner flames can be adjusted by loosening the locking screw and opening or closing the air shutter at the base of the oven burner. 	HSI Nozzle Nozzle Nozzle Notzl

3-27 WARMING DRAWER

WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.

Parts	Explanation	Explanation Photo
WARMING DRAWER	 Turn off the electrical supply going to the range. Shut off the gas shut-off valve in the gas supply line to the range. Open the warming drawer to the fully opened position. Locate glide lever on each side of drawer. Push down on the left glide lever and pull up on the right glide lever while pulling the drawer the rest of the way out. Place the ends of the drawer side rails into the ends of the drawer to close the drawer and snap the glide lever into place. 	<image/> <image/> <image/> <image/> <image/>

3-28 HEATER WARMING DRAWER

A WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



Parts	Explanation	Explanation Photo
HEATER WARMING DRAWER	 Turn off the electrical supply going to the range. Shut off the gas shut-off valve in the gas supply line to the range. Remove the warming drawer. Disconnect the connector from the back wall of the warming drawer opening. Remove the bottom screw and the heater-warming drawer from the back wall of the warming drawer opening. Reverse the order to install and connect the new heater warming drawer. 	<image/>

3-29 MOTOR CONVECTION

WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.

Parts	Explanation	Explanation Photo
MOTOR CONVECTION	 Explanation Follow the step on 3-1. Note, mark, and disconnect wires or connector going to the motor convection Open the oven door and remove the racks from inside the oven. Remove 2 screws and the interior cover casing from the back wall of the oven cavity. Remove the fan nut, fan blade from the motor convection shaft. (The convection nut has clockwise threads to remove the nut.) Unbend the bracket of the back main to the rear of the range. Pull the motor convection straight out while rotating the motor convection counterclockwise. When the service is complete, reverse the order to install the motor convection. The oven burner flames can be adjusted by loosening the locking screw and opening or closing the air shutter at the base of the oven burner. 	

3-30 HEATER CONVECTION



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



CAUTION

Parts	Explanation	Explanation Photo
HEATER CONVECTION	 Follow the step on 3-1. To remove heater convection, disconnect wires or connector going to the heater-convection Remove 2 screws supporting the heater-convection to the rear of the oven. Remove 1 screw holding the bracket- convection heater of the rear of the oven. Pull out the heater convection. Reverse the order to install the heater convection. 	<image/>

3-31 BRACKET CAVITY

WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.

Parts	Explanation	Explanation Photo
Bracket Cavity (NX58H9950WS)	 Turn off the electrical supply going to the range. Shut off the gas shut-off valve in the gas supply line to the range. Open the oven door and remove the gliding racks from inside the oven. Remove 4 screws from the Bracket cavity located in the both sides of rear cavity. 	<image/>

3-32 ASSY VALVE SAFETY



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



 Turn off the electrical supply going to the range. Shut off the gas shut-off valve in the gas supply line to the range. Remove the regulator support bracket from the rear of the range. Carefully identify and mark the wires going to the ASSY VALVE SAFETY. Disconnect the 4 wires. Cross-wiring the wires to the 	Parts	Explanation	Explanation Photo
ASSY VALVE SAFETYASSY VALVE SAFETY creates an explosion hazard that can result in death, personal injury, and/or property and product damage.Wire5. Using a tubing wrench and a channel- lock wrench, disconnect the 3 gas lines from the ASSY VALVE SAFETY. Do not bend or crimp gas lines during removal.Wire6. Remove gas fittings from the ASSY VALVE SAFETY.7. Remove 4 screws and the ASSY VALVE SAFETY from the back wall of the	ASSY VALVE	 Turn off the electrical supply going to the range. Shut off the gas shut-off valve in the gas supply line to the range. Remove the regulator support bracket from the rear of the range. Carefully identify and mark the wires going to the ASSY VALVE SAFETY. Disconnect the 4 wires. Cross-wiring the wires to the ASSY VALVE SAFETY creates an explosion hazard that can result in death, personal injury, and/or property and product damage. Using a tubing wrench and a channel- lock wrench, disconnect the 3 gas lines from the ASSY VALVE SAFETY. Do not bend or crimp gas lines during removal. Remove gas fittings from the ASSY VALVE 	ASSY VALVE SAFETY

3-32 ASSY VALVE SAFETY

WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.

Parts	Explanation	Explanation Photo
ASSY VALVE SAFETY	<continued> 8. Install the new ASSY VALVE SAFETY from the back wall of the warming drawer with 4 screws. 9. Reconnect gas lines to the ASSY VALVE SAFETY. ① Check all gas lines and fittings for leaks before operation. ② Cross-wiring the wires to the gas control valve creates an explosion hazard that can result in death, personal injury, and/or property and product damage. 10. Reconnect wire connectors in their original positions.</continued>	<image/> <section-header><image/><image/><image/><image/><image/></section-header>

3-33 COVER MOTOR



WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

EXPLOSION, FIRE, AND ASPHYXIATION HAZARD

Shut off gas supply to the range before servicing. Check all gas lines and fittings for leaks before operating the range. Replace all panels before operating range. Failure to do so can result in death or personal injury from explosion, fire, or asphyxiation.



When you work on the gas range, be careful when handling sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.



CAUTION

Check the parts code of the knob and/or Switch Ignition in case of replacement.

Parts	Explanation	Explanation Photo
ASSY VALVE SAFETY	 Follow the Step A and C. Pull out all Wires on the Cover Motor. Remove 3 screws on the Cover Motor. Replace the Cover Motor. 	<image/>

4-1 Failure Display Codes

There are two kinds of error codes. One denotes an oven temperature sensor error and the other denotes a safety error. Possible error codes during use can be checked before service.

- 1. Touch Clock pad.
- 2 . Touch the number pads 1,2,3 and 4. Make sure the Timer and Warming Drawer are both turned OFF.
- 3. Touch the Start/Set pad.
- 4. Touch the 'Clock' and the 'Touch to Wake-Up' pads at the same time for 2 seconds. Error codes are displayed.
- Press the 0 number pad, to display the latest 5 error codes. If the power is interrupted and the oven turns off, the stored error codes are deleted.
- 6. Press the Off/Clear pad to return to normal display mode.





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Oven sensor error

FAILURE CODE	CAUSE	SOLUTION
E-21	Oven Sensor Opened (Over 2950Ω)	 Disconnect electrical Power to the range. Remove the upper rear cover panel. Measure the sensor resistance:1080Ω at the room temperature → If there are any problems, replace the oven temperature sensor.
	(,	 If there is not any problem with oven temperature sensor, Please check whether there is a damaged terminal or wire on harness.
E-22	Oven Sensor Shorted (Under 930Ω)	 Disconnect the oven sensor connector from the PCB. Check resistance of oven sensor connector on PCB. (Normal : 2850Ω)

Failure Display Codes



Failure Display Codes

Safety Error

FAILURE CODE	CAUSE	SOLUTION		
E-24	Oven overheating error. (Temperature does not reach 650°F[343°C] in any cooking function, except Self Clean)	 Disconnect power. Open the rear cover. Disconnect the two harness connectors to the oven temperature sensor resistance:1080Ω at the room temperature → If there are any problems, replace oven temperature sensor. 		
		2. Check the broil and bake burners to make sure they are lighting and burning properly.		
		 Check whether DLB , Broil& Bake Ignitor is working normally. 		
		 Make sure all harness connections are properly connected and securely fastened to the PCB. 		
		5. Check the resistance of oven temperature sensor connector on PCB (Normal : 2850Ω)		

Failure Display Codes

Safety error



Failure Display Codes

Safety Error

FAILURE CODE	CAUSE	SOLUTION	
-SE-	Shorted Key (Key pad is pressed for 10 seconds.)	1. Check the membrane wire harness to make sure it is properly connected with PCB.	
		Disconnect the membrane wire harness. Check the harness, Membrane and PCB for short circuits.	
		3. If there is not a problem with connector on main PCB and membrane harness, replace the PCB.	
E-0E	Door locking error (Door lock in wrong position after 1 minute.)	1. Disconnect electrical power to the range. Remove the rear cover panel. Make sure the wiring harness is properly connected to the motorized door lock assembly.	
		Check motorized door lock assembly for proper operating resistance.	
		 With operating door lockout, measure a voltage of connector on harness which is linked with door lock motor. (Normal :Voltage : AC 120V) 	
		4. Check the door locking switch to make sure it is working properly.	

Failure Display Codes

Safety error



Failure Display Codes

Safety error



SYMPTOM	DIAGNOSIS	REMEDY			
Oven not operating (No power, No display)	plug. (120VAC) r * Measure the input voltage at terminal *	range circuit.			
		 Repair or replace the loose or disconnected harness. 			
	 Make sure that the bake, broil, and source control relays on the PCB are working normally. Make sure the harness connections at the PCB terminals (T02, T03) have not come loose or disconnected. 	Replace the PCB if a relay has been damaged; relay is not working properly; or if he PCB has a crack in it. Fighten or reconnect the PCB harness connections. After confirming the harness has been connected properly to the PCB, take the following action: Repair of replace the harness. Replace the PCB.			
	both ends of the oven temperature sensor. (normal : 1080 ohms) * F * Make sure the harness connections at the PCB connector CN04 have not v	* Repair or replace the harness.			
Oven temperature rises too slowly.	the oven fails to reach 125°F(52°C)rwithin 10 minutes at roomt	 Measure the oven temperature sensor resistance: (1080Ω at the room temperature). Replace a faulty oven temperature sensor. 			
	* Make sure the harness connections at the PCB terminals (T02, T03) have not come loose or disconnected.	* Repair or replace the harness.			
	* Make sure the broil and bake burners have been adjusted properly. * F * Make sure the oven burner orifices are sized properly for the type of gas being used. F	Open or close the air shutter at the base of he burners to optimize the flame pattern.Replace with properly sized orifices:Burner NG LPOrifice mm mmBroil1.641.02Bake1.901.15NOTE: High-altitude orifice kits are available.			
	* Make sure that the bake, broil, and source control relays on the PCB are working normally.	Repair or replace the faulty relay. Make sure all harness connections are properly connected. Replace the PCB.			

SYMPTOM	DIAGNOSIS	REMEDY			
	 The oven temperature exceeds 400°F(202°C) within 10 minutes of room temperature operation. 	* Repair or replace the faulty broil or bake relay.			
Oven temperature rises too fast.	 Make sure the harness is wired correctly and does not have a short circuit in it. 	* Repair or replace the harness.			
		* Replace with properly sized orifices:			
		Burner NG LP			
	* Make sure the oven burner orifices	<u>Orifice mm mm</u>			
	are sized properly for the type of gas being used.	Broil 1.80 1.02			
		Bake 1.90 1.15			
		NOTE: High-altitude orifice kits are available.			
		Replace the PCB. Check the source control relay (PV01) and			
		* Check the source control relay (RY01) and replace if it is not working properly.			
Oven is	 * "E-0A" will show on the display if the oven temperature reaches 650°F 	 Make sure all wire harnesses are securely fastened. 			
overheating in all cooking modes.	(343°C) in any cooking function, except self clean.	* Check the resistance of oven temperature sensor connector on the PCB. (Normal : 1080 ohms)			
		* Replace the PCB.			
The self-cleaning feature will not operate when the warming drawer is on.	* This is normal.	* The self-cleaning feature will not operate when the warming drawer is on.			
	* Make sure the door lock feature is not turned on.	 Unlock the controls by pressing and holding the lock key for 3 or more seconds. 			
Membrane control keypads are not working properly.	* Check to see if the sabbath function has been turned on.	 Press and hold the Sabbath pad for at least 3 seconds. The display will show the time of day when the function is turned off. 			
	* Check the membrane control harness and connectors (CN08) on the PCB and membrane control glass panel.	* Reconnect securely or replace damaged membrane control harness.			
	* Check connector (CN08) and/or the PCB for damage.	* Replace the PCB assembly. (PCB and			
	* Check the membrane control panel for damage.	membrane control glass panel.)			
Warming drawer heating is not working.	* Measure the resistance of the warming drawer heating element.	* Replace the warming drawer heating element.			
	* Check the warming drawer terminal (T04) on the PCB.	* Securely fasten wire to PCB terminal (T04).			
	 * Check the warming drawer relay (RY04) on the PCB. 	* Replace the warming drawer relay (RY04).			
		* Replace the PCB.			

SYMPTOM	DIAGNOSIS	REMEDY		
	 Make sure the door lock feature is not turned on. 	 Unlock the controls by pressing and holding the lock key for 3 or more seconds. 		
	* Check for a burned out bulb.	* Replace with a 40 watt appliance bulb.		
Oven lamp is not working.	* Check the harness connections, the oven lamp relay (RY06), and the source control relay (RY01).	 * Repair or replace loose or disconnected harness. * Replace any malfunctioning relays. 		
	 Measure the resistance across the light ballast/socket terminals. (Normal : ∞) 	* Replace the light ballast/socket.* Replace the PCB.		
Convection fan is not rotated.	* Check the harness and harness connector (CN02) on the PCB and at the terminals at each convection motor).	* Reconnect a loose or disconnected harness or replace a damaged harness.		
	* Check the membrane control harness and connectors (CN08) on the PCB and touch control panel.	* Reconnect securely or replace a damaged membrane control harness.		
	* Check the convection fan relay (RY05) and the connector (CN02) on the PCB.	* Replace the malfunctioning relay.* Replace the PCB.		
	* Measure the resistance across the fan motor terminals.	* Replace the burned out fan motor.		
The oven smells and/or smokes when it is initially started.		* The insulation around the oven will give off a slight odor until the adhesive has cured. This should go away after the first couple of oven uses.		
	* This is normal.	* The oven is designed to burn off dirt and/or foreign substances.		
		 If the oven is dirty, run a self-cleaning cycle. (See page 53 in the "User Manual".) A ventilation system should be used while the oven is self cleaning. 		
The LED display is dim or not visible.	* Check the membrane control harness and connectors (CN08) on the PCB	* Reconnect securely or replace a damaged membrane control harness.		
	and membrane control panel. * LED display is inferior.	* Replace the PCB assembly. (PCB and membrane control glass panel.)		
The buzzer does not beep when a keypad is	 Check to see if the sabbath function has been turned on. The buzzer does not work on the 	* Press and hold the Sabbath pad for at least 3 seconds. The display will show the time of day when the function is turned off.		
touched.	* The buzzer does not work on the PCB.	* Replace the PCB.		

SYMPTOM	DIAGNOSIS	REMEDY
None of the cooktop burners will light.	* There is no electrical power to the range.	* Plug in the power cord and/or reset the circuit breaker for the range.
	* The gas supply valve to the range is closed.	* Open the gas supply valve.
	* Check the terminals on the spark module for voltage.	* Replace the faulty spark module.
	* Check for crimped or broken gas line between the pressure gas regulator and the surface burner control manifold.	* Replace the damaged gas line.
	* Gas pressure regulator switch is closed.	* Replace the gas pressure regulator.
	* Check the harness connections at the spark module.	* Reconnect loose conection or replace damaged harness.
One cooktop burner does not light.	* Check the spark module.	* Disconnect the spark module terminal for the nonworking burner. If no voltage is measured, replace the spark module.
	* Check the electrode for that burner.	* Disconnect the electrode and check whether electrode wire or tip is broken. Replace the faulty electrode.
	* Check for a dirty surface burner orifice.	* Clean and/or replace the surface burner orifice. NOTE: Replacement orifice should always be the same size as removed.
	* Check for crimped or broken gas lines.	* Replace damaged gas lines.
	* Faulty surface burner control	* Each surface burner control is an integral part of the surface burner control manifold. Replace the manifold.
All surface burners will light, but don't stay lit.	* Check for crimped gas line between the pressure gas regulator and the surface burner control manifold.	* Replace the damaged gas line.
	* Faulty gas pressure regulator.	* Replace the gas pressure regulator.
One cooktop burner lights, but doesn't stay lit.	* Check for a dirty surface burner orifice.	* Clean and/or replace the surface burner orifice. NOTE: Replacement orifice should always be the same size as removed.
	* Check for a crimped gas line.	* Replace the crimped gas line.
	* Faulty surface burner control.	* Each surface burner control is an integral part of the surface burner control manifold. Replace the manifold.

SYMPTOM	DIAGNOSIS			REMEDY	
Cooktop burner flames are soft blue or have yellow tips.	* This is normal.			*	Soft blue flames are normal flames for NG operation. Soft blue flames with yellow tips are normal flames for LP operation.
	* Check for proper sized orifices:				
		NG	LP		
	LF	1.78	1.04	*	
	LR	1.40	0.83		Replace any wrong sized orifices.
	C	1.38	0.83		
Cooktop burner	RF	1.30/1.30/0.70	0.74/0.74/0.46		
flames are mostly	RR	1.01	0.62		
yellow.	NOTE: High-altitude orifice kits are available.				
	* Check for crimped or cracked gas line between the pressure gas regulator and the surface burner control manifold.		*	Replace the damaged gas line.	
	* Faulty gas pressure regulator.		*	Replace the gas pressure regulator.	
4-2 Control parts

No display



Control parts

Touch Keypad is not working properly



Cooktop parts

Buzzer does not beep when keypad is touched.



Cooktop parts

Cooktop burner not lighted [Gas malfunction]



Cooktop parts

Cooktop burners not lighted [Electric malfunction]



Cooktop parts

One cooktop burner not lighted [Electric malfunction]



Cooktop / Oven parts

The flame looks abnormal. [Yellow tip / Lift flame]



Cooktop parts

Flame size is too big or too small



4-3 Oven parts

Oven burner will not light [Broil / Bake burner]



Oven parts

Oven temperature rises too slowly (Electrical)



Oven parts

Oven temperature rises too fast (Electrical)



Oven parts



Oven temperature rises too slow or too fast [Gas malfunction]

Oven parts

Oven overheating in all cooking modes.



Oven parts

Oven lamp not working



Oven parts

Convection fan not working



4-4 Warming drawer parts

Warming drawer not heating



5. PCB Diagrams

5-1 Figure of PCB and Membrane

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PCB Main



Assy Display



5. PCB Diagrams

5-2 Explanation of Membrane Keypad



- 1. Touch control panel allows user to operate the oven, oven light, warming drawer and Convection heater, and clock and timer operation by touching the control panel in the front.
- 2. The marking on the front of touch glass acts as a guide for where the panel should be touched to select and program that function. If touch control stops working, replace the Control panel.
- 3. Touch glass tail connects the Keypad to PCB.

5-3 Explanation of NX58H9500WS Main PCB parts



No	Parts Number	Part Name	Funtion and Rule	
1	RY501	RY-Source Relay	This is relay which control source of DLB,BAKE,BROIL, W/ Drawer relay.	
2	RY502	DLB Relay	Circuit is designed to have broil relay or convection relay worked after DLB relay is being worked by Double line break. (It will not be problem with reversing the order in inserting Red)	
3	RY503	Broil-Heater Relay	Broil relay(Ry503), Bake relay(Ry504), convection relay(Ry505)	
4	RY504	Bake-Heater Relay	will be on-off	
5	RY505	Conv-Heater Relay	working by mi-com signal after DLB relay is worked. (Broil relay : It will not be problem with reversing the order in inserting Brown) (Bake relay : It will not be problem with reversing the order in inserting Blue)	
6	RY506	WD-Heater Relay	This is Relay to control Warming Drawer-Heater.	
7	RY507	WC-Heater Relay	This is Relay to control Cooling motor.	
8	RY508	Conv-Fan-U Relay	This is relay which is connected with Conv. Fan.	
9	RY509	Conv-Lamp-U Relay	This is relay which is connected with Conv-Lamp-Upper	
10	RY510	Door Lock Relay	This is relay which is connected with door lock motor.	
11	RY511	Oven-Fan-L Relay	This is Relay to control Cooling motor.	
12	RY512	Oven-Lamp-L Relay	This is Relay to control Cooling motor.	
13	CN101	Power Connector	This is to supply power with SMPS.	

5. PCB Diagrams

No	Parts Number	Part Name	Funtion and Rule
14	CN201	Sub Communication Connector	This is connector which is connected with Sub PCB to commu- nicate.
15	CN202	MICOM Writing Connector	This is connector is for writing MICOM
16	CN301	Oven Sensing Connector	This connector which is connected with oven sensor.
17	CN401	Door Lock, Divider Connector	This is connector which is connected with Door plunger switch and Door lock switch, divider switch.
18	CN501	Relay Connector	This connector which have Door lock motor, Lamp, Convection fan, Cooling motor connected.
19	CN502	Relay Connector	This connector which have lower lamp and relay of lower con- vection fan connected
20	T510		
21	T501	DLB Terminal	This is terminal to connect horness with DLP relay
22	T502		This is terminal to connect harness with DLB relay.
23	T511		
24	T503	- Broil Terminal	This is terminal to connect harness with Broil relay.
25	T504	Bioli reminal	This is terminal to connect namess with brointelay.
26	T505	Bake Terminal	This is terminal to connect harness with Bake relay.
27	T506	Convection-Heater Terminal	This is terminal to connect harness with convection-heater relay.
28	T507		
29	T508	WD-Heater Terminal	This is terminal to connect harness with relay to get heater on warming drawer work.
30	T509	WC-Heater Termainal	This is terminal to connect harness with relay to get cooling motor work.

5-4 Explanation of NX58H9500WS Display PCB parts



No	Parts Number	Part Name	Funtion and Rule
1	RY400	VFD Power Relay	This is Relay to control VFD Power
2	RY401	Cooling Motor Relay	This is Relay to control Cooling Motor
3	CN200	Touch IC Writing Connector	This is connector for writing Touch IC
4	CN201	Touch Glass Connector	This connector is connected with Touch Glass
5	CN300	Rotary Switch Connector	This connector is connected with Rotary switch
6	CN400	Option Connector	This is connector for model option
7	CN401	VFD Power, Cooling Motor Re- lay, Cook-top Sensing Connector	This connector is connected with Cooling Motor, Cooktop sens- ing parts and power of VFD SMPS.
8	CN402	MICOM Writing Connector	This is connector for writing MICOM
9	CN403	Main Communication Connector	This connector is connected with Main PCB to communicate.

6-1 Wiring Diagram



Wiring Diagram



Wiring Diagram



7-1 Checkpoints before service request

SYMPTOM	DIAGNOSIS	REMEDY
	 Measure an input voltage. (120V) Measure an input voltage of power cord housing. 	 Check circuit breaker. Make sure that the state of wire is connected with power cord housing.
	 Measure voltage of connector (CN101) on Main PCB L1~N : 120V 	 Check the harness is inserted into the relay on sub PCB Replace or repair harness. Replace Main PCB.
Oven is not operated (No power, No display)	Make sure that the relay on Main PCB is properly worked.	Replace or repair harness.Replace or repair Main PCB.
	 Measure voltage regulator(IC102) on Main PCB. - IC102 : 7812A(DC 12V) Measure voltage regulator(IC103) on Main PCB. - IC103 : 7805A(DC 5V) 	• Open and close the door again. (Beeping sounds indicate that the food is ready to be removed from the oven after cooking is complete.)
	Check whether valve of gas line is opened	• Make sure that valve is opened.
Cooktop is not worked (Ignition fault)	Check whether ignition spark is generated from the electrode	 Make sure that terminal of electrode is connected to the spark module Replace the electrode (in case of broken electrode or cut-off wire) Replace the spark module.
	Check whether harness is connected to Broil, Bake and convection heater (Disconnected or Loosen)	Repair and replace harness.
Oven temperature	• Measure the resistance of both ends of housing at hot surface ignitor (345Ω)	Repair the hot surface ignitor
is increased too slow	• Measure the voltage of Safety valve (This should be corrected to 3.3/3.6 amps VAC.)	Repair the safety valve
	• Make sure that heater relay and pattern on main PCB.	Replace or repair relay.Replace or repair Main PCB.
Oven temperature is increased too fast	 Check whether temperature is risen over 400°F(204°C) within 10 minutes at room temperature. 	If relay on Main PCB has a short circuit, replace it.
IS INCLEASED TOO TAST	Check whether harness is misconnected or has a short circuit.	Replace the harness.
Keypad is not properly	Make sure that keypad cable on Display PCB is in normal state.	Replace the keypad in case that it is loosen or disconnected.
worked	 Make sure connector (CN201) on Display PCB or PCB pattern. 	Replace or repair the keypad in case cable is loosen or disconnected.

Checkpoints before service request (Continued)

SYMPTOM	DIAGNOSIS	REMEDY
Warming drawer is not	 Check a relay(RY506) and a terminal(T508) at warming drawer 	 Replace the terminal(T508) or relay (RY506). Replace a Main PCB.
worked	 Measure whether resistance of warming drawer heater is in normal extent or not. 	Replace a warming drawer heater.
Oven lamp is not worked.	Check the oven lamp's relay and connector (CN501).	 Replace or repair if the harness is loosen or disconnected. Replace oven relay(RY509). Replace Main PCB.
	Measure the resistance of both ends of lamp terminal.	Replace lamp if it is disconnected. (120V / 40W)
Smell or smoke is occurred during the very first operation.	This is in normal state.	• Smell or smoke from the burning dirt in the oven might be generated at the very first operation.
LED display is a little dim or dark, so it makes uncomfortable to see.	LED display is inferior.	Replace the Display PCB.
There is no buzzer beep sound while keypad is being touched.	• Check the state of buzzer on main PCB and whether PCB pattern has a short circuit or has been open.	Replace or repair Display PCB.
Cooktop flame with LP is extraordinary short	Check the cap of regulator.	 Remove the cap of regulator and mount it again upside down. Replace the regulator
Cooktop flame with LP is extraordinary long (with yellow flame)	Check the injector nozzle.	 Replace the NG injector nozzle to LP injector nozzle. (Basically LN injector nozzles are mounted at production line)
Broil/Bake with LP shows too much yellow flame and soot	Check air shutter of the broil / bake burner.	 Make the air shutter fully opened. (Basically opening of air shutter is applied for LN gas at production line)
Convection fan is	Check whether Convection fan relay on main PCB and connector(CN501) is in normal.	Replace or repair Relay.Replace or repair connector.
not rotated.	 Make sure whether harness between Connector on Main PCB and Connector (CN501) on Main PCB is connected in normal. 	Replace or repair harness.Replace or repair connector.Replace Main PCB.



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