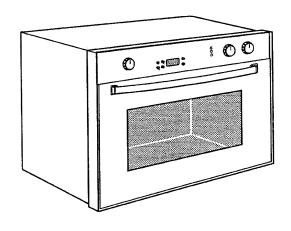
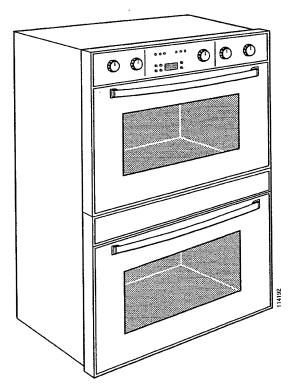
# **BOSCH**

# Service Manual





Single & Double Oven Models HBL 43../44../45.. HBN 44../45..

#### Conversion of 400/500/600 Series Wall Ovens from 240V to 208V Operation

The conversion of 400/500/600 series wall ovens from 240V to 208V is achieved by removing the "U" shaped connector pin from the single terminal position #1 and inserting it across terminal positions 1 and 2 as explained below.

#### **PROCEDURE:**

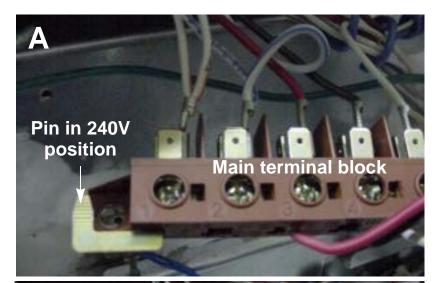
Using a Phillips head screwdriver, remove the back access panel.

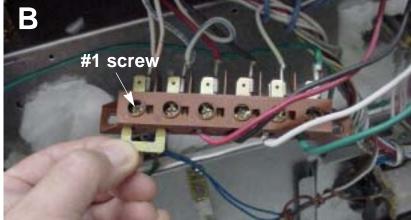
(NOTE: Do NOT remove the entire back panel.)

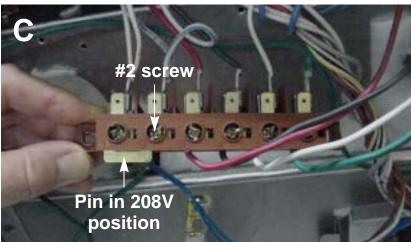
- □ Locate the main terminal block and verify that the pin is in the 240V position (A).
- □ Unscrew the first screw (in position #1) on the main terminal block and remove the pin (B).

(NOTE: Take care not to drop the pin down into the back panel.)

- □ Loosen the second screw (in position #2) on the main terminal block and insert the pin into the 208V position (between the first and second screws) (**C**).
- ☐ Tighten the screws and reattach the back access panel.

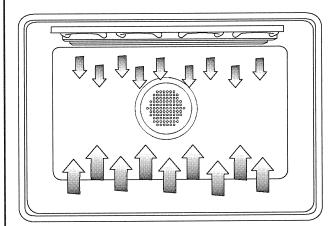






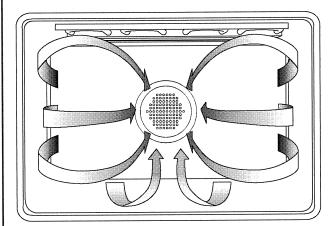
## **Oven Modes**

The following illustrations give an overview of what happens in the oven with each mode setting. The arrows represent the location of the heat source during specific modes. The lower element is concealed under the oven floor.



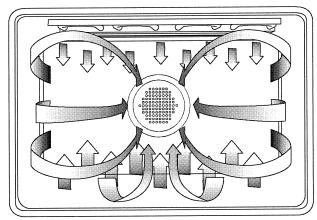
#### **BAKE and WARMING**

Baking is cooking with heated air. Both the upper and lower element cycle to maintain the oven temperature. In the Warming mode, the oven will use the lower element to maintain a low temperature to keep food at serving temperature.



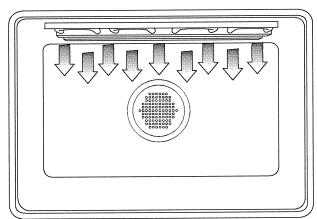
#### **CONVECTION BAKE and DEHYDRATE**

Convection Bake cooks with heat from a third element behind the back wall of the oven. The heat is circulated throughout the oven by the convection fan. Dehydrating is similar to convection cooking and holds an optimum low temperature while circulating the heated air to remove moisture slowly for food preservation.



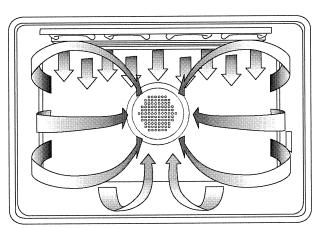
#### **CONVECTION ROAST**

Convection Roast uses the top element, bottom element and convection fan.



#### BROIL

Broiling uses intense heat radiated from the upper element.

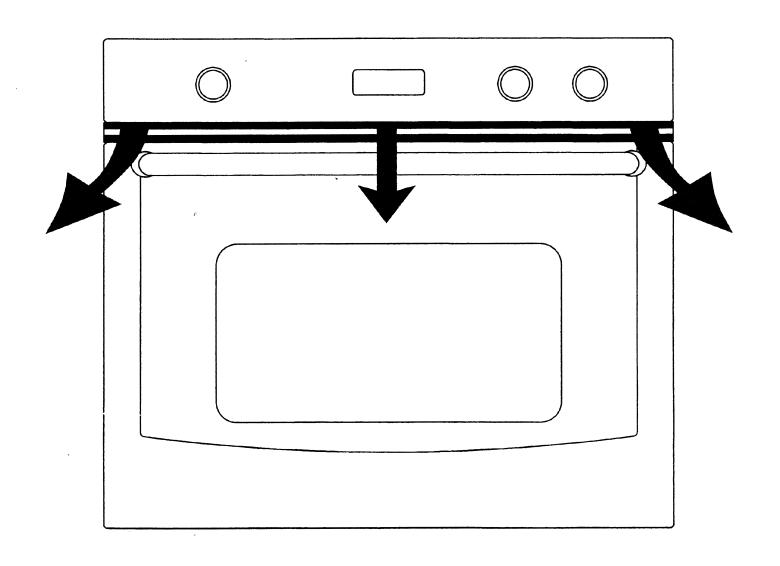


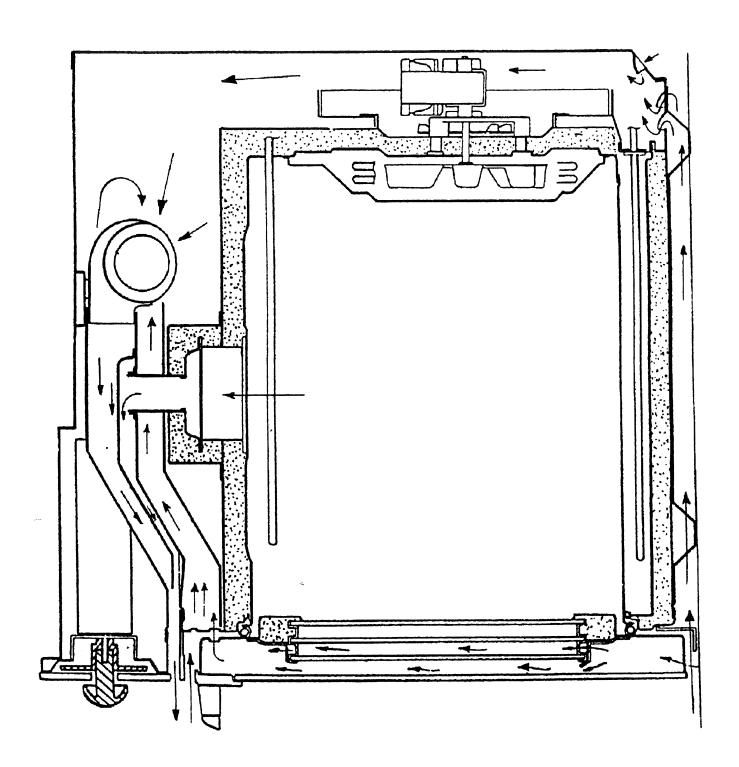
#### **CONVECTION BROIL**

Convection Broil combines the intense heat from the upper element with the heat circulated by the convection fan.

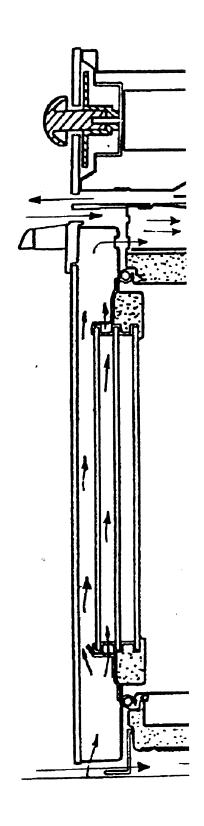
# DIFFERENCES BETWEEN BOSCH OVENS SERIES HBL / HBN 600 AND NEW SERIES HBL / HBN 400

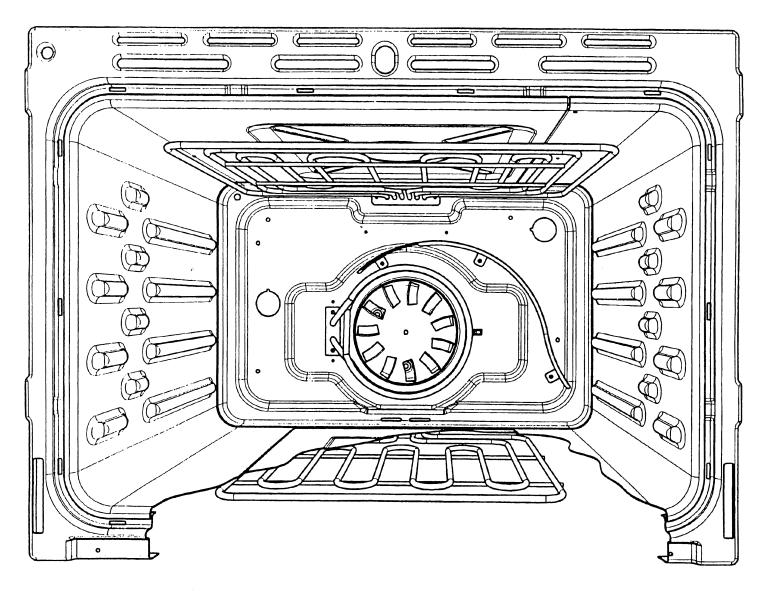
- Door handle same as series HBL / HBN 700
- New knob: protruding instead of push-push
- On stainless steel models new skins for door and control panels
- To improve cooking performances, on the fan baffle one slot is eliminated
- Improved stop position on racks
- Pan support eliminated
- Energy regulator for convection bake eliminated. The temperature swing is larger (±15°F instead of ±7°F when set at 350°F)





# PATENTED COOL TOUCH DOOR





Heating elements BSH/series 400 -convection system-



## **Cooking Time & Temperature Table**

Thermal Cooking		Convection C	Convection Cooking	
Temperature	Time	Temperature	Time	
400°	30 Min.	370°	24 Min.	
375°	45 Min.	350°	35 Min.	
350°	60 Min.	320°	48 Min.	
325°	90 Min.	300°	70 Min.	

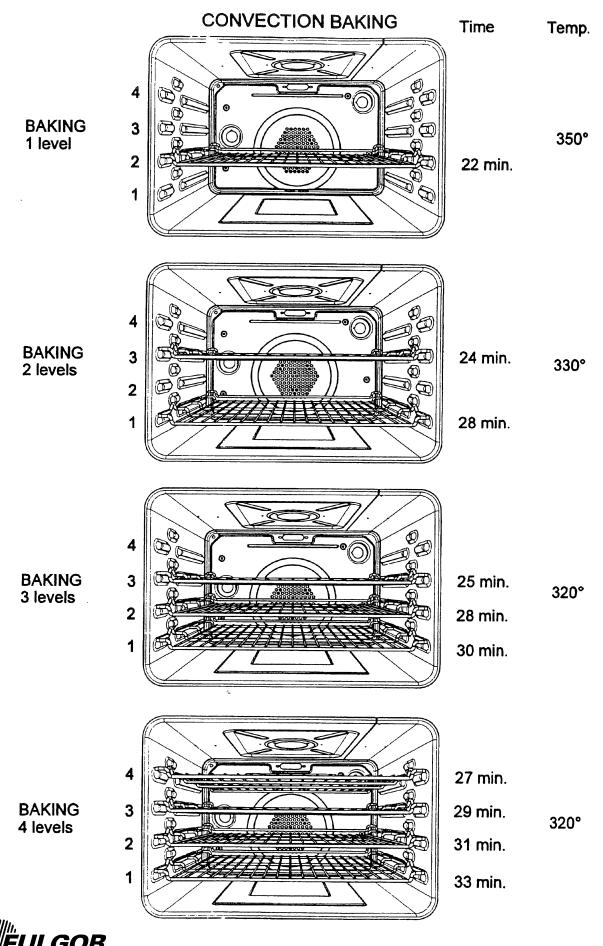
• This time and temperature table can only be an indication and can vary under different conditions!

#### Note:

Any time set for a recipe under the condition of Thermal Cooking mode should be reduced approximately 10% in the condition of Convection Bake Mode. This measure is based on the condition that the 400 series of BOSCH is equiped with the real European Convection System.

The time table above applies if the user is cooking on only 1 shelf.

Then the cooking time should also be reduced in accordance. E.g. by using only one level in Convection Bake the time should be reduced approximately 20 % as mentioned in a recipe for a Thermal wall oven. This rule applies if the cavity will be used in a preheated condition. If the food will be set in the cool cavity then approx. the same cooking time applies like in a Thermal. If cooking on 2 or more levels in Convection mode additional time must be added (see corresponding table).

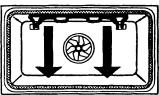


**TRAINING** 

#### **Cooking Function Settings**

#### Thermal Oven

#### **Function** Information



**Broil** - Used for broiling. When set on Broil the two top elements operate whenever heating.

May be used with door open or closed.

Bake (Roast) - This mode is used for baking, roasting and heating of casseroles, etc. When set on Bake the top element and the bottom element operate whenever heating.



Note: Lower element shown for clarity only. Lower element actually is located below floor of cavity

#### Convection Ovens have following additional cooking functions



Convection Bake - The most versatile mode for baking and heating a variety of dishes. Also recommended for preparing large quantities of food on several racks.

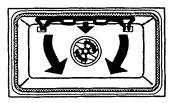
When set on Convection the rear circular bake element operates whenever heating. Fan operates.

Note: Lower element shown for clarity only. Lower element actually is located below floor of cavity

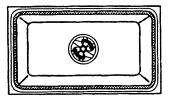


Convection Roast - Use for roasting.

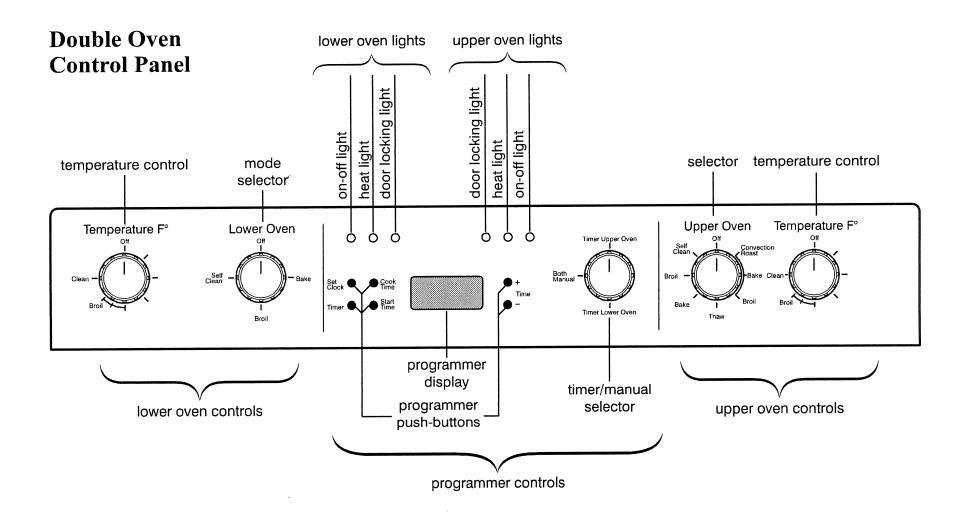
When set on Convection Roast the top element and the bottom element operate whenever heating. Fan operates.



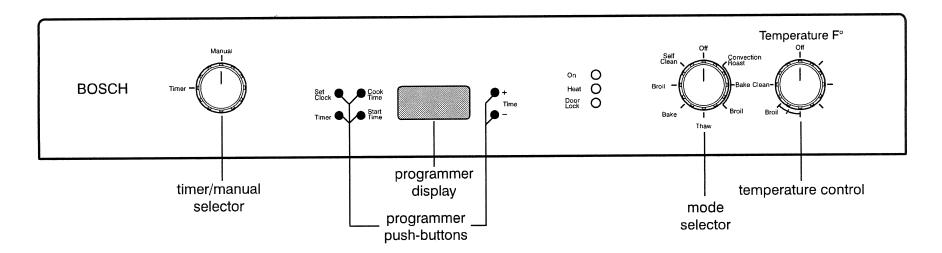
Convection Broil - Use of fish and broiling thick cuts of meat. The door must be closed when Convection Broiling. When set on Convection Broil both top elements operate whenever heating. Fan operates.

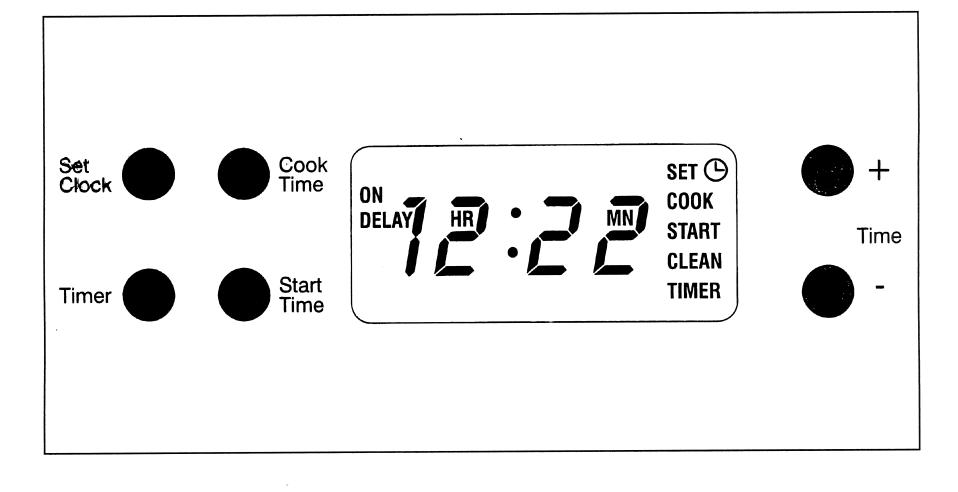


Thaw - Use for defrosting. When set on Thaw no elements operate, only the fan is on.



# **Single Oven Control Panel**





# Guidelines and Hints when using Convection Bake Mode:

- 1. BSH series 400 allows to use up to 4 levels at one time. This means e.g. that 4 sheets of chocolate chip cookies or four levels of Pizzas can be baked to perfection at the same time.
- 2. If using more than 1 sheet the temperature must be reduced accordingly. At the same time a few minutes per additional sheet must be added for the cooking process.
- 3. To reach the best possible results it is important to be aware that the cooking time at the different levels can vary, depending on the levels used.
- 4. By using more than one level a lot of moisture will occur in the cavity and the door window could collect steam and gets foggy. This is normal and after some minutes the moisture will disappear and the door glass will be clear again.
- **5.** The cookie sheets should always be smaller than the grid to be placed on. One inch distance on each side should be sufficient to allow a good airflow surrounding the food.
- **6.** Improved baking results will be reached by placing a metal bowl with water on the bottom of the cavity during the Convection Bake mode.
- 7. Many kind of food can be placed in the cold cavity if choosing Convection Cooking modes. But in case of recipes for very sensitive cookies we recommend to place them in the preheated oven. The cavity has reached the set temperature after the preheat indication light turns off the first time.
- 8. It is important to set the food on the recommended levels when using 1, 2 or 3 levels at the same time.

# **Use and Settings of the Electronic Timer**

The electronic timer is a 12 hour unit without am and pm indication. The timer enables cooking of food with automatic shut-off of the heating elements and works in all cooking modes. Additionally the unit is equiped with a timer function without automatic shut-off function.

To set the electronic timer follow the steps:

- 1. Set Day Time: Push first the "Set Clock" button and then push the + button to set the correct time. If the + button was pushed too long the time can be adjusted by pushing the button. After the right time is set the "Set Clock" button must be pushed again within 5 seconds to enter the correct time.
- 2. Set the Cook Time: Push first the "Cook Time" button and then push the + button to set the desired time for preparing the food. Any necessary adjustments can be made by pushing the button. After the right "Cook Time" is set the "Cook Time" button must be pushed again within 5 seconds to enter the correct time.
  - Cancellation of the Cook Time can be made by pushing "Cook Time" button twice shortly.
- 3. Set Start Time: First push the "Start Time" button and then push the + button to set the desired Start Time. Any necessary adjustments can be made by pushing the button. After the right "Start Time" set the "Start Time" button must be pushed again within 5 seconds to enter the correct time.
  - Cancellation of the Start Time can be made by pushing "Start Time" button twice shortly.

4. Set Timer: Push first the "Timer" button and then push the + button. Any necessary adjustments can be made by pushing the - button.
 After the right "Timer" time is set the "Timer" button must be pushed again within 5 seconds to enter the correct time.

#### Note:

At the end of the set time an acustic "Beep" will sound in intervals of ten seconds. After pushing any of the buttons at the electronic timer the "Beep" will stop.
Automatic cooking can only work if the Cooking mode and the right Temperature was selected before.
Double wall oven units are equiped with a selector switch. The switch can be set in three positions:

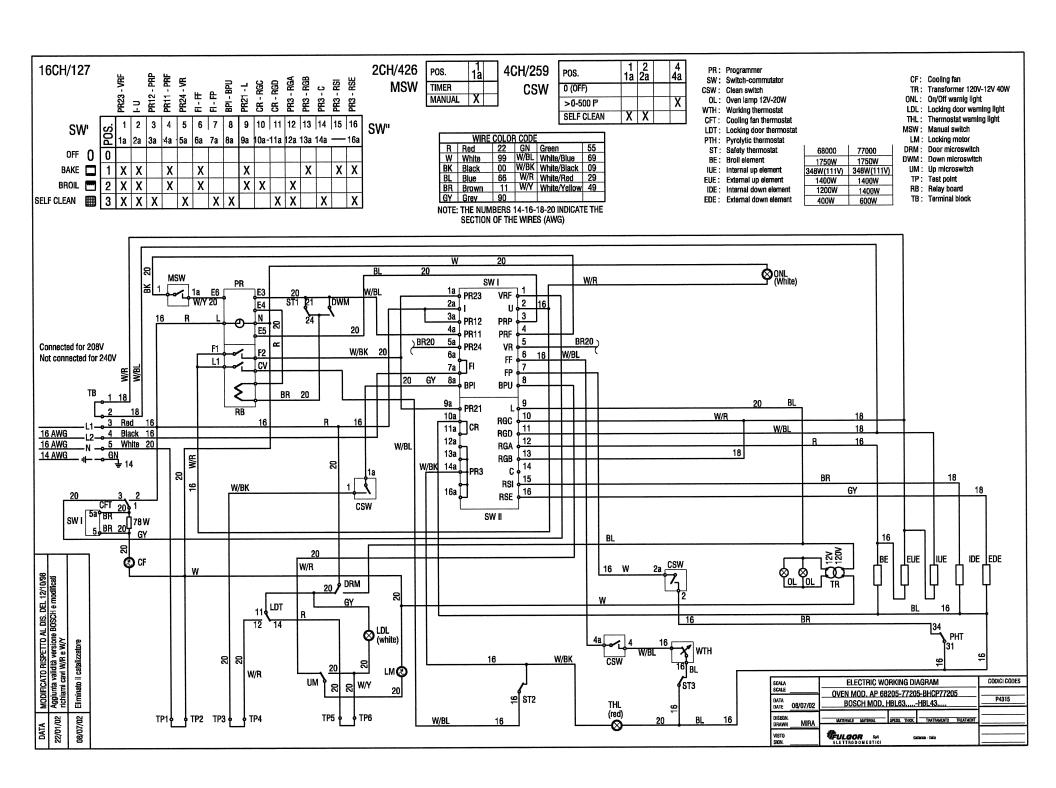
- Timer Upper Oven
- Both Manual
- Timer Lower Oven

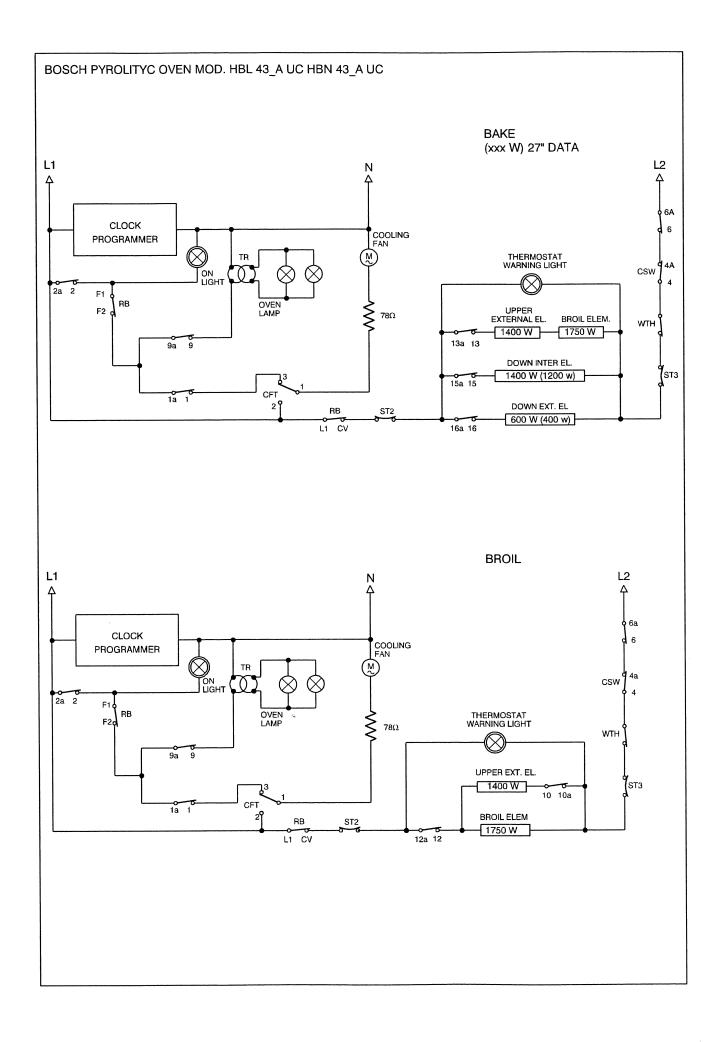
The electronic timer can either set to control automatically the Upper Oven or alternatively the Lower Oven. In the setting position "Both Manual" in none of the cavities can be cooked automatically.

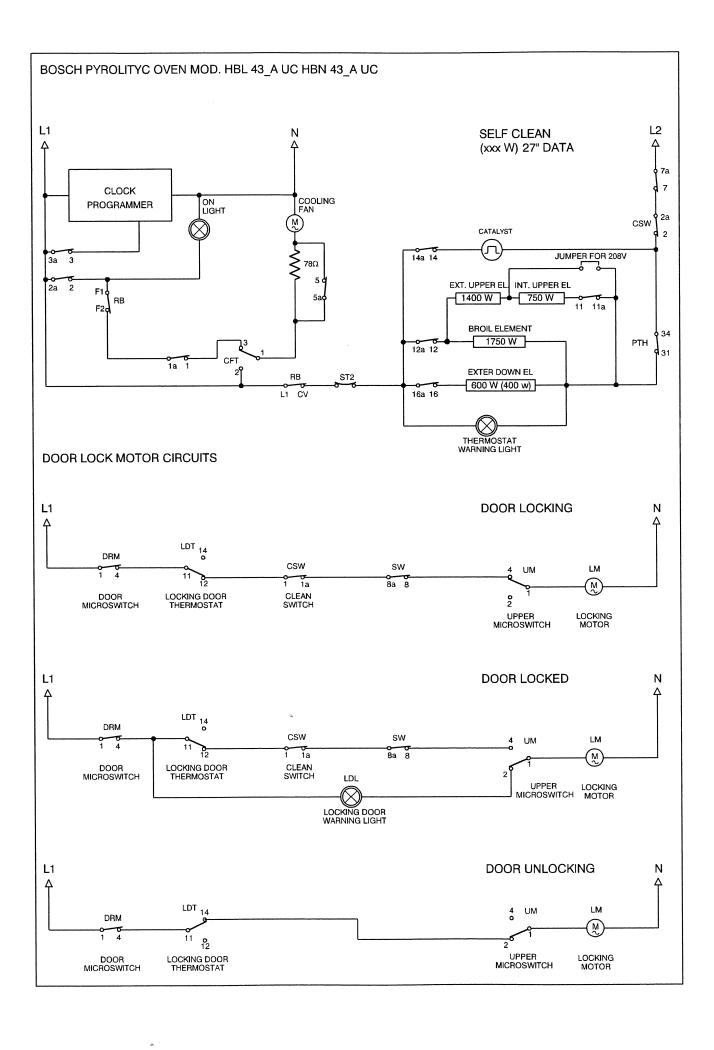
If e.g. the "Upper Oven" is set automatically then the "Lower Oven" can be operated only manually.

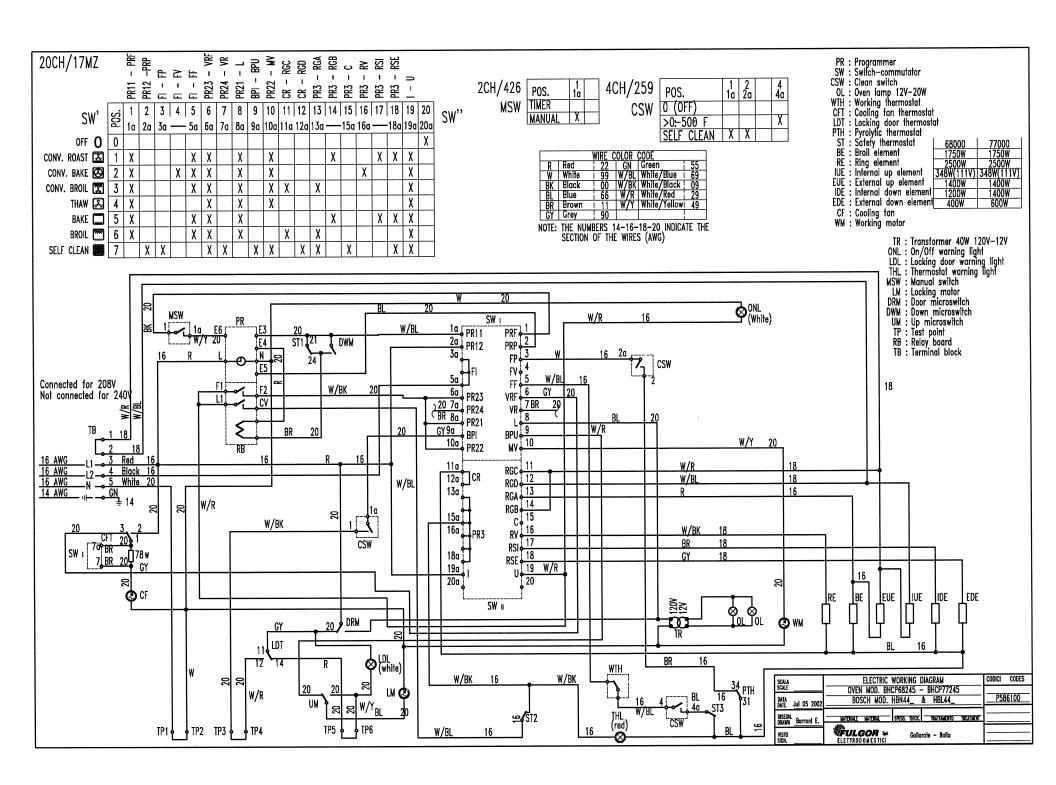
# **Maintaining And Cleaning**

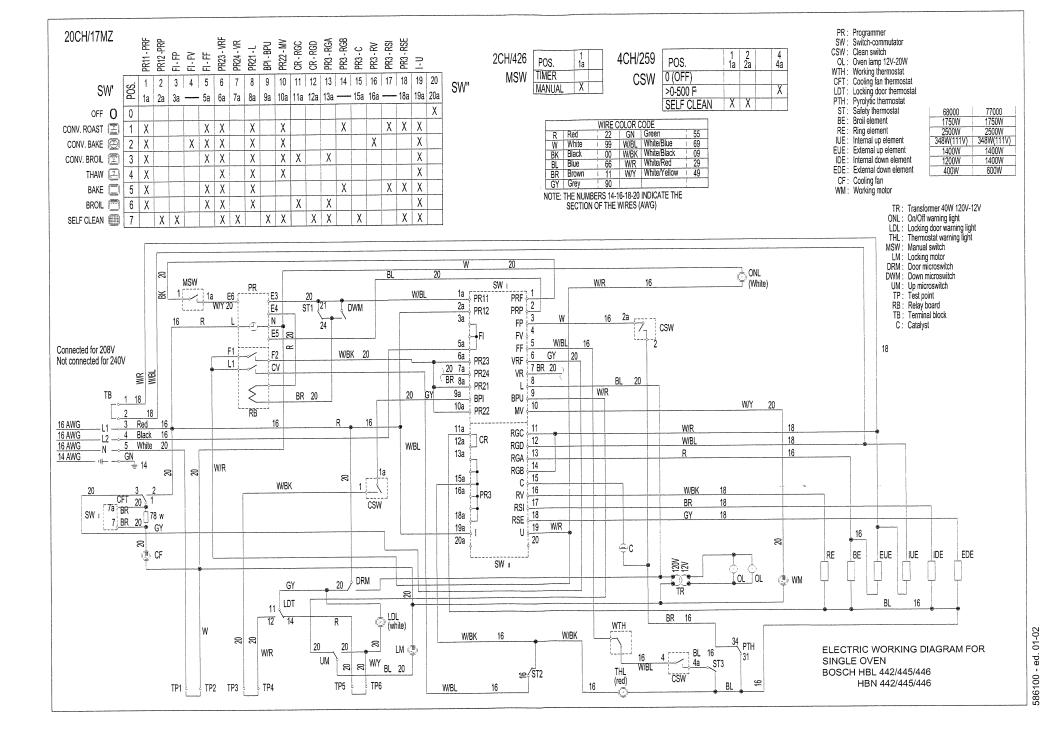
- To clean the cavity and the inner door never use any metal tool. After the Pyrolytic Cleaning process use only a damped cloth or sponge with dish soap for final cleaning of the surfaces.
- 2. Grids and cookie sheets must always be removed before using the Selfcleaning mode. Otherwise chromed metal grids will be discolored and not be shiny anymore.
- 3. The cleaning time can be chosen between 2- 4 hours depending on the level of soil the cavity has collected.
- 4. If the door gasket has become dirty it should only be cleaned very carefully with a damped and soaped rag. Consider that the Selfcleaning process will not clean the gasket.
- 5. Particles or dust between the glass layers of the door window can only be cleaned after disassembling of the complete door. This operation should only be done by an authorized service technican.
- 6. The front surface of the unit should be cleaned only with soapy water and a rag or sponge.
- 7. Stainless steel panels must be carefully cleaned with a soft damped rag or sponge and dish soap. Never use any rubbing materials like metal wool, abrasive sponges or scouring pads of any type. This will create shiny marks or scratches which never can be repaired and will remain. Clean the stainless steel panels always only in one direction and follow the satinated structure on the panels.

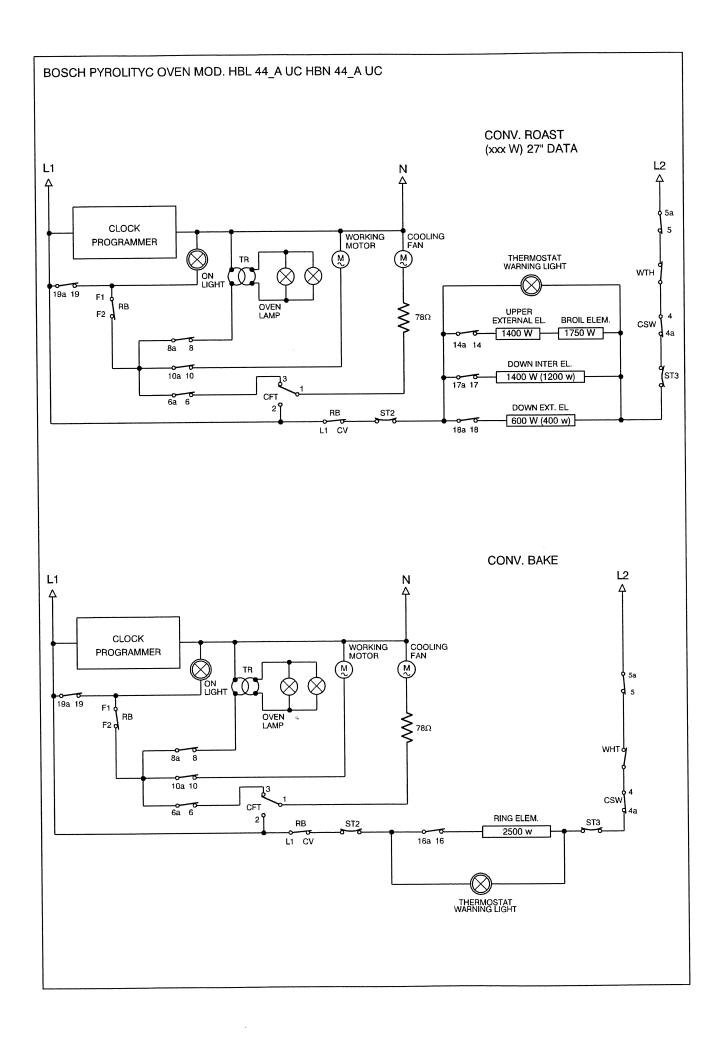




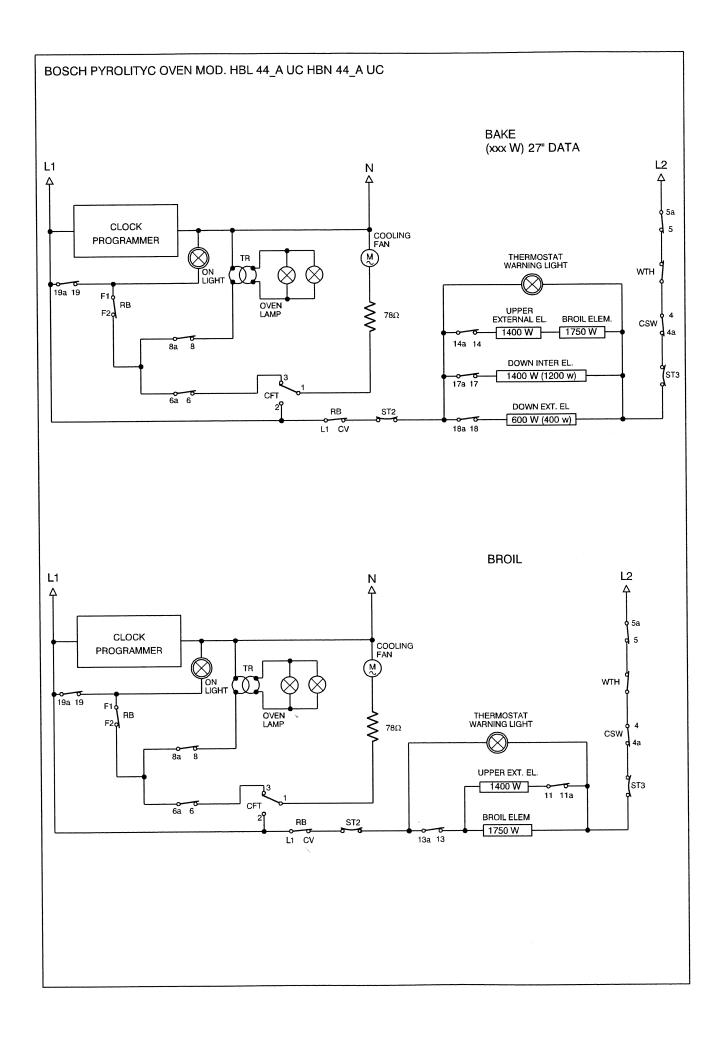


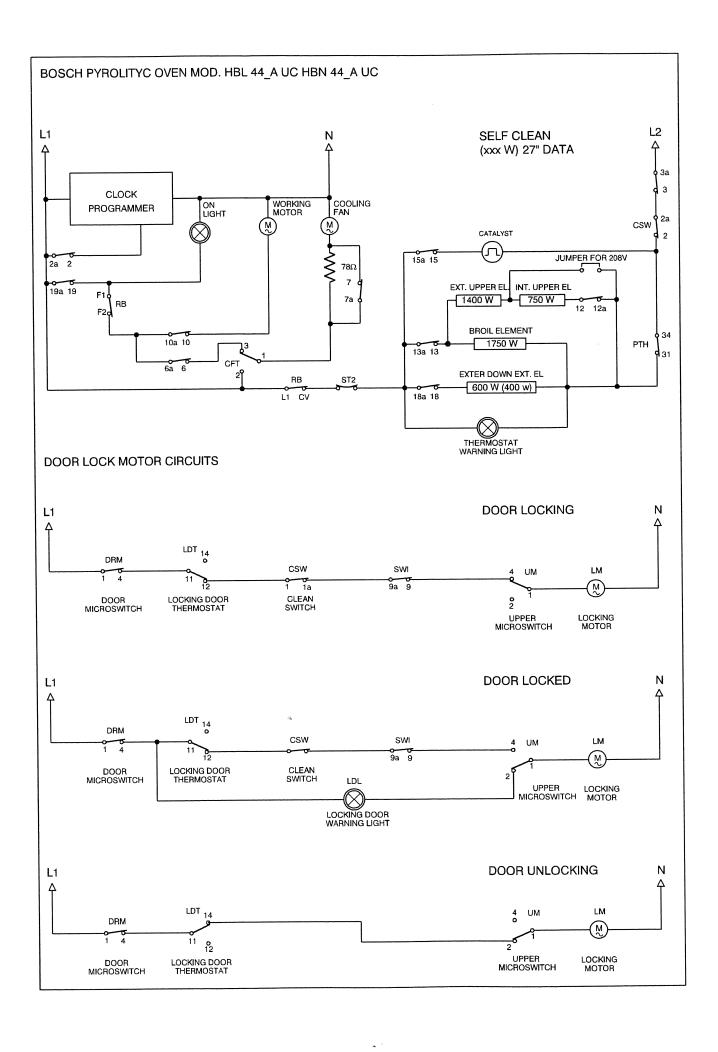


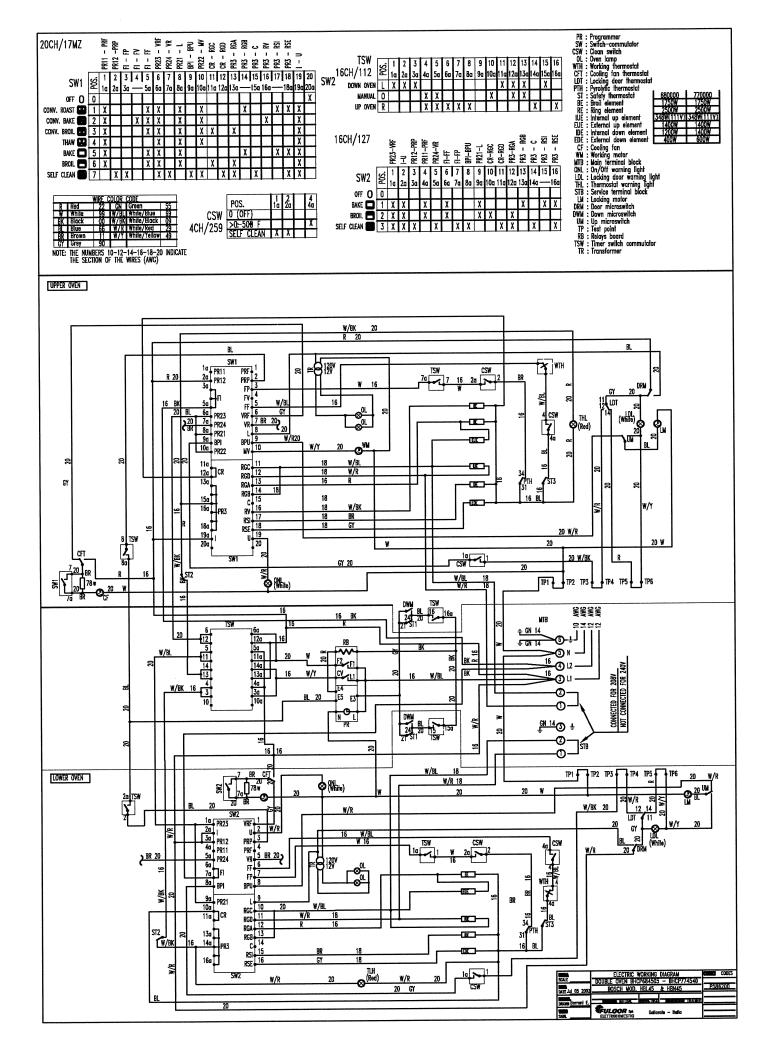


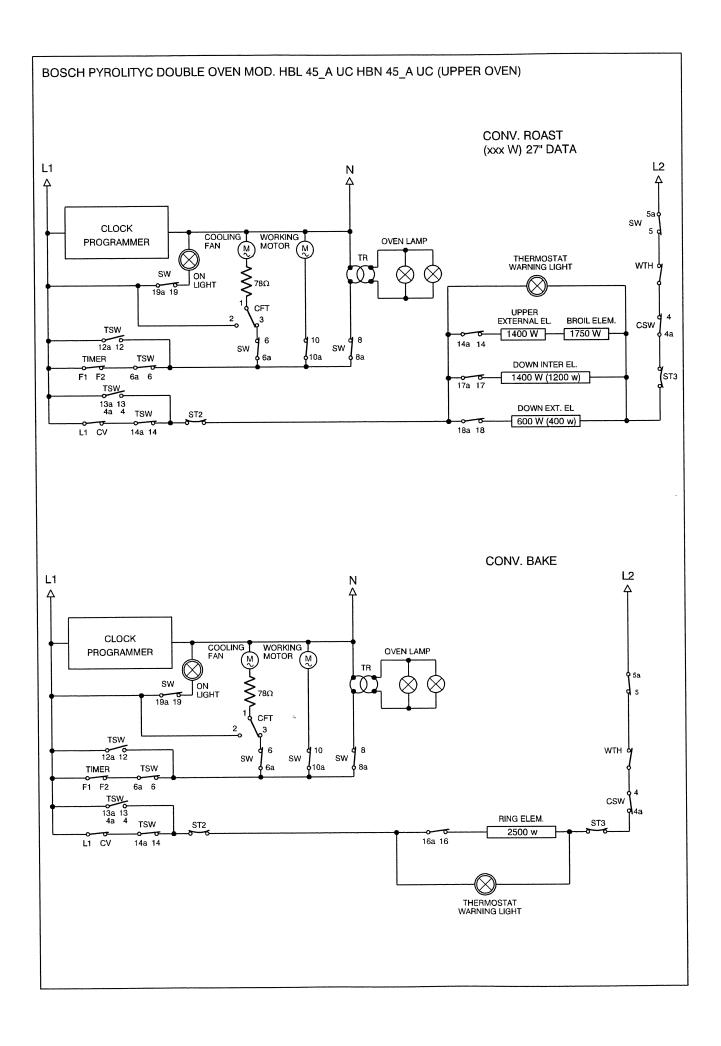


### BOSCH PYROLITYC OVEN MOD. HBL 44\_A UC HBN 44\_A UC CONV. BROIL L2 L1 CLOCK **d** 5 WORKING MOTOR COOLING FAN PROGRAMMER WTH 19a 19 F1 RB THERMOSTAT WARNING LIGHT ${ m } { m$ F2d csw 8a 8 UPPER EXT. EL. 10a 10 1400 W ST3 11 11a 6a 6 **BROIL ELEM** RB L1 CV ST2 1750 W 13a 13 **THAW** L1 CLOCK WORKING MOTOR COOLING FAN PROGRAMMER (0) 19a 19 F1 RB OVEN LAMP F2 d 78Ω --**⊘**--8a 10a 10 CFT 2









#### BOSCH PYROLITYC DOUBLE OVEN MOD. HBL 45\_A UC HBN 45\_A UC (UPPER OVEN) CONV. BROIL L2 L1 Ν 5a sw CLOCK COOLING WORKING FAN MOTOR M OVEN LAMP PROGRAMMER WTH 78Ω THERMOSTAT WARNING LIGHT 2 csw TSW 12a 12 sw 10a TSW TIMER UPPER EXT. EL. F1 F2 1400 W ST3 11 11a TSW 13a 13 4a 4 **BROIL ELEM** TSW ST2 1750 W L1 CV 13a 13 14a 14 **THAW** L1 CLOCK WORKING MOTOR PROGRAMMER OVEN LAMP ON LIGHT 19a 19 TSW sw 9 8 12a 12 SW SW TIMER TSW F1 F2 6a 6

#### BOSCH PYROLITYC DOUBLE OVEN MOD. HBL 45\_A UC HBN 45\_A UC (UPPER OVEN) BAKE (xxx W) 27" DATA L2 L1 Ν SW 5 5a CLOCK COOLING FAN OVEN LAMP PROGRAMMER THERMOSTAT WARNING LIGHT WTH ON LIGHT CFT UPPER EXTERNAL EL. BROIL ELEM. csw TSW 1750 W 1400 W 12a 12 14a 14 sw sw TIMER TSW DOWN INTER EL. F1 F2 6a 6 1400 W (1200 w) ST3 17a 17 TSW 13a 13 4a 4 DOWN EXT. EL TSW ST2 600 W (400 w) 18a 18 L1 CV 14a 14 **BROIL** L2 L1 SW CLOCK COOLING FAN OVEN LAMP PROGRAMMER WTH1 19a 19 THERMOSTAT WARNING LIGHT CSW TSW 12a 12 SW SW TSW TIMER UPPER EXT. EL. F1 F2 1400 W 6a 6 [ѕтз TSW 13a 13 **BROIL ELEM** ST2 TSW 1750 W L1 CV 14a 14

