

Panasonic®

Operating Instruction and Cook Book Microwave Oven Household Use Only

INVERTER



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Printed in China

Model Number: **NN-ST680S**
NN-ST780S

Please read these instructions carefully before using
this product, and save this manual for future use.

We are glad you have chosen to purchase a PANASONIC microwave oven. Before operating this oven, please read these instructions carefully and completely, and keep them for further reference.

If you have only used a microwave oven for reheating and defrosting, with Panasonic's Inverter Technology you can be reassured of excellent results when cooking a variety of foods, as the 'soft' penetration of microwave energy to the centre of food helps prevent over cooking on edges and surfaces. Foods can now be gently simmered without the concern of boil over.

After reading the introductory chapter, we are sure you will be able to master the basic techniques and thereby develop a firm understanding of your new oven. This book includes recipes from starters to desserts. After trying our recipes be sure to adapt your favourite recipes to microwave methods.

Start experimenting now, and enjoy the first class results you will achieve by using your new microwave oven.

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The serial number of this product may be found on the left side of the control panel. You should note the model number and serial number of this oven in the space provided and retain this book as a permanent record of your purchase for future reference.

MODEL NUMBER _____

SERIAL NUMBER _____

DATE OF PURCHASE _____

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Safety Instructions

READ CAREFULLY AND KEEP FOR FUTURE REFERENCE

Precautions to be taken when using Microwave Ovens for Heating foodstuffs

INSPECTION FOR DAMAGE. A microwave oven should only be used if an inspection confirms all of the following conditions:

1. The door fits squarely and securely and opens and closes smoothly.
2. The door hinges are in good condition.
3. The metal plates of a metal seal on the door are neither buckled nor deformed.
4. The door seals are neither covered with food nor have large burn marks.

PRECAUTIONS. Microwave radiation from microwave ovens can cause harmful effects if the following precautions are not taken:

1. Never tamper with or deactivate the interlocking devices on the door.
2. Never poke an object, particularly a metal object, through a grille or between the door and the oven while the oven is operating.
3. Never place saucepans, unopened cans or other heavy metal objects in the oven.
4. Do not let other metallic articles, e.g., fast food foil containers, touch the side of the oven.
5. Clean the oven cavity, the door and the seals with water and a mild detergent at regular intervals. Never use any form of abrasive cleaner that may scratch or scour surfaces around the door.
6. Always use the oven with trays or cookware recommended by the manufacturer.
7. Never operate the oven without a load (i.e., an absorbing material such as food or water) in the oven cavity unless specifically allowed in the manufacturer's literature.
8. For horizontally hinged doors, never rest heavy objects such as food containers on the door while it is open.
9. Do not place sealed containers in microwave ovens. Baby bottles fitted with a screw cap or a teat are considered to be sealed containers.
10. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
11. Young children should be supervised to ensure that they do not play with the appliance.

Important Instructions

WARNING—To reduce the risk of burns, electric shock, fire, injury to persons or excessive microwave energy:

1. Read all instructions before using the microwave oven.
2. Some products such as whole eggs and sealed containers - (for example, closed glass jars **and sealed baby bottles with teat**) - may explode and should not be heated in the microwave oven.
3. Use this microwave oven only for its intended use as described in this manual.
4. As with any appliance, close supervision is necessary when used by children.
5. Do not operate this microwave oven if it is not working properly or if it has been damaged or dropped.
6. To reduce the risk of fire in the oven cavity:
 - (a) Do not overcook food. Carefully attend microwave oven if paper, plastic, or other

combustible materials are placed inside the oven to facilitate cooking.

- (b) Heating therapeutic wheat bags is not recommended. If heating, do not leave unattended and follow manufacturers' instructions carefully.
 - (c) Remove wire twist-ties from bags before placing bag in oven.
 - (d) If materials inside the oven should ignite, keep oven door closed, turn oven off at the wall switch, or shut off power at the fuse or circuit breaker panel.
 - (e) Never leave microwave unattended while cooking or reheating.
7. Failure to maintain the oven in a clean condition could lead to deterioration of the surface that could adversely affect the life of the appliance and possibly result in a hazardous situation.

Earthing Instructions

This microwave oven must be earthed. In the event of an electrical short circuit, earthing reduces the risk of electric shock by providing an escape wire for the electric current. This microwave oven is equipped with a cord having an earthing wire with an earthing plug. The plug must be plugged into an outlet that is properly installed and earthed.

WARNING—Improper use of the earthing plug can result in a risk of electric shock.

WE CERTIFY THAT THIS MICROWAVE OVEN HAS BEEN INSPECTED AND COMPLIES WITH THE REQUIREMENTS OF REGULATION 3, SUBCLAUSE(2), OF THE MICROWAVE OVENS REGULATIONS 1982.

(This statement applicable only to New Zealand.)

We certify that this microwave oven has been inspected and complies with the safety requirements of government notice 466 of March 1981, and complies with the Radio Regulation of government notice 587 of March 1986.

(This statement applicable only to South Africa)

WARNING

- a) The door seals and door seal areas should be cleaned with a damp cloth. The appliance should be inspected for damage to the door seals and door seal areas and if these areas are damaged the appliance should not be operated until it has been repaired by a qualified service technician trained by the manufacturer.
- b) It is hazardous for anyone other than a competent person to carry out any service or repair operation that involves the removal of a cover which gives protection against exposure to microwave energy.
- c) If the supply cord of this appliance is damaged, it must be replaced by a qualified service technician with the special cord available only from the manufacturer.
- d) Before use, the user should check that whether the utensils are suitable for use in microwave ovens.
- e) Liquids or other foods must not be heated in sealed containers since they are liable to explode.
- f) Only allow children to use the oven without supervision when adequate instructions have been given so that the child is able to use the oven in a safe way and understands the hazards of improper use.

Installation and General Instructions

General Use

1. In order to maintain high quality, do not operate the oven when empty. The microwave energy will reflect continuously throughout the oven if no food or water is present to absorb energy. This can lead to damage to the microwave oven including arcing within the oven cavity.
2. If smoke is observed, press the **STOP/RESET** Pad and leave door closed in order to stifle any flames. Disconnect the power cord, and/or shut off power at the fuse or circuit breaker panel.
3. Do not dry clothes, newspapers or other materials in oven. They may catch on fire.
4. Do not use recycled paper products, unless the paper product is labelled as safe for microwave oven use. Recycled paper products may contain impurities which may cause sparks and/or fires when used.
5. Do not use newspapers or paper bags for cooking.
6. Do not hit or strike the Control Panel. Damage to controls may occur.
7. **POT HOLDERS** may be needed as heat from food is transferred to the cooking container and from the container to the Glass Tray. The GlassTray can be very hot after removing the cooking container from the oven.
8. Do not store flammable materials next to, on top of, or in the oven. It could be a fire hazard.
9. Do not cook food directly on Glass Tray unless indicated in recipes. (Food should be placed in a suitable cooking utensil.)
10. **DO NOT** use this oven to heat chemicals or other non-food products. **DO NOT** clean this oven with any product that is labelled as containing corrosive chemicals. **The heating of corrosive chemicals in this oven may cause microwave radiation leaks.**
11. Do not leave the microwave unattended while reheating or cooking food in disposable containers made of plastic, paper or other combustible materials, as these types of containers can ignite if overheated.

Placement of Oven

1. The oven must be placed on a flat, stable surface. For correct operation, the oven must have sufficient air flow. **Allow 15 cm of space on the top of the oven, 10 cm at the back, and 5 cm on both sides. If one side of the oven is placed flush to wall, the left side or top must not be blocked. Do not remove feet.**
 - a. Do not block air vents. If they are blocked during operation, the oven may be overheated and damaged. When using any cloth over the oven, the air intake and exhaust should not be blocked. Also allow sufficient space on back and both sides of the oven.
 - b. Do not place oven near a hot or damp surface such as a gas stove, electric range or sink etc.
 - c. Do not operate oven when room humidity is too high.
2. This oven was manufactured for household use only.
3. This oven is also designed for installation into a wall cabinet.

Circuits

Your microwave oven should be operated on a separate 10 A circuit from other appliances. Failure to do this may cause the power board fuse to blow, and/or food to cook slower. Do not insert higher value fuse in the power board.

Food

1. Do not use your oven for home canning or the heating of any closed jar. Pressure will build up and the jar may explode. In addition, the microwave oven cannot maintain the food at the correct canning temperature. Improperly canned food may spoil and be dangerous to consume.
2. Do not attempt to deep fat fry in your microwave oven.
3. Do not boil eggs in their shell and whole hard-boiled eggs (unless otherwise stated in Cooking Guide section). Pressure will build up and the eggs will explode.
4. Potatoes, apples, egg yolks, chicken wings, whole squash and sausages are examples of foods with nonporous skins. This type of food must be pierced before cooking, to prevent bursting.
5. When heating liquids, e.g. soup, sauces and beverages, in your microwave oven, overheating the liquid beyond boiling point can occur without evidence of bubbling. This could result in a sudden boil over of hot liquid. To prevent this possibility the following steps should be taken:
 - a) Avoid using straight-sided containers with narrow necks.
 - b) Do not overheat.
 - c) Stir the liquid before placing the container in the oven and halfway through cooking time.
 - d) After heating, allow to stand in the oven for a short time, stirring again before carefully removing the container.
6. **DO NOT USE A CONVENTIONAL MEAT THERMOMETER IN THE MICROWAVE OVEN. To check the degree of cooking of roasts and poultry use a MICROWAVE THERMOMETER.** Alternatively, a conventional meat thermometer may be used after the food is removed from the oven. If undercooked, return meat or poultry to the oven and cook for a few more minutes at the recommended power level. It is important to ensure that meat and poultry are thoroughly cooked.
7. **COOKING TIMES given in the Cooking Guide section are APPROXIMATE.** Factors that may affect cooking time are preferred degree of moisture content, starting temperature, altitude, volume, size, shape of food and utensils used. As you become familiar with the oven, you will be able to adjust for these factors.
8. **It is better to UNDERCOOK RATHER THAN OVERCOOK foods.** If food is undercooked, it can always be returned to the oven for further cooking. If food is overcooked, nothing can be done. Always start with minimum cooking times recommended.
9. Extreme care should be taken when cooking popcorn in a microwave oven. Cook for minimum time as recommended by manufacturer. Use the directions suitable for the wattage of your microwave oven. **NEVER** leave oven unattended when popping popcorn.
10. When heating food in plastic or paper containers, check the oven frequently due to the possibility of ignition.
11. The contents of feeding bottles and baby food jars are to be stirred or shaken and the temperature is to be checked before consumption, in order to avoid burns.

Microwaves and How They Work

Microwaves are a form of high frequency radio waves similar to those used by a radio, including AM, FM and CB. They are similar to a television where the radio waves are converted to a picture on the screen. However, microwaves are much shorter than radio waves; approximately twelve centimetres wave length. Electricity is converted into microwave energy by the magnetron tube (which is the heart of the microwave oven).

From the magnetron tube, microwave energy is transmitted to the oven cavity through a small plastic covered piece. The microwaves are converted to heat in the food. The microwaves enter from the outside of the food and travel through the food losing half of their power every two to three centimetres. Continued cooking to the centre occurs by conduction.

Although pacemakers used to be affected by microwaves (as well as by other radio waves), they are now shielded and are not bothered by these interferences. This allows people with pacemakers to sit calmly by their radio or television and cook with microwave ovens.

When microwaves come in contact with a substance, any one or combination of three things may occur.

They can be:

1. REFLECTED
2. TRANSMITTED
3. ABSORBED

Reflection:

Metal substances REFLECT microwave energy and because there is no absorption, there is no heating. This is why the oven interior is either stainless steel or epoxy-coated steel. This ensures that the microwaves are kept inside the cavity and evenly distributed throughout the food with the help of the turntable.

Transmission:

Such substances as paper, glass and plastic TRANSMIT microwave energy and do not become hot except from food. Because these substances do not reflect or absorb microwave energy, they are ideal materials for microwave cooking containers.

Absorption:

Food contains moisture and will ABSORB microwave energy, which causes the moisture molecules within the food to vibrate at an incredible rate (2,450,000,000 times per second). Friction, created by the vibration, produces heat energy which is conducted throughout the food.

Cookware and Utensils Guide

It is important to use the correct container when cooking in a microwave oven. The following will help you make the right selection.

How to Test a Container for Safe Microwave Oven Use

TO TEST A CONTAINER FOR SAFE MICROWAVE OVEN USE: Fill a 1-cup glass measure with cool water and place it in the microwave oven alongside the empty container to be tested; **heat one (1) minute at P10**. If the container is microwave oven-safe (transparent to microwave energy), the container should remain comfortably cool, the water in glass measure should be hot. If the container is hot, it has absorbed some microwave energy and should NOT be used. This test cannot be used for plastic containers.

Paper Products and Freezer Wrap

Waxed paper, paper plates, cups and napkins should not be used for heating or cooking food. Freezer wrap should not be used as it is not heat resistant and may melt. Paper towel, greaseproof paper and bake paper may be safely used for short periods of time for covering or lining.

Glass, Ceramic and China

Heat-Resistant glass cookware is invaluable in microwave cooking. Many of these items are readily available in most homes: glass jugs, mixing bowls, loaf dishes, covered casseroles, oblong baking dishes, pie plates and round or square cake dishes. Examples of this type of cookware are Pyrex® and Corningware®.

Dinnerware can be used for microwave heating. Many brands of dinnerware are microwave safe. Check the care information for reference to microwave use for dinnerware and serving pieces. If dinnerware is marked ovenproof, it frequently is safe to use in the microwave oven. However, to be sure, check by conducting microwave dish test previously mentioned.

Several types of glassware and dinnerware are not recommended for use in the microwave oven. Do not use dishes with metallic trim or containers with metal parts. Do not use cups or mugs with glued on handles, as they may fall off with continued heating. Do not use delicate glassware. Although the glassware may be transparent to microwave energy the heat from the food may cause the glassware to crack.

Cookware and Utensils Guide *(continued)*

Plastics

Plastic dishes, cups and some freezer containers should be used with care in a microwave oven.

Choose plastic containers carefully, as some plastic containers may become soft, melt and may scorch. The majority of plastic dishes, even those designed for use in the microwave oven, are not suitable for cooking foods with high fat or sugar content, or for lengthy cooking times. Most microwave plastic dishes should not be used for longer than 3 to 5 minutes on **P10** power. These dishes, although not suitable for extended cooking, may be used successfully for defrosting or for use on lower power levels.

Cooking Bags designed to withstand boiling, freezing, or conventional heating are microwave safe. Prepare bags according to manufacturer's directions. When cooking by microwave, **DO NOT** use wire twist-ties to close bag. They can act as an antenna and cause arcing (sparks).

DO NOT COOK IN PLASTIC FOOD STORAGE BAGS.

Plastic Wrap such as GLAD WRAP® can be used to cover dishes in most recipes. Over an extended heating time, some disfiguration of the wrap may occur. When removing plastic wrap "covers", as well as any glass lid, be careful to remove it away from you to avoid steam burns.

Loosen plastic but let dish stand, covered.

Jars and Bottles

Jars and bottles can be used to warm food to serving temperature, if the lid is removed first. Cooking should not be done in these containers since most are not heat resistant and during extended heating times, heat from food would cause cracking or breaking.

Metal

Metal cookware or utensils, or those with metallic trim, should **NOT** be used in the microwave. Since microwave energy is reflected by metal, foods in metal containers will not cook evenly. There is also a possibility of "arcing."

Although metal utensils should be avoided in microwave cooking, some metal can be helpful when used correctly.

Aluminum foil can be used safely, if certain guidelines are followed, to prevent overcooking. Small pieces of foil are used to shield areas such as chicken wings, tips of roasts, or other thin parts that cook before the rest of the recipe is finished. Make sure foil is attached securely and doesn't touch sides of oven, otherwise arcing may occur. Foil lined containers, either cardboard or plastic, should **NOT** be used in the microwave oven as arcing could occur.

Metal twist-ties, either paper or plastic coated, should **NOT** be used in the microwave oven. Frozen dinner trays can be used in the microwave, if the container is no deeper than 2 cm and is filled with food. Metal skewers can not be used in microwave ovens as arcing may occur. Wooden skewers are readily available and give the same result.

Shells: Scalloped baking shells are best used during reheating and for short periods of cooking time only.

Thermometers are available for use in microwave ovens. **DO NOT USE CONVENTIONAL MERCURY TYPE CANDY OR MEAT THERMOMETERS** in food while cooking in the microwave oven.

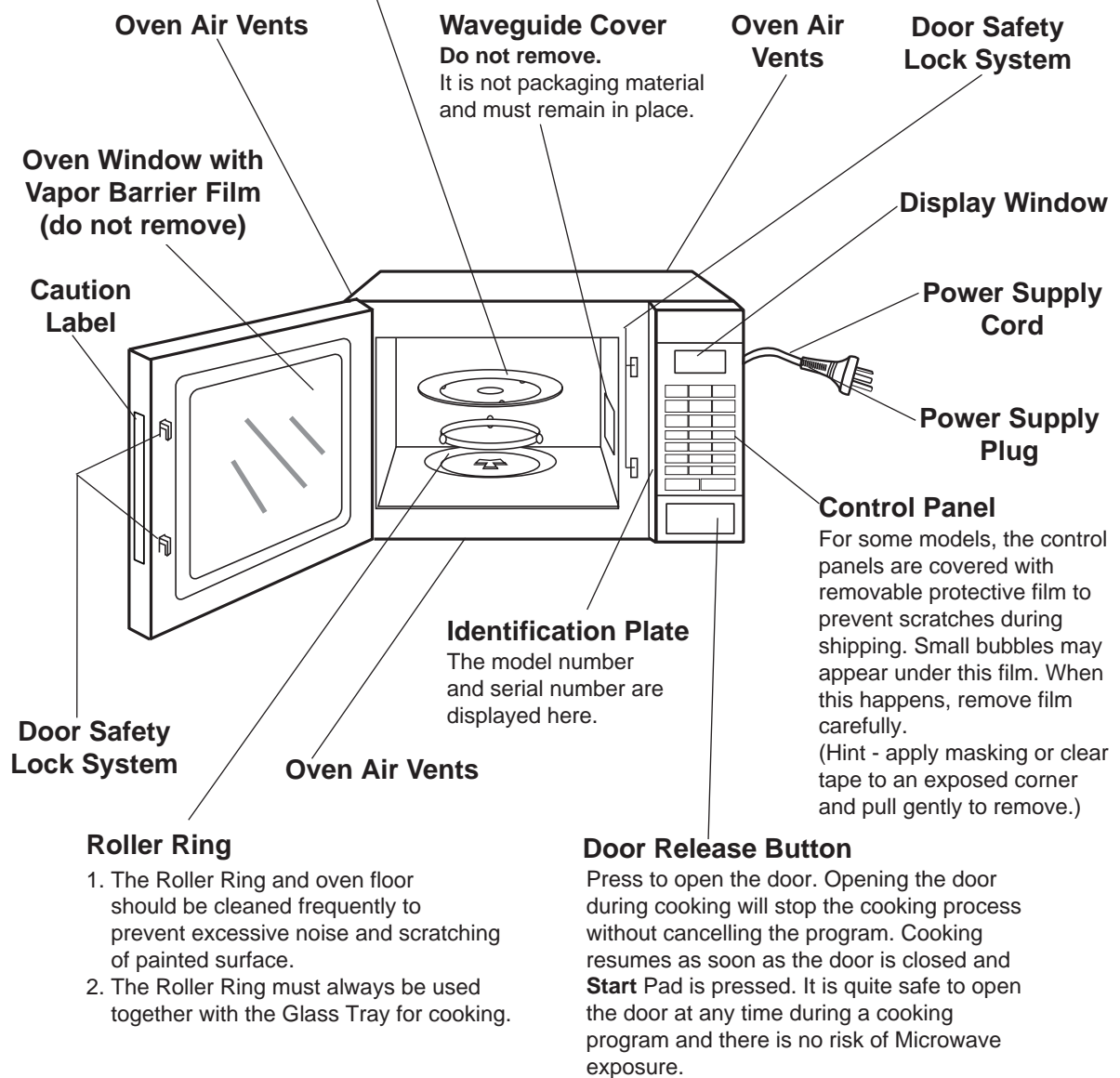
Straw, Wicker and Wood

Straw and wicker baskets may be used in the microwave oven for short periods of time to warm rolls or bread. Large wooden utensils, such as bowls or cutting boards should **NOT** be used for prolonged heating as the microwave energy may cause the wood to become dry and brittle.

Feature Diagram

Glass Tray

1. Do not operate the oven without the Roller Ring and Glass Tray in place.
2. Only use the Glass Tray specifically designed for this oven. Do not substitute another Glass Tray.
3. If Glass Tray is hot, allow to cool before cleaning or placing in water.
4. **Do not** cook directly on Glass Tray. Always place food on a microwave-safe dish, or on a rack set in a microwave-safe dish.
5. If food or utensil on Glass Tray touches oven walls, causing the tray to stop moving, the tray will automatically rotate in opposite direction. This is normal.
6. Glass Tray can rotate in either direction.



Oven Light

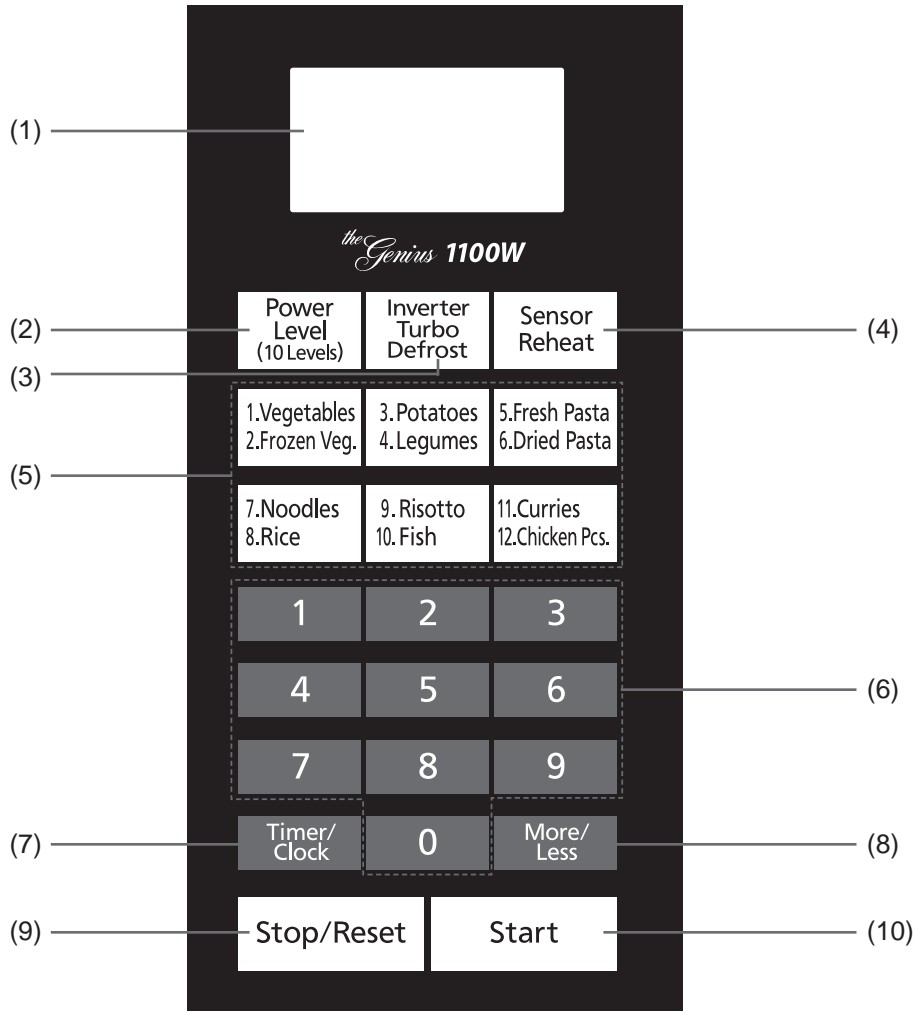
Oven Light will turn on during cooking and also when door is opened.

NOTE:

The above illustration is for reference only.

Control Panel

NN-ST680S/ST780S



CONTROL PANEL

- (1) Display Window
- (2) Power Level Pad (pg. 9)
- (3) Inverter Turbo Defrost Pad (pg. 10)
- (4) Sensor Reheat Pad (pg. 13)
- (5) Sensor Cook Pads (pg. 12)
- (6) Number Pads
- (7) Timer/Clock Pad (pg. 8, 14)
- (8) More/Less Pad (pg. 12)

(9) Stop/Reset Pad

Before cooking: One tap clears all your instructions.

During cooking: One tap temporarily stops the cooking process. Another tap cancels all your instructions and colon or time of day appears in the Display Window.

(10) Start Pad

One tap allows oven to begin functioning. If door is opened or **Stop/Reset** Pad is pressed once during oven operation, **Start** Pad must again be pressed to restart oven.

Word Prompters

When pads are pressed, a beep sound is heard and the corresponding letter or word(s) appear and roll across the Display Window. If a pad is pressed and no beep is heard, the unit does not or cannot accept the instruction. As each pad is pressed the corresponding word(s) roll across the Display Window. Words will automatically appear to prompt the user to perform the next step. It is not necessary to wait for the words to appear before pressing pads for the next step. A two beep sound is heard between stages. At the end of any complete programme, the oven will beep five times and "ENJOY YOUR MEAL" will appear in the Display Window.

NOTE:

If an operation is set and **Start** Pad is not pressed, after 6 minutes, the oven will automatically cancel the operation. The display will revert back to clock or colon mode.

Let's Start To Use Your Oven!

1 Plug in

Plug into a properly earthed electrical outlet. "WELCOME TO PANASONIC MICROWAVE OVEN COOKING" appears in the Display Window. (This will immediately cease when any pad is pressed.)

2 Open Door

Open the door and place container with food on Glass Tray in the oven. Then close the door.

3 Select Power Level

e.g. P7

Press **Power Level Pad** four times.

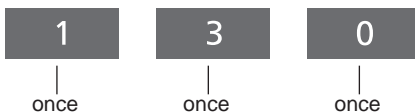
(see page 9 for Micro Power chart)

Power
Level
(10 Levels)

4 Set Time

e.g. 1 minute 30 seconds

Press number Pads



5 Press

Start

Operation Guide in the Display Window

To assist you in programming your oven, the following operation will appear in the Display Window. When you become familiar with your oven, the Operation Guide can be turned off.

To turn off:



Press 4 times.

Display Window

Colon or time of day appear in the Display Window.

To turn on:



Press 4 times.

Display Window

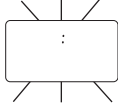
Colon or time of day appear in the Display Window.

To Set Clock

You can use the oven without setting the clock.

1 Press twice

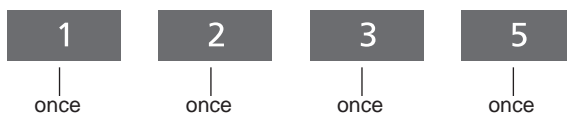
Colon will blink in Display Window.



2 Enter Time of Day

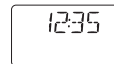
Enter time of day using Number Pads e.g. 12:35

Clock is a 12 hour display. There isn't a.m. or p.m. setting.



3 Press

Colon stops blinking; time of day is entered and locked into Display Window.



NOTES: 1. Oven will not operate while colon is still blinking

2. To reset time of day, repeat step 1 through 3.

3. The clock will keep the time of day as long as oven is plugged in and electricity is supplied.

4. Maximum time available is 12:59. Clock is 12 hour only. One o'clock will be displayed as 1:00 not 13:00.

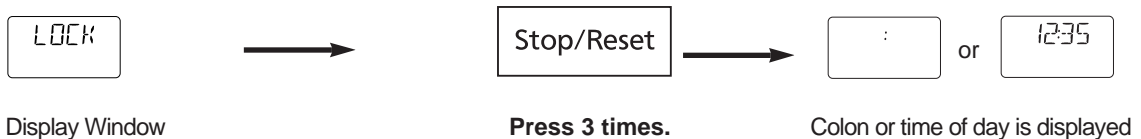
To Use Child Safety Lock

This feature allows you to prevent operation of the oven by a young child; however, the door will open. You can set Child Safety Lock when colon or time of day is displayed.

To set:



To cancel:



NOTE: To set or cancel child safety lock, **Start** pad or **Stop/Reset** pad must be pressed 3 times within 10 seconds.

To Cook / Reheat / Defrost by Micro Power and Time

1 Select Power Level

Press **Power Level** Pad until the desired power level appears in the Display Window. (see chart below)

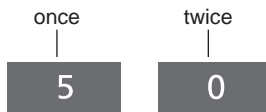
Power Level
(10 Levels)

NOTE: When selecting P10 on the first stage, you can start from step 2.

2 Set Cooking Time

(P10: up to 30 minutes, other powers: up to 99 minutes and 99 seconds for a single stage)

e.g. 5 minutes



Start

3 Press

Cooking will start.
The time in the Display Window will count down.

For more than one stage cooking,

Repeat steps 1 & 2 above then press **Start**. The maximum number of stages for cooking is 3. The oven will beep twice between stages.

e.g. :

Stage 1	Stage 2	Stage 3
P10 for 10 minutes	P6 for 50 minutes	P4 for 20 minutes

Micro Power:

The **Power Level** Pad gives you a selection of different power levels representing decreasing amounts of microwave energy, used for cooking foods at different speeds.

e.g. The lower the micro power setting, the more evenly the food cooks, although it will take a little longer.

To select the correct power level for cooking different foods, refer to the chart below.

Press	POWER LEVEL	WATTAGE	EXAMPLE OF USE
1x	P10	1100 W	Boil water. Reheat. Cook vegetables, rice, pasta and noodles.
2x	P9	1000 W	Cook fresh fruits.
3x	P8	900 W	Cook cakes, desserts. Heat milk.
4x	P7	800 W	Cook pork, whole chicken and chicken pieces, dried peas and beans.
5x	P6	700 W	Cook beef, lamb and eggs. Melt butter.
6x	P5	600 W	Cook meatloaves. Melt chocolate.
7x	P4	400 W	Cook fish and seafood.
8x	P3	300 W	Thaw foods. Cook christmas pudding, corned beef.
9x	P2	200 W	Simmer soups, stews and casseroles (less tender cuts).
10x	P1	100 W	Keep cooked foods warm, simmer slowly.

NOTE:

After using the oven over 3 minutes, the fan may rotate to cool the electric components and "COOL" appears in the display window. This is perfectly normal, and you can take out the food from the oven while the fan operates.

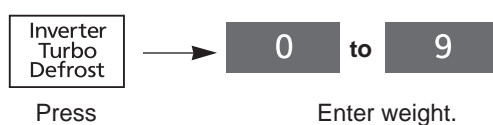
To Defrost

Turbo Defrost

This feature allows you to defrost meat, poultry and seafood automatically by just setting the weight of the food.

1 Set Weight

The shape and size of the food will determine the maximum weight the oven can accommodate. The recommended maximum weight of food depends on the oven cavity size. Weight must be programmed in kilograms and tenths of a kilogram (max 3.0 kg).



2 Press



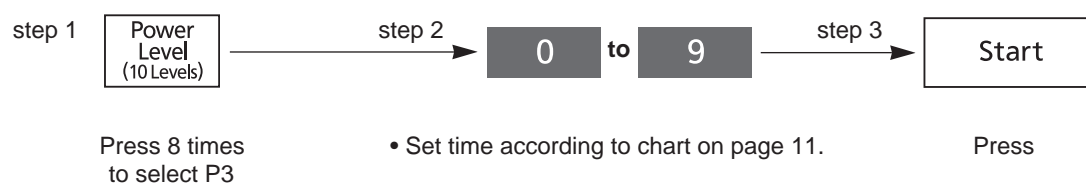
Defrost time appears in the Display Window and begins to count down.
When cooking time is longer than 60 minutes, the time will appear in hours and minutes.

NOTE:

For further information, refer to next page.

Defrost by Micro Power and Time Setting

Defrosting is done on P3 Power



Defrosting Tips and Techniques

Preparation for Freezing:

1. Heavy-duty plastic wraps, bags and freezer wrap are suitable.
2. Freeze meats, poultry and fish in packages with only 1 or 2 layers of food. To aid in separating layers, place two pieces of wax paper between them.
3. REMOVE ALL AIR and seal securely.
4. LABEL package with type and cut of meat, date and weight.
5. Defrosting times given in the charts are for thoroughly frozen foods (i.e. at least 24 hours in freezer maintained at -18°C or lower).

Defrosting Technique:

1. Remove from wrapper and set on a defrosting rack in a dish on Glass Tray.
2. On Turbo Defrost, the oven will beep during the defrosting time. At "beep", turn over all meat, poultry, fish and shellfish. Break apart stewing meat, chicken pieces and minced meat. Separate chops and hamburger patties. Shield thin ends of roasts, poultry legs and wings, fat or bones with foil.
3. Throughout the defrosting time, remove any defrosted portions of mince or cubed meat, etc.
4. After defrosting, large roasts may still be icy in the centre. Let stand, 15 to 30 minutes, in refrigerator to complete defrosting.

Defrosting Chart (by setting Micro Power at P3):

FOOD	APPROX. TIME (minutes per 500 g)	INSTRUCTION
MEAT		
Beef		
Minced Beef	7 - 9	Halfway through the defrost cycle, break apart minced beef, separate chops and remove meat that is defrosted.
Roast: Topside	8 - 10	
Beef Tenderloin	8 - 10	
Chuck or Rump	8 - 10	Turn meat over two to three times during defrosting.
Sirloin, rolled	8 - 10	
Steak	6 - 8	Shield edges and unevenly shaped ends of roasts halfway through the defrost cycle.
Miscellaneous	7 - 9	
Pork/Lamb		
Roast	8 - 10	Large roasts may still be icy in centre. Let stand.
Chops	6 - 8	
Ribs	6 - 8	
POULTRY		
Chicken		
whole	8 - 10	Turn poultry over two to four times during defrosting. Halfway through the defrost cycle, shield end of drumsticks, wings, breast bones and ends of poultry with foil.
pieces	7 - 9	
fillets	7 - 9	Break apart chicken pieces and remove small pieces such as wings, which may be defrosted before larger pieces.
Duck	7 - 9	
Turkey	8 - 10	Rinse poultry under cold water to remove ice crystals. Let stand 5 to 10 minutes, before cooking.
FISH & SHELLFISH		
Fish Fillets	8 - 10	Halfway through the defrost cycle, turn whole fish or blocks of fillets over. Also, break apart prawns or scallops.
Whole Fish	7 - 9	
Crabmeat	6 - 8	Remove any pieces that are defrosted.
Lobster Tails	6 - 8	
Sea Scallops	6 - 8	Let stand, 5 to 10 minutes, before cooking.
Green Prawns	6 - 8	

To Cook Using Sensor Cook

Sensor Cook allows you to cook foods without selecting times and power levels. The sensor detects the heat and humidity generated by the food and cooks your food automatically.

Place food into an appropriate sized dish for the volume of food you are cooking. Cover securely with plastic wrap or a securely fitting lid (do not use any snap closing lids). Plastic dishes are not suitable as a secure seal cannot be achieved and inaccurate cooking may result.

Food Category	Recommended Weight Range
Sensor Reheat	125 g - 1.0 kg
Vegetables	125 g - 500 g
Frozen Veg.	125 g - 1.0 kg
Potatoes	125 g - 1.0 kg
Legumes	1-4 cups
Fresh Pasta	125 g - 625 g
Dried Pasta	125 g - 500 g
Noodles	150 g - 800 g
Rice	1 cup - 2½ cups
Risotto	½ cup - 3 cups
Fish	125 g - 500 g
Curries	250 g - 750 g
Chicken Pcs.	400 g - 1000 g



- Select and press the appropriate pad for the food you are cooking. The category appears in the Display Window.
eg. Press once for Vegetables
twice for Froz. Veg.

If desired, press **More / Less** Pad.

- **Press**
The food category you have selected remains in the display window. Do not stop the oven or open the door during this part of the cooking stage as inaccurate cooking may result. After the heat humidity is detected by the SENSOR, the remaining time appears in the Display Window and begins to count down.

- For information on individual categories refer to each chapter in the cookbook section.

More/Less Pad:

More/
Less

Each individual may prefer a variable cooked level to their food. After having using the Sensor Cook a few times, you may vary the level that your food is cooked to. By using the **More/Less** Pad, the Auto Sensor programmes can be adjusted to cook food for a longer or shorter time. Press **More/Less** Pad before pressing **Start** Pad.

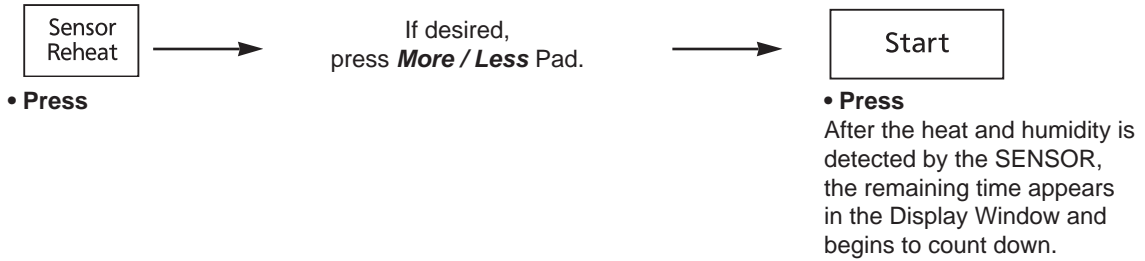
- 1 tap : More cooking with indication "MORE +"
- 2 taps: Less cooking with indication "Less -"
- 3 taps: Returns to average cooking result.

If you are satisfied with the result of the **SENSOR REHEAT/COOK** programme, you don't have to use this pad.

For best results, follow these recommendations:

1. The door should not be opened before the time appears in the Display Window.
2. Do not use plastic dishes as a secure seal cannot be achieved and inaccurate cooking may occur.

To Cook Using Sensor Reheat



For best results on Sensor Reheat, follow these recommendations:

1. Food being reheated should weigh between 125 g and 1.0 kg. For foods weighing less than 125 g and more than 1.0 kg, use a manual micro power setting.
2. All foods must be previously cooked and at room or refrigerator temperature (for sensor reheat) or frozen at -18°C for at least 24 hours (for frozen reheat).
3. Foods should always be covered loosely, but completely, with plastic wrap. (Do not use any snap closing lids.)
4. All foods should have a covered stand time of at least 3 to 5 minutes.
5. **Do not** reheat bread or pastry products (raw or uncooked), or beverages.
6. **Do not** use if oven cavity is warm (from previously cooked foods).

INGREDIENT CONVERSION CHART

INGREDIENT CONVERSION CHART			
¼ cup	60 ml	¼ teaspoon	1 ml
⅓ cup	85 ml	½ teaspoon	2 ml
½ cup	125 ml	1 teaspoon	5 ml
⅔ cup	165 ml	2 teaspoons	10 ml
¾ cup	190 ml	3 teaspoons	15 ml
1 cup	250 ml	1 tablespoon	20 ml
1¼ cups	310 ml	1½ tbs	30 ml
1½ cups	375 ml	2 tbs	40 ml
2 cups	500 ml	3 tbs	60 ml
3 cups	750 ml	4 tablespoons	80 ml
3½ cups	875 ml		
4 cups	1 litre		
6 cups	1.5 litre		
8 cups	2 litre		

All recipes are tested using standard measurement that appear in the above chart.

To Use Timer

To Use as a Kitchen Timer

Press once.

Set desired amount of time.
(up to 99 minutes and 99 seconds)

Press Start.

Time will count down without oven operating.



To Set Standing Time

Press once.

Set desired amount of standing time.
(up to 99 minutes and 99 seconds)

Press Start.

Cooking will start.
After cooking, standing time will count down without oven operating.



To Set Delay Start

Press once.

Set desired amount of delay time.
(up to 99 minutes and 99 seconds)

Press Start.

Delayed time will count down. Then cooking will start.



NOTES:

1. If oven door is opened during the Standing Time, Delay Start or Kitchen Timer, the time in the Display Window will continue to count down.
2. Delay Start/Standing Time cannot be programmed before/after any Auto Control function. This is to prevent the standing temperature of the food from rising before defrosting or cooking begins. A change in the starting temperature could cause inaccurate results and / or food may deteriorate.

Before Requesting Service

THESE THINGS ARE NORMAL

The oven causes interference with my TV.

Some radio and TV interference might occur when you cook with the microwave oven. This interference is similar to the interference caused by small appliances such as mixers, vacuums, hair dryers, etc. It does not indicate a problem with your oven.

Steam accumulates on the oven door and warm air comes from the oven vents.

During cooking, steam and warm air are given off from the food. Most of the steam and warm air are removed from the oven by the air which circulates in the oven cavity. However, some steam will condense on cooler surfaces such as the oven door. This is normal.

I accidentally ran my microwave oven without any food in it.

Running the oven empty for a short time will not damage the oven. However, we do not recommend this.

PROBLEM	POSSIBLE CAUSE	REMEDY
Oven will not turn on.	The oven is not plugged in securely.	Remove plug from outlet, wait 10 seconds and re-insert.
	→ Circuit breaker or fuse in your home is tripped or blown.	Contact the specified service centre.
	There is a problem with the outlet.	Plug another appliance into the outlet to check if the outlet is working.
Oven will not start cooking.	The door is not closed completely.	Close the oven door securely.
	Start was not pressed after programming.	Press Start Pad.
	→ Another programme has already been entered into the oven.	Press Stop/Reset Pad to cancel the previous programme and programme again.
	The programme has not been entered correctly.	Programme again according to the Operating Instructions.
	Stop/Reset has been pressed accidentally.	Programme over again.
The word "LOCK" appears in the display window.	→ The Child Safety Lock was activated by pressing Start pad 3 times.	Deactivated Lock by pressing Stop/Reset pad 3 times.
The word "DEMO MODE"* appears on the screen.	→ The oven is in demonstration mode.	Deactivated mode by pressing Micro power Pad once, Start pad 4 times and Stop/Reset pad 4 times.
When the oven is turning on, there is noise coming from the Glass Tray.	→ The Roller Ring and oven bottom are dirty.	Clean these parts according to "Care of Your Microwave Oven" (see next page).
"H97" or "H98" appears in the display window.	→ The display indicates a problem with microwave generation system.	Contact the specified service centre.
"COOL" appears in the display window and the post fan operates after using the oven.	→ The fan rotates to cool the electric components. This is normal.	It is quite safe to take out the food from the oven while the fan operates.

* DEMO MODE is designed for retail store display. Cooking and other functions will not operate during the DEMO mode. If it seems there is a problem with the oven, contact an authorised Service Centre.

Care of Your Oven

NOTE: The oven should be cleaned regularly and any food deposits removed.

BEFORE CLEANING:

Remove plug from outlet. If impossible, leave oven door open to prevent oven from accidentally turning on.

AFTER CLEANING:

Be sure to replace the Roller Ring and Glass Tray in the proper position and press **Stop/Reset** Pad to clear the Display Window.

Inside of the oven:

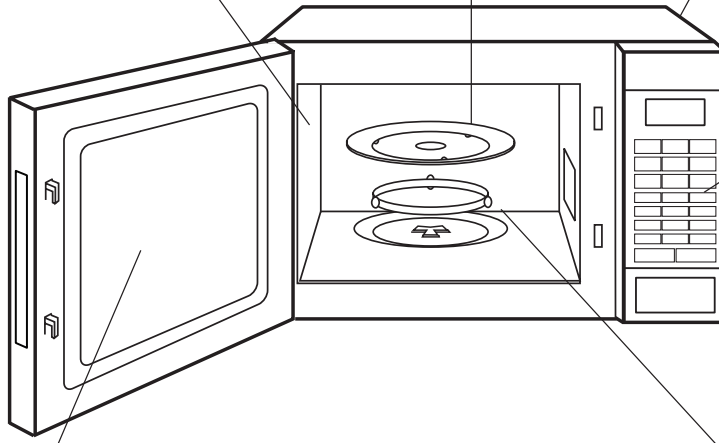
Wipe with a damp cloth. Mild detergent may be used if the oven gets very dirty. The use of harsh detergent or abrasives is not recommended.

Glass Tray:

Remove and wash in warm soapy water or in a dishwasher. If grease accumulates, clean with a non-abrasive nylon mesh scouring pad and a non-abrasive cleanser.

Outside oven surfaces and back vents.

To prevent overheating caused by blocked vents, clean periodically with damp cloth. To prevent damage to the operating parts inside the oven, water should not be allowed to seep into ventilation openings.



Control Panel:

•If it becomes wet, clean with a soft, dry cloth. Do not use harsh detergents or abrasives on the Control Panel.

Oven Door:

Wipe with a soft cloth when steam accumulates inside or around the outside of the oven door. This may occur when the microwave oven is operated under high humidity conditions and in no way indicates a malfunction of the unit or of microwave leakage.

Roller Ring and oven cavity floor:

Wipe the bottom surface of the oven with mild detergent water or window cleaner and dry. Roller Ring may be washed in mild soapy water or dishwasher. These areas should be kept clean to avoid excessive noise and scratching of painted surface.

Technical Specifications

	NN-ST680S	NN-ST780S
Power Supply:	230 - 240 V 50 Hz	
Power Consumption*:	1,050 W 4.6 A	1000 W 4.6 A
Power Requirement:	1,800 W 7.8 A	1800 W 8.0 A
Output*:	1,100 W	
Outside Dimensions (W x H x D):	518 mm x 301 mm x 406 mm	555 mm x 304 mm x 508 mm
Oven Cavity Dimensions (W x H x D):	375 mm x 225 mm x 386 mm	418 mm x 228 mm x 470 mm
Operating Frequency:	2,450 MHz	
Uncrated Weight:	Approx. 12 kg	Approx. 13.9 kg

Trim Kit (Australia and New Zealand only)

Model Number:	NN-TK712SSQP
Outside Dimensions (W x H):	596 mm (W) x 410 mm (H)
Cabinet Opening (W x H x D):	600 mm (W) x 395 mm (H) x 533 mm (D)

* IEC Test Procedure
Specifications subject to change without notice.

Panasonic Warranty *(Australia only)*

Home Appliance 12 Month Warranty from Date of Purchase

1. Subject to the conditions of this warranty Panasonic or its Authorised Service Centre will perform necessary service on the product without charge for parts or labour, if in the opinion of Panasonic, the product is found to be faulty within the warranty period. For Line Communications products (i.e. Cordless Phones, etc) the genuine battery(s) has a 3 month warranty.
2. This warranty only applies to Panasonic products purchased in Australia and sold by Panasonic Australia or its Authorised Distributors or Dealers and only where the products are used and serviced within Australia or its territories. Warranty cover only applies to service carried out by a Panasonic Authorised Service Centre and only if valid proof of purchase is presented when warranty service is requested.
3. This warranty only applies if the product has been installed and used in accordance with the manufacturer's recommendations (as noted in the operating instructions) under normal use and reasonable care (in the opinion of Panasonic). The warranty covers normal domestic use only (also Clip & Trim Professional use) and does not cover damage, malfunction or failure resulting from use of incorrect voltages, incorrect installation, accident, misuse, neglect, build-up of dirt or dust, abuse, maladjustment of customer controls, mains supply problems, thunderstorm activity, infestation by insects or vermin, tampering or repair by unauthorised persons (including unauthorised alterations), exposure to abnormally corrosive conditions or any foreign object or matter having entered the product.
4. This warranty does not cover the following items unless the fault or defect existed at the time of purchase:
 - (a) Cabinet Parts
 - (b) Microwave Oven cook plates.
 - (c) User replaceable Batteries from wear and tear in normal use
 - (d) Kneader mounting shaft unit and Heads, Cutters, Foils, Blades and other accessories.
 - (e) Noise or vibration that is considered normal
5. To claim warranty service, when required, you should:
 - Telephone Panasonic's Customer Care Centre on 132600 or visit our website referred to below and use the Service Centre Locator for the name/address of the nearest Authorised Service Centre.
 - Send or take the product to a Panasonic Authorised Service Centre together with your proof of purchase receipt as a proof of purchase date. Please note that freight and insurance to and / or from your nearest Authorised Service Centre must be arranged by you.
6. The warranties hereby conferred do not extend to, and exclude, any costs associated with the installation, de-installation or re-installation of a product, including costs related to the mounting, de-mounting or remounting of any screen, (and any other ancillary activities), delivery, handling, freighting, transportation or insurance of the product or any part thereof or replacement of and do not extend to, and exclude, any damage or loss occurring by reason of, during, associated with, or related to such installation, de-installation, re-installation or transit.

Panasonic Authorised Service Centres are located in major metropolitan areas and most regional centres of Australia, however, coverage will vary dependant on product. For advice on exact Authorised Service Centre locations for your product, please telephone our Customer Care Centre on 132600 or visit our website and use the Service Centre Locator.

In addition to your rights under this warranty, Panasonic products come with consumer guarantees that cannot be excluded under the Australian Consumer Law. If there is a major failure with the product, you can reject the product and elect to have a refund or to have the product replaced or if you wish you may elect to keep the goods and be compensated for the drop in value of the goods. You are also entitled to have the product repaired or replaced if the product fails to be of acceptable quality and the failure does not amount to a major failure.

If there is a major failure in regard to the product which cannot be remedied then you must notify us within a reasonable period by contacting the Panasonic Customer Care Centre. If the failure in the product is not a major failure then Panasonic may choose to repair or replace the product and will do so in a reasonable period of time from receiving notice from you.

THIS WARRANTY CARD AND THE PURCHASE DOCKET (OR SIMILAR PROOF OF PURCHASE) SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES









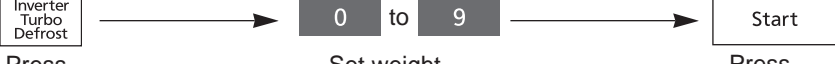





If you require assistance regarding warranty conditions or any other enquiries, please visit the **Panasonic Australia** website www.panasonic.com.au or contact by phone on **132 600** *If phoning in, please ensure you have your operating instructions available.*

Panasonic Australia Pty. Limited

ACN 001 592 187 ABN 83 001 592 187

1 Innovation Road, Macquarie Park NSW 2113
www.panasonic.com.au

Quick Guide to Operation

Feature	How to Operate		
To Set Clock (page 8)	 <p>Press twice Set time of day. (Max 12:59) Press</p>		
To Set / Cancel Child Safety Lock (page 8)	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>To Set:</p>  <p>Press 3 times Display</p> </td> <td style="width: 50%; vertical-align: top;"> <p>To Cancel:</p>  <p>Press 3 times Display</p> </td> </tr> </table>	<p>To Set:</p>  <p>Press 3 times Display</p>	<p>To Cancel:</p>  <p>Press 3 times Display</p>
<p>To Set:</p>  <p>Press 3 times Display</p>	<p>To Cancel:</p>  <p>Press 3 times Display</p>		
To Cook / Reheat / Defrost by Micro Power and Time Setting (page 9)	 <p>Select power. Set the cooking time. Press</p>		
To use Turbo Defrost Pad (page 10)	 <p>Press Set weight. Press</p>		
To Cook using "Sensor Cook" Pads (S) (page 12)	<p>Press until desired food category pad appears. e.g.</p>  <p>optional Press</p>		
To Reheat using "Sensor Reheat" Pad (page 13)	 <p>Press once optional Press</p>		
To Use as a Kitchen Timer (page 14)	 <p>Press once Set Kitchen time. Press</p>		
To Set Standing Time (page 14)	<p>Set the desired cooking program. (See Page 9)</p>  <p>Press once Set Standing time. Press</p>		
To Set Delay Start (page 14)	 <p>Press once Set Delay time. Press</p> <p>Set the desired cooking program. (See Page 9)</p>		