SMARTRO

SMARTRO X50 Remote BBQ Alarm Thermometer
Operating Instructions
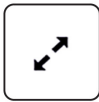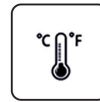

Large LCD display	Backlight
Magnetic Back	°C/°F Switchable
Preset Temp	4 Probes
Remote Range 500 Feet/150M	Temperature Alarm
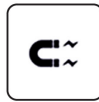
Content

1. SMARTRO X50 Info Sheet

1.1 Overview

SMARTRO X50 is a four-channel BBQ alarm thermometer for inexperienced or experienced cooks to measure the internal temperature of their meat. Adopting all-new RF wireless technology, SMARTRO X50 allows you to keep track of your cooking from a greater distance with up to 500 feet (152 meters) transmission range using the receiver. SMARTRO X50 incorporates the latest technology to provide simple and intuitive use for pros and amateurs alike. Choose various preset temperatures or their associated doneness levels. Alternatively, set the temperature manually. The rugged housing comes with splash-proof protection for use in harsh environments.

1.2 Package Contents

SMARTRO X50 Main Unit x1
SMARTRO X50 Receiver x1
Stainless Steel Probe x4
AA Battery x4
Probe Ring x8
Probe Clip x2
Instruction Manual x1

1.3 Product Specifications

Display Size:
X50 Main Unit: 3.66Hx2.12W inches (93Hx53.8W mm)
X50 Receiver: 1.56Hx1.56W inches (39.6Hx39.6W mm)

Product Size:
X50 Main Unit: 5.9Hx3.86Wx1.34D inches (150Hx98Wx34D mm)
X50 Receiver: 3.6Hx2.9Wx1.28D inches (91.5Hx73.7Wx32.5D mm)

Probe Range: -4 to 572°F (-20 to 300°C)
Probe Cable Withstand Temperature: Max 700°F (370°C)

Accuracy:
±1.8°F (±1.0°C) from -4 to 248°F (-20 to 120°C)
±3.6°F (±2.0°C) from 248 to 392°F (120 to 200°C)
±5.4°F (±3.0°C) from 392 to 572°F (200 to 300°C)
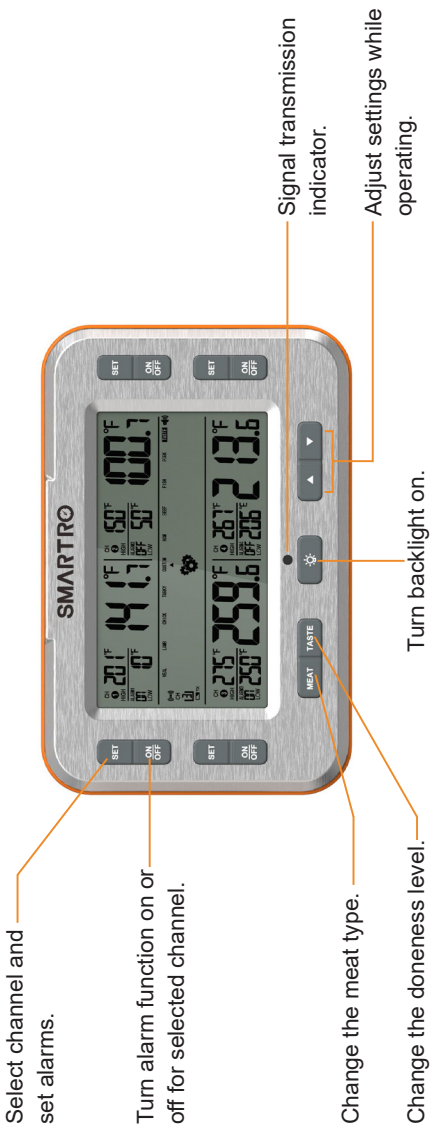
Resolution: 0.1°F (°C)
Units: °C/°F Switchable
Water Resistance: IP66 Splash-Proof
Operating Range: 14 to 122°F (-10 to 50°C)
Backlight: 20 seconds

X50 Main Unit (Front)

Signal transmission indicator.

Adjust settings while operating.
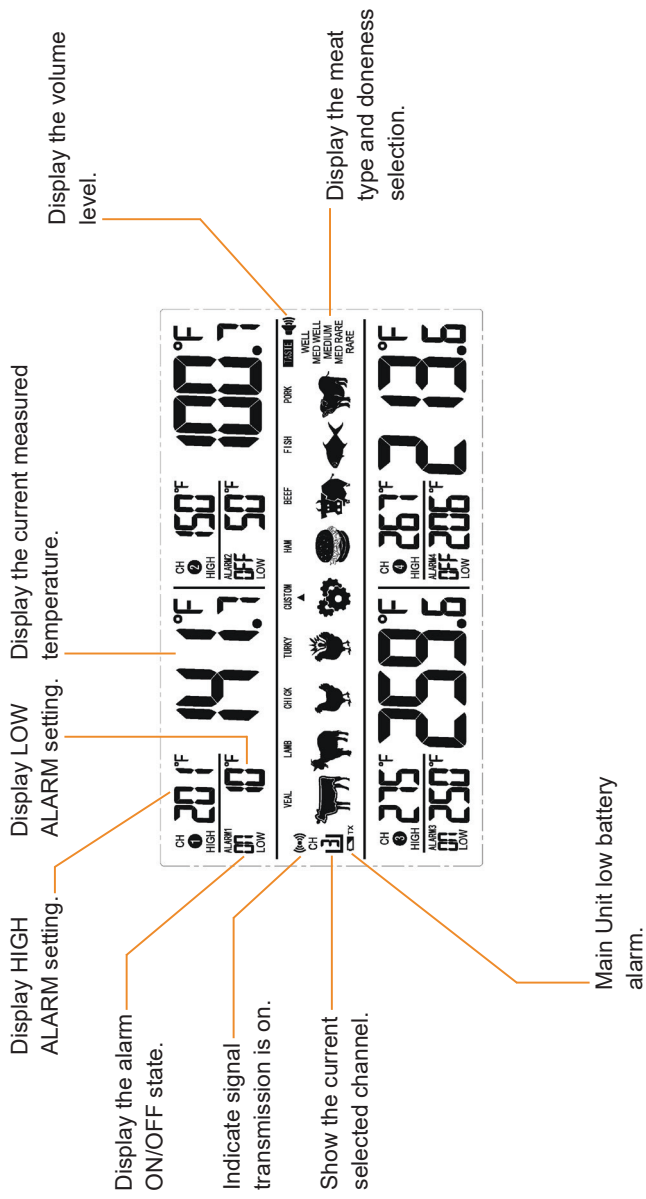
Turn backlight on.

Select channel and set alarms.

Turn alarm function on or off for selected channel.

Change the meat type.

Change the doneness level.

X50 Main Unit Screen

Display the volume level.

Display the meat type and doneness selection.

Display the current measured temperature.

Display LOW ALARM setting.

Display HIGH ALARM setting.

Display the alarm ON/OFF state.

Indicate signal transmission is on.

Show the current selected channel.

Main Unit low battery alarm.

X50 Main Unit (Back)

Adjust the volume level.

Press to transmit signals to the Receiver.
Long press to turn off the signal transmission function.

Calibration function.

Switch display between Celsius and Fahrenheit.

Press to turn on. Press and hold for 3 seconds to turn off.

X50 Receiver

Press to turn backlight on.
Long press for 3 seconds to enter manual signal receiving state.

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Press to turn on. Press and hold for 3 seconds to turn off.
Press to set the alarm sound level for the Receiver.

X50 Receiver Screen

Receiver low battery alarm.

Main Unit low battery alarm.

Manual signal connection indicator.

Display LOW ALARM setting.

Display the alarm ON/OFF state.

Display HIGH ALARM setting.

Display the current measured temperature.

Channel number.

Display the volume level.
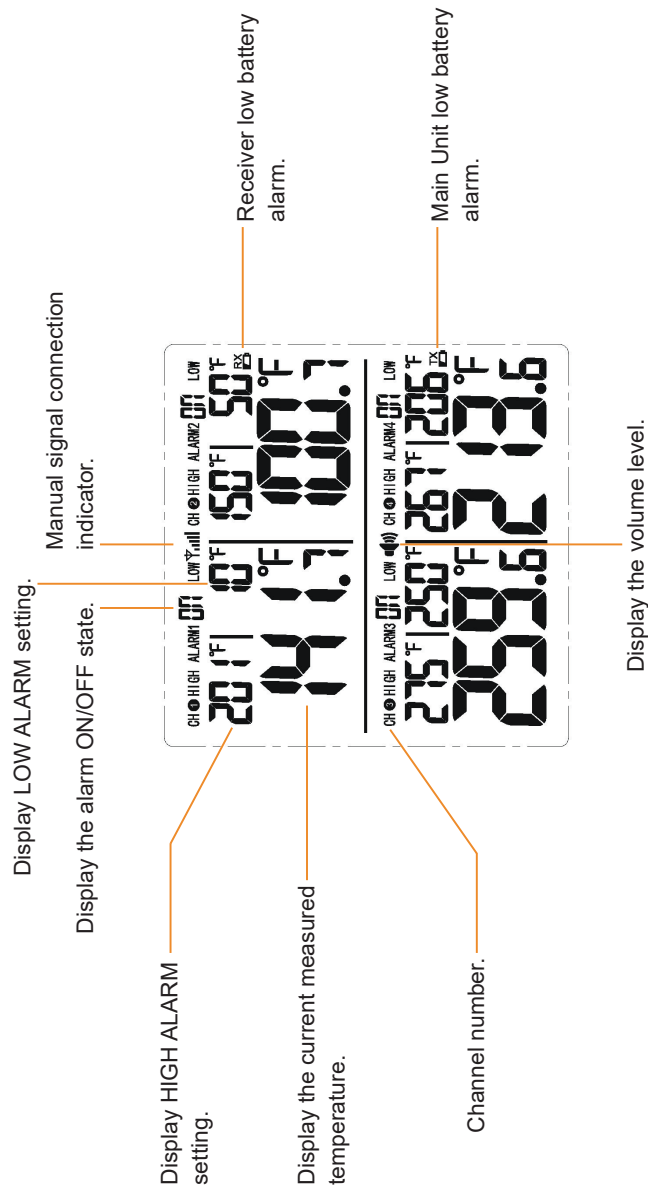
2. Operating Instructions

2.1 Getting Started

Step 1: Open the back cover of the Receiver with a screwdriver and insert 2 AA batteries. It will automatically turn on and can be used after it displays a red backlight and rings 3 times. The "CON" icon will be displayed on the screen of the Receiver.

Step 2: Open the back cover of Main Unit with a screwdriver and insert 2 AA batteries. It will automatically turn on and can be used after it displays a red backlight and rings 3 times.

Get Synced: Turn the Main Unit and the Receiver on and within 10 seconds they will be connected ("CON" icon will be displayed on the Receiver until it connects). If the connection is not successful, please refer to *3. How to Sync Main Unit and Receiver Manually* in the manual.

Press the button to turn the alarm function on or off of a channel (The default is ON).

Press the button to adjust volume level, there are 3 volume levels available.

Press the button to switch between Celsius and Fahrenheit display.

Press the button to turn on the backlight for 20 seconds.

Wireless signals can be received within 500 feet (152 meters) between the devices with no obstructions, less if transmitting between walls or obstacles.

2.2 Main Unit Operating Instructions (Quick Temp Setting)

SMARTRO X50 has preset temperatures for 8 meat types and 5 doneness levels for those who want quick setup without manual input of ranges. To use the Quick Temp function, please follow these instructions:

Step 1: Press [SET] of the channel you want to set, and press [ON/OFF] of the channel to turn the alarm function on or off (The default is ON).

Step 2: Press [SET] twice within 3 seconds and the high temperature setting will begin flashing.

Step 3: Press [MEAT] to select the meat type (The default is CUSTOM).

Step 4: Press [TASTE] to set the doneness level. The corresponding preset temperature will be displayed on the screen.

Step 5: Press [SET] again (or no operation for 10 seconds) to confirm the setting result and exit the setting mode.

Note:
● When setting, if there is no operation for 10 seconds, the current setting will be automatically saved and setting mode will be exited.
● Settings will be saved on the device unless the batteries are removed or exhausted.

● The preset temperature table is as follows:

	WELL	MED WELL	MEDIUM	MED RARE	RARE
BEEF	170°F / 76°C	165°F / 73°C	160°F / 71°C	145°F / 62°C	140°F / 60°C
LAMB	170°F / 76°C	165°F / 73°C	160°F / 71°C	145°F / 62°C	
VEAL	170°F / 76°C	165°F / 73°C	160°F / 71°C	145°F / 62°C	140°F / 60°C
HAMBURG	160°F / 71°C				
PORK	170°F / 76°C	165°F / 73°C	160°F / 71°C		
TURKEY	165°F / 73°C				
CHICKEN	165°F / 73°C				
FISH	145°F / 62°C				

2.3 Main Unit Operating Instructions (Manual Setting)

Step 1: Press [SET] of the channel you want to set, and press [ON/OFF] of the channel to turn the alarm function on or off (The default is ON).

Step 2: Press [SET] twice within 3 seconds to enter the setting mode.

Step 3: Press [MEAT] to select the meat type to CUSTOM, and the HIGH ALARM digits will begin flashing.

Step 4: Use [△ ▽] to adjust the desired HIGH ALARM temperature. Press [SET] again to accept the HIGH ALARM setting, and the LOW ALARM digits will begin flashing.

Step 5: Use [△ ▽] to adjust the desired LOW ALARM temperature. Press [SET] again (or no operation for 10 seconds) to accept LOW ALARM setting and exit the setting mode.

Note:

● Long press ▵ ▿ to quickly set the temperature.

● When setting, if there is no operation for 10 seconds, the current setting will be automatically saved and setting mode will be exited.

● Settings will be saved on the device unless the batteries are removed or exhausted.

Press 🔲 to turn on or turn off the temperature alarm (The default is ON).

When the alarm function is turned on, and the measured temperature is higher than HIGH ALARM temperature, or lower than LOW ALARM temperature, the alarm will sound, the red backlight will be flashing, and the measured temperature digits will flash.

When the alarm function is turned off, and the measured temperature is higher than HIGH ALARM temperature, or lower than LOW ALARM temperature, only the measured temperature digits will flash.

There are 4 kinds of temperature alarm sounds, each channel has different alarm frequency:

CH 1: bi sound once per second
CH 2: bi sound twice per second
CH 3: bi sound 3 times per second
CH 4: bi sound 4 times per second

Pressing any button on the device will stop the alarm sound and flashing red light.

If multiple channels alarm at the same time, only the last alarm will sound.

3. How to Sync Main Unit and Receiver Manually

When the Receiver loses signals for 30 seconds, the alarm will automatically ring, the red backlight will be flashing, the screen will display "CON" and enter the state of receiving signals. Press any button on the Receiver to stop the alarm and flashing red light.
If the Receiver fails to receive the signals for 10 minutes, it will automatically shut down.

If you need sync manually, please follow the steps below:

Step 1: Hold ❄/📶 button on the Receiver, until "CON" appears on the screen and 📶 icon is flashing on the Receiver.

Step 2: Press the Sync button on the back of Main Unit to send signals manually.
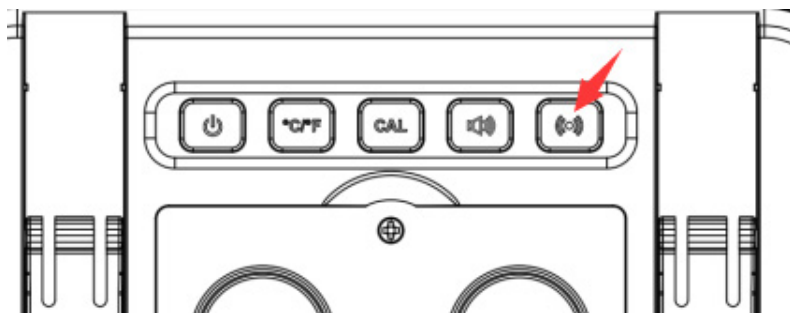
The signal transmission indicator of the Main Unit will light up once, 📶 icon will be flashing on the Main Unit, and the Receiver will connect with Main Unit and receive the data of Main Unit.

4. Probe Ring Installation Instructions

SMARTRO X50 has 8 probe rings (including red, yellow, green, blue, 2 rings for each color).

Always attach probe rings by sliding them over the probe tip. Attempting to attach probe rings by sliding them over the probe jack will cause them to stretch and loosen.

First Probe Ring:

Step 1: Slide the first of the two matching probe rings over the probe tip.
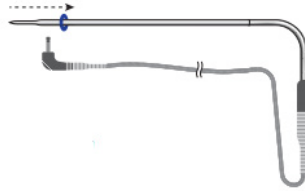
Step 2: Roll the probe ring over the metal springs of the probe.
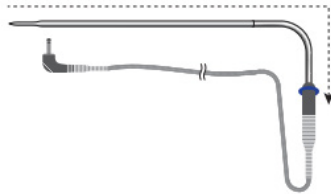
Step 3: Slide the probe ring down the cable until it is over the metal springs of the probe jack. There will be a slight groove to hold the probe ring in place.
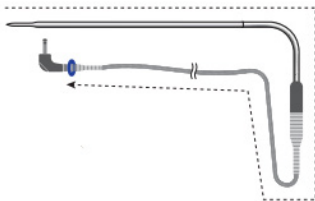
Second Probe Ring:

Step 1: Holding the second probe ring, slide probe ring over the probe.
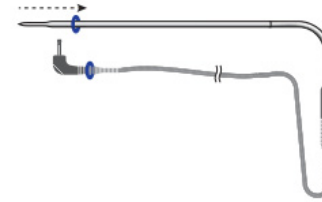
Step 2: Roll the probe ring over the PEEK of the probe.
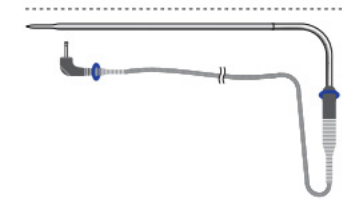
Step 3: Place the probe ring at the point where the metal spring and the PEEK meet.
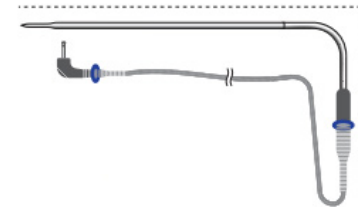
5. Calibration Guide

SMARTRO X50 is ready-to-use. No extra testing or calibration is required before using it. The operations below are for reference only.

Step 1:

Fill a large cup with crushed ice and fill up to 3/4 with purified water. Water that is not purified, such as tap water, still works but may slightly decrease the accuracy. Let the mixture sit for one minute, then stir to allow the temperature to be even throughout. Insert the probe so that the tip is at the centre of the cup and stir gently for 3-4 seconds.

Step 2:

When the measured temperature displays 32°F (0°C), stop stirring the probe, and hold it still in the centre of the cup. The temperature display should read between 28.4-35.6°F (-2 to 2°C).

Step 3:

Press 🔲 of the channel corresponding to the probe, then long press 🔲 for 5 seconds. The HIGH ALARM temperature will display "CAL" and measured temperature will display 0.0°F.
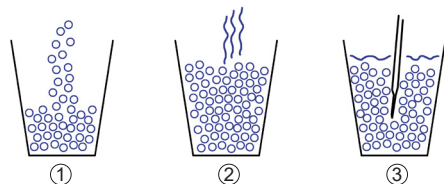
Step 4:

Press 🔲🔲 to increase or decrease the temperature. For example, if you want to add 0.6°F, you can press 🔲 until the reading displays 0.6°F.

Step 5:

Press 🔲 again(or no operation for 10 seconds) to save the setting.

Note:

● The available calibration range is ±4°F(±2.2°C).

● Long press 🔲🔲 to quickly set the temperature.

● When calibrating, if there is no operation for 10 seconds, the current setting will be automatically saved and calibration mode will be exited.

● Settings will be saved on the device unless the batteries are removed or exhausted.

6. Use & Maintenance

Tips for Use:

● Your SMARTRO X50's body should not be affixed directly to a smoker or grill's lid or left in the smoker or oven. The high heat will severely damage the plastic housing.

● Insert the cooking probe so that the tip rests at the thickest part of the meat or food. Avoid gristle or bone.

● You can choose one of the four probes as the air probe. Pinch grate clip, insert probe, and attach the clip to the grate. Place the air probe 1-2 inches away from the food, avoiding the sides of the cooker. The grate clip can be adjusted for different-sized grates by gently bending. We recommend leaving the air probe in the clip while adjusting.

● Set your desired alarm temperatures. Chef-recommended doneness temperatures are listed at the end of the manual. If cooking meat, set the alarm somewhat lower to allow for carryover heat during resting.

Cautions for Probes and Cables:

● Use hot pads or gloves when removing the probe from meat. It will be hot. Do not pull on the cable. Use the molded mini-handle.

● The cables can withstand 700°F (370°C) and the transition/handle 644°F (340°C) for short periods. Probe tip itself is rated to 572°F (300°C). Do NOT expose probe tip to flames or coals.

● The probe is moisture-resistant but we do not recommend full immersion of the cable. Clean probe by wiping with damp cloth and kitchen cleaner.

● Keep the probe cable away from oven elements, flames, coals, grill or oven racks, all of which can reach temperatures far higher than 700°F (even if an oven is set lower).

● When using ovens or smokers, avoid pinching the cable between hot surfaces such as a cast iron grill hood without some insulating protection. Avoid repeated twisting of the probe cable which can break wires.

7. Troubleshooting

Issue	Reason	Solution
The measuring result is too low or too high.	The measuring temperature exceeds 572°F (300°C) multiple times which results in the main unit being damaged.	Please contact us for support or buy a new one. Please use the main unit within normal work-temp range -4°F to 572°F (-20°C to 300°C).
	The probe is exposed to open fire (flame) or probe temperature is higher than 572°F (300°C) which results in the probe being damaged.	Please contact us for support or buy a new probe. DO NOT expose the probe to open fire (flame) or other objects with temperatures over 572°F (300°C).
The temp displays "HHH".	The measuring temperature exceeds 572°F (300°C).	Take out the probe from the high temperature place at once and allow it to cool down, only use this thermometer within normal work-temp range -4°F to 572°F (-20°C to 300°C).
	The probe is not plugged in completely or the probe socket is damaged.	Unplug the probe and fully re-insert it into the thermometer. If it still has problem, please contact us for support.

The temp displays "LLL".	The measuring temperature is below -4°F (-20°C).	Take out the probe from the low temperature place at once. Only use this thermometer within normal work-temp range -4°F to 572°F (-20°C to 300°C).
	The probe is not plugged in completely or the probe socket is damaged.	Unplug the probe and fully re-insert it into the thermometer. If it still has problem, please contact us for support.
No alarm sound after the temperature reaches the alarm temperature.	The alarm switch of the channel you are measuring is off.	Press the ON/OFF button corresponding to the channel you want to measure to turn on the alarm.
Cannot set the alarm temperature manually.	The meat type of the channel you selected is not CUSTOM.	Press SET button twice within 3 seconds to enter the setting mode, then press MEAT button to adjust the meat type to CUSTOM.
Receiver cannot receive the signal of Main Unit.	Receiver and Main Unit are too far away or there are obstacles between them.	Put Receiver and Main Unit in a position where the signal can be received.
	The signal transmission function of Main Unit is turned off.	Press the signal button on Main Unit to turn on the signal transmission.

8. Contact Us

If your device fails to work or you are less than completely satisfied with this product in any way, please don't hesitate to contact us.
Tel: +1(323)287-5798
E-mail: support@smartro.co
Facebook: http://bit.ly/smartro_01
Website: https://www.smartro.co/

About our common-interest group:
Passionate about cooking? Come join our community of cooks that share ideas and suggestions on cooking, smoking, BBQ, and more! Gather with passionate cooks just like you who are obsessed with cooking and BBQ. We love trying different ways of cooking and hearing the amazing recipes our customers use. Feel free to share your favorite, original and unique recipes or simply learn for other cooks for around the world. We can't wait to see you! Take a few seconds to scan this code and join us! You will get several free E-cookbooks as a gift. Don't miss out!

9. Chef-Recommended Meat Temperatures

BEEF	SERVE TEMPERATURES		LAMB•VENISON
Blue	**110°F**	**43°C**	
Rare	**120 - 130°F**	**49 - 54°C**	
Medium Rare	**130 - 135°F**	**54 - 57°C**	
Medium	**135 - 145°F**	**57 - 63°C**	
Medium Well	**145 - 155°F**	**63 - 68°C**	
Well	**155°F - up**	**68°C - up**	
Ground Beef	**160°F**	**71°C**	USDA Recommended
Beef Brisket - **BBQ**	**190 - 205°F**	**88 - 96°C**	Fork tender

PORK			VEAL•FRESH HAM
Medium	**137°F**	**58°C**	
USDA - Done	**145°F**	**63°C**	
Well Done	**150°F - up**	**66°C - up**	
Pre-Cooked Ham	**120°F**	**49°C**	Carmelized glaze, juicy
Sausage	**160°F**	**71°C**	Warm, juicy
Pork Ribs - **BBQ**	**190 - 205°F**	**88 - 96°C**	Fall of the bone
Pork Shoulder - **BBQ**	**190 - 205°F**	**88 - 96°C**	Fork tender

POULTRY	CHICKEN•TURKEY•DUCK•PHEASANT•QUAIL•GOOSE		
Whole or Ground	**165°F**	**74°C**	USDA & Chef Recommended
Medium	**170 - 180°F**	**77 - 82°C**	Safe at 165°F, but more tender at higher temp

SEAFOOD			
Ahi Tuna	**115°F**	**46°C**	"Sashimi" grade
Shrimp	**120°F**	**49°C**	Pink, slightly constricted
Salmon	**125°F**	**52°C**	Flaky and tender
Halibut	**130°F**	**54°C**	Opaque, moist
Scallops	**130°F**	**54°C**	Milky white, firm
Lobster	**140°F**	**60°C**	Opaque, not constricted

Federal Communications Commission (FCC) Statement. This device complies with part 15 of the FCC Rules. Operation is subject to the following twoconditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received,

including interference that may cause undesired operation. Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide Reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one ormore of the following measures:

•Reorient or relocate the receiving antenna.

•Increase the separation between the equipment and receiver.

•Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

•Consult the dealer or an experienced radio/TV technician for help.

Warning: Changes or modifications made to this device not expressly approved by Beijing Toplead Technology Co., Ltd may void the FCC authorization to operate this device.Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

RF exposure statement:

The transmitter must not be colocated or operated in conjunction with any other antenna or transmitter. This equipment complies with the FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a Minimum distance of 5mm between the radiator and any part of your body.