

ST49 PRO DIGITAL THERMOCOUPLE THERMOMETER

USER GUIDE



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YOUR ST49 PRO THERMOMETER



① Food Safe

Antimicrobial coating

② 1.8" Backlit Display

Ambidextrous rotation

③ Magnet

Convenient storage

④ Touchpad

For backlit & functions

⑤ Probe

18/8 stainless steel

⑥ Lanyard Hole

Simple portability

PRODUCT SPECIFICATIONS



Water resistance: IP67

°C/°F switchable

Can be calibrated with 0°C (32°F) water

Measurement range: -30-300°C (-22-572°F)

Backlit auto-off after 1 minute

Power: 2x AAA batteries (included)

OPERATION

To use your ST49, simply unfold the probe and to start reading temperatures, which will be displayed immediately on the backlit display. You can turn off the thermometer by folding the probe back in and lightly pressing the tip into the rubber probe retainer located at the bottom rear of the instrument.

The default display unit is Fahrenheit. To change between Celsius and Fahrenheit, use the switch found inside the battery bay.

ADDITIONAL INFORMATION

Auto-Off

If the thermometer is left idle for more than 3 minutes with temperature changes less than 2°C (3.6°F), it will automatically turn off. Shake the thermometer or fold and unfold the probe to wake.

Ambidextrous Display

Built-in motion sensors detect when the device is upside down and rotates the display accordingly. A simple solution for awkward angles and left-handers alike.

Antimicrobial Coating

The plastic shell is made with silver-based antimicrobial additive to inhibit pathogen growth with an efficacy of 99% or higher.

Tapered Sensor Tip

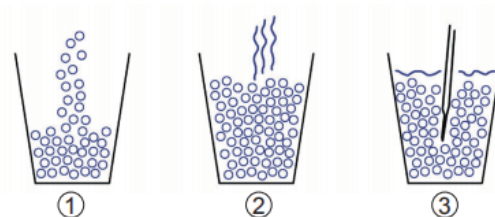
The ultra-sensitive thermocouple sensor is located at the tip of the probe, requiring an insertion distance of 5mm (0.20 inches).

CALIBRATION

This product is complete and ready-to-use. No extra testing or calibration is required before using it. The operations below are for reference only.

Prepare for Calibration

Fill a large cup with crushed ice and fill up to 3/4 with purified water. Let it sit for a 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.



Calibration



When the ambient temperature is 0°C (32°F), insert the probe so that the tip is at the very centre of the cup. The LCD display should read between -2 to 2°C (28.4 to 35.6°F).



With the probe in the cup, tap  icon 3 times on the touchpad in succession. With "CALu" displayed in the screen, the thermometer is in calibration mode. No further action is required, "PAS" will display on the screen and the thermometer will return to normal mode automatically.

TROUBLESHOOTING

WON'T SWITCH ON



Fold and unfold the probe or change new battery.

BACKLIT TURNED OFF



Tap  or fold and unfold the probe.

READING INACCURATE



Calibrate thermometer or contact customer service.

DISPLAYS "HHH"



Temperature reading exceeds maximum of 300°C (572°F).

DISPLAYS "LLL"



Temperature reading below minimum of -30°C (-22°F).

SWITCH °C/°F



Use switch inside battery bay to change unit.

DISPLAYS "LO"



Battery running low, change battery.

USE & MAINTENANCE

- Always measure at the centre of meat, avoid hitting bone or cartilage.
- Prevent build-up on the thermometer through frequent cleaning with damp cloth.
- Do not clean with solvents or scouring agents.
- Do not put device into dishwasher.
- Do not leave device in the oven.
- Avoid contact with fire.
- Avoid extreme temperature, vibration or shock.

FOOD SAFETY & CERTIFICATION

The SMARTRO thermometer is certified for commercial and professional use. It complies with stringent international and independent food safety guidelines, such as being free of lead, mercury, cadmium, and other hazardous substances. Certifications include CE and RoHS.

PRODUCT WARRANTY

This thermometer comes with a 3-year limited warranty against all hardware defects in components or workmanship under normal use. This device is exclusively intended for the field of application described in this manual. It should only be used as described within these guidelines. Damage resulting from normal wear and tear, water entry, abuse, misuse, accidental breakage, negligence, defects caused by modifications, repair and servicing not made or authorized by SMARTRO will void all warranty. SMARTRO reserves the right to make the final judgment on all claims.

THAWING MEAT CORRECTLY

Ideal: Refrigerator

The best and safest way to defrost your frozen meat is in the refrigerator. This way, your meat will defrost at a consistent temperature that's below the USDA's safety recommendation of 4°C (40°F). However, this method takes up to 24 hours to fully defrost larger cuts of meat. Therefore, it requires planning in advance.

Satisfactory: Cold Water

To defrost your dish within the day, place your meat in a resealable bag and submerge it in a large bowl of cold water.

Use the water to help push the air out of the bag before you seal it.

Like the refrigerator method, thawing times depend on the size of the meat.

Small items like sausage, chicken breasts and thin cuts of steak will defrost within an hour. Larger cuts can take 2 to 3 hours.

Emergency: Microwave

If you need to defrost your meat quickly, your microwave is the only option. Remove the protein from its plastic packaging, place it on a clean plate, and use your microwave's defrost function. Keep a

close eye on your protein as microwaves can cause hot spots and defrost unevenly. Check progress every 45 seconds.

IMPORTANCE OF RESTING MEAT

When we're cooking large pieces of meat like rib roasts or turkey, we've always been told to let the meat rest before cutting into it. Why is that? There are a couple of reasons why "resting" meat is a good idea.

As meat cooks, the muscle fibers start to contract and the juices get pushed out, much like wringing a wet towel. This moisture moves outward toward the surface of the meat.

When you take your meat off the heat, the moisture is still unevenly distributed throughout the protein. If you cut into it right away, the liquid will pool out and your beautiful dish will end up very dry. By letting it rest, the muscle fibers will start to relax, pulling in and reabsorbing the juices. The result is a far juicier piece of meat.

There's also another reason: A large piece of meat will actually continue to cook for a few minutes after you take it out of the oven. This is called carry-over cooking and is why many recipes tell you to

take meat out of the oven a little before the meat is done.

Once you take it out of the oven, tent the meat in foil to keep it warm. The amount of resting time for a particular cut of meat or cooking technique will vary, though it's usually between 10 and 20 minutes.

FOOD TEMPERATURE GUIDE

CHEF-RECOMMENDED MEAT TEMPERATURES

	RARE	MED. RARE	MEDIUM	MED. WELL	WELL DONE
BEEF. VEAL&LAMB	46°C 115°F	52°C 125°F	57°C 135°F	63°C 145°F	68°C 155°F
PORK		52°C 125°F	54°C 130°F	57°C 135°F	60°C 140°F
SALMON & OTHER FATTY FISH		46°C 115°F	52°C 125°F	57°C 135°F	63°C 145°F
SEA BASS & OTHER LEAN FISH		52°C 125°F	54°C 130°F	57°C 135°F	60°C 140°F
SHELLFISH	49°C 120°F		54°C 130°F		60°C 140°F

NOTE: These are common temperatures used by professional chefs to achieve a desired taste and texture and are not USDA recommended temperatures. For USDA recommend doneness, add on another 2 to 5°C (5 to 10°F).

Please also be aware that internal temperature will continue to rise as your dish is resting.

ADDITIONAL TEMPRATURE FOR SAFETY

GROUND MEATS	71°C 160°F	HAM(RAW)	71°C 160°F
POULTRY	74°C 165°F	HAM (SMOKED)	60°C 140°F
BRISKET, PORK RIBS, SHOULDERS	88-96°C 190-205°F	SAUSAGE	71°C 160°F

CANDY TEMPERATURE

THERAD	110-112°C (230-234°F)
SOFT BALL	112-116°C (234-240°F)
FIRM BALL	118-120°C (244-248°F)

HARD BALL	121-130°C (250-266°F)
SOFT CRACK	132-143°C (270-290°F)
HARD CRACK	149-154°C (300-310°F)
CARAMEL	160-177°C (320-350°F)

MISC. TEMPERATURES

WATER FOR YEAST	41-46°C (105-115°F)
SOFTENED BUTTER	18-19°C (65-67°F)
RENNET ACTIVATION	29-41°C (85-105°F)

AFTER-SALES SUPPORT

Please contact us if your device fails to work despite these measures or your experience with us is less than perfect in anyway. Join our Instagram or Facebook group for more support and discount information.

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 : support@smartro.co

 : http://bit.ly/smartro_01

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