



In a food safety system, temperature and time are the two most important components in preventing foodborne illness. Proper cooking, storing, holding and monitoring of temperatures is vital in preventing bacterial growth in foods. Using the correct tools becomes an essential component of your food safety plan.

Cooper-Atkins Corporation provides a full line of professional time and temperature instruments that assist in serving safe food and can be incorporated into your HACCP plan.

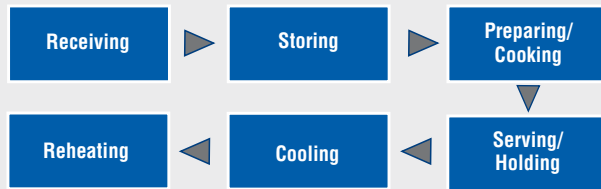
The **HACCP Manager™** Kit was designed to replace manual data collecting, simplifying your HACCP program. It provides a systematic and more accurate approach to temperature monitoring.

Its intuitive interface provides adaptable and customizable programming and reduces training time, saving you time and money through increased productivity. Using the HACCP Manager system to collect temperature data makes a solid HACCP program much easier to implement.



THE HACCP APPROACH

A Hazard Analysis Critical Control Point (HACCP) food safety plan is based on identifying significant hazards at specific points within a product's flow. Once identified, steps can be taken to prevent, eliminate or reduce these hazards to safe levels.



The 7 HACCP Principles:

1. Identify potentially hazardous foods in recipes and describe preventive measures.
2. Specify all the critical control points in the process where these hazards can be prevented, eliminated, or reduced.
3. Establish critical limits that must be met to prevent or eliminate the hazard.
4. Monitor critical control points and determine whether criteria is being met.
5. Assign corrective actions for when critical limits are not met.
6. Create procedures for verification that the HACCP system is working correctly.
7. Set up an effective record-keeping process that documents your HACCP system.

PROTECTION THROUGHOUT THE FLOW OF FOOD

All potentially hazardous foods should be prepared so that they spend less than 4 hours in the temperature danger zone. Final cooking temperatures, 41° to 135°F (5° to 57°C), should never be guessed by visual assessment or touch; always test with a thermometer. For accurate temperature readings, test temperatures in the geometric center (usually the thickest part) of the food product.

Thawing: The first step in the preparation of frozen foods.

Acceptable methods:

- Under running water at or below 70°F (21.1°C) for < 2 hours.
- Microwaving (if food is being cooked immediately after).

Holding: Hot foods should be held at 135°F (57°C) or above. Cold foods should be held at 41°F (5°C) or below. Always use thermometers to check the food and air temperature. Relying on the thermostat of warming or holding equipment is not enough. Temperatures should be checked at 2-hour intervals.

Cooling: Internal food temperatures must be brought below 41°F (5°C) within 4 hours.

Acceptable Equipment Temperatures:

- **Refrigerator:** 38°F (3°C) or lower
- **Freezer:** 0°F (-17.7°C) or lower
- **Dry Storage:** 70°F (21°C) or lower with low humidity/adequate ventilation
- **Dish Washing Rinse Temp:** 180°F (82.2°C)

Wireless Monitoring System

NotifEye Cloud-based Temperature Monitoring and Notification System increases your operating efficiencies and avoids potential spoilage.

This simple, self-installable system is ready to use out of the box and requires minimal set-up.



Cold Storage Shelf Life

Product	Refrigerator	Freezer
Fresh Beef	3 - 6 days	6 - 12 months
Fresh Veal, Lamb	3 - 4 days	6 - 9 months
Fresh Pork	1 - 2 days	3 - 6 months
Ground Beef, Veal and Lamb	1 - 2 days	3 - 4 months
Ground Pork	1 - 2 days	1 - 3 months
Variety Meats	1 - 2 days	3 - 4 months
Chicken, Turkey, Duck	1 - 2 days	6 months
Filletts of Fish (lean)	1 - 2 days	4 months
Filletts of Fish (fat)	1 - 2 days	3 months
Shellfish	1 - 2 days	2 - 4 months
Vegetables	1 - 2 days	8 - 10 months
Eggs	7 days	
Milk	5 - 7 days	

CHOOSING THE APPROPRIATE THERMOMETER

If you prefer faster temperature readings and a broader range than a bi-metal stem thermometer, the AFL Digital Pocket Tests are right for you! They are more dependable and have a higher accuracy than a bi-metal.

With settings stored in a non-volatile memory chip, no "field adjustment" of calibration settings is required, so there is no risk of introducing error into the instrument. Guaranteed **Accurate for Life.**



If you have been using a digital pocket test, but are looking for more versatility, thermocouple instruments have a wider temperature range and quicker response times. The **32311-K EconoTemp™** Thermocouple Instrument with DuraNeedle Probe (50336-K) is the perfect entry-level instrument.

93230-K EconoTemp™ Combo Pack

The **AquaTuff™** 350 Series Thermocouple Instruments are IPX7 waterproof rated and also support interchangeable probes for a wide variety of applications.



93970-K AquaTuff Kit

94003-K AquaTuff Kit

It is important that all test instruments are sanitized before and after each use, to prevent cross-contamination. Probe Wipes clean and sanitize thermometer probes quickly between temperature checks.

9150 Boxed Probe Wipes

Check your local regulations on all required temperatures, as they may vary depending on location.

Minimum Cooking Temperatures

Product	Temperature	Time
Poultry Stuffed meat, seafood, poultry or pasta Stuffing made with fish, meat or poultry	165°F (74°C)	15 seconds
Ground meat & seafood Injected meat & mechanically tenderized meat Ratites (ostrich and emu) Shell eggs - being hot-held for service	155°F (68°C)	15 seconds
Seafood & commercially raised game Chops of pork, beef, veal and lamb Shell eggs - being served immediately	145°F (63°C)	15 seconds
Roasts of pork, beef, veal and lamb	145°F (63°C)	4 minutes
Fruit, vegetables, grains and legumes - being hot held	135°F (57°C)	15 seconds

PROFESSIONAL FOOD SAFETY KITCHEN PRODUCTS

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|--------------|---------------------------------------|-------------|---|-------------|---|
| 1. 2237 | Espresso/Milk Frothing Thermometer | 16. 330 | Refrigerator/Freezer Thermometer | 29. 37100 | HACCP Manager™ Handheld Instrument |
| 2. 50208-K | Fry Vat Probe | 17. 335 | Glass Tube Refrigerator/Freezer Thermometer | 30. DTT361 | Digital Cooking Thermo-Timer |
| 3. 35200-K | AquaTuff™ Thermocouple Instrument | 18. 25HP | Bi-metal Refrigerator/Freezer Thermometer | 31. 329 | Paddle-Style Deep Fry/Candy/Jelly Therm |
| 4. 3270-05 | Deep Fry Thermometer | 19. 2560 | Digital Refrigerator/Freezer Thermometer AM | 32. 322 | Deep Fry/Candy/Jelly Thermometer |
| 5. TW3 | Large Digit Multi-function Timer | 20. DFP450W | Digital Pocket Test Thermometer w/ Temp Alarm AM | 33. 1246-02 | Bi-metal Pocket Test, 0° - 220°F AM |
| 6. TS100 | 99 Minute Stopwatch/Timer w/ Lanyard | 21. DPP800W | MAX Pen-Style Digital Pocket Test Thermometer AM | 34. 9325 | ValCup™ Thermometer Validation Cup |
| 7. TM60 | Long-Ring Mechanical Timer | 22. DPP400W | Pen-Style Digital Pocket Test Thermometer AM | 35. 323 | Roasting Thermometer |
| 8. TFS4 | Multi-Station, 99 Hour Digital Timer | 23. 50014-K | Weighted Griddle Probe | 36. TTM41 | Coolit-Rite™ Cooling Validator AM |
| 9. FT24 | Single-Station 24 Hour Digital Timer | 24. 24HP | Oven Thermometer | 37. 2238-06 | 8" Stem Test Thermometer |
| 10. 93230-K | EconoTemp™ Thermocouple Combo Pack | 25. 3210-08 | Grill Surface Thermometer | 38. 412 | Gun-Style Infrared Thermometer w/ Thermocouple Jack |
| 11. 212-159 | Refrigerator/Freezer Wall Thermometer | 26. 50263-K | Patty Probe, 60°Angle 3/16" Depth | 39. 462 | Slim-Line™ Infrared Thermometer |
| 12. 9150 | Boxed Probe Wipes - 200 Count | 27. DT300 | Oval Style Digital Pocket Test Thermometer AM | 40. 481 | DualTemp2™ Infrared Thermometer with RTD Probe |
| 13. PM180-01 | Dual-Cool™ Panel Thermometer | 28. 35132 | AquaTuff™ Wrap&Stow™ Thermocouple with DuraNeedle Probe | 41. 470 | Mini Infrared Thermometer |
| 14. 15100 | NotifEye™ Wireless Temperature Sensor | | | | |
| 15. 535 | Reach-in Cooler Thermometer | | | | |

AM = Includes Anti-Microbial Additive

For more information on a product **CLICK** on the part # listed above

