

FIELD MANUAL

Rothco Deluxe 5-Piece Mess Kit

Standard Operating Procedure for single-operator field feeding, water boiling, and equipment sustainment.

APPLICABILITY	Campers, backpackers, preparedness households, scouts and cadets, and field personnel who need a reusable cook-and-eat kit for one person.
CONSTRUCTION	Heavy-gauge polished aluminum (frying pan, saucepan, lid, plate). The cup is plastic.
COMPONENTS	Five pieces: frying pan with stay-cool handle, saucepan, lid, plate, and plastic cup. All five pack away into one unit.

SECTION 1 | MISSION BRIEF & INTENDED USE

1.1 Mission Profile

The Rothco Deluxe 5-Piece Mess Kit is a self-contained cooking and eating system for one person. It supports boiling water, heating and rehydrating rations, simple frying, and serving a meal. All five pieces pack away into one unit for transport in a pack, go-bag, or vehicle kit.

1.2 Design Basis

The metal components are heavy-gauge polished aluminum. Aluminum transfers heat quickly and evenly, which shortens boil times and conserves stove fuel, and it keeps carry weight low. The tradeoff is that aluminum is softer than steel. It can dent under impact, and it can warp or scorch if heated empty or placed in intense, unregulated heat. The procedures in this manual are written around those limits.

1.3 Intended Operational Environments

- Camping and backpacking: meal preparation over a backpacking stove or a managed campfire.
- Home and vehicle emergency kits: a dedicated way to boil water and heat food during a power outage or evacuation.
- Scouting and outdoor training: a standard individual kit for field training weekends.
- Base camp: individual cook and mess gear for multi-day trips.

1.4 Limitations

INDUCTION	Not compatible. Aluminum is not magnetic and will not heat on a standard induction cooktop.
DRY HEAT	Never heat an empty vessel or set the kit directly into a bed of hot coals or a large open fire.
CAPACITY	Sized for one person. Plan additional kits for group feeding.
PLASTIC CUP	For beverages only. Never place it on or near a heat source.

SECTION 2 | COMPONENT FAMILIARIZATION

The kit contains five (5) components. Know the purpose and the limits of each before field use.

FRYING PAN WITH STAY-COOL HANDLE	Wide, shallow vessel for frying, searing, and heating food. It can serve as a second boiling vessel when the saucepan is in use. The stay-cool handle is designed to reduce heat transfer, but it can still become hot. Confirm the handle is secure before lifting a loaded pan.
SAUCEPAN	Primary vessel for boiling water, simmering soups, and rehydrating freeze-dried meals. Leave headspace when filling to prevent boil-over.
LID	Placed over the vessel in use to trap heat, reduce boil time, conserve fuel, and keep debris out of food. The lid is metal and will be hot after use.
PLATE	Aluminum plate for serving and eating a prepared meal.
PLASTIC CUP	For beverages only. Allow boiling water to cool briefly before pouring it into the cup. Never place the cup on a stove, in a fire, or against a hot pan.

2.1 Transport Configuration

All five components pack away together into one compact unit. When you first unpack the kit, note the order the pieces came out and repack in the same order. A consistent packing order keeps the unit tight and quiet in a pack and makes it faster to deploy.

SECTION 3 | STANDARD OPERATING PROCEDURE

Scenario: A single operator has made camp for the night. The task is to boil water for a freeze-dried meal and a hot drink and to fry a side item, using a canister backpacking stove.

Phase 1: Site Preparation & Deployment

- 1
- Place the stove on a level, stable, non-flammable surface. Clear dry grass, leaves, and other flammables from the area.
- 2
- Unpack the kit and lay out all five components. Inspect each piece for damage.
- 3
- Set the plastic cup well away from the stove before lighting it.
- 4
- Ready the frying pan handle and confirm it is secure before the pan goes on the heat.

Phase 2: Cooking

- 5
- Fill the saucepan with the water you need, leaving headspace. Cover it with the lid and bring it to a rolling boil.
- 6
- Shut off the flame. With a gloved hand or pot holder, pour the required water into your meal pouch. Let the remaining water cool briefly before pouring it into the cup.
- 7
- Place the frying pan on the stove with oil or food already in it. Do not preheat an empty aluminum pan. Cook over a moderate flame.

- 8
- Keep the handle turned away from the flame and out of the way of foot traffic.

Phase 3: Serving

- 9
- Transfer cooked food to the plate.
- 10
- Shut off the stove and allow all metal components to cool before handling them bare-handed.

Phase 4: Cleaning & Repacking

- 11
- Scrape out food residue away from camp. Wash with minimal water and biodegradable soap. A soft scrub pad protects the polished finish.
- 12
- Remove soot from the exterior and dry every piece completely.
- 13
- Repack all five pieces into one unit. Confirm the kit is secure and quiet before stowing it.

SECTION 4 | CRITICAL WARNINGS, LIMITS & SAFETY

BURN HAZARD	Aluminum heats quickly. The pans, lid, and plate will reach temperatures that cause severe burns. The stay-cool handle reduces heat transfer but does not eliminate it. Use gloves or a pot holder.
PLASTIC CUP	The cup will melt if it contacts flame, a hot stove, or a hot pan. Never use it to heat anything.
DRY HEAT & WARPING	Never heat an empty vessel. Never place the kit directly into hot coals or a large open fire. Intense dry heat can warp or scorch aluminum.
INDUCTION	This kit will not work on induction cooktops.
STABILITY	Cook only on a level, stable surface. A spill of boiling water or hot oil causes severe burns and wastes limited field resources.
HANDLE SECURITY	Check that the frying pan handle is secure before every use. A loose handle on a loaded pan is a spill and burn hazard.
FOOD STORAGE	Do not store acidic or heavily salted food in aluminum for extended periods. It can pit and discolor the surface and affect flavor.

SECTION 5 | READINESS, INSPECTION & SUSTAINMENT

5.1 Pre-Deployment Inspection

COMPONENT COUNT	Confirm all five components are present.
METAL INTEGRITY	Inspect for dents or warping that prevent the pieces from packing together or sitting stable on a stove.
HANDLE	Confirm the frying pan handle is secure and any attachment hardware is present and tight.

PLASTIC CUP

Inspect for cracks or heat damage. Replace a damaged cup.

5.2 Post-Use Maintenance

Wash all components in warm, soapy water after every trip. Avoid harsh alkaline cleaners and dishwasher detergents, which can darken polished aluminum. Some discoloration from normal use is cosmetic and does not affect function. Dry every piece completely before packing.

5.3 Long-Term Storage

Store the clean, dry, packed kit in a cool, dry location. For vehicle kits or preparedness caches, place a small desiccant packet inside the kit to absorb moisture. A clean, dry, inspected kit is ready for the next deployment.

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