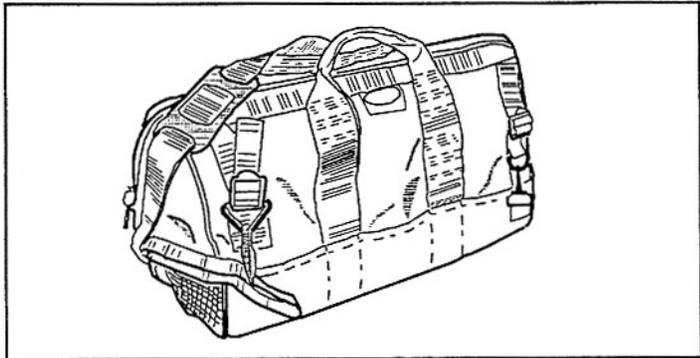


PORTABLE SIGN-MAKING KIT



This graphic training aid (GTA) is designed to show the user how to use the kit contents and provide a guide to alternate material sources.

The portable sign-making kit (national stock number [NSN] 9905-01-478-3723) replaces NSN 3610-01-219-6780, which is no longer available through the Army supply system. The new kit is lightweight and simple to use and contains tools and materials that, when used in conjunction with vehicle basic-issue items and locally available materials, produce temporary signs in support of military police (MP) operations. Since the kit is not fully self-contained, the user must plan ahead. The new, lighter kit gives MP units the ability to pack according to the mission, enemy, terrain, troops, time available, and civilian considerations (METT-TC). Even though a significant difference exists between signs made with the kit and specifications in standardization agreements (STANAGs) (generally STANAG route signs have a black background with white letters, and the kit's sign background material is white), it does not differ from the kit it replaces. The soft-sided sign kit comes with white plastic bags that can be used to make signs up to 21 inches wide by 23 inches high.

Headquarters, Department of the Army
May 2001

DISTRIBUTION: United States (US) Army Training Support Centers (TSCs).
 DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

SIGN-MAKING INSTRUCTIONS

WARNING: Use eye protection when performing nailing or posting operations.

NOTE: This kit relies upon the user to plan ahead and anticipate signage missions. Leaders must locate and stockpile signage material to use with the sign-making kit when a signage operation is imminent. Six stakes and six blank boards should suffice for hasty requirements. Refer to the supportive/alternative material list for possible substitute materials and alternate solutions.

Step 1. Read all steps completely before starting.

Step 2. Determine the sign dimension and cut the backer material to size, keeping the white plastic bag's dimensions in mind.

Step 3. Pull the bag over the backer material, ensuring that the open end of the bag becomes the bottom of the sign and the bag's warning labels are on the back of the sign. If using cardboard for backer material, place the folds or tape lines perpendicular to the post or stake you will be attaching the sign to in order for it to support the sign. Any backer board with writing or designs should be put on what will become the back of the sign to prevent seeing the writing or design through the bag.

Step 4. Tighten the bag and tape the excess material to the back of the sign, ensuring that all air is removed and the surface is flat and tight to allow for marking. Then seal the bottom opening. If time and material permit, edge the sign with 100-mile-an-hour tape to ruggedize it and give it definition (border).

Step 5. Use 100 mile-an-hour tape to create fastener tabs by doubling tape over the top and bottom edges of the sign (see illustration on page 3.) Ensure that the tabs are protruding about 1.5 inches. This allows the sign to be fastened (with staples, nails, and such) without punching a hole in the bag.

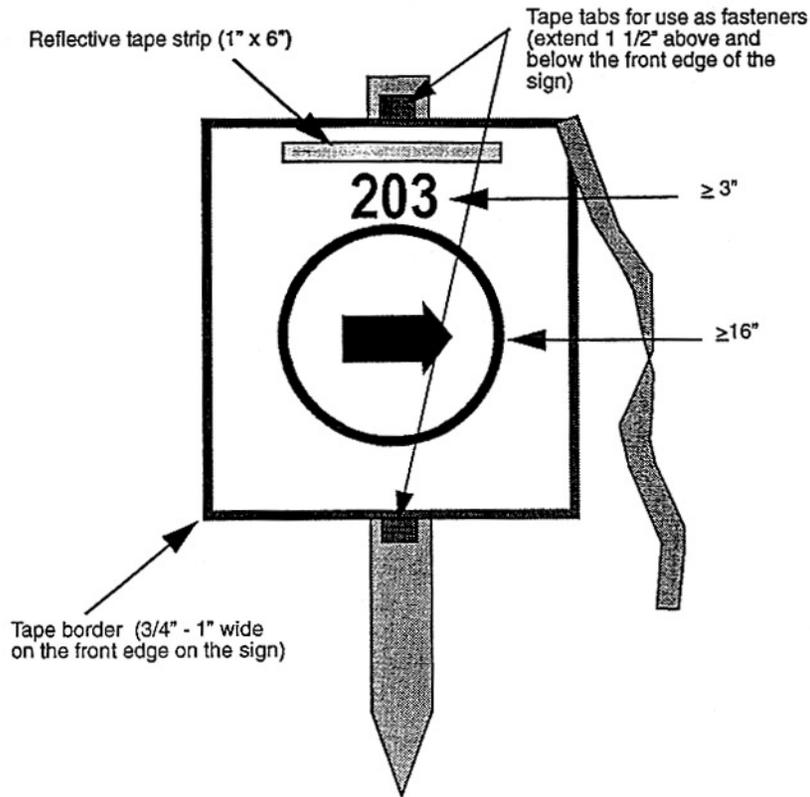
Step 6. Mark the sign accordingly (use standard markings) and, if allowable, place a 6-inch strip of reflective tape along its upper edge to increase visibility. Ensure that all sign lettering is at least 3 inches high.

Step 7. Emplace the stake or post (when used).

Step 8. Fasten the sign to the emplaced stake or other surface using a staple gun, nails, wire, or other fastener. Add other items to identify, clarify, or bring attention to the sign (such as flagging tape or chemical lights where necessary and allowable).

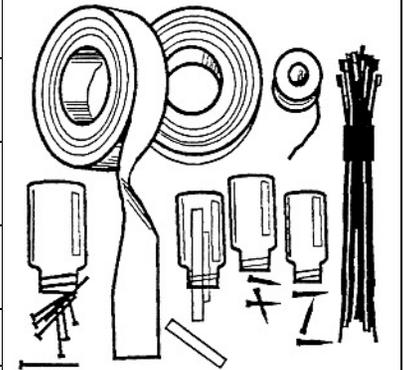
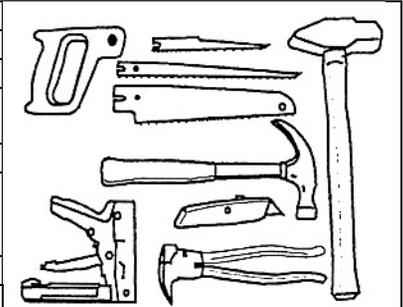
Step 9. Maintain signs to ensure visibility and viability and prevent misinformation or sabotage.

SAMPLE SIGN



COMPONENT LISTING

Tools	NSN
Tool Bag	5140-01-481-4460
Carpenter's hammer	5120-01-112-8350
Utility knife	5110-00-892-5071
Replacement blades	5110-00-293-2865
Lineman's tool	5120-00-293-3485
Blacksmith's/ engineer's hammer (3 lb)	5120-00-900-6130
Nested saw set	5110-00-293-0090
Staple gun	5120-00-889-1796
Fasteners	NSN
One pound of 1.75" steel screw-shank nails (roofing)	5315-00-543-3023
Five pounds of 3.5" (10-12d) common nails	5315-00-753-3885
One-half pound of 1.5" steel barbed-shank nails (roofing)	5315-01-381-9609
Tape, pressure sensitive (2"x160', 100 miles an hour)	7510-00-074-5124
Staples, 1/2", box of 5,000	5315-00-889-2605
Cable tie, pkg of 100	5975-00-156-3253
Wire, nonelectrical, 1-lb roll	9505-00-293-4208
Marking Materials	NSN
Black tube-type poster markers (2 each)	7520-01-336-2856
Red tube-type poster marker	7520-01-336-2857
Blue tube-type poster marker	7520-01-336-2858
Bags, white plastic, trash, 8 gal, roll/bx of 20-30 (2 each)	8105-01-481-4225
Reflective tape (white 1"x150')	9390-00-949-8044
Ribbon, flagging, surveyor's (artic-glo pink)	9905-00-194-9703



ADDITIONAL AUTHORIZED LIST (AAL)

Tools

- Half hatchet (NSN 5120-00-228-3161)
- Fence-post (picket) driver (NSN 5660-01-248-2466)

Fasteners -Concrete nails (5-lb pkg of 1.75" nails) (NSN 5315-01-156-3253)

Sign Materials

- Foam core (25 sheets, 32"x40") (NSN 7510-01-383-7952)
- U-shaped picket, 24" (NSN 5660-00-270-1588)
- U-shaped picket, 32" (NSN 5660-00-270-1589)
- U-shaped picket, 60" (NSN 5660-00-270-1587)
- U-shaped picket, 70" (NSN 5660-00-270-1510)
- U-shaped picket, 96" (NSN 5660-00-262-9914)

Marking Materials

- 3" stencil set (NSN 7520-00-272-9683)
- 4" stencil set (NSN 7520-00-269-9012)
- Reflective fabric roll (2"x150') for use with image-intensification night-vision devices (NVDs) (NSN 9390-00-481-3424)
- Ribbon flagging, arctic vinyl (arctic-glo orange, box of 12 rolls) (NSN 9905-01-458-1192)

SUPPORTIVE/ALTERNATIVE MATERIAL LIST

Fastener Containers

- Army Oil-analysis Program (AOAP) or urinalysis-sample bottles
- Plastic pharmacy or laboratory bottles

Markers

- Any permanent ink markers (standard-size markers will work, but poster-size markers are preferred)
- White poster-paint marker for use on a black background (black plastic trash bag)
- White or black liquid shoe polish (for use on black or white bags)
- Spray paint with stencils (flat white, NSN 8010-00-584-3150; flat black, NSN 8010-00-582-5382; fluorescent orange, NSN 8010-00-958-8148)

Visual Aids

- Meal, ready to eat (MRE) heaters for thermal signature
- Chemical (infrared (IR) or illumination) lights for visual image intensification
- Aluminum tape (angle sign back >35°) for thermal "deep space cold" effect (NSN 7510-00-684-8803). (This is somewhat effective.)

Tools

- Vehicle basic-issue items
- Squad carpenter's tool kit

Backer Board

- Cardboard (MRE boxes and such)
- Plywood
- Sheet metal

Cover

- Hospital red plastic bags for arctic/danger signs (NSN 8105-01-148-0280)
- Any white plastic trash bags (or black plastic trash bags for STANAG signs) (the thicker the better, but at least 0.6 millimeters)
- Cat-litter-box liner bags (full-bag type)
- White shower curtain 72"x36" (NSN 7230-00-849-9839)
- White shower curtain 72"x72" (NSN 7230-00-849-9838)
- White shower curtain 78"x36" (NSN 7230-00-247-1280)

Stakes

- Wood pallets or crates (split and break apart with a pioneer tool kit)
- Existing fence posts, signs, and utility poles
- Rebar
- 24" wooden general-purpose (GP) tent stakes (NSN 8340-00-261-9751)
- 12" metal GP tent stakes (NSN 8340-00-261-7451)
- 18" wooden stakes (NSN 5510-00-171-7734)

HELPFUL HINTS

Size Determination – Determine the size of the sign based on the distance from the expected reader and the time the reader has to view it. An 8-gallon plastic bag with a cardboard backer or similarly thick material will produce a sign that is about 21 inches wide by 23 inches high. Directional disks contained within the sign must be at least 16 inches in diameter. In order to make a sign larger than 21 inches by 23 inches, simply put two or more signs together by taping the backs. Keep the tape joints perpendicular to the stake to add support to the joint and the sign.

Stability - Sign stability will vary, depending on the environment. In climates where winds are severe, stabilize signs using tripods or other constructed supports, as needed. In climates where ground penetration is prevented by ice or rocks, use arctic tent stakes or U-shaped pickets, or build a sign support to sit on top of the ground. Use rocks or sandbags as needed to stabilize the support system. In most cases, emplace stakes before attaching signs.

Material Locations – The portable sign-making kit user is required to locate or fabricate signage materials. These materials are found in all supply and support operations by either ordering them through the Army supply system or recycling packing and shipping materials. If the user's unit is expected to operate in a climate where available materials or climatic conditions hinder proper signage operations, the unit should use the additionally authorized item list and maintain a base level of support material.

Use of Existing Poles/Stakes - In almost all areas of the world where existing road networks are used, there is some level of existing signs, stakes, or poles. These materials vary in composition and can either be wood, concrete, metal, or some version thereof. Take advantage of them by using a variety of supplied fasteners.

Kit Protection/Organization – Organize the kit contents for rough handling. Do not place the 3-pound hammerhead near marking pens or items that could be damaged if the kit is dropped. Keep fasteners in a container such as an AOAP large-mouth, screw-top plastic container. Place the saw-set blades in fabricated sheaths to protect the blades and prevent injuries. Tape the plastic-bag boxes or dispenser packs to provide a minimal level of protection and to prevent accidental punctures.

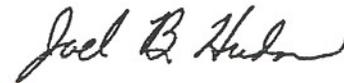
Kit Resupply – Locally purchase items to refill the kit if the normal supply system cannot support unit requirements. GSA Advantage may be a good Internet source (www.gsadvantage.gov) for supply purchases.

Sign Construction - A tactic, technique, and procedure (TTP) used at the Joint Readiness Training Center (JRTC) is to salvage the cardboard MRE sleeve and cut all folded corners. The end result Th two route signs (about 9” x 16 1/2”) and two regulatory signs (9” x 9”). Two cans of flat black and one can of flat white spray paint produce about 50 route-sign blanks that can be stockpiled for future use. The end result is a low-cost resilient sign that can withstand most environmental conditions and can be quickly marked and posted.

By Order of the Secretary of the Army:

ERIC K. SHINSEKI
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JOEL B. HUDSON

Administrative Assistant to the
Secretary of the Army