



FIRE CREW FIREFIGHTER TRAINING

Procedures Handbook 4200

TOOLS AND EQUIPMENT

TOPIC: CORDLESS HEADLAMP

TIME FRAME: 0:30

LEVEL of INSTRUCTION: Level II

BEHAVIORAL OBJECTIVE:

Condition: Given a written quiz

Behavior: The student will confirm a knowledge of types, use, care, and maintenance of the cordless headlamp

Standard: With a minimum 70% accuracy, according to the information contained in this lesson plan

MATERIALS NEEDED:

- Writing board with markers/erasers
- Appropriate audio visual equipment and screen
- Slides/overhead transparencies for this lesson
- Cordless Headlamp with batteries
- Cardboard strip
- Spare bulbs
- Emery cloth
- Student Information Sheets 4205.1-1 and 4205.1-2
- Topic Quiz

REFERENCES:

- CDF Fire Protection Training Handbook 4300, 4310.7.7.1
- Instruction Pamphlet, Headlite Products, Inc.

PREPARATION:

Fighting wildland fires at night requires hands-free illumination for safety as well as convenience. Recent innovations have given us several types of cordless headlamps. The term "cordless headlamp", generally refers to those headlamps where the batteries are carried somewhere on the helmet. A basic knowledge of the different types of cordless headlamps and their operation is necessary to be proficient at nighttime firefighting activities.



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CORDLESS HEADLAMP

PRESENTATION	APPLICATION
<ul style="list-style-type: none">B. Battery pack<ul style="list-style-type: none">1. Holds batteriesC. Head strap<ul style="list-style-type: none">1. Rubber2. Elastic3. AdjustableD. Electrical cord<ul style="list-style-type: none">1. Connects battery pack to light assembly on some typesE. Light Assembly<ul style="list-style-type: none">1. Lens<ul style="list-style-type: none">a) Clear plastic to protect bulbb) Turning may adjust light beam for wider or narrower pattern2. Reflector<ul style="list-style-type: none">a) Surrounds bulb to increase illumination3. Bulb<ul style="list-style-type: none">a) Types vary depending on number and type of batteries<ul style="list-style-type: none">1) Krypton2) Halogenb) Use type recommended by manufacturerc) Using the wrong battery and bulb combination can result in inadequate light or a reduced bulb life	



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<ul style="list-style-type: none">4. Switch<ul style="list-style-type: none">a) Toggleb) Push buttonc) Slide5. Helmet mounting bracket<ul style="list-style-type: none">a) Facilitates tight fit of headlamp to the helmetb) May provide vertical adjustment of light beam <p>III. HEADLAMP DONNING SEQUENCE</p> <ul style="list-style-type: none">A. Remove cardboard/sandpaper strip or insert fresh batteries in case<ul style="list-style-type: none">1. According to manufacturer's instructions2. Correct battery position may be indicated on battery case or battery packB. Test headlamp prior to mounting on helmet<ul style="list-style-type: none">1. If headlamp does not function<ul style="list-style-type: none">a) Confirm batteries are properly installedb) Confirm cardboard/sandpaper strip is removedc) Replace batteriesd) Confirm bulb is properly seatede) Replace bulbf) Check metal contacts on switch and battery pack	



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<ul style="list-style-type: none">2. When headlamp functions properly, proceed to step CC. Mount the headlamp on the front of the helmet<ul style="list-style-type: none">1. Centered on helmet2. Head strap secured under clips if provided on helmet3. Adjust head strap tension for a tight fit on helmetD. Adjust light<ul style="list-style-type: none">1. Vertically to maximize light on work area2. Rotate lens to adjust beam<ul style="list-style-type: none">a) Intensify light – narrow beamb) Disperse light – wide beam <p>IV. MAINTENANCE AND INSPECTION</p> <ul style="list-style-type: none">A. Check batteries and bulb<ul style="list-style-type: none">1. Batteries in properly2. Bulb and spare bulb (if provided) functioning properlyB. Check electrical cord (if applicable)<ul style="list-style-type: none">1. Damaged or frayedC. Keep electrical contact prongs in battery case bent slightly outwardD. Check that all metal contacts are clean and free of corrosion	<p>What would you use to clean metal contacts?</p>



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SUMMARY:

Illumination during nighttime firefighting activities is essential for safety and productivity. Cordless headlamps are a major improvement over the older, corded models. While there are many different types available, they all require minimum care and problems are generally easy to troubleshoot.

EVALUATION:

The student will complete a written quiz at a time determined by the instructor.

ASSIGNMENT:

Review your notes and Student Information Sheets in preparation for the upcoming quiz. Study for the next session.