

# Vanguard™ and Vanguard™ II Helmets

## WARNINGS, CAUTIONS, AND INSTRUCTIONS

### WARNING

THIS BOOKLET MUST BE CAREFULLY READ BY ALL INDIVIDUALS WHO WEAR OR MAINTAIN THIS HELMET, INCLUDING THOSE WHO HAVE ANY RESPONSIBILITY INVOLVING THE SELECTION, APPLICATION, USE OR REPAIR OF THE VANGUARD HELMET. THE VANGUARD HELMET WILL PERFORM AS DESIGNED ONLY IF IT IS USED AND MAINTAINED ACCORDING TO THE INSTRUCTIONS. OTHERWISE, IT COULD FAIL TO PERFORM AS DESIGNED, AND PERSONS WHO RELY ON THIS PRODUCT COULD SUSTAIN SERIOUS PERSONAL INJURY OR DEATH.

The warranties made by MSA with respect to this product are voided if the product is not used and maintained in accordance with the instructions in this booklet. Please protect yourself and your employees by following the instructions.

If after reading this booklet, there is ANY doubt as to the degree of protection offered by this helmet, or if there is confusion concerning specific conditions which may limit the helmet's protective capabilities, immediately contact your supervisor or safety director. Save this booklet for future reference.

For additional information relative to use or repair, write or call 1-800-MSA-2222 during regular working hours.

For More Information, call 1-800-MSA-2222 or Visit Our Website at [www.MSAnet.com](http://www.MSAnet.com)



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# INTRODUCTION

## WARNING

- This helmet provides **LIMITED** top and lateral impact and penetration protection. It is designed to reduce the effect of an impact or penetration blow, but cannot provide complete head protection from these occurrences. This helmet complies with the ANSI/ISEA Z89.1-2009 and the CAN/CSA Z94.1-05 Standards for Type 2 Industrial Protective Headwear and in most circumstances should be effective against small tools, bolts, rivets, sparks, and similar hazards; however, some conditions can exceed this helmet's capacity to protect against serious injury or death. **AVOID** areas where the chance of severe helmet impact or penetration exist.
- In order to provide maximum protection, the helmet **MUST** fit securely on the head and the headband **MUST** be adjusted to a snug fit. Although this helmet meets the Passive Retention Test in the CAN/CSA Standard (without a chinstrap), some extreme conditions such as high wind or helmet impact can dislodge the helmet from the head. To provide **LIMITED** additional retention capability, wear a two or three point chinstrap.
- The helmet provides **LIMITED** electrical protection as outlined in the ANSI/ISEA Z89.1-2009 and CAN/CSA Z94.1-05 Standards. The electrical class is indicated on the label. Sample Class E helmets are proof tested to 20,000 volts (RMS); but this should **NOT** be construed as a safe contact voltage. **AVOID** areas where the chance of severe electrical shock exists.
- Discard the helmet after **ANY** impact or penetration. This helmet absorbs the energy of an impact by deforming and crushing; and the damage **MAY NOT** be visible or readily apparent. A damaged helmet **WILL NOT** provide the degree of protection originally designed into it. **NEVER RISK YOUR LIFE BY USING A DAMAGED HELMET.**
- Although it may provide limited head protection in the event of a fall, this helmet **IS NOT** designed for fall protection.
- **NEVER** use this helmet for structural fire fighting because it **DOES NOT** meet the applicable NFPA Standard.
- **NEVER** use this helmet as a vehicular or sports helmet.
- **NEVER** store gloves, cigarettes, earplugs, etc. between the suspension and the shell liner. This space is needed when the shell/suspension absorbs the energy of an impact. Objects in this space can transmit large forces to the head and neck, resulting in serious injury or death.
- Inspect the helmet before and after **EACH** use. **ALWAYS** follow the inspection procedure in this booklet. Replace **ANY** part showing evidence of wear or damage.

# INTRODUCTION

## WARNING

- **NEVER** exceed useful service life guidelines of helmet as outlined in this booklet. Replace components or helmet as required.
- **NEVER** alter or modify this helmet in **ANY** way. Use **ONLY** MSA supplied or approved accessories with this helmet. It is permissible to use pressure sensitive decals or Velcro\* on the helmet as long as (1) they **ARE NOT** closer than 1/2 inch from the edge of the helmet and (2) they are compatible with the surface material and known not to affect adversely the characteristics of the materials used in the helmet. Modifications or use of other than MSA accessories can reduce the protection levels or dielectric properties designed into the helmet.
- **NEVER** use paint, solvents or hydrocarbon type cleaners, (e.g. M.E.K., thinner, gasoline, kerosene) on this helmet. These substances can damage the helmet materials in a manner which **MAY NOT** be visible to the user, causing the helmet to fail. Certain paints contain solvents which can damage parts of the helmet assembly.

Failure to follow these warnings can result in serious personal injury or death.

## CAUTION

- This helmet **MUST** be stored in a clean, dry area where it is not exposed to extremes of heat or cold which can affect the helmet's useful service life. **NEVER** store a helmet on the back shelf of an automobile; not only will it be exposed to sunlight (leading to heat and UV damage), but it could become a secondary missile in the event of a sudden stop.
- Clean **ONLY** with a mild soap and warm water to help avoid skin irritation from wearing the helmet.
- Even though sample helmets are proof tested to 20,000 V, the maximum voltage against which the helmet will protect the wearer depends upon a number of variable factors, such as the characteristics of the electrical circuit, the care exercised in the maintenance of the helmet, and weather conditions. The safe and proper use of the helmet in electrical applications should be established by the authority having jurisdiction, and their recommendations **MUST** be strictly followed.



# DESCRIPTION

## HELMET DESCRIPTION

The Vanguard Helmet meets the requirements of the Canadian Standard for Industrial Protective Headwear CAN/CSA Z94.1-05, Class E, Type 2. This helmet is a system consisting of a shell, suspension, and foam impact liner, which work together as a unit.

This helmet is designed to provide **limited** impact and penetration protection to the wearer's head in the event of a top or lateral blow. It is also designed to provide **limited** electrical insulation protection.

## HELMET ACCESSORIES

The Vanguard Helmet with accessories have not been tested to the requirements of CAN/CSA Z94.1. Use only MSA supplied or approved accessories with this helmet.

## DIRECTIONS FOR FASTRAC® SUSPENSION HELMET FITTING AND ADJUSTMENT

1. Open Fas-Trac headband by turning knob to the left as shown in Figure 1.
2. Push top (inner) crown strap toward top of protective helmet. Bottom (outer) strap will move in the opposite direction, as shown in Figure 2.

COUNTERCLOCKWISE  
OPENS ASSEMBLY

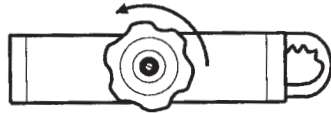


Figure 1a

CLOCKWISE  
CLOSES ASSEMBLY

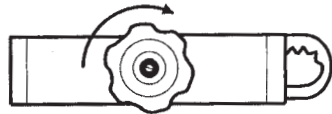


Figure 1b

Figure 1

3. Place helmet on head and push down on top of helmet until a comfortable and stable wearing height is reached.
4. Tighten headband by turning knob to the right. Tighten until a snug fit is obtained. Note that the headband can be loosened while the helmet is on your head by repeating step 1.

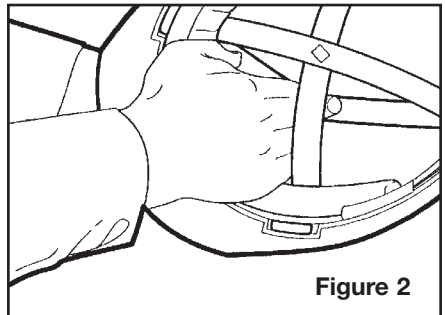
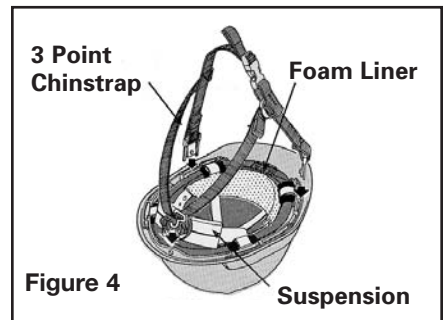
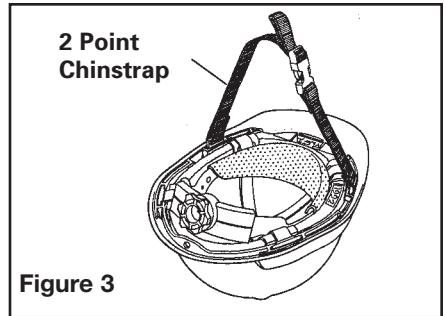


Figure 2

## DESCRIPTION

5. If using a two point chinstrap, snap the chinstrap clips into the slots in the helmet between the front suspension attachment slots and the accessory attachment slots as shown in Figure 3. Slide the strap through the buckle until it fits snugly.
6. Note that the chinstrap can be reversed for left-handed operation (see Disassembly, Reassembly Instructions).
7. If using the three point chinstrap, be sure the hook is fastened through the hole at the rear of the helmet as shown in Figure 4. Adjustment is the same as with the two point chinstrap.



# INSPECTION

## INSPECTION

The Vanguard Helmet's useful life may be affected by several things, including: heat, cold, sunlight, and chemical exposures. (See Useful Service Life section). Before and after each use, inspect the helmet as follows:

### Shell

1. Visually inspect the shell for breakage, cracks, craze pattern, discoloration, chalky appearance, or any other unusual condition.
2. Inspect the shell for brittleness by flexing the brim.

**Note:** ANY of the above conditions can indicate a loss of impact, penetration and/or electrical resistance; and the helmet **MUST** be replaced **IMMEDIATELY**.

### Suspension

1. Inspect for loss of flexibility of the suspension.
2. Inspect for cracks, breaks, frayed straps, or damaged stitching. If ANY are found, the suspension **MUST** be replaced **IMMEDIATELY**.

### Foam Liner

Inspect for dents, cracks, flaking, or other damage. If ANY of these conditions are found, the entire helmet **MUST** be replaced **IMMEDIATELY**.

**Note:** When replacing the suspension, the liner should be removed from the shell, and the surfaces of the shell and liner that are not normally visible should be inspected for the above conditions. (See Helmet Disassembly, Reassembly and Part Replacement section).

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## HELMET CARE

Helmets **must** be cleaned regularly for easy inspection and to help the wearer avoid skin irritations. Clean **only** with Cleaner-Disinfectant Liquid (P/N 697284) from MSA, or mild soap (no detergents), and warm water.

Like any piece of specialized equipment, a helmet **must not** be abused. It **must not** be thrown, dropped or used as a support. **Never** store a helmet on the back shelf of an automobile; not only will it be exposed to sunlight (leading to heat and UV damage), but it could become a secondary missile in the event of a sudden stop. The helmet **must** be stored in a clean, dry area not subject to extremes of heat, cold, or humidity.



# MAINTENANCE

## USEFUL SERVICE LIFE GUIDELINES

The Vanguard Helmet was designed with high quality, wear resistant materials; but it **will not** last forever. The protective properties of the helmet **will** be degraded by exposure to many common work environments, such as temperature extremes, chemical exposure, UV radiation, and normal day-to-day wear and tear.

The user **must** inspect the helmet regularly (see Inspection section) and replace it or any part necessary. **Never** take a chance with your safety. In extreme exposure conditions, the helmet (or certain parts) may need to be replaced even after only a short period

of use. As a general guideline, even if the helmet appears to be in good shape, MSA recommends the following replacement schedule:

- Suspension - Replace after **no more** than 12 months.
- Entire Helmet - Replace after **no more** than 5 years.

Remember that these are **maximum** useful service life guidelines. Wear or damage noticed during a regular inspection **must** be the determining factor for possible earlier replacement. **Always** replace the helmet after it has withstood impact or penetration.



# DISASSEMBLY AND REASSEMBLY

## DISASSEMBLY

1. Hold the helmet in an inverted position (upside down).
2. Remove the four clips attached to the nylon suspension straps by snapping them out of the slots in the shell.
3. Lift the suspension out of the shell. The four connectors which lock in the foam liner will remain attached to the headband and lift out with the suspension.
4. Lift the foam liner from the shell. This is a good time to inspect it. (See Helmet Inspection section).
5. With a pencil or screwdriver, push the chinstrap pin through the hole inside of the shell to remove and

replace the chinstrap; or to reverse it for left-handed operation (two point chinstrap only).

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## REASSEMBLY

1. Orient the clips so that the shapes in the connector and clip mate (like jigsaw puzzle pieces).
2. Push in on the clip until you hear an audible snap.

**Note:** If you can't push the clip in, or if the straps twist, disassemble and reassemble correctly. (See Exploded drawing on back page).

## Exploded View of Vanguard Cap

