



# **PHENIX 1500 TC1 TRADITIONAL COMPOSITE FIRE HELMET**

## **CARE AND MAINTENANCE MANUAL**

Please read all of the information contained in this manual. Fill out the form on the last page and send it to Phenix Technology. Keep a copy for your files.

Failure to comply with this request will void all warranties on your helmet.

Each member of the agency receiving this helmet must fill out the form to completion and the form must be mailed in to be kept on file.



**PHENIX 1500 TC1  
TRADITIONAL COMPOSITE  
FIRE HELMET**

**CARE AND MAINTENANCE MANUAL**

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**PHENIX TECHNOLOGY**

12391 Sampson Ave., Suite H • Riverside, CA 92503

[www.phenixfirehelmets.com](http://www.phenixfirehelmets.com)

**1-888-347-7838**

**951-272-4938**

**PHENIX TRADITIONAL COMPOSITE HELMET  
1500 TC-1  
CARE AND MAINTENANCE  
For assistance call toll free: 888-347-7838.**

Congratulations, you have in your possession one of the lightest weight, best constructed traditional composite fire helmets on today's market. We have been developing this helmet for a year and a half and feel we have produced a traditional composite helmet that is ergonomically correct for the firefighters head. We have achieved a balanced, low center of gravity, comfortably fitting helmet that can be worn for long periods without creating fatigue. This helmet is similar to the early leather helmets used from the 1940's until around 1976 when US OSHA and NFPA developed standards that caused manufacturers to take those helmets off the market. At Phenix we feel that we have revived this tradition and produced a compliant traditional composite fire helmet.

History shows us that in the early days of leather fire helmets we fought fire in a manner different than today. It was not unusual for firefighters to stand outside and put those streams through windows and onto roofs until there was no smoke showing. This might account for all of the antique leather helmets in museums and on the antique market. We know today we have a different situation. With all of our protective clothing in place we sometimes go too far. Leather, when it's heated for long periods of time (especially in a burn training facility) will warp, plastic helmets will bubble, and composite helmets will delaminate. Don't compromise your personal protective clothing. We lose firefighters when we do. Ventilation is still important and only takes a few minutes.

**As with any piece of safety equipment in the fire service, you should be aware of the proper care and maintenance procedures for each item.**

**WARRANTY FORM  
FOR PHENIX 1500 TC-1 FIREFIGHTING HELMET**

NAME OF USER: \_\_\_\_\_ RANK \_\_\_\_\_

DATE OF ISSUE: \_\_\_\_\_

NAME & ADDRESS OF FIRE AGENCY/DEPARTMENT

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CONTACT PHONE: (        ) \_\_\_\_\_

**LABEL IDENTIFICATION INFORMATION** (located under gray impact dome on right side)

LOT # \_\_\_\_\_

DATE OF MANUFACTURE: \_\_\_\_\_

MODEL # \_\_\_\_\_

COLOR OF HELMET: \_\_\_\_\_

TYPE OF EYE PROTECTION ISSUED WITH HELMET

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**POP QUESTIONS**

WHAT IS THIS HELMET'S OUTER SHELL MADE FROM? \_\_\_\_\_

WHAT SHOULD YOU NOT USE ON THE HELMET? \_\_\_\_\_

WHAT IS USED TO CLEAN YOUR GOGGLES? \_\_\_\_\_

**PLEASE MAIL THIS FORM TO:  
PHENIX TECHNOLOGY  
ATTN: WARRANTY CONTROL  
12391 SAMPSON AVE. # H  
RIVERSIDE, CA 92503**

\*\*\*\*Failure to return warranty form will void any warranty on your helmet.

The helmet shell is made of high temperature fire resisting light weight fiberglass. This type of composite material is strong, flexible, and does a very good job as the basis for a traditional composite fire helmet.

The TC-1 identification shield or frontis piece, as it was called in the old days, is made by Sam Brown Shields. Sam retired from the Los Angeles City Fire Department, moved his business to Kentucky, and put the same pride he had as a member of the fire service into his shields. If you promote or change fire agencies your new shield will fit exactly the same every time. That's one of our guarantees. Remove the cap nuts with a 5/16" nut driver. Take care not to lose the brass washers. Do not use a wrench as you can damage the finish on the ID shield. The shield is chrome tanned leather so it will stand up to heat, fire, water, and anything else you might run into. Keep it clean by using mild soapy water and a soft cloth.

The front ID holder is a brass phoenix or Phenix as we spell it. If it is damaged you can purchase a new one and the attachment holes will always be in the same place. To remove the Phenix shield holder use two ¼" nut drivers. NOTE: If you put too much torque on the nut drivers it's possible to tighten the cap nuts until they break. If this happens, call and we'll send you a new set, or you can go to your local industrial hardware store to find them.

When painted, the outer shell is covered with a paint specially formulated for fiberglass products. If you scrape or gouge it, it will show wear. The paint is easily touched up if this occurs. The paint will withstand high temperatures and is fire retardant. To clean the outer shell use mild dish soap in warm water and a soft cotton cloth. Dawn or Joy liquid dish soaps will work just fine. **DO NOT USE HYDROCARBON SOLVENTS.**

In the fire service today we have long sticks with pointy things on one end to break windows. It is better to use them (the tools) than your helmet. Glass can embed in the fiberglass and later cause injury to the user.

The inner shell of the helmet is injection molded thermo plastic that by itself can pass all of the compliancy requirements for a structural fire helmet and is sold separately as a rescue helmet. Use mild soap and a soft cotton cloth to clean the inside of the dome. **DO NOT** remove the required labels. If any of them come off due to cleaning or wear we can replace them. However, we have to know what was written on the old ones to be legal with various OSHA agencies. The one exception to this is the ratchet label. It is not necessary to keep it on after you have read it, just remember what it says.

The liner is as comfortable as you're going to find. It is the same liner that's in our full line of fire and rescue helmets. It can be provided with a nape strap or a ratchet device. The ratchet is covered with a leather pad. These pads can be replaced and are simple to reinstall. If your ratchet is slipping after a few years of use you can tighten it up by using a Philips head screw driver. There is a screw in the ratchet knob. Turn the screw clockwise one quarter turn at a time until the ratchet no longer slips. If you need more help with the ratchet system, please call our toll free number, **888-347-7838** so we may assist you.

The ear covers are Nomex on the outside with fire retardant cotton for the lining. The ear cover can be removable or permanent. There is a hook and loop adjustment on each side that will move the helmet forward or to the rear of your head. The nape and ratchet also adjust for a comfortable fit. The head liner can also be adjusted using the holes on each side at the liner hangers towards the front. If you need more help on the adjustment please call us.

The liner should be cleaned when soiled. Remove the liner by pulling on the head straps attached to the four hangers. Wash in mild liquid

## ADJUSTABLE SIZING INSTRUCTIONS

The liner provided with this helmet must be properly sized to your head if it is to give you the proper degree of protection. Remove the liner by sliding the plastic tabs out of the pockets molded into the helmet shell. You may notice that these tabs are in very tightly. That is on purpose. The tabs should always fit snugly. Place the liner on your head and reposition the hook and latch fasteners on each side. The helmet liner should rest comfortably and be well balanced on the head. Check to see that the hook and latch fasteners are positioned equally around the liner. Look closely at the four suspension straps that go over the head. The four straps configuration should rest easily on the head, but should not have a big "bulge" at the crown of the head. The vertical position of the liner is controlled by the string in the center. Reposition this string to provide a proper setting. The string must be tied with a square knot so that it will not loosen or slack-up on usage. Helmet wearers should periodically check the tension on the string to make sure that a proper clearance is provided. To center the suspension in the shell there are positioning adjustments. The liner should be adjusted by making sure that the holes closest to the front are used for small sizes; center hole should be used for medium sizes; and the rear holes should be used for larger sizes. If the wearer is using the NomexR protector, the liner may have to be slightly loose to accommodate folding the protector up into the helmet. The protector should always be down for maximum protection against both thermal and convective heat transmission. Put the liner back into the helmet and test the fit of the liner. The helmet should rest on the head without tipping either forward or backward. The helmet should be well balanced and the wearer's ears and temple area should be protected by the outlip of the helmet shell. If the helmet sets too high on the head, or sets low on the head, readjust the liner. The nape strap is best adjusted when the helmet is actually on the head. The hook and latch fastener should be released and readjusted to fit snugly, but not too tightly.

**THE CHINSTRAP MUST BE PROPERLY SECURED AND WORN AT ALL TIMES.**



detergent and warm water. Air dry and replace in helmet. The gray impact dome can be removed and also cleaned in the same manner. The impact dome is removed by pulling on the sides. Clean it with warm water, allow it to air dry, and then put it back in the same way it came out.

The chin strap is made of Nomex. It can be provided with postman's slide, a quick release or both, you choose. Clean the chin strap with warm water and mild liquid soap. Remember how you took both sides off and reinstall the system the same way.

If the "D" ring in the rear becomes loose contact Phenix. We recommend that you hang the helmet by its chin strap and it works quite well, or you can place it on a helmet rack.

### EYE PROTECTION-

We provide NFPA goggles made by Paulson Mfg. We will not provide a face shield. Our goggles are designed to provide superior protection and comfort. These goggles will fit over prescription eye glasses or sunglasses. They are made of high temperature injection molded plastic and high temperature rubber. Clean the goggles with warm water and a soft cotton cloth. **SOAP IS NOT TO BE USED ON THE GOGGLES.**

Flip-down BORKE style eye covers are not compliant to US OSHA or NFPA. They add weight to the front of the helmet. You should have a system in place to use goggles that are compliant when doing work that could cause eye injury. If you have a flip-down eye cover device attached to this helmet clean it with a soft cotton cloth and warm water. **NO SOAP.**

If you have a problem with the helmet please contact us immediately. Our toll free number is **888-347-7838**. Contact your local dealer if you wish to purchase extra items for your helmet.

## THINGS TO REMEMBER ABOUT YOUR PHENIX 1500 TC1

- TREAT YOUR HELMET WITH CARE AND IT WILL GIVE YOU LONG YEARS OF SERVICE. USE THE HELMET AS A HEAD PROTECTION DEVICE, NOT AS A VENTILATION OR FORCIBLE ENTRY TOOL.
- WITH HEAVY USE, THIS HELMET CAN BECOME SCRATCHED AND THE PAINT CAN BE WORN OFF. TOUCHING UP THE PAINT IS EASY. USE ONLY THE PAINT WE SPECIFY. USING ANOTHER BRAND OF PAINT COULD VOID THE WARRANTY OF THE HELMET.
- HANGING YOUR HELMET BY THE CHINSTRAP OR STORING IT ON A HELMET RACK WILL GIVE GREATER LIFE TO THE BRIM OF YOUR HELMET.
- CLEAN THIS HELMET AND ITS COMPONENTS AS DIRECTED IN THE CARE AND MAINTENANCE SECTION OF THIS DOCUMENT. **DO NOT USE ANY HYDROCARBON PRODUCTS ON THIS HELMET!!!**
- WHEN TRAINING IN A BURN FACILITY OR A LIVE STRUCTURE FIRE BURN, DO NOT TEST HOW MUCH HEAT YOU OR THE HELMET CAN TAKE. YOU WILL COMPROMISE YOUR PROTECTIVE CLOTHING AND PROVE THAT IT TAKES 167 DEGREES FAHRENHEIT TO RECEIVE A THIRD DEGREE BURN, AND 137 DEGREES FAHRENHEIT TO RECEIVE A SECOND DEGREE BURN. YOUR HELMET IS TESTED AT 500 DEGREES FAHRENHEIT FOR FIVE MINUTES AND PASSES THE NFPA TEST. YOU WILL NOT SURVIVE THAT AMOUNT OF HEAT FOR THAT PERIOD OF TIME. COOL YOUR HELMET BETWEEN BURNS. THIS APPLIES TO ANY MODERN FIRE HELMET, WHETHER LEATHER, FIBERGLASS, OR PLASTIC.

- IMPORTANT: IF YOU HAVE ANY QUESTIONS ABOUT THE HELMET CALL PHENIX AND WE WILL TAKE CARE TO SEE YOU GET THE INFORMATION YOU NEED IN A TIMELY MANNER.

PLEASE NOTE: This document was written by the president of PHENIX TECHNOLOGY, who has been a member of the fire service since 1959.

It is my sincere objective to see that the fire service personnel using our products do so in a safe and efficient manner. Fight fire using the information you have gained in training as your first line of defense or offense. Protective clothing will work only if you know your limitations. If you get injured you can't help your fellow firefighters or those citizens you have sworn to protect. STAY SAFE.

RAY M. RUSSELL  
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