

Cairns & Brother Helmets for Firefighters

a Cairns

**FIRE CONTROL
NORTHWEST, INC.**
13300 S.E. 30th Street
Bellevue, Washington 98005
(206) 747-7300

Firefighter

Today, with advances in design and material, there is a variety of Cairns helmets from which to choose to fit your special needs. In fact, with modern helmets, the shell style and configuration are just the beginning. There are, as we will show in this catalog, a broad range of suspensions to absorb shock, linings for comfort and fit, eye and face protectors, chinstraps, helmet decorations, and other accessories.

Today's firefighters meet many different fire ground conditions. Everything from grass fires to city high-rise and industrial exposures exists. Because of the many kinds of exposures, fire departments should have a variety of helmets from which to select that helmet which best fits their needs. By requiring their helmet to meet any one or more of the currently recognized specifications (OSHA, ANSI, NFPCA, military or state municipal specifications), these fire departments can effectively accomplish protection against the hazards to which their firefighters are exposed.

This is why Cairns & Brother has a complete line of helmets and accessories to fit every ruling and spec...from singular performance requirements to a modular construction in the 660, capable of satisfying all current specs and, because of its unique design, easily updated to meet future requirements.

However, the prospective user of any protective helmet offered for use in the fire service must realize that the exposures to injuries are potentially far greater than the ability of any helmet to resist. Inasmuch as Cairns & Brother, Inc., has no control over the use to which the consumer may put our products, each user should have his or her own tests made, preferably by a safety engineer, to determine the suitability of the product for any particular application.

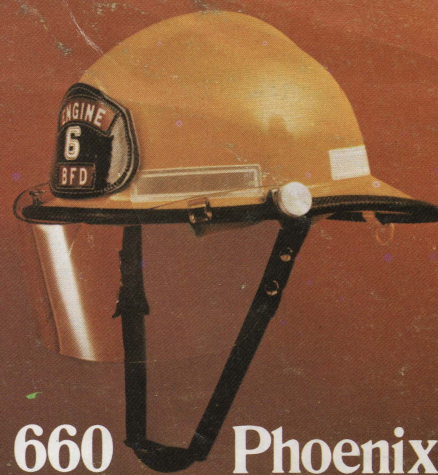
Cairns & Brother

60 Webro Road, P.O. Box 4076, Clifton, NJ 07012
201/473-5867 TELEX: 469-082

Catalog #39A-10-5M-1132/84
© 1981 Cairns & Brother, Inc.

Tough new shell with the Cairns inner "Impact Cap" that combines the finest overhead web suspension system with foam liner and special strap lock for a new concept in protection.

WE HIGHLY RECOMMEND THE 660, OUR MOST MODERN HIGH-PERFORMANCE HELMET, FOR PROTECTION AGAINST THE WIDEST RANGE OF FIREFIGHTING HAZARDS. ITS PROTECTIVE QUALITIES ARE MORE COMPREHENSIVE, AND ITS PRICE PROVIDES THE FIREFIGHTER WITH UNIQUE COST EFFECTIVENESS.

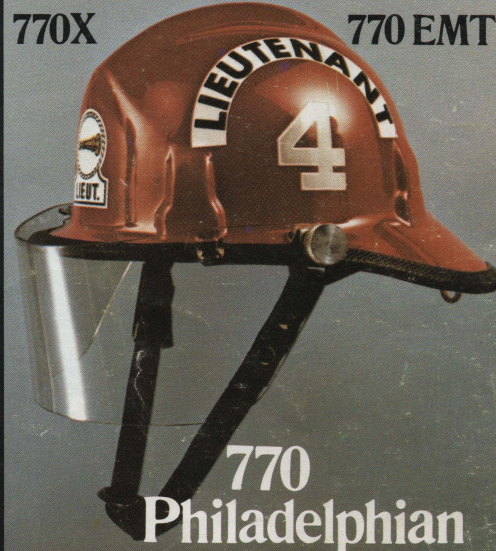


660 Phoenix

A durable, lightweight, economically priced helmet with a special smaller brim that is sharply angled downward. Double-hinged suspension provides an effective interface with breathing apparatus and nape-strap effect.

We recommend the 770 for structural firefighting. Its design and configuration provide excellent protection and comfort, and its field record has proved it a worthy helmet for both urban and suburban firefighting. It is also widely used in heavy industry and by rescue services across the country.

Shell Colors: Molded-in black, red, yellow, white. Orange available.



770X 770 EMT
770 Philadelphia

Traditional styling combined with modern, tough heavy wall polycarbonate plastic. Protection plus economy. We recommend the 880 for structural firefighting where the traditional styling is preferred to the 770's drop-brim design. Provided with the same city-tough suspension as the 770, it offers the advantage of watershed normally associated with the traditional swept brim.

Shell Colors: Molded-in black, red, yellow, white.



880 Century



5A New Yorker

The helmet style that over a hundred years ago set the standard for fire safety is still providing that safety today. Made of specially tanned and hardened leather and incorporating modern suspensions and linings, the New Yorker is still preferred by firefighters in many major city fire departments including New York, Chicago, Boston, Houston.

When you compare the Cairns 660C METRO to any other helmet... you'll call it incredible.

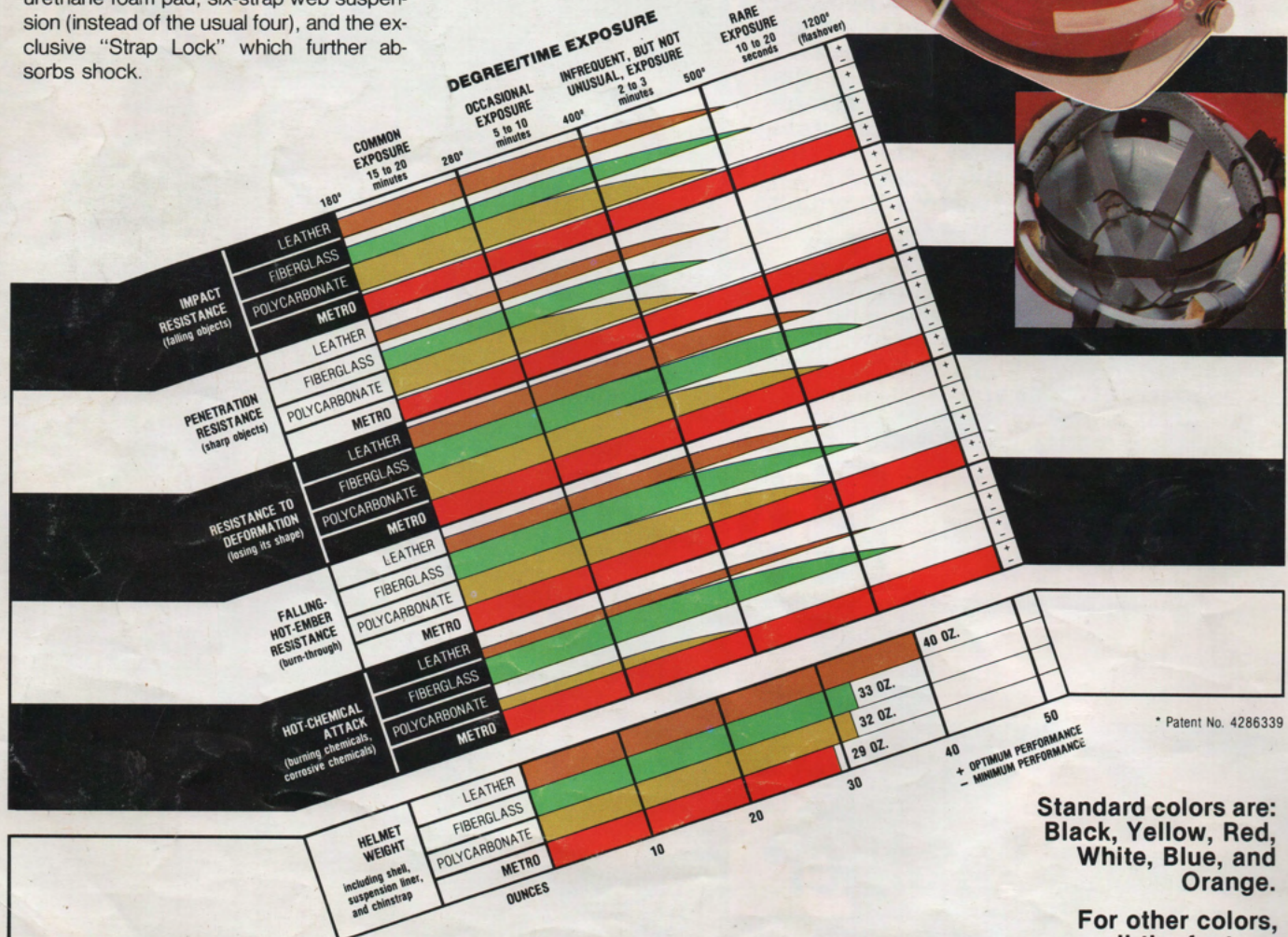
It's the helmet made with the realities of modern firefighting in mind. New products and materials such as plastics, chemicals, and electronic equipment produce hostile environments with higher heat intensity, greater jeopardy from chemical attack, more frequent explosions, and other new dangers. To meet these challenges, Cairns & Brother's ongoing research program uses the latest in techniques and materials to develop new, more effective protection.

The Cairns 660C METRO The latest product of this research, the 660C, incorporates an entirely new fiberglass-composite material that checks out in weight and strength but sets a whole NEW STANDARD FOR RANGE OF TEMPERATURE RESISTANCE. Like its predecessor, it is designed to provide maximum deflection of falling objects. It also incorporates the Cairns M600 series Impact Cap* that combines an efficient, full-wraparound urethane foam pad, six-strap web suspension (instead of the usual four), and the exclusive "Strap Lock" which further absorbs shock.

Until now there have been three major materials used in fire helmets...leather, fiberglass, and polycarbonate. NOW THERE IS METRO! We have adopted a new molding technique that enables us to use a newly engineered fiberglass-composite material that is physically stronger, chemically more stable, more resilient, and provides greater impact resistance at higher temperatures than previous fiberglass technology (see chart). In fact, as the chart shows, the tough new METRO equals or outperforms the other materials in every type of dangerous situation listed! This superior strength permits an extremely thin wall which is as strong and impact resistant as polycarbonate but retains its structural properties at much higher temperatures. This means lighter weight and less firefighter fatigue.

Any of the Cairns M600 series Impact Caps and accessories may be retrofitted to the METRO in the field with no special tools required.

The Cairns 660C METRO meets or exceeds all of the following safety standards: NFPA-1972, NFPCA/NBSIR-77, Cal-OSHA, OSHA-1971 & 1981, ANSI Z89.1-1969, MIL-H-1987F (and G, proposed), and all known state and municipal specifications. Get full information on this unbelievable protection NOW. Call your Cairns representative today.



Standard colors are: Black, Yellow, Red, White, Blue, and Orange.

For other colors, call the factory.

* Patent No. 4286339

Fronts for helmets

Colors may vary in different departments but the usual use is:
 Officers — White fronts
 Firemen, engine companies — Black fronts
 Firemen, truck companies — Red fronts
 Rescue squads — Blue or orange fronts

Frontpieces play a most important role in the life of the firefighters. By serving as identification of their organization, its officers, firemen and the type of company; engine, truck, rescue, special services, or airport crews, they are a key factor in the recognition and deployment of personnel and equipment at the battle scene.

Space permits illustration of only a few styles. The letters are printed by hot-leaf stamping in panels, and contrasting colors are used to make the letters stand out.

The lettering capacity of each panel in the front varies with the number of panels and overall size of the front itself. As a general guideline, this grid can be used to determine the capacity of the printed lettering.

# PANELS	TOP	TOP CENT.	CENTER	BOT. CENT.	BOTTOM
1(1c)	11	8	8 (9)	8	8
2	11				8
3	11		9		8
4	11	9		11	8
5	11	9	6	11	8

6" TO 8" FRONTS

# PANELS	TOP	CENTER	BOTTOM
1(1c)	7	7(7)	7
2	7		7
3	7	7	7

4½" FRONTS

# PANELS	TOP	CENTER	BOTTOM
1(1c)	7	7(6)	7
2	7		5
3	5	7	5
	7	5	5

4" FRONTS

FRONT GRID



4" FRONTS



4½" FRONTS

Standard 4½" Front

The 4½" front is used on the 910P Columbia and on any helmet where the ornamental front holder is not included (except 770 and 660).

Standard 4" Front

The 4" front is most popular on low peak helmets such as the 660 and 770, but can also be used on helmets which do not include the ornamental head.



6" FRONTS



Special Fronts for Officers

Series No. 220 is a hand-painted front with ground front work in pure gold leaf, design and lettering in oil colors artistically applied. They can be specially painted with a wide range of standard or customer-specified artwork and all officers' titles, as well as such position titles as Mayor, Commissioner, President, etc. The catalog designation is simple. The F222 indicates the special gold-leaf style, the last digit or digits indicates the size. An F226 is a 6" gold-leaf front. An F2245 is a 4½" gold-leaf front.



SPECIAL FRONTS

8"

Standard 6" Front

The 6" front is used on all helmets with the ornamental head such as the 880 Century, 5A New Yorker, or 900P Caravan.

The Cairns F681, 6" Insert Front

Also used on helmets with the ornamental head (see 6" Front), this special insert front is the specified front for NYFD, New York City. It can be made with screw- or pin-fastened inserts which contain either sunk or raised numbers or as many as two panels. One additional panel can be specified at the base of the front. When ordering this style, treat the insert as though it were a separate front, specifying colors independent of front colors. The insert front has enjoyed new interest because the front itself (called Frame) need not be removed when a firefighter moves from one company to another within one fire department.

To identify the catalog number for a frontpiece, we use a simple formula. The fixed "F" is used as a prefix. The next digit (or two digits, in the case of 4½" fronts) indicates the size of the front. So an F6 would indicate a 6" front, an F45 would indicate a 4½" front, and an F4 a 4" front, etc. The next (second or third) digit indicates the number of panels, or printed lines, required. Therefore, an F63 would indicate a 6" front with three lines of print. The last digit indicates the special appliques used on fronts. Numbers or letters of patent leather, which are sewn on, are considered the same as fronts with nothing but panels. There are no additional digits for these numbers/letters. The appliques which carry codes are pictured here with the code digit used to describe them:

*C = Centered Panel.



"2"



"4"



"6"

So a 6" front with two lines and a fireman's scramble would be coded: Front — F 6 2 6 — Fireman's scramble emblem

Cairns helmet linings

When it comes to safety, no part of the helmet is more important than the lining. By providing a high measure of comfort when properly adjusted to the firefighter's head size, it eliminates the tendency to remove the helmet when still in a potentially hazardous environment; it stays comfortable for hours of solid per-incident use and for an impressively high number of responses. Along with the chinstrap, it must keep the helmet on even when the firefighter is running or jumping or has his head thrown back. And, the lining should complement the impact and penetration absorption qualities of the suspension.

Linings are available in a wide variety of materials and styles and can be purchased to specific size or adjustable and with or without earlaps.

L100
L110
L120
L160



THE CAIRNS CUSHION LINING

A revolutionary innovation in both comfort and safety when it was invented and patented by Edward Cairns, the Cairns cushion liner has never been paralleled. Full wraparound napped cotton liner with soft neoprene gasket that forms a seal around the head, increasing the grip of the liner when running or bending over without sacrificing comfort. Available to size, on the 5A New Yorker and 309V Volunteer, and as replacement liner on these and the 350 Senator and 900 Clifton.

Available with attached standard cotton earlaps (L110), Nomex earlaps (L120), and jumbo Nomex earlaps (L160).

STYLE	L100	L110	L120	L160
5A	•	•	•	•
309V	•	•	•	•

L101
L111
L121
L161
L102
L112
L122
L162

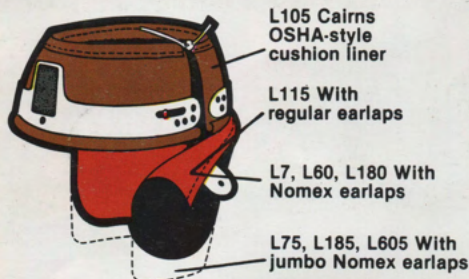


THE CAIRNS ADJUSTABLE CUSHION LINING

Full wraparound liner with neoprene gasket for grip and comfort. Available in small, medium, large, and extra-large size ranges. Fits the 5A, 309V, 350 Senator, 900P, 910P. Available with standard earlaps (L111, L112), Nomex earlaps (L121, L122), and jumbo Nomex earlaps (L161, L162). (Give size ranges.)

STYLE	L101	L102	L111	L112	L121	L122	L161	L162
5A	•		•		•		•	
309V	•		•		•		•	
900P		•		•		•		•
910P		•		•		•		•

L105
L115
L180
L185
L7
L75
L60*
L605*



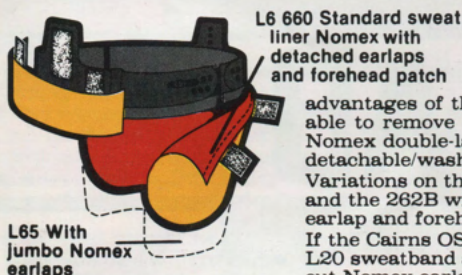
THE CAIRNS OSHA CUSHION LINING

Double jointed for extra nape-strap grip in rear and quick release for breathing apparatus mask interface. The Cairns OSHA cushion liner is made of napped cotton with full wraparound cut and side tie-offs to seal and cover the head. Extra-thick urethane padding provides a fit that compares to the comfort of the Cairns cushion lining. The Cairns OSHA cushion lining forms the base of the widely popular 770 liner (L7) and is standard in the 880 (L105). Available with affixed cotton earlaps (L115), Nomex earlaps (L7 for 770, L180 for 880), and jumbo Nomex earlaps (L75 for 770, L185 for 880), it is universally adjustable from 6 1/4 through 8.

STYLE	L105	L115	L60	L180	L605	L75	L185	L7
660			•		•			
770(EMT)					•	•		•
770X	•	•		•			•	
880	•	•		•			•	

*See 660 Liner Systems.

L6
L60
L65
L605
L262BX



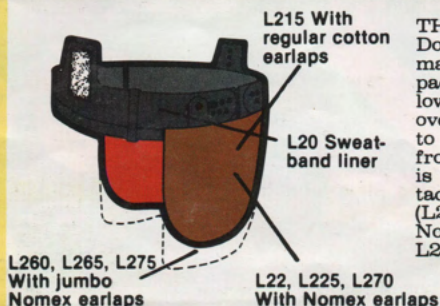
THE CAIRNS PHOENIX LINER SYSTEM

In keeping with the modular approach used in the design of the 660, the L6 lining series provides a standard and variations, all interchangeable. The L6 is comprised of the L20 Cairns OSHA sweat liner with its own DETACHABLE yellow Nomex full-cut, lined earlap and DETACHABLE forehead patch. While providing all of the advantages of the Cairns OSHA liners, the L6 boasts the significant additional advantage of being able to remove the earlap or the liner and replacing or laundering either independently, and the Nomex double-layered forehead patch provides a new edge of protection from really hot fires. Also detachable/washable. The forehead piece can be removed without taking the helmet out of service. Variations on the L6 are the L65, where jumbo Nomex earlaps replace the standard full-cut earlaps, and the 262B winter hood. The hood can be worn in conjunction with the L20 and replaces both the earlap and forehead patch (L262BX).

If the Cairns OSHA cushion liner is desired as a replacement to the L20 sweatband as the base, it can also be supplied with regular full-cut Nomex earlaps (L60) or with jumbo Nomex earlaps (L605).

STYLE	L6	L65
660	•	•

L20
L22
L225
L260
L265
L270
L275

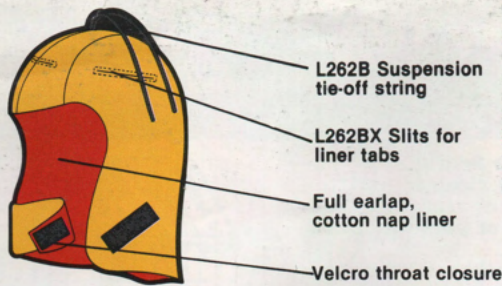


THE CAIRNS OSHA SWEAT LINER

Double jointed for extra nape-strap grip in rear and quick release for breathing apparatus mask interface, the OSHA sweat liner is made of rugged leather-grain vinyl and urethane padding, perforated throughout for extra ventilation. The rear section unsnaps and adjusts lower to catch the nape of the neck and head, providing great grip for running or bending over. The front section contains a Velcro closure to enable quick inversion of the front liner to compensate for extra size added to head with mask harness in place. Fully adjustable from 6 1/4 through 8, the liner is standard on the 770X, and optional on the 770 and 880. It is available with attached Nomex earlaps (L22, L225), or jumbo Nomex earlaps (L260, L265).

STYLE	L20	L215	L22	L225	L260	L265	L270	L275
660								
770(EMT)	•						•	•
770X	•	•	•		•			
880	•	•		•		•		

**L262B
L262BX ***



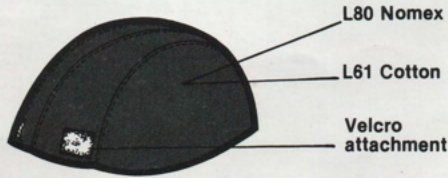
THE CAIRNS WINTER HOOD

Designed to be installed between the liner and the helmet on the 660, 770, 880. The winter hood features a jumbo cut ear and neck section and wraparound capacity in front. Cut to flare outward slightly, it can be worn inside or outside the coat collar, and it has its own throat guard. It is also designed not to interfere with the mask seal when working with breathing apparatus. Made of Nomex and FR cotton napped inner shells, it will add valuable protection to the firefighter. It accommodates all head sizes from 6 3/4 through 8 and is readily removed and laundered.

*See 660 Liner Systems.

STYLE	L262B	L262BX
660		•
770	•	
770X	•	
770(EMT)	•	
880	•	

**L61
L80**

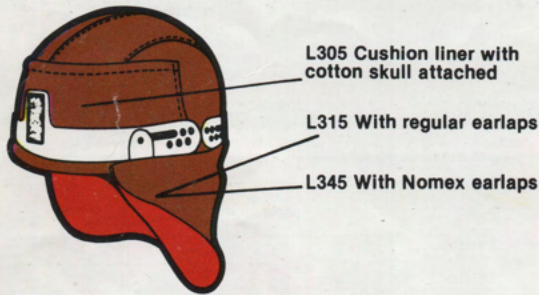


THE CAIRNS SKULLCAP

Contoured four-piece design for greater comfort, the skullcap is optional equipment to complement the OSHA vinyl sweat and OSHA cushion liners on the 660, 770, 880. It overlaps the lining and covers the entire top of the firefighter's head, preventing updrafts from bringing soot and smoke into contact with his hair and scalp. Detachable, it can be removed for laundering separately. Cut full to fit sizes 6 3/4 through 8, the skullcap is available in napped cotton (L61) and Nomex (L80).

STYLE	L80
660	•
770	•
770X	•
770(EMT)	•
880	•

**L305
L315
L345**



THE CAIRNS OSHA CUSHION AND SKULL LINER

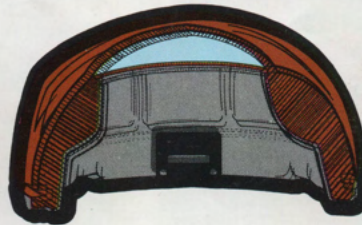
Preferred by some departments to the detachable skullcap, the cushion and skull liner is a variation on the Cairns OSHA cushion liner (L105 series), where the rear liner-half is replaced by the L61 skullcap, making it a permanent part of the liner. With this feature, the firefighter can be sure he won't lose the skullcap, and can employ it when in fire combat or roll it back out of the way when performing in less hazardous or extreme conditions. Available without earlaps (L305), with earlaps (L315), or with Nomex earlaps (L345).

STYLE	L305	L315	L345
770			•
770X	•	•	•
880	•	•	•

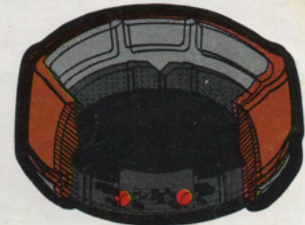
THE CAIRNS M600 SERIES IMPACT CAPS*: All Cairns M600 Impact Caps incorporate the superior impact-resistant protection system described on inside front cover. Minor changes in the caps are made to conform to various regulations.



M600 IMPACT CAP Standard equipment in the 660C Metro, this cap features a full overcrown configuration of the urethane foam liner.



M600-72 IMPACT CAP Designed specifically to allow the 660 Phoenix to attain the requirements and performance standards of NFPA-1972, with a tough polycarbonate insert built into the apex of the overcrown. (Since the temperature resistance of the 660C Metro far exceeds that of the 660 Phoenix, the insert is not necessary for protection.)

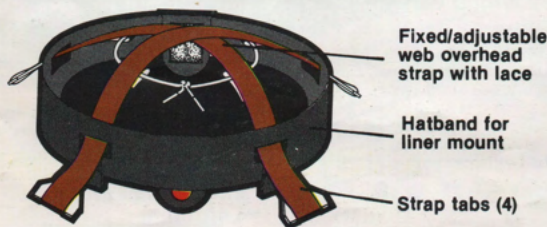


M600X Features a "doughnut shape" (open overcrown) with ventilation ribs while retaining its plastic inner liner. Designed to satisfy Cal-OSHA, it is standard equipment in the 660X Phoenix Californian and can be installed in any of the 660 series of helmets.

IMPACT CAP OPTIONS: The four basic 660 series helmets can be combined with the three current impact caps to achieve specific performance criteria above minimum. All indicated options satisfy the following performance specifications: Federal OSHA (1971); ANSI Z89.1, 1969; Federal OSHA (1981); NFPCA-NBSIR-77 (Model Performance Criteria); CSA-Z94.1, M-1977; Washington-OSHA. Face shields satisfy the requirements of Z87.1, 1968.

OPTIONS GRID — SPECIFIC PERFORMANCE CRITERIA			INDICATES STANDARD EQUIPMENT
	M600	M600X	M600-72
660C	NFPA-1972; MIL-H-1987F (1978); MIL-H-1987G (1980); CAL-OSHA		
660-72			NFPA-1972; MIL-H-1987G (1980); US OSHA, NFPCA-1977
660	MIL-H-1987F (1978); US OSHA, NFPCA-1977	US OSHA, NFPCA-1977; CAL-OSHA; MIL-H-1987F (1978)	See 660-72
660X		US OSHA, NFPCA-1977; CAL-OSHA; MIL-H-1987F (1978)	See 660-72

M100



M100

Suspension system replacement kit for the 770 series and 880 helmets. Universal components lock into helmet shell for overhead suspension and impact protection. The kit is stockable for quick field repairs of your Cairns OSHA helmet. High-density, high-impact plastic hatband, complete with liner mount buttons, Velcro and overcrown fixed adjustable suspension strap and locking mount tabs.

STYLE	M100
770	•
770X	•
770(EMT)	•
880	•

(Replacement Only)

Cairns & Brother

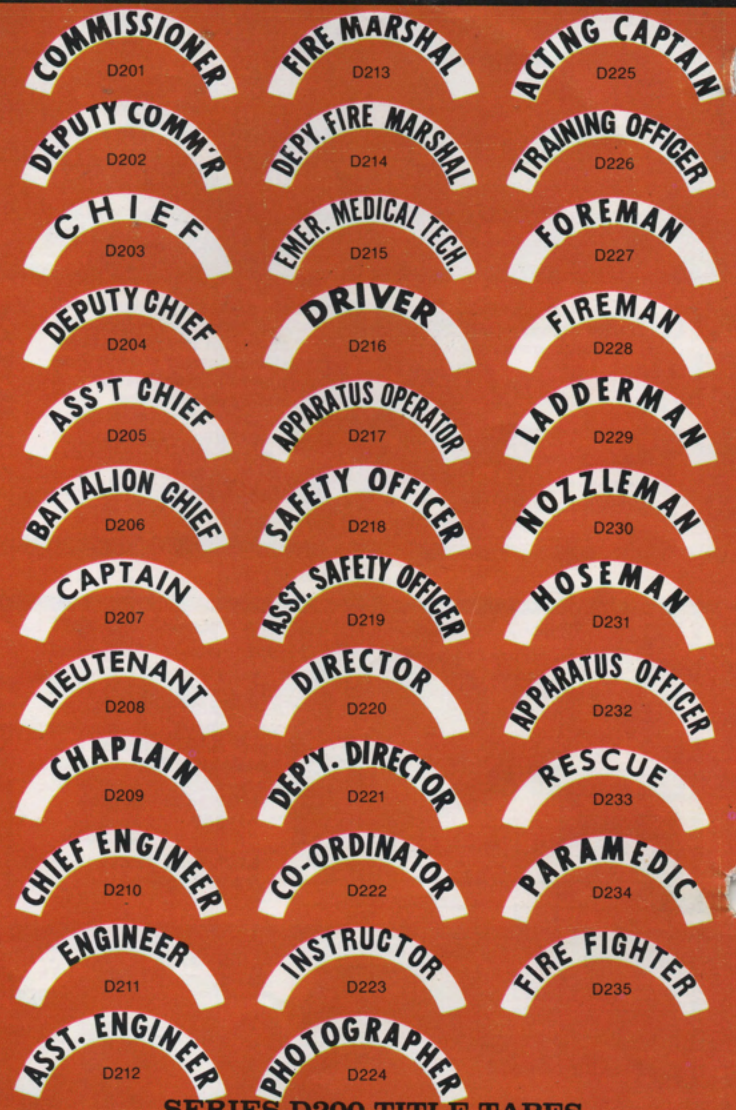
DECALS

60 Webro Road, P.O. Box 4076, Clifton, NJ 07012 201/473-5867 TELEX: 469-082

Designed for general service and for officers, decals play an important role in personnel identification. Cairns decals are made of pressure-sensitive vinyl that's tough, weather resistant, heat resistant, and can be reused to a limited extent.



SERIES D100 FRONTAL DECALS



SERIES D200 TITLE TAPES

Decal Specifications:

SERIES D100 — 2 1/4" to 3" overall, pressure-sensitive vinyl.

SERIES D200 — 6 3/4" arc, white vinyl backing, black print. Pressure sensitive.

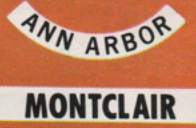
SERIES D300 SCOTCHLITE:

Engineering grade trim specially backed, available in 1", 1 1/4", 1 3/4", 2", 2 1/4" numbers and letters. Complete line of colors available. Catalog #'s: 1"—D306; 1 1/4"—D305; 1 3/4"—D303; 2"—D302; 2 1/4"—D301.

Specials:

Any shape shown printed to customer specifications for a minimum order of 100 decals of each custom type. For special shapes, call the factory.

ALL SPECIALS — CAT. #D99



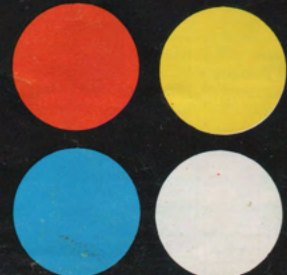
reflexite®

Reflexite®: Available in flexible form with pressure-sensitive adhesive. Day or night, wet or dry, it provides extra safety under the toughest combat conditions.

Numbers and letters available in colors shown. Sizes: 1", 1 1/4", 1 3/4", 2", 2 1/4"

Catalog designation: "RP"

The brightest idea in helmet safety trims



Cairns & Brother

DECALS

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D101 GENERAL EMBLEM

SERIES D100 FRONTAL DECALS



SERIES D200 TITLE TAPES

Decal Specifications:

SERIES D100 — 2 1/4" to 3" overall, pressure-sensitive vinyl.

SERIES D200 — 6 3/4" arc, white vinyl backing, black print. Pressure sensitive.

Specials:

Any shape shown printed to customer specifications for a minimum order of 100 decals of each custom type. For special shapes, call the factory.

ALL SPECIALS — CAT. #D99



ANN ARBOR

MONTCLAIR

SERIES D300 SCOTCHLITE:

Engineering grade trim specially backed, available in 1", 1 1/4", 1 3/4", 2", 2 1/4" numbers and letters. Complete line of colors available.

Catalog #'s: 1"—D306; 1 1/4"—D305; 1 3/4"—D303; 2"—D302; 2 1/4"—D301.



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The brightest idea in helmet safety trims

