



The Human Side of Safety.®
Since 1898.

LANCER™ Airline Respirator

Instruction Manual



**Type C and Type CE Pressure Demand Class
MSHA/NIOSH Approval No. TC-19C-309**

**READ ALL INSTRUCTIONS AND WARNINGS BEFORE USING THIS
RESPIRATOR. SAVE THIS MANUAL FOR FUTURE REFERENCE.**

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LANCER™ AIRLINE RESPIRATOR APPROVAL LABEL



Bullard

1898 Safety Way
Cynthiana, Kentucky 41031
1-800-827-0423



LANCER TYPE C & CE PRESSURE DEMAND AIRLINE RESPIRATOR
APPROVED ONLY IN THE FOLLOWING CONFIGURATIONS:

Approved No.	Protection ¹	Helmet Model	Breathing Tube	Alternate						Cautions and Limitations ²			
				Flow Control Valve/Climate Control Device	Capes	Lenses							
TC-19C-309	SA	LHO	L99BT	L80 警告	0072 Pando	771B	771040	771020	771015	771E040	771G	V10, 50-4cc V10, 100-4cc V20, 50-4cc V20, 100-4cc	A, B, C, D, E, J, M, N, O, S
		LANCER for use with compressed air	X	L80 警告	0082 Pando	771B	771040	771020	771015	771E040	771G	X	A, B, C, D, E, J, M, N, O, S
		LANCER ³ for use with Bullard Free-Air pumps	X	L80 警告	0082 Pando	771B	771040	771020	771015	771E040	771G	X	A, B, C, D, E, J, M, N, O, S

- PROTECTION: SA= Supplied Air**
- CAUTIONS AND LIMITED USES:**
 - Not for use in atmospheres containing less than 18.5 percent oxygen.
 - Not for use in atmospheres free volatility dangerous to life or health.
 - Do not use in situations where concentrations are indicated by regulatory standards.
 - Atmospheric respirators can be used only when respirators are supplied with respirable air meeting the requirements of CGA G-7.1 Grade D or higher quality.
 - Use only the pressure range and hose lengths specified in the user's instructions.
 - Failure to properly use and maintain this product could result in injury or death.
 - All approved respirators shall be selected, fitted, used, and maintained in accordance with MSHA, NIOSH, and other applicable regulations.
 - Never substitute, modify, add, or omit parts. Use only exact replacement parts in the configuration as specified by the manufacturer.
 - Refer to user instructions, or other maintenance manuals for information on use and maintenance of these respirators.
 - Special or critical users' instructions and/or specific use limitations apply. Refer to instruction manual before donning.
- Free-air pumps are not part of the NIOSH-approved configurations.

GENERAL INFORMATION

Bullard's LANCER™ airline respirator, when properly used, provides a continuous flow of air from a remote air source to the respirator wearer. The LANCER respirator offers protection from airborne contaminants not immediately dangerous to life or health (IDLH) that do not exceed concentrations allowed by applicable OSHA, EPA, NIOSH or ACGIH regulations and recommendations.

The LANCER airline respirator is approved by NIOSH (Approval no. TC-19C-309) to provide respiratory protection in general purpose applications including heavy- and light-duty abrasive blasting, and painting applications (Type C and CE). The protective helmet meets ANSI Standard Z89.1-1969 (except weight) Class A requirements for protective headwear for industrial workers. The cape and optional parka protect the worker's body from abrasive rebound.

The LANCER respirator must be used with compatible breathing air sources such as breathing air compressors or Bullard Free-Air® pumps. Bullard offers the appropriate approved breathing tube assembly and air supply hose to connect the LANCER respirator to these breathing air sources.

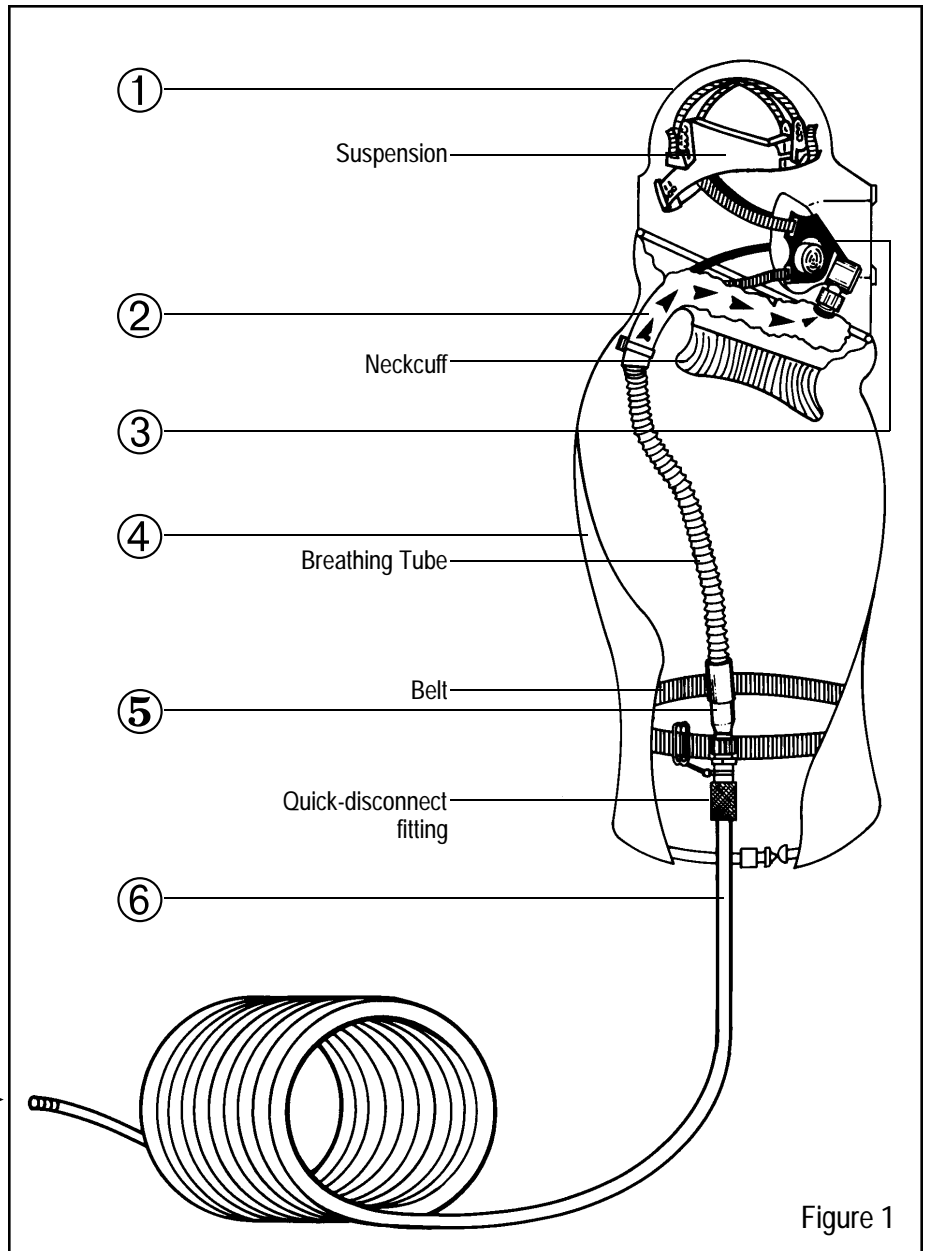
The LANCER airline respirator is approved by NIOSH for use with Bullard's optional ACL99 climate control device.

COMPONENT CONCEPT

Bullard's LANCER™ airline respirator consists of six components (Figure 1): respirator helmet with suspension, outer cape, air delivery system, half mask, breathing tube assembly and air supply hose. All components must be present and properly assembled to constitute a complete NIOSH approved respirator.

RESPIRATOR COMPONENTS

1. Respirator Helmet
2. Air Delivery System
3. Half Mask
4. Outer Cape
5. Breathing Tube Assembly
6. Air Supply Hose



Clean, Breathable Air Source

Supplying Grade "D" or Higher Air Quality (see Breathing Air Requirements on pages 7 and 8)

▲ WARNING ▲

Failure to use complete NIOSH-approved Bullard components and replacement parts voids approval of entire assembly, invalidates Bullard's warranties, and may expose you to life threatening conditions, diseases or death.

Component Concept

The approved respirator consists of six (6) components:

1. Respirator Helmet Assembly

LHO Standard oval front

2. Air Delivery System

ADS One size fits most inflatable collar

3. Half Mask Assembly (Choose one)

LMS Small
LMM Medium
LML Large

4. Outer Cape Assembly (Choose one)

0032 Parka style
0072 Poncho style

5. Breathing Tube Assembly (Choose one)

L30 1/4" Industrial Interchange (Use with V10 hose)
L35 1/2" Industrial Interchange ((Use with V20 hose)
ACL99 Vortex tube air conditioner (Use with V10 hose)
DC99 Dual-Cool air conditioner

6. Air supply Hose Assembly (Choose one)

V20 Length as required
V10 Length as required plus one V27 quick disconnect

NOTE: The V27 quick disconnect consists of a V12 plus a V14 with Teflon® sealing tape. For quality assurance reasons, it is factory assembled. The V27 connects the V10 hose to the breathing tube assembly.

CAUTION: Do not use a quick-disconnect coupling at the point-of-attachment when using a V10 air supply hose. Use only a V12 or V13 fitting.

⚠ WARNINGS ⚠

1. This respirator, when properly fitted and used, significantly reduces, but does not completely eliminate, the breathing of contaminants by the respirator wearer. Where excessive airborne contaminant levels are found, respirator wearers may obtain a higher level of protection from a valve-operated pressure-demand airline respirator or a pressure-demand self-contained breathing apparatus respirator.

If you cannot attain a proper fit, try another mask size and go through the same steps outlined on page 13 of this manual. If a proper fit is still not achieved, do not use the respirator.

2. Prior to using this or any respirator, Federal law requires that your employer measure and monitor airborne contaminant levels in the work area to assure that concentrations do not exceed those allowed by OSHA, EPA, NIOSH or ACGIH.

3. Improper respirator use may damage your health and/or cause your death. Improper use may also cause certain life threatening delayed lung diseases such as silicosis, pneumoconiosis or asbestosis.

4. Do not wear this respirator if any of the following conditions exist.

- Atmosphere is immediately dangerous to your life or health.
- You CANNOT escape without the aid of the respirator.
- Atmosphere contains less than 19.5% oxygen.
- Work area is poorly ventilated.
- Unknown contaminants are present.
- Contaminants are in excess of regulations or recommendations (as described in item 2 above).

5. OSHA regulations recommend that you DO NOT wear this respirator until you have passed a complete physical exam (perhaps including a lung x-ray) conducted by qualified medical personnel, and have been trained in the respirator's use, maintenance and limitations by a qualified individual (appointed by your employer) who has extensive knowledge of Bullard's LANCER™ respirator.

6. DO NOT modify or alter this respirator in any manner. Use only NIOSH-approved LANCER components and replacement parts manufactured by Bullard for use with this respirator.

Failure to use NIOSH-approved Bullard components and replacement parts such as lenses, air delivery system, hoses, flow control devices and capes, voids NIOSH approval, invalidates all Bullard warranties, and may cause death, lung disease or exposure to other hazardous or life threatening conditions.

7. Inspect all components of this respirator system daily for signs of wear, tear or damage that might reduce the degree of protection originally provided.

WARNINGS (continued)

Immediately replace worn or damaged components with NIOSH-approved Bullard LANCER™ components or remove the respirator from service. (See INSPECTION, CLEANING AND STORAGE section on pages 16 through 19 for proper maintenance of LANCER respirators.)

8. Be certain your employer has determined that the breathing air source provides at least Grade D breathable air. This respirator must be supplied with clean breathable air at all times. See page 8 for a definition of Grade D breathable air.
9. DO NOT connect the respirator's air supply hose to nitrogen, toxic gases, inert gases or other unbreathable, non-Grade D air sources. Check the air source before using the respirator. Failure to connect to and monitor the proper air source may result in serious injury or death. DO NOT use a quick-disconnect coupling at the point-of-attachment when using a V10 air supply hose. Use only a V12 or V13 fitting.
10. DO NOT use this respirator in poorly ventilated areas or confined spaces such as tanks, small rooms, tunnels or vessels unless the confined space is well-ventilated and the contaminant concentrations are below the upper limit recommended for this respirator. In addition, follow all procedures for confined space entry, operation and exit as defined in applicable regulations and standards, including 29 CFR 1910.146.
11. This respirator is not for use in any atmosphere immediately dangerous to life or health (IDLH), or from which the wearer cannot escape without the aid of the respirator. If you are not sure whether the atmosphere you are working in is immediately dangerous to your life or health, ask your employer. If you have questions regarding the use of this respirator, ask your employer or call Bullard at 800-827-0423. All instructions for the use and care of this product must be supplied to you by your employer as recommended by the manufacturer and as required by Federal Law (29 CFR 1910.134).
12. DO NOT use this respirator for underwater diving.

For technical assistance call or write:

Bullard
1898 Safety Way
Cynthiana, KY 41031-9303
Toll-Free: 800-827-0423
Phone: 606-234-6611
Facsimile: 606-234-6858

OPERATIONS

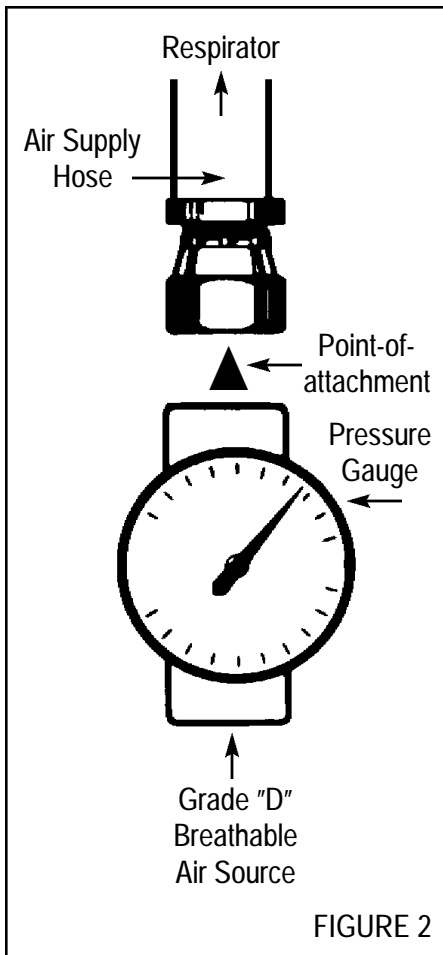


FIGURE 2

Protection

RESPIRATORY

This respirator is NIOSH-approved (TC-19C-309) for Type C and CE operations. It can be worn for general purpose applications, including heavy- and light-duty abrasive blasting, and spray painting.

This respirator is not for use in any atmosphere immediately dangerous to life or health (IDLH), or from which the wearer cannot escape without the aid of the respirator.

HEAD

LANCER™ respirators meet ANSI Standard Z89.1-1969 (except weight) Class A requirements for protective headwear for industrial workers. The helmet is designed to provide limited head protection by reducing the force of falling objects striking the top of the helmet.

FACE

The respirator's inner window meets ANSI Z87.1-1989 requirements for face protection. When fitted with the proper Bullard lens, it provides limited face protection from flying particles or spray of hazardous liquids, but is not shatterproof.

EYES

LANCER respirators DO NOT provide primary eye protection. Wear approved safety glasses or goggles at all times.

HEARING

LANCER respirators DO NOT provide hearing protection. Use properly fitted hearing protection when exposed to high noise levels.

Breathing Air Requirements

AIR QUALITY

▲ WARNING ▲: THIS RESPIRATOR MUST BE SUPPLIED WITH CLEAN, BREATHABLE AIR, GRADE D OR BETTER, AT ALL TIMES. THIS RESPIRATOR DOES NOT PURIFY AIR OR FILTER OUT CARBON MONOXIDE, NITROGEN OR OTHER CONTAMINANTS.

Respirable, breathable air must be supplied to the point-of-attachment of the approved Bullard air supply hose. The point-of-attachment is where the air supply hose connects to the fitting that contains a pressure gauge used to monitor the pressure of air provided to the respirator wearer (see Figure 2 and Figure 3).

Supplied breathing air must AT LEAST meet the requirements for Type 1 gaseous air as described in the Compressed Gas Association Commodity Specification G-7.1 (Grade D or higher quality), and as specified by Federal Law 42 CFR, Part 84, Subpart J, 84.141(b).

The requirements for Grade D breathable air include:

- Oxygen.....19.5-23.5%
- Hydrocarbons (condensed) in mg/m³ of gas.....5 mg/m³ max.
- Carbon monoxide....10 ppm max.
- Carbon dioxide ...1,000 ppm max.
- Odor.....No detectable odor
- No toxic contaminants at levels that make air unsafe to breathe.

Contact the Compressed Gas Association (1725 Jefferson Davis Highway, Arlington, VA 22202) for complete details on Commodity Specification G-7.1.

AIR SOURCE

Locate the source of supplied air (whether it is a breathing air compressor or an ambient air pump) in a clean air environment. Locate the air source far enough from your work site to ensure the air remains contaminant-free. Always use an inlet filter on your air source.

Use suitable after-cooler/dryers, filters, carbon monoxide monitors and alarms as necessary to assure clean, breathable air at all times.

The air should be regularly sampled to be sure that it meets Grade D requirements.

Breathing Air Pressure

Air pressure must be continually monitored at the point-of-attachment while operating this respirator. A reliable air pressure gauge must be present to permit you to continually monitor the pressure during actual respirator operation.

▲ DANGER ▲: FAILURE TO SUPPLY THE MINIMUM REQUIRED PRESSURE AT THE POINT-OF-ATTACHMENT FOR YOUR HOSE LENGTH AND TYPE MAY REDUCE AIRFLOW AND MAY EXPOSE YOU TO LIFE THREATENING CONDITIONS, DISEASES OR DEATH.

The Breathing Air Pressure Table (see page 9) defines the air pressure ranges necessary for LANCER™ respirators.

Make sure you understand the information in the Breathing Air Pressure Table before using this respirator.

1. Determine the type of air source (column 1) and breathing tube assembly (column 2) you are using.
2. Be sure your Bullard air supply hose(s) (column 3) is (are) approved for use with your breathing tube assembly.
3. Determine that your Bullard air supply hose is within the approved length (column 4).
4. Make sure you have not exceeded the maximum number of hose sections (column 5).
5. Set the air pressure at the point-of-attachment within the required pressure range (column 6) for your breathing tube assembly, and air supply hose type and length. Accurate pressure readings can only be attained when air is flowing into the respirator.

Breathing Air Supply Hoses and Hose Fittings

NIOSH-approved Bullard air supply hose(s) MUST be used between the breathing tube connection fitting on the wearer's belt and the point-of-attachment to the air supply (see Figure 3).

NIOSH-approved Bullard quick-disconnect fittings MUST be used to connect V20 hose lengths together. When connecting lengths of V10 hose, only use Bullard V11 hose-to-

hose adaptors. Secure connection(s) until wrench tight and leak free. Total connected hose length and number of hose lengths MUST be within the ranges specified on the Breathing Air Pressure Table below and the respirator's NIOSH approval label (see page 1).

The breathing tube connection fitting MUST be secured to the belt that is supplied with this respirator. Securing the breathing tube connection fitting helps prevent the air supply hose from snagging, disconnecting or pulling the respirator helmet off your head.

Breathing Air Pressure Table

Adjust breathable airflow at the point-of-attachment to a pressure that falls within the range required for the equipment combination of your respirator.

1	2	3	4	5	6
Air Source	Breathing Tube Assembly	Air Supply Hose	Air Supply Hose Length (feet)	Maximum Number of Hose Sections	Required Pressure Range (psig air)
Stationary or Portable Air Compressor	L30 Constant Airflow	V10	100	2	13-14
			200	2	19-21
			300	3	25-28
	ACL99 Climate Control Device	V10	100	2	29-30
			200	2	35-36
			300	3	40-42
DCL99 Climate Control Device	V10	100	2	47-49	
		200	2	61-63	
		300	3	71-73	
Bullard Free-Air® Pumps	L35 Constant Airflow	V20	100	2	4-5
			200	2	7-8
			300	3	10-11

Typical Breathing Air Source and Respirator Configurations

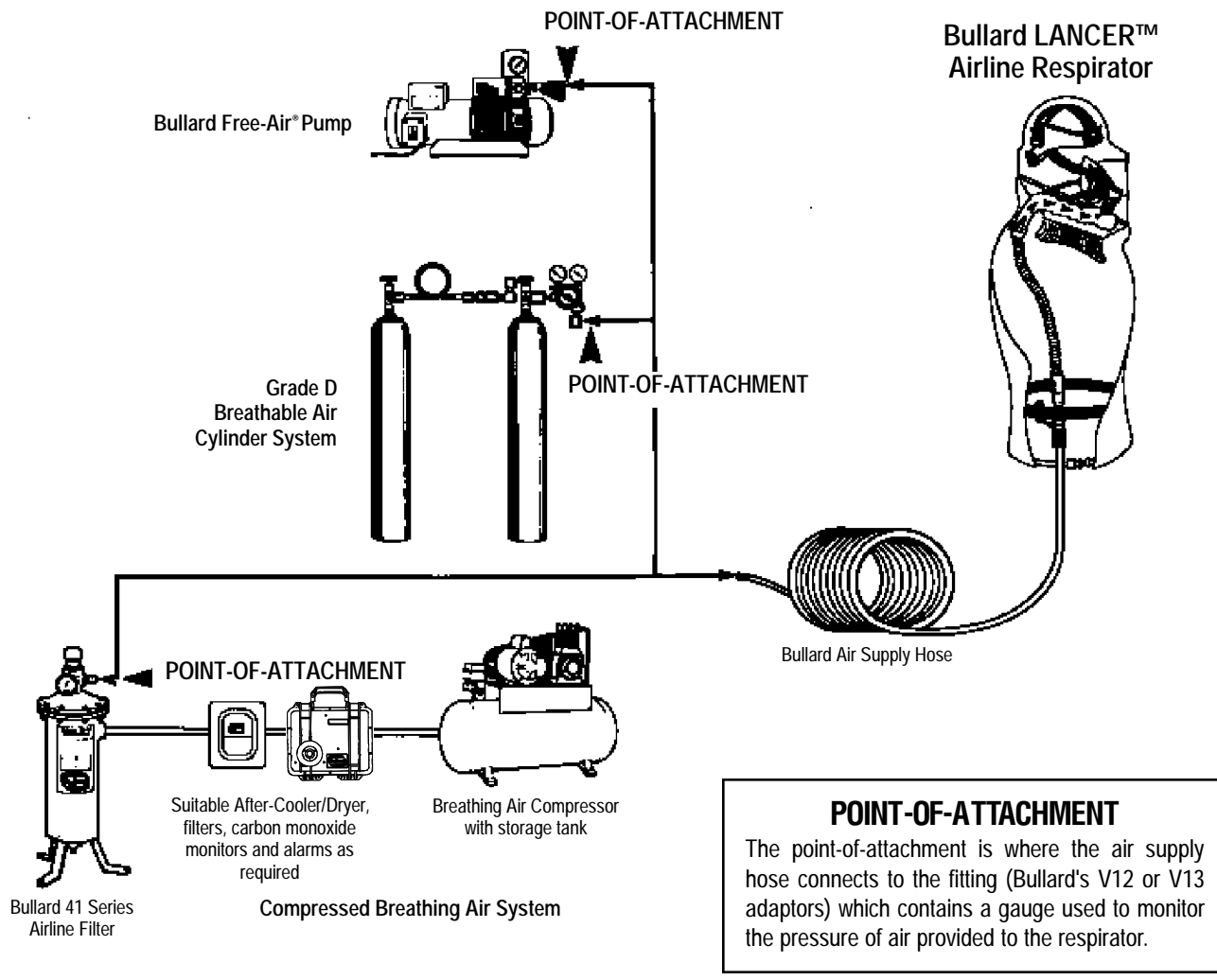


Figure 3

RESPIRATOR ASSEMBLY

BEFORE ASSEMBLING THIS RESPIRATOR, READ THE WARNING LABELS ON THE INSIDE OF THE RESPIRATOR CAPE AND THE HELMET SHELL.

REMOVE AND READ THE WARNING CARD INSERTED BETWEEN THE RESPIRATOR'S TWO LENSES.

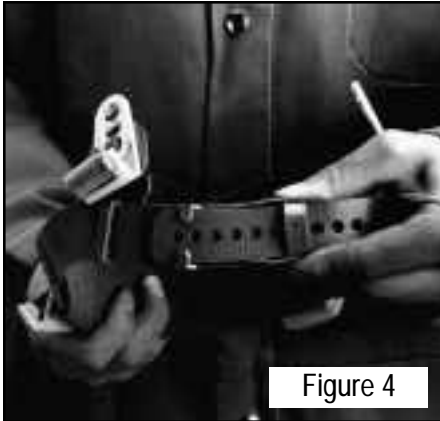


Figure 4



Figure 5



Figure 6

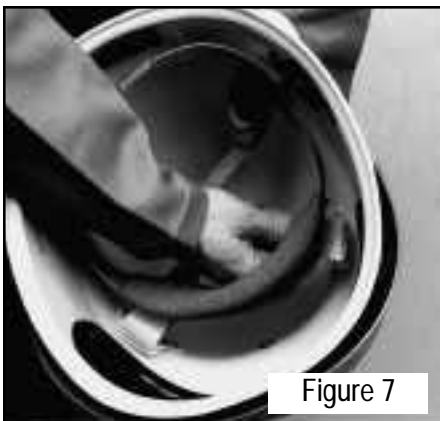


Figure 7

Sizing the Headband

Before you can size the headband, the cape and suspension must be removed from the helmet using the following steps:

1. Open hinged window frame by lifting up on window latch.
2. Remove cape from helmet by lifting up on over-center clamp and disengaging cape from helmet groove.
3. Turn helmet upside down and remove suspension by pulling up on hanger keys until they pop out of the helmet.
4. Size the 88TG suspension by squeezing top and bottom edges of rear buckle together with your thumb and forefinger (see Figure 4). At the same time, decrease suspension size by sliding right hand portion of suspension through buckle. Do not release buckle.
5. Place the headband on your head. Pull down allowing suspension to expand until it feels comfortable. Suspension automatically adjusts to your size and locks when you release your grip (Figure 5).
6. Remove suspension from your head.

Adjusting Suspension for Vertical Fit

The suspension may be raised or lowered in the front and/or back by repositioning the hanger keys. Vertical adjustment makes the suspension ride higher or lower on wearer's head. It also can adjust the tilt forward or backward.

1. Rotate hanger key 90° in either direction until hole in hanger key aligns with post on suspension. Pull key away from suspension (Figure 6).
2. Move key to desired vertical position.
3. Rotate hanger key 90° toward suspension until key locks in place (see Figure 6).
4. Repeat steps 2-4 for other suspension keys.

Installing Suspension into Helmet

1. Turn helmet and suspension upside down.
2. Place suspension inside helmet with brow pad facing front of helmet.
3. Bending hanger keys outward at hinge, insert keys into respective key slots. Push firmly until keys snap into place (see Figure 7).

Attaching Cape to Helmet

1. Place cape on table or workbench (see Figure 8).
2. With window frame open, place helmet on top of cape.
3. Line up the hook-shaped clip on the cape with the front center of the helmet (see Figure 8).
4. Firmly engage clip under bottom front edge of helmet.

NOTE: Installation is easiest when started at the front of cape and helmet.

5. Ease cape rim completely into the groove along helmet edge, working your way to the back. Be certain cape is completely in place at every point along helmet's bottom edge.
6. Snap the over-center clamp to tighten cable and hold cape snugly on helmet.
7. Close and latch window frame.

Installing Breathing Tube Assembly into Air Delivery System

1. Remove nylon clamp from the open end of the breathing tube. Do not remove foam from inside the breathing tube. The foam helps reduce the noise level and turbulence of the incoming air.
2. Insert the breathing tube approximately five inches into the air delivery system's air entry sleeve (see Figure 9).
3. Install nylon clamp over air entry sleeve and breathing tube, inserting clamp locks through two holes in plastic anchorplate sewn into the air delivery system. Locks should face away from user's neck (see Figure 10).
4. Engage clamp locks and squeeze together until tight.
5. Gently tug on breathing tube to ensure that it is properly engaged to the air delivery system.

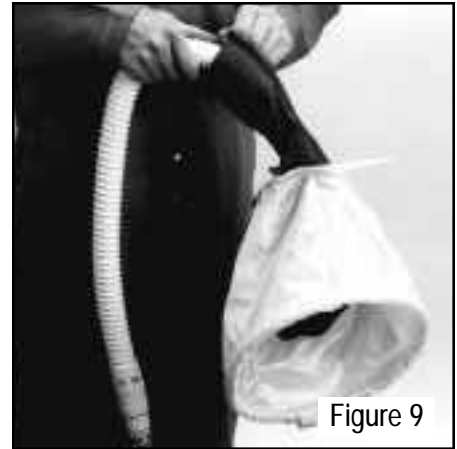


Figure 9

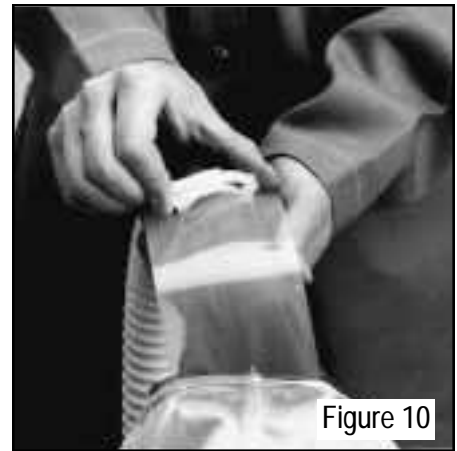


Figure 10

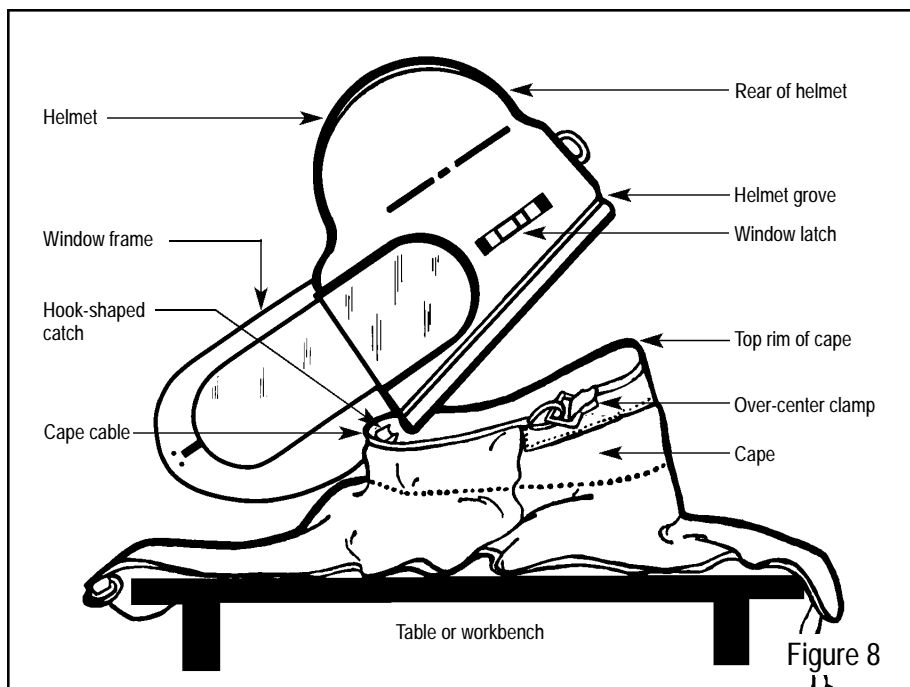


Figure 8

RESPIRATOR USE



Figure 11



Figure 12



Figure 13

▲ WARNING ▲: DO NOT DON OR DOFF THIS RESPIRATOR IN A HAZARDOUS ATMOSPHERE. DO NOT REMOVE THIS RESPIRATOR IN A HAZARDOUS ATMOSPHERE EXCEPT FOR EMERGENCY ESCAPE PURPOSES.

Donning

GENERAL

Before using your LANCER™ respirator, complete the assembly instructions given on pages 11 and 12.

Before donning, make sure there is no dirt, dust or contaminants inside the helmet.

1. Lace belt through the belt loop on the breathing tube and don belt, adjusting fit for comfort. The airflow control fitting should be positioned on the wearer's right or left. Verify that the rubber gasket is in the garden hose nut on the end of the breathing tube. This must be present as it helps provide a tight seal to the airflow control fitting. Make sure that the airflow control fitting is securely fastened to breathing tube and air delivery system.
2. With the breathing tube assembly attached to the Air Delivery System, slip the system over your head (Figure 11). Straighten knitted neck cuff by gently pulling the cuff upward toward the chin.
3. Connect the Bullard air supply hose to the air source supplying Grade D breathable air. Turn on the air source.
4. Connect breathing tube assembly to air supply hose (see Figure 12). Connect quick-disconnect fitting on breathing tube assembly to quick-disconnect coupler on air supply hose. Once fitting is secured, release coupling sleeve to lock fittings together. Pull on both hoses to make sure they are attached securely.
5. Adjust air pressure at point-of-attachment to within the approved pressure range (see Figure 12). See the Breathing Air Pressure Table (page 9) for approved pressure ranges.
6. Loosen the mask's elastic straps and unhook bottom headstrap. Grasp the front of the mask with one hand and the upper plastic strap (cradle suspension) in your other hand. Position the mask on your face so that the inside portion of the mask is under your chin and the narrow portion of the mask is over your nose (see Figure 13).
7. Place the plastic headband straps on your head so that the straps rest comfortably on the top and back of your head. Then hook the bottom head strap behind your neck.

DONNING THE HALF MASK

▲ WARNING ▲: INDIVIDUALS WITH FACIAL HAIR MAY BE UNABLE TO OBTAIN A TIGHT FIT WITH THIS RESPIRATOR. AN UNSATISFACTORY FACE SEAL MAY RESULT IN LEAKAGE WHICH REDUCES OR LIMITS THE PROTECTION INTENDED. DO NOT USE A RESPIRATOR THAT DOES NOT FIT PROPERLY. CHECK TO SEE THAT FOAM, SCREEN AND SNAPPING ARE SECURELY IN PLACE INSIDE OF THE MASK'S CONNECTOR. IF THEY ARE NOT SECURE, REPLACE CONNECTOR OR REMOVE FROM SERVICE IMMEDIATELY.



Figure 14



Figure 15



Figure 16



Figure 17

8. Adjust the mask until it fits comfortably on your face. Adjust headband straps on both sides to produce a comfortable fit and tight seal by pulling on the four headband straps (Figure 14).

9. PERFORM A NEGATIVE PRESSURE FIT CHECK

- a. With facepiece on and secured, close off the opening to the mask's connector with a finger.
- b. Inhale until the mask collapses inward slightly (indicating there is negative pressure). Hold your breath for five seconds.
- c. The mask is deemed to be in proper position if it remained collapsed while the breath was being held and no inward leakage of outside air was detected.
- d. If mask doesn't collapse or inward leak is detected, readjust mask on face and repeat above steps until this test is passed.

10. To connect the mask to the air delivery system, screw the mask's hose connector onto the male fitting that is sewn in the front center of the air delivery system (see Figure 15). **DO NOT OVER TIGHTEN.**

11. With the air flowing into the mask, perform the following fit test:

- a. Move your head from side to side.
- b. Look down and then up. Repeat this several times.

If ANY leakage of air is detected around the perimeter of the mask or you feel the seal break, the mask is not properly fitted. Take the mask off and re-don the mask starting with "Donning the Half Mask" on page 13 of this manual. Repeat these tasks until the mask fits correctly and no outward leakage is detected.

▲ WARNING ▲: IF YOU CANNOT ATTAIN A PROPER FIT, TRY ANOTHER MASK SIZE AND GO THROUGH THE SAME STEPS OUTLINED ABOVE. IF A PROPER FIT IS STILL NOT ACHIEVED, DO NOT USE THE RESPIRATOR.

DONNING THE HELMET

- 12. Flip the back of the outer cape over the LANCER™ helmet (Figure 16). If using the parka, unzip and flip the back of the parka over the helmet.
- 13. Don the helmet.
- 14. Use the retaining hoop to secure the air delivery system inside the helmet. Insert the back of the hoop at the center back of the helmet, underneath the retainer clip. Then slip the hoop up into the two side retainer clips. Push the hoop up into the helmet's inner groove, starting at the back and working forward. The hoop will snap into place (Figure 17).
- 15. Make sure the air delivery system is securely in place.
- 16. Pull down the back panel of the protective outer cape.



17. Pull outer cape around your body and secure sides by connecting the snap hooks. If using the parka, ask a co-worker to zip the parka closed (Figure 18).
 18. Recheck air pressure and adjust if necessary.
 19. With air flowing into your respirator, you are now ready to enter work area.
- Pull on yellow loop on the front of the air delivery system to disengage air delivery system from helmet. Finish doffing, then disconnect the air supply hose using the quick-disconnect fittings.

NOTE: If using V20 Series (1/2" I.D.) air supply hose, the hose quick-disconnect coupler does not have a shut-off valve. Therefore, air will continue to flow freely after disconnecting hose from respirator.

Doffing

When finished working, leave work area wearing the respirator with air still flowing. Once outside the contaminated area, remove respirator:

- Unhook the cape snap hooks and flip cape's panels back over the helmet.

▲ WARNING ▲

LEAVE WORK AREA IMMEDIATELY IF:

- Any respirator component becomes damaged.
- Airflow into respirator helmet stops or slows down.
- Air pressure gauge drops below the minimum specified in the Breathing Air Pressure Table (page 9).
- Breathing becomes difficult.
- You become dizzy, nauseous, too hot, too cold or ill.
- You taste, smell or see contaminants inside respirator helmet.
- Vision becomes impaired.

▲ WARNING ▲

Do not leave respirator in work area. Respirable dust contaminants can remain suspended in the air for more than one hour after work activity ceases, even though you may not see them. Proper work practice requires you to wear the respirator until you are outside the contaminated area. Failure to don, doff and store the respirator outside of contaminated area could result in exposure to contaminants.

INSPECTION, CLEANING AND STORAGE

Bullard's LANCER™ respirators have a limited service life. Therefore, a regular inspection and replacement program must be conducted. Certain parts such as capes, Air Delivery System, and lenses must be replaced frequently using only Bullard parts.

The LANCER respirator and all component parts and assemblies should be inspected for damage or excessive wear, before and after each use, to ensure proper functioning.

Immediately remove the respirator from service and replace parts or assemblies that show any sign of failure or excessive wear that might reduce the degree of protection.

Use only Bullard LANCER components and replacement parts. Refer to parts list for correct part numbers.

Because respirator use and the quality of maintenance performed vary with each job site, it is impossible to provide a specific time frame for respirator replacement. As a general guideline, with proper maintenance, the LANCER respirator should be replaced after two years of service or less.

This respirator should be cleaned and sanitized at least weekly, or more often if subjected to heavy use.

Respirators used by more than one person must be cleaned, inspected and sanitized after each use. If not cleaned, contamination may cause illness or disease.

REMEMBER, THE AIR YOU BREATHE WILL NOT BE CLEAN UNLESS THE RESPIRATOR YOU WEAR IS CLEAN.

Outer Cape

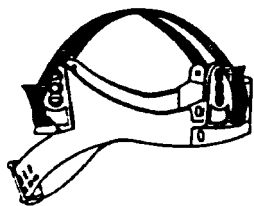
INSPECTION: Remove the cape from the respirator helmet and inspect it for rips, tears or damage from excessive wear that might reduce the degree of protection originally provided.

If you detect any of these signs, replace your cape immediately or remove the respirator from service.

▲ WARNING ▲: DO NOT SUBSTITUTE ANY CAPES OTHER THAN THOSE MANUFACTURED BY BULLARD. SUBSTITUTING OTHER CAPES MAY EXPOSE YOU TO LIFE THREATENING CONDITIONS, DISEASES OR DEATH.

CLEANING: Machine wash the cape in cold or warm water using a gentle cycle. Use a mild laundry detergent. Air-dry only. After cleaning, carefully inspect the cape once again for signs of damage.

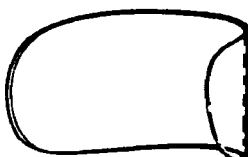
DO NOT USE VOLATILE-TYPE SOLVENTS TO CLEAN THIS RESPIRATOR OR ANY PARTS AND ASSEMBLIES. STRONG CLEANING AND DISINFECTING AGENTS, AND MANY SOLVENTS, CAN DAMAGE THE PLASTIC PARTS.



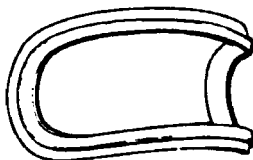
Headband Suspension



Helmet



Plastic Inner Lens



Window Frame Gasket

Suspension System

INSPECTION: Remove the suspension from the helmet. Inspect suspension system for cracks, frayed or cut crown straps, torn headband or size adjustment slots, loss of pliability or other signs of excessive wear.

If damage is detected, replace parts immediately with Bullard replacement parts or remove the respirator from service.

CLEANING: The suspension should be hand-sponged with warm water and mild detergent, rinsed and air-dried. After cleaning and before reassembling, once again carefully inspect the parts for signs of damage.

Helmet

INSPECTION: Inspect the helmet for nicks, gouges, cracks, holes and any damage due to impact, rough treatment or wear. Check areas around all rivets for signs of stress cracking.

If damage is detected, replace parts immediately with Bullard replacement parts or remove the respirator from service.

CLEANING: The helmet and window frame should be hand-sponged with warm water and mild detergent, rinsed and air-dried.

After cleaning and before reassembling, once again carefully inspect the helmet and parts for signs of damage.

Lenses and Window Frame Gasket

INSPECTION: Be sure the plastic inner lens fits securely in the black window frame gasket. Remove any grit or dust from the gasket. Be sure the plastic outer lens is installed underneath the clamps on the back of the outer window frame. It should be positioned within the one upper and two lower positioning points. Inspect the window frame gasket closely for cuts, wear or damage that will prevent a proper seal against the inner faceshield lens or the helmet window frame.

CLEANING: To clean the lenses, hand-sponge with warm water and mild detergent, rinse and air-dry.

▲ WARNING ▲: DO NOT USE LENSES OTHER THAN THOSE LISTED ON THIS PAGE. USE OF NON-BULLARD LENSES MAY ALLOW CONTAMINANTS TO ENTER THE RESPIRATOR AND EXPOSE YOU TO LIFE THREATENING CONDITIONS, DISEASES OR DEATH.

NOTE: All Bullard lenses are stamped with the appropriate Bullard part number described below.

<u>Bullard Lens Description</u>	<u>Bullard Lens Part No.</u>
Inner lens for LANCER™ respirators	771B
Outer lenses for respirators	771 or 771R

Half Mask

INSPECTION: Inspect the half mask for cracks, tears, pits, decomposition, stiffening, swelling and/or distortion. Inspect the headband for permanently stretched, stiffened, decomposed, frayed or cut straps. The cradle headband must be in good operating condition at all times. A damaged headband may prevent proper sealing of the respirator mask to the face.

If any of the above signs are detected immediately remove the respirator from service and replace the necessary parts before reuse.

CLEANING: The mask and its parts should be cleaned with warm water (about 120° F) and mild detergent or a germicidal disinfecting detergent. The respirator mask body and parts may be scrubbed gently with a cloth or soft brush. All foreign matter must be removed carefully from the surfaces of the exhalation valve flaps and seats.

Wipe any areas still showing accumulations of foreign matter with a cloth moistened in a detergent or a solvent such as mineral spirit.

DO NOT USE VOLATILE-TYPE SOLVENTS FOR CLEANING THIS RESPIRATOR OR ANY PARTS AND ASSEMBLIES. STRONG CLEANING, SANITIZING AND DISINFECTING AGENTS, AND MANY SOLVENTS CAN DAMAGE THE RUBBER AND PLASTIC PARTS.

DO NOT LEAVE SOLVENTS AND STRONG CLEANING AND SANITIZING AGENTS IN CONTACT WITH RUBBER OR PLASTIC SURFACES ANY LONGER THAN NECESSARY TO LOOSEN THE ACCUMULATIONS OF DIRT OR CONTAMINANT.

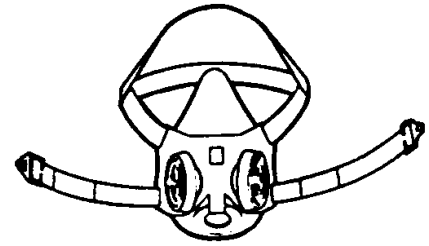
Rinse the respirator in clean, warm water (about 120° F). Shake to remove excess water and allow to air-dry away from direct heat, sunlight or contaminants.

Breathing Tube Assembly

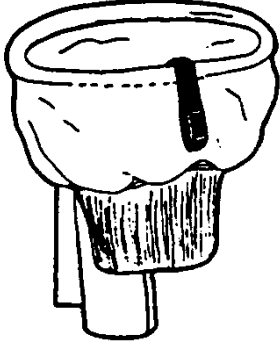
INSPECTION: Inspect the breathing tube for tears cracks, holes or excessive wear that might reduce the degree of protection originally provided. Be sure the quick-disconnect fitting is screwed tightly into the breathing tube so air cannot escape.

If any signs of excessive wear are present, replace the breathing tube assembly immediately or remove the respirator from service.

CLEANING: To clean the breathing tube assembly, hand-sponge with warm water and mild detergent, rinse and air-dry. Do not get water inside the flow control device or breathing tube. After cleaning, once again carefully inspect breathing tube for signs of damage.



Half Mask



Air Delivery System

▲ WARNING ▲: DO NOT CUT OR REMOVE FOAM THAT IS INSIDE THE BREATHING TUBE. THE FOAM HELPS REDUCE THE NOISE LEVEL AND TURBULENCE OF THE INCOMING AIR SUPPLY. IT DOES NOT FILTER OR PURIFY YOUR BREATHING AIR. THIS RESPIRATOR WAS APPROVED BY NIOSH WITH THE FOAM IN PLACE.

Air Delivery System

INSPECTION: Remove the breathing tube from the system. Inspect the fabric air delivery system for rips, tears or damage from excessive wear that might reduce the degree of protection originally provided. Inspect the knitted neck cuff for elasticity.

If you detect any damage or excessive wear, replace your air delivery system immediately or remove the respirator from service.

CLEANING: With the breathing tube removed, machine wash the fabric air delivery system in cold or warm water using a gentle cycle. Use a mild laundry detergent. Air-dry only. After cleaning, inspect the unit once again for signs of damage.

Air Supply Hose

INSPECTION: The hose(s) should be inspected closely for abrasions, corrosion, cuts, cracks and blistering. Be sure the hose fittings are crimped

tightly to the hose so that air cannot escape. Make sure the hose has not been kinked or crushed by any equipment that may have rolled over it.

If any of the above signs are present or any other signs of excessive wear are detected, replace the air supply hose(s) immediately or remove the respirator from service.

CLEANING: The air supply hose(s) should be hand-sponged with warm water and mild detergent, rinsed and air-dried. Do not get water inside the air supply hose. After cleaning, once again carefully inspect air supply hose(s) for signs of damage.

▲ WARNING ▲: ONLY USE BULLARD HOSES THAT ARE MSHA/ NIOSH APPROVED FOR USE WITH THIS RESPIRATOR. OTHER HOSES COULD REDUCE AIRFLOW AND PROTECTION, AND EXPOSE THE WEARER TO LIFE THREATENING CONDITIONS.

Storage

After reusable respirator components have been cleaned, dried and inspected, place them in a plastic bag or an airtight container.

Store the respirator and parts where they will be protected from contamination, distortion and damage from elements such as dust, direct sunlight, heat, extreme cold, excessive moisture and chemicals.

PARTS AND ACCESSORIES FOR LANCER™ AIRLINE RESPIRATOR

LANCER airline respirators consist of six components: respirator helmet, air delivery system, half mask, outer cape, breathing tube assembly and air supply hose. All components must be present and properly assembled, including a Bullard air supply hose, to constitute a complete NIOSH-approved respirator (Approval No. TC-19C-309, Type C and CE).

Cat. No.	Description	Cat. No.	Description
LANCER HELMET PARTS		BREATHING TUBE ASSEMBLIES AND PARTS	
88TG	4-point headband suspension with sizing posts and Taltech® Brow pad (25/pkg)	L30	Constant airflow breathing tube assembly with 1/4" Industrial Interchange quick-disconnect fitting (steel) and belt (5/pkg)
17921	Latch Kit (includes catch, latch, pin and strike)	L35	Constant airflow breathing tube assembly with 1/2" Industrial Interchange quick-disconnect fitting (steel) and belt (5/pkg)
L99	Window Frame (5/pkg)	*ACL99	Constant airflow climate control device with 1/4" Industrial Interchange
7713	Window Frame Gasket (10/pkg)	L99BT	Breathing tube only with threaded hose connector (5/pkg)
LENSES AND MYLAR LENS COVERS		4612	Belt, nylon webbing
771B	Inner Plastic Lens, .040" thick (25/pkg)	LBC	Breathing Tube Clamp (10/pkg)
771(.040)	Outer Plastic Lens, .040" thick (25/pkg)	AIR SUPPLY HOSE KITS	
771(.020)	Outer Plastic Lens, .020" thick (50/pkg)	<u>V10 Series Hoses (3/8" I.D.) for use with breathing air compressors</u>	
771R(.015)	Outer Plastic Lens, .015" thick (50/pkg)	5457	50-foot extension hose with V11 hose-to-hose adaptor and V13 hose-to-pipe adaptor
7714	Clear Mylar Lens Cover, Adhesive-Backed (25/pkg)	5458	100-foot extension hose with V11 hose-to-hose adaptor and V13 hose-to-pipe adaptor
77LC	Clear Mylar Lens cover, Perforated-Edges (25/pkg)	<u>V20 Series hoses for use with Free-Air Pumps (1/2" I.D.)</u>	
LANCER AIR DELIVERY SYSTEM		V2050ST	50-foot starter/extension hose with 1/2" Industrial Interchange quick-disconnect coupler
ADS	Air Delivery System (one size fits all)	V20100ST	100-foot starter/extension hose with 1/2" Industrial Interchange quick-disconnect coupler
LANCER HALF MASK AND PARTS			
LMS	Half Mask - small		
LMM	Half Mask - medium		
LML	Half Mask - large		
LMCON	Mask Connector		
FAMCB	Cradle headband strap (5/pkg)		
FAMEVC2	Exhalation valve covers (2/pkg)		
FAMEVF10	Exhalation valve flaps (10/pkg)		
LANCER CAPES			
0032	Medium-weight black nylon parka with zipper and belt		
0072	Medium-weight black nylon poncho with snap hooks		

* Must purchase breathing tube separately.

PARTS AND ACCESSORIES FOR LANCER™ AIRLINE RESPIRATOR

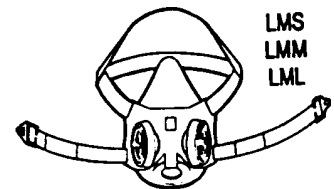
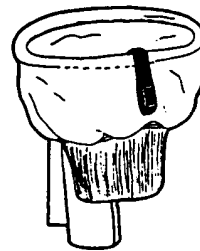
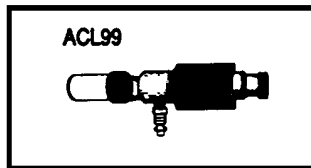
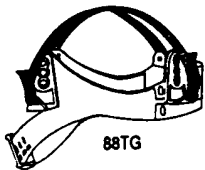
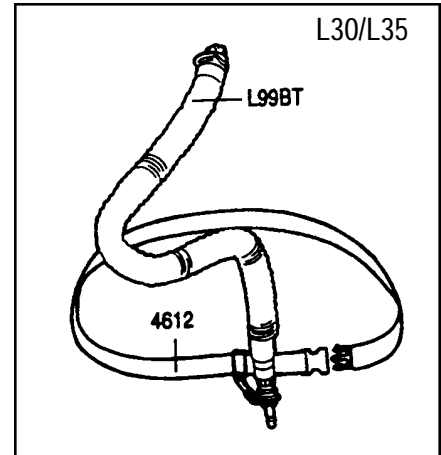
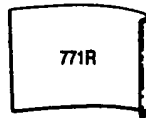
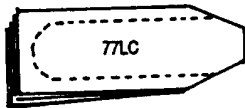
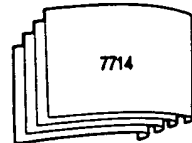
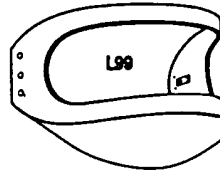
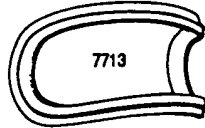
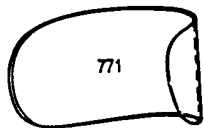
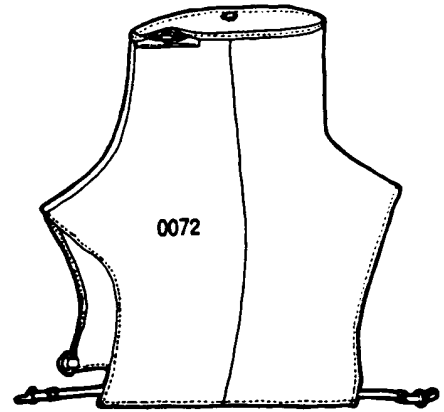
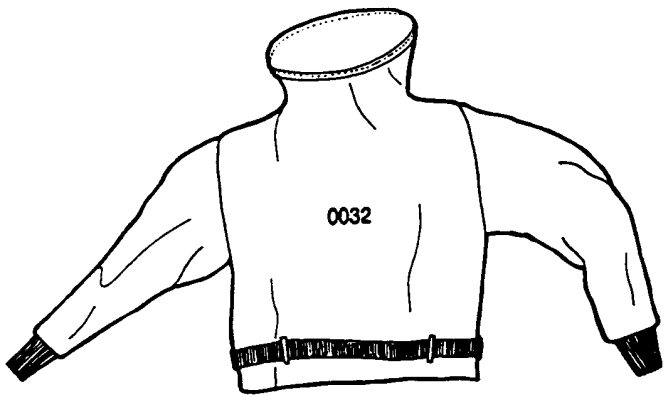
Cat. No.	Description	Cat. No.	Description
QUICK-DISCONNECTS		QUICK-DISCONNECTS (continued)	
V14	1/4" Industrial Interchange coupler (shut-off type) with 1/4" Female NPT	V11	1/4" Industrial Interchange hose-to-hose adaptor, 3/8" hose to 3/8" hose
V27	1/4" Industrial Interchange coupler assembly (Includes V12 hose-to-pipe adaptor)	V12	1/4" Industrial Interchange hose-to-pipe adaptor, 3/8" hose to 1/4" pipe
		V13	1/4" Industrial Interchange hose-to-pipe adaptor, 3/8" hose to 3/8" pipe

To order replacement parts, contact your local Bullard distributor or Bullard's Inside Sales Team.

Bullard

1898 Safety Way
Cynthiana, KY 41031-9303
Toll-Free: 800-827-0423
Phone: 606-234-6611
Facsimile: 606-234-6858

LANCER™ Respirator Replacement Parts



RETURN AUTHORIZATION

IMPORTANT: THE FOLLOWING STEPS MUST BE COMPLETED BEFORE BULLARD WILL ACCEPT ANY RETURNED GOODS. PLEASE READ CAREFULLY.

Follow the steps outlined below to return goods to Bullard for repair or replacement under warranty or for paid repairs:

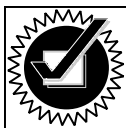
1. Contact Bullard Inside Sales by telephone or in writing at:

Bullard

1898 Safety Way
Cynthiana, KY 41031-9303
Toll-Free: 800-827-0423
Phone: 606-234-6611

In your correspondence or conversation with a customer service coordinator, describe the problem as completely as possible. For your convenience, a coordinator will try to help you correct the problem over the telephone.

2. Verify with the coordinator that the product should be returned to Bullard. Our Inside Sales department will provide you with written permission and a return authorization number as well as labels needed to return the product.
3. Before returning the product, decontaminate and clean it to remove any hazardous materials which may have settled on the product during use. It is against the law to ship hazardous or contaminated materials. Products suspected of contamination will be professionally disposed of at the customer's expense.
4. Ship returned products, including those under warranty, with all transportation charges prepaid. Bullard cannot accept returned goods on a freight-collect basis.
5. Returned products will be inspected upon receipt. A customer service coordinator will telephone you with a quote for required repair work which is not covered by warranty. If the cost of repairs exceeds stated quote by more than 20%, a coordinator will call you for authorization to complete repairs. After repairs are completed and the goods have been returned to you, Bullard will invoice you for the actual work performed.



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9001-certified company**

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The Human Side of Safety.®
Since 1898.

1898 Safety Way
Cynthiana, KY 41031-9303
Toll-Free: 800-827-0423
Phone: 606-234-6611
Fax: 606-234-6858
www.bullard.com

Bullard GmbH
Bundeskanzlerplatz 2-10/XIV
53113 Bonn
Germany
Fhone: 0228-267 31 67
Fax: 0228-267 32 03

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