PureFlo™

PureLite XStream

Self-Contained Powered Air Purifying Visor System

User Manual

This product is covered by one or more patents.
For more information visit **www.gentexcorp.com/patents**

414607

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USER INSTRUCTIONS

Please read these instructions and then store them in a safe place for future reference.

The PureLite XStream must be fitted and used in accordance with these instructions.

Introduction

The PureLite XStream is a self-contained, lightweight Powered Air Purifying unit intended for protection against solid dusts, impacts to eyes and face, and eye and face protection from liquid chemical splash. The PureLite XStream is not approved for Industrial head protection.

The PureLite XStream is powered by a rechargeable battery pack held inside the unit. Air is filtered through the unit's filters to provide a constant flow of clean air over the face. A face seal ensures that positive pressure is maintained within the respirator.

The PureLite XStream has an adjustable headband and concussion cradle, ensuring a comfortable fit for most head sizes.

Contents

The PureLite XStream unit should contain the following items:

Quantity	Description
1	Helmet including filters and incorporating Eye and Head Protection
1	Battery Charger
1	Battery Pack
1	Airflow Indicator
1	Storage Bag
1	User Manual

APPROVAL FOR USE

This product is NOT APPROVED BY NIOSH.

The PureLite XStream has been assessed under Article 10 and 11B assessments conducted by: British Standards Institution, Maylands Avenue, Hemel Hempstead, Herts, HP2 4SQ, UK. (Notified Body Number: 0086)

Respiratory Protection

BS EN 12941 1999, respiratory devices, powered filtering devices class TH2P.
For use against solid particulates only.

The above assessments DO NOT indicate NIOSH approval.

Product assessed against the requirements of the following standards:

Respiratory Protection	NOT APPROVED BY NIOSH for use against solid particulates only
Eye Protection	ANSI/ISEA Z87.1-2015 personal eye and face protection – Meets high Impact requirements (Z87+)
Head Protection	Not ANSI approved

SUITABILITY FOR USE

- The PureLite XStream must be used strictly in accordance with these instructions
- Do not use the PureLite XStream for protection against unknown atmospheric contaminants or when concentrations of contaminants are unknown or immediately dangerous to life or health, or in atmospheres likely to be deficient in oxygen
- Do not use the PureLite XStream where there is a requirement for Industrial Hard Hat Protection
- Only use the PureLite XStream with the parts and accessories listed in these instructions

- The PureLite XStream is only for use by trained, competent personnel
- In the power-off state little or no respiratory protection is to be expected, and this is considered to be an abnormal situation
- In the power-off state there will be a rapid buildup of carbon dioxide and depletion of oxygen may occur
- Without the face seal fitted no respiratory protection is to be expected
- At very high work rates and peak inhalation the pressure flow in the device may become negative
- Ophthalmic spectacles may transmit impacts from high-speed particles, thus creating a hazard to the wearer
- Never modify or alter this product, except as directed in the service tasks contained in these instructions
- Materials which may come into contact with the wearer's skin could cause allergic reactions to susceptible individuals

LEAVE THE CONTAMINATED AREA IMMEDIATELY IF ANY OF THE FOLLOWING CONDITIONS APPLY:

- The buzzer sounds
- Any part of the unit becomes damaged
- Airflow into the unit decreases or stops
- Breathing becomes difficult
- Dizziness or other physical distress or irritation occurs
- The user tastes or smells contaminants

Transportation

- For transportation purposes use the carry bag provided and protect the unit from physical or chemical damage

PREPARATION FOR USE

The following tasks must be performed prior to use:

Battery Charging and Installation

The nominal recharge time for a flat battery pack is 14 hours. The battery pack must be fully charged before first use. To install and charge the battery pack:

- Lift the top cover by pressing the forward side tabs inwards and rotating the cover rearwards as shown in Fig. 1
- Slide the battery pack into its housing as shown in Fig. 2
- Fit the battery charger connector into the rear of the electronics unit and connect the charger to a mains AC supply (the LED lights up and remains lit even after a full charge has been completed) – Charge for 14 hours
- After charging, switch off the mains AC supply, remove the charger connector from the helmet and refit cover ensuring tabs lock the cover in position
- For external charging see optional charge cradle in accessories list

Fig. 1

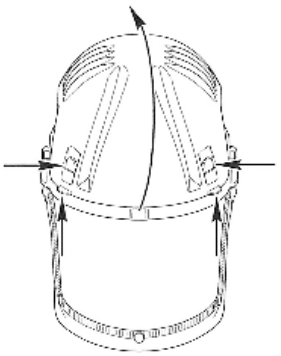
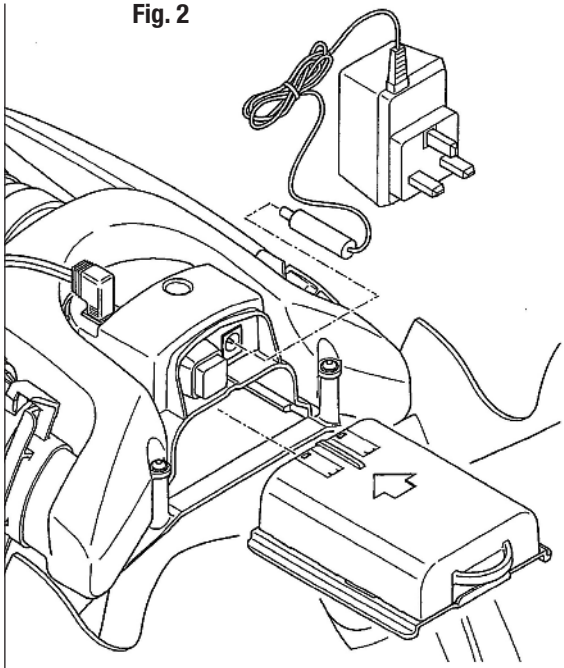


Fig. 2



Visual Inspection

- Check the face seal material for damage
- Check the face seal attachment to the chassis and visor of the PureLite XStream
- Check the visor seal for damage

Replace any damaged parts including scratched or damaged visors.

Airflow Pre-Use Check

Ensure that the air filters have been installed correctly as shown in Fig. 3

Check the airflow as shown in Fig. 4

- Turn the helmet upside down and locate the airflow indicator on the four slots at the front of the helmet.
- Press the red on/off switch to operate the fan. An audible tone should sound briefly one time. The red ball is raised to the top of the indicator tube if the system is operating correctly.
- If the red ball is raised to less than half the height of the tube then either the battery charge is low or the filters are blocked and need replacing.

Fig. 3

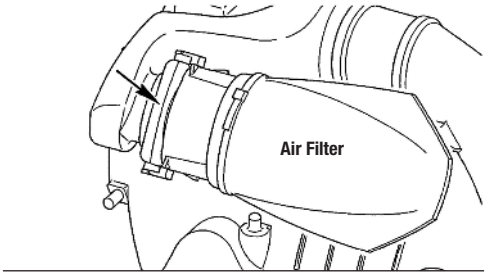
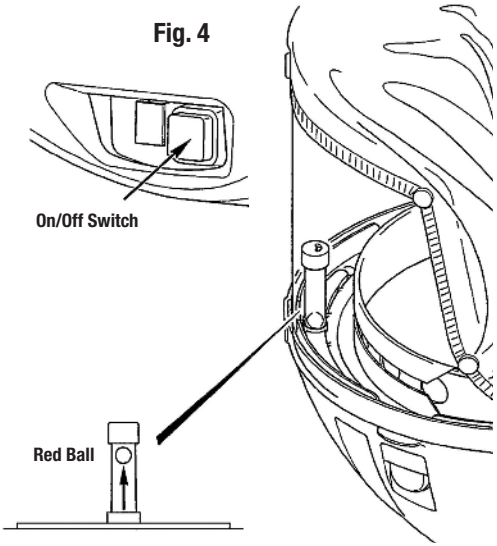


Fig. 4



Low Battery Warning

If an audible regular intermittent tone sounds recharge or replace the battery pack.

WEARING AND USING

Fitting the PureLite XStream

- Adjust the crown strap length on the headband as shown in Fig. 5A so that the headband rests against brow
- Adjust headband diameter by pulling the knob out and rotating for head size, push the knob in to secure as shown in Fig. 5B
- Ensure face seal is above the ears and check that the face seal is taut so that there are no gaps between mask and face as shown in Fig. 6
- Switch on the fan/motor by operating the red on/off switch

Fig. 5A

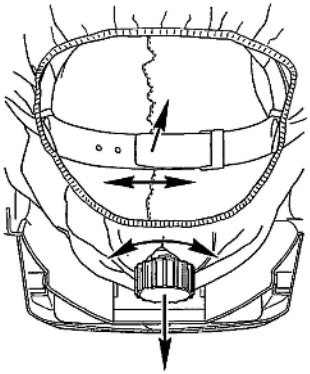


Fig. 5B

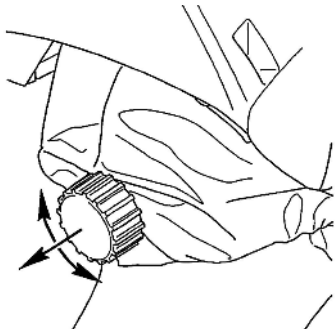
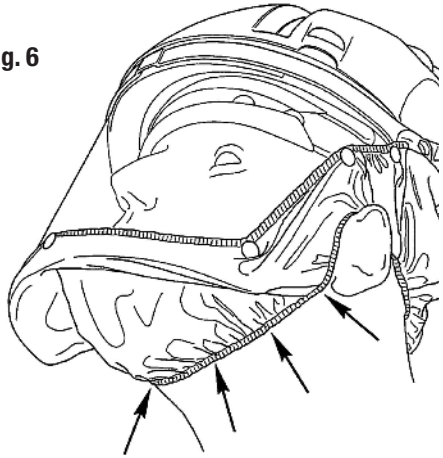


Fig. 6



Removing the PureLite XStream

- Switch off the fan/motor by operating the red on/off switch
- Pull out the knob and to release headband and remove

Cleaning the PureLite XStream

- Use a clean cloth with a mild solution of a household liquid soap and water. (PUREWIPE cleaning wipes are recommended for this purpose)
- Do not immerse the PureLite XStream in water or fluid
- Do not use organic solvents or abrasive cleaning agents on any part of the equipment
- Launder the face seal and linings as required using a mild solution of a household detergent and water

Disposal and cleaning of parts should be undertaken in accordance with local health and safety, and environmental regulations.

If the PureLite XStream has been used in an area that has caused it to become contaminated with a substance requiring special decontamination procedures, observe the precautions described in the manufacturer's health and safety information.

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PARTS LIST

Complete Kit

Product Designation	Order Number	Description
PureLite XStream	PL03001-1	Complete unit with filters, battery, battery charger, airflow indicator, storage/carry bag, user manual

Spare/Replacement Parts

Reference Fig. 7 on opposite page.

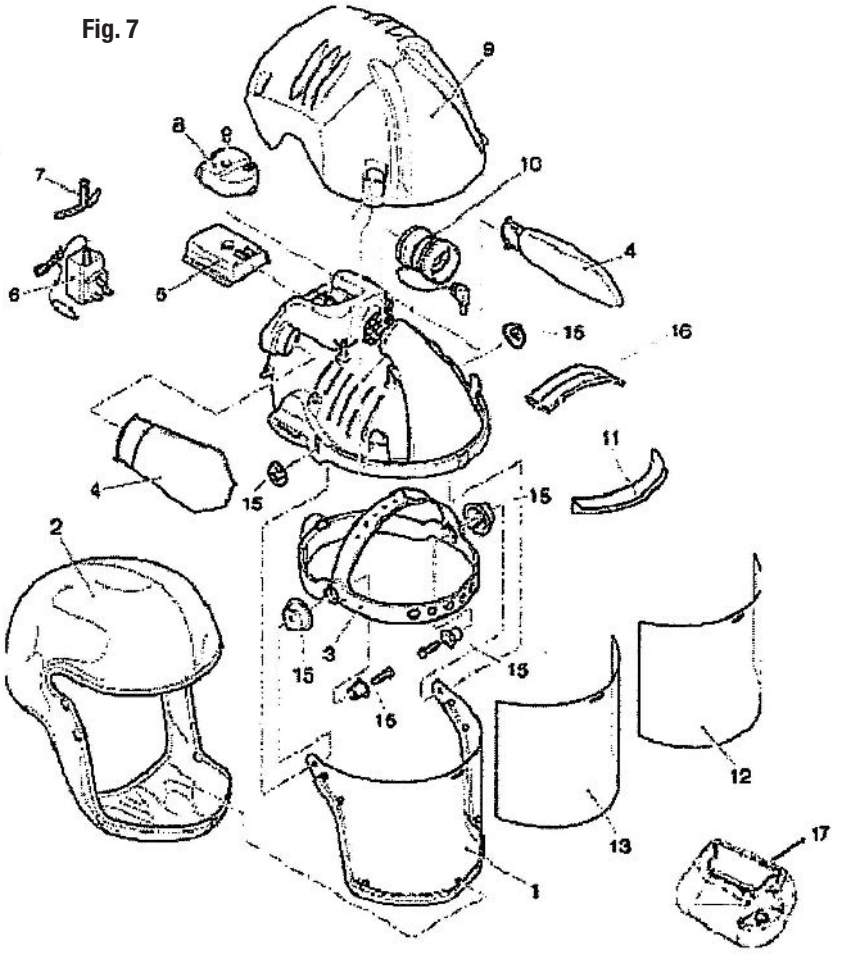
Item#	Order#	Description	Qty
1	PL01173-5SP	Visor Assembly	1
2	PL01176-4SP	Head Cover & Face Seal	1
3	PL01175-4SP	Headband Assembly	1
4	PL01170-5SP	Replacement Filters	1 Pair
5	PL01171-4SP	Battery Pack	1
6	PL01172-5SP	Battery Charger	1
7	PL01178-4SP	Airflow Indicator	1
8	PL01179-4SP	PC Board/Switch Assembly	1
9	PL01174-3SP	Main Cover	1
10	PL01177-4SP	Fan Motor Assembly	1
11	PL01180-4SP	Brow Comfort Pad	1
12	PL01187-1SP	Visor Overlays-Green (10/pack)	1 Pack
13	PL01187-2SP	Visor Overlays-Clear (10/pack)	1 Pack
15	PL01183-4SP	Headband Fixing Kit	1 Set
16	PL01188-4SP	Crown Comfort Pad (5/pack)	1
	PL0111-3SP	Purewipes (not shown on diagram)	1 Pack

Accessories

Reference Fig. 7

Item#	Order#	Description	Qty
17	PL01182SP-4SP	Charge Cradle	1

Fig. 7



SERVICING

CAUTION: Dust on the unit, its parts, and filters from usage should be handled in a safe manner in accordance with the manufacturer's safety data information.

Visor Overlay (optional) Replacement

Install a new set of visor overlays by adhering to the main visor using the adhesive strips provided.

Visor Assembly Replacement

- Replace the old or damaged visor assembly as shown in Fig. 8 below.
- Release nuts and push screws inwards, release the front tab and lift visor from the helmet
- Fit replacement visor ensuring slot in visor locates on tab and bottom edge in grooves, secure with screws and nuts
- Fit visor stiffener wire. Insert the wire ends into the outer slots provided and rotate to engage securely in the center slot

Visors should be stored out of direct sunlight and replaced at least every 5 years.

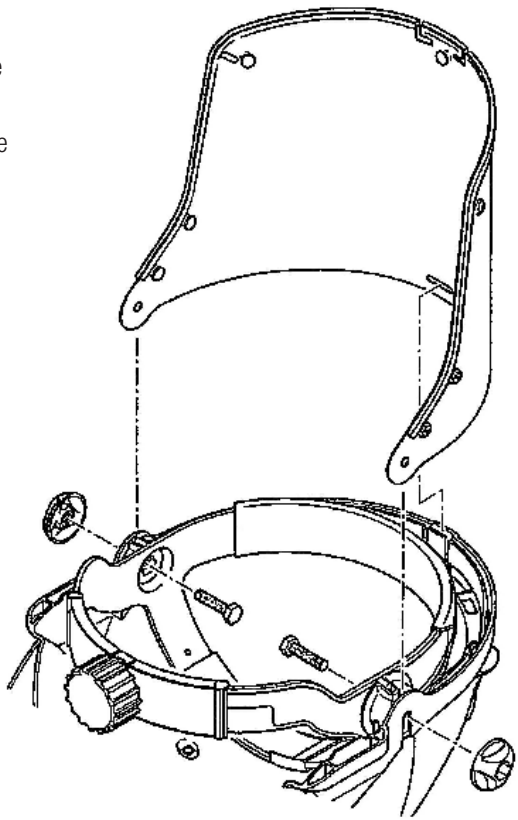


Fig. 8

Face Seal Replacement

Replace the face seal as shown in Fig. 9 below.

- Unsnap the face seal from the snaps starting from the center of the visor snap studs on face seal
- Remove the head band (see Headband assembly and Fig. 10 on page 12) and remove the crown pad by separating the hook & loop fastener – Separate the crown strap at the adjustment and remove the elastic loops on each side
- Pull face seal over the headband knob and remove face seal from helmet
- Reverse above to re-install new face seal

Face seals should be stored out of direct sunlight and replaced at least every 5 years.

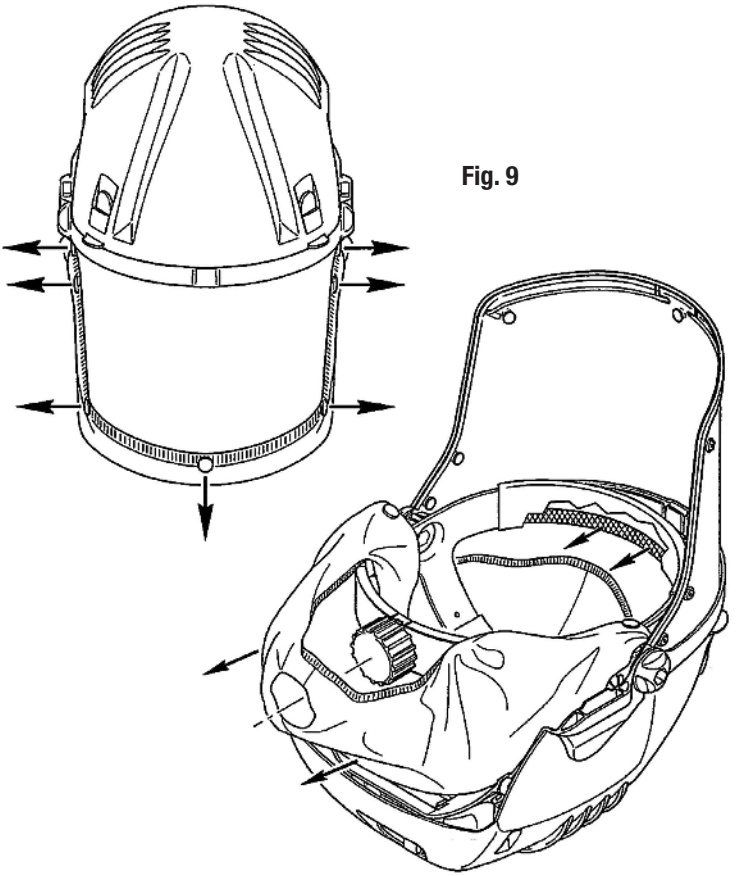


Fig. 9

Headband Assembly Replacement

Remove face seal and visor (shown in Figs. 8 and 9 on pages 10-11).
NOTE: The visor stiffener does not need to be removed from the visor.

Install the face seal on the headband (as described on page 11) and install the new headband assembly as shown in Fig. 10 below:

- Release nuts and screw and remove the headband from the helmet
- Assemble anti-rotating cap and screw retainer to headband noting that anti-rotating caps are marked 'L' (left) and 'R' (right)
- Position the headband in the helmet ensuring that the tabs on the anti-rotating cap located in the helmet
- Fit screws through retainer, anti-rotating cap and visor secure with nuts

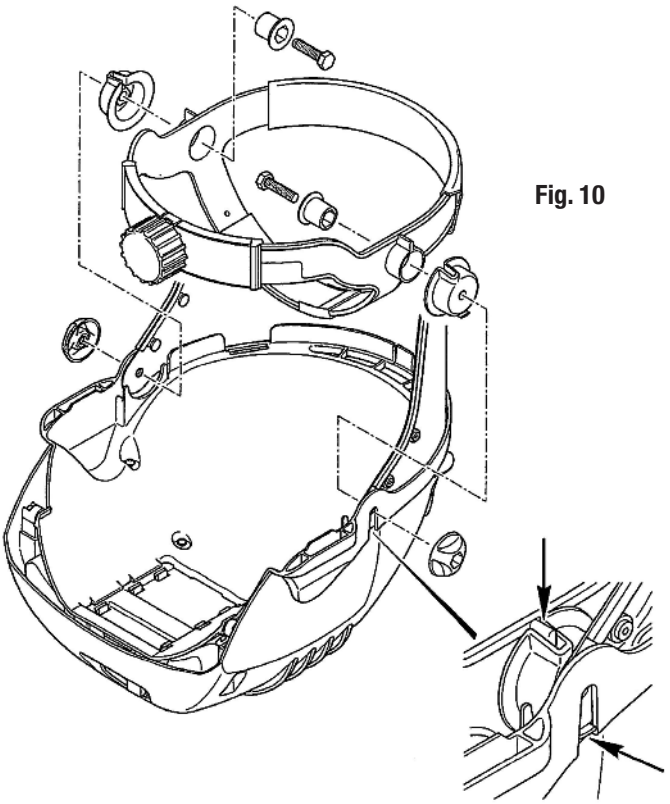


Fig. 10

Air Filter Replacement

CAUTION: Dust on the unit, its parts, and filters from usage should be handled in a safe manner in accordance with the manufacturer's safety data information.

Lift the cover as shown in Fig. 1 and replace air filter as shown in Fig. 3:

- Hold the neck of the fitted air filter and push firmly towards sealing face to release from securing tabs and lift filter upwards to remove – Discard appropriately
- Locate new air filter against sealing face – Push firmly toward sealing face and downwards (filter will click into in securing tabs)
- Ensure the rear locating tag is engaged in the slot and the filter lays parallel to the chassis
- Refit helmet cover

Fig. 1

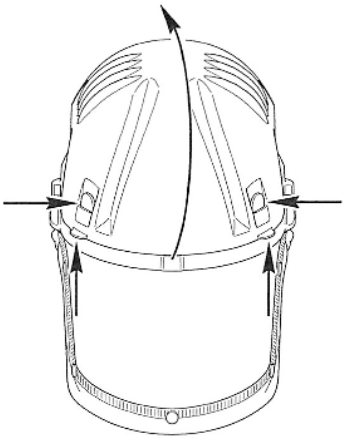
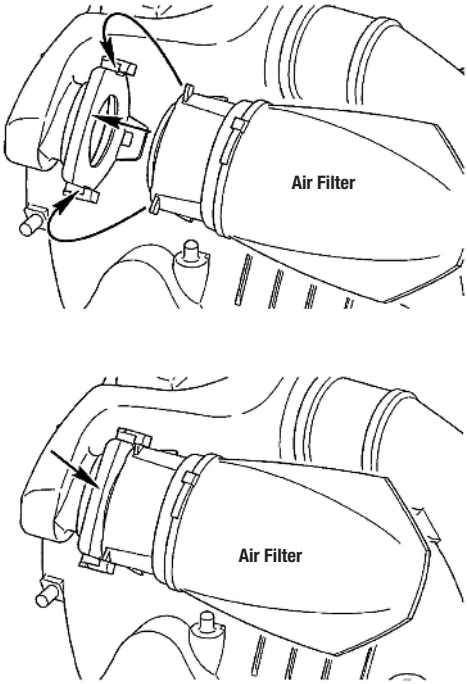


Fig. 3



Fan/Motor Assembly Replacement

Lift the cover as shown in Fig. 1 and replace fan/motor assembly as shown in Fig. 11 on opposite page:

- Disconnect fan/motor electrical lead from the electronics unit
- Remove the two screws securing the front air duct
- Lift the air duct from locating lip and pull fan/motor from rear air duct – Separate fan/motor from front air duct
- Fold back both seals on replacement fan/motor assembly – with electrical lead point downwards, locate with front air duct and secure by unfolding seal over duct
- Connect electrical lead to electronics unit
- Locate front air duct in lip and fan/motor with rear air duct, tuck excess cable under fan/motor unit and unfold seal to secure
- Secure air duct with screws
- Ensure both seals are fully engaged with ducts and are fully unfolded (failure to do so may compromise the unit's performance)

Fig. 1

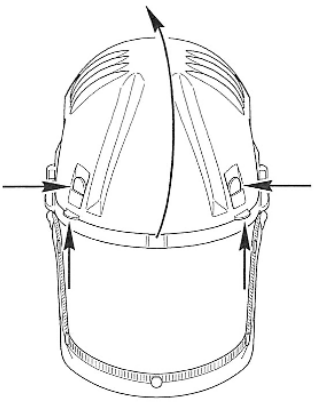
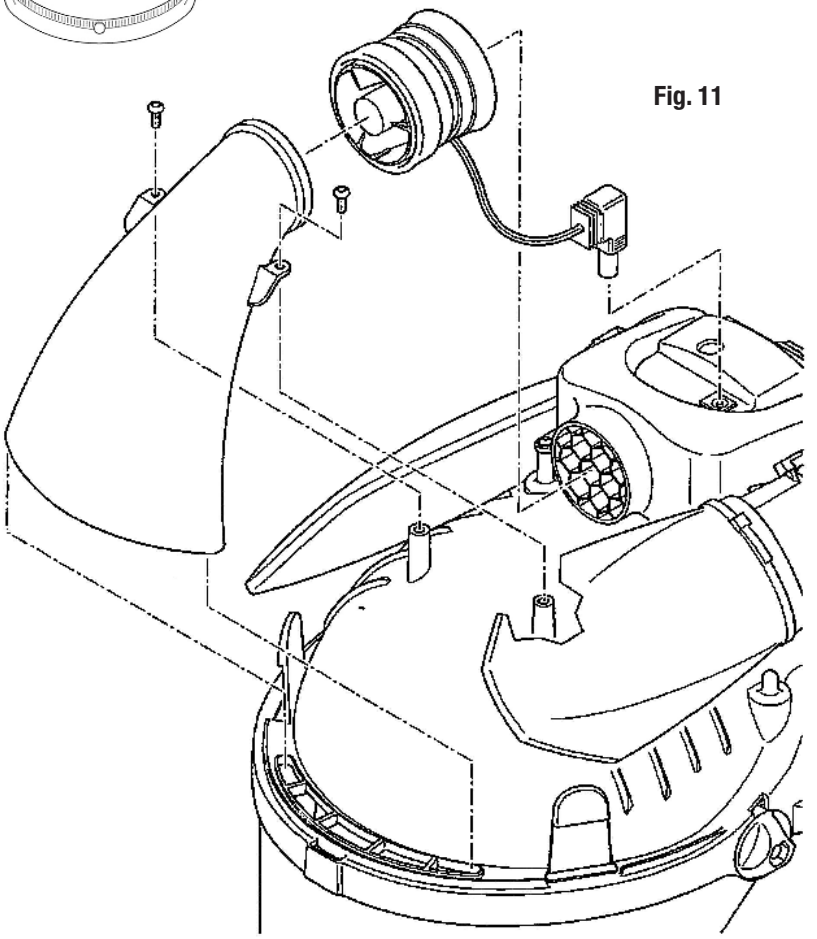


Fig. 11



Electronics Unit Replacement

Lift the cover as shown in Fig. 1 and replace the electronics unit as shown in Fig. 12 below.

Fig. 1

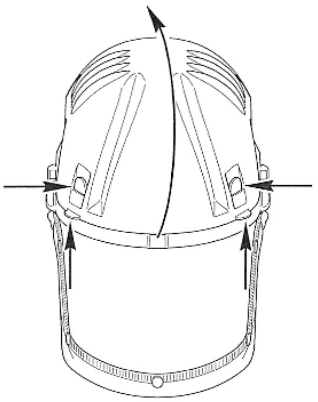
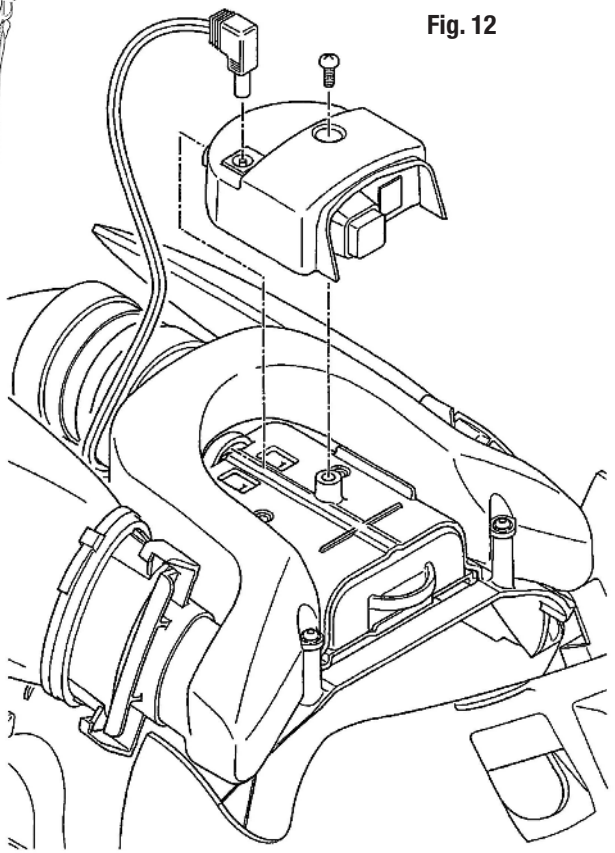


Fig. 12



STORAGE

The equipment should be stored in dry, clean conditions away from direct sunlight, sources of heat, petrol and solvent vapors.

Store the equipment within the temperature range 41°F to 104°F and the humidity range 0-90%.

TECHNICAL SPECIFICATION

Weight	2.2 lbs nominal
Head Size Range	54- 61cm
Humidity	0-90% storage and use (store out of direct sunlight)
Temperature Range	
Charging	41°F to 104°F
Use	23°F to 104°F
Storage	41°F to 104°F

Airflow

Internal	2.2 lbs nominal
Minimum	5.4 to 6.1 cfm

Power Supply

Battery Pack	3 cell, nominal 3.6V, capacity 3.5 Ah per pack NiMH
Battery Life	8 hrs (fully charged battery pack fitted)
Charging Method/Rate	Mains charger, 14 hrs from fully discharged

Battery Charger

Input	120V
Nominal Power Consumption	4W
No Load Output	12VDC
Nominal Output Voltage @ 4.2 v	300mA
	IP 20 Indoor Use Only
	CE EN 60335-1, 60335-2-29

DECONTAMINATION & RETURN PROCEDURE

IMPORTANT NOTICE: Gentex Corporation requires the customer seeking to return for service or repair, whether warranty or non-warranty, to call our customer service department and obtain a Return Authorization (RA) number. We will not accept any unit for service or repair without the customer obtaining an RA number. This RA number to be clearly identified externally on the packaging box or associated paperwork. You will be requested to provide the information below, including details of the reason for return.

It is your responsibility to decontaminate the unit before returning. Dispose of the used filters, do not return them. List materials to which the unit has been exposed and provide MSDS sheets for all hazardous materials, supply this information separately and externally attached to the packaging. Failure to perform these tasks will result in return of the unit without action on our part.

Please use the returns form provided with your PureLite XStream:

Name of company/owner

Address

Telephone

Email

Contact name

Type of business

Process in which used

Serial number of respirator (found under main cover beside air duct)

Date of purchase

Specific contaminant

a) Name of

b) Manufacturer of

c) Brand name

d) By-product of a process

Provide Material Safety Data Sheet for each hazardous contaminant.

FOR SAFETY: Respirators without exposure information provided, as in the important notice section above, and *externally* attached to the packaging will be refused, therefore, returned to source without any further action being taken.

CUSTOMER SUPPORT

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PureFlo™

PureLite XStream User Manual

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