

# User Instruction

- Before use of this respirator, read carefully and understand this instruction to obtain designed protection.
- Keep this instruction as a useful reference.

## Replaceable particulate respirator

**Silicone Facepiece** (Direct connection type / Half mask / Category : RL2)

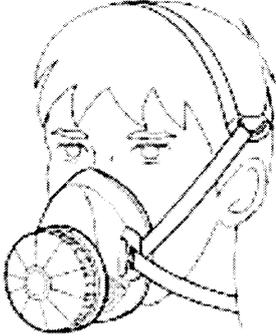
# Model 1 1 8 0 C

For protection against toxic particulates and very low concentration level of organic vapors defined as nuisance odor and ozone.

National Assay Registration No. TM229

**For safe and proper usage**

The following special messages may appear throughout this instruction to warn of potential hazard or to attract attention to information for usage.



**⚠ DANGER** indicates an imminently hazardous situation.

**Misuse will result in serious injury, sickness or death.**

**⚠ WARNING** indicates a potentially hazardous situation.

**Misuse can result in serious injury, sickness or death.**

**⚠ CAUTION** indicates a potentially hazardous situation.

**Misuse can result in injury or damage accident.**

Model revision 1180C-04

## Scope of applications

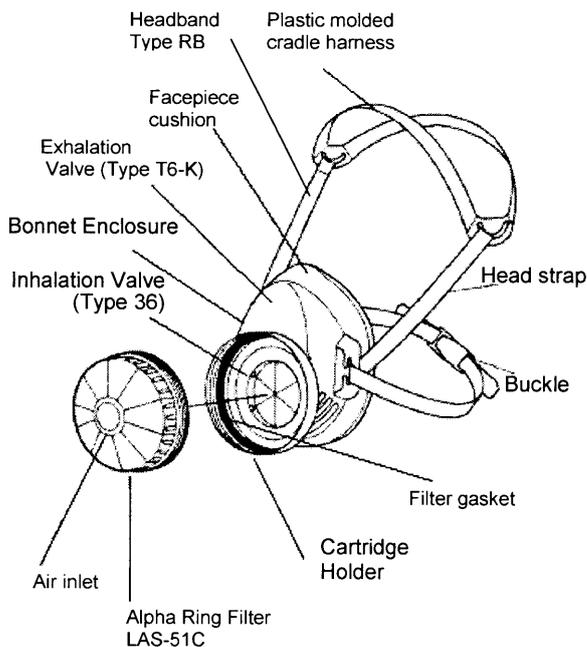
Model 1180C is designed to protect the respiratory system against particles. With or without presence of oil mists, this model can be used for following applications:

- Work with fume (including weld fume)
- Work operation with particulates less than 0.1mg/m3 of standard control concentration.
- Similar line of work as above, except such situations as below " ⚠DANGER" column.

### ⚠ DANGER

- **NEVER use this respirator in oxygen-depleted atmospheres containing less than 18% oxygen nor in toxic gas atmosphere.** Misuse will result in death due to lack of oxygen or due to gas poisoning. Under such circumstances, use supplied-air respirators.
- **Do not use this respirator in the area with possible contamination by radio active materials, for emergency operations, nor for work with possible exposure to dioxin and similar work to them.** For these works, use proper protection devices like respirators with RS3, RL3 categories.

## Configuration and part names



## How to use

### Check before use

You are requested to make sure following points before use.  
(For details, see "Check points" on page 4.)

Check points	Solution
Make sure that filter, inhalation valve and exhalation valves are properly installed.	Fit them properly.
Check plastic parts, inhalation valve, exhalation valve and facepiece cushion for crack, distortion, tear, damage and fatigue.	Replace each part or use brand new respirator.
Examine filter for holes, distortion, remarkable dirt and fatigue.	Replace filter with new one.
Make sure that headband is intact and head straps have a good elasticity,	Replace head band with new one.

### ⚠ CAUTION

Even with the flame-proof treatment to the Alpha-Ring Filter LAS-51C, it may be damaged due to sputtered welding spark. Use optional filter cartridge cover when there are a lot of sparks like grinding work.

\*Optional filter cartridge cover that protects damage from welding sparks is also available.

## FITTING INSTRUCTIONS

Wear the respirator in hazardous material free, clean place.

① Place the plastic molded cradle harness on your crown of head

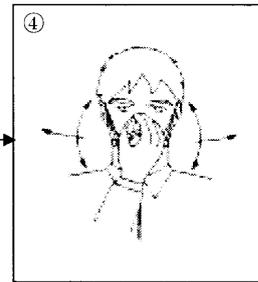
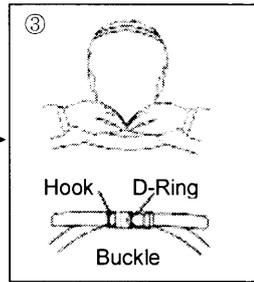
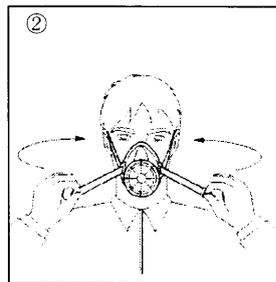
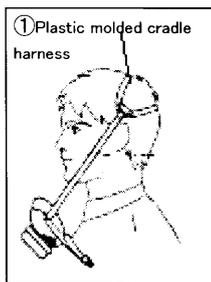
② Hold both ends of headband and pull them evenly so that respirator approaches to your face to cover your mouth and nose.

③ Fasten lower headbands behind of your neck by fitting D Ring in hook. (Adjust the headband tension by tightening or loosening the headbands if needed. See explanation below.)

④ Adjust the respirator position on the face for adequate position and natural comfort by aligning it left and right, up and down.

⑤ Perform fit check.

⑥ Unhook the buckle to remove respirator.



### ⚠ WARNING

● Usage of respirators can cause skin roughness and eczema for those who have allergic tendency or fragile skin. Sweat, dusts, and dirty facepiece can also cause these problems. In these cases, stop to use a respirator and see doctor.

### ⚠ CAUTION

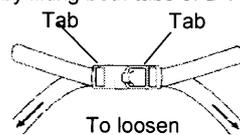
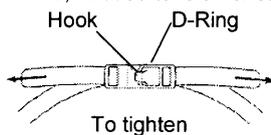
● Do not wear respirator over the towel face. Such use can break the proper seal of this respirator on the face.  
 ● The respirator should not be worn if beards or other facial hairs come between the sealing surface of facepiece and the face or if facial hair interferes with valve function.  
 ● Do not pull headbands too tight. Otherwise, you will feel respirator fits insufficiently, or you may feel uncomfortable.

### < Adjustment of headband length >

To adjust length of headband, follow below instructions.

\*Make sure to keep both left and right length same.

- ① To tight the headband, pull the both headbands evenly.
- ② To loose, release tension of bands by lifting both tabs of D-Ring and hock.



### User fit check



- ① Close off inhalation air inlet by optional fit tester type G.
- ② Wear the mask and close the end of pipe by one of your finger.
- ③ Gently inhale until the facepiece is slightly drawn towards the face.
- ④ If there are any inward leakage, respirator will not properly fit on the face. Check the exhalation valve or other parts. Re-adjust headband tension and respirator position on face and test again.
- ⑤ After the test, be sure to remove fit checker, and then enter your workplace.

### ⚠ WARNING

● Perform user fit check before use. If respirator is not properly fitted, it may cause inward leakage of dangerous contaminants through broken seal of the periphery of respirator.

## Particulate filter replacement

Replace filter in hazardous material free, clean place.

### Replacement due

Replace filter cartridge with new one in following cases whichever comes first:

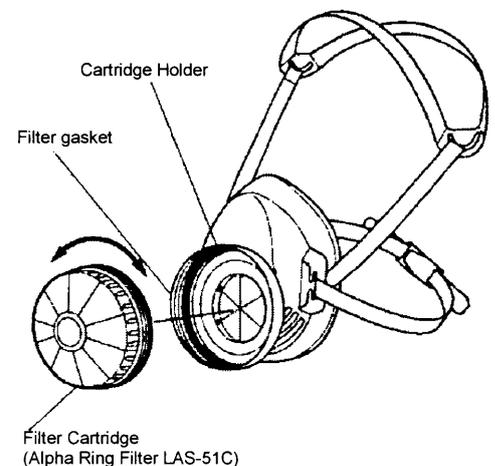
- ① When the wearer experiences difficulty in breathing.
- ② When the filter cartridge has been broken, torn, distorted or got hole.
- ③ When the filtering efficiency is badly decreased.

\*The Alpha Ring Filter LAS-51C has deodorization function. If the carbon used in the filter have reached its performance limit, the deodorization function will be no more effective, while particulate filtering efficiency remains unchanged.

### How to replace

Replaceable Alpha Ring Filter Cartridge LAS-51C is packed one by one. Replace it as per below procedure:

- ① Turn the used filter cartridge counter-clockwise and remove. \*
- ② Make sure that filter gasket is properly installed all the way in the cartridge holder.
- ③ Set a new filter cartridge to the cartridge holder. Turn it clockwise and tighten firmly.
- ④ Check the new filter cartridge if it is firmly tighten and not distorted.



\* Dispose of used filter in a container or in a pouch so that the collected dusts won't get spread out again.

**Inhalation / Exhalation valve replacement** Replace them in hazardous material free, clean place.

**Replacement due**

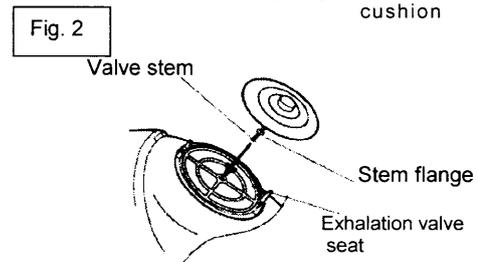
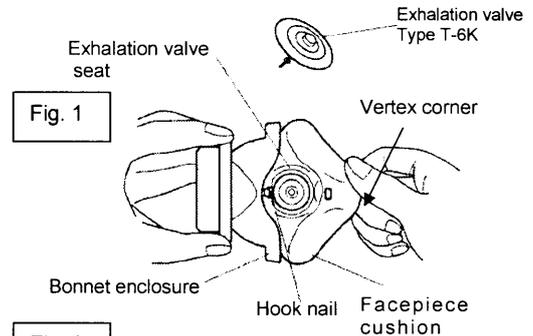
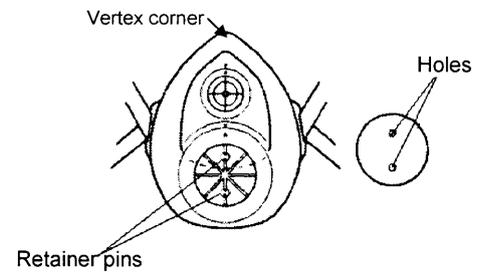
Ⓞ Replace valve if any sign of cracks, distortion, tears or fatigue appears.

**Replacement of Inhalation Valve**

- ① Remove worn inhalation valve from retainer pins of valve seat that locates inside the respirator.
- ② Place new valve in its position. Widen holes of valve by your fingers so that retainer pins easily go through holes.

**Replacement of Exhalation Valve**

- ① Vertex corner of facepiece cushion is fixed by hook nail of bonnet enclosure. Holding enclosure by one hand, raise the vertex corner of the facepiece cushion by other hand. And then turn it outward to expose exhalation valve. (Fig.1)
- ② Pick top of the worn exhalation valve and remove it from valve seat. (Fig.2)
- ③ To install new exhalation valve, insert valve stem into the center hole of exhalation valve seat. Then when top of the stem comes out from inner side of valve seat, grasp projected point of the valve stem and pull it until stem flange appears outside of the center hole of exhalation valve seat.
- ④ Make sure that facepiece cushion is firmly attached to bonnet enclosure.
- ⑤ Make sure that exhalation valve has been installed properly.
- ⑥ Return facepiece cushion to original position and hook it at its vertex.



**CAUTION**

Do NOT turn over facepiece cushion too much. Otherwise respirator could be damaged.

**Replacement of headband** Replace headband in toxic material free, clean place.

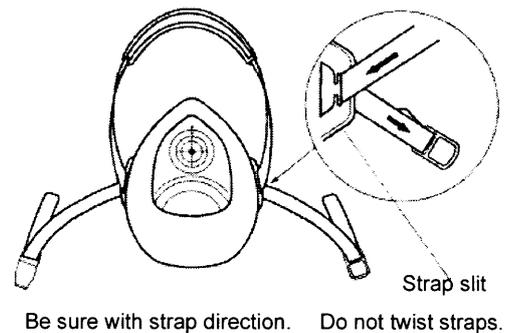
**Replacement due**

Replace whole headband with new one in following cases:

- Ⓞ When it got remarkable dirty.
- Ⓞ When hook / D-ring is broken.
- Ⓞ When straps are damaged or become inelastic.

**Replacement instruction**

- 1) Remove straps of the headband through slits of left / right headband holders.
- 2) To install new headband, firstly thread straps of new headband through slits of head band holder from facepiece side towards filter case (when seen from rear of the respirator).



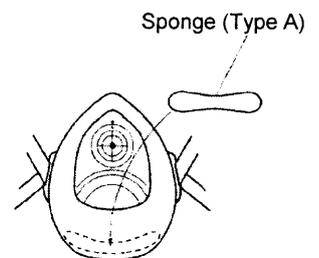
**Optional accessories** Replace headband in toxic material free, clean area

● **Sponge ( Type A)**

When the wearer feels discomfort by moistening or sweating inside the facepiece, the respirator sponge can be used.

- How to use

Place sponge inside of facepiece bottom as shown in the illustration.

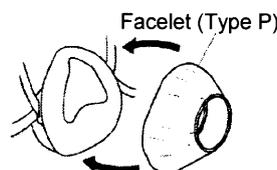


● **Facelet ( Type P)**

Facelet reduces chance of rough skin caused by sweat.

- How to use

Expand facelet to cover facepiece. Be sure to keep even surface.



**WARNING**

The use of facelet is permitted only when respirator causes rough skin and eczema without it. Even in this case, the facelet must not break proper seal between the respirator and the face skin.

## Check following points before use

Check here	Check points	In case if faulty,	
Facepiece cushion	No cracks, no distortions, no holes, no sticky (deteriorated) rubber or no remarkable dirt are found.	Replace whole respirator with new one.	
Bonnet enclosure	No cracks, no distortions, no holes, or no remarkable dirt are found. Check if filter cartridge can be set properly or not.	If it is dirty, clean it.	
Exhalation valve seat	No cracks, no distortions, no holes or no dirt are found.		
Inhalation valve , Cartridge seal	No cracks, no distortions, no holes, no sticky (deteriorated) rubber or no remarkable dirt are found.	Replace the part with new one. If it is dirty, clean it.	
Exhalation Valve	No cracks, no distortions, no holes, no sticky (deteriorated) rubber or no foreign objects like dust are found.	Replace it with new exhalation valve. Clean foreign objects if any.	
Filter Cartridge	Appearance	No distortion, no holes, no rust, no remarkable dirt, not wet.	Replace it with new filter cartridge.
	Inhalation Resistance	Not choking when breathing	
Headband	Straps	Enough elastic. It keeps necessary strength to hold respirator.	Replace it with new headband.
	Cradle harness, Buckles	No cracks, no distortions or no chips. Hook and unhook can be done easily. Firm hook is available.	
Overall	There are no missing parts.	Put missing parts or use new respirator.	

For cleaning, refer to "Cleaning" column.

Before cleaning, take filter cartridge out from filter cartridge holder.

### ● Specifications

	Internal standard	Average
Filtering Efficiency	95.0% or more	97.3%
Inhalation resistance	65Pa +/-15Pa	61Pa
Exhalation resistance	42+/-20Pa	43Pa
Increased value of inhalation resistance	---	125Pa
Dead space / Increased Value of Carbon Dioxide Concentration	200cm <sup>3</sup> or less / 0.5% or less	124cm <sup>3</sup> / 0.3%
Weight	89+/- 15g	89g

Figures are measured without optional accessories.

### Replacement parts

- Filter cartridge ----- Alpha Ring Filter Model LAS-51C
- Inhalation valve ---- Type 36
- Exhalation valve ----- Type T-6K
- Head band ----- Type RB

### Optional parts

To check airtight seal between facepiece cushion and face

- Fit tester - ---Type G

Use sponge when facepiece inside becomes humid.

- Sponge Type A (10pcs/bag)

Use Facelet to reduce chances of rough skin caused by sweat.

- Facelet (Type P)

Use optional filter cartridge covers to prevent sparks go into filter cartridge

- Filter cartridge cover (2pcs/set)

Use Moisture guard to prevent drops from respirator.

- Moisture guard (Type B Supplied 1 pc each)

Supplemental sponge to be attached underneath of the Moisture guard

- Additional Sponge for Moisture guard (Type B 10pcs/bag)

## Cleaning and storage

### 1. Cleaning after each use.

Clean respirator in contamination free place.

#### ● Cleaning of filter

To clean filter cartridge, dry it and lightly pat the filter cartridge with its air inlet down in the manner that the filter cartridge would not get damaged.

#### ⚠ CAUTION

● In case of reusing cleaned filter cartridge, be sure to confirm such points before use that the filtering efficiency has not been decreased, and inhalation resistance has not been increased.

#### ⚠ WARNING

Never attempt to do such a thing, that can damage and break filter cartridge, and spoils filtering efficiency.

● Applying unnecessary impacts on filter cartridge; ex. hitting filter cartridge hard to get rid of dusts.

● Blowing compressed air, or using vacuum cleaner, to get rid of dusts.

● Washing the filter cartridge in water.

#### ⚠ WARNING

Do not reuse filter cartridge if it was used for highly toxic substances such as arsenic and chrome. (Dispose filter after each use.)

#### ● Cleaning respirator except filter

#### ⚠ CAUTION

◎ Gently wipe dust and sweat with dry or damp cloth.

◎ Clean respirator with warm-watered-down mild detergent, if it is badly dirty. While cleaning, be sure not to damage especially exhalation valve seat and exhalation valve. Rinse mild detergent completely, afterwards.

◎ Wipe the cleaned respirator until almost no moisture remains and dry it out of direct sunlight.

◎ Disinfect facial contact area and inside of facepiece by wiping with the alcohol soaked cloth. Then wipe it completely.

#### ⚠ CAUTION

- Keep facial contact area of facepiece cushion clean. Dirt can cause skin roughness or irritated skin.
- If you use alcohol to clean, dry it completely or rinse and wipe out.

### 2. Storage

The cleaned respirator should be stored in dry condition. Be careful not to damage / distort facepiece and straps by piled storage. Avoid temperature fluctuation, humidity and direct sunlight. Prepare exclusive storage place for respirators, where you can easily check storage conditions.



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