User Instruction

- Before use of this respirator, read carefully and understand the User Instruction of Model 1180C to obtain designed protection.
- Keep this User Instruction as useful reference if you have any questions during usage.

For Industrial Use ONLY
This product is designed for industrial use only. Make sure that this product be used by persons who:
- Have sufficient knowledge on occupational health and safety and respiratory protective equipment; or,
- Work under the close supervision of personnel with sufficient knowledge.

Replaceable Type Particulate Respirator
(Direct connection type/ Half-Facepiece/ Category: RL2)

Model 1180C

Japan National Assay Registration No. TM539

Silicone Facepiece

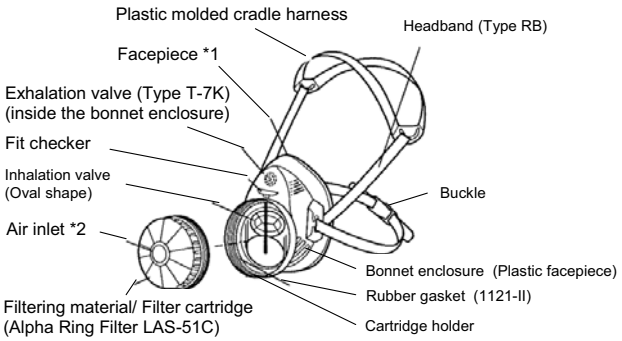
Model 1180C is designed to remove very low concentration of organic / ozone odor as well as particulates.

*Before use, make sure that the approval label is attached on the respirator.

Scope of applications

Model 1180C is a particulate respirator designed to protect the wearer from breathing particulates, etc., regardless of the presence of oil mist, etc., Model 1180C can be used in the workplaces where:
- Metal fume (including welding fume) diffuses;
- Particulate substances with control concentration of 0.1mg/m^3 or less diffuse;
- The use of particulate respirators categorized under the Category 4 for asbestos removal is allowed; and/or,
- Any works corresponding to the above working environments.

Part names and structure



*1 Facepiece is available in two sizes: Size M (standard) and Size S.
*2 Optional filter cartridge cover that prevents welding sparks from entering into the air inlet is available.

For safe and proper usage

The following special messages may appear throughout this User Instruction to warn the wearer of potential hazard. Before reading the User Instruction, please make sure to read the definitions of the special messages and understand the contents.

⚠DANGER indicates an imminently hazardous situation. Unless following the instructions, there is a high possibility of resulting in death or serious injury.

⚠WARNING indicates a potentially hazardous situation. Unless following the instructions, there is a possibility of resulting in death or serious injury.

⚠CAUTION indicates a potentially hazardous situation. Unless following the instructions, there is a possibility of resulting in light injury or property damage accident.

⚠DANGER

- **Do NOT use this respirator in oxygen-deficient environment (where the concentration of oxygen is less than 18%) or workplaces where the concentration of oxygen is unknown or toxic gas exists.**
  Misuse will result in death or acute intoxication due to lack of oxygen and/or gas inhalation. Use a supplied air respirator in such environment.
- **Do NOT use this respirator in workplaces categorized as "working environment with a possibility of exposure to radioactive materials due to spillage or related emergency works," "working environment involving asbestos removal where the use of particulate respirators categorized under categories other than Category 4 is required," "working environment with a possibility of exposure to dioxins, etc.", or "any works corresponding to these works.**
  For these works, use proper respiratory protective devices such as particulate respirators categorized as RS3 or RL3.

How to use *Make sure to use only the Koken genuine parts.

1. Inspections prior to use
Make sure to perform the following inspections before donning the respirator.
(Refer to "Inspection Procedure" (page 4) for more details).

Check points	Troubleshooting
Are parts such as filtering material, inhalation valve and exhalation valve, etc. properly installed?	Install all parts properly.
Are there any damages such as cracks, distortions and/or scars, or adherence of remarkable dirt or foreign objects on inhalation valve, exhalation valve and/or facepiece?	Replace the parts or respirator with new ones. Clean the parts when adherence of remarkable dirt and/or foreign objects is observed.
Are there any damages such as distortion or hole or adherence of remarkable dirt on filtering material?	Replace the filtering material with a new one.
Is headband well elastic without dirt, damages and/or deterioration?	Replace the headband with a new one.

⚠WARNING

- **Do NOT use the respirator in the high-temperature environment where the respirator itself becomes remarkably hot or in the low-temperature environment where moisture from the exhaled breath becomes frozen.**
  Deforming of parts or freezing may cause exhalation valve etc. to malfunction, resulting in leakage of toxic substances into the respirator.
- **Make sure that facepiece is well fit on the face.**
  Check the fit of the facepiece according to the "Performing fit test" (page 2)
- **Airtight cannot be maintained under the following conditions, which may cause hazardous substances to leak into the facepiece. Do NOT use the respirator until improvements are made.**
  - There are beard, sideburns, and/or hair that come inside the face-contacting area of the respirator.
  - There are mustache and/or chin beard that interfere the operation of the exhalation valve.
- **Do NOT use the respirator if the wearer has a disorder in respiratory or circulatory system, or the doctor determines that the wearer does not have a fitness to wear the respirator.**
- **If spatters or sparks are generated in such works as grinding and welding, use the respirator with an optional filter cartridge cover attached to the filtering material.**
  The filter cartridge cover is effective to reduce the leakage of spatters and/or sparks into the respirator through the air inlet. The leakage of spatters and/or sparks through the air inlet may cause damage to the filtering material.
- **If spatters or heavy sparks are generated in such works as gouging, use a dust hood together with a faceshield.**
  There is a possibility that spatters or sparks leak through the gap between the faceshield and the respirator.
- **When working in a confined space, be careful not to bang the respirator against the wall.**
  The respirator that has slipped out of place may cause hazardous substance to leak into the facepiece.

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2. Fitting instructions

Don or doff the respirator in safe place without hazardous substance.

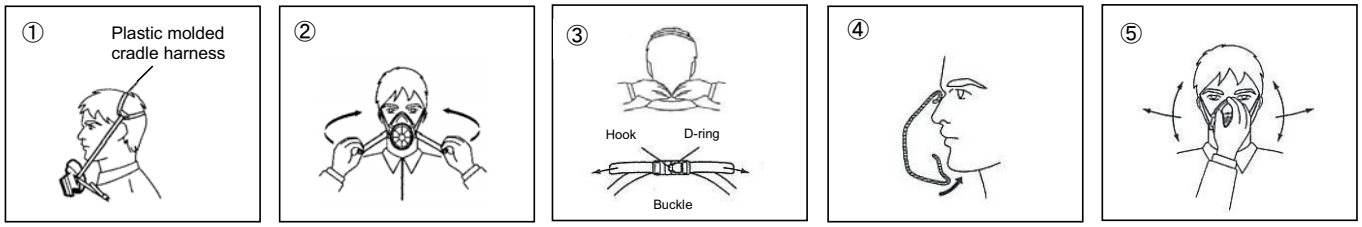
①Place the plastic molded cradle harness on your crown of head so that it stabilizes on head.

② Hold the buckle (hook and D-ring) and pull them evenly so that the respirator approaches to your face.

③ Fasten the buckle at the back of your neck.

④ Adjust the length of the headband according to the <Adjustment of headband length>. Place the facepiece over the bridge of your nose so that it stays completely over face, and then, place it over chin.

⑤ Position the respirator on face for better stability by moving it from side to side and up and down.



⑥ Make sure to perform a fit test after donning is completed.

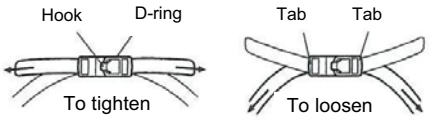
⑦ To doff the respirator, remove the buckle.

● Adjustment of headband length

Adjust the length of the headband so that there is no slight opening between respirator and face. Also, make sure not to over-tighten the headband the headband to avoid oppression.

Perform the adjustment of the headband length according to the following procedure.
Make sure that the headband is evenly tightened.

① To tighten, pull the headband on both the hook side and D-ring side.
② To loosen, release the tension of the headband by lifting both tabs of the hook and the D-ring.



⚠CAUTION

- If the length of the headband is too short or too long, make adjustment following <Adjustment of headband length>.
- Make sure that the headband is well elastic and not over-extended.
- If the headband is over-tightened, feeling of good fit may be lost, and the wearer may experience a feeling of discomfort after working for a long time.
- After adjustment, make sure to perform a fit test.

3. Performing fit test

Perform a fit test in safe place without hazardous substances, etc.

① Don the respirator, completely lift the fit checker up and inhale. Good fit is obtained if the facepiece is pressed against the wearer's face.
② If air leakage is perceived, check the donning and installation condition of parts, and perform ① again.
③ If good fit is obtained, make sure to press down the fit checker before entering into the workplace.

⚠DANGER

- **Make sure to perform a fit test prior to each use.**
  If the respirator is not donned properly, the wearer may inhale hazardous substances that leak through the opening created between face and facepiece.
- **If air leakage into the facepiece is perceived when performing a fit test, Do NOT use the respirator.**
  The wearer may inhale hazardous substances that leak into facepiece.
- **Do NOT handle fit checker violently.**
  Fit test may not be performed properly due to damage.

⚠WARNING

- **DO NOT wear the respirator while a towel is put over face.**
  This may cause particulates to leak into the facepiece.
- **Make sure that the left and right sides of the headband are even in length.**
  There is a possibility that the over-extended headband and/or the longer side of the headband than the other side may be caught up in a machine.
- **The wearer with allergic tendency and/or fragile skin may suffer from rough skin surface, eczema, etc. by using the respirator. And the similar symptom may occur due to sweat, particulates, and/or dirt attached on the surface of the facepiece.**
  In such case, stop using the respirator immediately and see a doctor.
- **If the proper donning of the respirator cannot be maintained such as when the respirator is slipped out of place at work, move to a safe place without hazardous substance and don the respirator properly again.**
- **Do NOT apply excessive vibration or shock to the filtering material.**
  This may cause decrease in performance and damage to the filtering material.

Replacement of headband

- Replace the headband in safe place without hazardous substance.
- Make sure to use only the Koken genuine headband.

1. Replacement schedule

Replace the headband with a new one when:

◎ Remarkable dirt is observed on the headband;
◎ The headband is not fully elastic or does not have enough strength to hold the respirator;
◎ Crack, distortion damage and missing parts, etc. are found on the buckles and/or the plastic molded cradle harness; and/or,
◎ The buckles cannot be securely fastened or cannot be disconnected easily.

2. Replacement procedure

① Remove the headband from the strap slit located on the left and right sides.
② To install a new headband, insert each strap of the new headband through each strap slit from the facepiece side.

Caution: Make sure that the strap direction is correct.
Do NOT twist the headband.

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Replacement of filtering material (filter)

- Replace the filtering material in safe place without hazardous substance.
- Make sure to use only the Koken genuine filtering material.

1. Replacement schedule

Replace the filtering material with a new one when:

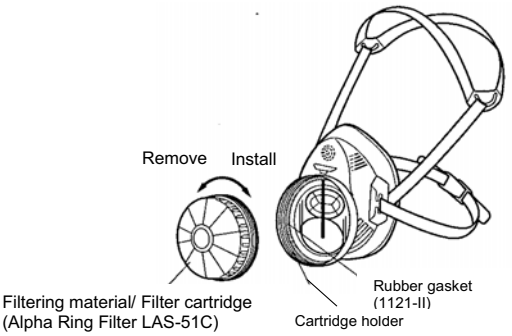
◎ Breathing becomes difficult; and/or,
◎ Filtering material is damaged, distorted and/or got a hole.

*Alpha Ring Filter LAS-51C has deodorization function. If the carbon in the filter reaches the limit of its performance, the deodorization function will be lost.
(Note, however, that the particulate filtering efficiency will remain unchanged).

2. Replacement procedure

One piece of Alpha Ring Filter LAS-51C, a filtering material for replacement, is packaged in one bag. Replace the filtering material according to the following procedure.

① Remove the filter cartridge by turning it counter-clockwise.
② Make sure that the rubber gasket is securely installed in the cartridge holder all the way to the end without misalignment or deformation, etc.
③ Place a new filter cartridge over the cartridge holder, align it with the groove of the cartridge holder and turn it clockwise until resistance is felt to make sure that the filter cartridge is seated firmly.
④ If the thread is caught in the groove of the cartridge holder or the filter cartridge is not stable, remove and re-install it perperly.



*DO NOT disassemble the used filter cartridge. Dispose of it in a sealed bag, etc. so that hazardous substances do not diffuse. Clearly indicate that the bag contains “waste plastic” or “waste glass and ceramics.” Inform the industrial waste disposal operator that hazardous substances are attached to the used filtering material and ask for a proper disposal.

Replacement of inhalation valve/exhalation valve

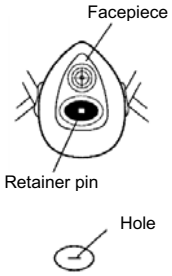
- Replace the inhalation valve/exhalation valve in safe place without hazardous substance.
- Make sure to use only the Koken genuine parts.

1. Replacement schedule

Replace when damages such as crack, distortion, scar, hole, etc., remarkable dirt and/or sticky rubber with age are observed.

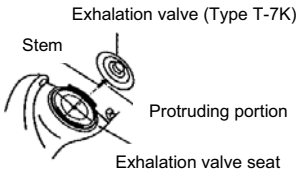
2. Replacement procedure of inhalation valve

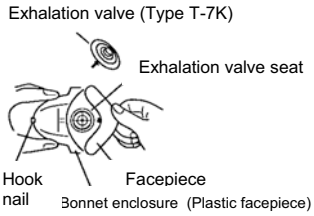
① Remove the used inhalation valve from the retainer pin of the valve seat located inside the respirator.
② To place a new inhalation valve in its place, widen the hole located at the center of the new inhalation valve with fingers so that the retainer pin goes through the hole easily.



3. Replacement procedure of exhalation valve

① The vertex corner of facepiece cushion is fixed by hook nail of the bonnet enclosure (plastic part). Holding the bonnet enclosure by one hand, unhook and fold the vertex corner of the facepiece cushion outward by other hand.
② Pinch the used exhalation valve with fingers and remove it from the exhalation valve seat.
③ To install a new exhalation valve, insert the stem of the new exhalation valve into the hole at the center of the exhalation valve seat. Pinch the stem of the exhalation valve which comes out inside the facepiece and pull it until the protruding portion on the stem comes out.
④ Make sure that the exhalation valve is properly installed and it does not ride up.
⑤ Return the facepiece cushion to the original position and insert the hook nail of the bonnet enclosure into the hole positioned at the upper portion of the facepiece cushion.





⚠WARNING

- **Make sure not to scratch the exhalation valve seat.**
  There is a possibility that hazardous substances may leak inside the facepiece.

Optional accessories and usage

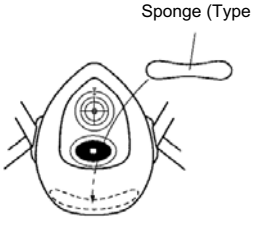
- Install or replace optional accessories in safe place without hazardous substance.
- Make sure to use only the Koken genuine parts.

● Sponge (Type A)

Use Sponge (Type A) when the wearer feels discomfort due to moisture build up or sweat accumulation.

How to use

Place Sponge (Type A) at the bottom of the inside of the facepiece as shown in the illustration.



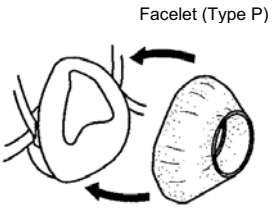
● Facelet (Type P)

Use Facelet (Type P) to prevent skin irritation due to sweat.

How to use

Expand the rim of the facelet and cover the surface of the facepiece with it evenly so that it stays without crimp.

*Make sure that the facepiece will not get deformed.



⚠WARNING

- **Use facelet only when there is a possibility that the use of the particulate respirator may cause eczema on facial skin and sufficient airtight between face and facepiece is obtained.**
  The use of facelet may cause leakage of particulates into the facepiece.
- **Do NOT use facelet when wearing a respirator in asbestos handling works or in those works where hazardous particulates, such as arsenic, chrome, etc. generate.**
  (Facelet cannot be used even if sufficient airtight is obtained).

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Inspection procedure

Perform in safe place without hazardous substances, etc.

Check points		Criteria	Troubleshooting
Facepiece		No damages such as crack, distortion and hole, etc. no sticky surfaces due to rubber deterioration, and/or no remarkable dirt are found. No distortions, no hardening and/or no softening that may inhibit airtight between face and facepiece are found.	Replace the respirator with a new one. Clean the respirator if remarkable dirt and/or foreign objects attached are found.
Bonnet enclosure (Plastic facepiece)		No damages such as crack, distortion and hole, etc. and no remarkable dirt are found. Filtering material can be firmly installed.	
Exhalation valve seat		No damages such as crack, distortion and scar, etc. and no remarkable dirt are found.	
Fit checker		Fit checker moves smoothly and fit test can be performed at ease. No damages such as crack, distortion, and scar etc., and no remarkable dirt are found.	
Inhalation valve Rubber gasket		No damages such as crack, distortion, scar and hole, etc., and no sticky surface due to rubber deterioration are found. There is no adherence of remarkable dirt and/or foreign object.	Replace them with new ones. Clean them if remarkable dirt and/or foreign object attached are found.
Exhalation valve		No damages such as crack, distortion, scar, and hole etc., and no sticky surface due to rubber deterioration are found. There is no adherence of remarkable dirt and/or foreign object and it functions smoothly.	Replace the exhalation valve with a new one. Clean the exhalation valve if remarkable dirt and/or foreign object attached are found.
Headband	Straps	Fully elastic. It keeps necessary strength to hold the respirator.	Replace the headband with a new one.
	Plastic molded cradle harness, Buckles	No cracks, no distortions and/or no missing parts are found. Buckles can be disconnected at ease and can be securely fastened.	
Filtering material	External appearance	No damages such as distortion and hole etc., and no remarkable dirt and/or excessive moisture are found.	Replace the filtering material with a new one.
	Inhalation resistance	Breathing is not difficult when donning the respirator.	
Overall condition after all parts are assembled.		There are no missing parts. There are no gaps created at connecting parts. Filtering material is correctly installed in the cartridge holder.	Install missing parts.

For cleaning, refer to "Cleaning after use".

● Specifications

	Internal standard	Average
Filtering efficiency (Test particle: DOP)	95.0% or more	98.7%
Inhalation resistance	80Pa or less	68Pa
Exhalation resistance	45Pa or less	26Pa
Increased value of inhalation resistance	-	133Pa
Increased value of carbon dioxide concentration / Dead space	0.5% or less/ 200cm^3 or less	0.36%/ 144cm^3
Weight	113g or less	98g

The values above represent the performance level without optional parts, etc.

Replacement parts

Call Koken or local distributor to purchase the following replacement parts.
- ● Filtering material ····· Alpha Ring Filter LAS-51C (1pc per bag)
- ● Inhalation valve ····· Inhalation valve (Round shape) (5pcs per bag)
- ● Exhalation valve ····· Exhalation valve Type T-7K. (5pcs per bag)
- ● Headband ····· Headband type RB.(5pcs per bag)

Optional parts (sold separately)

- ● Sponge to absorb moisture accumulated inside facepiece ····· Sponge Type A (10pcs per bag)
- ● Facelet to prevent skin irritation due to sweat ····· Facelet Type P (5pcs per bag)
- ● Filter cartridge cover to prevent spatter and/or sparks from leaking through the inhalation inlet. ····· Filter Cartridge Cover (2pcs per set)
- ● Sponge to prevent water droplets from falling. ····· Moisture Guard Type C (1pc per bag) (Sponge Type C is pre-installed).
- ● Supplemental sponge to be attached underneath the Moisture Guard ····· Sponge Type C (10pcs per bag)

Maintenance and storage

Make sure to perform maintenance after each use and keep the respirator clean.

1. Cleaning after use.

Perform cleaning in safe place without hazardous substances, etc.

⚠WARNING

- ● Do NOT remodel or disassemble the parts that are not replaceable.
- ● Do NOT use parts that are not Koken genuine when replacing parts.

● Filtering material

⚠DANGER

- ● **Do NOT disassemble the used filtering material or perform maintenance on them. Put the used filtering material in a sealed bag so that captured particulates will not diffuse and dispose of it in a proper way.**

⚠WARNING

- ● **NEVER attempt the followings, or the filtering material could be distorted or damaged, or the filtering performance be decreased.**
- ● Slap or apply unnecessary impact on the filtering material to get rid of captured particulates.
- ● Use compressed air to blow away captured particulates attached on the filtering material. Or, use a vacuum cleaner to suck captured particulates attached on the filtering material.
- ● Wash the filtering material in water.

⚠WARNING

- ● **Do NOT reuse the filtering material that was already exposed to highly toxic particulates such as arsenic, chrome, asbestos, etc.** (Dispose of the filtering material after each use).

● Parts other than filtering material

⚠CAUTION

- ● **Make sure to remove the filtering material before performing maintenance on the respirator.**

- ◎ Gently wipe out attached particulates and dirt such as sweat with dry or slightly wet cloth. Be careful not to damage the respirator.
- ◎ Wash out remarkable dirt with neutral detergent diluted with warm water. Be careful not to damage the exhalation valve seat and the exhalation valve in particular. Rinse off remaining neutral detergent completely.
- ◎ Wipe out residual water after cleaning and dry the respirator in shade.
- ◎ Disinfect the face-contacting area and the inside of the facepiece by wiping it with alcohol-soaked cloth. Then wipe the alcohol out completely.

⚠CAUTION

- ● **Always keep the face-contacting area clean.** Dirt attached on the face-contacting area could cause rough skin and skin irritation.
- ● **If alcohol for disinfection is used, dry the respirator completely or wipe water completely after rinsing it off with water.**
- ● **Do NOT use organic solvents such as thinner for maintenance.**

2. Storage

● Place for storage

After cleaning, store the respirator in a dry place without heavy temperature fluctuations and/or high humidity. Do NOT pile up the cleaned respirators, as the facepiece, headband, etc. could be cracked and/or distorted. Avoid a direct sunlight for storage. Prepare an exclusive storage place so that the storage condition can be checked at ease.

KOKEN LTD.

International Trade Division
7, Yonbancho, Chiyoda-ku, Tokyo 102-8459, Japan
Phone: 81-3-5276-1925
Fax: 81-3-3265-1976

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