

K80E T8N – K80E T8A

POWERED AIR PURIFYING RESPIRATORS

Respirator composition chart:

Respirator Part # Code	Helmet	Blower unit	Cartridge/Filter	Battery	Battery charger	Cord	Breathing tube	Airflow indicator	Belt	NIOSH APPROVAL
0313083	K80E 0302021	T8N 0303038	2 X ZA2P3 0601019	6V6Ah 0309064	BP-6 0105086	0309081	0309095	0806008	0307020	TC-23C-1572
0313084	K80E 0302021	T8A 0303040	2 X ZP3 0601023	6V6Ah 0309064	BP-6 0105086	0309081	0309095	0806007	0307020	TC-21C-627

1. DESCRIPTION

- 1.1a K80E HELMET: It is composed of: a fiberglass shell covered with 3 coats of paint, the last one of which, the most external one, is polyurethane; a polycarbonate visor; a polyamide collar which closes efficiently and comfortably round the operator's neck; a head-band adjustable from 53 to 63 cm (6-5/8 to 7-7/8 hat size).
- 1.2a T8A and T8N BLOWER UNITS: They are composed of: an ABS case with socket and ON/OFF switch. A fan unit actuated by an electric micro motor.
- 1.3 BREATHING HOSE ASS.Y: It is composed of an ethyl vinyl acetate, convoluted hose with pivot couplings for helmet-blower unit coupling.
- 1.4 BATTERY ASSEMBLY: It is composed of: a sealed 6V6Ah rechargeable lead-acid battery.
- 1.5 BP-6 BATTERY CHARGER: It is composed of: a stabilized battery charger with electric cord.
- 1.6 CARTRIDGES/FILTERS/CARTRIDGES:
 - a) ZP3 (HE) FILTER (0601023): made of finely pleated technical paper.
 - b) ZA2P3 (HE/OV) CARTRIDGE (0601019) The first section is composed of finely pleated technical paper. The second section of activated carbon. Both parts are packed into a single plastic housing with covers and seals.
- 1.7 AIRFLOW INDICATOR: It is composed of a transparent tube with indicator ball inside. The indicator is needed to check the airflow performance of the respirator it is supplied with, before each use.

2. TECHNICAL CHARACTERISTICS

- 2.1 K80E HELMETS:
 - Shell : Fiberglass - Face shield : Polycarbonate – Head suspension: Polyethylene – Face shield gasket: polyethylene foam.
 - Noise level < 80dB.

2.2 BLOWER UNITS:

Type of unit	Type of filter	N. of cartridges/filters	Voltage Volts	Airflow at 20°C 60% R.H. - Battery fully charged Lpm	Expected life of micro motor Hours
T8A 0303040	ZP3 HE filter	2	6	>170	1400
T8N 0303038	ZA2P3 HE/OV cartridge	2	6	>170	700

2.3 BATTERY ASSEMBLY:

Type of blower unit	Type of battery	Battery P/N	Voltage - Volts	Terminal voltage under load - Volts	Running time at 20°C - Hours	Approx. battery life
T8A 0303040	Rechargeable Lead acid	0309064	6V 6Ah	5.1	>4	2 years or 300 cycles
T8N 0303038						

- Self discharge: 50% of its capacity in 6 months at 40° C
- in 16 months at 20° C

2.4 BATTERY CHARGING:

Type of blower unit	Charger Model	INPUT	OUTPUT	Charging time Hours
T8A (0303040)	BP-6 0105086	110V 50/60Hz	7V ≈900mA	≈ 8
T8N (0303038)				

2.4a ZP3 HE FILTER (0601023):

HE – High Efficiency Particulate Air filter for powered, air-purifying respirators. **(See also label and Users' Instructions packed with filter).**

When the HEPA filter is exhausted, an increase in drop pressure is registered on the filter. This is indicated by a progressive diminishing of the airflow inside the respirator.

2.4b ZA2P3 HE/OV CARTRIDGE (0601019):

The ZA2P3 combined cartridges are permitted for respiratory protection against organic vapors and particulates at a high efficiency level.

Before occupational use of these cartridges the employer shall implement a cartridge change schedule based on objective information or data that will ensure the cartridges are changed before the end of their service life (as per requirements of the OSHA 1910.134 Respiratory Protection Standard).

Time use limitations:

Replace cartridges in accordance with an established change schedule or earlier if smell, taste or irritation from contaminants is detected and, in any case, prior to the expiry date indicated on the label affixed to the cartridge.

(See also label and User's Instructions packed with filter).

IN CASE OF DOUBT REGARDING THE TYPE OR EFFICIENCY OF THE CARTRIDGES/FILTERS AND CARTRIDGES CONTACT KASCO AT

kasco@kasco.eu

3. OPERATION

- 3.1 The blower unit, powered by rechargeable battery, takes in air through the cartridges/filters and sends it, via hose, to the inside of the helmet. The helmet goes into slight positive over pressure and the wearer breathes filtered air only. Expired air is expelled through the diaphragm valves.

4. USE

- 4.1 For the protection of the eyes and respiratory system of the wearer while working in non I.D.H.L. environments containing dusts, fumes, mists and organic vapors.

4.2 LIMITATIONS (FOR RESPIRATORS EQUIPPED WITH ZA2P3 (HE/OV) CARTRIDGES)

- a) Do not use in atmospheres immediately dangerous to life or health.
- b) Do not wear for protection against organic vapors with poor warning properties.
- c) Do not wear for protection against organic vapors which generate high heats of reaction.
- d) Max. use concentration shall be lower than the max. concentrations listed on the User's Instructions sheet packed with the filter, where that concentration produces atmospheres immediately dangerous to life or health.
- e) Do not use with fumigants.
- f) Do not use in closed environments (tanks, silos etc.).
- g) Do not use in atmospheres containing less than 19.5 % oxygen.
- h) Do not use for protection against Carbon monoxide (Co) or natural gas.
- i) Do not use in explosive atmospheres.

4.3 LIMITATIONS (FOR RESPIRATORS EQUIPPED WITH ZP3 (HE) FILTERS)

- a) Do not use in atmospheres immediately dangerous to life or health.
- b) Do not use for protection against vapors, gas and pesticides.
- c) Do not use in closed ambient (tanks, silos etc.).
- d) Do not use for fire fighting.
- e) Do not use in atmospheres containing less than 19.5% oxygen.
- f) Do not use in explosive atmospheres.

5. OPERATING INSTRUCTIONS

5.1 6V6Ah BATTERY RECHARGING:

- Plug the battery charger into mains.
- Connect battery charger outlet plug to the discharged battery.
- Battery recharging is automatic (RED Led). Led turns GREEN when about 90% charged.
- The battery charger may remain plugged into the fully charged battery with no overcharge risk provided it is energized.

CHARGE BATTERY WITH THE SUPPLIED BATTERY CHARGER ONLY.

5.2 BATTERY AND BLOWER UNIT SET-UP

- Slip belt through guides on battery and blower unit.
 - Plug connection cord to battery on one end and blower unit on the other and tighten nuts to ensure contact.
 - Make sure the blower unit is working properly and that the fan rotates in a clockwise direction.
 - Screw cartridges/filters onto blower unit.
- 5.3 HELMET SET-UP
- Remove protective film from visor. The film was applied to preserve the transparency of the polycarbonate until the moment of use.
 - Fit the helmet onto head steadily.
 - Adjust head band fit.
 - Connect breathing hose to helmet by pushing hose connector into helmet and turning clockwise.
- 5.4 WEARING INSTRUCTIONS:
DON HELMET IN A CLEAN AIR ENVIRONMENT ONLY.
- Don belt, with blower unit and cartridges/filters already fitted on the left and battery on the right, around waist.
 - Don helmet and tighten collar drawstring around neck by pressing the button and sliding it up the drawstring. The drawstring should be pulled as close as possible round neck to assure maximum closure but it should at all times feel comfortable and not restrict breathing in any way.
 - Connect breathing hose to blower unit by pressing the hose assembly connector into the blower unit and turning the coupling clockwise.
- 5.5 AIR FLOW INDICATOR - INSTRUCTION FOR USE
Carry out the airflow performance check hereunder before each respirator use:
- Remove helmet-blower unit connection hose.
 - Ensure the battery is fully charged (see battery charging instructions packed with the battery charger) and that the cartridges are fitted into the blower unit securely.
 - Insert airflow indicator onto the air outlet of the blower unit and position so that the indicator is upright.
 - Start the unit and observe the position of the indicator ball inside the tube.
 - If the indicator ball rises above the indicator line (6 cfm/170 l.p.m), the respirator is ready for use.
 - If the ball fails to move or remains on or below the indicator line, insufficient airflow is being provided. This may be the result of a battery with a low charge or an overloaded filter. Replace the filters and repeat the test.
 - Should the ball still remain below the indicator line, replace the battery and repeat complete test.
- Remove the airflow indicator and reconnect the breathing hose to the unit.
- 6 MAINTENANCE**
- 6.1 HELMET:
- Clean shell with organic solvent free detergent or better still with soapy water only.
 - Clean visor with soapy water only.
 - Wash collar with warm soapy water.
- 6.2 6V6Ah BATTERY
- The battery does not require servicing or tipping up.
 - RECHARGE IMMEDIATELY AFTER EVERY USE FOR LONGER LIFE - DISCHARGED BATTERIES NOT RECHARGED WITHIN 48 HOURS AFTER USE CANNOT BE RECHARGED AND ARE NOT COVERED UNDER WARRANTY.
 - **WHILE IN STORAGE THE BATTERY MUST BE CHARGED AT LEAST ONCE EVERY 3 MONTHS.**
- 6.3 BP-6 BATTERY CHARGER
- Store in a dry place.
 - Avoid impacts or vibrations as these could alter the setting.
- 6.4 CARTRIDGES/FILTERS
- If sealed, the cartridges/filters remain unaltered until the expiry date shown on them.
 - Cartridges/filters cannot be washed, blown out or restored. When exhausted they must be disposed of.
 - If two or more cartridges/filters are connected in parallel, they are to be replaced simultaneously.
- 6.6 The respirator is to be serviced at least once a year by KASCO or KASCO authorized service centre.
- 7. CAUTION**
- 7.1 - Do not use the respirator under the conditions described at paragraph 4.2 and/or 4.3 above.
- The respirator must never be used if leaks are detected or if it does not pressurize.
- 7.2 - Do not use the blower unit if the fan does not rotate as described at point 5.2.
- Do not immerse the blower unit in water for cleaning without first having plugged off the inlet and outlet openings.
 - Do not use the blower unit if it does not supply an airflow of at least 170 Lpm.
- 7.3 -DO NOT KEEP BATTERY DISCHARGED: CHARGE IMMEDIATELY AFTER USE.
- Do not place battery near or in fire.
 - Do not short the terminals.
 - Do not place battery on or near equipment which vibrates excessively.
 - Should the battery crack and the dilute sulfuric acid come into contact with the skin or clothing, wash off immediately with running water.
 - If dilute sulfuric acid gets into the eyes, wash immediately with plenty of water and see a doctor.
 - Do not expose battery to infrared or ultraviolet rays excessively.
 - Use only the BP-6 battery charger for battery recharging.
 - Do not keep the battery charger connected to the battery unless it is energized.
 - The battery charger functions at its best at average room temperature (between + 15° and + 25° C). If any problems are experienced when charging batteries at temperatures other than the range mentioned above, contact KASCO.
- 7.5 - Do not use expired cartridges/filters even if their seals are still intact.
- 7.6 Return to fresh, clean air immediately and take helmet off if:
- a) Leakage is detected by smell, taste or eye, nose or throat irritation.
 - b) Inhaled air becomes extremely hot.
 - c) Any feeling of nausea, dizziness or ill being develops.
- 7.7 THE HELMET WILL NOT FURNISH BREATHING PROTECTION UNLESS IT IS CONNECTED TO A FUNCTIONING BLOWER UNIT WHICH DRAWS AIR THROUGH THE CARTRIDGES/FILTERS.
- 7.8 Never alter or modify this respirator in any way.
- 7.9 The airflow indicator supplied is to be used to check the airflow only. The indicator is not appropriate to check the capacity or the running time of the battery.
- 7.10 Replace the helmet after every harsh impact even if it does not present any visible damage.
- 7.11 This equipment is not to be used by personnel whose sense of smell is in anyway impaired.
- 7.12 This equipment is to be used only by qualified personnel trained in accordance with a respirator program as outlined in ANSI Z 88.2-1980.
- 7.13 Do not use the respirator if it has not been serviced annually by a KASCO authorized service centre.
- 8. REPAIRS**
- 8.1 Use only genuine KASCO spares.
- 8.2 For setting and adjustment of electric parts contact KASCO.
- 8.3 Should you require technical assistance for problems that could arise while using KASCO equipment always include the following information:
- a) Respirator model and blower unit with lot numbers.
 - b) Date of purchase.
 - c) Name of dealer.
 - d) Problem.
- Also state the following:
- power used
 - type of pollution and concentration
 - place of work (indoors or outdoors)
 - approx. degree of relative humidity
 - amount of hours worked annually - maximum hours worked
- Also include a sketch or drawing of the type of work carried out if you feel it might be useful.
- 9. TRANSPORT**
- 9.1 The respirator is to be kept in its original packaging during transport.
- 10. STORAGE**
- 10.1 Store cartridges/filters in their original packaging at a temperature between 0°C and +40°C and a relative humidity of under 80%.
- 11. WARNING:**
- 11.1 Review the respirator composition chart and Niosh approval label located inside the respirator packaging box and ensure that the respirator is composed of the correct sub assemblies before use.
- 11.2 Kasco retains any type of warranty forfeited on the instant and declines any liability either direct or indirect should our Use and Maintenance instructions not be adhered to and should cartridges/filters and spares other than genuine Kasco cartridges/filters and spare be used.
- 11.3 Product liability for the proper operation of the respirator is irrevocably transferred to the purchaser or operator if:
- the prescribed maintenance is not carried out and/or repair and maintenance is carried out on the respirator by personnel not employed by or service centers not authorized by KASCO.
 - the respirator is used in a manner not conforming to its intended use as prescribed in the relative product certification/approval.
- 11.4 IMPORTANT: Adhere strictly to all instructions, labels and limitations pertaining to this equipment. If instructions and warning are not adhered to at all times, respirator effectiveness will diminish and wearer protection will be reduced.**

LIMITED PRODUCT WARRANTY

KASCO, as manufacturer, warrants to the original purchaser, each product of its own manufacture, for a period of one year from its date of shipment from the factory, to be free from defects in material and workmanship under normal use and service.

Normal use and service is intended as all the operations specified in the applicable instruction manuals.

This warranty does not apply to any product which has been repaired or altered to adversely affect the performance or reliability of the respirator or other product.

This warranty does not apply to cartridges/filters and furthermore does not apply to motors and batteries, the expected life or cycle of which is stated, whenever possible, in the relative instructions manuals.

Neither this warranty nor any implied warranty applies to damage or harm caused by any or all of the following:

1. Freight damage
2. Damage caused by parts and/or accessories or components not obtained from or approved by KASCO.
3. Damage due to misapplication and/or misuse.

The liability of KASCO under the foregoing warranty is limited to the repair or replacement at KASCO's option without charge for labor or materials of any part upon return of the entire respirator or other product or of the particular part to the KASCO factory within the warranty period, at the sole expense of the purchaser, which part shall upon examination appear to the satisfaction of KASCO to have been defective in material or workmanship.

KASCO expressly warrants its products as above stated.

Any other intervention on products returned will be charged at the prices in force.

This warranty does not cover labor expenses for products returned to KASCO within the warranty period for checks or repairs under warranty if said products are found to be in good working order.

No person including any dealer or representative of KASCO is authorized to make any representation or warranty concerning KASCO products on behalf of KASCO or to assume for KASCO the obligations contained in this warranty.

KASCO reserves the right to make changes in design and other changes and improvements upon its products without imposing any obligations upon itself to install the same, upon existing products or products then in the process of manufacture.

Products returned to KASCO for repairs or replacement shall contain the series or lot number originally affixed to the product at the time of production.



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THESE RESPIRATORS ARE APPROVED ONLY IN THE FOLLOWING CONFIGURATIONS:

RESPIRATOR COMPONENTS																	
TC-	PROTECTION ¹	ALTERNATE FACEPIECE - HELMET		CARTRIDGE	BLOWER UNIT		BATTERY	CORD ASS.Y		ALTERNATE BREATHING HOSE		AIRFLOW INDICATOR		ALTERNATE BELT		3 WAY CONNECTION	CAUTIONS AND LIMITATIONS ²
		0302009	0302021		0601019	0303006		0303038	0309064	0309081	0309153	0309095	0309109	0806008	0806022		
23C-1562	OV/HE	X		X	X				X		X		X		X	X	ABCFHIJLMNOP
23C-1572	OV/HE	X	X	X		X	X	X		X	X	X		X	X		ABCFHIJLMNOP

1. PROTECTION

HE - High Efficiency Particulate Air filter for powered air-purifying respirators

OV - Organic Vapor

2. CAUTIONS AND LIMITATIONS

- A-Not for use in atmospheres containing less than 19.5 percent oxygen.
- B-Not for use in atmospheres immediately dangerous to life or health.
- C-Do not exceed maximum use concentrations established by regulatory standards.
- F-Do not use powered air-purifying respirators if airflow is less than four cfm (115 lpm) for tight fitting facepieces or six cfm (170 lpm) for hoods and/or helmets.
- H-Follow established cartridge and canister change schedules or observe ESLI to ensure that cartridges and canisters are replaced before breakthrough occurs.
- I- Contains electrical parts that may cause an ignition in flammable or explosive atmospheres.
- J-Failure to properly use and maintain this product could result in injury or death.
- L-Follow the manufacturer's User's Instructions for changing cartridges, canisters and/or filters.
- M-All approved respirators shall be selected, fitted, used and maintained in accordance with MSHA, OSHA, and other applicable regulations.
- N-Never substitute, modify, add, or omit parts. Use only exact replacement parts in the configuration as specified by the manufacturer.
- O-Refer to User Instructions, and/or maintenance manuals for information on use and maintenance of these respirators.
- P-NIOSH does not evaluate respirators as surgical masks.