



K80S-T9 - K80S-T8N

POWERED AIR PURIFYING RESPIRATORS

Respirator composition chart:

| Respirator Part # Code | Helmet | Blower unit | Cartridge | Battery | Power | Cord | Breathing hose | Airflow indicator | Belt | 3-way filter connection | NIOSH APPROVAL |
|------------------------|-----------------|----------------|----------------------|------------------|------------------------------------|---------|----------------|-------------------|---------|-------------------------|----------------|
| 0313063 | K80S 0302009 | T9 0303006 | 2 X ZA2P3 0601019 | | Power cord 0309153 | | 0309109 | 0806022 | 0307021 | 0309023 | TC-23C-1562 |
| 0313141 | K80S 0302009 | T8N 0303038 | 2 X ZA2P3 0601019 | 6V6Ah 0309064 | Converter cord SP8 0105074 | 0309081 | 0309109 | 0806008 | 0307021 | | TC-23C-1572 |
| 0313195 | K80S 0302009 | T8N 0303038 | 2 X ZA2P3 0601019 | 6V6Ah 0309064 | Battery charger BP-6 0105086 | 0309081 | 0309109 | 0806008 | 0307021 | | TC-23C-1572 |

1. DESCRIPTION

1.1 K80S 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 lift-up 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).

1.2 BLOWER UNIT: They are composed of an ABS case and a fan unit actuated by an electric micromotor.

1.3 BREATHING HOSE ASS.Y: It is composed of an ethyl vinyl acetate, convoluted hose with couplings for helmet – blower unit connection.

1.4 BATTERY ASSEMBLY : It is composed of: a sealed 6V6Ah rechargeable lead-acid battery.

1.5 BATTERY CHARGER: It is composed of: a stabilized battery charger with electric cord.

1.6 SP8 CONVERTOR CORD (for T8N).

1.7 CARTRIDGES: ZA2P3 CARTRIDGE (HE/OV): made up of 2 parts: the first of technical paper and the other of activated carbon. Both parts are packed into a single plastic housing with covers and seals.

1.8 AIRFLOW INDICATORS: composed of a transparent tube with indicator ball inside. To check the airflow performance of the respirator it is supplied with, before each use.

2. TECHNICAL CHARACTERISTICS

2.1 K80S (0302009) HELMET:

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

2.2 BLOWER UNITS:

| Blower unit model | Type of filter | N. of filters | Voltage | Airflow at 20°C 60% R.H. -Battery fully charged l.p.m. | Expected micromotor life Hours |
|-------------------|----------------|---------------|---------|--|--------------------------------|
| T8N 0303038 | ZA2P3 | 2 | 6 | >170 | 700 |
| T9 0303006 | ZA2P3 | 2 | 12 | >170 | 500 |

2.3 BATTERY ASSEMBLY:

| Blower unit model | Type of battery | Voltage | Terminal voltage under load | Running time at 20°C Hours | Approx. battery life |
|-------------------|-------------------------|------------|-----------------------------|----------------------------|-----------------------|
| T8N 0303038 | Rechargeable Lead acid | 6V 6Ah | 5.1 | >4 | 2 years or 300 cycles |
| T9 0303006 | Service machine battery | 12V to 15V | - | - | - |

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

2.4 BATTERY CHARGING:

| Blower unit model | Charger model | Input | Output | Charging time Hours |
|-------------------|------------------------------|--------------|----------------|---------------------|
| T8N 0303038 | BP-6 (0105086) | 110V 50/60Hz | 7V ≈ 900mA | ≈ 8 |
| | SP8 converter cord (0105074) | 12-24V | DC 7V, 1.2A | ≈ 8 |

2.5 ZA2P3 CARTRIDGE (HE/OV):

The ZA2P3 combined cartridges are allowed 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 CONTACT KASCO AT kasco@kasco.eu

3. OPERATION

3.1 The blower unit, powered by battery, takes in filtered air and sends it, through the breathing hose, to the inside of the helmet. The helmet goes into positive over pressure and the wearer breathes filtered air only. Filtered expired air is expelled through the diaphragm valves.

3.2 The blower unit may be connected to a tractor or other service machine dash if the respirator is equipped with an SP8 converter cord,

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, organic vapors, pesticides

4.2 LIMITATIONS (FOR RESPIRATORS EQUIPPED WITH ZA2P3 CARTRIDGES)

- Do not use in atmospheres immediately dangerous to life or health.
- Do not wear for protection against organic vapors with poor warning properties.
- Do not wear for protection against organic vapors which generate high heats of reaction.
- 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.
- Do not use with fumigants.
- Do not use in closed environments (tanks, silos etc.).
- Do not use in atmospheres containing less than 19.5 % oxygen.
- Do not use for protection against carbon monoxide (co) or natural gas.
- Do not use in explosive atmospheres.

5. OPERATING INSTRUCTIONS

5.1a 6V6Ah BATTERY RECHARGING:

(See battery charger use instructions packed with each battery charger)

5.1b 6V6AH BATTERY RECHARGING WITH SP8 CONVERTOR CORD:

(See also instructions packed with SP8)

- Mount socket to tractor dash and connect it to a 12V battery respecting the polarities indicated on the socket.
- Connect SP8 Converter plug to the tractor or service machine.
- The battery, even if fully charged, can remain connected to the SP8 without it undergoing damage, if the latter is kept energized.
- ALWAYS CHARGE BATTERY AFTER USE.

CHARGE BATTERY WITH THE SUPPLIED BATTERY CHARGER ONLY.

5.2a T8N BLOWER UNIT SET-UP

- Slip belt through guides on battery and blower unit.
- Plug connection cord to battery on one end and to blower unit on the other and tighten nuts to ensure contact.
- Make sure that the unit is functioning and that the fan rotates in a clockwise direction.
- Screw filter or filters onto unit.

5.2b T9 BLOWER UNIT SET-UP

- Plug converter cord to the blower unit on one end and to the tractor or service machine dash socket on the other.
- Make sure that the blower unit is functioning and that the fan rotates in a anticlockwise direction.

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.



USER'S INSTRUCTIONS

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- Fit the helmet on head steadily.
- Adjust head band fit.
- Couple breathing hose to helmet by pushing the connector into the helmet .
- Open visor.

5.4 WEARING INSTRUCTIONS:

DON HELMET IN A FRESH AIR ENVIRONMENT ONLY

- Position belt, with blower unit and cartridges already fitted on the left and battery on the right (for T8N only), 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 around neck to assure maximum closure but it should at all times feel comfortable and not restrict breathing in any way.
- Connect breathing hose assembly to blower unit by pressing the hose connector into the motor housing of the unit.
- Close lift-up face shield.

5.5 AIR FLOW INDICATOR – INSTRUCTIONS AND PERFORMANCE CHECK

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.
- Clean visor with soapy water only.
- Wash collar with warm soapy water.

6.2 BLOWER UNITS

- The motor does not require servicing.
- Clean unit with organic solvent free detergents or better still with a cloth dipped into a 50% water ethyl alcohol solution.

6.3 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.**

6.4 BATTERY CHARGERS

- Store in a dry place.
- Avoid hard impacts or vibrations as these could alter the setting.

6.5 CARTRIDGES

- If sealed, the cartridges remain unaltered until the expiry date shown on them.
- Cartridges cannot be washed, blown out or restored. When exhausted they must be disposed of.
- If two or more cartridges are connected in parallel, they are to be replaced simultaneously.

- 6.6 The PAPR 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.
 - Do not use the respirator if it does not pass the airflow performance check (See paragraph 5.5).
- 7.2- Do not use if the fan does not rotate as described at point 5.2.
 - Do not immerse blower unit in water for cleaning.
 - Do not use blower unit if it does not supply an airflow of at least 6cfm/170 l.p.m .
- 7.3 DO NOT KEEP 6V6AH BATTERY DISCHARGED - RECHARGE IMMEDIATELY AFTER USE.

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 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.

- Do not place battery near or in fire.
- Do not short the terminals.
- Do not disassemble or reassemble the battery.
- Do not place battery on or near equipment which vibrates excessively.
- 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.

- 7.4 - Use only the supplied battery chargers for 6V6Ah battery recharging.
 - Do not keep the battery charger connected to the battery unless it is also connected to the mains and it is energized.
 - The battery charger functions at its best at average 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 filters even if their seals are still intact.
 - Do not use a filter for more than three months.
- 7.6 Return to fresh, clean air immediately and open visor 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 IN AIR THROUGH THE FILTER.
- 7.8 Never alter or modify this respirator in any way.
- 7.9 Replace the helmet after hard impacts even if it does not present any visible damage.
- 7.10 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.
- 7.11 Do not use the respirator if it has not been serviced annually by a KASCO authorized service centre.

8.REPAIRS

- 8.1 For respirator or part replacement contact KASCO authorized dealers and workshop only.
- 8.2 Use only genuine KASCO spares.
- 8.3 For setting and adjustment of electric parts contact KASCO.
- 8.4 Any repair work is to be carried out by specialized technicians.
 - 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 of same
 - 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. WARNING

- 9.1 Review the respirator composition chart/Niosh approval label found inside the respirator packaging and ensure that the respirator is composed of the correct sub assemblies before use.
- 9.2 Kasco retains any type of warranty forfeited on the instant and declines any liability either direct or indirect should these User's Instructions not be adhered to and should filters and spares other than genuine Kasco filters and spare be used.
- 9.3 Product liability for the proper operation of the respirator is irrevocably transferred to the purchaser or operator if:
 - a) the prescribed maintenance is not carried out and/or if repairs and maintenance are carried out on the respirator by personnel not employed by or service centers not authorized by KASCO.
 - b) the respirator is used in a manner not conforming to its intended use as specified in the relative product certification/approval.
- 9.4 **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.



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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.