


INSTRUCTIONS FOR USE

# SKC ULTRA Passive Sampler, User-Fillable

Filling the empty sampler housing with sorbent, sampling indoors and outdoors, storage and shipping to the laboratory for the user-fillable SKC ULTRA passive sampler, catalogue number 690-200.

AMTC-IN-0051

Rev. 2 · October 2026

# About this document

These instructions cover the user-fillable SKC ULTRA passive sampler, catalogue number 690-200: an empty sampler housing that you fill yourself from SKC sorbent vials. It takes you through filling the housing, taking an indoor or outdoor air sample, and storing and shipping the sample to the laboratory.

Start with the chapter Product and supplied items (p. 5): it names the parts and the sorbents. Then follow Before use (p. 7), which gives the storage limits of the sorbents and the filling of the housing, Procedure (p. 10) and After use and sample handling (p. 11) in order. The laboratory analysis is not part of these instructions; your laboratory carries it out to its own analytical method. Ask Analyt-MTC if you have questions about the analysis.

Keep these instructions for the lifetime of the product. The current revision is on the product page at analyt-mtc.com.

## How these instructions mark information

**⚠ CAUTION**

A hazardous situation which, if not avoided, could result in minor or moderate injury.

**NOTICE**

Practices not related to personal injury — damage to the product, the process or the sample.

**Note**
Information that helps understanding; never a hazard.

## Document information

| | |
|---|---|
| Title | SKC ULTRA Passive Sampler, User-Fillable — Instructions for use |
| Document number | AMTC-IN-0051 |
| Revision | Rev. 2 — October 2026 |
| Applies to | SKC ULTRA passive sampler, user-fillable housing 690-200, with sorbent vials 690-204 and 690-205 |
| Language | English |
| Manufacturer | SKC Inc. |

## Revision history

| Rev. | Date | Change |
|---|---|---|
| 2 | October 2026 | Quality programme: new document type, number and identity pages. |
| 1 | October 2026 | First issue. |

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CHAPTER 1

# Safety

Read the safety message in this chapter before you use the sampler.

## Intended use

The user-fillable SKC ULTRA passive sampler, 690-200, is an empty sampler housing that you fill yourself from SKC sorbent vials, for taking indoor or outdoor air samples without a pump. The laboratory analyses the sample to its own analytical method.

## Safety messages

The same message also appears where it applies, before the step it concerns.

**NOTICE**

**Check the expiry date.** The expiry date of the sorbent is printed on the packaging. Expired sorbent can give an invalid result. Do not use sorbent past that date.

**⚠ CAUTION**

**Do not store with food.** Vials and samples stored next to food can contaminate it, and eating contaminated food can harm you. Keep vials and samples apart from food.

CHAPTER 2

# Product and supplied items

The SKC ULTRA is a passive sampler for organic vapours in indoor and ambient air. It needs no pump and detects concentrations from the low ppb range down to ppt.

Vapours reach the sorbent by diffusion through a field of small holes. A sliding cover opens the holes to start the sample and closes them to end it. The housing has two compartments: one for the sample sorbent and one for a blank or correction sorbent. The user-fillable version 690-200 comes empty: you choose the sorbent for your compounds and fill the housing yourself, which gives a wide choice of sorbents and a longer shelf life than a pre-filled sampler. The design is patented (US patent 6,607,581).

## Parts of the sampler

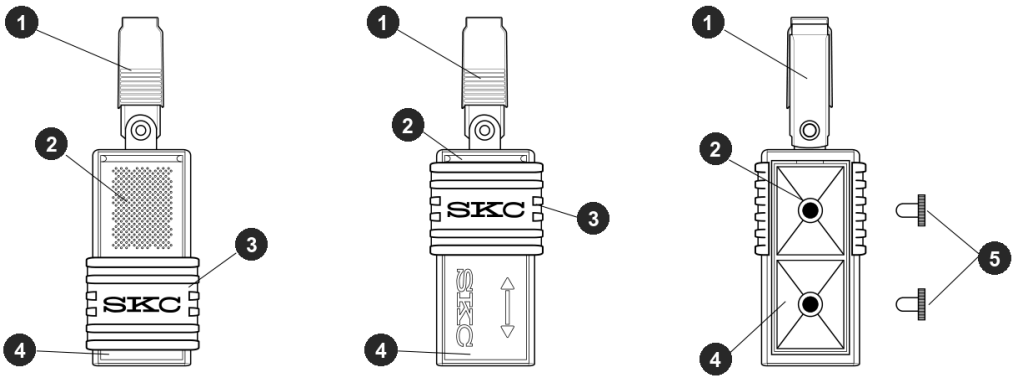



**Figure 2-1.** The sampler with the sliding cover open (sampling position, left), with the cover closed (centre), and from the back (right). (1) Clip. (2) Sample sorbent compartment; from the front you see its diffusion holes. (3) Sliding cover. (4) Blank/correction sorbent compartment. (5) Plugs for the access ports of the two compartments, on the back.

In the open position the cover sits over the blank/correction compartment and the diffusion holes are visible. In the closed position the cover hides the holes, and the arrow and the SKC logo on the housing are visible. Each compartment is filled and emptied through an access port on the back, closed by a plug.

## Sorbents

The sorbents come in vials, two vials per pack. One vial fills one compartment: the first goes into the sample compartment, the second into the blank/correction compartment. The sorbent in the vials is purged; its typical background is below 25 ng.

| Sorbent | Per vial | Sample preparation | Order code |
|---|---|---|---|
| Anasorb GCB1 [a] | 370 mg | thermal desorption | ask Analyt-MTC |
| Chromosorb 106 | 285 mg | thermal desorption | ask Analyt-MTC |
| Tenax TA | 253 mg | thermal desorption | 690-204 |
| Anasorb CSC | 500 mg | solvent extraction | 690-205 |
| Carbopack X | 400 mg | thermal desorption | ask Analyt-MTC |

(a) Comparable to Carbopack B. The laboratory analyses the sample by gas chromatography. Sampling rates for the pre-filled ULTRA samplers are in the *SKC ULTRA Passive Sampler — Reference guide* (AMTC-RF-0005); it lists no compounds for Carbopack X, so ask Analyt-MTC about that sorbent.

CHAPTER 3

# Before use

## Storage and shelf life

The sorbents have a limited shelf life. Keep the vials, and the samples after sampling, at 4 °C (39.2 °F) or below in a clean place free of organic solvents.

| What | Keeps for up to |
|---|---|
| Vials of Anasorb GCB1, Chromosorb 106, Tenax TA or Carbopack X, before sampling | 60 days |
| Vials of Anasorb CSC, before sampling | 1 year |
| Samples, after sampling | 21 days |

**NOTICE**

**Check the expiry date.** The expiry date of the sorbent is printed on the packaging. Expired sorbent can give an invalid result. Do not use sorbent past that date.

**⚠ CAUTION**

**Do not store with food.** Vials and samples stored next to food can contaminate it, and eating contaminated food can harm you. Keep vials and samples apart from food.

## Filling the sampler

You need the empty housing 690-200 in its resealable pouch, a pack of sorbent vials and the ULTRA transfer funnel 690-301. The numbers in brackets refer to Figure 2-1 (p. 5).

### Fill the sample compartment

1. Take the sampler out of its resealable pouch. Keep the pouch for the sample.
2. Lay the sampler with its back facing up and the metal clip (1) pointing to the left. Remove the plug (5) from the sample sorbent compartment (2): the compartment on the left, next to the clip, behind the diffusion holes.
3. Set the funnel over the access port of the compartment and press it down firmly.

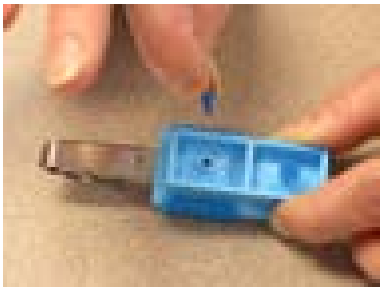


**Figure 3-1.** Step 2: removing the plug (5) from the sample sorbent compartment.

**Note**

**Seat the funnel firmly.** Check that the funnel sits securely on the access port. If it does not sit properly, the sorbent will not run into the sampler.

4. Open one vial of the sorbent you have chosen. Pour a little sorbent at a time, slowly, into the funnel, and carry on until the vial is empty and all the sorbent is in the compartment.

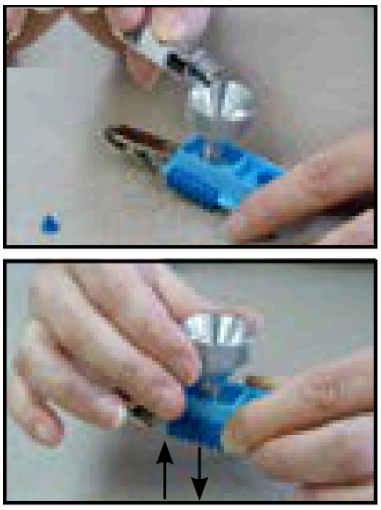


**Figure 3-2.** Step 4: pouring the sorbent into the funnel in small amounts (top), and tapping the housing with the funnel on it if the sorbent backs up (bottom).

> **Note**
> **If the funnel clogs.** When sorbent starts to back up in the funnel, lift the funnel and the housing together, as one unit, and tap them gently on a hard surface until the funnel runs clear again.

> **Note**
> **Do not lift the funnel on its own.** Leave the funnel on the housing until all the sorbent has passed into the compartment.



**Figure 3-3.** Do not lift the funnel before all the sorbent is in the housing.

5. Take the funnel off and put the plug back on the access port.

### Fill the blank/correction compartment

Fill this compartment when your method or your laboratory needs a blank or correction sample.

6. Remove the plug from the blank/correction compartment (4): the compartment on the right, next to the sliding cover.
7. Set the funnel on the access port and press it down firmly, as in step 3.
8. Open the second vial and transfer its sorbent as in step 4.
9. Take the funnel off and put the plug back on the access port.



**Figure 3-4.** Step 6: the plug of the blank/correction compartment (4).

The sampler is now ready. Keep the sliding cover closed until you start the sample.

CHAPTER 4

# Procedure

## Place the sampler

1. Clip each sampler where you want to measure.
   - **Indoors:** clip the sampler to the stand 690-302 and set it up at a suitable height.
   - **Outdoors:** clip the sampler inside the shelter 690-303. The shelter is open at both ends and at the bottom, so that air flows freely around the sampler. Hang the shelter securely at a suitable height.

> **Note**
> **Keep the diffusion holes clear.** Nothing may cover or block the diffusion holes of the sampler.

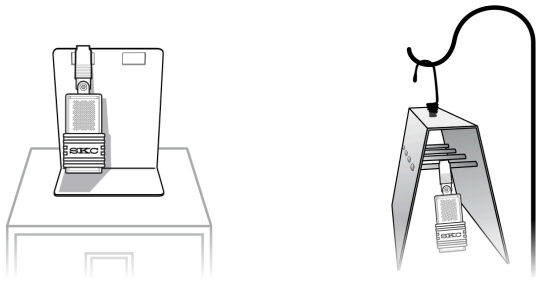


**Figure 4-1.** Left: sampler on the stand for indoor sampling, 690-302. Right: sampler in the shelter for outdoor sampling, 690-303.

## Take the sample

2. To start, slide the cover to the open position, so that the diffusion holes are visible. Write the start time on the label of the pouch.
3. To stop, slide the cover back to the closed position, so that the arrow and the SKC logo are visible. Write the stop time on the pouch label.

> **Note**
> **Record temperature and pressure.** Measure the ambient temperature and the atmospheric pressure at the sampling site, write them down and send them to the laboratory with the sample.

CHAPTER 5

# After use and sample handling

## After sampling

4. Secure the sample in one of two ways:
   - put the sampler in its resealable pouch **straight away**; or
   - transfer the sorbent into vials. Remove the plug of the sample sorbent compartment. Take the lid off a sorbent vial and hold the vial opening over the access port. Turn the sampler upside down over the vial, holding the vial firmly underneath, and tap the sampler gently until no sorbent is left in it. Close the vial and put it in the resealable pouch. Do the same with the blank/correction sorbent.

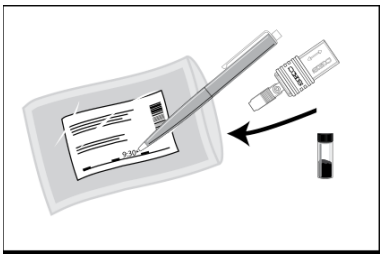


**Figure 5-1.** Step 4: the sampler goes into its resealable pouch, or its sorbent goes into a vial.

> **Note**
> **Match the sample IDs.** The sample ID on the sampler or on the vial must be the same as the sample ID on its pouch.

5. Seal the pouches and place them in a shipping container with a cool pack.
6. Send the samples to the laboratory by express delivery, together with the sampling information (start and stop times, temperature, pressure) and a chain-of-custody form for each sample.

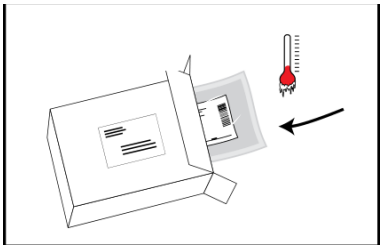


**Figure 5-2.** Steps 5 and 6: the sealed pouch goes into a container with a cool pack, which is sent to the laboratory.

For further information on analysis, ask Analyt-MTC for the SKC Analysis Instructions 40125.

## Disposal

Dispose of used samplers and their packaging under local regulations.

CHAPTER 6

# Ordering information

Order from Analyt-MTC with the order codes.

Choose the sorbent to suit the compounds you want to measure; see Sorbents (p. 6).

## Ordering information

| Description | Pack | Order code |
|---|---|---|
| **SAMPLER** | | |
| ULTRA passive sampler, user-fillable: empty housing in a resealable pouch; needs sorbent vials | 1 | 690-200 |
| **SORBENT VIALS: PURGED SORBENT, TYPICAL BACKGROUND BELOW 25 NG; LIMITED SHELF LIFE** | | |
| Tenax TA, 253 mg per vial | 2 | 690-204 |
| Anasorb CSC, 500 mg per vial, for solvent extraction; keeps up to 1 year at 4 °C (39.2 °F) or below | 2 | 690-205 |
| **SAMPLING ACCESSORIES** | | |
| Transfer funnel, for the ULTRA only | 1 | 690-301 |
| Stand for indoor sampling | 1 | 690-302 |
| Shelter for outdoor sampling | 1 | 690-303 |
| **ANALYSIS ACCESSORY** | | |
| Thermal desorption tube, PerkinElmer type, 0.25 in OD × 3.5 in, with screens and end caps | 1 | P226530 |

Sorbent vials with Anasorb GCB1 (370 mg), Chromosorb 106 (285 mg) and Carbopack X (400 mg): ask Analyt-MTC.

CHAPTER 7

# Service and contacts

## Contact and support


**ANALYT-MTC Messtechnik GmbH**

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www.analyt-mtc.com


**Before you call**

Have the following at hand so that Analyt-MTC can help you quickly:

- the catalogue numbers of the housing and the sorbent vials;
- the lot number and expiry date on the vial packaging;
- the compounds you want to measure and where you sample.

Contact Analyt-MTC for sorbent vials, accessories and technical questions about your SKC ULTRA passive sampler. Warranty is handled under Analyt-MTC's terms of sale. Analyt-MTC's contact details are in this chapter and on the back cover.

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