



# 4097 CORE+

## Supercardioid Choir Microphone

Next-generation, high-performance choir microphone featuring CORE+ technology, delivering pristine, natural and undistorted sound with exceptional isolation and off-axis rejection. Fitted with MicroLock® for flexibility and even better reliability.

An inconspicuous floor stand solution specifically designed to capture the natural sound of a choir, the 4097 CORE+ is unlike any Choir Mic available on the market. Each part of the solution has been specifically designed and tested to ensure it meets the needs of a wide range of choir situations. As a supercardioid mic, the 4097 CORE+ offers a highly-directional pick-up pattern as well as low self noise and high sensitivity. The 4097 CORE+ is capable of handling extremely high SPLs, which allows the mic to deliver undistorted natural sound, even when the choir sings loudly.




## PRODUCT SPECIFICATION

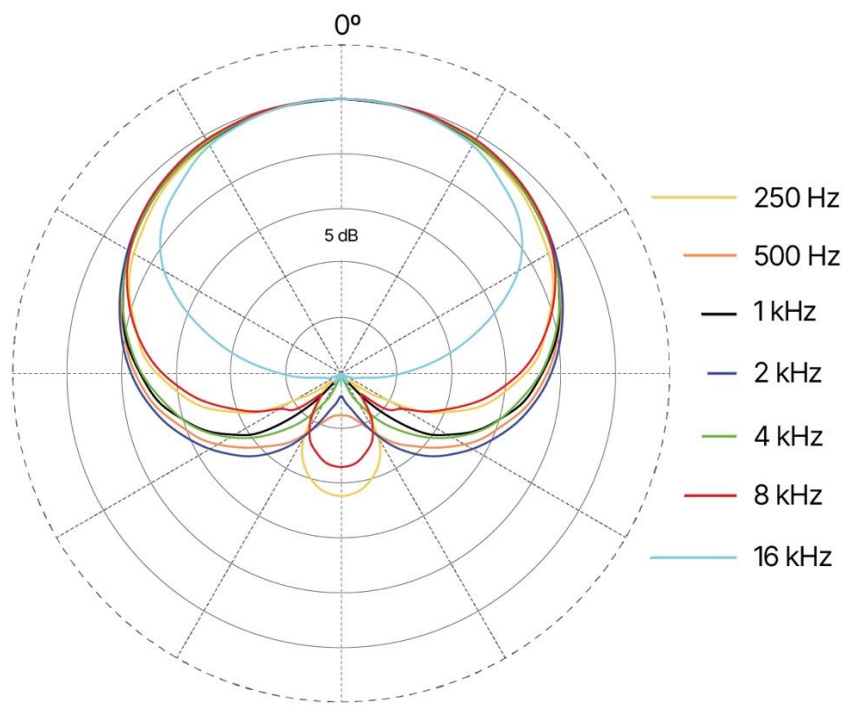
### Key Selling Points

- **CORE+ captures true sound with exceptional focus** – With next-generation CORE+ technology inside, the 4097 delivers pristine, natural and undistorted sound. Every detail is reproduced with clarity and transparency, maintaining the integrity of the source while offering outstanding isolation.
- **Highly directional precision** – The integrated interference tube increases directivity while preserving a flat on-axis frequency response and consistent off-axis behavior. This ensures precise pickup of the intended source with effective rejection of surrounding noise.
- **Exceptional isolation and off-axis rejection** – The supercardioid pattern combined with advanced acoustic design provides superior side and rear attenuation, making it ideal for stage, broadcast and live performance environments.
- **Compact, discreet and elegant design** – The slim design allows flexible placement while remaining visually unobtrusive in demanding production settings.
- **Enhanced vibration and handling noise control** – The optimized capsule suspension and microphone body construction improve isolation from mechanical vibrations and structure-borne noise, resulting in a cleaner and more stable signal.
- **Rapidly stabilizing mic boom pole and integrated shock-mounting in floor base.**
- **Reliable MicroLock® connector** allows for a detachable cable and reliable connection with a wide range of wireless systems.

## Specifications

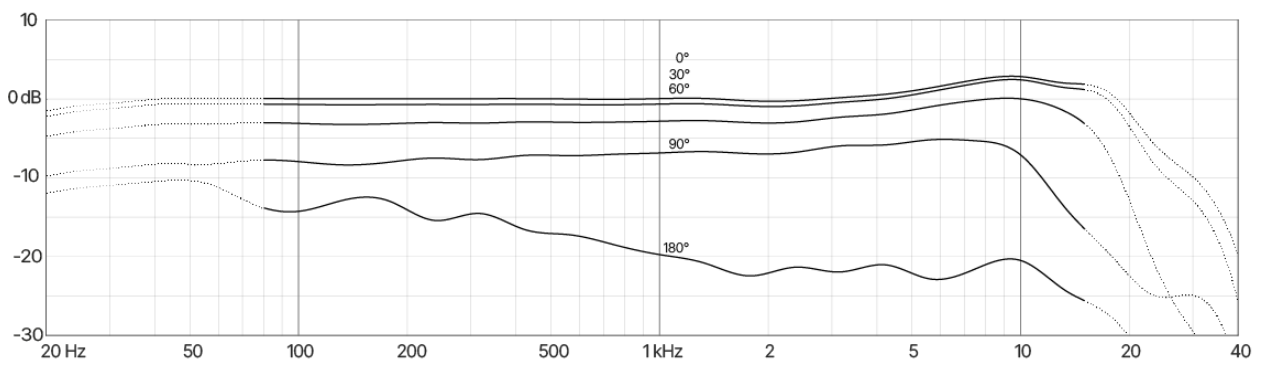
	<b>4097 CORE+</b> 
<b>Directional pattern</b>	Supercardioid
<b>Principle of operation</b>	Pressure gradient
<b>Cartridge type</b>	Pre-polarized condenser
<b>Frequency response</b>	20 Hz – 20 kHz
<b>Effective frequency range, <math>\pm 2</math> dB, at 20 cm (7.9 in)</b>	80 Hz - 15 kHz with 2 dB soft boost at 10-12 kHz
<b>Sensitivity, nominal, <math>\pm 3</math> dB at 1 kHz</b>	16.0 mV/Pa; -36 dB re. 1V/Pa
<b>Equivalent noise level, A-weighted</b>	Typ. 23 dB(A) re. 20 $\mu$ Pa (max.20 dB(A))
<b>Distortion, THD &lt; 0.5%</b>	130 dB SPL RMS, 133 dB SPL peak
<b>Distortion, THD &lt; 1%</b>	131 dB SPL RMS, 134 dB SPL peak
<b>Dynamic range</b>	Typ. 111 dB
<b>Max. SPL, THD 10%</b>	136 dB SPL peak
<b>Rated output impedance</b>	From MicroLock: 30 - 40 $\Omega$ ; From DAD9001 or DAD9099: 100 $\Omega$
<b>Power supply for full performance</b>	For wireless systems: Min. 5 V - max. 10 V through DPA adapter With DAD9001/DAD9099: P48 (Phantom Power). Will work from 12 V
<b>Current consumption</b>	Typ. 1.5 mA (microphone). 3.5 mA with DAD9001 or DAD9099
<b>Connector</b>	MicroLock®
<b>Maximum total height</b>	2.53 m (100 in)
<b>Microphone diameter</b>	5.7 mm (0.22 in)
<b>Microphone length</b>	104 mm (4 in)
<b>Weight</b>	Total: 5.1 kg (180 oz). Round Base: 4.4 kg (155 oz)

**Polar pattern**



*Typical directional characteristics of a 4097 CORE+*

**Frequency response**



*Typical on and off-axis response of a 4097 CORE+ microphone. On-axis (0°) measured at 20 cm (7.9 in), other directions measured in the far field.*

**VARIANTS**

**4097 CORE+ Supercardioid Choir Microphone:**

PART NUMBER	PRODUCT NAME	EAN
4097-DP-F-B01-120	4097 CORE+ Micro Shotgun Mic, Black, XLR, 122 cm (48 in) Boom, Floor Stand, Choir Mic	5713055034016

What's in the box:

a) Sub assembled:

1 x 4097 CORE+ Micro Shotgun Microphone on an Active Boom Pole

1 x MicroLock Cable 2.2 mm (0.9 in), 1.8 m (5.9 ft)

2 x Vertical Pole

1 x Swivel Joint

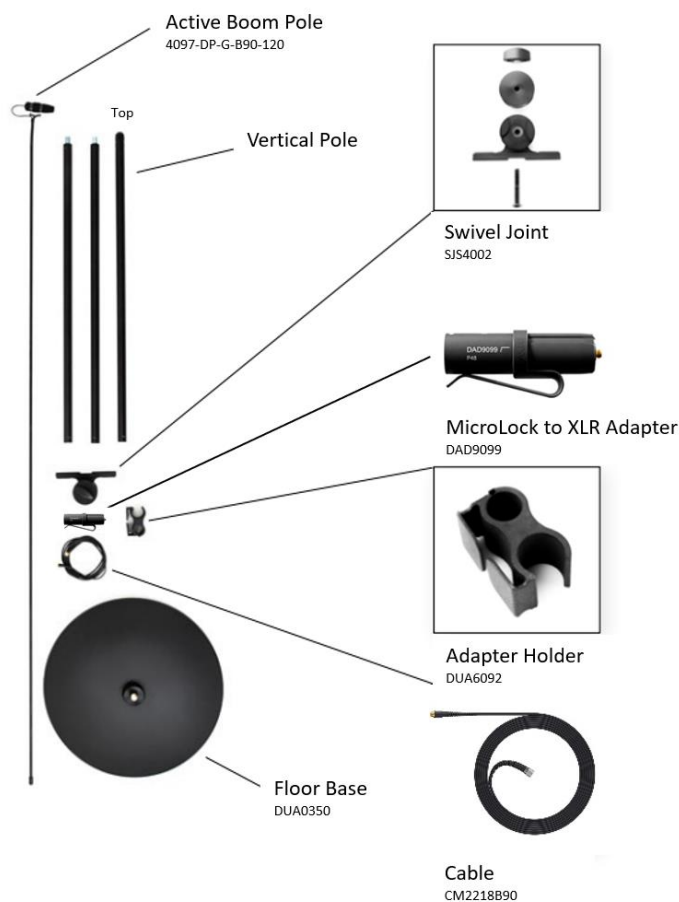
b) Sub assembled:

1 x DAD9099 MicroLock to XLR Adapter

1 x Adapter Holder

1 x Vertical Pole

c) 1 x Floor Base









**ACCESSORIES AND SERVICE PARTS**

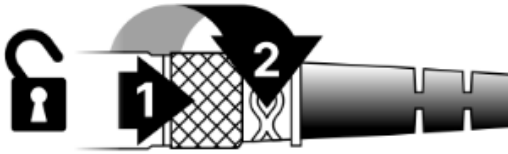
**Cables and active adapters**

- |           |   |   |
|-----------|---|---|
| CM2218B90 |  | MicroLock® Extension Cable, 2.2 mm, 1.8 m (5.9 ft), Black |
| DAD9099   |  | Adapter: MicroLock® to XLR with Belt Clip & Low Cut       |

**Replacement parts**

- |                   |   |                                      |
|-------------------|---|--------------------------------------|
| DUA0588           |    | Windscreen for 4099 CORE+            |
| DUZ0008           |   | Shock Mount Kit for 4099 CORE+       |
| -SJS4002          |  | Swivel Joint                         |
| DUA6092           |  | Adapter Holder                       |
| DUA0350           |  | Floor Base                           |
| 4097-DP-G-B90-120 |  | 4097 CORE+ Microphone on Active Boom |

Detaching MicroLock® connector

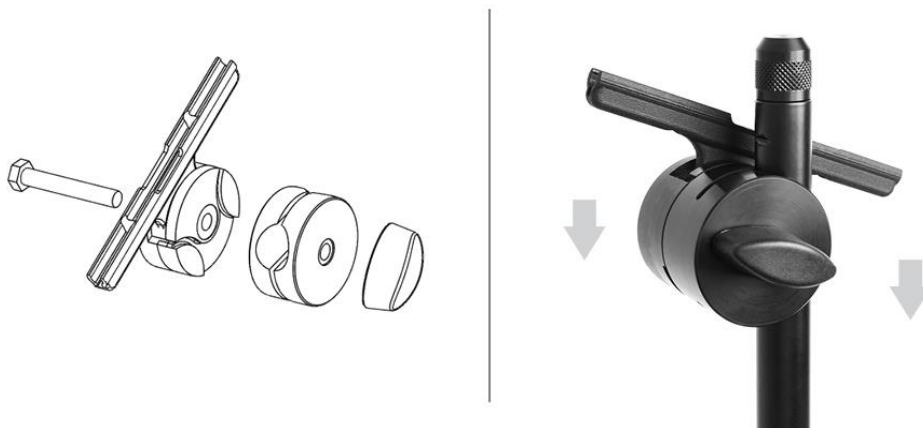


Replacing CM2218B90 cable:

Detach the cable from the active boom pole. Loosen the swivel joint, remove the old cable and lead the new cable down through the cable run instead. Tighten the swivel joint and connect the new cable to the active boom pole. Adjust as needed.



Assembly of the SJS4002 Swivel Joint:



## Adapters & connectors

DPA Microphones' ingenious adapter system is one of a kind in the industry. It protects your investment in fantastic sound for years to come and works with all leading wireless mic solutions, such as DPA, Wisycom, Sound Devices, Lectrosonics, Sennheiser, Shure, Sony and many more.

See our range of adapters here: <https://www.dpamicrophones.com/accessories/adapters/>



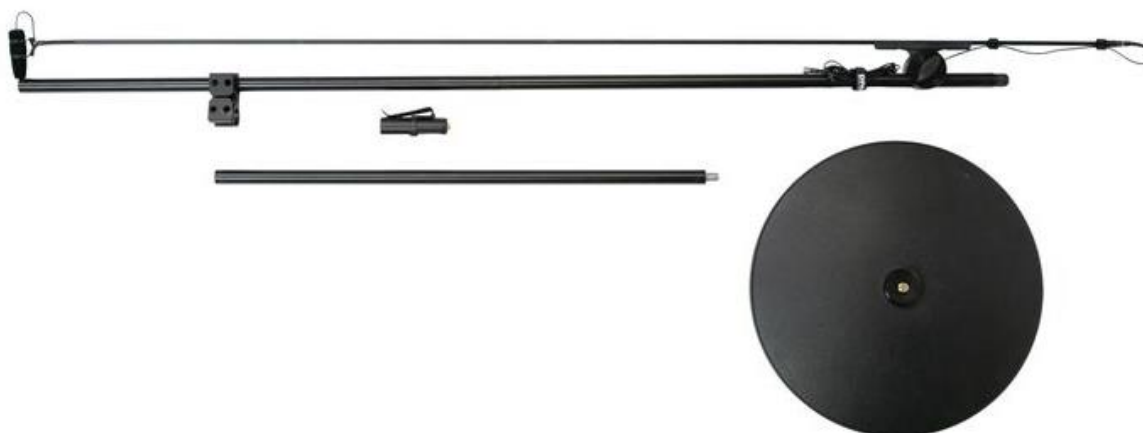
## INSTRUCTION MANUAL

### Important safety instructions

1. Only use attachments, accessories and spare parts recommended by DPA Microphones.
2. Connect the microphone only to microphone inputs and power supplies that provide 48 V phantom power.
3. Avoid opening the product housing yourself. Opening the device will void the warranty.
4. Ensure the windscreen and interference tube are thoroughly dry before using the microphone, as moisture can negatively impact its acoustic performance.
5. Service should only be performed by qualified personnel. Servicing is necessary if the product has sustained damage, is not functioning normally or has been dropped.
6. Operate the product only under the usage conditions listed in the specifications.
7. Allow the product to reach ambient temperature before use.
8. Do not use the product if it is damaged during transportation.
9. Keep the product and its connections away from liquids and electrically conductive objects that are not necessary for operating the product.
10. Route all cables securely to prevent tripping hazards.
11. Warning: Exposure to high audio levels may cause hearing damage. To avoid this—and reduce the risk of acoustic feedback—lower the volume on connected audio equipment before powering the microphone.
12. Avoid using solvents or aggressive cleaning agents to clean the device.

**Quick assembly guide**

4097 CORE+ Supercardioid Choir Microphone arrives sub-assembled.



1. Connect the vertical pole to the floor base



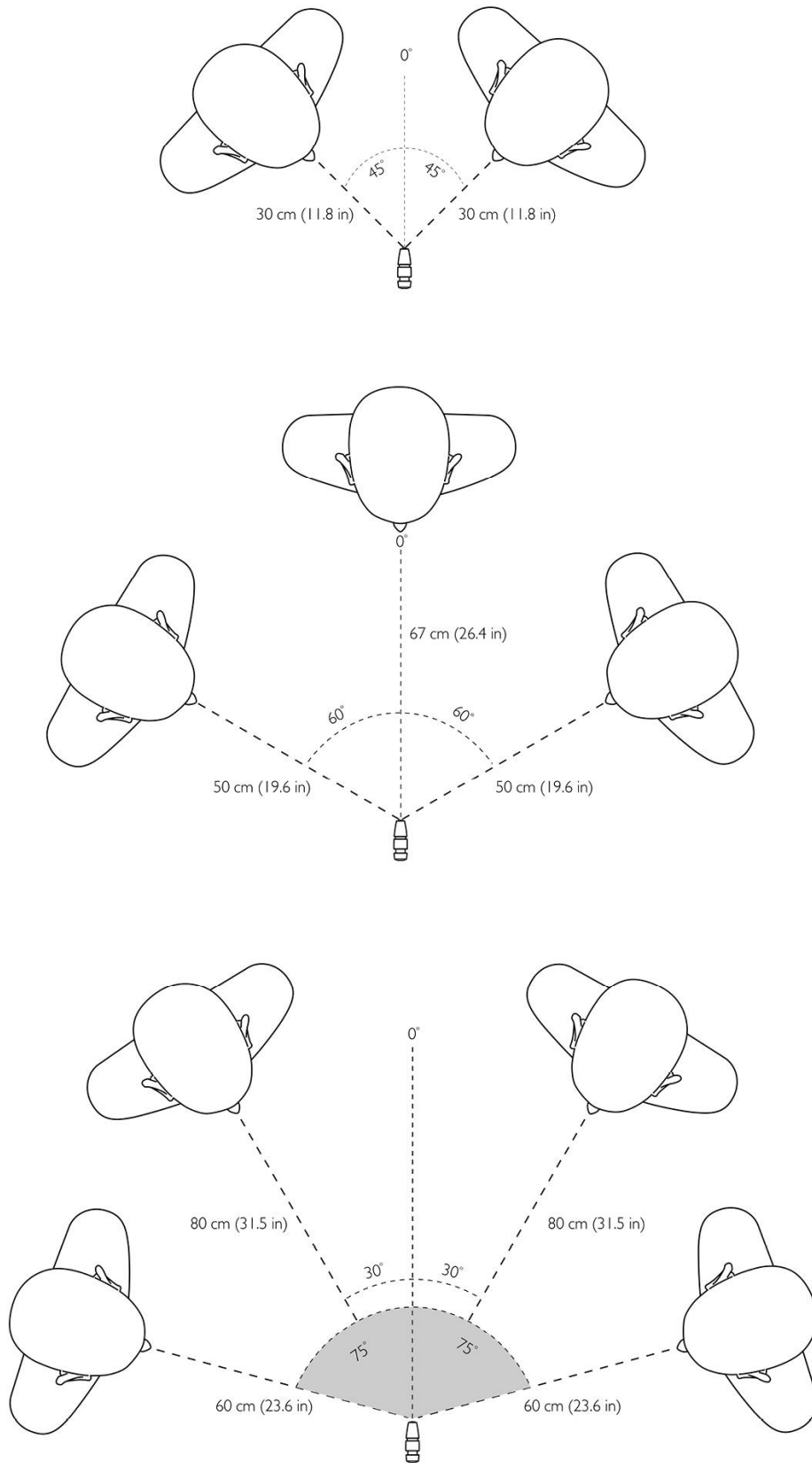
2. Add the section with the rest of the vertical poles and the active boom with the microphone. Leave out the middle section for a shorter pole.



3. Wired or wireless: near the base, the adapter holder stores either a standard MicroLock® to XLR adapter DAD9099 or a wireless transmitter (not included).



**Application guide for 4097 CORE+ Supercardioid Choir Microphone**



## **Intended use**

This product is suitable for both indoor and outdoor applications, including commercial use. Please ensure you use the product as outlined in the user manual. Any use outside the recommended applications is considered improper and may result in damage. DPA does not accept liability for any damage resulting from misuse of this product or its accessories.

## **Cleaning**

### Gooseneck

The gooseneck can be cleaned with a cloth moistened with demineralized water. If required to clean it with alcohol, only use a cloth with 70% Isopropyl. However, do not allow alcohol to penetrate the lacquer. Other alcohol-based cleaning agents can destroy the paint. Do not soak the cloth in cleaner or disinfectant.

### Cables

To clean cables, rub them gently with olive or coconut oil. This will remove residue like paint or sweat and will leave the cable hygienic and fit for use. Alternatively, wipe them with lukewarm water and soap. Do not splash soapy water into connectors or microphones. Afterwards, leave them to dry on their own for at least 72 hours.

Unfortunately, cables cannot be disinfected with isopropyl alcohol or other harsh chemicals, as this will make the cable jacket brittle over time. We recommend being very thorough when cleaning cables to remove as many germs as possible.

### Foam windscreens

To clean foam windscreens, remove them from the mics and wash them gently with warm water and soap. Leave them to dry on their own for at least 72 hours.

Unfortunately, foam windscreens cannot be disinfected with isopropyl alcohol or other harsh chemicals.

## **Warranty**

4097 CORE+ Supercardioid Choir Microphone from DPA Microphones is covered by a two-year limited warranty on both mechanical functionality and documented specifications as long as the items are not mistreated, abused or modified in any way.

In case of a warranty claim, your invoice is your warranty registration.

Read more about DPA's warranty terms: <https://www.dpamicrophones.com/warranty>

If you are not satisfied with the characteristics exhibited by this product, please go to <https://www.dpamicrophones.com/our-company/customer-care/> for instructions.

## **Disposal**

Do not throw this product or its packaging into household waste. Look for the crossed-out bin symbol, which means separate disposal is required.

Electrical and electronic devices, as well as packaging, may contain substances harmful to the environment. Proper recycling helps prevent pollution and allows valuable materials to be reused.

Follow local waste separation rules for packaging.

## **RoHS Directive**

DPA Microphones A/S complies fully with Directive 2011/65/EC on the Restriction of Hazardous Materials (RoHS). That is, DPA Microphones A/S confirms that all products supplied by us after July 1, 2006, will meet the requirements of the RoHS directive.

All necessary dispositions have been taken in relation with our suppliers to ensure that constitutive materials do not include any substance forbidden by the regulation currently applicable on the market. Our main efforts have been to ensure that all soldering spots are made leadless, but also all components have been screened and substituted when required.

This means that all DPA products sold after July 1, 2006, are fully compliant with the RoHS directive with the exception of:

- High-voltage Microphone Amplifier & Power Supply type HMA 4000-II that may no longer be sold (or given) in areas or countries, where the RoHS directive 2011/65/EC applies.

## **WEEE Directive**

DPA Microphones A/S complies fully with Directive 2012/19/EC on Waste from Electrical and Electronic Equipment (WEEE). That is, from Jan. 1, 2006, all DPA products that need to be recycled or handled separately are marked with the WEEE label in accordance with the directive. DPA Microphones A/S is prepared to accept scrapped equipment from customers and sort it out for later waste disposal. Since not all equipment is marked with a serial number, it has been decided to accept all earlier sold equipment for waste disposal.

Please observe that although DPA is accepting used equipment for service that may later be scrapped, it is a national obligation to fulfill the requirements of the WEEE directive. It is not legal to ship waste products across borders for disposal.

Thus, national distributors are obliged to register in accordance with their national legislation. And, as the interpretation of the directive may vary slightly from one area or country to another for which the directive applies, it will be up to the national distributors to accept waste equipment from end users and dispose of it according to the national laws.

Since the amount (and weight) of waste DPA products is extremely sparse, it is recommended to register on an individual basis.