

# EPA Working Mat



## Mat

Ideal for workbenches needing static-erasing measures



## Wrist Straps

Anti-ESD wrist band



## Surface Resistance Checker

Easy checking of surface resistance on floor or mat



## Electrostatic Field Meter

Essential item for static electricity measurement  
Visualize the static charge and discharge state

1

Creating an optimum EPA environment from work surface, floor to worker bodies with a one-stop solution

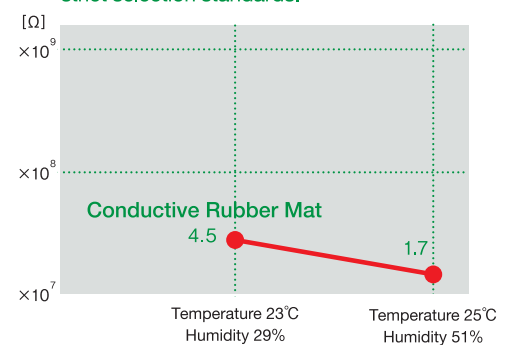
Our IEC61340-5-1 compliant products include ESD protection items, workbenches, storage shelves, EPA working mats for dolly surfaces, EPA flooring for vinyl floors and painted floors, and anti-ESD wrist straps.



2

Steady conductivity performance

Conductivity rates fluctuate easily according to changes in the working environment's humidity. VESSEL's conductive rubber mats realize a "conductive performance" that complies with strict selection standards.



## EPA Working Mat · Conductive Rubber Mat

Controlling electroconductivity to  
 $10^6\Omega$  or more  $10^7\Omega$  or less without  
 influence from the working environment  
 Ideal for workbenches requiring static electricity  
 measures on backing

10m  
ROLL

**LG-100** EDP No. 621464  
**SG-100** EDP No. 621461



## Applications

Designed for use  
 with work benches

## Conductivity

 $10^6 \leq R \leq 10^7 \Omega$ 

## Material

NBR+SBR

## Directive

EPA RoHS

- Offers uniform, consistent conductive performance.
- Features a matte surface finish, reducing reflections and helping prevent eye fatigue prevention.
- Heat resistant to dropping solder.



## Structure

Surface layer  
 (static electricity-diffusing rubber)

Backing  
 (conductive rubber)



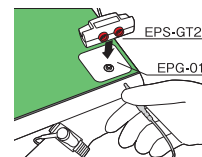
## Common Specifications

Model No.	LG-100	SG-100
Color	Light green	Green
Size	W1.0m×L10m×t2.0mm	W1.0m×L10m×t2.0mm
Conductivity	$10^6 \leq R \leq 10^7 \Omega$	$10^6 \leq R \leq 10^7 \Omega$
Weight	31kg/roll	31kg/roll
Material	NBR+SBR	NBR+SBR

## Grounding Tap

Neatly wire the grounding cords  
 around your workbench

## EPS-GT2



## Specifications

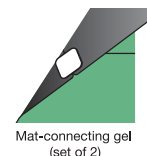
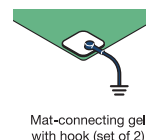
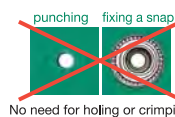
EDP No. 621402

Model No.	EPS-GT2
Size	Approx. 3.0 m (with round jack)
Resistance value	1MΩ
Material	ABS

## Mat-connecting gel

Made from medical-grade conductive gel,  
 with no need for time-consuming eyelet setting

## EPG-01/EPG-02

Mat-connecting gel  
with hook (set of 2)Mat-connecting gel  
(set of 2)

No need for holing or crimping

**EPG-01** EDP No. 621481  
**EPG-02** EDP No. 621482

## Common Specifications

Model No.	EPG-01	EPG-02
Size	50×50mm	
Conductivity	104Ω or less	
Operating environment temperature and humidity	5°C to 30°C / 60% RH or less	
Material	Conductive polyurethane, SUS, carbon film, PET	Conductive polyurethane, carbon film, PET

## Grounding Cord

Connect to mat-connecting gel  
 with a single touch

## EPC-18/EPC-30



EPC-30



**EPC-18** EDP No. 621393  
**EPC-30** EDP No. 631394

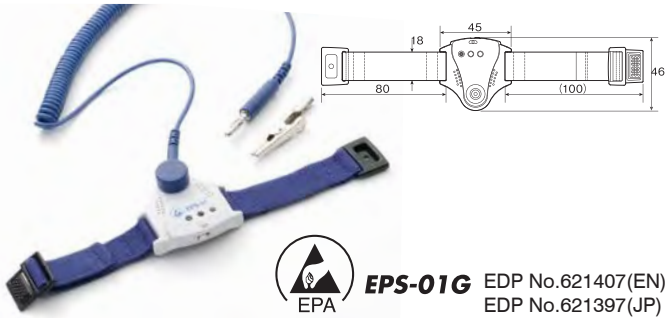
## Common Specifications

Model No.	EPC-18	EPC-30
Size	max. length of 1.8m (max. length 0.5m)	max. length of 3.0m (max. length 1.5m)
Resistance value	1MΩ	
Accessories	Alligator clip	

## Grounding Sensor

Warns the operator with light and sound when a grounding problem is detected

# EPS-01G



**EPS-01G** EDP No.621407(EN)  
EDP No.621397(JP)

Applications	Resistance value	Directive
For use in general work environments and by device operators	2MΩ	<b>EPA RoHS</b>

ANTI-METAL ALLERGY SUS316L	ALARM BAD GROUND	Battery Charge Alarm
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- ▶ The strap warns the operator with light and sound when a grounding problem occurs.
- ▶ A LOW BATTERY LED lights up when the remaining battery charge falls to 20% or below.
- ▶ A sensitivity adjustment knob lets you fine-tune the detection range.

### Common Specifications

Model No.	EPS-01G
Size	Strap length Approx. 180 mm
Resistance value	Body 1MΩ / Grounding cord 1MΩ
Material	ABS, SUS
Accessories	Grounding cord 1.8m, Alligator clip, Test battery (already installed in CR1220)

## Metal Band

Fits the wrist comfortably and can be washed for repeated use

# EPS-02S



Ultra Sonic Cleaner  
(Available on the market)



**EPS-02S** EDP No.627352(JP)

Applications	Resistance value	Directive
Ideal for use in clean rooms and in IT-related manufacturing	1MΩ	<b>EPA RoHS</b>

ANTI-METAL ALLERGY SUS316L	Washable	Low dust
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- ▶ Stretchable band is easy to put on and take off. Available in two sizes (small/medium).
- ▶ Can be easily cleaned using an ultrasonic cleaner, (available on the market) ensuring that the band is always clean and ready for use.

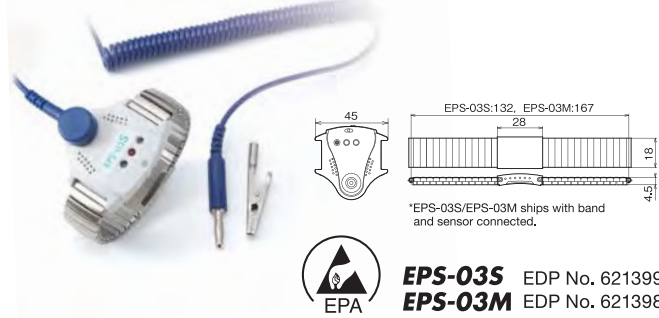
### Specifications

Model No.	EPS-02S
Size	Strap length Approx. 130 mm
Resistance value	Grounding cord 1MΩ
Material	ABS, SUS
Accessories	Grounding cord 1.8m, Alligator clip

## Ground Sensor (Metal Band)

Designed to minimize dust generation, this ground sensor can be used in clean rooms.

# EPS-03S/EPS-03M



**EPS-03S** EDP No. 621399  
**EPS-03M** EDP No. 621398

Applications	Resistance value	Directive
For use in clean rooms, general work environments, and by device operators	2MΩ	<b>EPA RoHS</b>

ANTI-METAL ALLERGY SUS316L	ALARM BAD GROUND	Battery Charge Alarm
----------------------------	------------------	----------------------

- ▶ The strap warns the operator with light and sound when a grounding problem occurs.
- ▶ A LOW BATTERY LED lights up when the remaining battery charge falls to 20% or below.
- ▶ A sensitivity adjustment knob lets you fine-tune the detection status.

### Common Specifications

Model No.	EPS-03S	EPS-03M
Size	Strap length Approx. 132 mm	Strap length Approx. 167 mm
Resistance value	Body 1MΩ / Grounding cord 1MΩ	
Material	ABS, SUS	
Accessories	Grounding cord 1.8m, Alligator clip	

## Anti-ESD Wrist Strap

Complies with IEC 61340-5-1 for peace of mind

# EPS-04B/EPS-04EU



**e-BOX**

20 sets Economy pack



**EPS-04B** EDP No. 621403  
**EPS-04EU** EDP No. 621401

Applications	Resistance value	Directive
For use in general work environments; ideal for use in IT-related manufacturing settings with numerous temporary employees.	1MΩ	<b>EPA RoHS</b> (EPS-04EU)

ANTI-METAL ALLERGY SUS316L
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- ▶ Adjustable strap fits the wrist comfortably.
- ▶ Safety-conscious design keeps the conductive area from being exposed on the surface of the wrist strap.
- ▶ Also Available as Easy Pack EPS-04EU (e-Box) .

### Common Specifications

Model No.	EPS-04B	EPS-04EU (20 pcs/set)
Size	Strap length Approx. 200 mm	Strap length Approx. 200 mm
Resistance value	Grounding cord 1MΩ	
Material	PC, SUS	
Accessories	Grounding cord 1.8m, Alligator clip	

## Surface Resistance Checker

Easy checking of surface resistance  
on floor or mat

NEW

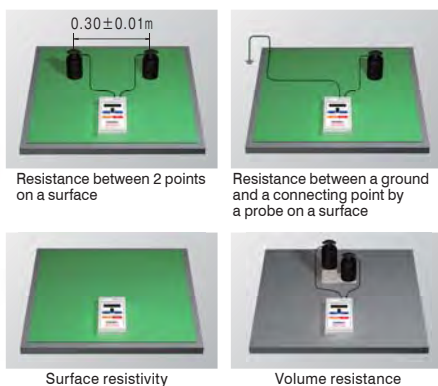
**SRC-01**

EDP No. 621604

Measurement	Measurement	Measurement	Measurement	Directive
Resistance between 2 points on a surface	Resistance between a ground and a point on a surface	Surface resistivity	Volume resistance	CE RoHS
One 9V battery	With probes	With a carrying case	Auto-off	

- ▶ All necessary for 4 types of measurement in one package.
- ▶ This can also measure temperature and humidity.  
(The values are for reference)
- ▶ Applied voltage selector switch enables to measure either the range from  $1.0 \times 10^3 \sim 10^5 \Omega$  or from  $1.0 \times 10^6 \sim 10^{12} \Omega$ .

**With a carrying case**  
Useful to carry all necessary items for measurement



## Specifications

Conformity standards	IEC61340-4-1, JIS-C2170
Measurement range	$10^3 \sim 10^{12} \Omega (\Omega/\square)$
Applied voltage	10V ( $R < 1.0 \times 10^6 \Omega$ or $\Omega/\square$ ), 100V ( $R \geq 1.0 \times 10^6 \Omega$ or $\Omega/\square$ )
Display	Triple-digit LCD ( $\square.\square\square$ e $\square\square$ ) ex.: 3.14 e10 $\rightarrow$ 3.14 $\times 10^{10}$
Power source	9 V battery x 1 (Type: 006P, recommended alkaline battery)
L x W x Dmm	L190 x W101.5 x D54.7mm
Weight	Body: around 340 g (including a battery); gross weight: around 6.2 kg (including the carrying case)
Operating temperature and humidity	0°C ~ 37°C 10% ~ 90%RH
Material	Body case: ABS resin Probe (outer diameter: about $\Phi 66$ mm, about 2.3 kg): 2 Curled cord for a body earth (banana plugs at both ends): 1 Curled cord for measurement for the point-to-point resistance and resistance to ground (banana plug/mono plug): 2 Crocodile clip: 1, Large crocodile clip: 1, Stainless plate (185 mm x 100 mm): 1 Carrying case: 1, 9 V battery (006P type: manganese dry battery): 1 Manuals
Accessories	

※ The indication ( $\Omega/\square$ ) in the above table is shown as ( $\Omega/\text{sq}$ ) in the checker display.  
 ※ An inspection report and a calibration certificate available as option.  
 Please consult us for more detail.

## Electrostatic Field Meter

Visualizing invisible static electricity  
Peak hold supports long-time measurements

**Eye-02**

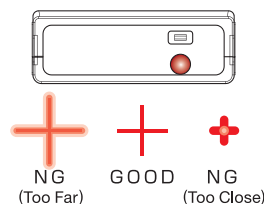
NEW



EDP No. 621603

Measurement	Measurement	LCD display	Directive
Charge potential	Ion balance	Bargraph + 3 digits	CE RoHS
One 9V battery	Ion balance measurement plate	Measuring distance 25 mm	Auto power off
		Out of measuring range alarm	Peak hold function
		Battery level display	Anti-Drop strap

- ▶ Easily establish measurement distance with cross mark LED.
- ▶ Color LCD clearly shows the polarity.
- ▶ Mountable onto a tripod.



## Specifications

Model No.	EYE-02
Charge potential measurement	$\pm 0$ to $\pm 1.50$ kV (LO range) / $\pm 1.0$ to $\pm 20.0$ kV (HI range)
Ion balance measurement	0 to $\pm 200$ V
Response time	within 1sec
Accuracy	$\pm 10\%$
Power	One 9V battery (006P)
Charged potential measurement distance	25mm $\pm$ 0.5mm
L x W x Dmm	L123 x W70 x D25mm
Weight	170 g / Ion balance measurement plate 30g
Operating environment temperature and humidity	10°C to 50°C / 80% RH or less
Accessories	Ion balance measurement plate, Grounding cord, alligator clip, Battery (006P), Soft case

◆ Complies with ISO 9000 traceability standards.

Calibration tables and certificates can be issued for this instrument. (Option)



# Clean Walker



## **CW-900B**

5mm thick  
Capture dust off shoe soles



## **CW-900EZ** **NEW**

3mm thick  
Strong and tear resistant even  
under heavy objects



## **CW-T900** **NEW**

Inclined for easy trolley access

1

### Non-peeling type adhesive mat

There's no need sacrifice cleanliness by limiting the number of sheets peeled to save costs.



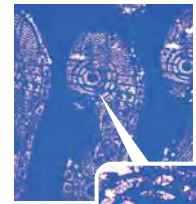
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### Reliably catching dust

Self-adhesiveness of polyurethane resin is the key. The thick mat flexibly contacts against shoe treads and carefully catches dust between them.



Clean Walker

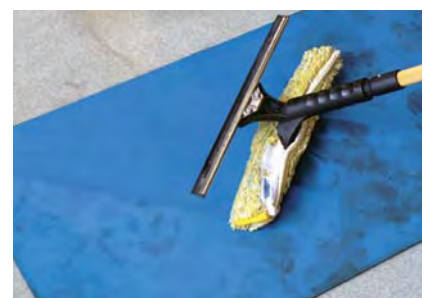


Conventional peel-off mats

3

### Wash & dry to restore adhesiveness

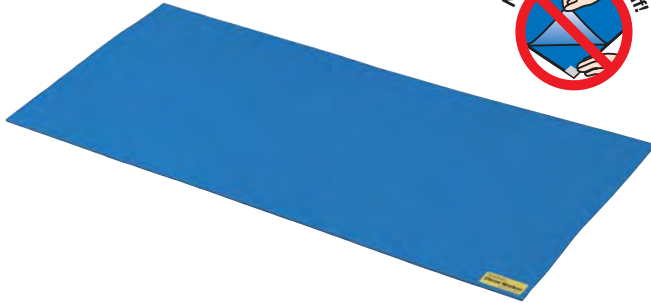
Wet the surface with water, alcohol or diluted household detergent, and the dirt will lift right up. Wash and dry the mat well to restore the original adhesiveness.



## Clean Waker

High elasticity.  
Outstanding dust collection performance

# CW-900B

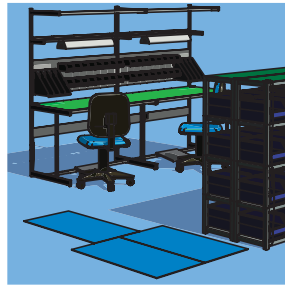
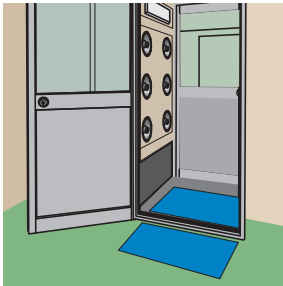


**ECO** Eco-friendly product

EDP No. 621485

Applications	Material	Washable	Directive
For indoor use (especially in front of clean rooms)	Polyurethane	✓	RoHS

- ▶ The 5mm high elasticity mat.
- ▶ Powerfully catches dust from shoe soles.
- ▶ Collected dust can be easily wiped off with a wet cloth.



## Specifications

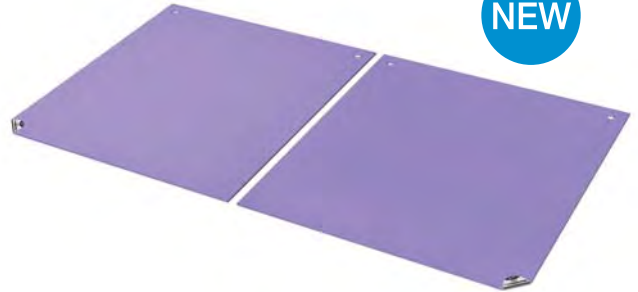
Model No.	CW-900B
Color	Blue
Size	W900mm×L500mm×t5mm
Conductivity	Insulator
Weight	2.4kg
Material	Polyurethane

## Clean Waker Eazy

Easy maintenance.  
Just 3mm thickness

# CW-900EZ

**NEW**



**ECO** Eco-friendly product

EDP No. 621486

Applications	Material	Washable	Directive
For indoor use (especially in front of clean rooms)	Polyurethane, non-woven textiles	✓	RoHS

- ▶ Non-woven textiles are sandwiched with a 3mm thickness to attain a high strength
- ▶ Resist tears even under the pressure of trolleys.
- ▶ Take the mat out of the floor and wash it with water. Hang from hook holes to dry off.



## Specifications

Model No.	CW-900EZ
Color	Light purple
Size	W450mm×L500mm×t3mm
Conductivity	Insulator
Weight	1.6 kg (2 pieces)
Material	Polyurethane, non-woven textiles

## Clean Waker Tray

Inclined tray for easy trolley access

# CW-T900

- ▶ This dedicated tray is perfect for the Clean Walker size.
- ▶ The inclination allows trolleys to pass over without catching.
- ▶ Clean Walker mats can be removed with a little pull.

**NEW**



Directive  
**RoHS**

## Specifications

Model No.	CW-T900
Color	Blue
Size	W1000mm×L600mm×t5mm
Conductivity	Insulator
Weight	2.45kg
Material	EPDM+SBR



## Options and replacement parts

Adapter specification



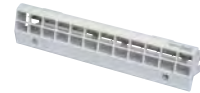
### Electrode Needle Unit / Front Cover (Subject to change without prior notice)



Electrode Needle Unit  
**F-6H**  
EDP No. 806094  
Use with: F6CLE, F6ST-E



Electrode Needle Unit  
**SF-9H**  
EDP No. 806053  
Use with: SFQ9-E



Front Cover with Integrated Electrode Needles  
**CF-30H**  
EDP No. 806071  
Use with: CF-30-E



Front cover w/needle electrode  
**F-120RCH**  
EDP No. 806127  
Use with: F-120R-E



Front cover w/needle electrode  
**F-120SCH**  
EDP No. 806128  
Use with: F-120S-E

### Filter



**SDJ-08F**  
EDP No. 806039  
Use with: F6CLE, F6ST-E



**SF-9F**  
EDP No. 806052  
Use with: SFQ9-E



Filter Set  
**SF-Q9F**  
EDP No. 621707  
Use with: SFQ9-E



Filter Set  
**F-120FS**  
EDP No. 806123  
Use with: F-120-E, F-120R-E  
F-120S-E



**F-120FF**  
EDP No. 806054  
Use with: F-120-E, F-120R-E  
F-120S-E



**CF-30F**  
EDP No. 806072  
Use with: CF-30-E

### AC Adapter



**AD24-ITF6-E**  
EDP No. 806096  
Use with:  
F6CLE, F6ST-E  
I / P : AC100V~240V 0.4A  
O/P : DC24V 0.75A



**AD24-IT-EX**  
● EDP No. 806051  
● EDP No. 806050  
Use with: SFQ9-E, F120-E,  
F120S-E  
I / P : AC100V~240V 0.4A  
O/P : DC24V 0.75A



**AD24-ITCF-EX**  
● EDP No. 806073  
● EDP No. 806074  
Use with: CF-30-E  
I / P : AC100V~240V 1.2A  
O/P : DC24V 1.5A

### For Gun / Nozzle Type



Standard Nozzle  
**G-7SN**  
EDP No. 806057  
Use with: G7R-E



Tube-fitting Nozzle  
**N-2TN**  
EDP No. 806085  
Use with: G7R-E, N-3  
N-2, N-1\*  
\* The nozzle's thread part is longer than the body's screw hole depth.



Shower Tube  
**N-2C6B**  
EDP No. 621706  
Use with: N-2, N-3  
(A combination of N-2TN)



Flared Nozzle  
**N-2FN**  
EDP No. 806086  
Use with: G7R-E,  
N-3, N-2, N-1\*  
\* The nozzle's thread part is longer than the body's screw hole depth.



Silent Nozzle  
**N-2WN**  
EDP No. 806087  
Use with: G7R-E,  
BBZ-E, N-3, N-2, N-1\*  
\* The nozzle's thread part is longer than the body's screw hole depth.



Straight Silent Nozzle  
**BB-ZSN**  
EDP No. 621708  
Use with: G7R-E, BBZ-E,  
N-3, N-2, N-1\*  
\* The nozzle's thread part is longer than the body's screw hole depth.



Standard Nozzle  
**N-1SN**  
EDP No. 806120  
Use with: N-1, N-3



Corner Nozzle  
**N-1CN**  
EDP No. 806121  
Use with: N-1



Brush: 60 mm bristles  
**G-7B**  
EDP No. 806059  
Use with: G7R-E



Soft Brush: 60 mm bristles  
**G-7SB**  
EDP No. 806062  
Use with: G7R-E



Electrode Needle  
**GN-H**  
EDP No. 806122  
Use with: G7R-E, BBZ-E, N-3, N-2, N-1



Electrode Needle Replacement Screwdriver  
**G-7DR**  
EDP No. 806061  
Use with: G7R-E, BBZ-E,  
N-3, N-2, N-1



Speed Controller  
**G-7SC**  
EDP No. 621737  
Use with: G7R-E, BBZ-E,  
N-3, N-2, N-1



Microfilter  
**G-7F**  
EDP No. 621702  
Use with: G7R-E, BBZ-E,  
N-3, N-2, N-1

Filter eliminates at least 99% of particles with a diameter of 0.01 µm or greater. Install a 1 µm to 10 µm air filter and mist separator on your air compressor before using this item.



AC Adapter  
**AD24-ITC-E**  
EDP No. 806067  
Use with: G7R-E



AC Adapter  
**AD24-ITB-E**  
EDP No. 806076  
Use with: BBZ-E



AC Adapter  
**AD24-IT-EX**  
● EDP No. 806051  
● EDP No. 806050  
Use with: N-3, N-2, N-1



Relay Cable (5 m)  
**G-7EC5**  
EDP No. 621703  
Use with: G7R-E,  
(A combination of AD24-ITC)

Relay Cable (10 m)  
**G-7EC10**  
EDP No. 621704

Relay cables are used to connect the G7R-E to its dedicated power supply transformer (AD24-ITC-E).



**Shielded Case**  
Use with: N-2  
Use this case when unstable N-2 with Noise seen.

## Adapter specification



## For C-series



Electrode Needle Unit  
**C-00H**  
EDP No. 806106  
(S/No. 130373 and before)



Electrode Needle Unit  
**C-00HR**  
FDP No.806107  
(S/No. 130374 ~ 131254)



Electrode Needle Unit  
**C-00HR6**  
FDP No.806130  
(S/No. 131255 and after)



Remote Control  
**RMC-01**  
EDP No. 806104



Power Supply Cable  
**CT-5**  
EDP No. 621709  
(A combination of AC Adapter)



AC Adapter  
**AD24-IT-EX**  
● EDP No.806051  
● EDP No.806050  
I / P : AC100V~240V 0.4A  
O/P : DC24V 0.75A  
Operation : One bar



AC Adapter  
**AD24-ITCF-EX**  
● EDP No.806073  
● EDP No.806074  
I / P : AC100V~240V 1.2A  
O/P : DC24V 1.5A  
Operation : Two bars



AC Adapter  
**AD24-IT19-EX**  
● EDP No.806081  
● EDP No.806080  
I / P : AC100V~240V 1.2A  
O/P : DC24V 1.9A  
Operation : Three bars

## For B-series



Electrode Needle Unit  
**B-00H**  
EDP No. 806101



End Brackets  
(set of 2 with set screws)  
**B-EB**  
EDP No. 806102



Middle Bracket  
(with set screws)  
**B-MB**  
EDP No. 806103



Remote Control  
**RMC-01**  
EDP No. 806104



Branch Adapter  
**B-SP2**  
EDP No. 621531



Power Supply Separator  
**B-SP3**  
EDP No. 621532



Power Supply Cable  
**CT-5**  
EDP No. 621709  
(A combination of AC Adapter)



AC Adapter  
**AD24-IT-EX**  
● EDP No.806051  
● EDP No.806050  
I / P : AC100V~240V 0.4A  
O/P : DC24V 0.75A  
Operation : One bar



AC Adapter  
**AD24-ITCF-EX**  
● EDP No.806073  
● EDP No.806074  
I / P : AC100V~240V 1.2A  
O/P : DC24V 1.5A  
Operation : Two bars



AC Adapter  
**AD24-IT19-EX**  
● EDP No.806081  
● EDP No.806080  
I / P : AC100V~240V 1.2A  
O/P : DC24V 1.9A  
Operation : Three bars

## For SH-series



Branch Box  
**SH-SP2**  
EDP No. 621552



Relay Cable (3 m)  
**SH-EC3**  
EDP No. 621553

Relay Cable (5 m)  
**SH-EC5**  
EDP No. 621554

## For Ion Parts Cleaner

**HEPA filter Cartridge**

(Collects 99.7% of the 0.3µm Particles or larger)  
Use with: IPC20-E, IPC40-E, IPC60-E

**Medium-efficiency filter Cartridge**

Use with: IPC20-E, IPC40-E, IPC60-E

Unwoven fan filter (5pc.)

**IPC-A4F**

EDP No. 806092  
Use with: IPC-A4

Paper pack filter (6pc.)

**IPC-A3F**

Use with: IPC-A3



Adhesive gel sheet (1pc)

**IPC-A4G**

EDP No. 806091  
Use with: IPC-A4, IPC-A3  
(two sheets required per unit)



Electrode Needle (For N-1)

**GN-H**

EDP No. 806122  
Use with: IPC-A4, IPC-A3

## For EPS-01



Replacement Bands  
(5-piece set /one with a dedicated tool)

**EPB-01**

EDP No. 621395  
Use with: EPS-01, EPS-01G



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- Product specifications, dimensions, pricing, and other information are subject to change without notice.
- Static electricity erasing capability values given in this catalog were obtained in our measurement environment.  
Your results may differ depending on the operating environment.

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