

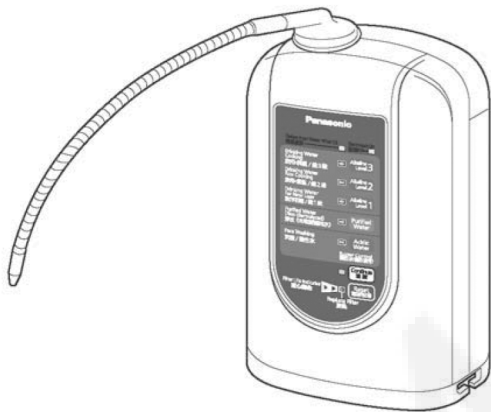
Service Manual

Alkaline Ionizer

Model No. **TK-AS45**

Asia

Simplified



Please file and use this manual together with the service manual for Model No. TK-AS40-WEX, TK-AS40-WMA, TK-AS41-ZEX, Order No. LSD1006001CE.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by **⚠** in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

TABLE OF CONTENTS

	PAGE	PAGE
1 Warning-----	2	
2 Specification-----	3	
3 Exploded View and Replacement Parts List-----	4	

Panasonic

© Panasonic Corporation 2016
 Unauthorized copying and distribution is a violation of law.

1 Warning

Caution:

- Pb free solder has a higher melting point than standard solder; Typical the melting point is 50 - 70°F (30 - 40°C) higher. Please use a soldering iron with temperature control and adjust it to 750±20°F (400±10°C). In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).
- In the case that the lead wire snapped, please change whole unit without repairing or re-connecting.

2 Specification

Rating	220 V-240 V , 50 Hz, 0.3 A	
Power consumption	Approx. 55 W (approx. 1 W during standby)	
Main unit	Dimensions	170 mm (W) × 101 mm (D) × 291 mm (H)
	Weight	Approx. 3.0 kg (approx. 3.5 kg when full of water)
Temperature of water used by Alkaline Ionizer	Under 35 °C (under 80 °C for bypass selector)	
Pressure of water used by Alkaline Ionizer (dynamic pressure)	70 kPa to 350 kPa	
Usable water service pressure (static pressure)	70 kPa to 750 kPa	
Electrolysis	Electrolysis method	Continuous electrolysis
	Output water volume (flow of water produced)	2.0 liters/min. (at 100 kPa water pressure)
		3.0 liters/min. (at 200 kPa water pressure)
	Electrolytic capability selection	Alkaline: 3 levels; Acidic: 1 level
	Continuous operation capability	Approx. 30 minutes at room temperature (Note 2)
	Electrolyzer life	Approx. 850 hours cumulative (ion water production time, cleaning time only)
Electrolytic cleaning	Auto cleaning method (cleaning time: approx. 8 seconds, waste water drain time: approx. 30 seconds)	
Purified water output volume	2.0 liters/minute (at 100 kPa water pressure)	
Filtration flow volume	2.5 liters/minute (at 100 kPa water pressure)	
Purification capacity (Note 1)	Free residual chlorine	12,000 liters (Note 3)
	Turbidity	12,000 liters (Note 4)
	Total trihalomethane	12,000 liters (Note 3)
	Chloroform	12,000 liters (Note 3)
	Bromodichloromethane	12,000 liters (Note 3)
	Dibromochloromethane	12,000 liters (Note 3)
	Bromoform	12,000 liters (Note 3)
	Tetrachloroethylene	12,000 liters (Note 3)
	Trichloroethylene	12,000 liters (Note 3)
	1,1,1-Trichloroethane	12,000 liters (Note 3)
	CAT	12,000 liters (Note 3)
2-MIB (mold smell)	12,000 liters (Note 3)	
Soluble lead	12,000 liters (Note 3)	
Substances other than above that can be removed	Iron (particulate form)	(Note 5)
	Aluminum (neutral)	(Note 5)
	Geosmin (mold smell)	12,000 liters (Note 5)
	Phenols	12,000 liters (Note 5)
Guide for time to replace cartridge	Approx. 1 year (Note 6)	
Filter material	Non-woven fabric, granular activated carbon, ceramic, powdered activated carbon, hollow fiber membrane	
Components which cannot be filtered out	Iron dissolved in water, heavy metals (silver, copper, etc.), salt (eawater)	
Length of power cord	Approx. 3 m	
Power protection device	Current fuse: 2.5 A	
Overheating protection devices (inside isolation transformer)	Overheating protector (automatic resetting type, activated at temperature of 120 °C) Thermal fuse (activated at temperature of 145 °C)	

* All figures given are for a water temperature of 20 °C .

* This product cannot convert hard water into soft water.

* The total volume of water coming out of the main spout and drain hose is given as the run-through water volume and daily volume of water used.

Note 1: The water which can be used as alkaline ion water and acidic water is equivalent to about 80% of the filtration flow volume.

Note 2: This period may be shorter depending on the water quality and usage environment.

Note 3: This value is for a removal rate of 80% based on JIS S 3201 tests.

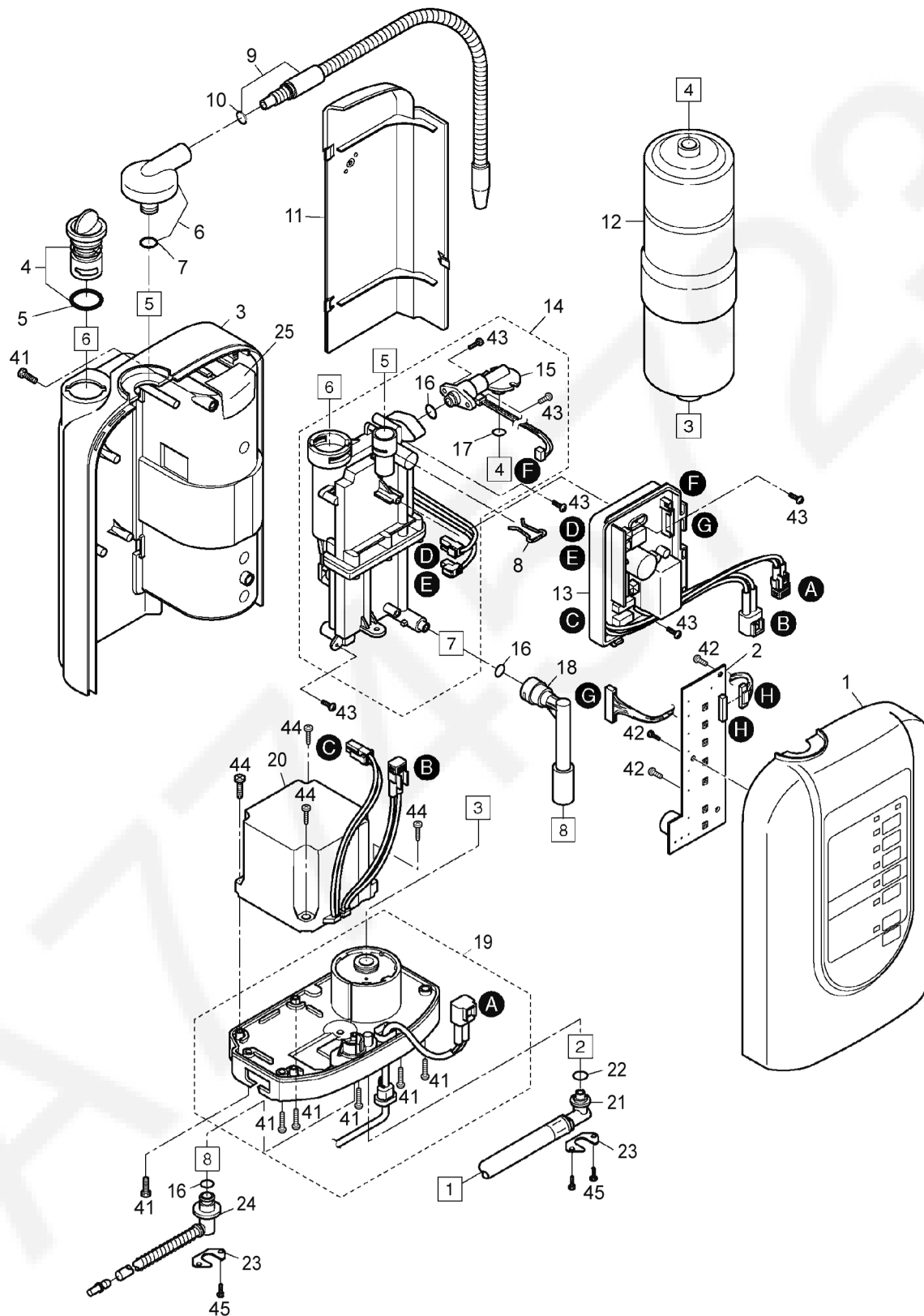
Note 4: This value is for a filtration flow volume of 50% based on JIS S 3201 tests.

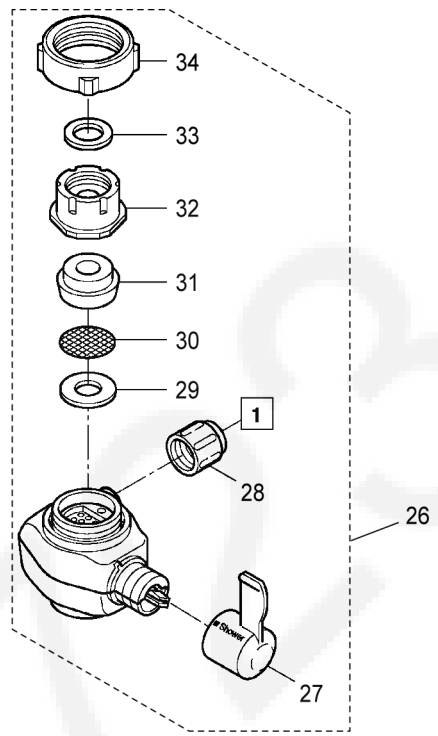
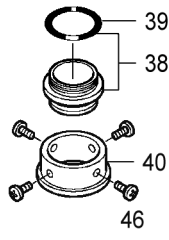
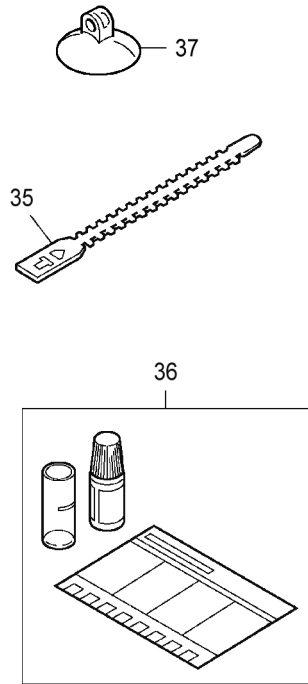
Note 5: This value is for a removal rate of 80% based on specification standard tests (JWPAS B standards) stipulated by the Japan Water Purifier Association (JWPA). Note that the removal of iron (particulate form) and aluminum (neutral) are not stipulated as part of purification capacity.

Note 6: This period applies when 30 liters of water are used a day. If 60 liters are used a day, the cartridge usage limit will be approximately one-half. The period may also be significantly less depending on the amount of water used and on its quality and pressure.

3 Exploded View and Replacement Parts List

3.1. Exploded View





3.2. Replacement Parts List

Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
	1	WTKAS45S3107	CASE FRONT	1	
	2	WTKAS40H2117	OPERATION PCB	1	
	3	WTKAS45S3117	CASE REAR	1	
	4	WTKAS41H0527	CAP	1	
	5	WTK7505L0927	O RING	1	
	6	WTKAS41H0457	DISCHARGE OUTLET	1	
	7	WP0R-A6509A	O RING	1	
	8	WPRN-D8601	PIN	1	
	9	WTKAS41H7307	OUTLET PIPE	1	
	10	WTK7405L0997	O RING	1	
	11	WTKAS45S3128	COVER	1	
	12	TK-AS45C1-EX	CARTRIDGE	1	COMMERCIALY AVAILABLE
	13	WTKAS40H2107	MAIN PCB	1	
	14	WTKAS40L4447W	ELECTROLYZER ASSEMBLY	1	
	15	WTKAS40L2267	FLOW RATE SENSOR	1	
	16	WTK7405L0917	O RING	3	
	17	WTK7405L0927	O RING	1	
	18	WPPP-K8623	DISCHARGE SIDE JOINT	1	
	19	WTKAS41H3957	BASE PANEL ASSEMBLY	1	
	20	WTKAS40L2238	TRANSFORMER ASSEMBLY	1	
	21	WPDB-C8635A	WATER SUPPLY HOSE	1	L=900
	22	WP0R-A6401B	O RING	1	
	23	WTK7405L0217	FITTING	2	
	24	WPDB-C8635B	EXHAUST HOSE ASSEMBLY	1	L=600
	25	WTKAS40W7787	WATERPROOF SHEET	1	
	26	WTKAS40W4097	BYPASS SELECTOR ASSEMBLY	1	
	27	WTKAS40W4087	SELECTOR LEVER	1	
	28	WPAV-I8615C	HOSE OCONNECTOR NUT	1	
	29	WPBT-C6002	PACKING SUPPORT	1	
	30	WPVL-P6161	BYPASS SELECTOR FILTER	1	
	31	WFPF-H5061	MAIN UNIT PACKING	1	
	32	WPRV-C6402W	ADAPTOR	1	
	33	WFPF-H6177	GASKET	1	
	34	WPRV-B8605BC	MOUNTING NUT	1	
	35	WPRN-B5061	HOSE STRAP	1	
	36	WTKAS40X7497	PH TEST KIT	1	
	37	WPPT-D8623	SUCTION DISC	1	
	38	WTK7405L0628	BUSHING	1	
	39	WP0R-D8623A	GASKET	1	
	40	WPRV-C8615M	INSTALATION ADAPTOR	1	
	41	WTK7505L9117	SCREW	7	K4-12
	42	WTK7405L9107	SCREW	3	K3-8
	43	WTK7205L9207	SCREW	6	K3-12
	44	WTK7505L9107	SCREW	4	H4-16
	45	WTK7405L9117	SCREW	3	K3-12
	46	WTK7205L9217	INSTALL SCREW	4	
		WTKAS45S8008	INDIVIDUAL BOX	1	HONG KONG
		WTKAS45S8009	INDIVIDUAL BOX	1	MALAYSIA
		WTKAS45S8347	PAD A	1	
		WTKAS45S8357	PAD B	1	
		WTKAS45S8108	OPERATION MANUAL	1	