

## 6.11.1 AA-6800/6650 Maintenance Parts

Part Name	Part No.	Remarks
Lamp, D <sub>2</sub> L6382	062-65063-01	
Nebulizer ASSY	206-50226-91	Nebulizer (with impact bead)
Ceramic ball 5/16	031-65802-09	Impact bead
Chamber ASSY	206-50363-91	Polypropylene
Burner head ASSY	206-50370-92	Titanium, 10cm
Burner socket ASSY	206-50762-91	
O-ring, AS568-116-4D	036-15551-16	Used in burner socket (burner side)
O-ring, 4D P16	036-11217	Used in nebulizer, chamber plug
O-ring, 4D P22	036-11222	Used in burner socket (chamber side)
O-ring, 4D P14	036-11215	Used in drain-joint
O-ring, 4D P35	036-11237	Used in jacket mounted on chamber
Cleaning wire	201-79229-01	For cleaning the capillary
Sampling tube	204-05899-01	Teflon* tube for sample uptake
Sampling tube ASSY	206-50772-91	Polyethylene tube for sample uptake
Drain ASSY	206-80771-91	Overflow-type drainage trap
Gas tube ASSY	206-65112	Nylon tube set for gas supply
Hose, 8 2B-BK	016-02101-04	For support gas (Air), Black
Hose, 8 2B-R	016-02101-03	For fuel gas, Red
Hose, 8 2B-G	016-02101-01	For support gas (N <sub>2</sub> O), Green
Wire bands, for 16mm	037-61019	Hose band
Tube, super cornace 9 13	016-43200-08	Drain hose (below chamber)
Vinyl tube, R3603 3/8 1/16	016-31409	Taigon Tube, connects to drain bottle (for water-soluble samples)
Si rubber tube, 9 12	016-31350-22	Silicone rubber tube, connects to drain bottle (for organic solvent samples except petroleum group)
Fuse, 313.250 0.25A	072-01664-11	For HC lamp
Fuse, 189100	072-01667-12	For D <sub>2</sub> lamp
Fuse, ULCS-61ML6	072-01661-24	For 6A, 100V system
Fuse, 313.003	072-01664-30	For 3A, 200V system
Burner positioning jig	202-38757-02	
Seal joint ASSY	204-27570-02	For checking for gas leaks
Polyethylene capillary No.3	200-31328-01	For sealing the capillary
Retaining plate	206-50318	For securing the nebulizer
Vinyl cover	206-64902	Vinyl cover for main unit
Mixer	206-50486	
Wiring band	072-60315-01	For fixing the drain hose

## 6.11.2 GFA-6500 Maintenance Parts

Part Name	Part No.	Remarks
High density graphite tube	206-80153-03	
Pyrolytic coating graphite tube	206-69984-02	
Graphite cap 6000	206-80165	
Graphite holder 6000	206-80164	
Seal	206-69215	
Window socket ASSY	206-69949	
Socket adapter	206-69814-01	
Window plate, W(16)-Q	205-82654-02	
O-ring, 4CP14	036-11015	
Hose, 8 2B-BK	016-02101-04	
Wire band, for 14mm	037-61018	
Wire band, for 16mm	037-61019	
Nylon T, N5-4-4 3	016-35764-11	Black, i.d. 3, for gas
Fluorine rubber tube, 104-0030	016-02401-01	Black, i.d. 3, for cooling water
Silicone rubber tube, 01510	016-31351-35	For temp.sensor nozzle
Sleeve, 40-13	035-60374	For fixing fluorine rubber tube
Nylon T, N5-4-6	016-35761	Black, i.d. 4, for cooling water
Tetron sleeve for cooling 10 16	018-31506	For cooling water
Fuse, FGBO 250V 1A	072-01214-07	PHASE
Fuse, FGBO 250V 2A	072-01214-08	CONTROL
Protective plate	206-65236	For protecting furnace
Coil spring	206-69790	For preventing loosening of socket adapter

## 6.12.1 For Flame Analysis

Part Name	Part No.	Remarks
Flame conversion unit ACF-6800	206-64843-92	
Cover, flame	206-50554	Required when mounting ACF-6800 on AA-6650G
High temperature burner head	206-50300-92	Titanium
Air compressor (50Hz)	200-33897-01	For AC100V, 50Hz
Air compressor (60Hz)	200-33897-02	For AC100V, 60Hz
Silent-type air compressor	200-64051	For both 50Hz/60Hz
Drain separator	200-64020	
Precision gas pressure regulator YR-71	040-72020-01	For acetylene gas
Precision gas pressure regulator MAF-85S	040-72019-11	For nitrous oxide gas
Precision gas pressure regulator MAF-76S	040-72019-01	For hydrogen gas
Precision gas pressure regulator MAF-106S	040-72019-21	For argon gas
Hose ASSY	206-50389-91	For argon gas
Hose ASSY	206-50389-92	For hydrogen gas

## 6.12.2 For Furnace Analysis (for GFA-6500)

Part Name	Part No.	Remarks
Graphite Furnace Atomizer GFA-6500	206-80208-xx	
High-density graphite tube	206-80153-03	
Pyrolytic coating graphite tube	206-69984-02	
Platform tube	206-82541	

## 6.12.3 For Furnace Analysis (for GFA-EX7)

Part Name	Part No.	Remarks
Graphite Furnace Atomizer GFA-E 7	206-51000-xx	
Furnace base	206-51141	Required when mounting GFA-E 7 on AA-6650F
High-density graphite tube	206-50587	
Pyrolytic coating graphite tube	206-50588	
Platform tube	206-50887-02	

## 6.12.4 Autosampler

Part Name	Part No.	Remarks
Autosampler ASC-6100	206-50100-xx	
Unit for furnace ASK-6100	206-50200-91	
Nozzle ASSY, HVG	206-67563	Required when using ASC-6100 with HVG-1

## 6.12.5 Hollow Cathod Lamps (Single Element Lamps)

· HAMAMATSU PHOTONICS Co.LTD L233 Series (Not usable for SR method)

Element Symbol	Element Name	Part No.	Product Name
Ag	Silver	200-38422-02	L233-47NQ
Al	Aluminum	200-38422-01	L233-13NB
As	Arsenic	200-38422-42	L233-33NQ
Au	Gold	200-38422-25	L233-79NQ
B	Boron	200-38422-39	L233-5NQ
Ba	Barium	200-38422-03	L233-56NB
Be	Beryllium	200-38422-04	L233-4NQ
Bi	Bismuth	200-38422-43	L233-83NQ
Ca	Calcium	200-38422-05	L233-20NU
Cd	Cadmium	200-38422-06	L233-48NQ
Co	Cobalt	200-38422-09	L233-27NU
Cr	Chromium	200-38422-07	L233-24NB
Cs	Cesium	200-38422-27	L233-55NB
Cu	Copper	200-38422-08	L233-29NB
Dy	Dysprosium	200-38422-60	L233-66NB
Er	Erbium	200-38422-61	L233-68NB
Eu	Europium	200-38422-62	L233-63NB
Fe	Iron	200-38422-10	L233-26NB
Ga	Gallium	200-38422-40	L233-31NU
Gd	Gadolinium	200-38422-63	L233-64NB
Ge	Germanium	200-38422-11	L233-32NU
Hf	Hafnium	200-38422-64	L233-72NU
Hg	Mercury	200-38422-28	L233-80NU
Ho	Holmium	200-38422-65	L233-67NB
In	Indium	200-38422-48	L233-49NB
Ir	Iridium	200-38422-66	L233-77NQ
K	Potassium	200-38422-22	L233-19NB
La	Lanthanum	200-38422-29	L233-57NB
Li	Lithium	200-38422-30	L233-3NB
Lu	Lutetium	200-38422-67	L233-71NB
Mg	Magnesium	200-38422-12	L233-12NU
Mn	Manganese	200-38422-13	L233-25NU
Mo	Molybdenum	200-38422-31	L233-42NB
Na	Sodium	200-38422-14	L233-11NB
Nb	Niobium	200-38422-32	L233-41NB
Nd	Neodymium	200-38422-68	L233-60NB

Element Symbol	Element Name	Part No.	Product Name
Ni	Nickel	200-38422-15	L233-28NQ
Os	Osmium	200-38422-69	L233-76NU
Pb	Lead	200-38422-21	L233-82NQ
Pd	Palladium	200-38422-41	L233-46NQ
Pr	Praseodymium	200-38422-70	L233-59NB
Pt	Platinum	200-38422-20	L233-78NU
Rb	Rubidium	200-38422-33	L233-37NB
Re	Rhenium	200-38422-44	L233-75NB
Rh	Rhodium	200-38422-49	L233-45NB
Ru	Ruthenium	200-38422-45	L233-44NB
Sb	Antimon	200-38422-24	L233-51NB
Sc	Scandium	200-38422-71	L233-21NB
Se	Selenium	200-38422-46	L233-34NB
Si	Silicon	200-38422-16	L233-14NU
Sm	Samarium	200-38422-72	L233-62NB
Sn	Tin	200-38422-18	L233-50NQ
Sr	Strontium	200-38422-34	L233-38NB
Ta	Tantalum	200-38422-35	L233-73NU
Tb	Terbium	200-38422-73	L233-65NB
Te	Tellurium	200-38422-47	L233-52NQ
Ti	Titanium	200-38422-17	L233-22NB
Tl	Thallium	200-38422-74	L233-81NU
Tm	Thulium	200-38422-75	L233-69NB
V	Vanadium	200-38422-19	L233-23NB
W	Tungsten	200-38422-36	L233-74NU
Y	Yttrium	200-38422-76	L233-39NB
Yb	Ytterbium	200-38422-77	L233-70NB
Zn	Zinc	200-38422-23	L233-30NQ
Zr	Zirconium	200-38422-37	L233-40NB

**6.12.6 Hollow Cathode Lamps (Single element lamps, Usable for SR method)**

· HAMAMATSU PHOTONICS Co.LTD L2433 Series

Element Symbol	Element Name	Part No.	Product Name
Ag	Silver	200-38456-01	L2433-47NB
Al	Aluminum	200-38456-02	L2433-13NB
As	Arsenic	200-38456-03	L2433-33NQ
Au	Gold	200-38456-04	L2433-79NQ
B	Boron	200-38456-05	L2433-5NB
Ba	Barium	200-38456-06	L2433-56NB
Be	Beryllium	200-38456-07	L2433-4NQ
Bi	Bismuth	200-38456-08	L2433-83NQ
Ca	Calcium	200-38456-09	L2433-20NU
Cd	Cadmium	200-38456-10	L2433-48NQ
Co	Cobalt	200-38456-11	L2433-27NU
Cr	Chromium	200-38456-12	L2433-24NB
Cu	Copper	200-38456-14	L2433-29NB
Dy	Dysprosium	200-38456-15	L2433-66NB
Er	Erbium	200-38456-16	L2433-68NB
Eu	Europium	200-38456-17	L2433-63NB
Fe	Iron	200-38456-18	L2433-26NQ
Ga	Gallium	200-38456-19	L2433-31NU
Ge	Germanium	200-38456-21	L2433-32NU
Hf	Hafnium	200-38456-22	L2433-72NU
Ho	Holmium	200-38456-24	L2433-67NB
K	Potassium	200-38456-26	L2433-19NB
La	Lanthanum	200-38456-27	L2433-57NB
Li	Lithium	200-38456-28	L2433-3NB
Mg	Magnesium	200-38456-30	L2433-12NU
Mn	Manganese	200-38456-31	L2433-25NU
Mo	Molybdenum	200-38456-32	L2433-42NB
Na	Sodium	200-38456-33	L2433-11NB
Ni	Nickel	200-38456-35	L2433-28NQ
Pb	Lead	200-38456-37	L2433-82NQ
Pd	Palladium	200-38456-38	L2433-46NQ
Pt	Platinum	200-38456-40	L2433-78NU
Ru	Ruthenium	200-38456-43	L2433-44NB
Sb	Antimon	200-38456-44	L2433-51NQ
Se	Selenium	200-38456-46	L2433-34NQ
Si	Silicon	200-38456-47	L2433-14NQ

Element Symbol	Element Name	Part No.	Product Name
Sm	Samarium	200-38456-48	L2433-62NB
Sn	Tin	200-38456-49	L2433-50NQ
Sr	Strontium	200-38456-50	L2433-38NB
Te	Tellurium	200-38456-53	L2433-52NQ
Ti	Titanium	200-38456-54	L2433-22NB
V	Vanadium	200-38456-56	L2433-23NB
Y	Yttrium	200-38456-58	L2433-39NB
Yb	Ytterbium	200-38456-59	L2433-70NB
Zn	Zinc	200-38456-60	L2433-30NQ

### 6.12.7 Hollow Cathod Lamp (Multi-element Lamps) (Not usable for SR method)

Element	Part No.	Product Name
Ca Mg	200-38422-51	L733-202NU
Fe Ni	200-38422-53	L733-204NQ
Na K	200-38422-50	L733-201NB
Si Al	200-38422-52	L733-203NU
Si Ba	200-38422-54	L733-205NU

### 6.12.8 Other Accessories

Part Name	Part No.	Remark
Mercury vaporizer unit MVU-1A	204-21932-01	
Gas flow cell	201-98687	
Cell holder for gas flow cell	202-35867	
Hydride vaporizer unit HVG-1	206-17143	
Cooling water circulating unit CA-1111	044-01809-02	Working temperature range: -10 +40°C
Cooler connection kit	206-84373-91	Required when the GFA-6500 is connected with CA-1111.
Regulator ASSY	206-86147-91	Pressure reducing valve for GFA-6500 cooling water