

HAKKO 494

SMOKE ABSORBER

Smoke Absorber

Instruction Manual



Thank you for purchasing the HAKKO 494 smoke absorber. This product is a fume extraction system designed for use on production lines. It uses a non-fabric filter to remove smoke.

Please read this manual before operating the unit. Keep this manual readily accessible for reference.



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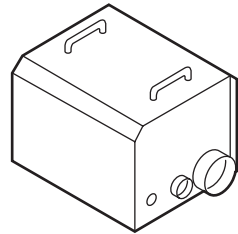
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1. PACKING LIST

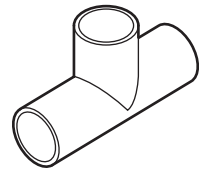
Before using the set, please check the contents to be sure that all items are included.

Station	1	Main filter	5
Filter case	1	Inlet socket	1
Filter cap	1	Exhaust duct/5 m (16.4 ft.)	1
Pre-filter	5	Nylon strap	2
Duct/3 m (9.84 ft.)	1	Suppressor	1
End cover	1	Absorption pipe set.. Any one set from A, B, C, E, F, G, R. (Please let us know the type of soldering iron you are using when you place your order.)	
		Instruction manual	1

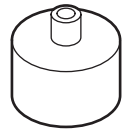
*Soldering iron not included in set.
*Iron stand not included. HAKKO 607 (No. 607) iron stand available separately.



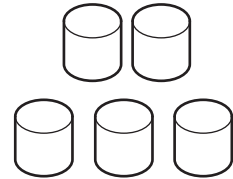
Station



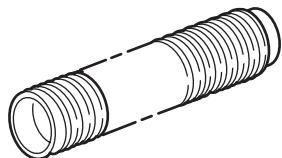
Filter case



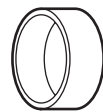
Filter cap



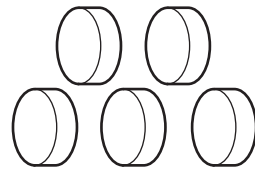
Pre-filter



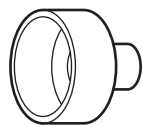
Duct/3 m (9.84 ft.)



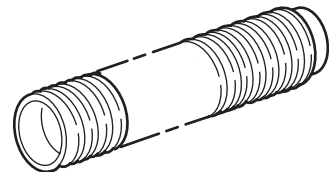
End cover



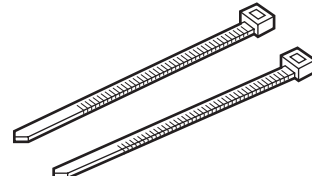
Main filter



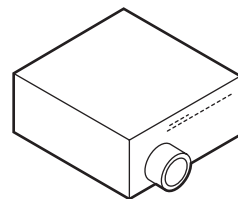
Inlet socket



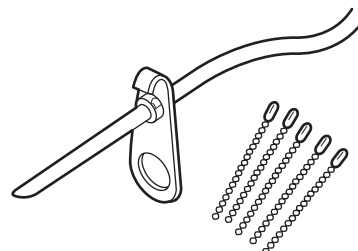
Exhaust duct/5 m (16.4 ft.)



Nylon strap



Suppressor



Absorption pipe set

2. NOTES ON USAGE

CAUTION

For safety reasons, be sure to ground the unit by connecting the ground wire to a grounded terminal.

Maintenance

Be sure to regularly replace all expendable parts and clean the required areas. (Refer to "6. MAINTENANCE, PARTS REPLACEMENT" on Page 6.) Unless specifically requested to do otherwise, always turn off the power switch and unplug the power cord from the power source before beginning any maintenance.

Tip Temperature

The tip temperature drops slightly when the smoke absorber is in use. In workplaces where strict temperature control is required, measure the tip temperature (using our products (thermometer)) 10 minutes after operating the smoke.

Soldering Iron

A single HAKKO 494 unit can handle up to 10 soldering irons.

Filter

Operating the smoke absorber without inserting filter may cause the turbo fan to malfunction. Always run the system the filter in place.

Duct

The duct should be a maximum of 20 m (65.6 ft.) in length on the suction side and 5 m (16.4 ft.) in length on the exhaust side.

3. SPECIFICATIONS

Model No.	HAKKO 494	
Part Name	Station	
Frequency	50 Hz	60 Hz
Power Consumption	150 W	200 W
Static Pressure	2.3 KPa (240 mmAq.)	3.2 KPa (325 mmAq.)
Absorption Capacity	1.56 m ³ /min.	1.82 m ³ /min.
Dimensions (W x H x D)	322 x 300 x 386 mm (12.68 x 11.81 x 15.2 in.) w/o handle, cord	
Weight	18 kg (39.9 lb.)	

*Specifications and design are subject to change without notice.

● Replacement Parts

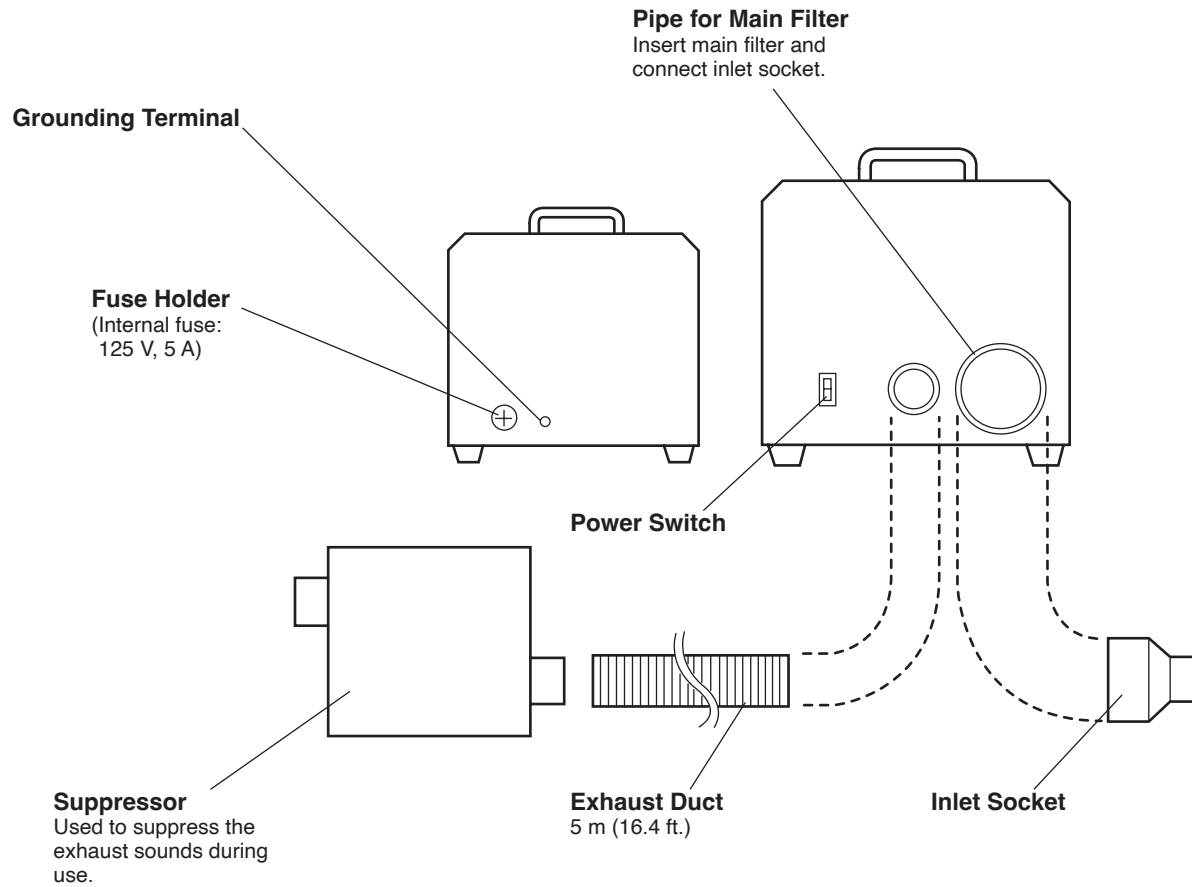
Part No.	Name	Contents
C1028	Duct Set	Filter cap..... 1
		Pre-filter..... 5
		Nylon strap..... 2
		Filter strap..... 1
		Duct/1.5 m (4.92 ft.)..... 1

Part No.	Name / Specification	Contents
C1029	Absorption pipe set A/ DASH, 900M/L	Absorption pipe 1 Silicone hose/1 m (3.28 ft.)..... 1 Hose coupling band..... 5 Metal fitting for absorption pipe... 1
C1030	Absorption pipe set B/ DASH, MACH-I (920, 921, 922)	
C1031	Absorption pipe set C/ MACH-I (918)	
C1033	Absorption pipe set E/ MG30 W - 100 W	
C1034	Absorption pipe set F/455	
C1035	Absorption pipe set G/456	
C1540	Absorption pipe set R	Absorption pipe 1 Silicone hose/1.5 m (4.92 ft.)... 1 Hose coupling band..... 5 Metal fitting for absorption pipe... 1

● Replacement Parts

Part No.	Part Name/Specification
B1276	Filter cap
A1074	Pre-filter/5 pcs.
B1278	Filter case
B1292	Nylon strap/2 pcs.
B1279	Duct/1.5 m (4.92 ft.)
B1293	Duct/3 m (9.84 ft.)
B1277	End cover
B1280	Absorption pipe A/6.5 x 100 ℓ, DASH, 900M/L, MACH-I
B1281	Absorption pipe B/6.5 x 130 ℓ, 455, 457, 458
B1282	Absorption pipe C/6.5 bent, MG30 W- 100 W
B1283	Absorption pipe D/6.5 x 140 ℓ, 456
B1596	Absorption pipe E/6.5 x 80 ℓ, 902, 904
B1953	Absorption pipe /6.4 bent, 907, 908
B1284	Metal fitting for absorption pipe A/ DASH, 900M/L, 457, 458, 902, 904
B1285	Metal fitting for absorption pipe B/MACH-I (920, 921, 922)
B1286	Metal fitting for absorption pipe C/MACH-I (918)
B1287	Metal fitting for absorption pipe D/MG 30 W - 100 W
B1288	Metal fitting for absorption pipe E/455
B1289	Metal fitting for absorption pipe F/456
B1291	Silicone hose/1 m (3.28 ft.)
B1314	Silicone hose/E.S.D., 1 m (3.28 ft.)
B2184	Silicone hose/1.5 mm (4.92 ft.)
B1290	Hose coupling band/5 pcs.
B1294	Exhaust duct/5 m (16.4 ft.)
A1069	Main filter/5 pcs.
B1239	Timing belt
B1245	Inlet socket
B1246	Pararell piping joint
C1026	Suppressor
B3246	Metal fitting for absorption pipe R

4. PART NAMES, ASSEMBLY PROCEDURE



1. Connect the exhaust duct.

- Connect the exhaust duct to the outlet of the station.
(Attach the exhaust duct to the root of the outlet.)

2. Assemble the duct set.

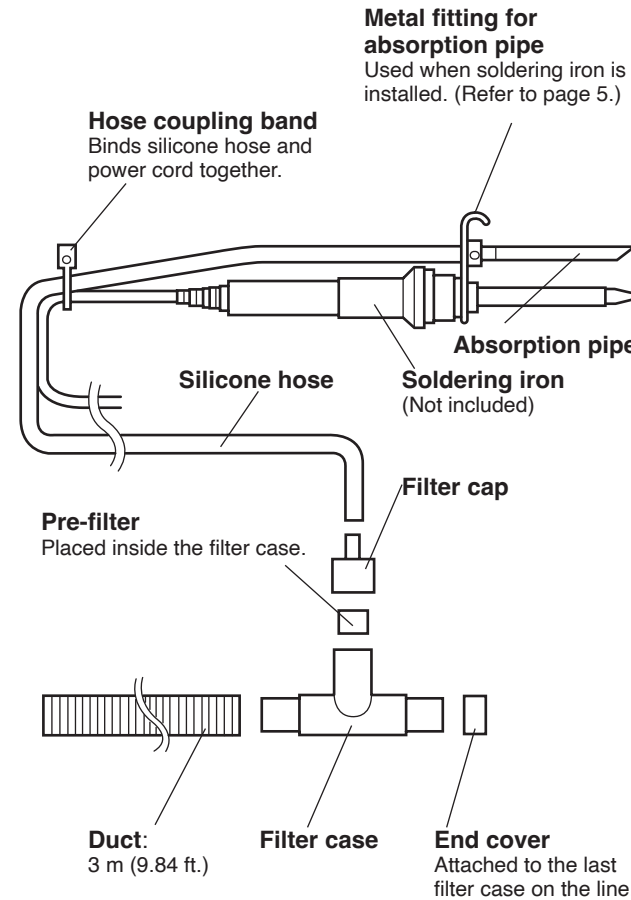
- Place the pre-filter in the filter case and attach the filter cap to the filter case.
- Connect the duct to the filter case and attach the end cover to the other end.
(Put the end cover on the filter case which is placed at the end.)

3. Connect the absorption pipe set.

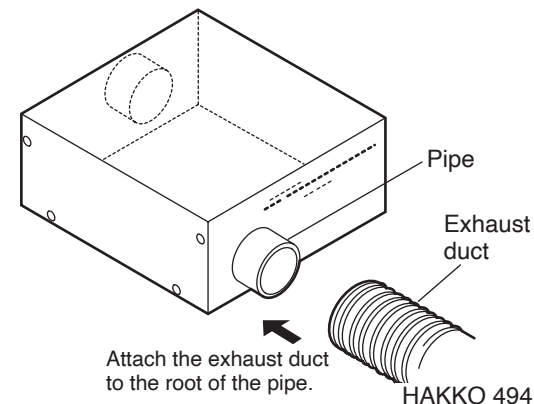
- Attach the soldering iron to the absorption pipe set.
(Refer to "ASSEMBLING THE ABSORPTION PIPE SET" on page 5).
- Bind the silicone hose and soldering iron power cord together with the hose coupling band.
- Attach the silicone hose to the tip of the filter cap.

4. Connect the duct.

- Connect the duct to the inlet socket.
- Place the main filter in the pipe for main filter on the station and connect to the inlet socket.



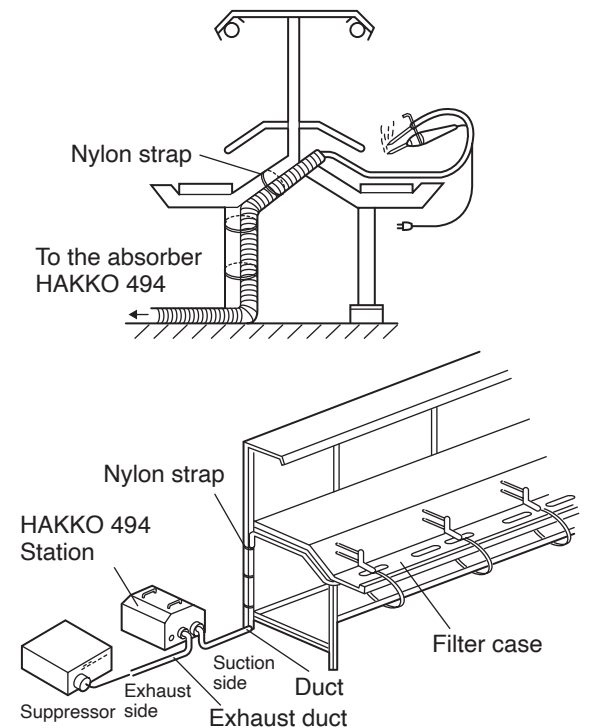
● How to connect the suppressor



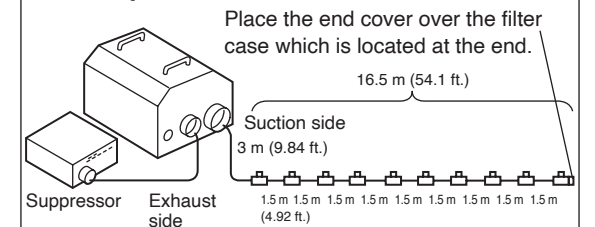
Note: Performance is unaffected whether the exhaust duct is connected to the front or back.

Connecting the line

Install the line by referring to the chart below.



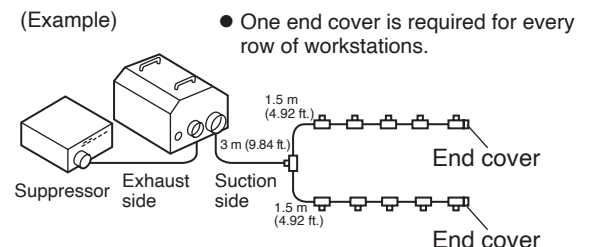
● Example: 10 workers



- Set includes one pipe set for on worker. Pipe sets for additional soldering iron are available separately.
- Attach the end cover to the filter case located at the end.

● Using the options and the parallel piping joint

Parallel piping joint (No. B1246) permit a variety of piping layouts to be used.

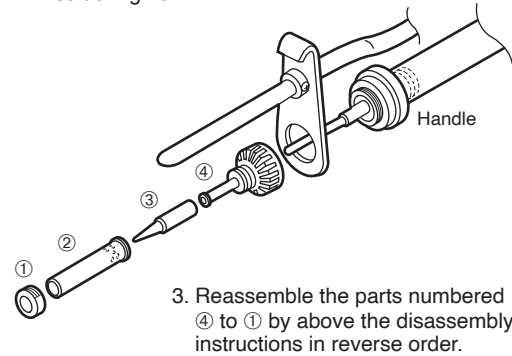


5. ASSEMBLING THE ABSORPTION PIPE SET

The following instructions explain how to connect the absorption pipe set to the soldering iron.

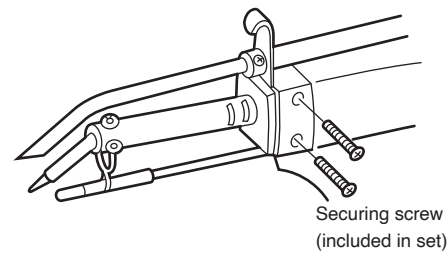
● Absorption pipe set A (No. C1029 for DASH, 900M/L)

1. Disassemble the parts numbered ① through ④.
2. Attach the metal fitting for absorption pipe to the threads on the handle of soldering iron.



● Absorption pipe set E (No. C1033, for MG30 W - 100 W)

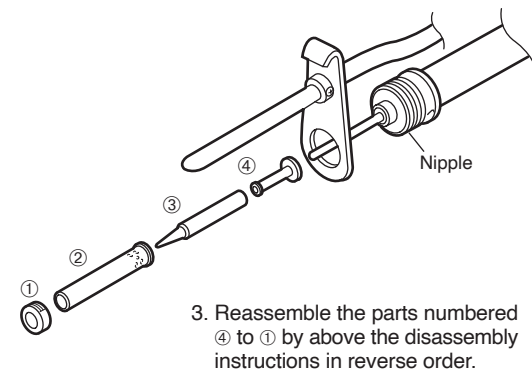
1. Remove the 2 screws indicated in the chart.
2. Attach the metal fitting for absorption pipe as shown in the chart and tighten the attaching screws.



● Absorption pipe set B (No. C1030 for MACH-I (920, 921, 922))

● Absorption pipe set C (No. C1031 for MACH-I (918))

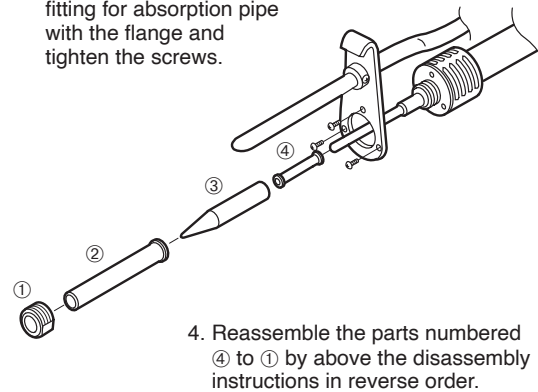
1. Disassemble the parts numbered ① through ④.
2. Attach the metal fitting for absorption pipe to the nipple of soldering iron.



● Absorption pipe set F (No. C1034 for 455)

● Absorption pipe set G (No. C1034 for 456)

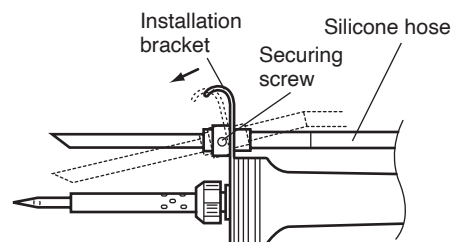
1. Disassemble the parts numbered ① through ④.
2. Remove the 3 screws securing the flange.
3. Align the screw holes of metal fitting for absorption pipe with the flange and tighten the screws.



Adjustment

Adjust the length and angle of the pipe by monitoring the smoke emissions.

- Length – Adjust by loosening the screw.
- Angle – Bend the installation bracket of the metal fitting for absorption pipe as shown right.



● Absorption pipe set R (Compatible soldering irons: Any with a handle diameter of 16 mm or smaller. Regarding the detail for connectable soldering iron, please see the HAKKO website.)

1. Affix the metal fitting for absorption pipe in such a way that it does not touch the insulating cover or the raised "rings" on the handle. Tighten the screws to temporarily attach the pipe.

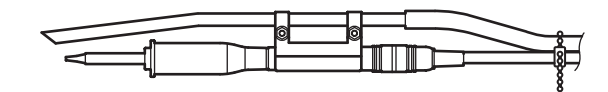
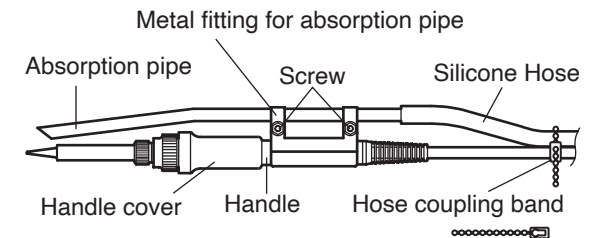
⚠ CAUTION:

The smoke absorption pipe cannot be attached if the diameter of the handle is 16mm or greater.

2. Slot the smoke absorption pipe through the metal fitting for absorption pipe.
3. Adjust the length and angle of the pipe, and then use a screwdriver to tighten the screws and secure it to the iron.
4. Attach the silicone hose to the smoke absorption pipe.

NOTE:

When attaching the metal fitting for absorption pipe to 933 or 934 model soldering irons, pay special attention to the location of the temperature button.



NOTE:

If the screws are closed too tightly, the smoke absorption pipe may not fit through the bracket. If this happens, loosen the screws.

6. MAINTENANCE, PARTS REPLACEMENT

Regular maintenance will maximize the operating life of the product.

Replace the main filter

Replace the main filter when it turns yellow from flux bleeding into it.

- Remove the inlet socket and pull out the main filter from the pipe for main filter.

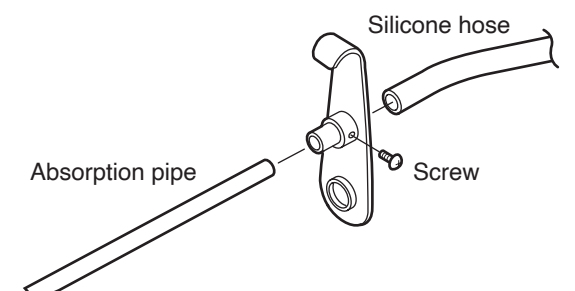
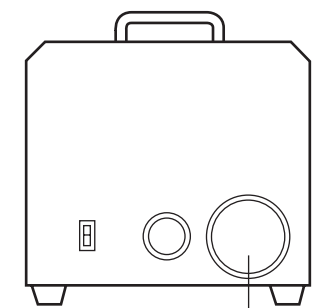
NOTE:

The main filter can not be reused. Be sure to replace it.

Clean the absorption pipe

Suction performance drops as flux builds up within the absorption pipe. Remove the flux regularly.

- Remove the silicone hose and loosen the screw to remove the absorption pipe.
- Since the absorption pipe is made of stainless steel, a flux cleaning solution may be used to clean the pipe.



Maintenance of the duct set

Suction performance drops as flux builds up in the pre-filter and filter cap. Perform maintenance following the instructions below.

● Replace the pre-filter

Replace the pre-filter when it turns yellow from flux bleeding into it.

- Remove the filter cap and pull out the pre-filter.

⚠ CAUTION:

The pre-filter can not be reused. Be sure to replace it.

● Clean the filter cap

Remove the silicone hose and remove any built-up flux.

⚠ CAUTION:

Since the flux is dry, it can be removed with a brush, etc. If the flux is difficult to remove, alcohol may be used to dissolve it. Do not use thinner, etc. since it is harmful to the pipe.

Replace the timing belt

Before replacing the timing belt, turn off the power switch and detach the power cord from the power outlet.

1. Remove the old belt.

- Remove the station cover.
- Loosen the four M6 hexagon bolts.

⚠ CAUTION:

Do not remove the bolts.

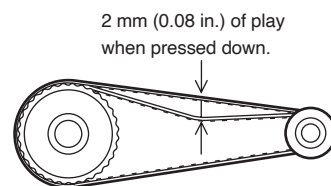
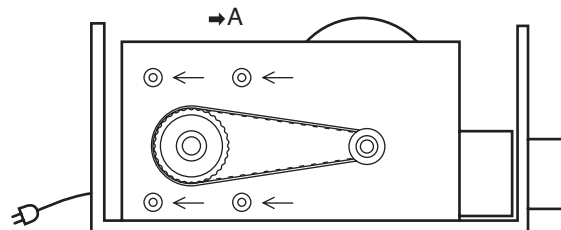
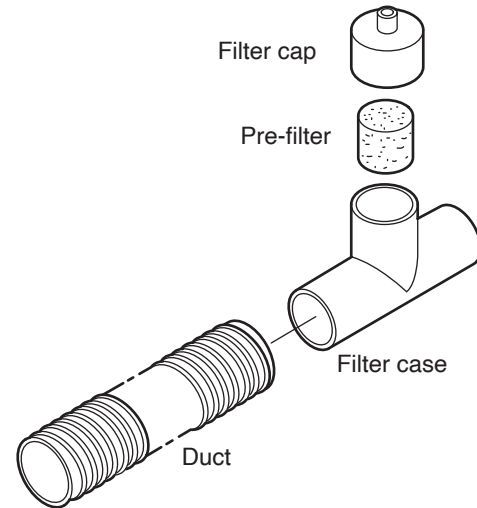
- Slide the motor in direction "A" (indicated in drawing) until the belt is loose enough to remove.
- Remove the old belt.

2. Install the new belt.

- Install the new belt onto the pulley.
- Slide the motor away from direction "A" (indicated in drawing) until the belt is tight.
- Tighten the four bolts while maintaining tension on the belt.

3. Confirmation

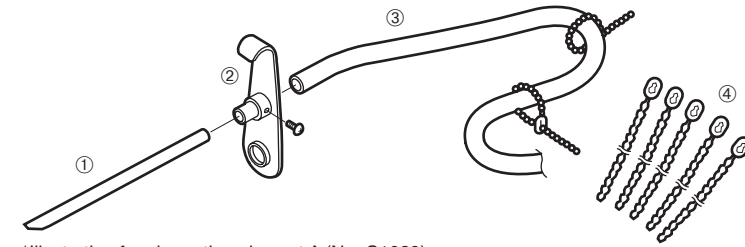
- Check to see if the belt is appropriately tight by pressing it with the band.
- Check to make sure that all screws are tight, then reattach the main body cover.



Request from the manufacture:
If repair should ever become necessary, please keep the product intact (do not disassemble it) and take it as is to you retailer or agent.

7. PARTS LIST

● Absorption pipe set



*Illustration for absorption pipe set A (No. C1029)

Item No.	Part No.	Part Name	Description
③	B1291	Silicone hose	1 m (3.28 ft.)
④	B1290	Hose coupling band	5 pcs.

*Absorption pipe set R (No. 1540) has a different silicone hose from other ones (No. C1029 – C1086).

● No. C1029 [Absorption Pipe Set A/DASH, 900M/L]

Item No.	Part No.	Part Name	Description
①	B1280	Absorption pipe A	6.5 x 100 ℓ
②	B1284	Metal fitting for absorption pipe A	

● No. C1030 [Absorption Pipe Set B/MACH-I (920,921,922)]

Item No.	Part No.	Part Name	Description
①	B1280	Absorption pipe A	6.5 x 100 ℓ
②	B1285	Metal fitting for absorption pipe B	

● No. C1031 [Absorption Pipe Set C/MACH-I (918)]

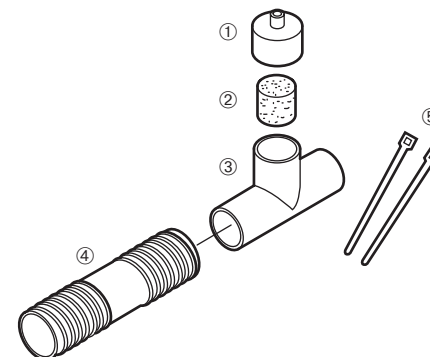
Item No.	Part No.	Part Name	Description
①	B1280	Absorption pipe A	6.5 x 100 ℓ
②	B1286	Metal fitting for absorption pipe C	

● No. C1033 [Absorption Pipe Set E/MG (30 W – 100 W)]

Item No.	Part No.	Part Name	Description
①	B1282	Absorption pipe C	6.5 bent
②	B1287	Metal fitting for absorption pipe D	

● Duct Set

Item No.	Part No.	Part Name	Description
①	B1276	Filter cap	
②	A1074	Pre-filter	5 pcs.
③	B1278	Filter case	
④	B1279	Duct	1.5 m (4.92 ft.)
⑤	B1292	Nylon strap	2 pcs.



● No. C1034 [Absorption Pipe Set F/455]

Item No.	Part No.	Part Name	Description
①	B1281	Absorption pipe B	6.5 x 130 ℓ
②	B1288	Metal fitting for absorption pipe E	

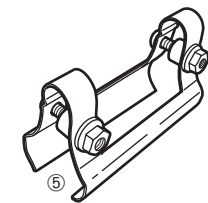
● No. C1035 [Absorption Pipe Set G/456]

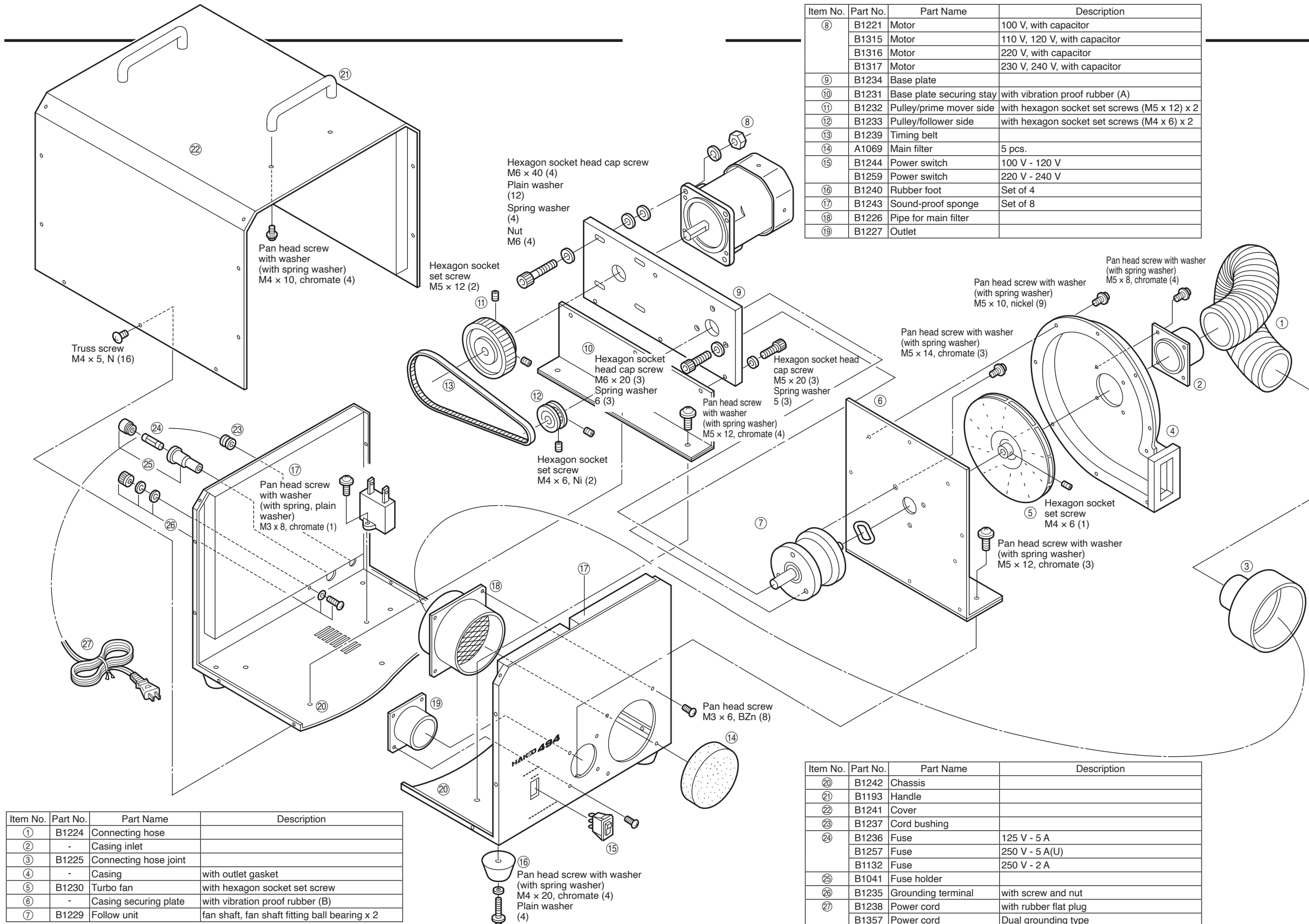
Item No.	Part No.	Part Name	Description
①	B1283	Absorption pipe D	6.5 x 140 ℓ
②	B1289	Metal fitting for absorption pipe F	

● No. C1540 [Absorption Pipe Set R]

Item No.	Part No.	Part Name	Description
①	B1953	Absorption pipe	6.4 bent
③	B2184	Silicone hose	1.5 m (4.92 ft.)
⑤	B3246	Metal fitting for absorption pipe R	

*The smoke absorption pipe cannot be attached with No. C1540, if the handle diameter of soldering irons is more than 16 mm.





Item No.	Part No.	Part Name	Description
⑧	B1221	Motor	100 V, with capacitor
	B1315	Motor	110 V, 120 V, with capacitor
	B1316	Motor	220 V, with capacitor
	B1317	Motor	230 V, 240 V, with capacitor
⑨	B1234	Base plate	
⑩	B1231	Base plate securing stay	with vibration proof rubber (A)
⑪	B1232	Pulley/prime mover side	with hexagon socket set screws (M5 x 12) x 2
⑫	B1233	Pulley/follower side	with hexagon socket set screws (M4 x 6) x 2
⑬	B1239	Timing belt	
⑭	A1069	Main filter	5 pcs.
⑮	B1244	Power switch	100 V - 120 V
	B1259	Power switch	220 V - 240 V
⑯	B1240	Rubber foot	Set of 4
⑰	B1243	Sound-proof sponge	Set of 8
⑱	B1226	Pipe for main filter	
⑲	B1227	Outlet	

Item No.	Part No.	Part Name	Description
①	B1224	Connecting hose	
②	-	Casing inlet	
③	B1225	Connecting hose joint	
④	-	Casing	with outlet gasket
⑤	B1230	Turbo fan	with hexagon socket set screw
⑥	-	Casing securing plate	with vibration proof rubber (B)
⑦	B1229	Follow unit	fan shaft, fan shaft fitting ball bearing x 2

Item No.	Part No.	Part Name	Description
⑳	B1242	Chassis	
㉑	B1193	Handle	
㉒	B1241	Cover	
㉓	B1237	Cord bushing	
㉔	B1236	Fuse	125 V - 5 A
	B1257	Fuse	250 V - 5 A(U)
	B1132	Fuse	250 V - 2 A
㉕	B1041	Fuse holder	
㉖	B1235	Grounding terminal	with screw and nut
㉗	B1238	Power cord	with rubber flat plug
	B1357	Power cord	Dual grounding type



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Please access the web address below for other distributors.

<https://www.hakko.com>