

HITACHI
Inspire the Next
SERVICE MANUAL

PTVC	No.0964E
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CV-400PRO

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SPECIFICATIONS

Rated voltage	: AC230V, 50Hz
Rated input	: IEC 800W, Max 880W
Motor	: Commutator motor
Speed	: 35,500 rpm.
Maximum air flow (without attachment)	: 1.9 m ³ / min. (67.1 cu.ft/min.)
Maximum static pressure	: 2,050 mm. H ₂ O (80.7 in H ₂ O)
Safety protector	: With 6.3A. Current Fuse
Power Cord	: 10 M.
Dust Capacity	: 7.5 L.
Weight (without attachment)	: 4.0 Kg.
Dimensions	: 287 mm. (W) X 339 mm.(L) X 402 mm. (H)

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

VACUUM CLEANER

NOVEMBER 2019


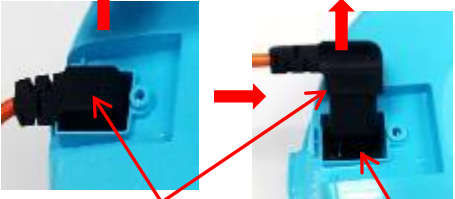

HITACHI CONSUMER PRODUCTS(THAILAND), LTD.

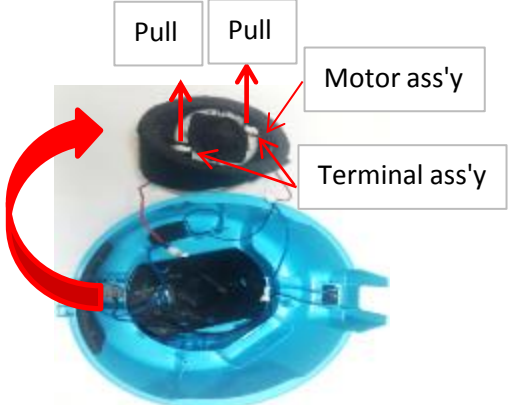
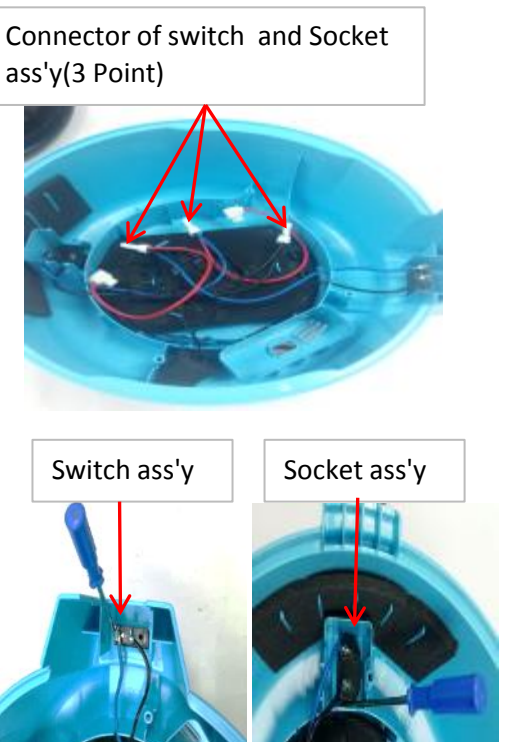
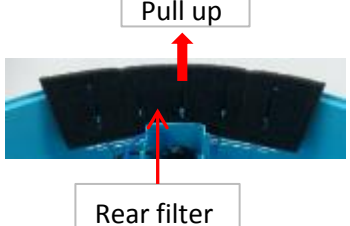
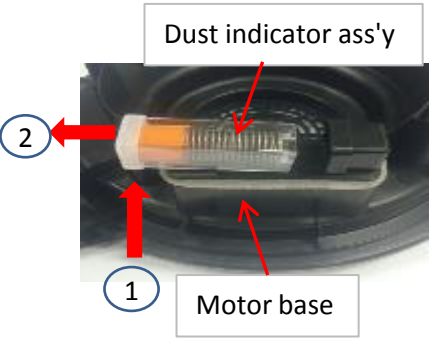
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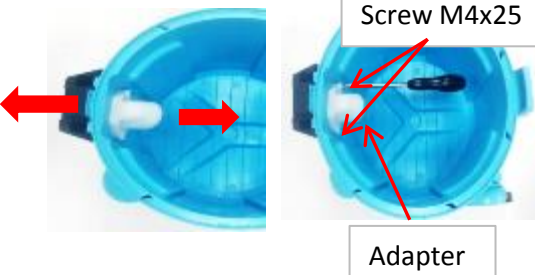
1. Removal and installation technique

1.1 Disassembly of the body

1. Disassembly of the body, unplug the power cord from AC outlet.
2. To replace the Upper Case unit, Remove the attached nameplate and then attach it to the new Upper Case unit.
3. When disassembly the body , Remove each part according to the following procedures.

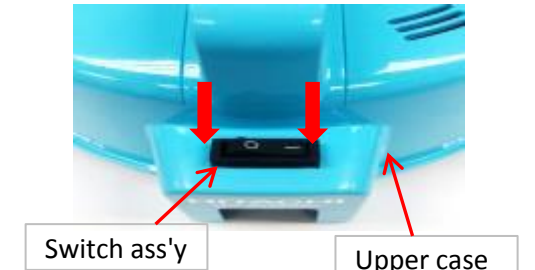

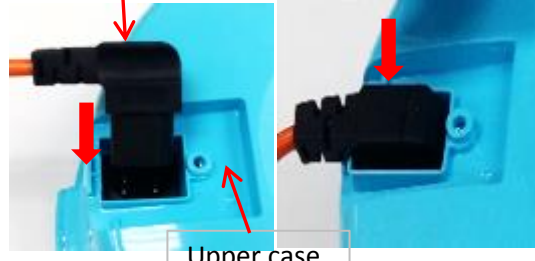
No.	Picture	Procedure
1	 <p>Screw M4x16(BK)</p>	<p>Removal Handle from Upper case ass'y</p> <p>1.1) Remove Handle from Upper case ass'y by loosen Screw M4x16(BK)(2 pcs.) and lift up Handle.</p>
2	 <p>Connector cord ass'y</p> <p>Socket ass'y</p>	<p>Removal Connector cord ass'y from Socket ass'y on Upper case ass'y</p> <p>2.1) Remove Connector cord ass'y from Socket ass'y by pull up from Socket ass'y.</p>
3	 <p>Screw M4x25(4Pcs)</p> <p>Motor base ass'y</p>	<p>Removal Motor base ass'y from Upper case ass'y</p> <p>3.1) Turn up the Upper case ass'y.</p> <p>3.2) Loosen the Screw M4x25(4Pcs) from Motor base.</p> <p>3.3) Lift up Motor base Ass'y and Clamp ass'y from Upper case ass'y.</p>

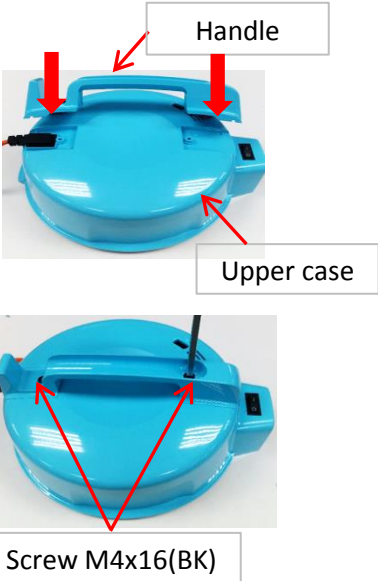
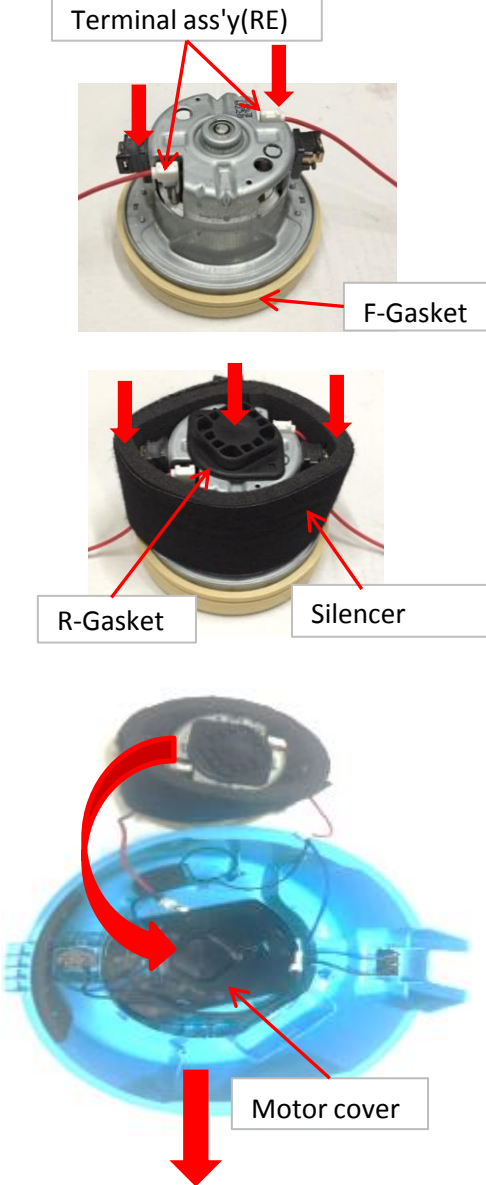
No.	Picture	Procedure
4		<p>Removal Motor ass'y from Upper case ass'y</p> <p>4.1) Lift up the motor up from Upper case ass'y. 4.2) Remove Terminal ass'y from Motor ass'y 2 pcs.</p>
5		<p>Removal Switch ass'y and Socket ass'y from Upper case ass'y</p> <p>5.1) Remove Connector of Switch ass'y(BL),Noise suppressor(BK) and Terminal motor ass'y(RE). 5.2) Remove Connector of Switch fuse ass'y(BK),Socket ass'y(BK). 5.3) Remove Connector of Socket ass'y(BL),Noise suppressor(BK) and Terminal motor ass'y(RE). 5.4) Push the Switch ass'y lock out of the hole in the Upper ass'y 2 Point. 5.5) Push the Socket ass'y lock out of the hole in the Upper ass'y 2 Point.</p>
6		<p>Removal Rear filter from Upper case ass'y</p> <p>6.1) Remove Rear filter from rib of Upper case ass'y.</p>
7		<p>Removal Dust indicator ass'y from Moter base</p> <p>7.1) Lift up Dust indicator ass'y from Motor base.</p>


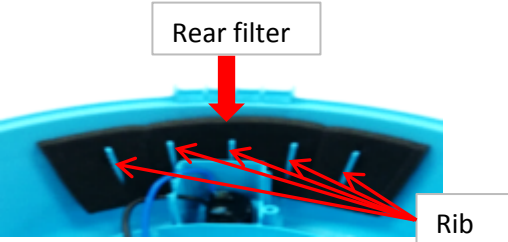
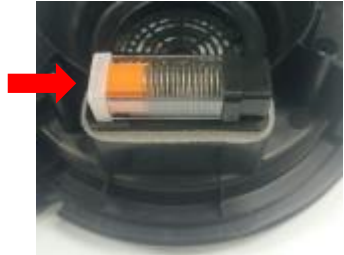

No.	Picture	Procedure
8		<p>Removal Hose inlet and Inlet packing from Lower case (CV-400PRO Only)</p> <p>8.1) Loosen the Screw M4x16(2Pcs) from Lower case. 8.2) Lift up Hose inlet and Inlet packing from Mortor base.</p>
9		<p>Removal Hose inlet ,Seal packing and Adapter from Lower case (CV-400PPRO Only)</p> <p>9.1) Loosen the Screw M4x25(2Pcs) from Lower case. 9.2) Lift up Hose inlet and Adapter from Lower case.</p>


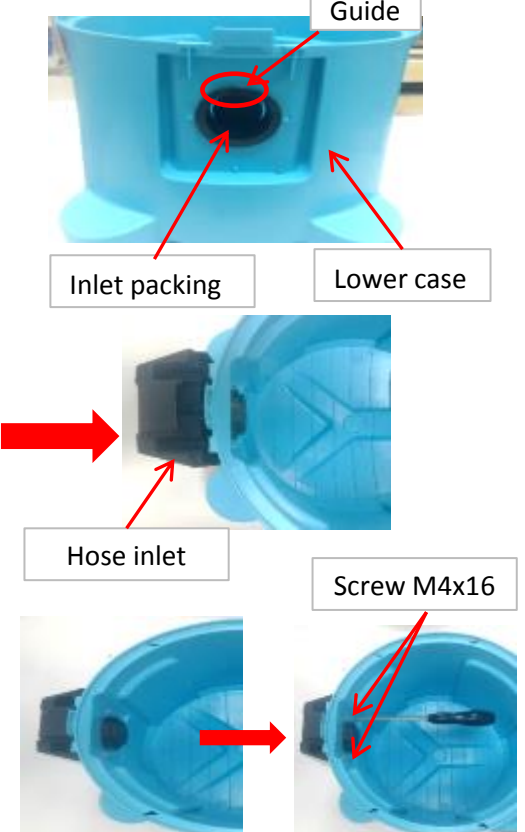

1.2 Assembly process

Assembly process to reverse the removal procedure

No.	Picture	Procedure
1		<p>Assembly Switch ass'y into Upper case</p> <p>1.1) Set Switch ass'y to Hole Upper case and push switch ass'y to lock with Upper case.</p>
2		<p>Assembly Socket ass'y into Upper case</p> <p>2.1) Set Socket ass'y to Hole of Upper case and push Socket ass'y to lock with Upper case.</p>
3		<p>Assembly Connector cord ass'y into Socket ass'y</p> <p>3.1) Put Cord ass'y to Hole Socket ass'y after than push Connector cord ass'y into Socket ass'y.</p>

No.	Picture	Procedure
4		<p>Assembly Handle into Upper case</p> <p>4.1) Set Handle to Upper case at position.</p> <p>4.2) Tighten with Screw M4x16(BK) (2pcs).</p>
5		<p>Assembly Motor ass'y into Upper case ass'y</p> <p>5.1) Assembly Terminal ass'y (RE)(2pcs) to Motor ass'y.</p> <p>5.2) Assembly Silencer ass'y and R-Gasket to Motor ass'y.</p> <p>5.3) Put Motor ass'y to Motor cover at position in Upper case ass'y.</p>

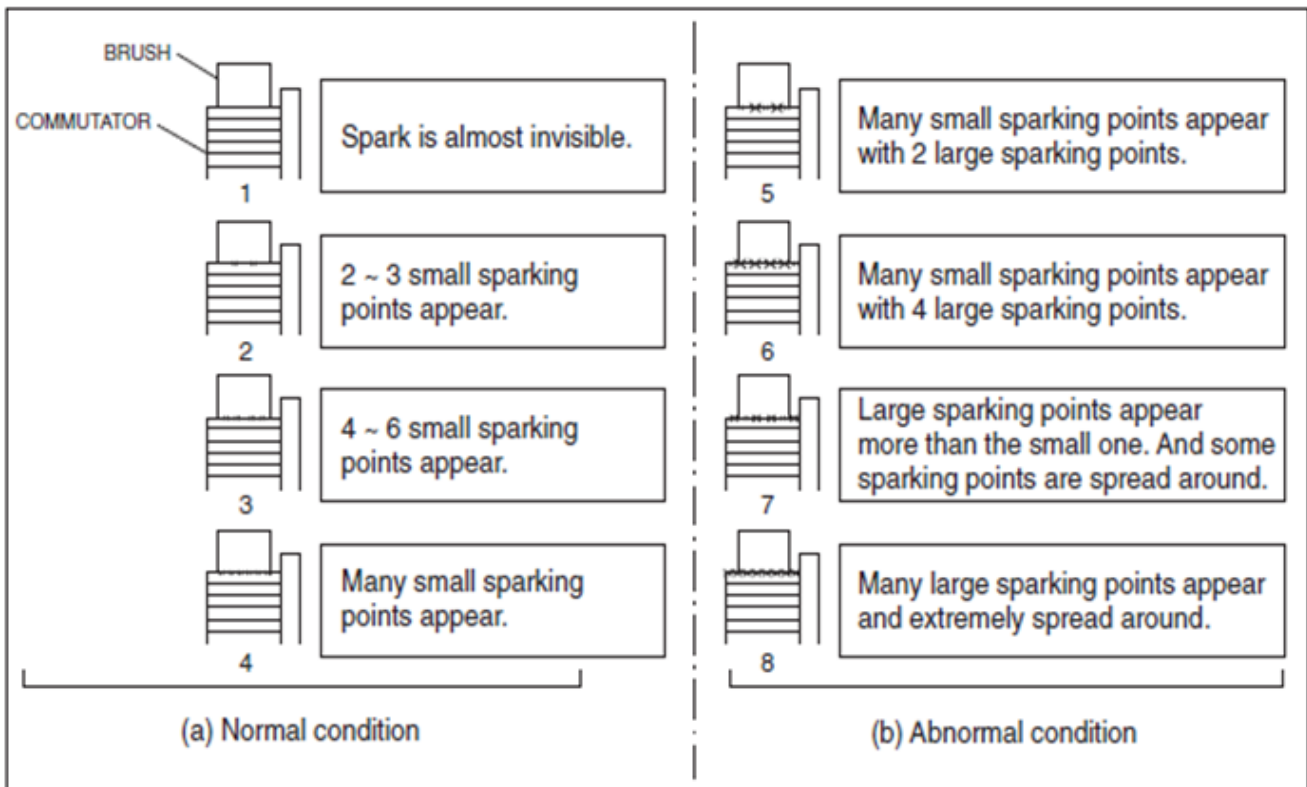
No.	Picture	Procedure
		<p>5.4) Check Lead wire position</p> <p>5.5) Connect Lead wire together following</p> <ul style="list-style-type: none"> - Switch fuse ass'y(BL) - Terminal motor ass'y(RE) - Noise suppressor(BK) <p>Jointly with Connector</p> <p>5.6) Connect Lead wire together following</p> <ul style="list-style-type: none"> - Switch fuse ass'y(BK) - Socket ass'y(RE) <p>Jointly with Connector</p> <p>5.7) Connect Lead wire together following</p> <ul style="list-style-type: none"> - Socket ass'y(BL) - Terminal motor ass'y(RE) - Noise suppressor(BK) <p>Jointly with Connector</p> <p>5.8) Setting Fuse 6.3A at position to Upper case</p> <p>5.9) Setting Noise suppressor at position of Upper case</p> <p>5.10) Setting Lead wire at position hole slot at Upper case and keep Connector in the middle between the inner and outer Silencer ass'y.</p>
6		<p>Assembly Rear filter into Upper case ass'y</p> <p>6.1) Set Rear filter to rib Upper case ass'y.</p>
7		<p>Assembly Dust indicator into Motor base</p> <p>7.1) Push Dust indicator at position to Motor base.</p>
8		<p>Assembly Motor base ass'y ,Clamp ass'y into Upper case ass'y</p> <p>8.1) Put Motor base ass'y,Clamp ass'y at position to Upper case ass'y.</p>

No.	Picture	Procedure
		<p>8.2) Tighten with Screw M4x25 (4pcs)</p>
9		<p>Assembly Inlet packing and Hose inlet into Lower case ass'y (CV-400PRO Only)</p> <p>9.1) Push Inlet packing at position to Lower case ass'y.</p> <p>9.2) Put Hose inlet at position to Lower case ass'y.</p> <p>9.3) Tighten with Screw M4x16 (2pcs) and press the lock between Hose inlet and Lower case ass'y together.</p>
10		<p>Assembly Seal packing , Adapter and Hose inlet into Lower case ass'y(CV-400PPRO Only)</p> <p>10.1) Set Seal packing at position to Hose inlet.</p> <p>10.1) Set Hose inlet ass'y and Adapter at position to Lower case.</p> <p>10.2) Tighten with Screw M4x25 (2pcs)</p>

1.3 How to change CARBON BRUSH

1.3.1 Repairing and replacing of CARBON BRUSH which is in its normal condition. Especially, the surface of COMMUTATOR of AMATURE must be in good condition. If the color of COMMUTATOR surface is changed or the surface become rough, using period of CARBON BRUSH will be extremely shorten.

1.3.2 CARBON BRUSH changing: CARBON BRUSH is attached to housing of motor by screw. So, the screw should be removed. Then, remove CARBON BRUSH. After CARBON BRUSH changing, run vacuum cleaner motor with low electrical power (approximately 70 ~ 90% of normal electrical power) for 30 minutes. If the vacuum cleaner cannot perform under low electrical power, use normal electrical power instead. Then, check the size of spark. If spark size is equal to No.5 or bigger, it means that CARBON BRUSH cannot be change.



1.4 Problem and solution

Problem	Inspection Area
Vacuum power is low.	Is the dust container full?
Filter clean-up indicator appear.	Is the filter clogged up with dust?
Vacuum power is low But, dust container is not full.	Is the filter clogged up with dust?
	Is the vacuum pipe, vacuum line or extension joint clogged up with dust?
If cleaning the Dust Case or Protection Filter already but the Vacuum power is low or Filter Clean-up is indicator appear.	Is the protection filter clogged up with dust? If there is a case to change the new protection filter.
Motor is not working.	Is the electricity plug inserted properly into the socket?
	Is the heat protection equipment stop vacuum cleaner operation?
	Is the Fuse 10A cut off?

1.6 How to maintain vacuum cleaning performance and avoid the accident

- In case of electricity wire damaged, it need to be replace by manufacturer or authorized dealer to avoid danger.
- Do not allow obstruction at the air suction panel, the end of vacuum pipe for plain ground and carpet, long vacuum pipe, vacuum line, air outlet panel etc. the obstruction may cause high electrical power cost and motor heat.
- Do not use vacuum cleaner to clean up match, ashes from a chimney or smoking object. Doing so may cause fire accident.
- Do not use vacuum cleaner to clean up wet floor, And, do not use vacuum cleaner in wet or moist area, Because, moisture may cause motor or other mechanic part damage.
- Avoid picking up sharp objects. They may damage the vacuum cleaner.
- In order to clean vacuum cleaner unit and other part, wipe them with cloth soaked in soap water.
Do not use oil compound with vacuum cleaner.
- Do not clean up switch with wet cloth or spill water on it. Because moisture may cause electric shock.
- Use only Hitachi battery brush with vacuum cleaner. When the brush needs to be replaced, please visit dealer/Hitachi service agent. Because the special tool required for open vacuum cleaner cover.
- Keep vacuum cleaner away from children. And do not leave electricity plug in the socket without taking care of.
- Always take off electricity plug from a socket before vacuum cleaner repairing.

Warning

Using the vacuum cleaner on wet floor may cause an electric chock.

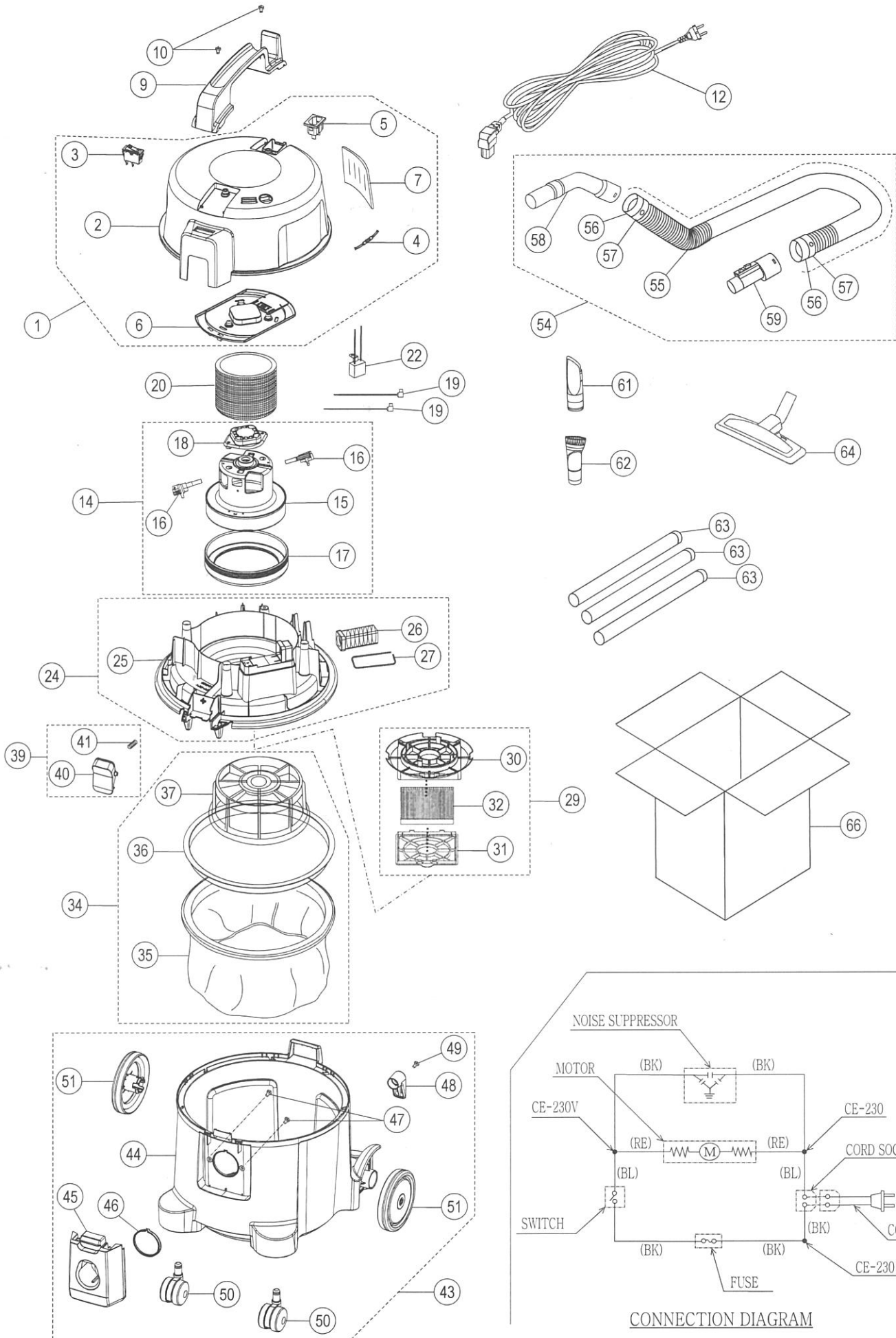
2. PARTLIST

2.1 CV-400PRO (GN, LB, DBL)

NO.	PARTS NO.	DESCRIPTION	Q'TY			PACKED Q'TY	REMARKS	ONLY FOR USE AT THE WORKS	
			GN	LB	DBL				
1	CV-400PRO 001	UPPER CASE ASSY 400PRO (GN)	1			1	Inc. 2 - 7	2VAZ15608	A/V
	CV-400PRO 002	UPPER CASE ASSY 400PRO (LB)		1		1		2VAZ15608	B/V
	CV-400PRO 003	UPPER CASE ASSY 400PRO (DBL)			1	1		2VAZ15608	C/V
2	_____	UPPER CASE FINISHING (GN)	1					2VAL15368	A
	_____	UPPER CASE FINISHING (LB)		1				2VAL15368	B
	_____	UPPER CASE FINISHING (DBL)			1			2VAL15368	C
3	_____	SWITCH ASSY CV-400PRO	1	1	1			2VAE15371	A
4	CV-400 016	FUSE ASSY 6.3A(8028-E)	1	1	1	1		2J82E8028	E/V
5	CV-400PRO 005	CORD SOCKET ASSY CV-400PRO	1	1	1	1		3VAE13298	A/V
6	_____	MOTOR COVER	1	1	1			1A2QB5633	1
7	CV-400PRO 009	REAR FILTER CV-400 PRO	1	1	1	1		3VPZ13271	1/V
8									
9	CV-400PRO 006	HANDLE CV-400PRO (GN)	1			1		1VPP05691	1/V
	CV-400PRO 007	HANDLE CV-400PRO (LB)		1		1		1VPP05691	2/V
	CV-400PRO 008	HANDLE CV-400PRO (DBL)			1	1		1VPP05691	3/V
10	_____	PT SCREW M4X16 (BK)	2	2	2		Use for Handle	3VPM13299	1
11									
12	CV-400PRO 004	CORD ASSY (VDE) 400PRO	1	1	1	1		1VPE05704	1/V
13									
14	CV-400PRO 010	MOTOR ASSY (TXA) 900W 230V	1	1	1	1	Inc. 15 - 18	2K55J1423	M/V
15	_____	MOTOR ASSY TXA 900W 230V	1	1	1			1K55E6077	A
16	CV-3160 902	BRUSH HOLDER ASS'Y	1	1	1	1		2C6ZH3678	B/V
17	CV-400PRO 011	GASKET (F)	1	1	1	1		3A8LK5615	2/V
18	CV-960BK 902	GASKET (COMMON) K	1	1	1	1		3A8LL3291	2/V
19	CV-400PRO 012	LEAD WIRE MOTOR 240(R)	2	2	2	1		3J8ZK5533	G/V
20	CV-950BR 906	SILENCER ASS'Y(HI-EX)	1	1	1	1		3A8ZM7414	A/V
21									
22	CV-SP20V 903	NOISE CAPACITOR ASS'Y (220-240V)	1	1	1	1		2J1ZH9674	B/V
23									
24	CV-400PRO 013	MOTOR BASE ASSY 400PRO	1	1	1	1	Inc. 25 - 27	1VAZ05747	A/V
25	_____	MOTOR BASE CV-400PRO (DG)	1	1	1			0VPP04339	1
26	CV-960BJ 906	DUST INDICATOR ASS'Y	1	1	1	1		3A4GE3019	G/V
27	_____	INDICATOR PACKING CV-950	1	1	1			3L44J2238	1
28									
29	CV-300P 903	P-FILTER HEPA ASSY	1	1	1	1	Inc. 30 - 32	2V1ZG8191	A/V
30	_____	P-HEPA GUARD 300	1	1	1			1L47C6210	1
31	_____	P-HEPA GUARD COVER 300	1	1	1			1L47C6211	1
32	Sales Item	P-FILTER HEPA 300	1	1	1			2L4ZG8876	A
33									
34	CV-300 917	FILTER ASSY	1	1	1	1	Inc. 35 - 37	2V1Z35150	F/V

NO.	PARTS NO.	DESCRIPTION	Q'TY			PACKED Q'TY	REMARKS	ONLY FOR USE AT THE WORKS	
			GN	LB	DBL				
35	—————	FILTER ASSY CV-100	1	1	1			2L4710845	F
36	—————	F SUPPORTER(100)	1	1	1			3V1Y28063	1
37	—————	FILTER CAGE(200)	1	1	1			2V1C11301	3
38									
39	CV-300 910	CLAMP WITH SPRING(DG)	1	1	1	1	Inc. 40 - 41	3A3QH2371	A/V
40	—————	CLAMP (DG)	1	1	1			3V1YP4645	1
41	—————	CLAMP SPRING CV-100	1	1	1			4A4T54349	1
42									
43	CV-400PRO 014	LOWER CASE ASSY 400PRO(GN)	1			1	Inc. 44 - 51	0VAZ04368	A/V
	CV-400PRO 015	LOWER CASE ASSY 400PRO(LB)		1		1		0VAZ04368	B/V
	CV-400PRO 016	LOWER CASE ASSY 400PRO(DBL)			1	1		0VAZ04368	C/V
44	—————	LOWER CASE (GN)	1					0VPP04338	1
	—————	LOWER CASE (LB)		1				0VPP04338	2
	—————	LOWER CASE (DBL)			1			0VPP04338	3
45	CV-300 918	SUCTION INLET(DG)	1	1	1	1		2V1YL5946	1/V
46	CV-300 919	INLET PACKING	1	1	1	1		3L4486549	1/V
47	—————	PPT SCREW M4X16	2	2	2		Use for Suction Inlet	3VPD01939	1
48	CV-400PRO 017	CORD HOOK CV-400PRO (BK)	1	1	1	1		2VPP15244	1/V
49	—————	PTT SCREW M4X16 (BK)	1	1	1		Use for Cord Hook	3VPM13301	1
50	—————	TWIN CASTER CV-400 PRO	2	2	2			2VAZ15222	1
51	CV-300 925	WHEEL (100) DG	2	2	2	1		2L9333324	P/V
52									
53									
54	CV-300 926	HOSE ASS'Y	1	1	1	1	Inc. 55 - 59	1A1ZA3203	U/V
55	—————	CD HOSE 3.0M	1	1	1			1A1UE3397	3
56	—————	SEAL RING	2	2	2			3V2YM9308	1
57	—————	STOPPER RING(EX)	2	2	2			2V2YL3450	1
58	CV-945BK 903	HOSE COUPLING (P) DGR	1	1	1	1		2V2ZA8751	L/V
59	CV-300 928	HOSE CONNECTOR(B) ASS'Y	1	1	1	1		2A1ZK9841	A/V
60									
61	CV-300 932	CREVICE NOZZLE C120(DGR)	1	1	1	1		2V2EF2319	1/V
62	CV-300 931	DUSTING BRUSH ASSY	1	1	1	1		2V2ZC8940	A/V
63	CV-300 930	EXTENSION PIPE(S)	3	3	3	1		1VPP05604	1/V
64	CV-400 015	R&F TOOL ASSY D321-ECO	1	1	1	1		1VZZ04502	A/V
65									
66	CV-400PRO 018	CARTON BOX CV-400PRO (GN)	1			1		2VAZ15609	A/V
	CV-400PRO 019	CARTON BOX CV-400PRO (LB)		1		1		2VAZ15609	B/V
	CV-400PRO 020	CARTON BOX CV-400PRO (DBL)			1	1		2VAZ15609	C/V
69									
70									
71									

CV-400PRO CONSTRUCTION DIAGRAM AND CONNECTION DIAGRAM



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CV-400PRO PTV No.0964E

HITACHI CONSUMER PRODUCTS(THAILAND), LTD.