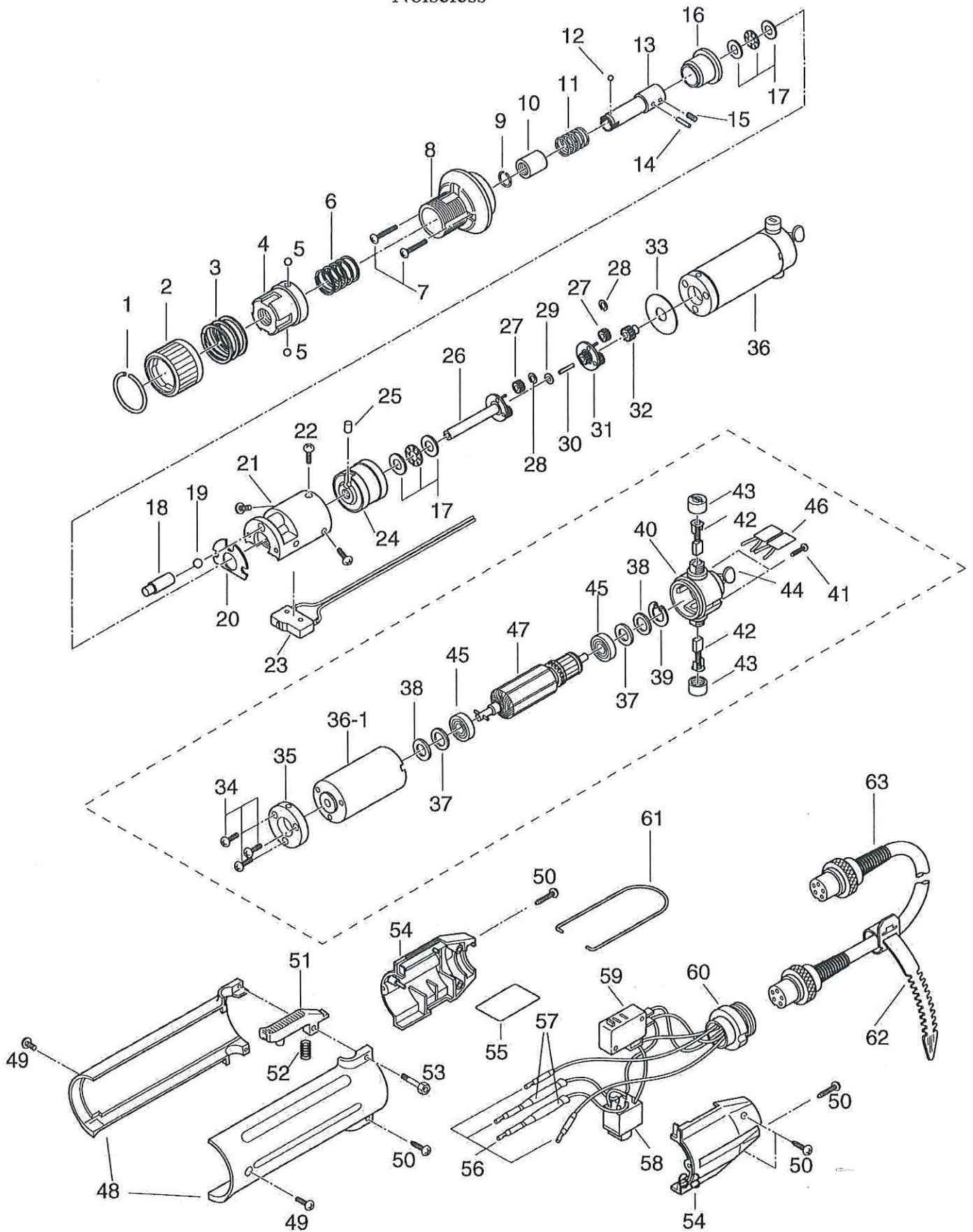


EXPLODED VIEW DRAWING

CL-4000 HIOS,HEX Noiseless

Issued : April, 1993
Revised : April, 2001



(Ver. No. CL-401-NL)

HIOS inc.

PARTS LIST OF CL-4000

NOISELESS TYPE
(HIOS SHANK, HEX SHANK)

ISSUED: April,1993
REVISED: December,2008

PARTS NAME	PARTS NO.	PARTS NAME	PARTS NO.
Transmission Assembly 1 - 33 (W/O 23)	CL4-TM	29 Thrust Washer	CL4-0290
Transmission Assembly 1 - 33 (W/O 23)	CL4X-TM	30 Center Pin	CL4-0300
Torque Adjusting Nut Assembly 1 - 5	CL4-NT	Upper Planet Cage Assembly 27,28,31	CL4-3310
1 Nut Cover Stopper	CL4-0010		
2 Nut Cover	CL4-0020	31 Upper Planet Cage	CL4-0310
3 Nut Cover Spring	CL4-0030	32 Pinion Gear	CL4-0320
4 Torque Adjusting Nut	CL4-0040	33 Grease Seal	CL4-0330
5 Steel Ball 3.0 φ	BALL-03	Motor	
6 Torque Adjusting Spring 1.2 φ (Blue)	CL3-0060		
Torque Adjusting Spring 1.5 φ (Red)	CL4-0060	34 Set Screw 3x5	MSHF30050NITP
7 Set Screw 2.6x10	MSPF26100NIGP	35 Motor Front Panel	CL4-0350
8 Torque Adjusting Bolt	CL4-0080	36 Motor	CL4-0360
		36-1 Magnet Case	
Joint Shaft Assembly 9 - 13	CL4-JS	37 Wave Washer	CL4-0370
Joint Shaft Assembly 9 - 13	CL4X-JS	38 Rotor Adjusting Washer 0.1	CL4-0380-1
		Rotor Adjusting Washer 0.2	CL4-0380-2
9 Collar Stopper	CL4-0090		
Collar Stopper	CL4X-0090	Motor End Cover Assembly 39 - 46	CL4NL-3400
10 Joint Shaft Collar	CL4-0100		
Joint Shaft Collar	CL4X-0100	39 Stop Ring	CL4-0390
11 Collar Spring	CL4-0110	40 Motor End Cover	CL4-0400
Collar Spring	CL4X-0110	41 Set Screw 1.7X10	STP17X100
12 Steel Ball 2.0 φ	BALL-02	42 Carbon Brush	CL4-0420
Steel Ball 1.5 φ	BALL-015	43 Carbon Brush Cap	CL4-0430
13 Joint Shaft	CL4-0130	44 Capacitor	CL4-0441
Joint Shaft	CL4X-0130	45 Motor Bearing	CL4-0450
		46 Condenser 682KG	CL3NL-0440
14 Joint Shaft Lock Pin 2x9	SR20X090		
15 Set Screw 3x3	SH30X030	47 Rotor	CL4-0460
16 Clutch Supporter	CL4-0160	48 Body Case A & B	CL4-0470
		49 Set Screw 2.6x6	MSPF26060NIGP
Gear Assembly 17 - 33 (W/O 23)	CL4-GR	50 Set Screw 3.5X12	B0HD5F35120NITP
17 Thrust Bearing 5x11	CL4-0170	51 Switch Lever	CL4-0501
18 Clutch Ball Rod	CL4-0180	52 Switch Lever Spring	CL4-0510
19 Steel Ball 5.0 φ	BALL-05	53 Switch Lever Plunger	CL4-0521
20 Gear Case Plate	CL4-0200		
21 Gear Case	CL4-0210	Switch Assembly 22,54 - 61	CL4NL-SW
22 Set Screw 2.6x5	MSPF26050NIGP		
		54 Switch Cover A & B	CL4-0530
23 Limit Switch	CL4-0230	55 Name Plate	CL4-0540
		56 Terminal Holder	CL4-0550
24 Internal Gear	CL4-0240	57 Noise Filter B	A45-0630
25 Cam Roller	CL4-0250	58 For/Rev Switch	CL4-0560
		59 Starting Switch	CL4-0570
Lower Planet Cage Assembly 26 - 28	CL4-3260	60 5-Pin Connector	CL4-0580
		61 Hanger	CL4-0594
26 Lower Planet Cage	CL4-0260		
27 Planet Gear	CL4-0270	62 Free-Up Belt	CL4-0600
28 E-Ring	CL4-0280	63 5-Core Cord W/Connectors In Both Ends	CL4-0611