

MODEL

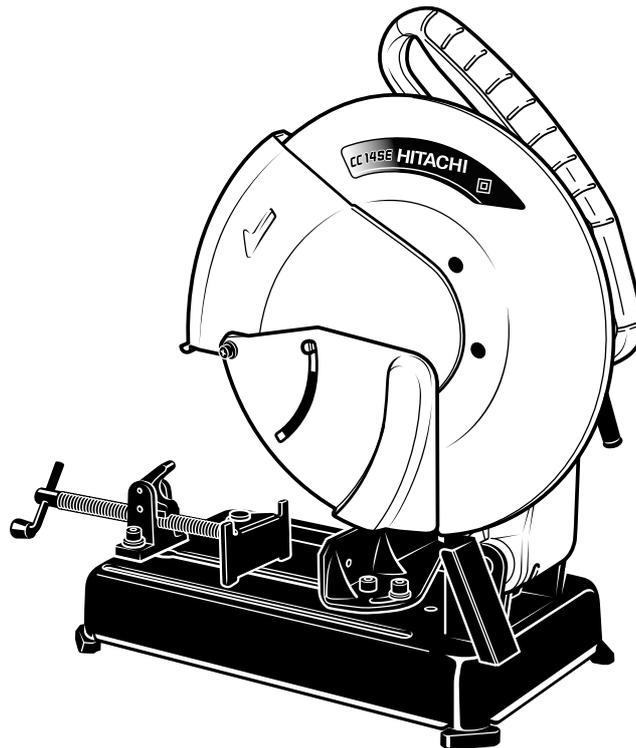
CC 14SE

HITACHI
POWER TOOLS

**CUT-OFF MACHINE
CC 14SE**

**TECHNICAL DATA
AND
SERVICE MANUAL**

C



LIST No. E932

Sep. 2002

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

REMARK:

Throughout this TECHNICAL DATA AND SERVICE MANUAL, a symbol(s) is(are) used in the place of company name(s) and model name(s) of our competitor(s). The symbol(s) utilized here is(are) as follows:

Symbols Utilized	Competitors	
	Company Name	Model Name
C	MAKITA	2414NB



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1. PRODUCT NAME

Hitachi 355 mm (14") High-Speed Cut-Off Machine, Model CC 14SE

2. MARKETING OBJECTIVE

Recently, inexpensive and double-insulated high-speed cut-off machines made in China have been penetrating and gaining a high profile in the competitive markets. To compete with these products, the Model CC 14SE has been developed as an upgraded and unified version of the Models CC 14, HU 14 and CC 14SA. The new Model CC 14SE is inexpensive and equipped with a class-first double-insulated aluminum housing that is unique to Hitachi. Please promote the sales of the new Model CC 14SE.

3. APPLICATIONS

- Cutting of various steel materials such as pipes, shaped steel, round bars, etc.

4. SELLING POINTS

4-1. Selling Point Outlines

(1)

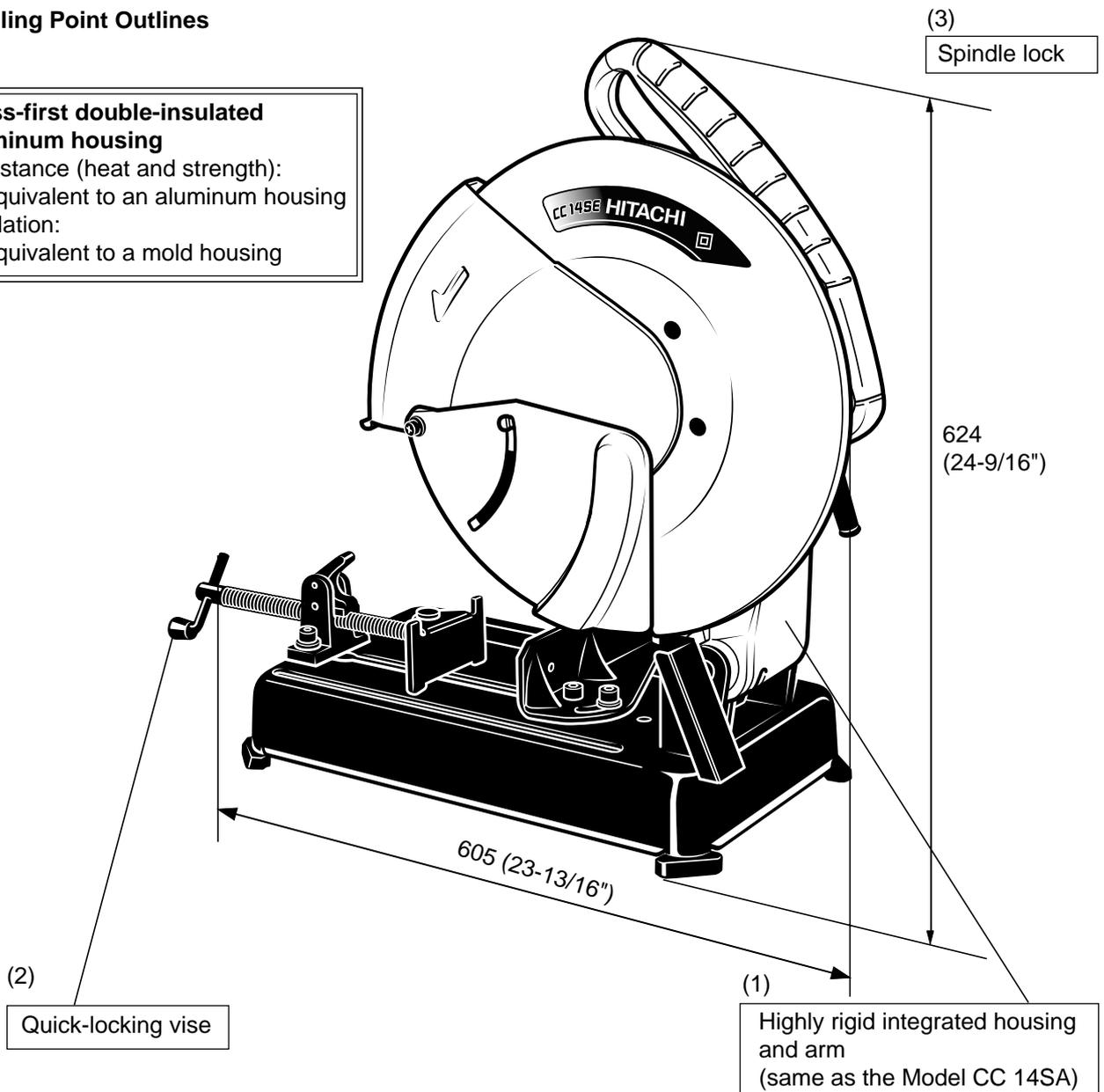
Class-first double-insulated aluminum housing

Resistance (heat and strength):

Equivalent to an aluminum housing

Insulation:

Equivalent to a mold housing



4-2. Selling Point Descriptions

(1) Class-first double-insulated aluminum housing

The aluminum housing of the Model CC 14SE is the conventional one but equipped with the S holder (mold pipe) to double-insulate the necessary point. Thanks to the new construction, the Model CC 14SE is highly resistant against heat and external force (this is a merit of an aluminum housing) and securely insulated (this is a merit of a mold housing). Especially, the ball bearing chamber causes no melt or deform (this is a demerit of a mold housing) and the service life of the housing is increased. The housing and the arm are integrated into a highly rigid unit (same as the current Models CC 12SA and CC 14SA).

(2) Quick-locking vise

The Model CC 14SE is equipped with a one-touch vise system for quick feeding and easy tightening. This vise system is the same as the current Models CC 12SA and CC 14SA.

[High-speed feeding of the vise]

Vise (A) can be fed quickly by pushing or pulling the screw handle with the clutch of the one-touch vise disengaged. (Fig. 1)

[Tightening and loosening of the vise]

The workpiece is tightened with the vise by turning the screw handle clockwise and loosened by turning the screw handle counterclockwise with the clutch of the one-touch vise engaged. (Fig. 2)

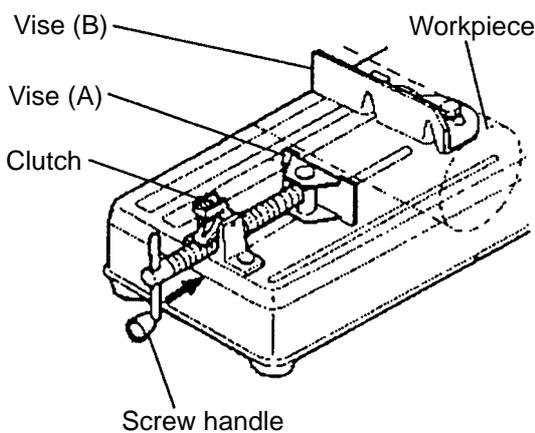


Fig. 1 High-speed feeding

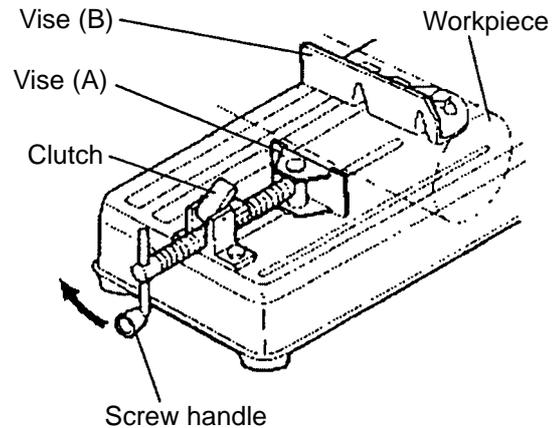


Fig. 2 Tightening/Loosening

(3) Spindle lock system

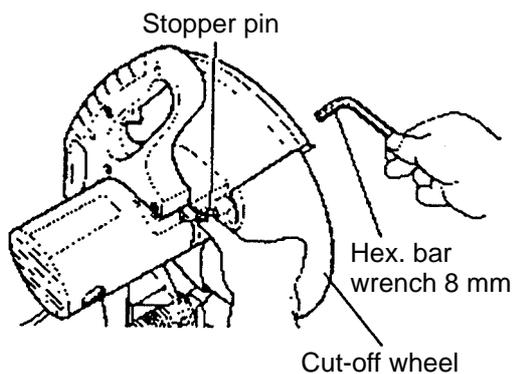


Fig. 3

The Model CC 14SE is equipped with the spindle lock system that is convenient for mounting and dismounting the cut-off wheel. Push in the stopper pin to secure the spindle. Then the cut-off wheel can be easily mounted or dismounted with the hex. bar wrench 8 mm (standard accessory). (Fig. 3)

5. SPECIFICATIONS

Item		Model	CC 14SE				
Maximum cutting dimension	Right angle	Round pipe	Outside dia. 115 mm (4-17/32")				
		Rectangular type	Width 130 (5-1/8") x Height 115 mm (4-17/32") Width 235 (9-1/4") x Height 70 mm (2-49/64")				
		Round bar	Outside dia. 65 mm (2-9/16")				
	45°	Round pipe	Outside dia. 100 mm (3-15/16")				
		Rectangular type	Width 106 (4-11/64") x Height 106 mm (4-11/64")				
		Round bar	Outside dia. 45 mm (1-25/32")				
Angle cutting range		Right angle to 45°					
Max. opening width of vise		240 mm (9-29/64")					
Motor	Type		AC single phase commutator motor				
	Power source		AC single phase 50/60 Hz				
	Voltage		110 V	120 V	220 V	230 V	240 V
	Full-load current		15 A	15 A	9 A	9 A	10 A
	Input		1640 W	1750 W	2000 W	2000 W	2400 W
Cut-off wheel	Type		Reinforced resinoid cut-off wheel				
	Dimensions		Outside dia. 355 (14") x Thickness 2.8 (7/64") x Hole dia. 25.4 mm (1")				
	Max. working peripheral speed		4,800 m/min. (16,000 ft/min)				
No-load rotation speed		3,700 min ⁻¹					
No-load peripheral speed		4,125 m/min. (13,540 ft/min)					
Type of switch		Trigger switch					
Cord		2 conductor type cable 2.3 m (8 ft)					
Main body dimensions		Length 605 (23-13/16") x Width 285 (11-7/32") x Height 624 mm (24-9/16")					
Weight	Product		16.5 kg (36 lbs.)				
	Packaged		19.0 kg (41.8 lbs.)				
Standard accessories		Cut-off wheel 1 Hex. bar wrench (8 mm) 1					

6. COMPARISONS WITH SIMILAR PRODUCT

Item		Model	HITACHI			C
			CC 14SE	CC 14SA	CC 14/HU 14	
*1 Maximum cutting dimension	Right angle	⊙ Round pipe (Outside dia.)	115 mm (4-17/32")	114.3 mm (4-1/2")	114.3 mm (4-1/2")	115 mm (4-17/32")
		□ Square type (Width x Height)	119 (4-43/64") x 119 mm (4-43/64")	115 (4-17/32") x 115 mm (4-17/32")	115 (4-17/32") x 115 mm (4-17/32")	119 (4-43/64") x 119 mm (4-43/64")
		▭ Rectangular type (Width x Height)	130 (5-1/8") x 115 mm (4-17/32")	115 (4-17/32") x 115 mm (4-17/32")	115 (4-17/32") x 115 mm (4-17/32")	130 (5-1/8") x 115 mm (4-17/32")
			195 (7-43/64") x 100 mm (3-15/16")	165 (6-1/2") x 100 mm (3-15/16")	165 (6-1/2") x 100 mm (3-15/16")	194 (7-41/64") x 102 mm (4-1/64")
			235 (9-1/4") x 70 mm (2-49/64")	213 (8-25/64") x 55 mm (2-11/64")	213 (8-25/64") x 55 mm (2-11/64")	233 (9-11/64") x 70 mm (2-49/64")
		● Round bar (Outside dia.)	65 mm (2-9/16")	65 mm (2-9/16")	65 mm (2-9/16")	—
		└ Shape steel (Angle) (Width x Height)	130 (5-1/8") x 130 mm (5-1/8")	130 (5-1/8") x 130 mm (5-1/8")	130 (5-1/8") x 130 mm (5-1/8")	137 (5-25/64") x 137 mm (5-25/64")
Angle cutting range			Right angle to 45°			
Max. opening width of vise			240 mm (9-29/64")	228 mm (8-31/32")	228 mm (8-31/32")	240 mm (9-29/64")
Motor	Type	AC single phase commutator motor				
	Power source	AC single phase 50/60 Hz				
	*2 Input	2000 W	1650 W	2000 W	2000 (2400) W	
Insulation			Double (Aluminum HG)	Single (Aluminum HG)	Double (Mold HG)	Double (Mold HG)
Cut-off wheel	Type	Reinforced resinoid cut-off wheel				
	Dimensions	Outside dia. 355 (14") x Thickness 2.8 (7/64") x Hole dia. 25.4 mm (1")				
	Max. working peripheral speed	4800 m/min. (16000 ft/min.)				
No-load rotation speed			3700 min ⁻¹	3500 min ⁻¹	3700 min ⁻¹	3800 min ⁻¹
No-load peripheral speed			4125 m/min (13540 ft/min)	3900 m/min (12800 ft/min)	4125 m/min (13540 ft/min)	4240 m/min (13900 ft/min)
Spindle lock			Available	Available	Available	Available
Quick-locking vise			Available	Available	Available	Available
Type of switch			Trigger switch			
Weight			16.5 kg (36.4 lbs.)	17 kg (37.5 lbs.)	17.5 kg (38.6 lbs.)	16.2 kg (35.8 lbs.)

*1 The maximum cutting height of Australia becomes low 15 mm. (Exclude round pipe)

*2 Power input is subject to change by areas.

7. PRECAUTIONS IN SALES PROMOTION

In the interest of promoting the safest and most efficient use of the Model CC 14SE High-Speed Cut-Off Machine by all of our customers, it is very important that at the time of sale the salesperson carefully ensures that the buyer seriously recognizes the importance of the contents of the Instruction Manual, and fully understands the meaning of the precautions listed on the Name Plate attached to each machine.

7-1. Handling Instructions

Although every effort is made in each step of design, manufacture and inspection to provide protection against safety hazards, the dangers inherent in the use of any high-speed cut-off machine cannot be completely eliminated. Accordingly, general precautions for the use of electric power tools, and specific precautions and suggestions for the use of the high-speed cut-off machine are listed in the Handling Instructions to enhance the safe, efficient use of the machine by the customer. Salespersons must be thoroughly familiar with the contents of the Handling Instructions to be able to offer appropriate guidance to the customer during sales promotion.

7-2. Precautions on the Name Plate

Each Model CC 14SE is furnished with a Name Plate that lists the following precautions.

CAUTION

- Read thoroughly HANDLING INSTRUCTIONS before use.
- Always wear eye protection.

- (1) Advise the customer to thoroughly read the Handling Instructions.
- (2) Protective glasses are intended to prevent chips, dust and sparks from flying into the eyes of the operator during operation. Carefully caution the customer to wear protective glasses whenever operating the cut-off machine.

8. PRECAUTIONS IN OPERATIONS

8-1. Handling

When transporting the cut-off machine by car or other vehicles, ensure that the motor section (the section where the cut-off wheel, wheel cover and safety cover are mounted) is fully lowered and that the provided chain is connected to the chain hook to secure it in that position. If the chain is not properly attached, the machine could fall, resulting in possible damage which could seriously effect its accuracy.

8-2. Installation

To ensure proper stability, instruct the customer to confirm that the cut-off machine is installed on a flat, firm surface.

8-3. Cut-Off Wheels

(1) Cut-off wheel label indications

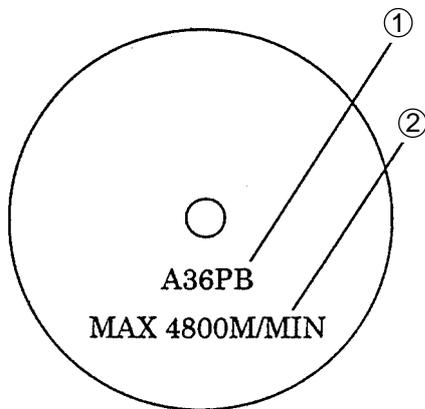


Fig. 4

① The cut-off wheel type, grain size and other information is indicated.

A ... Type of abrasive material

36 ... Grain size

P ... Degree of bonding

B ... Bonding material

② Indicates the maximum working peripheral speed of the cut-off wheel. Instruct the customer to use cut-off wheels whose maximum peripheral speed is at least the applicable speed listed on the Name Plate of the cut-off machine.

(2) Amount of imbalance of cut-off wheel

Instruct the customer not to use cut-off wheels that have a high degree of imbalance. High imbalance will cause excessive vibration that could in turn cause the material to be cut to come loose. The customer should be advised to use genuine HITACHI cut-off wheels whenever possible.

8-4. Cutting Procedures

(1) Operation of the quick-locking vise

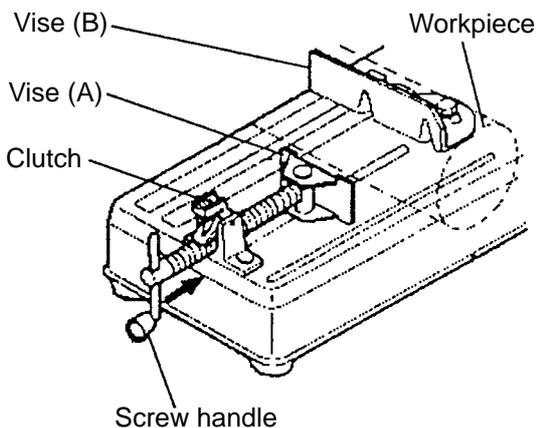


Fig. 5 High-speed feeding

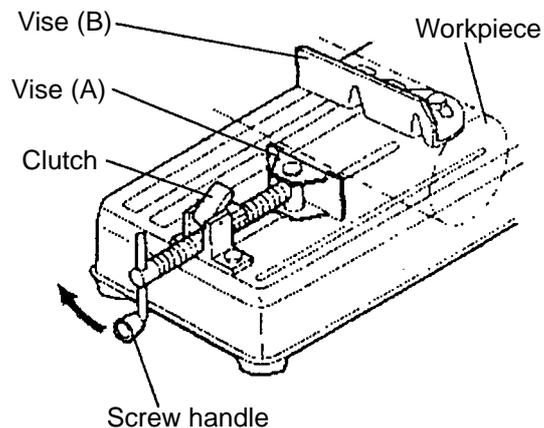


Fig. 6 Tightening/Loosening

① With the clutch of the quick-locking vise raised, push in the screw handle by hand to bring vise (A) lightly into contact with the workpiece.

② Turn down the clutch to engage the screw threads, and turn the screw handle to securely tighten the workpiece. Removal of the material can be accomplished by following the above procedures in reverse; however, be sure to turn the screw handle slightly to loosen the material before raising the clutch.

(2) Cutting at angles

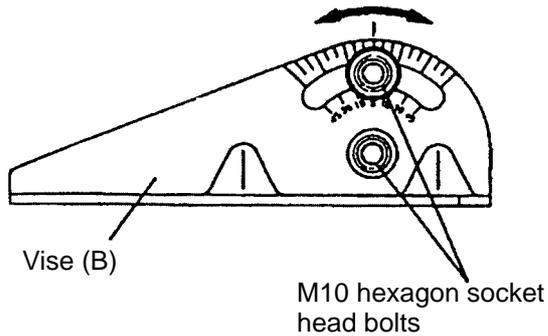


Fig. 7

To cut off the material at some desired angle, loosen the two M10 hexagon socket head bolts, align the desired angle setting on vise (B) with the mark engraved on the upper surface of the base, and retighten the two M10 hexagon socket head bolts. Cutting at any angles can be accomplished at any desired angle from a right angle up to 45°. When wide material is to be cut at an angle, it should be firmly clamped by fixing a steel board to vise (B).

(3) Clamping of particularly materials

When the machine is shipped from the factory, the vise is set to the back in the vise slide channel of the base. If a change of the vise opening is required, move vise (B) forward to the desired location, after unscrewing two M10 hexagon socket head bolts. The maximum possible opening width of the vise is 240 mm (9-29/64").

(4) Cutting procedures

When cutting of materials with the high-speed cut-off machine, too much pressure applied on the handle during cutting can reduce cutting efficiency. Instruct the customer that the best cutting efficiency is obtained when a great many sparks are generated during cutting.

8-5. Cut-Off Wheel Dismounting and Mounting

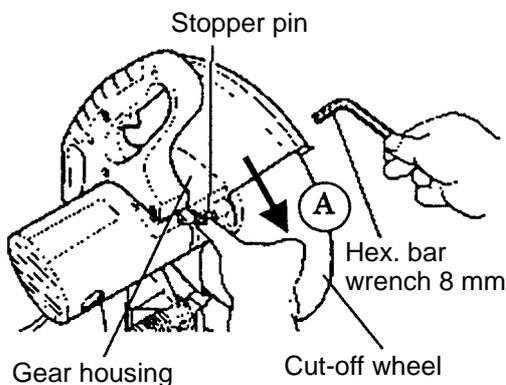


Fig. 8

Rotate the safety cover to the up position. While pushing the stopper pin located at the gear housing, the cut-off wheel is locked and will not rotate. When the cut-off wheel is locked, use the standard accessory wrench (hex. bar wrench 8 mm), and turn the wrench in the direction indicated by arrow (A) to loosen and remove the Flange bolt that secures the cut-off wheel. Then remove the wheel washer and detach the cut-off wheel.

To mount a cut-off wheel, follow the above procedures in reverse. However, before attempting to operate the machine, ensure without fail that the stopper pin is retracted to its original position.

CAUTION

- Always turn off the trigger switch and disconnect the power plug from the receptacle before removing or installing a wheel, to prevent accidental injury.
- Tighten the flange bolt so that it doesn't come loose during operation of the wheel. Confirm that the flange bolt has been properly tightened before the electric tool is started.

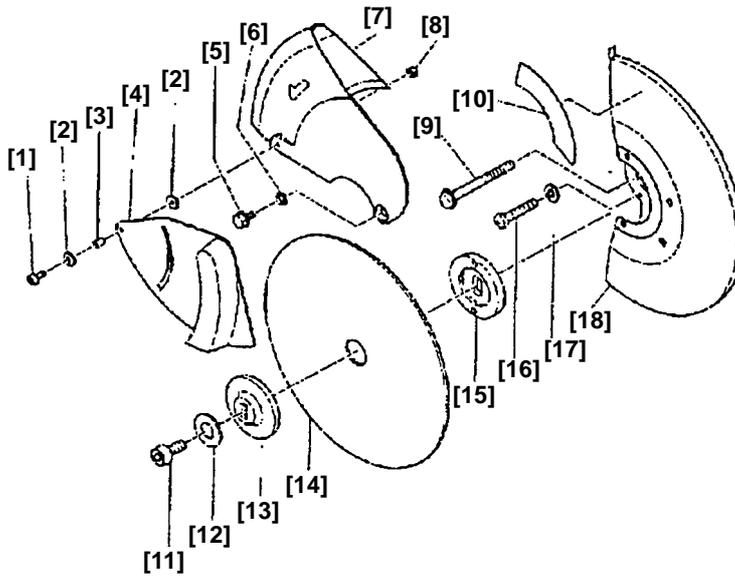
9. DISASSEMBLY AND REASSEMBLY GUIDE

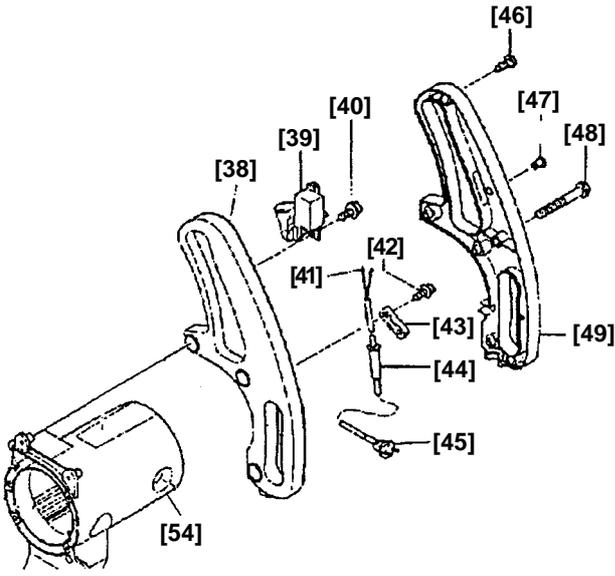
Items requiring particular attention in disassembly and reassembly are described herein. The **[Bold]** numbers in the descriptions correspond to the item numbers in the Parts List and exploded assembly diagrams.

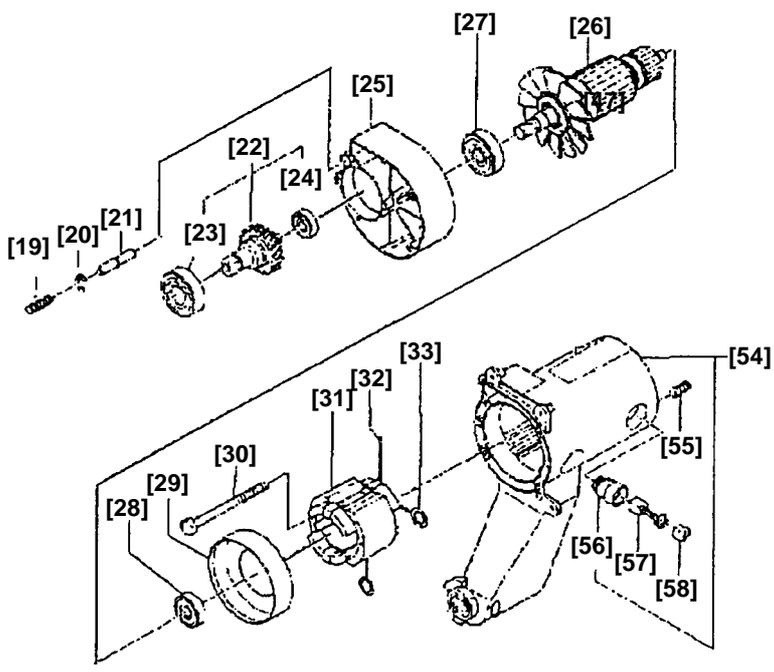
Before attempting disassembly or reassembly, ensure without fail that the switch is turned off and the plug is removed from the power source outlet.

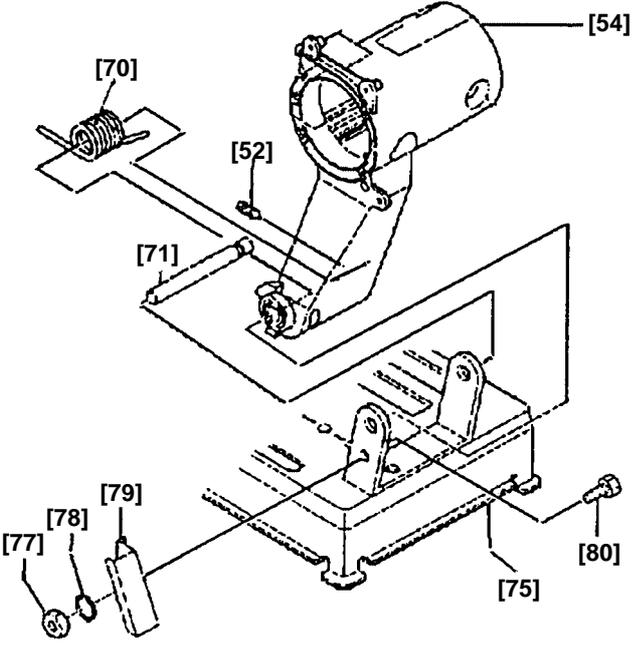
9-1. Disassembly and Reassembly

The descriptions herein are mainly concerned with disassembly. Reassembly can be accomplished by following the disassembly procedures in reverse, except where noted otherwise.

No.	Disassembly Reassembly	Working procedures	Necessary tools
1	Cut-Off Wheel [14] Wheel Washer [13], [15] Wheel Cover [18] Safety Cover [7]	 <p>(1) Turn up the Safety Cover [7].</p> <p>(2) Pressing the Stopper Pin [21] on the Gear Case [25], loosen the Hex. Socket Hd. Bolt M10 x 20 [11] that secures the Cut-Off Wheel [14].</p> <p>(3) Remove Washer (A) [12], Wheel Washer [13], Cut-off Wheel [14] and Wheel Washer [15] in order.</p> <p>(4) Loosen the Bolt (W/Flange) M8 [5] and remove the Sub Cover [4] together with the Plastic Washer [6] and the Safety Cover [7].</p> <p>(5) Loosen the four Machine Screws (W/SP. Washer) M5 x 70 [9] and the Machine Screw M5 x 12 [16] and remove the Wheel Cover [18].</p> <p>[Caution] Before mounting the Cut-Off Wheel [14], remove chips and dust from the Wheel Washers [13] [15], Hex. Socket Hd. Bolt M10 x 20 [11] and Washer (A) [12].</p>	<p>8 mm hex. bar wrench (standard accessory)</p> <p>17 mm wrench</p> <p>Phillips screwdriver</p>

No.	Disassembly Reassembly	Working procedures	Necessary tools
2	Handle [38] Handle Cover [49] Switch [39] Cord [45]	 <p>(1) Loosen the three Machine Screws (W/Washers) M5 x 35 [48] and three Tapping Screws (W/Flange) D4 x 20 (Black) [46]. Remove the Handle Cover [49] from the Handle [38].</p> <p>(2) Loosen the Tapping Screw (W/Flange) D4 x 12 [40] and remove the Switch [39] from the Handle [38].</p> <p>(3) Disconnect the two internal wires of the Stator Ass'y [31] and two internal wires of the Cord [45] from the Switch [39].</p> <p>(4) Loosen the two Tapping Screws (W/Flange) D4 x 16 [42] and remove the Cord Clip [43] and the Cord [45] from the Handle [38].</p>	<p>Phillips screwdriver</p> <p>Phillips screwdriver</p> <p>Phillips screwdriver</p> <p>Phillips screwdriver</p>

No.	Disassembly Reassembly	Working procedures	Necessary tools
3	Gear Case [25] Spindle Ass'y [22] Armature [26] Stator Ass'y [31]	 <p data-bbox="391 985 1181 1512"> (1) After the above step No. 1, loosen the two Brush Caps [58] and remove the two Carbon Brushes [57]. (2) Remove the Stopper Pin [21] and the Gauge Spring [19]. (3) Remove the Gear Case [25] from the Housing Ass'y [54]. Pull out the Spindle Ass'y [22] from the Gear Case [25]. (4) Pull out the Armature [26] and the Fan Guide [29] from the Housing Ass'y [54]. (5) Disconnect the internal wire of the Stator Ass'y [31] from the Brush Holder [56] of the Housing Ass'y [54]. Loosen the two Hex. Hd. Tapping Screws D5 x 65 [30] and remove the Stator Ass'y [31] from the Housing Ass'y [54]. </p>	<p data-bbox="1189 985 1428 1064">Slotted screwdriver</p> <p data-bbox="1189 1131 1380 1164">Plastic hammer</p> <p data-bbox="1189 1332 1428 1411">Phillips screwdriver Plastic hammer</p>

No.	Disassembly Reassembly	Working procedures	Necessary tools
4	Spark Shoot [79] Hinge Shaft [71] Spring [70]	 <p data-bbox="453 987 1182 1115">(1) Lower the Housing Ass'y [54] and loosen the Nut M8 [77]. Remove the Spring Washer M8 [78], Spark Shoot [79] and Hex. Socket Hd. Bolt M8 x 20 [80].</p> <p data-bbox="453 1133 1235 1261">(2) Raise the Housing Ass'y [54] and loosen the Seal Lock Hex. Socket Set Screw M5 x 16 [52]. Remove the Hinge Shaft [71] and the Spring [70].</p>	<p data-bbox="1257 987 1490 1093">13 mm wrench 6 mm hex. bar wrench</p> <p data-bbox="1257 1133 1490 1193">4 mm hex. bar wrench</p>

9-2. Precautions in Reassembly

Reassembly can be accomplished by following the disassembly procedures in reverse. However, special attention should be given to the following items.

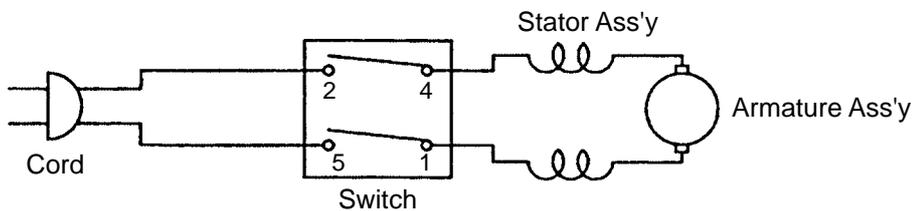
- (1) Prior to reassembly, measure the insulation resistance of the Armature [26], Stator Ass'y [31], Switch [39] and other electrical components, and confirm that the insulation resistance of each part is 5 MΩ or more.
- (2) When replacing the Spring [70], apply 5 grams of grease (Hitachi Motor Grease is recommended) to its inner circumference.

9-3. Wiring

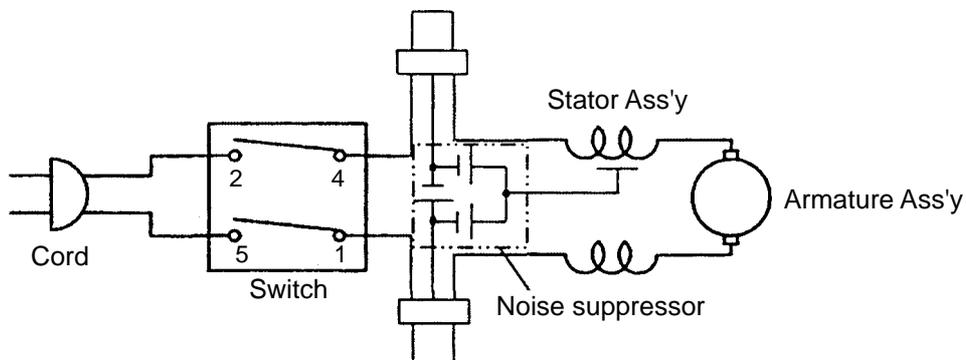
Ensure that the wiring is connected as shown below.

- (1) Wiring diagram

- ① Without noise suppressor



- ② With noise suppressor



9-4. Precautions in Wiring

When connecting internal wires, be very careful not to remove any more of the insulation covering than is absolutely necessary. In particular, carefully avoid exposed wire cores protruding from connectors, and ensure that no internal wires become pinched between the mounting surfaces of the Handle [38] and Handle Cover [49].

9-5. Lubrication

Advise the customer to lubricate the machine about once a month, and to ensure that any cutting dust, dirt or other foreign matter is thoroughly wiped away a clean cloth prior to applying lubrication.

(1) Rotating portion of the gear case:

Apply machine oil to the hinge sliding surfaces of the Housing Ass'y [54] and Base [75].

(2) Vise section:

Apply machine oil to the screw portion and rotating portion of the Screw [60], the female screw of the Screw Holder [61].

9-6. Machine Accuracy

On completion of reassembly, confirm that machine accuracy is within the tolerance standards below.

No.	Item	Tolerance standard
1	Deflection of dummy disc	0.3 mm or less/300 mm
2	Rectagularity between base and dummy disc	0.3 mm or less/100 mm
3	Rectangularity between vise (B) and dummy disc	0.3 mm or less/100 mm

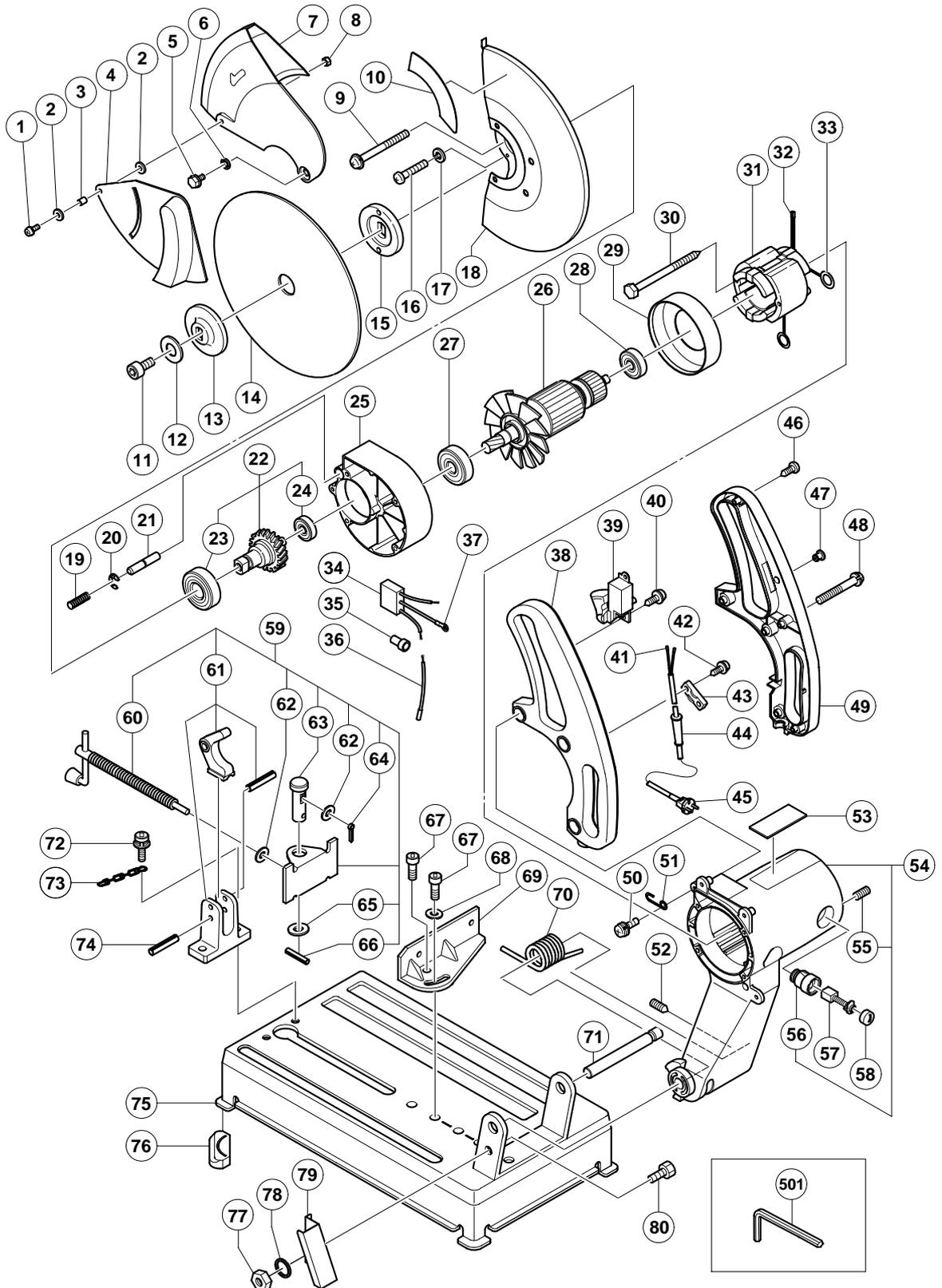
10. STANDARD REPAIR TIME (UNIT) SCHEDULES

MODEL	Variable		10	20	30	40	50	60	70	80 min.
	Fixed									
CC 14SE	Work Flow									
	General Assembly	Handle Cover		Switch Cord	Handle					
		Vise Ass'y Vise (B)		Hinge Shaft Spring			Base			
				Wheel Cover	Spindle Ass'y Ball Bearing (6206VV) Ball Bearing (6001VV)		Armature Ball Bearing (6002VV) Ball Bearing (6200VV)		Housing Ass'y Stator Ass'y	Gear Case

ELECTRIC TOOL PARTS LIST

■ CUT-OFF MACHINE Model CC 14SE

2002・9・30
(E1)



PARTS

CC 14SE

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS
* 1	996-247	MACHINE SCREW (W/WASHERS) M5X12 (BLACK)	1	FOR AUS, GBR, SAF, YEN, EUROPE, NOR, SWE, DEN, FIN
* 2	306-985	WASHER (H)	2	FOR AUS, GBR, SAF, YEN, EUROPE, NOR, SWE, DEN, FIN
* 3	305-168	SPACER	1	FOR AUS, GBR, SAF, YEN, EUROPE, NOR, SWE, DEN, FIN
* 4	321-253	SUB COVER	1	FOR AUS, GBR, SAF, YEN, EUROPE, NOR, SWE, DEN, FIN
5	321-251	BOLT (W/FLANGE) M8	1	
6	321-252	PLASTIC WASHER	1	
* 7	321-249	SAFETY COVER	1	
* 7	321-250	SAFETY COVER	1	FOR AUS, GBR, SAF, YEN, EUROPE, NOR, SWE, DEN, FIN
* 8	949-555	NUT M5 (10 PCS.)	1	FOR AUS, GBR, SAF, YEN, EUROPE, NOR, SWE, DEN, FIN
9	987-410	MACHINE SCREW (W/SP. WASHER) M5X70	4	
10		HITACHI LABEL	1	
11	949-844	HEX. SOCKET HD. BOLT M10X20 (10 PCS.)	1	
12	965-724	WASHER (A)	1	
* 13	321-247	WHEEL WASHER (A) (W/O D8 HOLE)	1	
* 13	321-255	WHEEL WASHER (B) (W/O D8 HOLE)	1	FOR AUS
* 14	306-858	CUT-OFF WHEEL 355MM (10 PCS.)	1	
* 14	978-958	CUT-OFF WHEEL 355MM (10 PCS.)	1	FOR GBR
* 15	321-246	WHEEL WASHER (A) (W/D8 HOLE)	1	
* 15	321-254	WHEEL WASHER (B) (W/D8 HOLE)	1	FOR AUS
16	949-237	MACHINE SCREW M5X12 (10 PCS.)	1	
17	949-454	SPRING WASHER M5 (10 PCS.)	1	
18	321-248	WHEEL COVER	1	
19	948-363	GAUGE SPRING	1	
20	955-479	RETAINING RING (E-TYPE) FOR D6 SHAFT	1	
21	321-239	STOPPER PIN	1	
22	321-235	SPINDLE ASS'Y	1	INCLUD.23, 24
23	620-6VV	BALL BEARING 6206VVCMP2S	1	
24	600-1VV	BALL BEARING 6001VVCMP2L	1	
25	321-243	GEAR CASE	1	
* 26	360-584U	ARMATURE ASS'Y 110V-120V	1	INCLUD.27, 28
* 26	360-584E	ARMATURE 220V	1	
* 26	360-584F	ARMATURE 230V-240V	1	
27	600-2VV	BALL BEARING 6002VVCMP2L	1	
28	620-0VV	BALL BEARING 6200VVCMP2L	1	
29	306-098	FAN GUIDE	1	
30	960-251	HEX. HD. TAPPING SCREW D5X65	2	
* 31	340-533C	STATOR ASS'Y 110V	1	INCLUD.32, 33
* 31	340-533H	STATOR ASS'Y 120V	1	INCLUD.32, 33
* 31	340-533E	STATOR ASS'Y 220V	1	INCLUD.32, 33
* 31	340-533F	STATOR ASS'Y 230V-240V	1	INCLUD.32, 33
* 31	340-533G	STATOR ASS'Y 110V	1	INCLUD.33 FOR TPE, GBR (110V)
* 31	340-533J	STATOR ASS'Y 230V-240V	1	INCLUD.33 FOR NZL, FIJ, GBR (230V), SAF, YEN, EUROPE, NOR, SWE, DEN, FIN, AUS
32	981-373	TUBE (D)	2	
33	945-932	BRUSH TERMINAL	2	

PARTS

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
* 34	930-039	NOISE SUPPRESSOR	1	FOR TPE, GBR (110V)	
* 34	994-273	NOISE SUPPRESSOR	1	FOR NZL, FIJ, GBR (230V), SAF, YEN, EUROPE, NOR, SWE, DEN, FIN, AUS	
* 35	959-141	CONNECTOR 50092 (10 PCS.)	2	FOR TPE, NZL, FIJ, AUS, GBR, SAF, YEN, EUROPE, NOR, SWE, DEN, FIN	
* 36	321-423	INTERNAL WIRE	2	FOR TPE, NZL, FIJ, AUS, GBR, SAF, YEN, EUROPE, NOR, SWE, DEN, FIN	
* 37	938-108	TERMINAL	1	FOR NZL, FIN, GBR (230V), SAF, YEN, EUROPE, NOR, SWE, DEN, FIN, AUS	
	38	321-240	HANDLE	1	
* 39	951-864	SWITCH (2P PILLAR TYPE) W/LOCK	1		
* 39	976-825	SWITCH (2P PILLAR TYPE) W/LOCK	1	FOR GBR, SAF, YEN, EUROPE, NOR, SWE, DEN, FIN	
* 39	951-894	SWITCH (2P PILLAR TYPE) W/LOCK	1	FOR USA, CAN	
	40	305-720	TAPPING SCREW (W/FLANGE) D4X12	1	
	41	981-373	TUBE (D)	2	
	42	984-750	TAPPING SCREW (W/FLANGE) D4X16	2	
	43	937-631	CORD CLIP	1	
* 44	953-327	CORD ARMOR D8.8	1		
* 44	938-051	CORD ARMOR D10.1	1		
* 45	500-234Z	CORD	1	(CORD ARMOR D8.8)	
* 45	500-245Z	CORD	1	(CORD ARMOR D10.1) FOR SYR, JOR, PAK, ARG, YEN, URU, CIS, BRA, CHI, LIB, MRI	
* 45	500-423Z	CORD	1	(CORD ARMOR D8.8) FOR SIN, MAL, SRI, KUW, CYP, KEN, QAT, MLT, UAE	
* 45	500-214Z	CORD	1	(CORD ARMOR D10.1) FOR TPE, VEN, CRC, COL, ESA, PAN, DOM, GUA	
* 45	500-201Z	CORD	1	(CORD ARMOR D10.1) FOR THA, PHI, PER, BRN, BAN, BOL, TUN, MOZ	
* 45	500-439Z	CORD	1	(CORD ARMOR D8.8) FOR NZL, FIJ, AUS	
* 45	500-435Z	CORD	1	(CORD ARMOR D8.8) FOR HKG, GBR (230V)	
* 45	500-453Z	CORD	1	(CORD ARMOR D10.1) FOR USA, CAN	
* 45	500-396Z	CORD	1	(CORD ARMOR D8.8) FOR GBR (110V)	
* 45	500-455Z	CORD	1	(CORD ARMOR D8.8) FOR CHN	
	46	301-653	TAPPING SCREW (W/FLANGE) D4X20 (BLACK)	3	
* 47	951-895	LOCK-OFF BUTTON	1	FOR USA, CAN	
	48	312-298	MACHINE SCREW (W/WASHERS) M5X35	3	
	49	321-241	HANDLE COVER	1	
	50	307-294	MACHINE SCREW (W/WASHERS) M5X16 (BLACK)	1	
	51	321-234	CHAIN HOOK	1	
	52	318-044	SEAL LOCK HEX. SOCKET SET SCREW M5X16	1	
	53		NAME PLATE	1	
	54	321-242	HOUSING ASS'Y	1	INCLUD.55, 56
	55	938-477	HEX. SOCKET SET SCREW M5X8	2	
	56	957-001	BRUSH HOLDER	2	
	57	999-044	CARBON BRUSH (1 PAIR)	2	
	58	940-540	BRUSH CAP	2	
	59	321-225	WISE ASS'Y	1	INCLUD.60-66
	60	321-226	SCREW	1	
	61	321-227	SCREW HOLDER	1	
	62	949-433	BOLT WASHER M8 (10 PCS.)	2	

