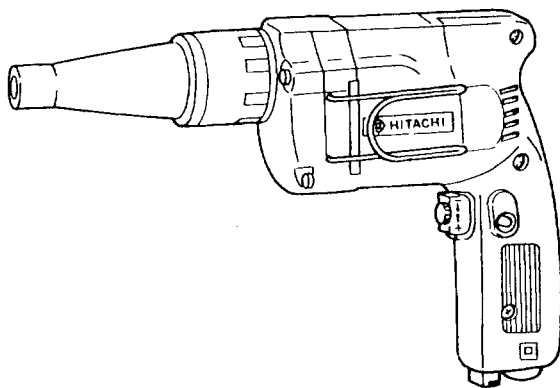




SCREW DRIVER TYPE W 6VB

INSTRUCTION MANUAL



Note:

Before using this Electric Power Tool, carefully read through this INSTRUCTION MANUAL to ensure efficient, safe operation. It is recommended that this MANUAL be kept readily available as an important reference when using this power tool.



DOUBLE INSULATION

We sincerely thank you for selecting a HITACHI ELECTRIC POWER TOOL. To operate this electric power tool safely and efficiently, please read this INSTRUCTION MANUAL carefully to get a good understanding of the precautions in operation, capacity of the electric power tool, use and the like.

IMPORTANT INFORMATION: SAFETY RULES FOR POWER TOOLS

WARNING: When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following.

READ ALL INSTRUCTIONS

- 1. KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
- 2. CONSIDER WORK AREA ENVIRONMENT.**
 - Don't expose power tools to rain.
 - Don't use power tools in damp or wet locations.
 - Keep work area well lit.
 - Don't use tool in presence of flammable liquids or gases.
 - Power tools produce sparks during operation. They also spark when switching ON/OFF. Never use power tools in dangerous sites containing lacquer, paint, benzine, thinner, gasoline, gases, adhesive agents, and other materials which are combustible or explosive.
- 3. GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, refrigerator enclosures.
- 4. KEEP CHILDREN AWAY.** Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.
- 5. STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked – up place-out of reach of children.
- 6. DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
- 7. USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy-duty tool.
 - Don't use tool for purpose not intended – for example – don't use circular saw for cutting tree limbs or logs.
- 8. DRESS PROPERLY.** Do not wear loose clothing or jewelry. They can be caught in moving parts.
 - Rubber gloves and non-skid footwear are recommended when working outdoors.
 - Wear protective hair covering to contain long hair.
- 9. USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty.
 - All persons in the area where power tools are being operated should also wear safety eye protectors and face or dust masks.
- 10. DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.

11. **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
12. **DON'T OVERREACH.** Keep proper footing and balance at all times.
13. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance.
Follow instructions for lubricating and changing accessories.
Inspect tool cords periodically and if damaged, have repaired by authorized service facility.
Inspect extension cords periodically and replace if damaged.
Keep handles dry, clean, and free from oil and grease.
14. **DISCONNECT TOOLS.** When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
15. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
16. **AVOID UNINTENTIONAL STARTING.** Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.
17. **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
18. **STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
19. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual.
Have defective switches replaced by authorized service center.
Do not use tool if switch does not turn it on and off.
20. **AVOID USING A POWER TOOL FOR APPLICATIONS OTHER THAN THOSE SPECIFIED.** Never use a power tool for applications other than those specified in the instruction manual.
21. **ENSURE SAFE OPERATION THROUGH CORRECT HANDLING.** Secure safe operation through correct handling by observing the instructions described herein.
Do not employ accessories other than those specified herein; otherwise, a hazardous condition may be created.
Never allow a power tool to be used by persons not familiar with correct handling (such as children) or by those who cannot handle the tool correctly.
22. **CONFIRM THAT NO ITEMS SUCH AS AN ELECTRIC CABLE OR CONDUIT ARE BURIED INSIDE.** In places where live wiring may be hidden behind a wall, floor, ceiling, etc. do not hold or contact any metal parts of the tool. In such cases, metal parts could become electrically live and present a serious shock hazard.

23. **KEEP THE RIGHT PARTS IN THE RIGHT POSITIONS.** Do not remove covers and screws which have been factory-mounted. They perform important respective roles. Keep them in the right positions.
24. **SHOULD THE PLASTIC HOUSING OR HANDLE OF A POWER TOOL BE CRACKED OR DEFORMED, DO NOT USE IT.** Since cracked or deformed parts may lead to an operator receiving an electric shock, do not use such a power tool. Immediately have it repaired.
25. **SECURELY MOUNT ACCESSORIES AND BLADES TO THE TOOL MAIN BODY.** Extra care must be taken when using tools on elevated location (such as a roof ladder, scaffold, or the like) to prevent injury to someone on a lower level in the event the tool and/or accessory should drop.
26. **ALWAYS KEEP THE MOTOR AIR VENT FULLY OPENED.** A constantly open motor air vent is necessary to allow air to come in and out for cooling the motor. Do not allow it to become clogged up, even if dust is blown through it.
27. **OPERATE POWER TOOLS AT THE RATED VOLTAGE.** Operate power tools at voltages specified on their nameplates.
28. **NEVER TOUCH THE MOVING PARTS.** Never touch the moving parts such as blades, bits, cutters and others.
29. **STOP OPERATION IMMEDIATELY IF ANY ABNORMALITY IS DETECTED.** Should a power tool be detected as out of order or should other abnormalities be observed during operation, stop using the tool immediately.
30. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.
31. **CAREFULLY HANDLE POWER TOOLS.** Should a power tool be dropped or struck against hard materials inadvertently, it may be deformed, cracked, or damaged.
32. **DO NOT WIPE PLASTIC PARTS WITH SOLVENT.** Solvents such as gasoline, thinner, benzine, carbon tetrachloride, and alcohol may damage and crack plastic parts. Do not wipe them with such solvents. Wipe plastic parts with a soft cloth lightly dampened with soapy water.
33. **WHEN REPLACING A COMPONENT PART, ADOPT THE SAME TYPE.** When replacing a component part with a new one, adopt the same type of new part. Also, never attempt to repair a power tool yourself.

SAVE THESE INSTRUCTIONS

SERVICE AND REPAIRS

All quality tools will eventually require servicing or replacement of parts due to wear from normal use. These operations should **ONLY** be performed by an **AUTHORIZED HITACHI POWER TOOL REPAIR SHOP**.

REPLACEMENT PARTS

When servicing use only identical replacement parts.

DOUBLE INSULATION SYSTEM ENHANCES SAFE OPERATION

To enhance safe operation of this electric power tool, HITACHI has adopted a double insulation system. The term "double insulation" used here denotes an insulation system with two insulations physically separated and arranged between the electrically conductive material connected to the power supply and the outer frame subject to contact by the operator.

Thus, the power tool is termed double insulated and both the "□" mark and "Double insulation", or either one is indicated on the nameplate.

While no external grounding is required with this system, normal safety precautions as outlined in this manual must still be followed. To maintain the effectiveness of the double insulation system, follow the precautions described below:



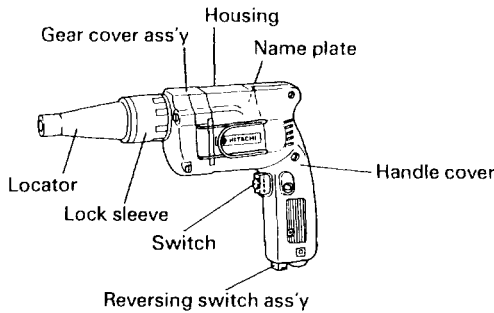
DOUBLE INSULATION

1. Always contact your dealer or an authorized HITACHI service agent when assembling, disassembling or replacing parts other than accessories or carbon brushes. Improper assembly and/or replacement with wrong parts may result in eliminating the double insulation-feature.
2. Clean the exterior of the tool with a soft cloth moistened with soapy water, and dry thoroughly. Chloric solvent, gasoline, and thinner will cause plastic components to dissolve.

PRECAUTIONS ON USING SCREW DRIVER

1. Employ a driver bit appropriate for the screw diameter.
2. Apply the screw driver body perpendicularly to screw head when driving a screw.

NAME OF PARTS



SPECIFICATIONS

Motor	Protected Type, Single-Phase, Series-Wound Commutator Motor
Power Source	Single-Phase 115V AC, 60 Hz
Current	5A
No-Load Speed	0 ~ 2600 rpm
Capacities	15/64"
Bit Shank Size	1/4" Hex.
Weight	4.1 lbs

ACCESSORIES

Caution:

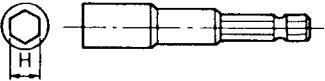
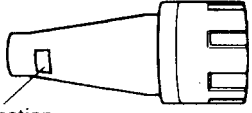
Recommended accessories for this Electric Power Tool are mentioned in this manual.
The use of any other attachment or accessory might be hazardous.

STANDARD ACCESSORIES

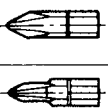
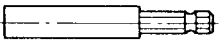
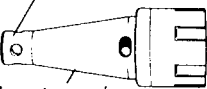
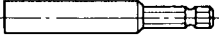
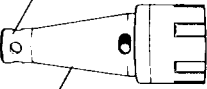
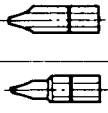
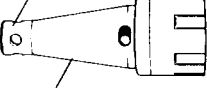


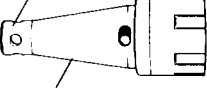
- Magnetic hex. socket (H = 5/16") (Cord No. 985322)..... 1
 - Locator (A) ass'y (H = 5/16") (Cord No. 985324)..... 1
- These parts are not mounted on the body. For mounting procedure, refer to "PRIOR TO OPERATION".

OPTIONAL ACCESSORIES... sold separately

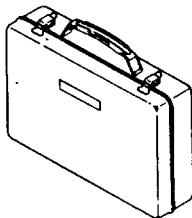
1. For hex. head screws

Magnetic hex. socket		Non-magnetic hex. socket		Locator (A) ass'y	
					
Size	Code No.	Size	Code No.	Size	Code No.
H 1/4	985332	H 1/4	985328	H 1/4	985325
H 5/16	985322	H 5/16	985327	H 5/16	985324
H 3/8	985330	H 3/8	985326	H 3/8	985323

2. For other screws

Screw head	Bit			Bit holder	Locator ass'y
	Type	Size	Code No.		
⊕		No.1	985333		
		No.2	971511Z		
No.3	971512Z				
No.1	985334				
⊖		No.2	985335		
		No.3	985338		
		No.1	985336		
		No.2	985341		
		B size			
		4 mm	985342		
		5 mm	985343		

3. Steel carrying case (Code No. 982569Z)



APPLICATIONS

- Tightening hex. head screws
- Tightening Drywall screws, wood screws and Teks screws

Note:

When tightening the Teks screws, locator assembly (B) and non-magnetic bit holder are recommended.

PRIOR TO OPERATION

1. Power source:

Ensure that the power source to be utilized conforms to the power requirements specified on the product nameplate.

2. Power switch:

Ensure that the power switch is in the OFF position. If the plug is connected to a power receptacle while the power switch is in the ON position, the power tool will start operating immediately, inviting serious accident.

3. Extension cord:

When the work area is removed from the power source, use an extension cord of sufficient thickness and rated capacity. The extension cord should be kept as short as practicable.

Caution:

Damaged cord must be replaced or repaired.

4. Confirming condition of the environment:

Confirm that the work site is placed under appropriate conditions confirming to prescribed precautions.

5. Confirming the power receptacle:

If the power receptacle only loosely accepts the plug, the receptacle must be repaired. Contact the nearest electric store for repair service.

If such a faulty receptacle is used, it may cause overheating, resulting in a serious hazard.

6. Confirm the direction of bit rotation: (Fig. 1)

The bit rotates clockwise (viewed from the rear side) when the reversing switch lever is set to the "R" side position. When the lever is set to the "L" side position, the bit rotates counterclockwise and can be used to loosen and retract screws.

7. Adjusting the tightening depth: (Fig. 2)

Pull the lock sleeve in the direction of arrow to remove it from the spline installed in the gear cover. When the lock sleeve is released, the lock sleeve returns to the gear cover. While pulling the lock sleeve and turning it right and left, adjust the position of locator. Release the lock sleeve and align the gear cover spline with the lock sleeve spline.

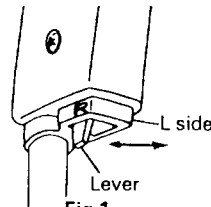


Fig. 1

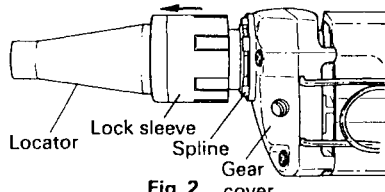


Fig. 2

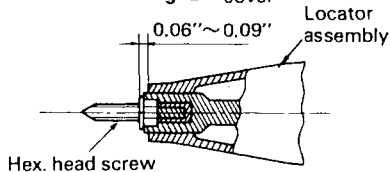


Fig. 3

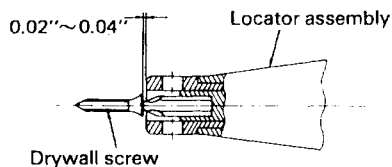


Fig. 4

The lock sleeve is automatically inserted onto the gear cover spline and locked.

(1) For hex. head screws:

Mount a hex. head screw on the hex. socket and set the distance between the locator assembly end and the screw head bottom to 0.06" ~ 0.09", as shown in Fig. 3.

(2) For Drywall screws:

Mount a Drywall screw on the bit, and set the distance between the locator end and the screw head to 0.02" ~ 0.04", as shown in Fig. 4.

(3) For plus-head Teks screws:

Mount a Teks screw on the bit, and set the distance between the locator assembly end and the screw head bottom to 0.04" ~ 0.06", as shown in Fig. 5.

8. Mounting the bit

For details, refer to the item "Mounting and dismounting the hex. socket or the bit".

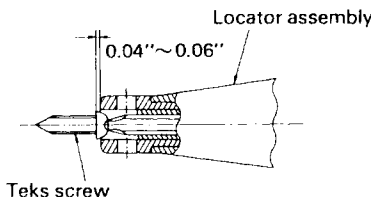


Fig. 5

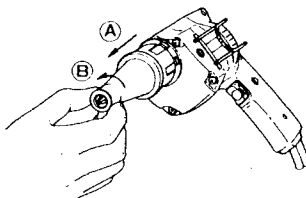


Fig. 6

MOUNTING AND DISMOUNTING THE HEX. SOCKET OR THE BIT

1. Dismounting the hex. socket:

(Figs. 6 and 7)

(1) Hold the locator without turning it and fully pull the lock sleeve in the direction of arrow (A). Turn the clock sleeve about 0.2" clockwise or counterclockwise. The locator claw is engaged with the groove in the inner part of the lock sleeve spline over circumference. The lock sleeve is now locked to the locator. Though the lock sleeve is not held, it does not return to the gear cover. Turn the locator in the direction of arrow (B) and remove the locator ass'y.

(2) Remove the hex. socket, hold it with the opposite side of bit with hand or vice and pull out the bit with a pliers.

2. Dismounting the bit: (Figs. 6 and 8)

Remove the locator alike case of hex. head socket and remove the bit holder, then pull out the bit with a pliers.

3. Mounting the hex. socket or the bit:

Install the bit in the reverse order to removal.

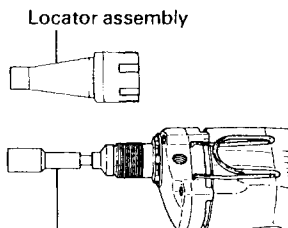


Fig. 7

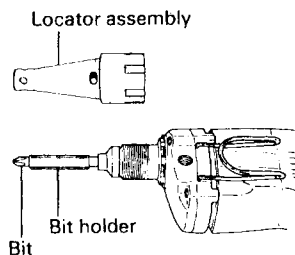


Fig. 8

HOW TO USE THE SCREW DRIVER

1. Switch operation and rotational speed adjustment:

Bit rotational speed can be regulated between 0 ~ 2600 rpm varying the degree by which the trigger switch is pulled. Rotational speed increases as the trigger switch is pulled, and reaches a maximum speed of 2600 rpm when the trigger switch is pulled fully.

To facilitate continuous operation, pull the trigger switch and depress the switch stopper. The switch will then remain ON even when the finger is removed. By pulling the trigger switch again, the switch stopper is disengaged and the switch is turned OFF when the trigger switch is released.

2. Screw driver operation:

When the switch is turned ON, the motor starts to run but the hex. socket (or the bit) does not rotate. Attach the hex. socket to the screw head groove, and push the screw driver against the screw. The hex. socket then rotates, tightening the screw.

Caution:

Ensure that the screw driver is held truly perpendicular to the head of the screw.

If held at an angle, the driving force will not be fully transferred to the screw, and the screw head and/or hex. socket will be damaged. Hex. socket rotation stops when pushing force is released.

3. Direction of hex. socket rotation:

The hex. socket rotates clockwise (viewed from the rear side) when the reversing switch lever is set to the "R" side position. When the lever is set to the "L" side position, the hex. socket rotates counterclockwise, and can be used to loosen and retract screws.

Caution:

Never change the direction of hex. socket rotation while the motor is running. To do so would seriously damage the motor. Turn the power switch OFF before changing the direction of hex. socket rotation.

SELECTION OF BITS AND TEKS SCREWS

To avoid damage to screw heads and/or bits, ensure that a bit appropriate to the diameter of the screw head is selected.

The size of a Teks screw is determined by the thickness of the panel in which the guide hole is made. As shown in Table 1, a Teks/2 screw of nominal size 0.166ϕ can penetrate and tighten a panel with a thickness of minimum 0.03" to maximum 0.1". Similarly, a Teks/3 screw of nominal size 0.189ϕ should be utilized with a panel with a thickness from 0.11" to 0.17".

(in.)	Teks/2	Teks/3
0.24		
0.20		
0.16		
0.12		
0.08		
0.04		
	0.09 0.10 0.11 No.2 bit	0.14 0.17 0.20 0.10 0.11 0.11 No.2 bit No.3 bit
	0.139 ϕ 0.166 ϕ 0.189 ϕ	0.166 ϕ 0.189 ϕ 0.236 ϕ
	Nominal size of Teks screws (in.)	

Table 1

MAINTENANCE AND INSPECTION

Caution:

Be sure to switch power OFF and disconnect the plug during maintenance and inspection.

1. Inspecting the hex. socket (or bit):

Since continued use of a worn hex. socket (bit) will damage screw heads, replace the hex. socket (bit) with a new one as soon as excessive wear is noticed.

2. Inspecting the mounting screws:

Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, retighten them immediately. Failure to do so could result in serious hazard.

3. Cleaning the unit exterior:

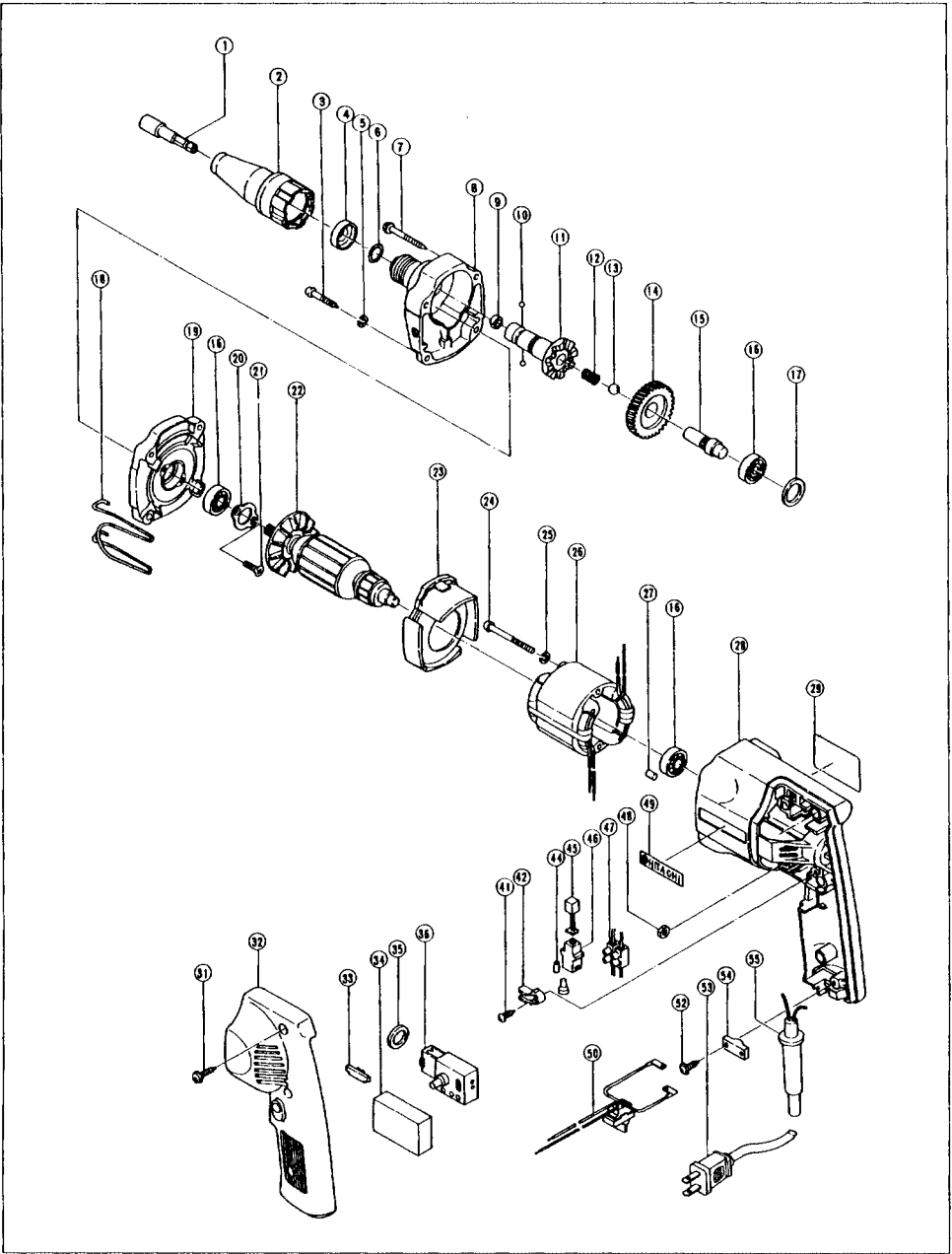
Wipe off oil and stain on the unit exterior with a dried rag or a rag moistened with soapy water.

4. Inspecting the carbon brushes:

For your continued safety and electrical protection, carbon brush inspection and replacement on this tool should ONLY be performed by an AUTHORIZED HITACHI POWER TOOL REPAIR SHOP.

Note:

Due to HITACHI's continuing program of research and development, the specifications herein are subject to change without prior notice.



Item No.	Parts Name
1	Magnetic Hexagon Socket
2	Locator (A) Ass'y
3	(+) Hd. Tapping Screw M5 x 35
4	Fringer (A)
5	Spring Lock Washer
6	O-Ring (1AP-15)
7	(+) Hd. Tapping Screw M5 x 45
8	Gear Cover Ass'y
9	Set Ring
10	Ball D3.17
11	Socket
12	Spring (A)
13	Steel Ball D5.55
14	Gear
15	Gear Shaft
16	Ball Bearing (608ZZC2)
17	Washer (A)
18	Hook
19	Inner Cover
20	Bearing Holder
21	(+) Flat Hd. Screw M4 x 10
22	Armature Ass'y
23	Fan Guide
24	(+) Hd. Machine Screw M4 x 55
25	Spring Lock Washer
26	Stator Ass'y
27	Bearing Lock
28	Housing
29	Name Plate
31	(+) Hd. Tapping Screw M4 x 25
32	Handle Cover
33	Rubber Holder
34	Support (B)
35	Packing (A)
36	Speed Control Switch
41	(+) Hd. Tapping Screw M4 x 16
42	Holder Piece
44	Tube (D)
45	Carbon Brush
46	Brush Holder

Item No.	Parts Name
47	Pillar Terminal (A)
48	Nut M4
49	HITACHI Label
50	Reversing Switch Ass'y
52	(+) Hd. Tapping Screw M4 x 16
53	Cord
54	Cord Clip
55	Cord Armor

Parts are subject to possible modification without notice due to improvements.

Hitachi Koki Co.,Ltd.

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Code No. 99472561 G