

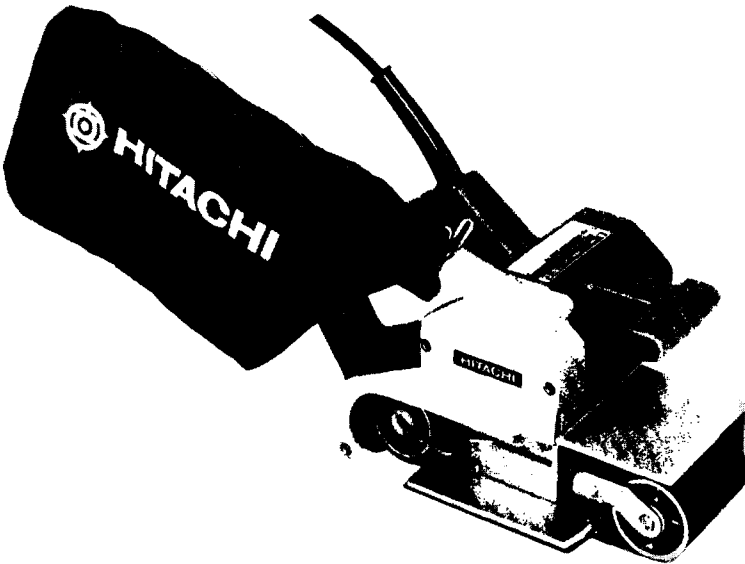


# HITACHI

## BELT SANDER

### MODEL SB-75•SB 8T

### INSTRUCTION MANUAL



**Note**

Before using this Electric Power Tool, carefully read through these **HANDLING INSTRUCTIONS** to ensure efficient, safe operation. It is recommended that these **INSTRUCTIONS** be kept readily available as an important reference when using this electric 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, benzene, 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.

## 34. **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 "回" mark and "Double insulation", or either one is indicated on the name plate. While no external grounding is required with this system, normal safety precautions as outlined in this manual must still be followed.



DOUBLE INSULATION

To maintain the effectiveness of the double insulation system, follow the precautions described below:

1. Always contact your dealer or an authorized HITACHI power tool repair shop 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 BELT SANDER

1. Align the inside arrow mark of the sanding belt with the revolving direction of the drive pulley.
2. Sanding by applying impact and cutting by side-of-belt contact should be avoided.
3. Be careful of sanding sparks.
4. After operation sweep the sanding dust from the dust bag to avoid serious accidents.
5. Don't use water, or oil as lubricant.
6. Ascertain that the sanding workpiece contains neither nails nor other harmful foreign matter.
7. Sanding glass fiber not recommended.
8. After operation, blow away the dust on the belt and the pulleys.

## NAME OF PARTS

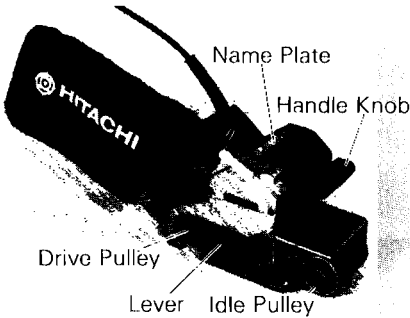


Fig. 1-a

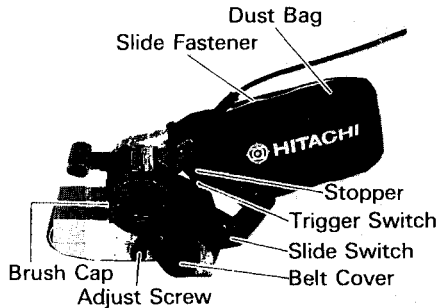


Fig. 1-b

## SPECIFICATIONS

Table 1.

Model	SB-75		SB8T
Motor	Single-Phase, Series-Commutator Motor		
Power Source	Single-Phase 115V AC. 60HZ		
Sanding Belt Size	3"×21"		3"×24"
Input	950W		
No-load	High	1475ft/min	
Belt Speed	Low	1180ft/min	
Weight	10.8 lbs		11.3 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

1. Endless Sanding Belt (Grain size : #80) .....1 (SB-75)
2. Dust Bag (Code No 953078) .....1 (SB-75, SB8T)

**OPTIONAL ACCESSORIES.....sold separately**

**1. Endless Sanding Belts**

(1) 3" × 21"

Table 2

Grain size	Grain type	Grain size	Grain type	Grain size	Grain type
30	AA. CC	100	AA. WA. CC	240	AA. WA. CC
40	AA. WA. CC	120	AA. WA. CC	320	AA. CC
60	AA. WA. CC	150	AA. WA. CC	400	AA. CC
80	AA. WA. CC	180	AA. WA. CC		

(2) 3" × 24"

Table 3

Grain size	Grain type	Grain size	Grain type
40	WA	100	WA
60	WA	120	WA
80	WA	150	WA

**Note:** The endless sanding belt is sold in packages of 10 belts of the same type. When ordering, specify the grain type and grain size desired.

**2. Stationary Stand (only for SB-75)**

When sanding small articles, use a stationary stand for convenience.

**APPLICATIONS**

- Sanding finish and flooring finish of woodwork products.
- Base polishing of Lumber-coated planes.
- Sanding finishes of metal surfaces.
- Base polishing of metal-coated planes, rust removal, or paint removal paint to refinishing.
- Surficial finish of slate, concrete, and so on.

**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 conforming 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. Attach sanding belt**

For details, refer to the item "HOW TO HANDLE SANDING BELT"

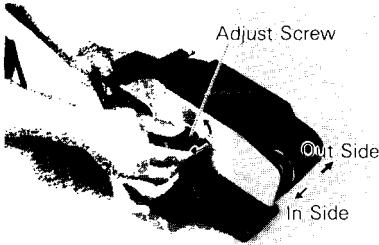
# HOW TO USE THE BELT SANDER

## 1. How to adjust sanding position.

Push switch and turn sanding belt to check position.

Adjust sanding belt so that both edges protrude 1/16" ~ 1/8" past edges of pulleys.

If sanding belt is operated too far on the inside, it may cause abrasion and damage machine.



Adjust sanding belt position by turning adjust screw (Fig. 2)

- Turn adjust screw clockwise to move belt in.
- Turn adjust screw counterclockwise to move belt out.

**Caution:** If sanding belt moves during operation, adjustment can be made while in operation.

Fig. 2

## 2. To turn on switch

Turn on switch while holding machine away from surface to be worked on. If machine is placed on surface when switch is pushed, surface may be badly scratched.

The same applies when stopping the machine.

## 3. How to hold machine

Grasp handle and handle knob and hold machine against surface to be worked on so that it contacts surface lightly.

Weight of machine itself is sufficient for sanding and polishing at highest efficiency.

Do not apply any additional pressure, for this would place unnecessary load on motor, shorten life of sanding belt and lower work efficiency.

## 4. How to move machine

Move machine forward first and then backward, repeating this motion.

## 5. How to select proper sanding belt

Choose sanding belt of proper grain size and grain type for your specific purpose, by referring to Table 4 and 5 below.

Table 4

Derived finish	Proper grain size
Coarse finish	30 ~ 40
Medium finish	40 ~ 100
Semi fine finish	80 ~ 240
Fine finish	180 ~ 400

Table 5

Grain type	Surface to be worked on
AA	Steel, Wood.
WA	Wood, Bamboo
CC	Nonferrous metals, slate, plastics, concrete

### Cautions:

- For grain sizes, refer to Table 2 and 3
- Sanding belt grain should be coarser than sandpaper used for manual work.
- Use sanding belt of same grain size until uniform surface is obtained.  
Changing grain sizes may result in poor finish.



## 6. How to change belt speed

Either High-speed or low-speed operation can be selected according to the materials or the operating conditions. Selection sanding belt operating speed can be achieved by shifting the tumbler switch in a specified direction.

Table 6

Symbol	Speed
H	High-speed
L	Low-speed

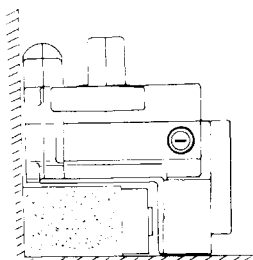


Fig. 3

## 7. How to operate switch

The power switch is turned ON when the trigger is pulled, and if the stopper is once depressed, the power switch becomes locked, allowing continuous operation.

The stopper can be released pulling the trigger.

## 8. How to work on corner

Corners can be sanded and polished by using machine as in Fig. 3.

## HOW TO HANDLE SANDING BELT

**Caution:** Be sure to switch power OFF and disconnect the attachment plug from the power receptacle to avoid serious trouble.

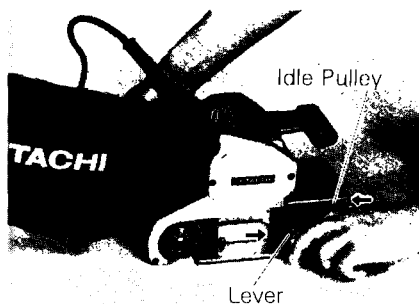


Fig. 4

### 1. How to attach sanding belt

(1) Pull lever with finger, idle pulley will then move backward.

(2) Place on drive pulley and idle pulley passing it over the outside of shoe plate and making sure that arrow on inside of belt coincides with rotational direction of drive pulley.

**Caution:** Sanding belt installed in the wrong direction will lower work efficiency and shorten life of sanding belt.

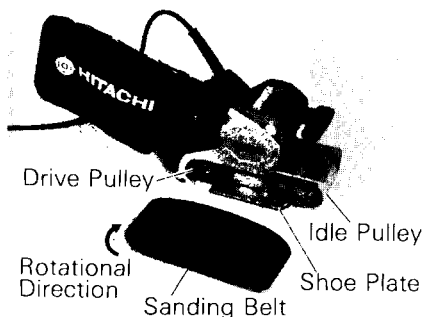


Fig. 5

(3) Push lever with finger, idle pulley will then move forward and give proper tension to sanding belt.

In this case, be careful not to be hit your finger by lever.

Then, adjust sanding belt position. (refer to page 7)

### 2. How to remove sanding belt

Pull lever with finger, sanding belt will then sag and can be taken off pulleys easily.

## DUST REMOVAL

When an excessive amount of dust is deposited in the dust bag, dust -collecting efficiency will sharply drop.

Remove dust from the bag when it is deposited up to about 2/3 the bag capacity, where by dust collecting efficiency (as well as working efficiency) will be ensured.

Remove dust from the bag as follows:

- (1) Loosen the support bar and remove the dust bag.
- (2) The bag inlet can be opened by unzipping the slide fastener.

## MAINTENANCE AND INSPECTION

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

### 1. Inspecting the Sanding Belts

If a loaded and blunt sanding belt is kept in use, efficiency will extremely drop.

Therefore, be sure to sand well the sanding belt in good time.

### 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. Inspecting the carbon brushes (Fig. 6)

The motor employs carbon brushes which are consumable parts. Since an excessively worn carbon brush could result in motor trouble, replace the carbon brush with a new one which has the same carbon brush No. shown in figure when it becomes worn to or near the "wear limit". In addition, always keep carbon brushes clean and ensure that they slide freely within the brush holders.

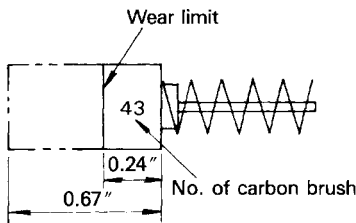


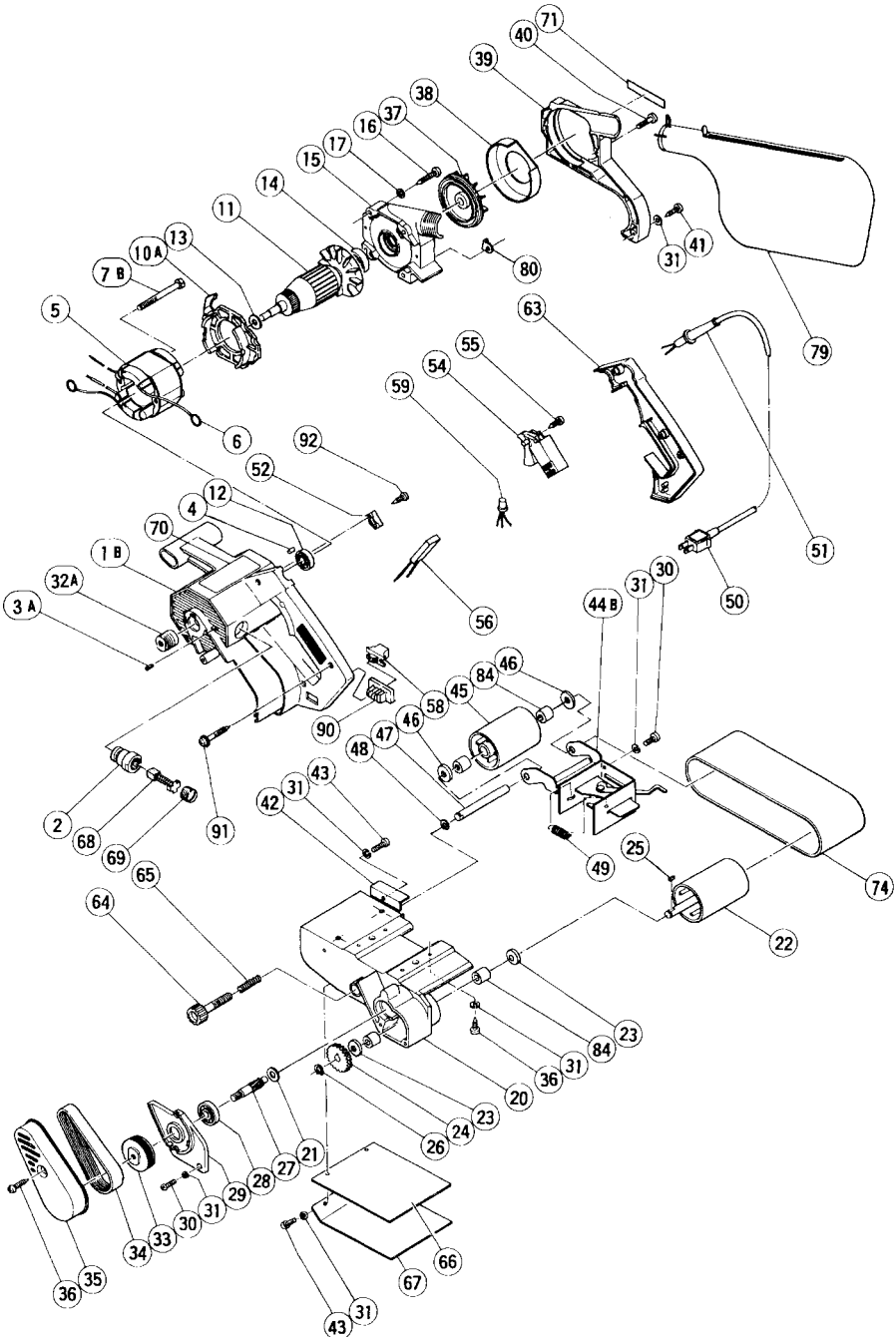
Fig. 6

### 4. Replacing a carbon brush

Disassemble the brush cap with a minus-head screwdriver. The carbon brush can then be easily removed.

## NOTE

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



The drawing on this page and the list on the next page are parts structural drawing and parts list of model SB-75. For other models refer to the drawing and the list.



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Code No. 99471364 A  
Printed in Japan